

*South Australian Year Book*



1975

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SOUTH AUSTRALIAN

YEAR BOOK

1975



*Vic Grimmett*

Her Royal Highness, the Princess Anne, GCVO, on arrival at the Adelaide Airport on 24 April 1975 was welcomed by, from left to right, the Chief Justice Dr. J. J. Bray, QC, the Lieutenant-Governor W. R. Crocker Esq. CBE and His Excellency, the Governor of South Australia, Sir Mark Oliphant, KBE.

The principal purpose of her visit was to attend the International Equestrian Exposition held in Adelaide from 12 April to 27 April 1975.



*South  
Australian  
Year Book*

*No. 10 : 1975*

D. L. J. AITCHISON

*Deputy Commonwealth Statistician  
and Government Statist*

AUSTRALIAN BUREAU OF STATISTICS  
SOUTH AUSTRALIAN OFFICE

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## PREFACE

The *South Australian Year Book* is a general reference work presenting an authoritative and comprehensive statistical and descriptive portrayal of South Australia. It includes studies of the historical and geographical background and of the social, physical and financial development of the State culminating in a picture of South Australia as it is today.

This volume, the tenth issue of the Year Book, includes special articles on the Minerals of South Australia, the Adelaide Festival Centre, the Adelaide Festival of Arts and Whyalla. Other items of special interest are the Ombudsman, Perinatal Deaths, Colleges of Advanced Education, the National Employment and Training System (NEAT), the Adelaide Chest Clinic, Worker Participation, Water and Water Pollution Control Laboratories, the Registration of Motor Boats, and a map of Air Services in South Australia. Some chapters or portions of chapters have been condensed to make room for the additional material but in such cases appropriate cross-references are given indicating in which earlier volumes the more complete information may be found. A list of special articles which appeared in previous issues is shown on page 755.

Other official statistics of South Australia are published in different media, each chosen as the most appropriate to meet a particular need, whether this be for a compact reference guide, or for a more detailed historical or up-to-date data, either on a specific subject or embracing wider fields.

A comprehensive range of statistics is published also by the Australian Statistician covering the whole of Australia (but giving some broad details about the States) and by other Deputy Commonwealth Statisticians for their respective States. The details of such publications are available at each office of the Bureau.

This Office maintains an Information Service, which, on request, supplies available statistical information and advice on which publications are appropriate, and a library in which all publications of the Australian Bureau of Statistics are available for reference. Businessmen, government officers and members of the public are invited to make use of these services.

I gratefully acknowledge the valuable assistance given by contributors of special articles and by the Government Printer and his staff. My thanks are tendered to the staff of this Bureau especially Mr A. J. Cattermole, B.Ec., under whose direction the Year Book was compiled by Mr G. D. Carey, B.Ec., AASA (Senior).

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August 1975

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## METRICATION

In this publication quantities are shown in metric units.

1 millimetre	==	0.03937 inches
1 metre	==	3.28083 feet
1 kilometre	==	0.621371 miles
1 hectare	==	2.47105 acres
1 square kilometre	==	0.386102 square miles
1 kilogram	==	2.20462 pounds (lb)
1 tonne	==	0.984207 ton
1 tonne	==	36.7437 bushels of wheat
1 tonne	==	44.0925 bushels of barley
1 tonne	==	55.1156 bushels of oats
1 cubic metre	==	35.3147 cubic feet
1 cubic metre	==	423.776 super feet
1 cubic metre	==	27.4961 bushels
1 litre	==	0.219969 gallons



## EXPLANATORY NOTES

In general, statistics in this volume relate to South Australia. A few tables, which are appropriately footnoted, include details for the Northern Territory.

Values are shown in Australian dollars (\$) or \$A) and cents unless another currency is specified.

In tables any discrepancies between totals and sums of components are because of rounding.

### Symbols Used

<i>n.a.</i>	not collected, not available for publication
..	not applicable
<i>n.e.c.</i>	not elsewhere classified
<i>n.e.i.</i>	not elsewhere included
<i>n.e.s.</i>	not elsewhere specified
—	nil or less than half the final digit shown
*	figures not yet available
<i>p</i>	preliminary
————	break in continuity of series (where drawn across a column between two consecutive figures)

### Citation of Acts

Acts of the Australian Parliament are cited in *italics* with the relevant years in roman type *e.g. Census and Statistics Act 1905-1973.*

Acts of the South Australian Parliament are cited in roman type *e.g. Licensing Act, 1967-1974.*

**PART 1**

**NATURAL ENVIRONMENT**

**1.1 DESCRIPTION**

**Size and Location**

The State of South Australia has the Southern Ocean to the south and is flanked on the other sides by land. It lies south of the 26th parallel of south latitude and has as a western boundary the 129th meridian of east longitude. The eastern boundary, north of the River Murray, corresponds with the 141st meridian, while to the south, between the river and the sea, the boundary lies approximately three kilometres to the west of this meridian.

The State is approximately 1 201 kilometres from east to west at the northern boundary and 1 143 kilometres at the head of the Great Australian Bight; from north to south it varies from 630 kilometres near the western extremity to approximately 1 325 kilometres near the eastern boundary; its coastline, excluding islands, measures approximately 3 540 kilometres. South Australia covers a total area of 984 375 square kilometres (one-eighth of the area of the Australian continent); however, approximately one-third of this area has no significant economic use and over one-half is devoted to extensive pastoral pursuits. Approximately 99 per cent of the population live south of the 32nd parallel.

**Standard Time**

In terms of The Standard Time Act, 1898 South Australia has used 'the mean time of the meridian of longitude one hundred and forty-two and a half degrees east of Greenwich' as standard time since 1 May 1899. This time, known in

Australia as Central Standard Time, is nine hours thirty minutes ahead of Greenwich Mean Time, one hour thirty minutes ahead of Western Standard Time used in Western Australia and thirty minutes behind Eastern Standard Time used by States on the east coast of Australia.

Before 1 February 1895 the meridian of Adelaide 138° 35' east (*i.e.* 9 hours 14 minutes ahead of Greenwich) was used to determine standard time in South Australia and subsequently from 1 February 1895 to 30 April 1899 the meridian 135° (*i.e.* 9 hours ahead of Greenwich) was used.

In several years during the 1939-45 War daylight saving in summer time was introduced by the Australian Government under National Security Regulations. Summer time was fixed at one hour in advance of standard time from 2 a.m. on 1 January 1942 to 2 a.m. on 29 March 1942, from 2 a.m. on 27 September 1942 to 2 a.m. on 28 March 1943 and from 2 a.m. on 3 October 1943 to 2 a.m. on 26 March 1944.

Under the Daylight Saving Act, 1971 daylight saving was introduced for the first time since the 1939-45 War at 2 a.m. on 31 October 1971 and remained in force until 2 a.m. on 27 February 1972. During this period 'South Australian summer time', one hour ahead of South Australian Standard Time, was adopted.

The Daylight Saving Act Amendment Act, 1972, assented to on 12 October 1972, provided for the observance of daylight saving in the Summer of 1972-73, and in each subsequent summer, from the last Sunday in October until the first Sunday in March, South Australian summer time being adopted during this period.

A special article on the basis of timekeeping and the determination of time standards was included on pages 1-2 of the *South Australian Year Book* 1973. An article on the determination of the time of sunrise and sunset was included on pages 3-5 of the same issue.

### Physical Features

South Australia is a land of generally low relief, the inland area being largely covered by featureless plains, or sand and gibber deserts. Approximately 50 per cent of the State is less than 150 metres above sea level and over 80 per cent is less than 300 metres. Even the dominant mountains, the Mount Lofty-Flinders Ranges system, nowhere exceed 1 200 metres and have at no point proved difficult barriers to communication.

On the other hand the pattern of communication and development has been greatly influenced by the nature of the coastline, the south-easterly trend of which is interrupted by two major indentations, Spencer Gulf and Gulf St Vincent. These two relatively shallow depressions cut into the settled areas a distance of approximately 300 and 150 kilometres respectively. The resultant natural divisions earlier tended to develop their own centres and many ports were constructed along the coast in spite of the fact that, with the exception of the area between Port Lincoln and Fowlers Bay, the nature of the coastline is not particularly accommodating to port development.

Kangaroo Island, approximately 480 kilometres in circumference and covering 4 350 square kilometres, is the predominant island off the South Australian

coastline. There are, however, approximately 100 islands in all, relatively few of which are utilised.

The effect of the vast ocean area to the south is a more temperate climate than would be suggested by the latitude, while the trend of the coastline exposes the coastal areas to the westerly rain-bearing air streams.

The most important mountains are the Mount Lofty-Flinders Ranges system. Kangaroo Island structurally belongs to these ranges which, together with parallel subsidiary ranges, extend north from Cape Jervis some 800 kilometres to the northern end of Lake Torrens. In the south the rounded hills of the Mount Lofty Ranges are of comparatively low altitude with Mount Lofty, the highest peak, being 727 metres. The western side of these ranges presents steep scarps to the Adelaide plains while on the eastern side more gentle slopes merge into the Murray Basin.

To the north the Flinders Ranges are of greater height and sharper outline than their southern counterpart. St Mary Peak of 1 166 metres is the highest point. North of Peterborough there is a divergence from the main range which stretches *via* the Olary Ridges to the Barrier Range and Broken Hill. In the far north the ranges again diverge; one spur circling the northern end of Lake Torrens and the other ending north of Lake Frome. The Flinders Ranges contain some unusual basins of which Wilpena Pound is perhaps the best known.

The Mount Lofty-Flinders chain has an important climatic influence which results in higher rainfall on the plains to the west of the ranges, and in the ranges themselves, with relatively dry conditions in the Murray Basin.

The western half of the State is largely occupied by a low plateau over which an intermittent series of low ranges, including the Warburton, Stuart, Denison, Peake and Everard Ranges, stretch from the Flinders to the somewhat higher Musgrave Ranges in the far north-west. Mount Woodroffe (1 440 metres), the highest point in the State, is located in the Musgrave Ranges.

The comparatively low hills of the Gawler Ranges form the northern side of the Eyre Peninsula triangle, and to the west of Whyalla lie the economically important Middleback Ranges. Isolated peaks of volcanic origin are found in the extreme south-east of the State.

The River Murray, which drains approximately one-seventh of Australia, enters the sea in South Australia and is the State's only major river. The fall of the Murray is very slight, dropping less than 22 metres over the 642 kilometres between the border and the sea. For the 216 kilometres to Overland Corner the river occupies a wide valley and then passes through a narrower steeper-sided valley to Lakes Alexandrina and Albert at its heavily silted mouth.

Surrounding the northern Flinders Ranges is a series of vast lakes which are in reality lakes only after particularly heavy rainfall, normally appearing as shallow depressions with a salt or clay encrusted surface. Lake Eyre, the largest of these, is 15 metres below mean sea level and is fed by a series of intermittently flowing rivers, including the Finke, the Diamantina and Cooper Creek, which traverse the plains of the north-east, constituting one of the largest areas of internal drainage in the world. To the south of Lake Eyre are Lakes Gairdner, Frome and Torrens, the last named being 240 kilometres in length.

### General Geological Background

The physiography of the State very accurately outlines the geological features, the areas of higher relief being the basement rocks protruding as cores or ridges through the flat-lying younger sediments of the basin areas.

The main physiographic feature is the Kangaroo Island-Mount Lofty-Flinders Ranges arc of hills, which, although of no great elevation, extend over a distance of 800 kilometres. The rocks of this arc, which are predominantly ancient sediments, have been folded and faulted in a spectacular manner providing many classic examples of textbook tectonics; they owe their present prominence to repeated fold and uplift movements throughout geological time. The hills of the chain rise from the coastal plains of Gulf St Vincent to the west, the plains of the Murray River to the east, and the Lake Frome and Lake Eyre plains in the north-east and north. The basement rocks are also exposed to the west of Spencer Gulf, but are more completely levelled off, and constitute a geological shield of greater antiquity than the Mount Lofty arc.

In the far north-west of the State, the ancient basement is again exposed in the east-west trending hills of the Musgrave and Everard Ranges. These ranges form the northern boundary of the Great Victoria Desert which, with the great coastal Nullarbor Plain, covers the western half of the State.

There is thus a broad geological picture of ancient crystalline or partly crystalline folded rocks forming highland chains and provinces, surrounded by relatively young and soft flat-lying sediments which have accumulated in deep troughs and basins during periodic transgressions and regressions of the sea throughout most of geological time.

It is in the hard rock provinces that are found the deposits of minerals and rocks which have played an important role in the industrial development of the State. The basin areas are important as sources of artesian water and are the areas in which important oil and natural gas discoveries have been made.

In general, the younger sediments of the basin areas do not provide good agricultural soils except in the higher rainfall areas of the south and south-east of the State, while the best agricultural lands lie in the hard rock provinces of the Gawler-Barossa-Clare regions of the central ranges where relatively good rainfall is associated with more mature soil conditions.

A more complete discussion on the geology of South Australia was included on pages 3-18 of the *South Australian Year Book* 1970.

### Seismicity

The most active area of the Australian continent is that of the South Australian seismic zones. The South Australian area has been monitored since 1962 by a small network of stations operated by the University of Adelaide.

The South Australian epicentres occur mainly in two belts, the major one being within the Adelaide Geosyncline and referred to as the Adelaide Seismic Zone. It extends from Kangaroo Island through the Mt Lofty and Flinders Ranges to Leigh Creek in the north. The epicentres generally follow the ranges and also the western boundary of the Upper Proterozoic Sequence and the fold trends in that part of the Geosyncline curving around to the east of Lake Torrens. The other main South Australian seismic zone is on Eyre Peninsula.

A discussion on earthquakes in South Australia was included on pages 18-19 of the *South Australian Year Book* 1970.



## 1.2 CLIMATE AND METEOROLOGY

In the Southern Hemisphere, because of the extensive ocean areas and the absence of a broad land mass connecting the antarctic with the tropical regions, the southern continents are not subject to the same range of weather extremes that are experienced in northern countries at similar latitudes. The ameliorating effect of this land-sea distribution is particularly noticeable in southern South Australia.

Briefly, the basic features of the South Australian climate are hot, dry summers with relatively mild nights, and cool but not severe winters with most rainfall occurring during the months of May, June, July and August.

### METEOROLOGICAL OBSERVATIONS

Meteorological services throughout Australia are administered by the Australian Bureau of Meteorology and the Regional Office of the Bureau in Adelaide directs operations throughout the State. In South Australia daily weather reporting stations are established at nearly 80 representative localities and there are over 900 rainfall recording stations.

Station weather observations telegraphed several times a day provide the basic information for the weather forecasting and warning services provided by the Regional Forecasting Centre, Adelaide. These observations are also collated in bulletins, maps and reports issued for public information. The reports include climatic surveys which are studies of climatic variations over defined regions of the State.

### RAINFALL

#### Average Annual Rainfall

South Australia is by far the driest of the Australian States and Territories with just over four-fifths of the State receiving an average of less than 250 millimetres of rain annually. An indication of the shortage of rain in the State is given in the following table which compares the relative distribution of rainfall in South Australia and in Australia as a whole.

#### Distribution of Rainfall, South Australia and Australia

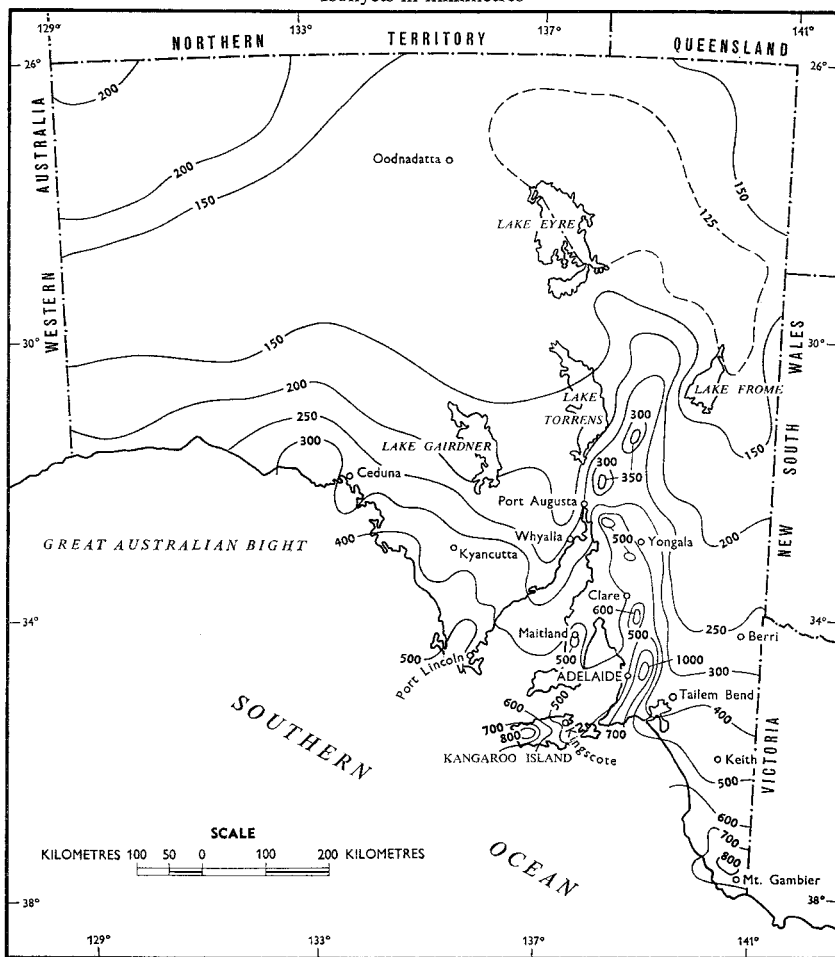
Average Annual Rainfall	Proportion of Total Area	
	South Australia	Australia
	Per cent	Per cent
Under 250 mm . . . . .	82.6	38.8
250 mm and under 400 mm . . . . .	9.1	19.8
400 mm and under 500 mm . . . . .	4.5	11.2
500 mm and under 600 mm . . . . .	2.6	9.5
600 mm and under 750 mm . . . . .	0.8	7.5
750 mm and under 1 000 mm . . . . .	0.4	6.2
1 000 mm and over . . . . .	(a)	7.0
<b>Total . . . . .</b>	<b>100.0</b>	<b>100.0</b>

(a) Less than 0.05 per cent—an area of the order of 750 hectares in the Mount Lofty Ranges.

Over the southern half of South Australia the main source of rain is from showers associated with unstable moist westerly airstreams occurring fairly regularly during winter. The wettest part of the State is in the Mount Lofty Ranges, immediately east of Adelaide in the vicinity of Stirling, where the average annual rainfall is about 1 200 millimetres. The Flinders Ranges have the effect of extending a strip area of higher rainfall well to the north.

### SOUTH AUSTRALIA AVERAGE ANNUAL RAINFALL

Based on all years of records  
Isohyets in millimetres



As can be seen from the map on page 6 the isohyets generally show highest annual averages along the ranges and southern parts of the coast. Averages fall off rapidly to less than 250 millimetres within 150 to 250 kilometres inland, and then decrease more gradually to below 125 millimetres in the vicinity of Lake Eyre. This area is the driest part of Australia, and there have been protracted periods when the average there has been less than 75 millimetres.

Average monthly rainfalls at seventeen selected recording stations are shown in the table below. The average number of days receiving 0.25 millimetres or more of rain is also shown.

### Average Rainfall and Days of Rain: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
AVERAGE RAINFALL (a) (millimetres)													
Adelaide .. ..	20	21	24	44	69	72	66	62	51	44	31	26	531
Berri .. ..	17	22	12	17	28	26	24	27	27	24	20	19	262
Ceduna .. ..	12	16	19	22	40	40	41	38	27	25	21	23	324
Clare .. ..	25	26	25	48	75	80	80	80	71	55	36	30	631
Keith .. ..	18	23	21	35	57	52	54	56	51	43	32	27	469
Kingscote ..	15	18	18	37	60	74	79	65	46	36	24	19	491
Kyancutta ..	12	18	14	22	36	42	43	44	31	26	23	20	331
Maitland ..	18	22	20	44	64	70	66	63	50	42	28	22	509
Mount Gambier	32	29	36	63	85	97	107	101	77	64	46	41	777
Oodnadatta ..	16	25	15	8	16	12	12	9	9	8	9	13	152
Port Augusta ..	20	19	12	18	23	20	22	22	27	16	16	17	227
Port Lincoln ..	14	15	19	37	57	75	78	67	49	35	23	18	487
Port Pirie ..	18	19	18	29	39	41	33	36	34	31	23	21	342
Stirling .. ..	39	37	43	96	143	183	161	156	124	99	61	48	1 190
Tallem Bend ..	19	23	21	28	43	40	40	41	39	36	28	28	386
Whyalla .. ..	19	24	17	18	27	26	22	25	24	24	22	21	269
Yongala .. ..	20	21	16	26	36	42	40	46	38	33	27	25	370
AVERAGE NUMBER OF DAYS OF RAIN (b)													
Adelaide .. ..	4	4	5	10	13	15	16	16	13	11	8	6	121
Berri .. ..	3	4	3	6	8	9	11	10	7	7	5	4	77
Ceduna .. ..	3	3	3	6	10	12	12	11	8	7	6	4	85
Clare .. ..	5	5	5	10	12	15	16	16	12	11	8	7	122
Keith .. ..	4	4	4	9	12	13	15	15	12	11	8	6	113
Kingscote ..	4	4	5	10	14	16	19	18	13	11	8	7	129
Kyancutta ..	4	4	4	7	12	12	14	14	10	9	7	5	102
Maitland ..	4	5	5	10	13	15	17	16	12	11	8	6	122
Mount Gambier	7	8	9	14	17	18	21	20	17	16	13	10	170
Oodnadatta ..	3	2	2	3	3	3	2	2	2	3	3	3	30
Port Augusta ..	3	3	3	5	7	7	10	9	6	6	6	4	69
Port Lincoln ..	4	5	5	11	15	17	19	19	13	12	8	6	134
Port Pirie ..	3	3	3	6	8	10	11	10	8	7	6	4	79
Stirling .. ..	6	7	7	13	15	17	18	18	15	14	11	9	150
Tallem Bend ..	4	5	4	9	12	13	13	13	11	10	8	6	108
Whyalla .. ..	3	3	3	5	6	7	9	8	6	6	5	4	65
Yongala .. ..	4	4	4	7	10	12	14	13	9	8	7	5	97

(a) For all years of record to end of 1973. (b) Days receiving 0.25 millimetres or more. Other than for Adelaide (see page 16) figures relate to standard 30 year period 1931-1960.

### Seasonal Distribution of Rainfall

Those areas of the State with the higher average annual totals also show a marked winter maximum of rainfall. From November to March the fall is slight, but rarely is completely absent. However, a high rate of evaporation during the summer means that in general these summer rains are not significant from the agricultural point of view. The first significant falls generally arrive during April or May; June, July and August are usually the wettest months, with rains tending to show a marked decrease during September and October.

By contrast, the occurrence of rain over interior districts is quite erratic, but southern parts of the interior still exhibit a discernible trend for winter maxima. Records collected over the years from this northern half of the State show that heavy rains of up to 75 millimetres may occur in any month of the year, but on the other hand at least two or three months without any significant rain at all are experienced practically every year.

### Rainfall Intensity

Long sustained periods of intense rainfall are rare in South Australia. However, occasionally there are very intense falls lasting only a few minutes—for example in Adelaide several falls at a rate of more than 100 millimetres an hour over a five-minute period have been recorded. These would have been thunderstorm rains, and intense falls can cause considerable damage to crops and to light or freshly worked soils.

The most notable falls of rain which have occurred within a period of 24 hours ending at 9 a.m. were at:

Ardrossan (18 February 1946) . . . . .	206 mm
Carpa, 25 km SW of Cowell, (18 February 1946) . . . . .	199 mm
Hesso, 50 km NW of Port Augusta, (18 February 1946) ..	187 mm
Wilmington (1 March 1921) . . . . .	181 mm
Wynbring, 100 km W of Tarcoola, (28 February 1921) . . .	178 mm

Other Yorke Peninsula towns besides Ardrossan also recorded over 175 millimetres on 18 February 1946. These, however, are very much below the 24-hour falls which have been recorded in tropical parts of Queensland and Western Australia. Crohamhurst in Queensland once recorded 907 millimetres in one day, and more than twenty other centres in Queensland have had daily readings exceeding 600 millimetres.

### Snow and Hail

The occurrence of snow in South Australia is infrequent and is mainly confined to the Mount Lofty Ranges and southern Flinders Ranges. Most falls are very light and do not persist for a very long period because of the relative warmth of the ground. Collated reports of snow in the Mount Lofty Ranges show a total of 128 days of snow experienced over a period of 133 years to the end of 1973. While most falls have occurred during the months June to September, snow has been experienced as early as 25 April (1916) and as late as 3 December (1955).

Hail falls most frequently about the southern coasts and ranges during the winter. Further to the north, hail can be experienced with summer thunderstorms and some of the largest hailstones have been reported from northerly parts of the State. Tornados and tornadic squalls are, in almost all cases, accompanied by hail.

### Floods

Various areas of South Australia are prone to localised flooding. However, most local flooding is associated with intense rainfall, and consequently, is of comparatively short duration. Exceptions have occurred in parts of the south-east and far north of the State where, because of topography and other soil factors, stretches of water can persist for days and even weeks.

Extensive rises in the River Murray levels have at times caused damage to levees and installations along the banks. During 1956, following an excessive snow melt in the Australian Alps, prolonged flooding was experienced in many areas adjacent to the main course.

### **Droughts**

When dry conditions persist over wide areas for long periods of time, drought, the worst of all Australian climatic hazards, is experienced. The worst years in South Australia were 1863-67, 1896-98, 1901-03, 1913-16, 1926-30, 1939-40, 1943-45, 1959-62 and 1965 in the interior, and 1859-60, 1884-86, 1895-98, 1911-15, 1928-29, 1943-45, 1959 and 1967 in the settled areas.

The driest year in terms of actual rainfall was 1967, when an all-time low figure for the year of 257 millimetres was recorded in Adelaide. However, the 1914 drought is generally recognised as being the most severe experienced, and in that year districts where drought was almost unknown were seriously affected. The average wheat yield fell to only 0.09 tonnes per hectare, little more than one tenth of the yield in previous seasons. In places the River Murray was just a series of waterholes.

The northern areas suffer more frequent droughts than areas near the coast. In 1896 the track north-west of Port Augusta was closed to all traffic because of the drought stricken nature of the country. At about this time the drought was particularly severe in the north-east of the State, and this pastoral country was entering its eighth consecutive year of drought before relief rains fell in March 1902.

A more detailed discussion with special reference to rainfall deciles was included on pages 8-10 of the *South Australian Year Book* 1967. Further details of droughts appear in the Bureau of Meteorology publications *Droughts in Australia* by J. C. Foley (Bulletin No. 43) and *Rainfall Deciles as Drought Indicators* by W. J. Gibbs and J. V. Maher (Bulletin No. 48).

### **Rainfall Probability**

A special article on rainfall probability, *i.e.* the likelihood, expressed as a percentage, that a minimum rainfall will be received during a stipulated period, was included on pages 6-9 of the *South Australian Year Book* 1966.

## **TEMPERATURE**

### **Seasonal Temperature Conditions**

Air temperature is normally recorded under standard conditions in a Stevenson Screen. Isotherms of the average maximum temperatures in a mid-summer month (January) and of the average minimum temperature in a mid-winter month (July) are shown on the maps on pages 10 and 11 respectively. The isotherms are more or less parallel to the coastline but the cooling effect associated with higher altitudes of the Mount Lofty and Flinders Ranges is clearly shown.

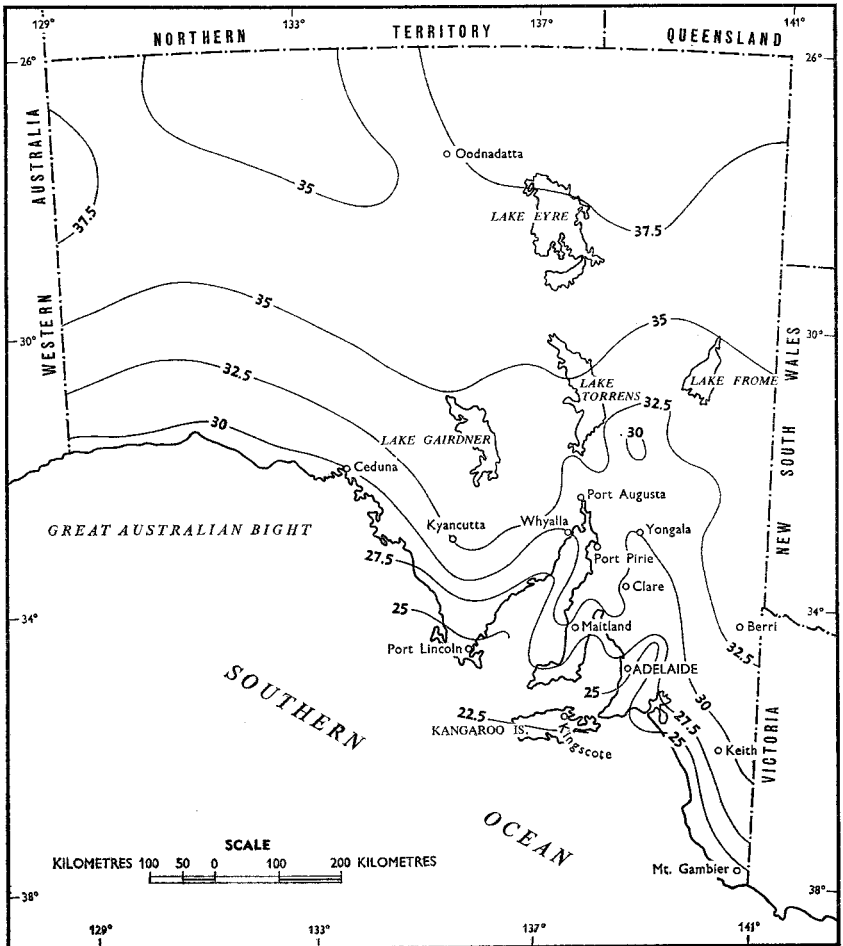
From December to February it is generally warm to hot throughout the State but sea breezes frequently bring some relief to the coastal districts. In locations more than 75 kilometres inland maximum daily temperatures usually exceed 32.5°C and are quite often over 37.5°C. In general, areas to the north of the

32.5°C isotherm on the January map average more than 20 days annually during which the maximum temperature exceeds 37.5°C; while it is only on the extreme south-east coastal fringe and Kangaroo Island where the average number of such 'very hot days' is less than five a year. Air masses prevalent at this time of the year are relatively dry; hence cooling during the night is marked—a fall of 10°C to 20°C from day to night is usual.

## SOUTH AUSTRALIA MEAN MAXIMUM TEMPERATURE: JANUARY

Based on all years of records

Isotherms in ° Celsius

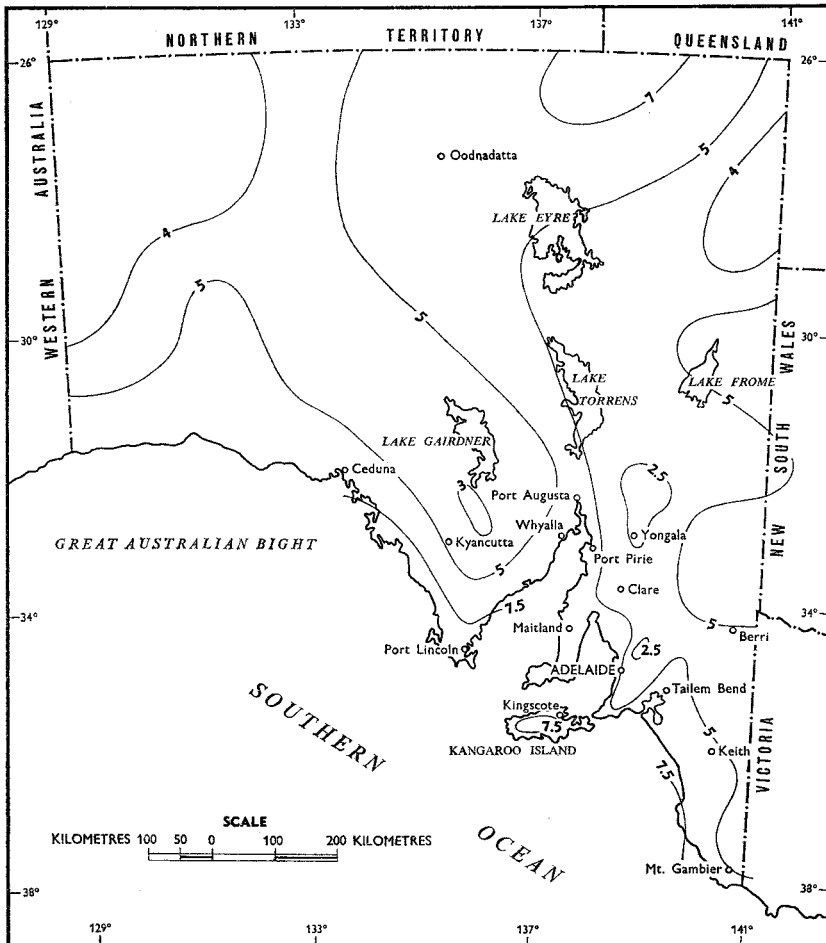


During March temperatures begin to fall and continue to do so during April and May, the first frosts of the year often being experienced during this period. The three coldest months are June, July and August, with the coldest areas along the highlands. In those parts of the State east and south-east of the ranges, the mean temperature for the latter months is near or just below 10°C, and these low temperatures cause vegetation growth to become very slow, although it does not cease altogether.

### SOUTH AUSTRALIA MEAN MINIMUM TEMPERATURE: JULY

Based on all years of records

Isotherms in ° Celsius



In the spring months, September to November, with gradually rising temperatures and longer hours of sunshine, crops and pastures grow rapidly. In this period severe frosts are sometimes experienced and these can cause considerable damage to fruit crops during the bud, flower and small fruit stages.

When a pressure distribution causes very dry and warm air from the rapidly heating interior to flow over the State for two or three consecutive days, developing crops can be seriously affected by the drying effect of this air mass.

Monthly mean maximum and minimum temperatures at seventeen selected recording stations within the State are shown in the following tables. These are based as nearly as possible on a standard period except for the figures for Adelaide which are based on all years of record.

### Mean Maximum Temperatures: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
°Celsius													
Adelaide .. ..	29.6	29.4	26.9	22.7	18.7	15.8	15.0	16.4	18.9	22.1	25.2	27.8	22.4
Berri .. .. .	31.1	30.2	28.1	22.5	18.9	15.7	15.4	17.2	20.7	23.4	26.8	29.7	23.3
Ceduna .. .. .	28.5	27.4	26.6	23.7	20.6	18.2	17.0	18.3	21.4	23.3	25.8	27.2	23.2
Clare .. .. .	29.3	29.0	26.3	21.1	16.9	13.6	12.9	14.6	17.5	20.8	22.0	27.7	21.2
Keith .. .. .	30.1	28.8	26.9	21.9	17.6	15.4	14.7	15.7	18.5	21.5	24.2	27.3	21.9
Kingscote .. .	23.5	23.2	22.0	19.5	17.2	15.2	14.3	14.8	16.3	18.3	20.4	22.1	18.9
Kyancutta .. .	32.9	31.8	30.1	24.9	21.1	17.8	16.9	18.4	21.8	25.2	28.2	30.7	25.0
Maitland .. .	28.9	27.2	25.4	21.7	17.4	15.6	13.8	14.9	17.5	20.7	24.2	25.3	21.1
Mt Gambier ..	24.9	23.8	22.6	18.6	15.5	13.7	12.8	13.8	15.8	17.4	19.7	22.3	18.4
Oodnadatta ..	37.4	36.1	33.4	27.9	22.8	19.7	19.3	21.6	26.1	29.7	33.4	35.9	28.6
Port Augusta ..	32.1	31.3	29.8	25.2	21.2	17.7	17.1	19.1	22.6	25.3	28.3	30.5	25.0
Port Lincoln ..	24.9	24.5	23.6	21.0	18.6	16.3	15.6	16.3	18.2	19.7	21.4	23.2	20.3
Port Pirie .. .	31.9	31.4	29.6	24.6	20.2	17.1	16.3	17.9	21.4	24.6	27.7	30.0	24.4
Stirling .. .. .	24.9	24.3	22.8	18.0	14.4	11.6	10.6	11.8	14.6	16.9	19.9	22.6	17.7
Tailm Bend .. .	29.6	28.3	26.8	22.6	18.7	16.0	15.4	16.6	20.0	22.1	24.8	27.2	22.3
Whyalla .. .. .	28.8	28.2	26.6	23.5	20.2	17.9	16.4	17.7	20.2	23.3	25.3	26.6	22.9
Yongala .. .. .	30.6	29.5	27.1	21.4	16.8	13.4	12.4	13.4	17.8	21.7	25.5	28.3	21.5

### Mean Minimum Temperatures: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
°Celsius													
Adelaide .. ..	16.4	16.6	15.1	12.6	10.2	8.3	7.2	7.8	9.0	10.9	12.9	14.9	11.8
Berri .. .. .	15.2	14.9	13.4	10.1	7.8	6.1	5.3	5.9	7.7	9.9	12.1	14.2	10.2
Ceduna .. .. .	14.5	14.6	12.8	10.3	8.5	7.3	6.6	6.1	7.7	9.6	11.8	13.7	10.3
Clare .. .. .	13.8	13.8	11.4	8.3	5.8	4.4	3.3	3.9	5.2	7.3	10.2	12.3	8.3
Keith .. .. .	12.6	12.3	10.7	9.1	7.4	6.1	5.1	5.2	6.6	7.8	9.4	11.2	8.6
Kingscote .. .	14.6	15.1	14.1	12.2	10.6	9.3	8.3	8.1	8.9	10.2	11.7	13.3	11.4
Kyancutta .. .	14.1	13.8	12.2	9.2	7.2	5.3	4.7	4.8	6.1	8.3	10.4	12.7	9.1
Maitland .. .	14.9	14.6	13.6	11.7	9.3	7.6	6.3	6.7	7.8	9.5	11.5	12.9	10.5
Mt Gambier ..	10.3	10.9	9.7	7.8	6.8	5.4	4.7	4.9	5.8	6.8	7.8	9.4	7.5
Oodnadatta ..	22.4	21.8	19.0	14.3	9.7	6.8	6.0	7.1	10.4	14.7	18.1	20.8	14.3
Port Augusta ..	18.7	18.7	17.0	13.3	10.1	7.7	6.8	7.8	9.9	12.6	15.1	17.3	12.9
Port Lincoln ..	15.3	15.5	14.8	12.8	11.0	9.4	8.5	8.4	9.2	10.6	12.2	13.9	11.8
Port Pirie .. .	17.1	17.2	15.7	12.5	10.2	8.2	7.4	7.8	9.4	11.6	13.8	15.8	12.2
Stirling .. .. .	11.5	11.6	10.6	8.6	6.8	5.3	4.6	4.8	5.9	7.1	8.7	10.2	7.9
Tailm Bend .. .	13.7	13.6	11.9	9.7	8.2	6.2	5.3	5.9	7.2	8.8	10.7	12.3	9.5
Whyalla .. .. .	18.6	18.3	16.9	13.9	10.3	8.3	6.9	7.8	9.8	12.1	14.5	15.9	12.8
Yongala .. .. .	13.2	12.9	10.8	7.2	4.5	2.9	2.3	2.1	4.0	6.2	9.1	11.4	7.2



The highest temperature recorded in South Australia was 50.7°C at Oodnadatta on 2 January 1960, and the lowest -8.1°C at Yongala on 16 June 1959.

### HUMIDITY

'Relative humidity' at a particular temperature is the ratio of the actual vapour pressure to the saturated vapour pressure (at that temperature) expressed as a percentage. Since relative humidity depends not only on the actual water vapour content of the air, but also on air temperature, there is a tendency for highest relative humidities to be associated with low temperatures during the early morning hours, and conversely, the lowest relative humidity values tend to occur during the warmest part of the afternoon when measurements of under 20 per cent are not uncommon.

The average index of mean relative humidity has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the average mean temperature. Being thus related to the mean temperature this value of relative humidity is a good approximation of the daily mean.

With an average index of mean relative humidity of under 35 per cent in summer increasing to about 50 per cent in winter, the far northern parts of the State experience the lowest values of relative humidity in South Australia. By comparison, most southern parts of the State have an average index of mean relative humidity of about 45 per cent to 55 per cent in summer, increasing to about 70 per cent to 80 per cent in winter.

### SUNSHINE AND CLOUD

The annual average sunshine total (as determined from records of sunshine and average cloudiness) ranges from about 2 000 hours along parts of the southern coastal fringe to 3 500 hours near the northern border of the State. Adelaide has an average of just over 2 500 hours a year.

December and January tend to be the sunniest months with daily averages reaching a maximum of about 10.5 hours over interior districts. During the June and July winter months daily averages are still as high as seven hours in the far north interior, but over the southern coastal fringe the daily average of just over eight hours for summer is reduced to about three hours during winter.

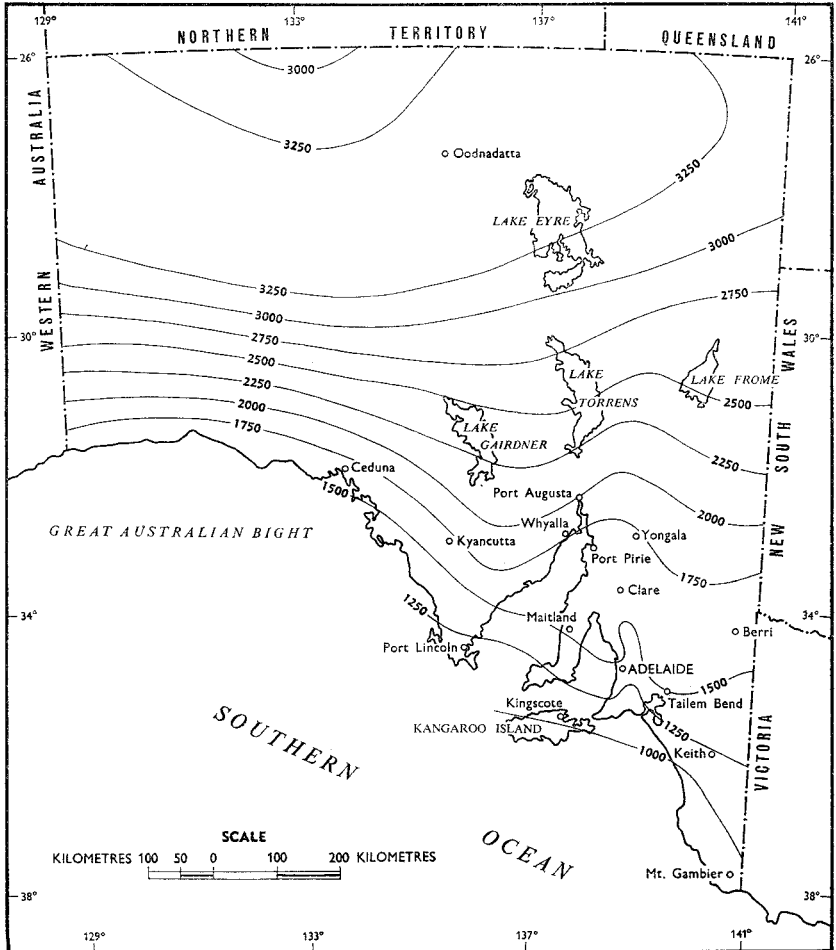
### WIND

During the summer months winds from the southern quadrants are the most prevalent and a well defined sea breeze is common along the whole of the coastal fringe from October right through to about April and May. During the winter months the north-westerly predominates, but the proportion of west to south-west winds is also relatively high.

South Australia is not subject to the type of sustained wind storms associated with tropical cyclones as in Queensland and tropical Western Australia. However, gales do occur from time to time along the coast during the winter and cause minor damage to buildings and foreshore works. Probably the most noteworthy storm was on 11 April 1948 when wind averaged over 60 km/h for six hours in central and south-eastern districts, the naval frigate *Barcoo* was grounded at Glenelg and the Glenelg jetty was wrecked. Frequent gusts over 100 km/h and a strongest gust of 130 km/h were recorded in Adelaide.

Most violent wind squalls are associated with thunderstorms and usually last only a few minutes. It was during such squalls that the highest wind gusts were recorded in South Australia—158 km/h at Woomera on 4 November 1969, 148 km/h at Leigh Creek on 3 December 1953 and also at Adelaide on 13 July 1964.

**SOUTH AUSTRALIA**  
**AVERAGE ANNUAL EVAPORATION**  
Based on all years of records in millimetres



## EVAPORATION

In South Australia most measurements of evaporation have been made with tanks, each 0.91 metres internal diameter and 0.91 metres deep, sunk into the soil so that the rim is only 25 millimetres or so above the surface.

However, early in 1967 a change-over to the standard American Class A pan was made. These pans, 1.22 metres in diameter and 0.3 metres deep, are placed above ground level on wooden stands. As yet there are insufficient years of record to compute averages of the measurements.

The annual average evaporation using the sunken tank method has varied from under 1 000 millimetres along the south-east coastal fringe to more than 3 250 millimetres over a large area around and to the west of Oodnadatta in the far north (see map on page 14). About half the area of the State has an evaporation rate exceeding 2 500 millimetres a year, and this high rate is all the more significant when it is considered that the average annual rainfall over most of the northern half is less than 150 millimetres. A critical survey of the evaporation network and methods of observation, together with tabulations of the results of Australian observations appear in the Bureau of Meteorology publication *Evaporation in Australia* (Bulletin No. 44).

## CLIMATE OF ADELAIDE

The longest continuous series of weather observations in the Southern Hemisphere started in Adelaide in November 1836 when Sir George Kingston commenced rain gauge readings at his property on the corner of Grote Street and West Terrace. Unfortunately, the earliest figures were mislaid and records are available only from the beginning of 1839. No other regular observations were made until Sir Charles Todd arrived to fill the post of Superintendent of Telegraphs and Government Astronomer in 1856. During the first year or two, observations were made at his private residence in Adelaide and, for some months, in Government House grounds.

In May 1860 the Observatory on West Terrace was completed and the instruments were moved to that site. For over 100 years the observational site at Adelaide has remained practically unchanged. Minor shifts occurred in 1940 and 1962 but these were within 100 metres of the original observatory site.

Temperature records at Adelaide date from 1858 when readings were first taken from a thermometer placed in a screen known as a Greenwich Stand which failed to protect the thermometer fully from reflected radiation. In 1887 a new series of readings using a standard Stevenson Screen was introduced and this showed maximum temperatures during the warmer months to be 1° to 1.5°C lower on average. Other temperatures were not significantly affected. Both screens were in continuous operation until 1948 when use of the Greenwich Stand was discontinued. However, the Greenwich Stand readings remained the official record until 1948, thus there is a slight discontinuity in the temperature records in that year and means are weighted towards the Greenwich Stand method of measurement.

Adelaide is the driest of Australia's capital cities, having less rainfall and a lower relative humidity than any other capital. Summer maximum temperatures are high and the record of 47.6°C in the Greenwich Stand on 12 January 1939 is the highest recorded in any of the capital cities.

### Temperature

In the summer months, Adelaide maximum temperatures frequently exceed 30°C and from time to time 'heat waves', with readings at or near 35°C for several consecutive days, are experienced. The outstanding heat wave was in January 1939 when fourteen days out of fifteen exceeded 30°C and of those fourteen days thirteen exceeded 35°C and six exceeded 40°C. During this heat wave the record temperature of 46.8°C recorded on 26 January 1858 was exceeded, first on 10 January 1939 when the temperature reached 47.2°C and then two days later on 12 January when the highest ever temperature of 47.6°C (46.1°C in the Stevenson Screen) was recorded.

### Climatological Data, Adelaide

#### (1) Temperature and Relative Humidity

Month	Temperature					Relative Humidity (9 a.m.)		
	Maximum		Minimum		Mean	Mean	Highest Monthly Mean	Lowest Monthly Mean
	Mean	Highest Recorded	Mean	Lowest Recorded				
Years of Record	118	118	118	118	118	107	105	105
	°C	°C	°C	°C	°C	%	%	%
January . . . .	29.6	47.6	16.4	7.3	23.0	41	59	29
February . . . .	29.4	45.3	16.6	7.5	23.0	43	57	30
March . . . . .	26.9	43.6	15.1	6.6	20.9	47	62	29
April . . . . .	22.7	37.0	12.6	4.2	17.7	57	72	37
May . . . . .	18.7	31.9	10.2	2.7	14.5	67	77	49
June . . . . .	15.8	25.6	8.3	0.3	12.1	75	84	63
July . . . . .	15.0	23.3	7.2	0.0	11.1	76	87	66
August . . . . .	16.4	29.4	7.8	0.2	12.1	70	80	54
September . . . .	18.9	35.1	9.0	0.9	13.9	61	72	44
October . . . . .	22.1	39.4	10.9	2.7	16.5	52	67	29
November . . . . .	25.2	45.3	12.9	4.9	19.1	45	64	31
December . . . . .	27.8	45.9	14.9	6.1	21.3	42	56	31
Year . . . . .	22.4	47.6	11.8	0.0	17.1	56	87	29

#### (2) Rainfall and Wind

Month	Rainfall				Wind			
	Mean	Highest Monthly and Yearly Total	Highest in One Day	Mean Days of Rain ( $\alpha$ )	Average Speed	Highest Gust	Prevailing Direction	
							9 a.m.	3 p.m.
Years of Record	136	136	136	136	21	58	58	58
	mm	mm	mm	No.	km/h	km/h		
January . . . . .	20	84	58	4	13	116	SW	SW
February . . . . .	21	155	141	4	12	106	NE	SW
March . . . . .	24	117	89	5	11	125	S	SW
April . . . . .	45	154	80	10	11	130	NE	SW
May . . . . .	69	197	70	13	11	113	NE	NW
June . . . . .	72	218	54	15	12	108	NE	N
July . . . . .	66	138	44	16	12	148	NE	NW
August . . . . .	62	157	57	16	13	121	NE	SW
September . . . .	51	148	40	13	13	111	NNE	SW
October . . . . .	44	133	57	11	13	121	NNE	SW
November . . . . .	31	113	75	8	13	130	SW	SW
December . . . . .	26	101	61	6	13	121	SW	SW
Year . . . . .	531	786	141	121	12	148	NE	SW

## Climatological Data, Adelaide (continued)

## (3) Other Conditions

Month	Mean Daily Sunshine	Clear Days (b)	Mean Amount of Cloud (c)	Days of Fog	Days of Lightning	Amount of Evaporation (d)	Vapour Pressure 9 a.m.	Mean Barometric Pressure (e)
Years of Record	93	58	107	75	103	97	105	118
	Hours	No.	No.	No.	mm	mb	mb	mb
January .. ..	9.9	12.4	3.1	0.0	2.1	236	11.9	1 013.2
February .. .	9.3	10.9	3.3	0.0	1.7	191	12.3	1 014.3
March .. .. .	7.9	10.9	3.5	0.0	1.7	159	11.7	1 017.2
April .. .. .	6.0	6.6	4.5	0.0	1.4	96	11.4	1 019.8
May .. .. .	4.8	4.6	5.1	0.4	1.5	58	10.8	1 020.1
June .. .. .	4.2	4.0	5.3	1.1	1.5	37	9.9	1 019.8
July .. .. .	4.3	3.6	5.2	1.3	1.4	37	9.4	1 020.0
August .. .. .	5.3	4.9	4.9	0.6	1.7	53	9.6	1 019.0
September .. .	6.2	5.7	4.6	0.2	1.7	81	9.9	1 017.6
October .. ..	7.2	5.7	4.5	0.0	2.6	128	10.3	1 016.0
November .. .	8.6	6.6	4.2	0.0	3.0	172	10.4	1 015.1
December .. .	9.4	9.0	3.7	0.0	2.2	219	11.1	1 013.3
Year .. .. .	6.9	85.0	4.3	3.6	22.4	1 467	10.5	1 017.1

(a) Days receiving 0.25 mm or more of rain. (b) With less than two-eighths cloud. (c) Scale 0 (clear) to 8 (overcast) at 9 a.m. and 3 p.m. daily. (d) From Standard Australian Tank (period 1870-1966). (e) Mean of 9 a.m. and 3 p.m. readings corrected to sea-level.

July is the coldest month, when the mean maximum is only 15°C with the extreme lowest minimum recorded in the Greenwich Stand being 0°C (0.6°C in the Stevenson Screen) on 24 July 1908. August is only slightly warmer than July, but after August steadily rising temperatures are experienced during the spring months.

### Rainfall

Adelaide's summer rainfall is light and unreliable. The average monthly fall from January to March is under 25 millimetres and completely rainless months in this period are not uncommon. In fact, each of the five months December to April has at some time been recorded as completely dry, and in the period January to March 1893 there were sixty-nine consecutive rainless days. On the other hand, heavy rain is occasionally experienced at this time of the year and on 7 February 1925 rainfall was 141 millimetres—a record for one day.

Each month from May to September rainfall averages over 50 millimetres and in this period the rain is fairly reliable. June is the wettest month, but the average is still under 75 millimetres for the month.

The 134 year annual rainfall average is 527 millimetres, and annual totals have ranged from a low of 257 millimetres in 1967 to a high of 786 millimetres in 1851.

### Other Conditions

Relative humidity in Adelaide is at its lowest in January when the average 9 a.m. reading (which approximates the average for the whole 24 hours) is 39 per cent. This low value of the relative humidity reduces the severity of heat waves in Adelaide. In fact, the relative humidity is very low for most months of the year, only becoming higher in winter, with the average at 9 a.m. reaching as high as 75 per cent in June and July.

Adelaide is not subject to violent sustained wind storms. The prevailing wind during the day in summer is a south-westerly sea breeze which is well defined throughout the months October to April. Another common wind during summer, known locally as the 'gully wind', blows from the east or south-east out of the Adelaide hills (more particularly at night) and becomes very strong and gusty at times. In winter the prevailing wind during the day is north-westerly with a high proportion of south-westerlies.

#### WEATHER CONDITIONS IN SOUTH AUSTRALIA: 1973 and 1974

##### *Summer 1972-73*

Summer began on a dry note. It was not until late December that thunderstorms produced light rains over most of the settled areas but very little in the interiors. Widespread rains at the end of January assured above normal monthly totals for all the State except over the north-east corner and the far west. Some of the most outstanding rains ever to be experienced over South Australia were recorded during the first six days of February.

Summer rainfall aggregates for the most part reflected the effects of the outstanding February rains. District averages for the North-West and Upper North were 200 and 180 per cent above normal respectively, with many stations gauging three times their normal summer rains. The smallest aggregates were recorded about the southern coast of the Western District (10 per cent deficit), Kangaroo Island (50 per cent deficit) and over the Lower South East District (10 per cent deficit); these areas normally figure amongst the wettest in the State. The remaining districts had averages between 50 and 100 per cent above normal.

A number of widespread hot spells occurred through the summer with some brief incidents as early as December, although January was by far the hottest month of the season. Mean summer maxima which graded from the mid to upper-thirties ( $^{\circ}\text{C}$ ) over the extreme north of the State down to the mid-twenties about most of the central and south-east coasts were generally within  $1^{\circ}\text{C}$  of normal.

There were no unusually cool periods at night. In fact most night temperatures followed a trend similar to those established by day temperatures. Mean Summer minima were in the low to mid-twenties in the extreme north of the State, grading gradually southward to be just higher than  $10^{\circ}\text{C}$  over the extreme South East District.

##### *Autumn 1973*

Although there were small areas where below average rains were recorded, most autumn aggregates were above average. The area embracing the southern Mount Lofty Ranges and eastward to the River Murray were around 30 per cent below normal. The largest surpluses over the average were experienced in the central section of the Upper North. Here a few aggregates were double the average.

District averages were between normal and about 20 per cent below normal in the County Light, Lower North, Lower Murray Valley and Mount Lofty Ranges while in the remaining districts, the surplus was mainly in the 15 to 30

per cent category although the Far North recorded close to a 60 per cent surplus. March yielded some useful falls but most of the autumn rains fell during the second half of April and throughout May.

A number of brief widespread hot spells occurred throughout March and into mid-April, after which maximum temperatures fell to near their average autumn values. Mean autumn maxima were within 1°C of average in all districts except over the North-West, Far North and parts of Eyre Peninsula where mean maxima were mostly 2°C above average for the season.

Although there were widespread heavy frosts during the middle of May, when mean minima were mostly below normal, both March and April experienced comparatively mild nights. Mean autumn minima therefore were all above normal and mostly by between 1 and 2 degrees Celsius.

### *Winter 1973*

Above average winter rains fell in most districts. Seasonal totals were markedly above average in the inland areas. Indeed some places in the central section of the North-West recorded up to seven times their normal. The North-East and Murray Valley Upper districts received twice their seasonal averages. Other regions saw winter rainfalls which graded from near normal about most of the South East districts up to double the average over the northern section of the Upper North that is, along the Central Flinders Ranges. The rain was fairly evenly distributed through June, July and August.

The season was notable in that no prolonged warm or cold spells were experienced, June days were by far the coolest whilst those of July and August, though often cloudy and wet, were mild. Mean seasonal maxima were almost all within half a degree of normal.

A considerable number of light ground frosts were recorded during June and a smaller number during July and August. Most of the settled areas recorded mean seasonal minima of between one-half and 1°C above average, whilst the interiors had means of up to 2.5°C above average.

### *Spring 1973*

Although there were small areas about the southern parts of the State where below normal spring rain was recorded, elsewhere the aggregates were above normal. With the exception of Yorke Peninsula and Kangaroo Island, where the district averages were marginally below normal, most other district averages were between 50 and 90 per cent above normal, although the entire range was 10 to 170 per cent above normal. October recorded the most significant amounts.

There were occasional warm to hot days during October and November but no spells of more than a few days. Mean spring maxima were almost all within a degree of normal.

The spring was remarkably free from damaging frosts except for some reported from the Upper Murray in mid-September. Mean seasonal minima were all above normal mostly by 1° to 1.5°C.

*Summer 1973-74*

Rainfall totals were two to four times normal in nearly all districts, the exceptions being Kangaroo Island and the Lower South East Districts which were only slightly above average.

Widespread hot spells with temperatures in excess of 30°C were common during December but were followed by marked cool changes. Cloudy conditions were responsible for slightly cooler but sultry weather during January and February. Mean summer maxima were within 1°C of normal throughout the settled areas except southern Eyre Peninsula, Kangaroo Island and the Lower South East which graded from 1°C to 3°C above normal, and in the interiors mean maxima were between 1.5°C and 3°C below normal. Mean summer minima were between 1.5°C and 3°C above normal as a result of the combination of northerly airstreams and persistent cloud cover.

*Autumn 1974*

Rainfall totals were from two to five times normal in the Upper and Lower North, Far North, North West, North East, Yorke Peninsula and Murray Districts and from one and a half to twice normal throughout the Western Agricultural, County Light and Upper South East Districts. The Lower South East District was slightly below normal while the other districts were marginally above normal for the season.

Hot spells were frequent and prolonged during March and were in direct contrast to the first half of April. Generally, mean March maxima were 1°C to 3°C above normal and mean April figures were 1°C to 3°C below normal. Minimum temperatures were mainly 2°C or 3°C above normal in the first two autumn months. During May both minimum and maximum temperatures were close to normal throughout most districts although mean May maxima were 1°C to 2°C above normal over Kangaroo Island and in the Lower South East District and below normal by a similar amount in the five northern districts.

*Winter 1974*

Rainfall averages were within 10 per cent of normal for most districts. However, the Far North and North East Districts were 16 and 31 per cent deficient, respectively, while the Upper and Lower Murray Districts received 18 and 11 per cent, respectively, above their winter averages. July was by far the wettest month. It was also squally and storms battered many parts of the State on several occasions.

Prolonged warm spells were rare but winter temperatures were consistently slightly above average. Mean maximum temperatures were generally within 1°C of normal throughout the State except in the area of Coober Pedy, Oodnadatta and Marree where they were slightly higher.

Mean minimum temperatures were slightly above normal throughout the South-East Districts and up to 1.5°C above normal throughout the remainder of the State. It was a mild winter generally and although some brief cold spells occurred, the accompanying frosts were not severe.



*Spring 1974*

The first two months of spring 1974 were extremely wet, followed by a month of very little rain. Adelaide received 70 millimetres of rain in September, 111 millimetres in October and less than 5 millimetres in November. The spring total for Adelaide was 186 millimetres compared to the average of 126 millimetres.

The North West and Far North Districts received very heavy rains in September and October; more than twice the normal in September in both districts and about five times normal in October in the North West and three times normal in the Far North District. In November they were 36 and 85 per cent respectively, below normal. Seasonal averages were 146 millimetres in the North West and 94 millimetres in the Far North Districts which were about three times the normal and one and a half times normal, respectively.

Throughout the Western Agricultural, Upper North, North East and Murray Districts, spring rainfall aggregates were about 50 to 80 per cent above normal with most rain falling during September and October. A similar pattern was reflected throughout the remaining districts but aggregates were only 30 to 50 per cent above normal.

Spring temperatures were below normal by 1°C to 2°C during the day and very close to normal at night at most centres. However, there were some exceptions. In parts of the Flinders Ranges and in Adelaide mean maxima were 2°C to 2.5°C below normal while at most stations on the west coast, south-east coast and Kangaroo Island they were close to normal.

### 1.3 NATURAL RESOURCES

#### MINERALS OF SOUTH AUSTRALIA\*

The mineral potential of South Australia was recognised from almost the first days of the colony. Johannes Martin Menge offered his services as a geologist to the newly-formed South Australian Company in May 1836 and was appointed to the position in July. He arrived at Kangaroo Island in January 1837 with instructions, amongst other duties, to select suitable land for 'quarries, limestone and slateries', superintend their operation, and 'pursue the discovery of all kinds of mines, lead, copper, gold, silver, etc.'

The optimism of the founders proved fully justified. In 1841 silver-lead was accidentally discovered at Glen Osmond a few miles from Adelaide, and the colony's first mine, the Wheal Gawler, began operations in May of that year. In 1842 came the discovery of rich and valuable copper deposits at Kapunda, followed by Burra in 1846, Wallaroo in 1860 and Moonta in 1861. These discoveries ensured the State's economic stability up to the end of the 1914-18 War, after which the importance of copper declined and iron took over as the most valuable mineral resource. In recent years, copper production has increased, being valued at \$10.5 million in 1973-74. Gold never proved of major importance, though probably the first authentic discovery in Australia was made in 1846 at the Victoria Mine, near Castambul, east of Adelaide.

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\*Contributed by J. E. Johnson and J. M. Scrymgeour, South Australian Museum.

At present the State's mineral wealth comes chiefly from gypsum, salt, copper, opal and most important of all, the iron ores of the Middleback Ranges on Eyre Peninsula, for which Whyalla provides smelting and fabricating facilities. The first pig iron was produced in 1873 from a charcoal-fired furnace at Mount Jagged near Mount Compass, and ore from Iron Knob was first smelted at Port Pirie in an experimental furnace in 1907. Production of ore during 1973-74 was valued at \$53.3 million.

Salt was the first mineral to be exported. In 1829, seven years before the colony of South Australia was founded, twenty tons were taken from salt pans on Kangaroo Island and shipped to Launceston. In 1973-74 the value of salt produced in South Australia was \$2.7 million.

Gypsum was first mined east of Yorketown on Yorke Peninsula in the early 1870s, and at Lake MacDonnell, the State's most extensive deposit, from 1919. The Stenhouse Bay locality has been worked almost continuously for more than sixty years. Gypsum production in 1973-74 was valued at \$2.3 million.

Menge reputedly discovered South Australia's first common opal near Angaston in 1840, while precious opal was discovered at Coober Pedy about 1915. This locality is now probably our largest producer. The Andamooka field was not found until 1930. Estimated value of opal production during 1973-74 was \$26 million.

Uranium ores were first recorded from Nicholls Nob and Mount Ogilvie in 1896 by Krause (see below) and mined at Radium Hill from 1906. This industry has suffered a series of periodic booms and depressions but large sedimentary deposits in the Frome Embayment show great promise for the future.

South Australia has never lacked competent and dedicated mineralogists. The pioneering Menge made many interesting finds in the Adelaide Hills and published a list of local minerals in the 1841 edition of the *South Australian Almanack*. He died on the Victorian goldfields in 1852 at the age of sixty-six, still looking for minerals.

Menge was followed by another German, Professor Ferdinand Moritz Krause, who published *An Introduction to the Study of Mineralogy for Australian Readers* in 1896, listing many interesting minerals from this State, including ores of uranium and iron.

On the establishment of a South Australian Department of Mines, the then Government Geologist, H. Y. L. Brown, prepared a *Catalogue of South Australian Minerals*, published in 1893, and in 1908 followed this up with his invaluable *Record of the Mines of South Australia* which included a list of minerals of economic importance found within the State. Brown had a very able assistant in R. Lockhart Jack, author of *Geological Survey Bulletin No. 6* (1917), which is full of first hand and irreplaceable information on the mineralogy and petrology of the Moonta and Wallaroo Mines. Working at the same time was the Reverend Walter Howchin, later Honorary Professor of Geology at the University of Adelaide, who worked out the basic principles of South Australian stratigraphic geology under extreme difficulties.

Professor Sir Douglas Mawson, world famous as an Antarctic explorer, was also a highly competent mineralogist. His early papers on the minerals of the Olary Province and the uranium minerals of Radium Hill and Mount Painter remain classics to this day.

# MINERALS OF SOUTH AUSTRALIA

Photography (unless otherwise acknowledged)

DENIS MARFLEET

Backgrounds and arrangement

J. M. SCRYMGOUR

All specimens from S. A. Museum collections

All photographs copyright S. A. Museum

## HALITE

Group of cubic 'hopper' crystals.

Southern Yorke Peninsula. (18 cm x 14.5 cm)







**GYPSUM** (Left to right)

Bladed crystal group. Lincoln Park. (23 cm x 35 cm)

Layered crystal growth. Lincoln Park.

Banded rock gypsum. Stenhouse Bay.

Sand crystals. Lake Torrens.

Coralline gypsum and small crystal clusters. Lincoln Park.

Doubly twinned crystal. Lake Gilles. 'Pompom'. Lincoln Park.

Bladed crystals on twig. Lincoln Park.

Crystal rosettes. Eyre Peninsula.

**STRENGITE**

Crystals in vugh with rosette  
of white wavelite crystals.  
Iron Knob. (2.5 cm x 1.5 cm)

**MALACHITE**

Polished slabs showing banded  
concretionary structure. Burra.  
Left (14 cm x 8.5 cm)





**HEMATITE (Left)**

Platy, tabular crystals in iron ore.  
Iron Knob. (6.5 cm x 4 cm)

**MANGANITE (Right)**

Crystals lining vugh in pyrolusite (wad).  
Iron Knob. (4 cm x 3.5 cm)



**CHRYSOTILE**

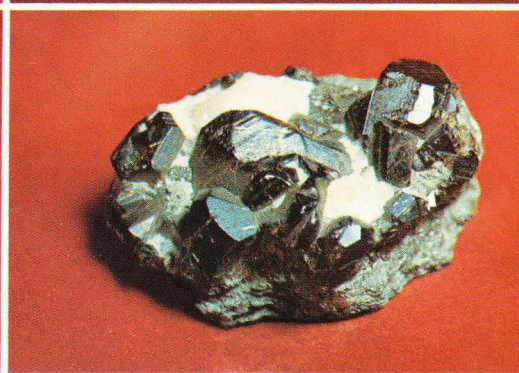
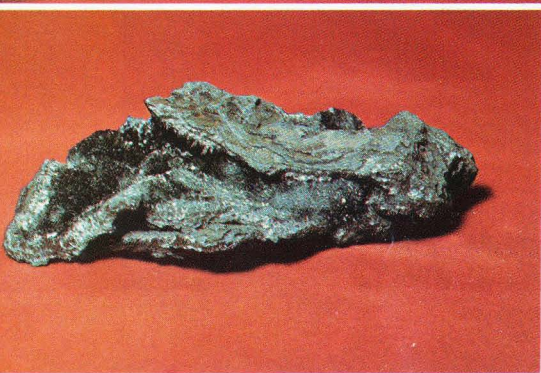
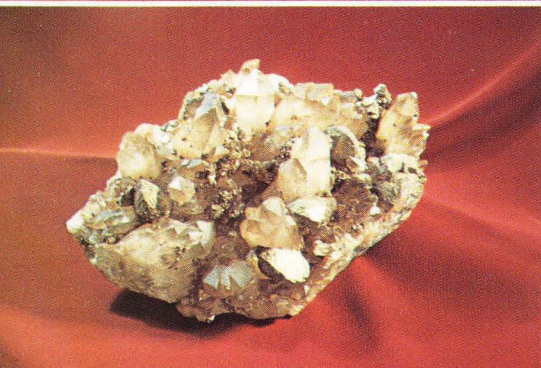
Parallel chrysotile asbestos veinlets in serpentinous marble.  
Near Cowell. (19.5 cm x 12 cm)



**WAVELLITE**

Hemispherical clusters of tiny needle-like crystals in vugh in iron ore.  
Iron Knob. (9 cm x 5 cm)





### **CHALCOPYRITE**

Clusters of unusually large well-formed crystals.  
Wallaroo Mines. (10 cm x 8 cm)

### **CHALCOPYRITE with SMOKY QUARTZ**

Crystal group.  
Moonta. (18 cm x 13 cm)

### **PYROLUSITE**

Black velvety crystals lining vugh.  
Iron Knob. (16 cm x 5 cm)

### **GOLD**

Large crystals on massive quartz.  
Near Mylor. (7 cm x 5.5 cm)

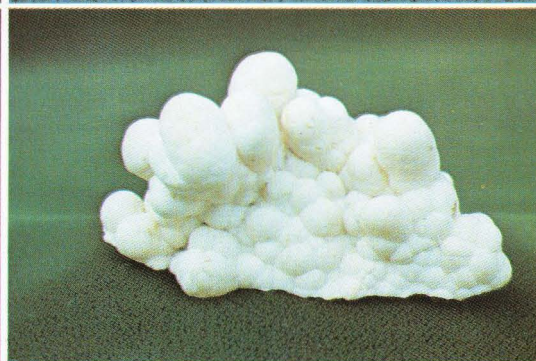
### **QUARTZ**

Group of clear crystals showing typical form and horizontal striations.  
Ashton. (5 cm x 3 cm)

### **SPHALERITE**

Large well-shaped crystals with white calcite.  
Wallaroo Mines. (5.5 cm x 3.5 cm)





**OPAL with AGATE**

Honey opal in creamy, banded agatised wood.  
Bopeechee. (10 cm x 6.5 cm)

**OPAL**

Polished cabochon of harlequin opal.  
Coober Pedy. (approx. 34 ct.)

**SULPHUR**

Sulphur core in gypsum nodule.  
Lake Eyre. (9.5 cm x 7.5 cm)

**WILLEMITE**

Brecciated and banded zinc ore.  
Beltana. (11 cm x 8 cm)

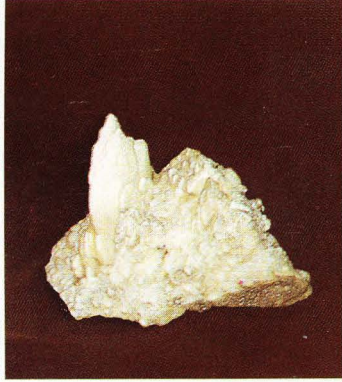
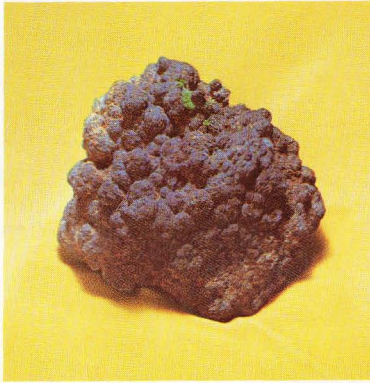
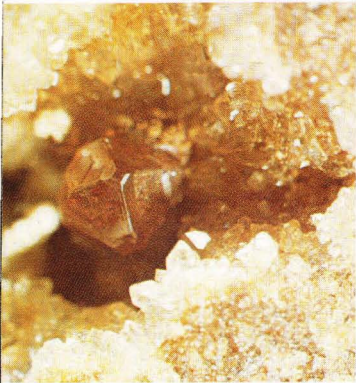
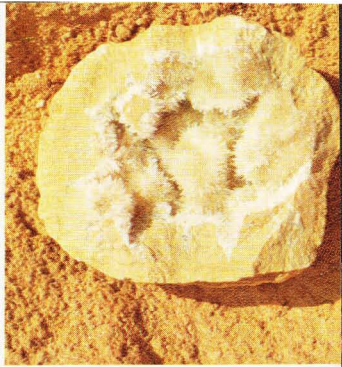
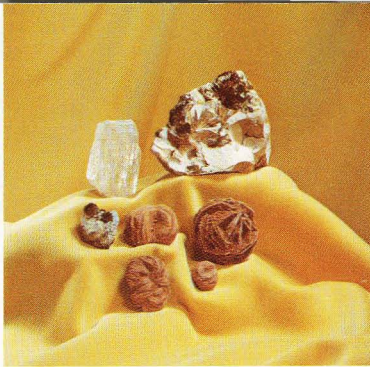
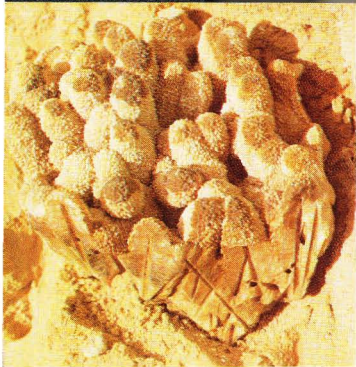
**DIAMOND**

Cut and faceted yellow stone (2.95 ct.)  
with two natural octahedral crystals  
(1.55 and 1.00 ct.)  
Echunga.

**ARAGONITE**

Coralloidal 'floss ferri'.  
Reynella. (5 cm x 2.5 cm)





**'Nail-hole' QUARTZ**  
 Quartz crystal growth around unknown pre-existing mineral. Mount Gee. (14 cm x 15 cm)  
*Photo: Jan Herridge*

**CUPRITE**  
 Small octahedral crystal in quartz-lined vugh. Spring Creek. (2 mm)

**SIDERITE**  
 Crystalline mass showing cleavage planes and iridescence. Flinders Ranges. (11.5 cm x 11 cm)

**BARITE**  
 Cleavage fragment. Pernatty Lagoon. Fibrous nodular barite. Brighton. Group of crystals and sand crystals. Various localities.

**AZURITE**  
 Massive, nodular azurite with green malachite. Flinders Ranges. (14.5 cm diam.)

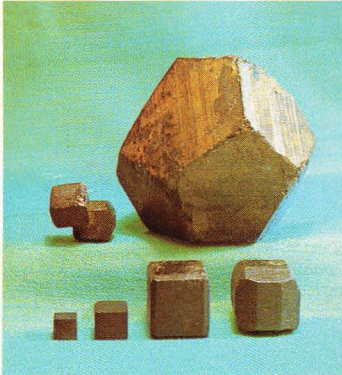
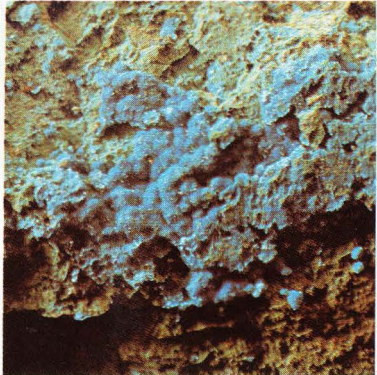
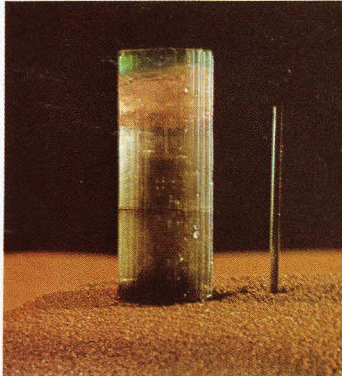
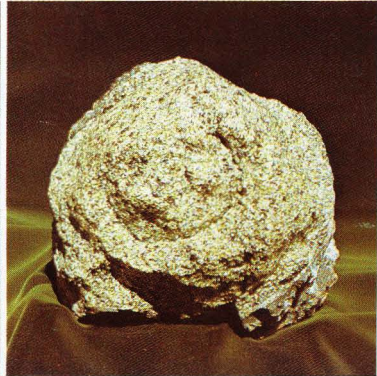
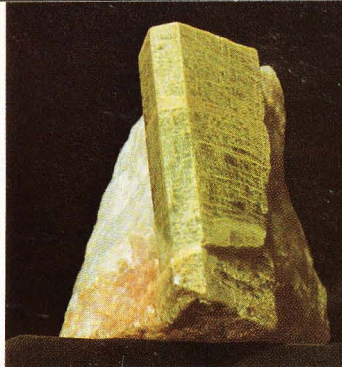
**SCHOLZITE**  
 Fine needle-like crystals encrusting zinc ore. Reaphook Hill. (7 cm x 4 cm)

**ARAGONITE**  
 Geode lined with aragonite crystals. Morgan. (8.5 cm x 7.2 cm)  
*Photo: Jan Herridge*

**ANDALUSITE var. CHIASTOLITE**  
 Prismatic crystal coated with mica (9 cm x 4 cm). Polished sections showing cross-shaped twinning. Mount Howden.

**DOLOMITE**  
 Mass of rhombohedral crystals. Wallaroo Mines. (10 cm x 7 cm)  
*Photo: Jan Herridge*





### ATACAMITE

Group of large crystals.  
Walleroo Mines.  
(2.5 cm x 6 cm)

### GYPSUM

Doubly twinned crystal.  
Lake Gilles.  
(10.5 cm x 6 cm)

### CHRYSOCOLLA

Nodular chrysocola with  
malachite bands.  
Burra. (12 cm x 9.5 cm)

### MALACHITE

Fine needle-like crystals in vugh.  
Spring Creek.  
(approx. 2 cm x 2 cm)

### OLIVINE

Granular crystals forming core  
of volcanic 'bomb'.  
Mt. Gambier. (16.5 cm x 17 cm)

### LAVENDULAN

Tiny rosettes of blue  
velvety crystals.  
Dome Rock. (2.5 cm x 2.5 cm)

### BERYL

Single prismatic crystal  
in quartz.  
Williamstown. (3 cm x 7.5 cm)

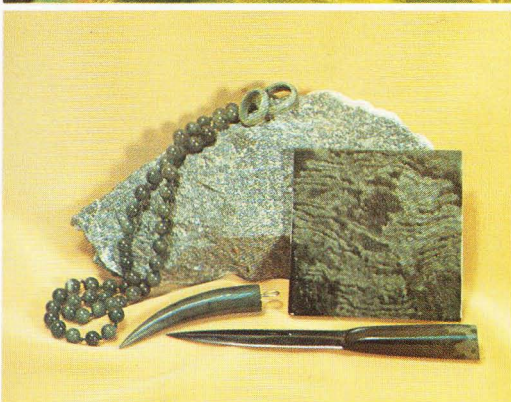
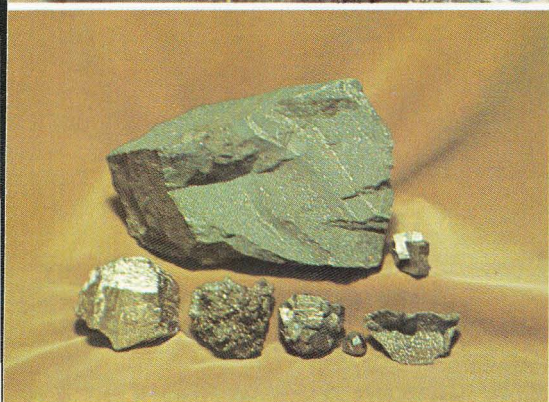
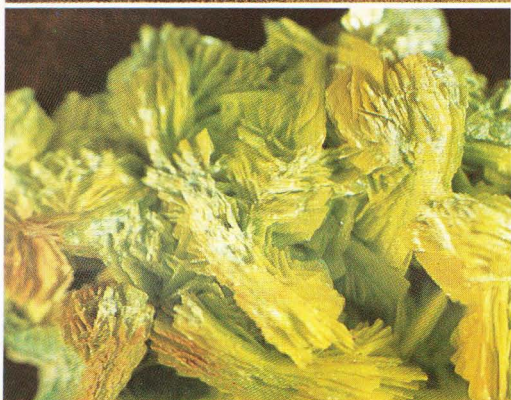
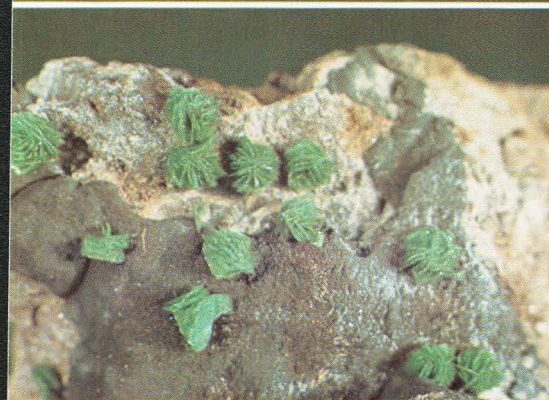
### ELBAITE

Prismatic crystals showing  
vertical striations.  
Large specimen colour-zoned  
Kangaroo Island.  
(1.5 cm x 3.5 cm)

### LIMONITE

Pseudomorphs after pyrite crystals.  
Large pyritohedron. (8 cm x 7 cm).  
Cubes bevelled by pyritohedral  
faces. Various localities.





**COPPER**

Delicate flattened crystals displaying dendritic (fern-like) growth. With associated quartz. Kapunda. (4 cm x 3.5 cm)

**TORBERNITE**

Hemispherical clusters of tabular crystals. Mount Painter. (3 cm x 2 cm)

**PYRITE (Fool's Gold)**

Veins in ore. Interpenetration twin. Bruckunga. Large pyritohedral crystal. Gumeracha. (7.5 cm x 6.5 cm)

**STILBITE**

Crystal fans radiating from both sides of vein in actinolitic rock with white calcite. Arkaroola. (12.5 cm x 8 cm)

**AUTUNITE**

Sheaves of parallel tabular crystals. Mount Painter. (3 cm x 2 cm)

**NEPHRITE JADE**

Polished specimens set against uncut jade block. Near Cowell. (Polished slab 8.8 cm x 8.8 cm)

Mineralogical research is actively continuing in academic and State Government institutions. Private companies and a host of dedicated amateurs also contribute to our growing knowledge of South Australian minerals.

All of these workers have had 'a rich lode to mine'. Not only is much of South Australia highly mineralised, with a total of over 330 recorded minerals, but it also yields a wide range of rare minerals and some very spectacular and colourful crystal groups.

For the purpose of this publication, the State has been divided into twelve provinces as set out on the map on page 24, each province demonstrating a reasonable degree of unity in its geology and geomorphology.

### Adelaide Hills Province

The Adelaide Hills area is mainly composed of very ancient rocks, uplifted intermittently over the past 500 million years and rounded and dissected as a result of weathering processes. The highest peak is Mount Lofty, 727 metres above sea level. The range is bounded by the Adelaide Plains to the west, the Murray Basin to the east, and the sea to the south. Its northern boundary has been arbitrarily set at the 34th parallel of latitude, beyond which lie the Flinders Ranges.

The earliest mining by European settlers took place here, mines of silver, lead, copper and gold. The mineralogy of the Adelaide Hills is quite well known as a result of this early exploitation, combined with close proximity to the city and research centres. The area contains enormous quantities of building materials of considerable economic importance—sand, clay, marble and aggregate stone.

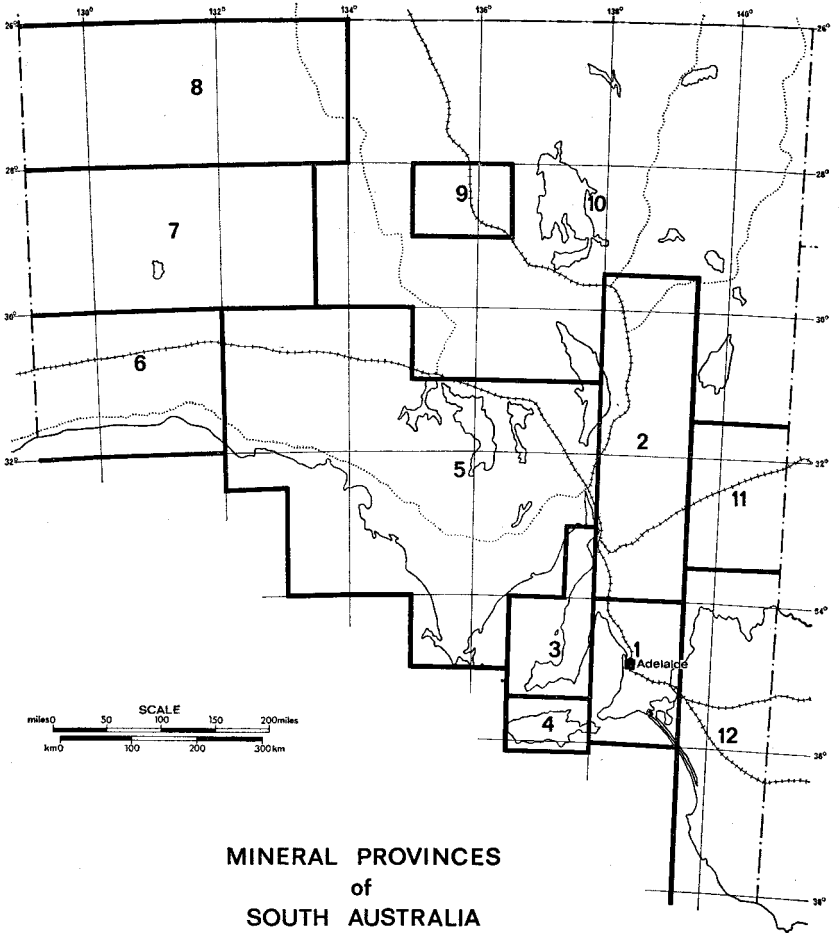
*Diamond* is the most exotic mineral recorded from the Hills—crystals were found in the alluvial gold diggings at Echunga before 1879. No recent finds have been reported, although many hopeful prospectors have gone searching.

*Gold* in small amounts is widespread in the Adelaide Hills, principally in alluvial deposits at Barossa and Echunga, and many gold-quartz reefs are known throughout the area. Spectacular specimens of arborescent crystals have been found at Cherry Gardens and Morialta, and coarse gold occurred with *bismuth* at the Balhannah mines.

Large, low grade copper deposits are being mined at Kanmantoo, and are also known from Kapunda. Few of these mines yield good specimens, but the water-soluble sky-blue copper sulphate *chalcantite* is found as spectacular encrustations in the Kitticoola mine.

Lead ores, such as bright silver-grey crystalline *galena*, and the white lead carbonate, *cerussite*, were once mined at Glen Osmond. *Galena* has also been mined at Mount Malvern and Rapid Bay. At the Wheal Ellen mine near Strathalbyn it is accompanied by *pyrite* (iron sulphide) and *gahnite* (zinc-aluminium oxide) and at both the Talisker and Aclare mines the zinc sulphide *sphalerite* and the fibrous, grey metallic lead sulphantimonide *jamesonite* are present.

Oxides of iron, such as specular *hematite*, are common at Angaston, Kersbrook, Kapunda, and Normanville, and have been worked as iron ores. The deposits of *pyrite* were long worked as a source of sulphur at Brukunga near Nairne, and small pockets of bright brassy, cubic crystals with *gahnite* and *almandine* (iron-



**MINERAL PROVINCES  
of  
SOUTH AUSTRALIA**

(as referred to in this publication)

- |                             |                                   |
|-----------------------------|-----------------------------------|
| 1. Adelaide Hills Province  | 7. Victoria Desert Province       |
| 2. Flinders Range Province  | 8. Musgrave Range Province        |
| 3. Yorke Peninsula Province | 9. Peake Province                 |
| 4. Kangaroo Island Province | 10. Great Artesian Basin Province |
| 5. Eyre Peninsula Province  | 11. Olary Province                |
| 6. Nullarbor Plain Province | 12. Murray Basin Province         |



aluminium silicate) garnets were occasionally found. Large bright *pyrite* crystals occur in a *talc* (magnesium hydrosilicate) mine near Gumeracha and the silvery iron sulpharsenide, *arsenopyrite*, is widespread in gold and lead mines of the Adelaide Hills, particularly at the Preamimma mine near Monarto, where it was once mined for its arsenic content.

Of the rarer metals found in this province *bismuth* has already been mentioned as an associate of *gold* at Balhannah, while dull black *uraninite*, an oxide of uranium commonly known as *pitchblende*, together with its bright yellow alteration products *uranophane* and *boltwoodite* (uranyl silicates), has been found near Myponga. *Wolframite* (iron-manganese tungstate) occurs near Yankalilla.

The titanium oxide *rutile*, often in fine crystals, occurs in a large *kaolinite* (hydrous aluminium silicate) quarry near Williamstown, at Gumeracha and near Strathalbyn. Black titaniferous *hematite* is common in the basal Aldgate sandstone throughout the hills and the black mineral  *davidite* , a titanate of iron and uranium, is found at Houghton.

*Beryl*, an ore of beryllium sometimes occurring as a green gemstone, is found as hexagonal crystals in pegmatites near Williamstown, and the same area contains *kaolinite* deposits, *sillimanite* (a refractory aluminium silicate) and *damourite*, a light green satiny form of *muscovite*. Blue granular *sapphire* (a variety of the aluminium oxide *corundum*) has been found near Mount Crawford.

Large and spectacular clusters of sharp crystals of clear *quartz* (silicon oxide), often with liquid-gas inclusions (and sometimes iron-stained) have been found in the quarries of Athelstone and Stonyfell. Greenish to amber-coloured common *opal* occurs around Angaston and Williamstown.

The beautiful deep blue gemstone *lazulite*, a magnesium-aluminium phosphate, has been recorded in small quantities near Monarto, small pink *almandine* (iron-aluminium silicate) garnets occur near Kanmantoo, and green *andradite* (calcium-iron silicate) garnets at Millendella. *Andalusite*, a silicate of aluminium sometimes of gem quality, has been noted as pink crystals in the cliffs west of Victor Harbor while crystals of the feldspar *adularia* (potassium-aluminium silicate) occur in the Torrens Gorge.

Among economic minerals, chalky nodules of *alunite* (a sulphate of potassium and aluminium) are found near Normanville, and veins of *barite* (a sulphate of barium) are common, although crystals are rare. Widespread phosphatic rocks containing botryoidal masses of the calcium phosphates *francolite* and *collophane* (a variety of *apatite*) occur at Angaston and Myponga, and small white crystals of *wavellite* (a phosphate of aluminium) at Angaston. *Glauconite* (a hydrous silicate of iron and potassium) is found in the cliffs at Maslin Beach, south of Adelaide. *Siderite* (iron carbonate) has been recorded from many localities in South Australia, including the Balhannah Mine and near Angaston.

### Flinders Ranges Province

The Ranges, which are famous for their minerals as well as their spectacular scenery, are mostly open and rolling, but with many precipitous areas such as St Mary Peak at Wilpena, 1 166 metres above sea level, and Freeling Heights at

Arkaroola, 952 metres above sea level. Extending north from the 34th parallel, the ranges are bounded by the plains of Lake Torrens on the west, Lake Eyre on the north and Lake Frome on the east.

*Gold* in small amounts is widespread in the Flinders, but does not occur as specimens except for the really magnificent arborescent clusters of large crystals which have been found at Angepena. Copper, uranium and zinc are the most common ore minerals.

The most famous copper mine in the province is at Burra, which produced very beautiful gem quality, green-banded *malachite* as well as deep blue *azurite*. Both these minerals are carbonates of copper. Sky-blue *chrysocolla* (a copper silicate) and *gold* have also been found recently. The Spring Creek copper mine at Melrose yields native *copper*, small green crystals of *pseudomalachite* (a quite rare copper phosphate) and very fine crystals of deep purplish red *cuprite*, a copper oxide and valuable ore mineral. Other well known copper mines include Blinman, Sliding Rock near Beltana, Mountain of Light near Copley, and Yudnamutana, which contains the calcium tungstate, *scheelite*, and radial masses of the complex calcium-magnesium-iron silicate, *actinolite*, in the calcareous wall rocks of the lode. The most interesting copper mine of this area is O'Donahue's Castle on Balcanoona Station, which has yielded very attractive crystallised specimens of deep blue *azurite* and bright green *malachite*, as well as such rare minerals as the pink cobalt carbonate *sphaerocobaltite*, the bright olive-green copper arsenate *conichalcite*, and the dull green iron arsenate *symplesite*.

Close to O'Donahue's Castle lies the small Worturpa gold mine, from which came tiny bronze-coloured crystals of the very rare nickel telluride *melonite*, while the equally rare lead-grey *ullmannite* (nickel sulphantimonide) occurs with ores of copper, gold and uranium at Nicholls Nob and Mount Ogilvie near Lyndhurst. The uranium occurs as an oxide, *uraninite*, first recorded in 1896 and probably the first uranium mineral found in Australia.

Uranium has come from the mines at Mount Painter in the form of sharp tabular crystals of yellow *autunite* (calcium uranyl phosphate) and green *torbernite* (copper uranyl phosphate). *Uraninite* occurs near Yudnamutana, and in the recently discovered sedimentary deposits between Mount Painter and Lake Frome and the peculiar 'nail-hole' *quartz* is found near Mount Gee and at Mount Painter.

The Flinders Ranges have lately become notable for the discovery of large and unusual deposits of rich zinc ores, the most commercially important being quarried at Beltana. It consists of masses of the white zinc silicate *willemite*, smaller amounts of the lead-calcium arsenate *hedyphane*, and small crystals of deep red *vanadinite*, a vanadate of lead. The rare metal vanadium occurs widely in trace amounts in the Flinders, mostly as dull olive-green crusts of *volborthite* (copper-calcium vanadate) at most copper mines around Copley and Yudnamutana, but also as brassy blebs of the rare *sulvanite* (a copper-vanadium sulphide) at the Edelweiss mine near Burra, and as green crusts of the even rarer *vesignieite* (a copper-barium vanadate) at the same mine.

The complex ores of the Billy Springs mine west of Lyndhurst contain abundant zinc as spongy masses of dirty grey *hydrozincite* (zinc carbonate) and also yield azure-blue masses of *aurichalcite* (zinc-copper carbonate). *Galena* (lead sulphide), *hemimorphite* (hydrrous zinc silicate) and the iron-grey *tetrahedrite*

(copper-iron sulphantimonide) also occur. The latter readily alters to *malachite* and dull yellow masses of an antimony oxide, so far unidentified. It is of interest to note that the mercury rich variety of *tetrahedrite* known as *schwartzite* occurs at the Moro mine on Wertalooona, and alters to *malachite* and earthy red *cinnabar* (a mercury sulphide).

The Reaphook Hill Scholzite Mine on the Lake Frome side of the Ranges is unique, as nowhere else does such a range of very rare zinc phosphates occur together. They are light coloured and well-crystallised, and include clear *tarbuttite* crystals, magnificent clusters of prismatic crystals of *scholzite*, small white or brown crystals of *parahopeite* and white crystals of *collinsite*. As well as these, the mine contains the unusual iron phosphates *rockbridgeite*, *phosphophyllite*, *switzerite* and the complex manganese oxides *chalcophanite* and *cryptomelane*.

Of the non-metallic economic minerals of the Flinders Ranges *barite*, the heavy sulphate of barium used in oil-well drilling muds, is found in many places around Oraparinna and Blinman. From Mount Fitton comes *talc* (magnesium hydro-silicate), used mainly in the manufacture of baby powder. It is the chief source of this mineral for Australia. Phosphatic rocks produce only one recognisable mineral, the aluminium hydrophosphate *wavellite*, occurring in white crystalline veinlets in quarries at Orroroo.

Arkaroola is best known for its finely crystallised silicate minerals, especially the light orange zeolite *stilbite* (sodium calcium aluminosilicate), various green fibrous amphiboles such as *actinolite* and *hornblende*, fine brown crystals of the calcian titanosilicate *sphene*, as well as blue sapphire-like *corundum* (aluminium oxide), fine octahedral crystals of the iron oxide *magnetite*, and tabular crystals of the titaniferous iron oxide *ilmenite*.

Small deposits of blue *crocidolite* (sodium-iron silicate) asbestos have been mined at Robertstown, near Hawker and at Oraparinna. *Amethyst quartz* (silicon oxide) crystals are obtained south of Melrose and blue gem *turquoise* (copper-aluminium hydrophosphate) at Mount Painter.

*Sal-ammoniac* (chloride of ammonium), is a valuable nitrogenous fertiliser which occurs in the guano of the 'Bat Cave' on Wooltana Station near Arkaroola.

Coarse crystalline white *magnesite* (magnesium carbonate) has been quarried on Balcanoona Station near Arkaroola from a deposit containing over 3 million tonnes.

### Yorke Peninsula Province

This is a flat, low lying area, mostly obscured by soil and sediment cover, bordered by the gulfs on either side and by the open ocean to the south. In spite of the unpromising surface conditions, the Peninsula has proved to be richly mineralised, especially at the once important copper mines of the Moonta and Wallaroo district.

Though not mineralogically complex, the Moonta-Wallaroo mines have yielded an abundance of magnificent crystal specimens mainly because they were operated by dedicated mineral collectors. The groundwaters were highly saline, producing chiefly chlorides as secondary ores. One of the most spectacular of these minerals is the dark green copper chloride *atacamite*, found at both mines as large brilliant crystals. Equally brilliant ruby-red octahedral crystals

of the copper oxide *cuprite* were found at Moonta. Among the secondary minerals were the black copper oxide *tenorite*, the steel-grey copper sulphide *chalcocite*, native *copper* in arborescent masses, rare *malachite* and *azurite*, and (at Moonta) matchstick-sized crystals of *gold*.

It was in the primary zone, however, that the real mineral wealth was revealed. Large crystals of *chalcopyrite* (copper-iron sulphide) were found, often with an iridescent tarnish, associated with large crystals of *smoky quartz* or massive purple *bornite* (copper-iron sulphide). Fine, bright cubic crystals of *pyrite* (iron sulphide), coarse masses of lead-grey *galena* (lead sulphide), brown crystals of *sphalerite* (zinc sulphide), silvery crystals of *cobaltite* (cobalt sulpharsenide) and soft lead-grey plates of *molybdenite* (molybdenum sulphide) were present, together with small amounts of the white calcium tungstate *scheelite*, the black iron-manganese tungstate *wolframite* and the splendid black iron oxide *hematite*.

Uranium has been found at Moonta as soft, sooty black *thucholite*, an impure oxide of uranium with carbon, and as bright green scales of the copper-uranium hydrophosphate *torbernite*. The purple calcium fluoride *fluorite* is also found and on many of the dumps crystals of sky-blue *chalcanthite* (sulphate of copper) form as a result of alteration processes.

Among the non-metallic minerals from these mines may be mentioned the black magnesium-iron mica *biotite*, coarse red *microcline* (potassium feldspar) and black crystals of *schorl*, an iron-aluminium borosilicate and a member of the tourmaline group. White crystalline masses of *dolomite* (a carbonate of magnesium and calcium) were common at Wallaroo, and *siderite* (iron carbonate) occurred as a gangue mineral.

At the southern end of Yorke Peninsula are extensive deposits of coarse crystalline, grey-banded 'rock' *gypsum* (calcium hydrosulphate) sometimes with clusters of water-clear *selenite gypsum* crystals in cavities. In the same area, saline brines are pumped from underground to crystallise in pans, producing fine cubic crystals of *halite* (sodium chloride) better known as common salt.

### Kangaroo Island Province

Kangaroo Island has an all-pervasive soil cover and little is known of its minerals, of which the only one of special interest is *rubellite*, a variety of the lithium-bearing aluminous borosilicate *elbaite*, a member of the tourmaline group. This mineral is used as a ruby-like gemstone. Some rubellite has a light green outer rind, and is known as 'water-melon tourmaline'. *Indicolite*, a dark blue-green variety, has also been recorded from the Island.

### Eyre Peninsula Province

This is an area of low, abrupt hills separated by broad flats. The peninsula includes the Port Lincoln and Cleve Highlands as well as the Gawler and Middleback Ranges. Basement rocks extend as far north as Tarcoola and the 30° 30' parallel of latitude, while to the south the sea forms the boundary. To the east it is bounded by the Lake Torrens basin and to the west by the Nullarbor Plain. We have included the basement rocks of the coast and off-shore islands.

North of the Gawler Range, *gold* has been mined at Tarcoola and at Glenloth where *casiterite* (black tin oxide) is also found.

In the Cleve uplands there are several small copper and lead mines. The most interesting is the Cleve silver mine, which produced masses of the semi-metallic silver chloride *cerargyrite*, green in colour when fresh but turning black when exposed to the light. The most important copper mine is at Pernatty Lagoon, north of the Gawler Range, where sandstones are impregnated by the green and blue copper carbonates *malachite* and *azurite*, by green copper chloride *atacamite*, and by *bornite* (a purple, metallic copper-iron sulphide). Black needle-like crystals of *pyrolusite* (manganese oxide) and colourless crystalline *fluorite* (calcium fluoride) also occur at Pernatty Lagoon.

The granitic rocks of the off-shore islands of the Sir Joseph Banks Group in Spencer Gulf contain a suite of interesting minerals—*molybdenite* (lead-grey, soft, scaly molybdenum sulphide), *wolframite* (shiny black tungstate of manganese and iron), *scheelite* (white tungstate of calcium) and *tungstite*, a dull yellow, very rare oxide of tungsten. All these minerals are used for hardening steel.

The most important economic mineral on Eyre Peninsula, indeed in the State, is the iron ores of the Middleback Ranges, the production of which in 1973-74 was valued at \$53.3 million. Principal quarries at present in production are Iron Monarch, Iron Baron and Iron Prince. Iron Duke is soon to come into production.

The ore-bearing deposits consist of *hematite* (iron oxide) a purplish black, granular mineral containing 66 per cent metallic iron, with small amounts of the black oxide of iron, *magnetite*, which is strongly magnetic. The magnetism enables ores to be located by aircraft using sensitive magnetometers, even when it does not outcrop at the surface. Black crystals of manganese oxides, principally *pyrolusite* and *manganite*, occur at the Iron Knob localities as well as some bright crystals of manganese oxides which have not yet been identified. Other unusual minerals, found only rarely as crystals, are the white aluminium phosphate *wavellite* and the rose-pink iron phosphate *strengite*.

The country rock of the iron deposits is a jaspilite. This rock, which is very hard, consists of interbands of black iron ores and red or brown *jasper*, an amorphous variety of *quartz*. The jaspilites of Wilpena Hill, north of the Gawler Range, contain bands of blood red *jasper* and take a high polish.

*Clear quartz* crystals occur at Tassie Creek, north of Whyalla, and *amethyst quartz* crystals are found near Kimba.

Other silica minerals are finely banded pink and white '*agates*' from near Iron Knob, which show eye-like patterns when polished, and the variously coloured white, green, red, brown and black common *opal* (hydrrous silicon oxide) found between Cowell and Cleve, known as '*opalite*' in this State.

The water-clear *hyalite opal*, and a clear honey-coloured type replacing asbestos and locally known as '*tiger eye opal*' are known from quarries near Cowell. This asbestos is *chrysotile* (magnesium hydrosilicate) fairly common as veins in the attractive green serpentinous marbles of Cowell, which also contain masses of black and green *nephrite* jade, a variety of *actinolite*.

Potassium-aluminium feldspars also occur on Eyre Peninsula. One of these, *sanidine*, occurs rarely as fair-sized, white tabular crystals in the dark red porphyries of the Gawler Range, and the other, *amazonite*, a green gem variety of *microcline* (potassium aluminosilicate) is to be found between Port Lincoln and Tumby Bay.

The most spectacular and valuable mineral from the Peninsula is probably the calcium sulphate *gypsum*. Large quantities are used in making plaster, but sometimes large specimens of beautiful intermeshed, blade-like crystals of silky white *selenite gypsum* occur in Myall Creek north of Whyalla, and fine twinned crystals of water-clear, glassy *selenite* may be dug out of the mud in Lake Gilles north of Iron Knob.

### Nullarbor Plain Province

This vast flat expanse of limestone plain and sandy desert is bounded by the Victoria Desert to the north and the Gawler Range and Artesian Basin to the east. The only provincial minerals are calcium carbonate stalactites in the caves and 'flints' in the sea cliffs to the south.

### Victoria Desert Province

No minerals have been recorded from this area, bounded to the north by the Musgrave Range and to the south by the Nullarbor Plain. It consists of parallel sand dunes with mulga growing in interdune corridors.

### Musgrave Range Province

This area comprises the precipitous mountain ranges of the north-west, bounded to the east by the Artesian Basin along the 134th east meridian, and by the Victoria Desert to the south along the 28° south parallel. Many of the hills and ranges are separated by sandy deserts, but the main range culminates in Mount Woodroffe, 1 440 metres above sea level, this being the highest mountain west of the Great Dividing Range.

The Musgrave Range and adjacent Mann and Everard Ranges are high, domed masses of red granitic rock, but the Tomkinson Range to the west presents a forbidding rampart of black basic igneous rocks containing large deposits of low grade nickel ore.

The Mount Davies nickel ore is a soft, brown, ochrous material containing nodules of silica, the best known being '*chrysoprase*', which is a quartz stained apple-green by the nickel silicate *garnierite*, '*moss agate*'—a white quartz containing fern-like inclusions of black manganese oxide, and various red, brown and yellow types of *jasper*. All of these coloured silicas are valued as baroque gemstones.

The basic igneous rocks are composed of iron and magnesium silicates including shiny black *hypersthene*, dark green *enstatite* and glassy brown *olivine*. Unusual masses of 'marble' include rare magnesium-calcium silicates such as *diopside*, *forsterite*, *larnite* and red *phlogopite* mica.

Closely associated with the nickel ores are deposits of black *chromite* (an oxide and ore of chromium) and of the black iron oxide *magnetite*, pieces of which are often natural magnets known as 'lodestones'.

The granitic rocks carry a suite of minerals which is very different from the minerals associated with the basic igneous rocks. The pegmatites are rich in masses of the white potassium feldspar *orthoclase*, sometimes containing green hexagonal crystals of *beryl* (beryllium-aluminium silicate). *Allanite* (a complex silicate of iron, calcium, aluminium and rare earths) is common. This mineral, which is radioactive, occurs as dull brown lumps, brittle and bright pitchy black on the fracture. Rare pegmatite minerals are small bright, dark brown crystals of *xenotime* (yttrium phosphate) and *cyrtolite*, a radioactive variety of *zircon* (zirconium silicate). Present as small grains in rocks at Ernabella in the heart of the Musgrave Range, is the rare blue mineral *sapphirine* (iron-aluminium-magnesium silicate) and the even rarer *taaffeite* (oxide of aluminium, beryllium, etc.).

### Peake Province

This area comprises the Peake and Dennison Ranges, a rugged northerly continuation of the Flinders Ranges which is isolated from the main range by sediments of the Great Artesian Basin and lies just to the west of Lake Eyre.

These ranges have not been well prospected, but a few small copper mines are known, one of which contains yellow crusts of the rare uranium carbonate *rutherfordine*. Gold and one diamond have been found at Algebuckina at the north end of the range.

### Great Artesian Basin Province

This flat featureless plain is broken only by low mesas, great meandering watercourses and wide lake depressions partly below sea level, and covers an area of 300 000 square kilometres. It is bounded to the south by the Flinders Ranges, the highlands of Eyre Peninsula and the Olary Ridge, while to the west the boundary is formed by the Musgrave and Everard Ranges and by a vague junction with the Nullarbor Plain, although it is possible that Artesian Basin sediments may extend under much of the Nullarbor Province.

The most important mineral found in this province is the world-famous precious *opal*. The mines at Coober Pedy and Andamooka supply about 90 per cent of the present world production of this valuable gemstone. Smaller deposits of precious opal occur west of Oodnadatta at Lambina, Welbourne Hill and Mintabie. Other opal varieties include clear golden *honey opal* and white *potch*, and any of these three may occur as fossilised shells, wood or dinosaur bones. Another widespread silica mineral is the red and white spotted *jasper*, frequently used in baroque jewellery.

The calcium sulphate *gypsum* is common in both the clear platy variety *selenite* (e.g. around Oodnadatta) and the white asbestiform variety '*satin spar*' found as veins at Coober Pedy and Andamooka.

White crystallised masses of *celestite* (strontium sulphate) lie west of Oodnadatta, and there is an interesting occurrence of powdery yellow *sulphur* cores in *gypsum* nodules at Lake Eyre.

Common in this and other areas are *limonite* (hydrrous iron oxide) concretions of no regular form, but which arouse curiosity because of their bizarre shapes. They often mimic fantastic creatures or roots of plants and are frequently mistaken for fossils.

### Olary Province

This area lies between the mid-northern Flinders Ranges and the New South Wales border and is bounded by the Lake Frome flats to the north and the Murray Basin to the south. The railway to Broken Hill roughly follows the spine of the province, with its low, rolling hills, a few steep scarps and some prominent dome-shaped hills of granite around Olary.

The province contains many small mines of gold, lead and copper. The largest copper mine is at Mutooroo, south of Cockburn, where extensive workings opened up a lode of the brassy iron sulphide *pyrite*, often in sharp cubic crystals, with black octahedral crystals of the iron oxide *magnetite* and small amounts of the copper-iron sulphide *chalcopyrite*. Near the surface the weathered cap of the lode contained masses of native *copper*, *malachite* (the green carbonate of copper) and minute red crystals of the copper oxide *cuprite*. The pyritic dumps of this mine are almost completely altered to water-soluble iron sulphates, such as yellow *copiapite*, orange *amarantite* and white *melanterite*, with copper sulphates (e.g. light blue *chalcanthite*) and small amounts of pure *sulphur*. The pyritic dumps at the Waukaringa gold mine have also altered to *copiapite* and another water-soluble aluminium-iron sulphate *halotrichite*, which has a grey asbestiform appearance. The water-logged open cut of the Woman-in-White Mine north of Olary is encrusted with hair-like crystals of blue *chalcanthite*. All the above-mentioned sulphates can damage the eyes and are poisonous if swallowed—fortunately, most have a vile taste. *Epidote* (a calcium-aluminium-iron silicate) is found near the Woman-in-White Mine.

A most interesting mine of copper, cobalt and nickel is the Ethiudna Mine on Plumbago Station, where the lodes are emplaced in a coarse calc-silicate rock consisting mainly of long creamy crystals of *wollastonite* (calcium silicate) and containing brown crystals of *grossular* (a calcium-aluminium garnet), green crystals of the calcium-iron garnet *andradite* and silvery grains of the cobalt-arsenic minerals *cobaltite* and *skutterudite*. The ore mined at Ethiudna was principally the copper silicate *chrysocolla* in large, glassy sky-blue masses, while the pitchy black *cuproasbolane* (a mixed oxide of manganese, copper, cobalt and nickel) was also an important ore. Other unusual green copper arsenates from this mine are *conichalcite* and *cornwallite*, the latter having an enamelled appearance.

The Dome Rock mine on Boolcoomatta Station has a suite of ores similar to Ethiudna, with the addition of *gold* and such rare crystallised copper arsenates as the deep green *olivenite*, deep azure-blue *clinoclase* and spectacular, silky coatings of sky-blue *lavendulan*.

Uranium is prevalent in the Olary district, mainly as the jet black, shiny mineral  *davidite*  (a titanate of iron, uranium and rare earths). *Davidite* has been mined at Radium Hill, now a ghost town, and at Mount Victoria on Plumbago Station. It also occurred as crystals at Billeroo. Minerals with a composition similar to  *davidite*  are the waxy yellow '*absite*' and the black resinous *brannerite*,



both once mined in small rich deposits at Crocker Well on Plumbago Station. Most of the pegmatites in the granitic area north of Olary carry black, brittle, shiny compound oxides of uranium, niobium and rare earths such as *samarskite*, *betafite*, *euxenite*, *polycrase* and *fergusonite*, while some contain the bright orange *gummite* with a core of black *uraninite*, both uranium oxides. Weakly radioactive minerals present in the pegmatites include brown crystals of *monazite* (cerium phosphate) and *xenotime* (yttrium phosphate) as well as black, shining *ilmenorutile* (a rare earth bearing oxide of titanium).

The pegmatites consist of *quartz* plus the potassium mica *muscovite*, the potassium feldspar *orthoclase*, the sodium feldspar *albite* with the beryllium-aluminium silicate *beryl* occurring as green hexagonal crystals. All of these latter minerals are mined. Rarer components of the pegmatites are reddish metallic crystals of the titanium oxide *rutile*, black metallic crystals of the iron-niobium oxide *columbite*, and large black, glossy crystals of *schorl* (a borosilicate of iron and aluminium). Rather rare pegmatite minerals are the dark brown manganese-iron phosphates *triplite* and *graftonite*, both of which alter very readily to allied phosphates such as black *barbosalite*, green *dickinsonite*, brown *bermanite*, blue *vivianite* and yellow *cacoxenite*. Also of pegmatitic origin is the large deposit of black, glassy *apatite* (calcium phosphate) at Bimbowrie, formerly quarried for fertiliser.

Small white crystals of *scheelite* (calcium tungstate), with purple *fluorite* (calcium fluoride) occur in rocks adjacent to a small deposit of ochrous yellow '*carphosiderite*' (iron sulphate) once mined as a pigment on Bimbowrie. Dark purple *fluorite* has been mined at Plumbago north-west of Olary and at Mutooroo south of Cockburn, where it is accompanied by white crystalline *barite* (barium sulphate). *Barite* has also been mined at many places north of Olary.

Large clear crystals of *quartz* occur at Kings Bluff, near Olary, and dark '*smoky quartz*' crystals were found near Plumbago.

Silicate minerals are common, but not important. They include the brown crystallised sodium zeolite *epidesmine*, green crystallised *actinolite* (one of the iron-calcium silicates) and the refractory aluminium silicates white, silky *sillimanite* and pink or grey *andalusite*. The variety of *andalusite* known as *chiasolite*, which shows a black cross when cut and polished and is regarded by many as a lucky charm, occurs at Mount Howden on Bimbowrie Station, as does *erythrite* (hydrous cobalt arsenate).

A well-known mineral of this area in particular (although it does occur at many other localities in South Australia) is the cubic pseudomorph of *limonite* (hydrous iron oxide) after *pyrite*. These are commonly known as 'Devil's Dice.'

### Murray Basin Province

This flat area, bounded by the Adelaide Hills, the Olary Highland and to the south by the sea, is heavily cultivated but not devoid of minerals.

Crystal-lined nodules of white to colourless *aragonite* (calcium carbonate) have been found near Morgan, and some fossils in the Murray Cliffs have been replaced by glassy, transparent *selenite gypsum* (hydrous calcium sulphate). Stalactites of calcium carbonate are common in the various caves of the south-east, and black '*flint*' (impure silica) is found in the cliffs and on the beaches at Port MacDonnell.

The volcanic rocks of Mount Gambier contain masses of bright green *olivine* (silicate of magnesium and iron) which form the cores of lava 'bombs'. Metallic (native) *iron* occurs in lava at Glencoe.

### References

Detailed technical reports of South Australian minerals are found in a multitude of scientific journals, but the chief references readily available are published by the South Australian Department of Mines. The Department has issued Bulletins other than those listed below, dealing with mineral resources in greater detail but most of the early ones are out of print and would have to be consulted in a library. At present Nos. 20, 21, 26, 28, 30, 31 and 33 are still available.

Brown H. Y. L. 'Record of the Mines of South Australia' (1908), (Facsimile reprint available from Department of Mines).

Campana B. & King D. 'Regional Geology and Mineral Resources of the Olary Province' (1958), Geol. Surv. S. Aust. Bull. No. 34. (Out of print but should be available in libraries).

Coats R. P. & Blissett A. H. 'Regional and Economic Geology of the Mount Painter Province' (1971), Geol. Surv. S. Aust. Bull. No. 43.

Jack R. L. 'Geology of the Moonta and Wallaroo Mining District' (1917), Geol. Surv. S. Aust. Bull. No. 6. (Out of print but should be available in libraries).

Officers of the Department of Mines and CSIRO 'Uranium Deposits of South Australia' (1954), Geol. Surv. S. Aust. Bull. No. 30.

### Two books on Australian minerals are:

Chalmers R. O. *Australian Rocks, Minerals and Gemstones* (Angus and Robertson, Sydney, 1967).

Talent J. A. *Guide to Australian Minerals* (Jacaranda Colour Guide, Jacaranda Press, Sydney, 1970).

### Books on minerals generally, include:

Hurlburt C. S. *Dana's Manual of Mineralogy* (John Wiley, New York, various editions) An advanced text.

Read H. H. *Rutley's Elements of Mineralogy* (Thomas Murby & Co., London, various editions) Rather easier reading than Dana.

Zim H. S. and Shaffer P. R. *Rocks and Minerals* (A Golden Nature Guide, Golden Press, New York, 1957) An excellent book for beginners.

### Minerals of South Australia

(Minerals referred to in the text are indicated thus \*)

**Definition:** A mineral is a naturally occurring substance of geological origin having a definable chemical composition and regular atomic structure.

**Group 1:** Frequently occurring, well known, and often mentioned in 'Record of the Mines of South Australia' and other publications.

Group 2: Infrequently occurring, rarely mentioned, in obscure publications, or certainly present but not mentioned in the literature.

Group 3: Recorded long ago and not rediscovered, or recently noted with little or no minerographic data available.

**Group 1: Well known or common minerals**

- |                               |                            |
|-------------------------------|----------------------------|
| *'Absite'                     | Chloritoid (a group name)  |
| *Actinolite                   | *Chromite                  |
| *Albite                       | *Chrysocolla               |
| *Almandine                    | *Chrysotile                |
| *Alunite                      | *Cobaltite                 |
| *Amazonite (see Microcline)   | *Collophane (see Apatite)  |
| *Andalusite                   | *Columbite                 |
| *Andalusite var. Chiastolite  | *Copper (native)           |
| Andesine                      | *Corundum                  |
| *Andradite                    | *Corundum var. Sapphire    |
| Anglesite                     | Covellite                  |
| Ankerite                      | *Crocidolite               |
| Antigorite (see Serpentine)   | *Cuprite                   |
| *Apatite                      | *Cyrtilite (see Zircon)    |
| *Apatite var. Collophane      | *Damourite (see Muscovite) |
| *Aragonite                    | *Davidite                  |
| *Arsenopyrite                 | *Diamond                   |
| 'Asbolane'                    | *Dolomite                  |
| *Atacamite                    | Dravite                    |
| Augite                        | Elbaite                    |
| *Autunite                     | *Elbaite var. Rubellite    |
| *Azurite                      | *Elbaite var. Indicolite   |
| *Barite                       | *Epidote                   |
| *Beryl                        | *Erythrite                 |
| *Biotite                      | *Fluorite                  |
| Bismite                       | *Francolite                |
| *Bismuth (native)             | *Galena                    |
| Bismuthinite                  | *Garnierite                |
| Bismutite                     | *Glauconite                |
| *Bornite                      | Goethite                   |
| Broeggerite (see Uraninite)   | *Gold (native)             |
| Calcite                       | Graphite                   |
| Carnotite                     | *Grossular                 |
| *'Carphosiderite'             | *Gummite                   |
| *Cassiterite                  | *Gypsum                    |
| *Celestite                    | *Gypsum var. 'Satin Spar'  |
| *Cerargyrite                  | *Gypsum var. Selenite      |
| *Cerussite                    | *Halite                    |
| *Chalcanthite                 | *Hematite                  |
| *Chalcocite                   | *Hemimorphite              |
| *Chalcopyrite                 | *Hornblende                |
| *Chiastolite (see Andalusite) | *Hyalite (see Opal)        |
| Chlorite (a group name)       |                            |

**Group 1: Well known or common minerals (continued)**

- Hydronium jarosite = 'Carpho- siderite'  
 \*Hypersthene
- \*Ilmenite  
 \*Indicolite (see Elbaite)
- \*Kaolinite  
 Kyanite
- Labradorite  
 \*Limonite  
 Loellingite
- \*Magnesite  
 \*Magnetite  
 \*Malachite  
 \*Manganite  
 Marcasite  
 \*Melanterite  
 \*Microcline  
 \*Microcline var. Amazonite  
 Mimetite  
 Mizzonite  
 \*Molybdenite  
 \*Monazite  
 \*Muscovite  
 \*Muscovite var. Damourite
- Oligoclase  
 \*Olivenite  
 \*Olivine  
 \*Opal = 'Opalite'  
 \*Opal var. Hyalite  
 \*Orthoclase
- Psilomelane  
 \*Pyrite  
 \*Pyrolusite  
 Pyromorphite
- \*Quartz: This mineral has many varieties and many local names.  
 \*\*Agate'  
 \*Amethyst  
 \*Cairngorm = 'Smoky Quartz'  
 Chalcedony  
 \*\*'Chrysoprase'  
 \*\*'Flint'  
 'Ghost Quartz'  
 \*Jasper  
 Morion
- \*'Nail-hole Quartz'  
 \*\*'Rock Crystal'  
 'Rose Quartz'
- \*Rubellite (see Elbaite)  
 \*Rutile
- \*Sapphire (see Corundum)  
 \*Scheelite  
 \*Schorl  
 \*Selenite (see Gypsum)  
 Serpentine  
 Serpentine var. Antigorite  
 \*Siderite  
 \*Sillimanite  
 Smithsonian  
 \*Sphalerite  
 \*Sphene = Titanite  
 Spinel  
 Staurolite  
 \*Stilbite  
 \*Sulphur  
 \*Sulvanite
- \*Talc  
 Tantalite  
 \*Tenorite  
 \*Torbernite  
 \*Tourmaline (now a group name)  
 includes:  
 Dravite  
 Elbaite  
 \*Elbaite var. Rubellite  
 \*Elbaite var. Indicolite  
 \*Schorl  
 Tremolite  
 \*Turquoise
- \*Uraninite = Pitchblende  
 Uraninite var. Broeggerite  
 \*Uranophane
- Vermiculite (a group name)  
 \*Volborthite
- Wernerite  
 \*Wolframite  
 \*Wollastonite
- \*Zircon  
 \*Zircon var. Cyrtolite

## Group 2: Little known or rare minerals

- \*Actinolite var. Nephrite
- Adamite
- \*Adularia
- \*Allanite
- Anhydrite
- Annabergite
- Anthophyllite
- Arfvedsonite
- Argentite
- \*Aurichalcite
- Axinite
- \*Barbosalite
- Barytocalcite
- Baumhauerite
- \*Bermanite
- \*Betafite
- \*Boltwoodite
- Bournonite
- \*Brannerite
- Braunite
- Bronzite
- Brucite
- Bytownite
- \*Cacoxenite
- Cervantite
- \*Chalcophanite
- Chenevixite
- Childrenite
- Chondrodite
- Chrysoberyl
- \*Cinnabar
- \*Clinoclase
- Clinoptilolite
- \*Collinsite
- \*Conichalcite
- Connellite
- \*Copiapite
- Cordierite
- \*Cornwallite
- Coronadite
- Corundum var. Ruby
- \*Cryptomelane
- Cubanite
- Cummingtonite
- \*'Cuproasbolane'
- Cuprodescloizite
- Delvauxite
- Descloizite
- Diaspore
- \*Dickinsonite
- Digenite
- \*Diopside
- Dufrenite
- Duftite
- Embolite
- Endlichite
- \*Enstatite
- \*Epidesminkite
- Epsomite
- \*Euxenite
- Ferberite
- \*Fergusonite
- Ferrymolybdate
- Finnemanite
- Florencite
- \*Forsterite
- \*Gahnite
- Gersdorffite
- Gibbsite
- Glauco-dot
- Glauco-phane
- Goyazite
- \*Graftonite
- Grunerite
- Halloysite
- \*Halotrichite
- Hedenbergite
- \*Hedyphane
- Hollandite
- Huntite
- Hydrohetaerolite
- Hydromagnesite
- \*Hydrozincite
- Illite (a group name)
- \*Ilmenorutile
- Iodyrite
- \*Iron (native)
- \*Jamesonite
- Jarosite
- Jeffersonite
- Kasolite
- Kingite
- Koettigite
- 'Lampadite'
- Lanarkite
- \*Larnite

**Group 2: Little known or rare minerals (continued)**

- |                                 |                                 |
|---------------------------------|---------------------------------|
| Larsenite                       | *Rockbridgeite                  |
| Laumontite                      | Ruby (see Corundum)             |
| *Lavendulan                     | *Rutherfordine                  |
| *Lazulite                       | Sahlite                         |
| Lepidocrocite                   | *Sal-ammoniac                   |
| Lipscombite                     | *Samarskite                     |
| Maghemite                       | Samiresite                      |
| Mascagnite                      | *Sanidine                       |
| *Melonite                       | *Sapphirine                     |
| Meneghinite                     | *Scholzite                      |
| Mercury                         | *Schwartzite (see Tetrahedrite) |
| Mesolite                        | Scorodite                       |
| Metastrengite = Phosphosiderite | *Skutterudite                   |
| Mitridatite                     | Soddyite                        |
| Montmorillonite                 | *Sphaerocobaltite               |
| Natroalunite                    | Stolzite                        |
| Natrolite                       | *Strengite                      |
| *Nephrite (see Actinolite)      | Strunzite                       |
| Nickel-skutterudite             | *Switzerite                     |
| Nitre                           | *Symplesite                     |
| Nontronite = Chloropal          | *Taaffeite                      |
| Orpiment                        | *Tarbuttite                     |
| Palygorskite                    | Tennantite                      |
| *Parahopeite                    | Tetradymite                     |
| Parasymplesite                  | *Tetrahedrite                   |
| Pentlandite                     | Tetrahedrite var. Freibergite   |
| Periclase                       | *Tetrahedrite var. Schwartzite  |
| Phenakite                       | Thomsonite                      |
| Phillipsite                     | Thorite                         |
| *Phlogopite                     | Thorite var. Orangeite          |
| Phosgenite                      | *Thucolite (see Uraninite)      |
| *Phosphophyllite                | *Triplite                       |
| Piemontite                      | Tritomite                       |
| Pigeonite                       | *Tungstite                      |
| *Pitchblende = Uraninite        | *Ullmannite                     |
| Pitticite                       | *Uraninite var. Thucolite       |
| Platinum (native)               | †Uranospathite                  |
| Plumbojarosite                  | †Uranospinite                   |
| *Polycrase                      | *Vanadinite                     |
| Polymignyte                     | *Vesignieite                    |
| Potash alum                     | Vesuvianite = Idocrase          |
| Powellite                       | Violarite                       |
| Prehnite                        | *Vivianite                      |
| Proustite                       | Wagnerite                       |
| *Pseudomalachite                | *Wavellite                      |
| Pumpellyite                     | *Willemite                      |
| Pyrochlore                      | Wulfenite                       |
| Pyrope                          | *Xenotime                       |
|                                 | Yttrocolumbite                  |
|                                 | Yttrocrasite                    |

**Group 3: Unratified Mineral Species**

†Alloclase	Pickeringite
*Amarantite	Roemerite
Britholite	Rosasite
Chabazite	Stannite
Chalcostibite	Stibnite
Coquimbite	Todorokite
Cuprocopiapite	Topaz
Fluellite	Wardite
Johnstrupite	Xanthoxenite
Mirabilite	Zinc (native)
Montgomeryite	

NOTE: Not all the minerals listed above occur as hand specimens. Many are found only in minute quantities when examining thin sections of rock under a petrographic microscope.

No chemical formulae have been given except in the text. Readers requiring this information are referred to *A Chemical Index of Minerals*, M. H. Hey, 1962, (British Museum) or *Glossary of Mineral Species*, M. Fleischer, 1971, (Mineralogical Record Inc.). Mineral names used in the above list have been taken from Fleischer and old names adjusted to new ones where necessary. Names marked '†' are valid species not listed in Fleischer, e.g. †Uranospathite.

**PETROLEUM RESOURCES**

Following the conditional agreement, signed in June 1971, for the supply of natural gas from the Cooper Basin to Sydney, an extensive program of drilling was undertaken, both in the search for new fields and in the proving of reserves in previously discovered fields. In October 1972 final agreement was reached between the consortium of producing companies and the Australian Gas Light Co. in Sydney after sufficient quantities of natural gas had been established to satisfy the terms of the agreement. There are now eighteen significant natural gas and three oil accumulations known in the South Australian portion of the Cooper Basin and a further four gas accumulations have been established in the Queensland part of the Basin. The Australian Government has begun the construction of a pipeline to deliver gas to the Sydney area.

The Redcliffs petrochemical project has advanced to the stage where a consortium of companies has been selected to develop and operate the project. Project operations will include the construction of a pipeline to transport liquid petroleum from the Cooper Basin, natural gas from the existing pipeline carrying gas to Adelaide and chlorine from common salt to be produced in the Port Augusta area.

**UNDERGROUND WATER**

South Australia is not endowed with a generous rainfall. Only the southern portion of the State, approximately that part south of Port Augusta, receives more than 250 millimetres of rain annually and of this only quite small areas of the

South East and the Adelaide Hills have an annual rainfall exceeding 600 millimetres. The northern part of the State, comprising approximately three-quarters of the total area, is largely arid with an average annual rainfall of less than 250 millimetres. As a consequence South Australia is notably deficient in rivers. There is only one large permanent river, the River Murray, flowing through it while the few streams commencing in the Flinders and Mount Lofty Ranges are short, and seasonal in flow.

Water supply for the metropolitan area of Adelaide is derived from reservoirs in nearby ranges and from the River Murray. Reticulation of surface supplies now covers most of the Adelaide Plains, Yorke Peninsula and portions of Eyre Peninsula (see map page 365). In addition there are a number of small areas whose reticulated supplies are derived from groundwater sources by means of bores.

Groundwater suitable for various purposes is available in many areas. Pressure water, also referred to as artesian water, is generally confined to the several sedimentary basins located throughout the State. The largest of these, the Great Artesian Basin, 1 700 000 square kilometres in area, of which 310 000 square kilometres lie in the north-east part of South Australia, covers nearly one-third of the State. The intake area for the principal water-bearing bed lies along the western margins of the highlands in eastern New South Wales and Queensland and natural outlets for the water are mound springs which, in South Australia, lie to the west and south of Lake Eyre. Deep bores are necessary to tap these waters and very large flows have been obtained. However, the water is generally too saline for any form of irrigation and its use is confined to stock watering.

The Murray Basin covers 73 000 square kilometres in South Australia and extends into Victoria and New South Wales. The southern and central portions of the Basin contain waters suitable for all purposes while the water quality deteriorates steadily in a north and north-westerly direction from the southern intake area. Very large yields can often be developed from the bryozoal limestone aquifers at shallow depths and also in some places from sand dune and other local aquifers. Groundwater is used to supply the towns throughout the southern area and is also developed for irrigation and stock. At Padthaway near Naracoorte increasing use is being made of flood irrigation from a high-yielding shallower aquifer for vines and pastures.

The Eucla Basin in the south-west of the State lies partly in South Australia and partly in Western Australia. However, because of the low fertility of the area the Basin is of little importance although some of the water, which is of poor quality, is used for watering stock.

The Adelaide Plains Basin is part of the larger St Vincent Basin, lying between the Mount Lofty Ranges and the shores of Gulf St Vincent. Good quality water is obtainable in certain portions of this Basin; it is heavily used for market gardening on the northern Adelaide Plains. The danger of serious depletion of the aquifers by overpumping in this area has been recognised and use is now subject to government control. In the Adelaide metropolitan area groundwater is used from time to time to supplement reticulated reservoir water. Bores constructed for this purpose have yielded up to 70 megalitres a day.



The Pirie-Torrens Basin is a long narrow basin lying west of the Flinders Ranges between Port Broughton and Port Augusta and extending north to the northern end of Lake Torrens. The variable quality of the water from this basin, however, limits its use mainly to stock watering. The high salinity of the Cowell Basin on the west coast of Spencer Gulf causes it to be little used and of minor interest only. Several small basins, Walloway, Willunga, Myponga and others are utilised to various extents for stock and pastoral uses.

Groundwater outside the well-defined sedimentary basins is often available in useful quantities but its location is not so readily defined. Many bores in folded rocks of the Mount Lofty Ranges and elsewhere provide water supplies for towns, farms and for domestic purposes. Much of the extensive water reticulation of Eyre Peninsula is derived from shallow groundwater basins; Lincoln Basin, Uley-Wanilla Basin and Polda Basin together yielding more than 13 megalitres a day.

It is estimated that the usage of underground water in South Australia exceeds 600 megalitres daily for all purposes. The exploration for, and development of, underground water resources is a continuing responsibility of the South Australian Department of Mines which provides the services of geologists and an extensive drilling organisation.

## SOILS

### General

There are many kinds of soils in South Australia ranging from free-flowing sands such as the coastal dunes, to the shrinking and swelling clays of which good examples are found near Bordertown and Tanunda, while some show a marked textural contrast with depth, such as the sand over clay soils of the South East. Not only do these soils differ in their visible attributes, such as their colour, texture, stoniness and degree of slope, but also in the properties, largely unseen, of their chemistry, their relations to air and water, and to the micro-organisms which form the soil flora and fauna.

Undoubtedly the most widespread deficiency is phosphorus—low phosphorus contents are typical of South Australian soils. The gravelly ironstone soils of Kangaroo Island and parts of the Adelaide Hills are among the most impoverished in the world, containing only between 5 and 40 parts per million of phosphorus in their surface soils, whereas the red-brown earths in their natural state contained 200 to 300 parts per million. These figures do not compare favourably with those for the soils of Great Britain, in which 600 parts per million of phosphorus is common. However, soils are changed by the treatment they receive and the phosphorus content of soils in some areas has been so built up over the years that its residual effect is now sufficient to produce a good cereal crop without the further addition of superphosphate.

On the other hand, prolonged clean cultivation in vineyards and frequent cropping in wheatland areas causes deterioration of the structure of surface soils and depletion of nitrogen. The latter deficiency can be remedied by the proper use of legumes, such as medics and clovers, during the pasture phase of the crop rotation in wheatlands. Nitrogen is one of the most mobile of the nutrient elements in soil and is highly susceptible to differences in management.

Some soils which seem to be unique to Australia, such as the mallee soils or calcareous earths, are well represented in this State. The irrigated horticultural

settlements established on these soils along the River Murray have been notably successful, but where dry land arable farming is practised these soils are susceptible to wind erosion.

There are other important features that affect plant growth, such as acidity and alkalinity, supply of trace elements and so on. Information about these and their importance in different localities can be obtained from the South Australian Department of Agriculture and in a bulletin published by the Department entitled *Soils of South Australia's Farm Lands*. The extent of country covered by the different soil groups is illustrated by the *Atlas of Australian Soils* which is being compiled by the Division of Soils, Commonwealth Scientific and Industrial Research Organization (CSIRO). The first sheet of this Atlas, published in 1960, includes the areas of higher rainfall country in South Australia and refers to the many soil surveys made in this State.

A special article on the Soils of South Australia was included on pages 21-31 of the *South Australian Year Book* 1969.

### Building Soils

The building soils of Adelaide and environs are of varying qualities as to stability and bearing capacity. In certain locations shrinking and swelling soils have resulted in considerable foundation failures. These soils, commonly known as Bay of Biscay soils, occur at their worst in areas adjacent to the Mount Lofty Ranges. The best building soils are found in areas along the coast and in a small area to the east of the city.

## 1.4 FLORA AND FAUNA

### FLORA

A broad division of vegetation types is formed by Goyder's Line which represents approximately the 250 millimetre annual isohyet. To the north of the Line, in the Eremaean Province, lies about 80 per cent of the State, experiencing arid to desert conditions where short, erratic growing seasons prevail. Areas to the south, in the temperate region, have climates geared to an equable seasonal cycle of winter rainfall and summer drought.

#### Eremaean Areas

These vast areas of inland South Australia are not well known botanically. Vegetation ranges structurally from low layered woodland, through shrub savannah, to exceedingly sparse vegetation of very low stature (shrub steppe). As in arid situations elsewhere throughout the world, therophytes are well represented and after rain these may transform the scene with prolific but transient herbage. The woody perennial vegetation is of genera adapted to the dry conditions. Predominant trees and shrubs are frequently species of *Acacia* (mulga, myall, ironwood) *Cassia*, *Grevillea* etc. but other genera (*Hakea*,

*Myoporum*, *Casuarina*, and less frequently *Eucalyptus*) are often involved. Some species such as the desert oak achieve a stature comparable with large temperate zone trees. Chenopod shrubs (Blue Bush, Salt Bush) are often prominent in the shrub stratum, and *Triodia* (Porcupine Grass) in the herbaceous cover, but there is considerable diversity in the Eremaean flora. The development of cattle and sheep grazing industries and overstocking for long periods and especially in times of drought has led to the depletion of, and alteration to, much of the vegetation of this area.

### Temperate Areas

In general, vegetation characteristics of the temperate zone of South Australia succeed each other in a fairly predictable sequence from the highest to the lowest rainfalls. Under the high and intermediate rainfalls (about 750-1 000 millimetres) dry sclerophyll forest is well developed, particularly in the Mount Lofty Ranges, where it constitutes a western outlier of the dry sclerophyll forest system occurring in eastern Australia. *Eucalyptus obliqua* and *Eucalyptus baxteri* predominate, but other species such as *Eucalyptus rubida* (the candlebark) are sometimes prominent. Such forest is replete with lesser trees *Acacia melanoxylon* (blackwood) at a lower canopy level and a rich array of sclerophyllous shrubs and sub-shrubs beneath. Most species have generic analogues in equivalent dry sclerophyll forests of both eastern and western Australia. Sclerophyll forest in South Australia has been cut over extensively and is being invaded by aliens. Lower rainfall areas down to about 400 millimetres per annum support mainly savannah woodlands and layered woodlands with South Australian bluegum (*Eucalyptus leucoxylon*) and peppermint gum (*Eucalyptus odorata*) as predominant trees. Associated trees include river redgum (*Eucalyptus camaldulensis*) especially along river and creek frontages, sheoak (*casuarina* spp.), and manna gum (*Eucalyptus viminalis*). In these vegetations the grass stratum is expressed and the shrub stratum rather suppressed. These vegetations are now almost entirely replaced by agricultural areas.

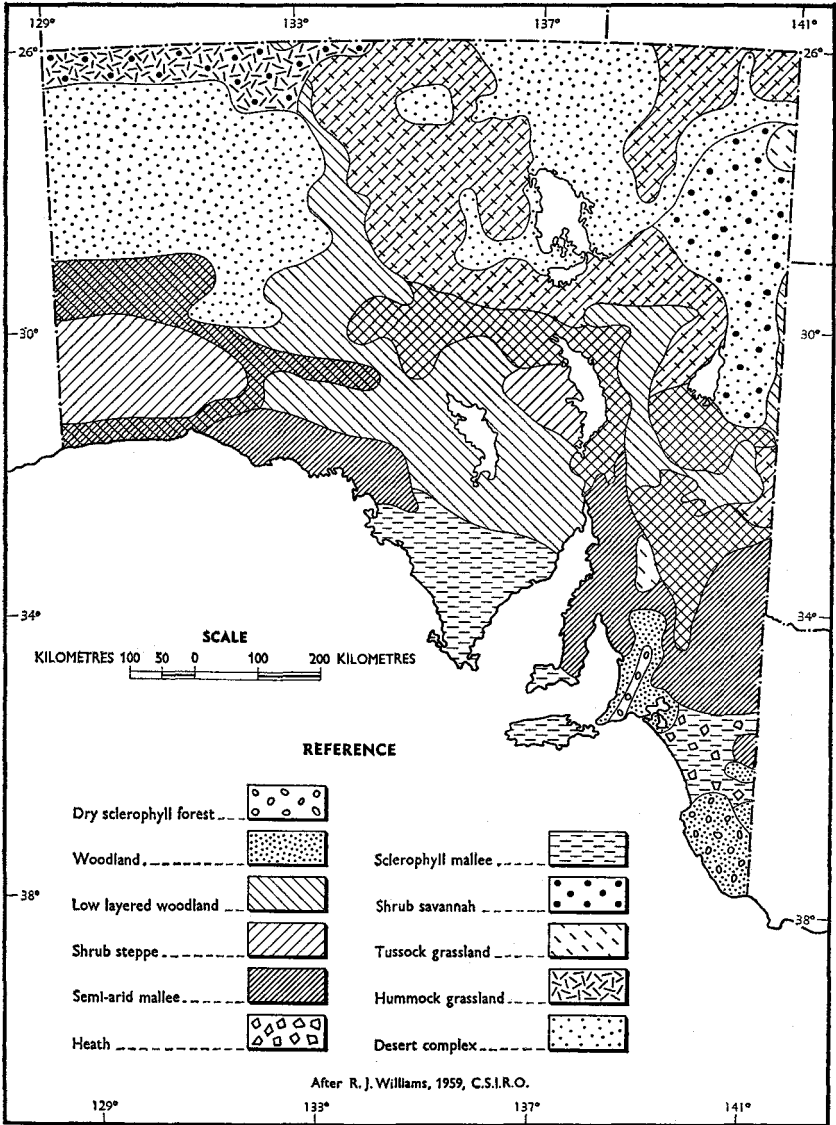
In some places on the lower rainfall extreme of the temperate zone, variant vegetations occurred. These included substantial conifer (*callitris* spp.) and conifer-eucalypt forests and woodlands (particularly in the Flinders Ranges), and areas of pure savannah, as once occurred about Burra.

The simple division of the State into Eremaean and temperate areas needs qualifying on two counts:

(i) *Heath*. Certain higher rainfall temperate areas do not support the expected vegetation as a consequence of limiting soil fertility. The Coonalpyn Downs area is an example. Here low nutrient dune fields are superimposed on the landscape and support only a heath vegetation where the rainfall regime is suitable for woodland. Such 'light land' is the scene of contemporary agricultural expansion.

(ii) *Mallee*. Intercalated between the Eremaean and temperate systems proper, there is developed in South Australia extensive mallee vegetation, dominated by eucalypts, the various stems of which all rise from underground lignotubers. The term 'mallee' refers both to eucalypt species exhibiting this growth habit, and to vegetation dominated by such species. Mallee vegetation is associated in its temperate reaches with heath, and in its Eremaean extensions with various vegetation types.

### SOUTH AUSTRALIA VEGETATION MAP



A more detailed description of the vegetation was included on pages 26-37 of the *South Australian Year Book* 1967 and should be referred to for a description of the plant species included in the vegetation formations shown in the map on page 44 of this issue.

## FAUNA

South Australia, centrally situated and sharing borders with every other mainland State, is in a sense the zoological cross-roads of the continent. A number of typically western, eastern, and northern species extend to some point within the State, which has few species that are uniquely South Australian.

Only 7.8 per cent of South Australia—a fragmented, southern fringe—is favoured with an annual rainfall of 400 or more millimetres; more than 80 per cent receives 250 millimetres or less. The moister areas are restricted mainly to three peninsulas, to Kangaroo Island and the extreme south-east, and these are divided by gulfs, straits, and stretches of drier country. Further north, the semi-arid to arid zone is deeply cut into and split by Spencer Gulf and the central highlands. Because of this geographical background the distribution of South Australian fauna, notably of birds and reptiles, is very complex.

Highly developed agriculture in the limited favourable areas and the widespread pastoral occupation beyond have depleted the fauna, particularly the mammals. A series of national parks and reserves is being established which will preserve samples of the various habitat types and, it is hoped, their indigenous fauna. The National Parks and Wildlife Service controls over 3 million hectares on the mainland (see Part 6.4), and administers the Flinders Chase Reserve (549 square kilometres) on Kangaroo Island which is free from the introduced fox.

The land mammals of South Australia at the time of European settlement numbered about 90 species—some 38 per cent of the total Australian mammal fauna. The two monotremes have survived; the spiny ant-eater is wide-spread but nowhere common, while the platypus (once found in the River Onkaparinga as well as in the River Murray) is extremely rare except where it has been introduced in Flinders Chase. The marsupials have been affected most severely; more than a quarter of the 50 or so species are now extinct in South Australia although a number of these survive beyond the State. Originally the marsupial fauna was relatively rich with some 45 per cent of the total number of Australian species represented.

Marsupials that are still common are the brushtailed possum (*Trichosurus vulpecula*) and the western grey kangaroo (*Macropus fuliginosus*). In the dry interior the red kangaroo (*Megaleia rufa*) at times greatly increases in numbers, probably because of changes caused by livestock grazing and the provision of extra water. Today South Australia is almost the sole custodian of the hairy-nosed wombat (*Lasiorninus latifrons*) which is still numerous in the far west of the State but elsewhere the species has been reduced to a few small isolated colonies.

Of the native placental mammals possibly one of the 15 or so species of bats and three or four of the 18 rodents have become extinct.

A special article on the mammals of South Australia was included on pages 42-9 of the *South Australian Year Book* 1970.

About 400 of the 700 species of Australian birds have been recorded in the State, a number that includes 40 or more vagrants and non-breeding visitors. Many species have declined greatly since settlement but probably not more than two have become extinct. The diminutive Kangaroo Island emu disappeared soon after the European settlement and the night or spinifex parrot (*Geopsittacus occidentalis*) is probably extinct in South Australia.

Many species of birds can be observed close to Adelaide in the Mount Lofty Ranges and on Kangaroo Island. Mallee areas with their lower rainfall are moderately rich in bird life although the removal of native flora has caused the disappearance of many in certain districts. Within the State may be found the boundaries between numerous western and eastern species and sub-species of birds.

A special article on the birds of South Australia was included on pages 28-40 of the *South Australian Year Book* 1972.

Well over 100 species of reptiles have been recorded. Of the few that are peculiar to the State, the white dragon lizard (*Amphibolurus maculosus*) found on the salt-encrusted margins of Lake Eyre and other inland playas is of particular interest. Undescribed species of lizards are known to occur in the Flinders Ranges. A special article on the reptiles of South Australia was included on pages 32-42 of the *South Australian Year Book* 1973.

The nineteen species of frogs include one that is restricted to the State. This number is only 16 per cent of the Australian frog fauna (123 species) and reflects, in large degree, the predominantly arid nature of the State.

Marine and freshwater fishes number about 390 species—not a very rich fauna for a State with a coastline of 4 000 kilometres. There is, however, an abundance of certain species of economic importance. A special article on the freshwater fish of South Australia was included on pages 27-34 of the *South Australian Year Book* 1971.

The insects of the coastal regions show affinities with those of similar regions to the east and west, while many of the restricted number of species of the inland extend widely through arid Australia.

Among insect groups that are prominent elsewhere in Australia but are scarce in this State are butterflies and cicadas, while insects that depend on permanent streams or swamps, such as dragonflies and caddisflies, are rather poorly represented. Similarly, few species of freshwater crustaceans occur. In eastern and western Australia hosts of wasps, native bees, jewel beetles and other insects are attracted to the flowers of native shrubs in spring and summer. These insects are less numerous in South Australia largely because of the nature and limited extent of the bushland.

Among the restricted range of insects of the arid interior are a number of interesting forms. Of these certain desert-adapted grasshoppers (*Acridiidae*) are notable. Other groups with specialised species are lacewings (*Neuroptera*) and beetles and moths. Some are never abundant but the populations of others may fluctuate enormously. Moths can prolong the pupal stage to survive dry periods and may emerge in great numbers after heavy rain.

## PART 2

# EXPLORATION AND COLONISATION

### EXPLORATION BEFORE COLONISATION

The Dutch made the first recorded discovery of Australia in 1606 on the Gulf of Carpentaria, and Dutch ships were sighting Western Australia from 1616 onwards. It was in 1627 that the first part of the South Australian coast was discovered when the *Gulden Zeepaard* under the command of Francois Thyssen examined the coastline from Cape Leeuwin to the islands of St Francis and St Peter in the far west of South Australia. On board the *Gulden Zeepaard* was Pieter Nuyts, 'Councillor Extraordinary of India', after whom this area was named 'A Landt Van P. Nuyts'.

As the South Australian coast presented no evidence of prospects for trade, the Dutch, being essentially a trading nation, were not inclined to closer investigation. Indeed, so little interest was displayed in this section of the Australian coastline that it was 165 years before the next recorded sighting of South Australia was made, and this was by a French explorer.

Rear-Admiral D'Entrecasteaux, who had been searching all around Australia for the lost French explorer La Perouse, sighted land south of Cape Leeuwin in December 1792 and examined the cliffs of the Australian Bight. He sailed to the head of the Bight, but then after so many miles of barren coast abandoned hope of finding anything other than desolate country, and sailed south for Van Diemen's Land. The early impressions of the South Australian coast were therefore most unfavourable and tended to discourage further investigation.



The British who followed were far more interested in the possibility of colonisation to help ease their population problem at home, and consequently, once the effects of early discouragement had worn off, they began to take an interest in South Australia as a possible site for a new colony. Lieutenant James Grant was the first British explorer to sail along the South Australian coast, sighting the extreme easterly shores of South Australia about 1800. While in Cape Town he had been informed of the discovery of Bass Strait and was instructed to sail through it in the *Lady Nelson* on his way to Port Jackson. Sailing along the extreme south-east coast he named Cape Banks, Cape Northumberland, Mount Schank and Mount Gambier.

The first notable British contribution to the exploration of the South Australian coast came, however, with the voyages of Matthew Flinders in the *Investigator*. With the support of the President of the Royal Society, Sir Joseph Banks, Flinders sailed from England on 18 July 1801. On his voyage of circumnavigation of the Australian continent he thoroughly explored the coast of South Australia between January and April 1802. In addition he discovered the Gulfs and Central Highlands, thus solving the question of whether a north-south strait divided the Australian continent in two. More important was the fact that Flinders reported very promising country for settlement. Many places along the coast carry the names given by Flinders; several of these were named after places in his home county of Lincolnshire, e.g. Port Lincoln, Sleaford, the Althorpes and Boston Bay, while others include unusual names such as Backstairs Passage, The Pages, and Antechamber Bay. Flinders was in fact the first man to explore South Australian waters between Nuyts Archipelago and Encounter Bay. It was at Encounter Bay on 8 April 1802 that he met Captain Nicolas Baudin, the French explorer, heading along the coast from the east in *Le Geographe*.

Baudin, in command of *Le Geographe* and accompanied by *Le Naturaliste*, left Le Havre in October 1800 with instructions to explore several specified regions including the then unknown portion of the southern coastline of Australia. After being delayed in the East Indies and Van Diemen's Land, Baudin sailed westward and charted the mainland coast from Western Port to Encounter Bay, where he met Flinders. The object of Baudin's expedition was to make scientific discoveries on behalf of Napoleon, but he had wasted considerable time *en route*. Thus most of the South Australian mainland coast was discovered before him by Grant and Flinders, and he was the original explorer of only a small section between Cape Banks and Encounter Bay. Some French names still remain, for example Lacepede Bay, Guichen Bay and Rivoli Bay. After the meeting at Encounter Bay, Baudin sailed further westward and along the northern shore of Kangaroo Island to Murat Bay, before being forced to abandon further exploration and to return to Port Jackson in June 1802. However, after re-equipping his expedition and with the addition of another ship (*Casuarina*) for charting work in shallow waters, Baudin returned to the South Australian coast by way of King Island in Bass Strait. Leaving King Island on 27 December Baudin in *Le Geographe* and Freycinet in command of *Casuarina* headed direct for Kangaroo Island where they circumnavigated the whole island and charted its coast, being the first to chart its southern and western shores. This was to be the last major contribution made by an official French expedition to exploration of the South Australian coast.

Although these discoveries on the South Australian coast did not lead to any immediate colonisation, there began an increasing series of visits by sealing vessels

to Kangaroo Island. A group of American sealers built a schooner on the island in 1804, while wild gangs of sealers and runaway convicts were forming settlements from 1806 onwards. In addition, French exploration in the area had led to a fear on the part of the British authorities that it might result in French colonisation, and, although not greatly valuing the area for itself, the British would have found it an embarrassment to have the French settled on the Australian continent. As a result, in 1804, the British sent Grimes, a government surveyor, to Kangaroo Island to report on it as a possible site for colonisation. The Grimes Report was most unfavourable, stating that the soil was poor and that the island lacked fresh water. On the other hand, in 1819 a Captain Sutherland visited the island and wrote an over-optimistic report on its future. It was this report which later led the South Australian Company into establishing their first station there in 1836.

In the period between 1804 and 1836 a number of further discoveries took place at various parts of the South Australian coastline by Captains Dillon (1815-16), Goold (1827-28), Hart (1831-33), and Jones (1833-34), together with the discovery of Lake Alexandrina by a group of sealers in 1828. Reports of this period were marked by contradictions regarding the suitability of South Australia for settlement. However, contradictory as were these accounts reaching England, they managed to convince the founders of South Australia even before 1830 that the available fertile land was more than adequate for the founding of a colony.

The most significant explorations of the period immediately before colonisation were those of Captain Charles Sturt, who explored the Murray River from New South Wales down to its mouth; traversed Lake Alexandrina and located the Goolwa channel, reaching the western shore of the Murray mouth on 12 February 1830. Captain Sturt's journey has become something of an epic in Australian history; with a small party of soldiers and convicts he rowed 2 700 kilometres on the Rivers Murrumbidgee, Darling and Murray. They suffered from desperate weariness, endured a distressing lack of provisions, and were periodically attacked by Aborigines. However, the main object of Sturt's journey was accomplished; the settling of the long insoluble 'problem of the rivers' of south-eastern Australia. But the real significance to South Australia was more than the mere settling of what was little more than an academic question, for his discoveries opened up 3 200 kilometres of navigable inland waterway and gave to Gulf St Vincent, which lay so near the mouth of the Murray, a new significance. It was the age of canal building in Europe and of the development of the Mississippi in America, so that navigable water was considered of prime importance. The exuberance felt by everyone interested in South Australia at such a discovery is typified by the Wakefield theorists who believed that the entire produce of eastern Australia would eventually be shipped from this area. In fact the Murray became the grand attraction of the scheme. However, Sturt's own fervour at this stage was somewhat cooler than that of interested persons in England for there was one great disappointment which marred his discovery—the Murray lacked a sufficiently safe navigable mouth. Sturt found that the Murray flowed into a series of shallow lakes and a sand-blocked mouth. So little did Sturt's contemporaries understand the earth movements and land formation of the area, that their only

conclusion was that there must somewhere be another channel emptying the waters of the Murray into the sea. So, the 'problem of the rivers' was replaced by the 'mystery of the Murray mouth'—and official action was to be taken promptly to solve this mystery.

Governor Darling of New South Wales sent Captain Collet Barker to the southern coast to try to solve the problem of the Murray. Barker, landing at Noarlunga on 17 April 1831 ascended Mount Lofty and then returned to his ship, the *Isabella*, and examined Port Adelaide. After landing again at Rapid Bay, he crossed the hills to the Murray, thus proving that the river had no westerly outlet. Barker's expedition came to a tragic end when, under mysterious circumstances, he was apparently murdered at the Murray mouth by the usually peaceable Narrinyeri natives. This was the first of a long series of tragic deaths, mainly arising out of navigational difficulties, in the area of the Murray mouth which tended to cast a hoodoo on its navigation later. Barker's party, however, reported fertile country in the region and the existence of a pass from the Murray mouth to Rapid Bay on Gulf St Vincent. While Barker's expedition proved without doubt that there was no really navigable connection between the Murray and the sea, it added to the rapidly growing volume of favourable accounts of the fertility of the region around Gulf St Vincent. Interested people in England were so obsessed with the geographical fact of the great Murray waterway opening up the centre of Australia that they barely registered the unfavourable accounts of its egress to the sea.

Probably the greatest encouragement for the settlement of South Australia came from Charles Sturt himself who, after his return to Sydney in May 1830, wrote *Two Expeditions into the Interior of Southern Australia* (published in 1833), in which he said: 'My eye never fell on a country of more promising aspect, or more favourable position, than that which occupies the country between the lake and the ranges of St Vincent's Gulf, and continuing northward from Mount Barker, stretches away without visible boundary'. This glowing report, together with that of Barker's expedition, was welcomed by those in England seeking a suitable site to establish a colony where the principles of the Wakefield Plan could be applied without restriction. Sturt spared no efforts in converting opinion to the potentialities of South Australia and, as well as his *Two Expeditions*, he wrote a private letter to the Colonial Office on 17 February 1834. Sturt actually marked the present position of the Outer Harbor at Port Adelaide as the proper and natural site for the capital. 'It is in the angle formed by the creek with the coastline that I would recommend the formation of a township, . . . because it appears to me that when the distant interior shall be occupied and communication established with the lake and valley of the Murray, the banks of this creek will be the proper and natural site for the capital . . . The level country to the north would be overspread, the valley of the Murray would be peopled, every available spot would be located, and its numerous ramifications would afford pasture for thousands of cattle'. In his reasons for this opinion he showed more foresight than he was to do later when, in disagreement with Colonel Light, he supported those who wished to move the capital to Encounter Bay.

Colonel William Light, who had been appointed Surveyor-General of the new colony, sailed from England in the *Rapid* on 4 May 1836 with instructions

to select a site for the capital of the colony. After a brief visit to Encounter Bay, during which he unhesitatingly rejected that area as being unsuitable, he landed at Nepean Bay on Kangaroo Island where some South Australian Company ships had already established a settlement. From here Light explored the east coast of Gulf St Vincent. Then, pressed for time by the unexpected arrival of the new settlers, he was able to make only a quick trip to Port Lincoln and a brief inspection of part of the west coast of Gulf St Vincent before, in concurrence with Sturt's earlier opinion, he decided that the most suitable site for Adelaide was on the banks of the small, but centrally situated, River Torrens.

### COLONISATION

The colonisation of South Australia was in itself an experiment involving certain new principles and was to represent a turning point in British colonial policy. The period was conducive to colonisation as in Britain there was widespread unemployment and poverty, the popular remedy for which was emigration. Nevertheless the somewhat revolutionary nature of the plans was to result in seven years of negotiation and considerable modification of early ideas before the colonisation of South Australia was finally approved.

The theoretician was Edward Gibbon Wakefield, whose ideas were contained in a number of writings including the now famous *A Letter from Sydney* series, written in 1829 while he was imprisoned in Newgate Gaol. Wakefield's plans involved three broad principles: the sale of land; the use of the receipts for sponsoring emigrants; and the granting of some measure of self-government. Drawing on developments in New South Wales Wakefield argued that the then current system of giving away vast tracts of land to settlers resulted in an imbalance between land and labour. It was therefore desirable to restrict land distribution and increase the labour supply, and this could be done by selling land at a suitably high price to prevent all labourers becoming landowners and by devoting the proceeds to free passage for a carefully selected labour force.

At the same time, following conflicting observations by early explorers, encouraging reports of the South Australian coastline filtering in from traders and seamen gave rise to moves for the practical application of Wakefield's ideas for the founding of a colony in South Australia.

The first attempt to form a colony was made by Robert Gouger who, having met Wakefield in Newgate Gaol in 1829, was so impressed with his ideas as to approach certain interested parties with a view to purchasing a tract of land in South Australia. He was unable, however, to gain sufficient support to interest the Colonial Office in his plans.

In 1830 the National Colonization Society was formed with Gouger as its secretary. The Society served to further disseminate Wakefield's principles, but was not directly associated with plans for a colony in South Australia.

Renewed interest in colonisation followed the first of Captain Sturt's enthusiastic reports of the land of the lower Murray and in 1831 a group of intending settlers, still enthused with the ideas of Wakefield, formed the South Australian Land Company. A committee headed by Colonel Robert Torrens approached the

British Government for a charter and then made preparation for the first voyage. The Government was not prepared to grant the necessary territory, and negotiation continued until 1833 when the Company finally conceded that the Government was unlikely to approve any plans involving a chartered colony.

From the same core of enthusiasts who had supported this and earlier ventures there emerged in 1834 the South Australian Association. This group was prepared to abandon hopes for a chartered colony, conceding the issue of self-government, provided that the enabling legislation accommodated Wakefield's other principles for land sales and migration. The passage of the legislation was by no means smooth; the scheme was new and involved untried principles, and knowledge of the territory was still extremely limited.

Doubts on the suitability of the site were to be largely dispelled by the writings and personal representations of Sturt and the confirmatory expedition by Barker, and finally in July 1834 legislation for a colony in South Australia was put before Parliament. This legislation represented a considerable compromise on earlier plans.

The South Australian Colonization Act (4 & 5 William IV. Cap. 95) was assented to on 15 August 1834; the persistent efforts of Gouger, Torrens, and many others for a settlement in South Australia had finally borne fruit, and at least some of the ideas of Wakefield were to be tried. The territory allotted under the Act embraced 802 508 square kilometres, with the western boundary the 132nd meridian of east longitude and the other boundaries virtually as they are today. The colony was to be opened to settlement by British subjects, but under no condition were convicts to be admitted, making South Australia the only State to be settled entirely by free persons. Authority was to be divided, with the Colonial Office through the Governor controlling all affairs of government except land sales and immigration, these fields being reserved to a Board of Commissioners. Provision was made for self-government upon the population reaching 50 000. All land alienated by the Crown was to be sold at a price of not less than '12 shillings' (\$1.20) per acre and the whole of the proceeds used in 'conducting the emigration of poor persons from Great Britain and Ireland'.

Although Parliament was prepared to authorise the experiment it was not prepared to finance it; the colony was to be self-supporting. The Commissioners were accordingly authorised to borrow \$400 000 against future general revenue to finance the founding of the colony and the establishment of government, and \$100 000 against the sale of land to start the migration program. Finally, the Act contained two conditional clauses which were to harass the whole venture and served to delay colonisation another twelve months. The first of these conditions, which were to be satisfied before the Commissioners could exercise their general powers, required that government securities to the value of \$40 000 be lodged as a guarantee for the venture. Secondly land to the value of \$70 000 was to be sold before settlement.

A Board of Commissioners with Torrens as chairman was appointed early in 1835. The Board immediately offered land in the new colony at \$2 an acre including rights to a city acre with every 80 acres of rural land. In spite of considerable publicity, unsurveyed land in an unknown colony proved difficult to sell, and with less than half the land sold the price was reduced to the permitted

minimum of \$1.20 an acre. Finally, George Fife Angas, a member of the Board, together with two others took up the balance of the land on behalf of the South Australian Company, which was then in the process of being formed.

In December 1835 with sufficient land sold and with the \$40 000 guarantee lodged with the Treasury, the Commissioners were free to begin the business of colonisation. The South Australian Company was formed in January 1836, and in February two ships of the Company, the *John Pirie* and the *Duke of York*, sailed for Kangaroo Island to establish a settlement. Another Company ship the *Lady Mary Pelham* followed soon after.

The *Cygnets* carrying the Deputy Surveyor, G. S. Kingston and his staff left at the end of March and the *Rapid* with Colonel William Light, Surveyor-General on board departed at the beginning of May. One of Light's most important tasks was to choose a site for the first settlement and details of his early movements are given on pages 49-50. The first Company vessels reached Kangaroo Island in July, and colonists arrived at Adelaide from early November. The first Governor of the colony, Captain John Hindmarsh RN, arrived at Holdfast Bay on 28 December 1836 and the new colony was officially proclaimed on the same day. By this time some 300 colonists were already in residence. Hindmarsh was to remain in the colony for eighteen months, a period marked by political feuding and very little progress.

The one outstanding feature of the first two years was the work of Light. Expected to carry out difficult tasks with an inadequate staff Light first had to contend with opposition to his choice of a site for Adelaide. His views prevailed and the city was surveyed to his plan and the land was allotted by March 1837. There were 700 one-acre lots in Adelaide south of the River Torrens and 342 one-acre lots in North Adelaide. Victoria Square was situated in the centre of the City and there were four other squares in Adelaide as well as one in North Adelaide. An important feature in Light's plan was the extensive parklands surrounding the City.

The survey of country land for the preliminary purchasers proceeded very slowly and it was not until May 1838 that the first ballot for country sections was held. At the same time the survey staff were becoming increasingly disgruntled with the unrealistic demands of the Commissioners and in June almost the entire staff resigned. Light died in October 1839.

While the preliminary survey was in progress the settlers remained in Adelaide where their energies and resources were largely devoted to speculation in town lands and in land orders, and where supplies had to be imported with a corresponding outflow of capital. Superimposed on this situation was the continual arrival of new immigrants who served only to increase the volume of the unemployed.

Much of the inactivity of the colony was brought about by constant clashes between Hindmarsh and the Resident Commissioner J. H. Fisher, which finally led to the dismissal of Fisher and the recall of Hindmarsh in July 1838. It was realised that the divided authority as incorporated in the Colonization Act was impracticable, and the next Governor, Colonel George Gawler, was authorised to represent both the Crown and the Commissioners.

Appalled at the stagnation of the colony, Gawler immediately undertook a liberal spending program. Surveying was considerably increased with the result that 200 000 hectares had been surveyed by mid-1841. At the same time

an extensive public building and works program provided relief for the unemployed. Generally Gawler created a renewed state of optimism which remained until 1840 when land values were depreciated and sales declined. Immigrants continued to arrive throughout this period.

Most of Gawler's expenditure was met by bills drawn on the Commissioners in London. In 1841 a situation was reached where the Commissioners could no longer honour these bills and Gawler was summarily replaced by Captain George Grey. The Imperial Parliament met the bulk of the debts, and in 1842 the Board of Commissioners was abolished. Thus the small measure of independence which the Board represented disappeared and South Australia became an ordinary Crown Colony.

The term of office of Grey was in contrast to that of Gawler, with Grey imposing rigid economies. Public expenditure was cut and considerable unemployment with its accompanying hardships followed. Speculation ceased and the unemployed gradually left Adelaide to be absorbed on the lands which Gawler had opened up. By this time the flow of immigrants had ceased with the suspension of the assisted migration scheme.

By 1844 the colony was producing wheat in excess of its needs and when Major Robe succeeded Grey as Lieutenant-Governor in 1845, South Australia finally became self-supporting. Moreover prosperity was on the doorstep; copper had been located at Kapunda in 1843 and a major find was made at Burra in 1845. Heavy immigration followed these discoveries and continued until the Victorian gold rush. Copper soon became the principal export, with wool providing a complementary cargo. In addition, the repeal of the Imperial Corn Laws in 1846 and the Navigation Acts in 1849 strengthened the export trade in grain.

The discovery of gold in Victoria in 1851 had a two-fold influence on the development of South Australia. In the first place it drained off a large proportion of the skilled artisans and forced the closing of the copper mines. Secondly it gave great impetus to agriculture when the price of wheat rose sharply—the feeding of the miners became as attractive a proposition as was the actual mining. Four years later, when the miners returned, many of the more fortunate purchased land with their winnings.

At the same time political changes were taking place and in 1856 South Australia attained self-government.

### EXPLORATION AFTER COLONISATION

Only a minor portion of the area proclaimed as South Australia was to prove economically viable, but extensive exploration with its accompanying hardships was necessary to establish this fact. Post-colonisation exploration was of two forms; the first being the continuous process of discovery as settlers sought grazing and crop lands and sometimes mineral resources, and the second the more deliberate activities of the professional explorers as they sought to cover vast distances through unknown terrain.

The earliest exploratory moves of the colonists were directed towards establishing an overland route between Adelaide and Encounter Bay, and in discovering a north-easterly passage to the River Murray that would by-pass

the Mount Lofty Ranges. Contact was first made with Encounter Bay in about July 1837 by Colonel Light and J. H. Fisher, and in December of the same year an expedition by Strangways and Hutchinson played a further important part in making contact with the River Murray by driving a bullock cart across the ranges to Encounter Bay, and then exploring the Murray mouth, the Goolwa channel and the southern part of Lake Alexandrina. The north-easterly route to the Murray was first traversed successfully early in 1838. Penetration of the Mount Lofty Ranges began in 1837, and by the end of the year parties had crossed the ranges and descended to Lake Alexandrina.

From the beginning of 1838, attempts were made to open up stock routes from the eastern States. Joseph Hawdon and Charles Bonney were the first to make an overland cattle drive to Adelaide. Leaving Hawdon's station near Albury on 13 January 1838 with a party of seven men, they took a route which followed the Murray for much of the way, and reached Adelaide in eleven weeks with the cattle in good condition and only four head out of 300 lost *en route*. At the same time, Edward John Eyre was making a similar cattle drive, but after unsuccessfully trying to find a suitable trail south of the Murray, he was forced to make his way back to the Loddon River and then follow the trail taken by Hawdon and Bonney. In another journey starting in 1838, Eyre became the first to bring sheep overland to Adelaide, driving 1 000 sheep and 600 cattle along the Hawdon trail. Charles Sturt was another to make an early stock drive to Adelaide, while Bonney in 1839 pioneered an alternative route which followed the south-east coast of the State and crossed the Murray above Lake Alexandrina.

Other parts of the State were also attracting attention. A section of Yorke Peninsula was visited in 1838, and in the following year a number of expeditions were made into the hinterland of Port Lincoln. Thus by 1840 the area within a 80 kilometre radius of Adelaide had been explored for pastoral, farming and mineral lands. Settlers had also ventured by boat along the Murray, by boat to Port Lincoln and thence inland, and by boat and overland to Yorke Peninsula. Reports by drovers who came down the Murray suggested that the land on the other side of the Murray was of little immediate value. It was soon to be realised, however, that very different conditions prevailed in the Lower South East, and by the mid-1840s this area was supporting a considerable sheep population.

Knowledge of the arid interior and of the far west coast was to be obtained from a number of major expeditions, the first such venture being led by Edward John Eyre. In 1839 Eyre journeyed north to Mount Arden, at the head of Spencer Gulf, where he established a base camp. From Mount Arden he made the first sighting of the dry bed of Lake Torrens. Crossing to Port Lincoln, Eyre proceeded up the west coast of the peninsula which was to bear his name, passed through Streaky Bay, and came to within 80 kilometres of the Western Australian border. The return journey to Mount Arden camp was made across the top of Eyre Peninsula.

The interest of the colonists was now divided between the country to the northward, including Eyre's new-found lake, and the possibility of establishing an overland stock route to Western Australia. Eyre having just returned from the desolate country of the Great Australian Bight showed little enthusiasm for the latter idea, and in June 1840 set out for the north. From Mount Arden he



made three attempts to penetrate beyond the lakes, but after following the Flinders Ranges to Mount Hopeless and making a number of observations, he concluded that Lake Torrens was a giant horseshoe-shaped salt lake forming an impassable barrier. This erroneous belief was to persist for eighteen years.

Thwarted in his efforts to go north, Eyre decided to attempt the western crossing. Leaving Mount Arden the party separated, one group going direct to Streaky Bay while Eyre went down to Port Lincoln. The party reformed at Streaky Bay and moved to Fowlers Bay, where a camp was established in November 1840. After a number of preliminary explorations around the Bight, Eyre and a small party set out for King George Sound (Albany) in February 1841, having sent the remainder of the party back to Adelaide. Eyre arrived at King George Sound in July after an extremely tortuous crossing.

In 1842 and 1843 the Surveyor-General, Colonel Frome, made two trips to the Lake Torrens region in an attempt to determine the nature of the area. However, after reaching a 'desert-like' Lake Frome (which he believed to be part of Lake Torrens) he turned back, making two short thrusts to the east on the return journey. Frome had seen enough to be able to report that there was no country as far as the meridian  $141^{\circ}$  (and probably much beyond it) available for either agricultural or pastoral purposes.

Captain Charles Sturt, whose earlier journey down the Murray had helped precipitate the colonisation of South Australia, was again to contribute to South Australian exploration. Considerable mystique had developed concerning Central Australia, including the rumoured presence of an inland sea, and in August 1844 Sturt set out from Adelaide in an effort to unveil this area. Hoping to avoid the supposed horseshoe lake, Sturt followed the Murray and Darling Rivers to Menindee. After passing through Broken Hill and seeing Eyre's Mount Hopeless from the other side of the lakes, the party moved to Mount Poole some 300 kilometres north of Menindee. Here they rested for six months while waiting for rain to fall. In July 1845 Sturt set off in a north-westerly direction crossing Sturt's Stony Desert and the north-east corner of the State. Although temporary relief was provided by Eyre Creek, the course of which they followed for some considerable distance, the desert nature of the subsequent terrain forced the party to turn back when very close to their central goal, and only 800 kilometres from the Gulf of Carpentaria. A second assault on the desert also failed, although Sturt explored along Cooper Creek for almost 150 kilometres before returning to the base camp and thence to Adelaide in January 1846.

In 1846 John Horrocks led a small party north from his station, Penwortham, through the Flinders Ranges *via* Horrocks Pass (so named by the party) and on to a camp site at Depot Creek. The party had brought with them the only camel then in the colony, the first time one had been used for exploration work in Australia. From Depot Creek Horrocks made two trips, the first of about 30 kilometres and the second about 100 kilometres to Lake Dutton where, jostled by his camel, he accidentally shot himself, thus bringing the expedition to an early end, but not before he had formed the opinion that there was no suitable pastoral land in that direction. Horrocks died of his wounds about three weeks later.

Further to the west a small expedition led by John Darke explored country to the north and east of the Gawler Ranges, and concluded that there was no useful land for settlers in this region. On his way home to Port Lincoln Darke

was mortally wounded by natives near what is now known as Darke Peak. In 1857 Stephen Hack explored the country west of Lake Gairdner and found useful pastoral country at the south-western end of the Gawler Ranges.

At about this time the northern lakes again became a centre of interest. In 1856 there had been considerable rainfall in the area, and when the Deputy Surveyor-General, G. W. Goyder, visited Lake Torrens he found an inland sea surrounded by excellent vegetation. Goyder's glowing report was, however, discounted by a return journey the following year. Indeed the extremely fickle seasons experienced in the north were to lead to many conflicting reports as the explorers and settlers moved northwards. Between 1857 and 1859 several exploratory expeditions visited the region of Lake Torrens and it was during this period that the myth of the horseshoe lake was destroyed. Knowledge of the lakes district was extended by B. H. Babbage, who discovered Lake Eyre in 1858, and Major P. E. Warburton, who located the first stock crossing. A. C. Gregory, coming south from Queensland in search of Leichhardt, passed between the lakes *en route* to Adelaide in 1858.

At the same time parties were searching for pastoral country in the north, with the most extensive search being made by John McDouall Stuart in 1858. Stuart, who had been in Sturt's party in 1844, set out from Mount Arden, passed to the west of Lake Torrens, and circled north of Coober Pedy, returning to Mount Arden *via* Fowlers Bay. In the meantime the South Australian Government was offering a reward for the first successful north-south crossing of the continent, and after making two exploratory journeys to the north in 1859, Stuart set out in March 1860 to attempt such a crossing.

Stuart had an advantage over Sturt in that the intervening years had revealed the lakes to be passable and thus he was virtually able to begin his expedition at Chambers Creek at the southern tip of Lake Eyre, and to pass through known country as far as The Neales watercourse. Stuart reached the MacDonnell Ranges in the Northern Territory in April, and later the same month estimated that he had reached the centre of the continent. His attempt to reach the northern coastline was thwarted however, and in June he turned back. In a second attempt in 1861 he followed the same route and this time reached Newcastle Waters before being forced to return. At his third attempt Stuart was successful, reaching the sea on 24 July 1862 and establishing a route which was to be followed by the Overland Telegraph 10 years later. A special article on the Overland Telegraph Line was included on pages 526-31 of the *South Australian Year Book* 1972.

While Stuart was making his second attempt to reach the north, the ill-fated Burke and Wills expedition was crossing the continent further to the east. Their journey took them across the north-east corner of the State along much the same path as that followed by Sturt some seventeen years earlier. In 1861 and 1862 parties led by Alfred Howitt, who left from Melbourne, John McKinlay from Adelaide, were to pass through the same area in search of Burke and Wills. After finding traces of the expedition on Cooper Creek, McKinlay pushed east and then north, to reach the Gulf of Carpentaria.

The construction of the Overland Telegraph between 1870 and 1872, and the subsequent maintenance of this link between Adelaide and Darwin, naturally led to minor exploration of the adjacent country. At this stage attention turned to the land between the telegraph line and the settlements of Western Australia.

Foremost among the explorers of this region, and whose paths brought them within South Australia, were John Forrest and William Ernest Giles. In March 1870 Forrest left Perth for Adelaide, covering much the same path as Eyre had taken 30 years earlier. Forrest crossed South Australian territory again in 1874 when he travelled from Geraldton in Western Australia across the centre of the continent, coming down the Alberga watercourse to Peake telegraph station.

Giles had set out from the Overland Telegraph in 1873 at a point north of Oodnadatta, but was forced to return after covering approximately half the distance to the western seaboard. He tried again in May 1875, this time going south from Beltana to Port Augusta and then to Ooldea on a route which forty years later was to be closely followed by the east-west railway. From Ooldea the party went north for over 170 kilometres before again striking out to the west. Giles reached Perth in November, and three months later left Geraldton to return to South Australia on a route similar to that taken by Forrest two years earlier, arriving at Peake telegraph station in August 1876.

In 1873 W. C. Gosse, returning from an unsuccessful attempt to reach Perth from Alice Springs, discovered and named the Musgrave Ranges.

A number of persons other than those mentioned contributed to the exploration of the State, both in the period discussed and subsequently. The inhospitable nature of the country meant that many areas had to await the coming of the aeroplane before an accurate physical description could be recorded. One such expedition was that led by Donald Mackay in 1935 when the western half of the State north of the east-west railway line was aerially surveyed.

## **CONSTITUTION AND GOVERNMENT**

### **3.1 SYSTEM OF GOVERNMENT**

South Australia is one of the six Australian States (originally constituted by Acts of the Imperial Parliament) which at Federation in 1901 ceded many of their powers on matters of national importance (*e.g.* international affairs and defence) to the Australian Government. From time to time other powers on matters of local importance have been delegated to local governing bodies. As a result the people of South Australia are subject to the laws of a three-tier system of government. In addition statutory powers within specified fields are exercised by certain public corporations such as the Municipal Tramways Trust, the Electricity Trust of South Australia, the South Australian Housing Trust and the South Australian Meat Corporation.

Both the Australian and the South Australian Parliaments are bicameral: in each the leader of the Government (the Prime Minister of Australia and the Premier of South Australia) is seated in the Lower House and in each the Upper House has restricted powers concerning money Bills.

#### **Electorates**

For elections for the Upper House (Senate) of the Australian Parliament each State is a single multi-member electorate. South Australia is divided into twelve and forty-seven single-member electorates respectively for the Lower Houses of

the Australian Parliament (House of Representatives) and of the State Parliament (House of Assembly). For recent elections for the State Upper House (Legislative Council), South Australia has been divided into five multi-member electorates, but as a result of the passing of the Constitution and Electoral Acts Amendment Act, 1973, the entire State will become one multi-member electorate for future elections.

Although it is the respective Parliaments alone which have the power to make changes in the number, size, and distribution of electorates, it is customary to appoint electoral commissions to recommend in these matters.

The terms of the Australian Constitution provide for changes in House of Representatives electorates in certain eventualities, but in the South Australian Parliament changes in electorates for either House can be effected only by amendment to the State Constitution.

Because of a prescribed relationship between population and the distribution of House of Representatives electorates, Australian Government electoral commissions are usually appointed after each Census to consider the effect of changes in the distribution of population and, if necessary, to suggest alterations to the boundaries and distribution amongst the States of Lower House electorates. In South Australia the boundaries of electorates are defined in a schedule to the State Constitution; there is no prescribed relationship between population and electorates, and electoral commissions are appointed at irregular intervals.

### **Party System**

Most members of both the Australian and the South Australian Parliaments are elected by the voters from candidates pre-selected and endorsed by the major political parties. Once policy has been determined at a party meeting, members usually observe party solidarity; speaking, voting, and acting in accordance with that policy both in and out of Parliament whether the party be in government or in opposition.

### **Cabinet and Executive Government**

For both Australia and South Australia, executive government is based on the system which was evolved in Britain in the eighteenth century and which is generally known as 'cabinet' or 'responsible' government. Its main principles are that the head of the State, Her Majesty the Queen (or her representative, the Governor-General or Governor, acting on her behalf) should perform governmental acts on the advice of her ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party or coalition of parties commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the State; and that the Ministry should resign if it ceases to command a majority there.

The cabinet system operates chiefly by means of constitutional conventions, customs or understandings and through institutions that do not form part of the legal structure of government at all. The executive power of the Australian Government is exercisable by the Governor-General and that of South Australia by the Governor, each being advised by an executive council which only meets for formal purposes. The whole policy of a Ministry is in practice determined

by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

### *The Cabinet*

The Cabinet does not form part of the legal mechanism of government. Its meetings are private and deliberative, the actual Ministers of the day alone are present, no records of the meetings are made public and the decisions taken have in themselves no legal effect. At present all Australian Government Ministers are members of the Cabinet, but from 1956 to 1972 the senior Ministers constituted the Cabinet and the other Ministers only attended Cabinet meetings when required. In South Australia, also, all eleven Ministers are members of Cabinet.

As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls not only the general legislative program of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the State. In summoning, proroguing or dissolving Parliament, the Governor-General or the Governor is usually guided by the advice tendered him by the Cabinet through the Prime Minister or Premier, although legally the discretion is vested in the Governor-General or Governor himself.

### *Executive Council*

The Executive Council is usually presided over by the Governor-General or Governor, the members holding office during his pleasure. All Ministers of State must be members of the Executive Council. Australian Government Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the cabinet system that attendance should be limited to the Ministers of the day.

The meetings of the Executive Council are formal and official in character and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of Cabinet are, where necessary, given legal form, appointments are made, resignations accepted, proclamations issued and regulations approved.

### *Appointment of Ministers*

Legally, Ministers hold office during the pleasure of the Governor-General or Governor, but in practice the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command a majority in the popular House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

### Committees

At one stage in the consideration of every Bill each House resolves itself into Committee for freer discussion of proposed legislation than would be possible under the rules of formal debate usually applied in Parliament.

In addition there is a Committee system whereby a limited number of Members enquire into and report on particular matters thus enabling a greater volume of work to be handled more effectively. There are Joint Committees, consisting of members of both Houses, and each House has committees to attend to its own functions. Standing Committees (*e.g.* the South Australian Public Works Standing Committee) consider matters of a continuing or recurring nature, and *ad hoc* committees are formed to enquire into and report on specific matters as they arise.

Party representation on Joint and House Committees is usually proportionate to representation in Parliament or the appropriate House respectively.

### Administration

The pattern of public administration in South Australia is determined by the division and delegation of statutory authority already mentioned. Various aspects and areas of administration are attended to by Australian and South Australian Government departments, by local government authorities, and by public corporations deriving authority and responsibility from either Australian or South Australian legislation. Within this framework numerous boards and committees exercise administrative and, in some cases, judicial powers.

These various levels of administration are largely interdependent and complementary. Some items of Australian Government legislation are completely, or almost completely, administered by State authorities, often in matters in which (the Australian and the South Australian Governments having concurrent powers) Australian Government legislation either supplements or supersedes State legislation, *e.g.* the South Australian Supreme Court applies the *Matrimonial Causes Act 1959-1973* in this State. Performance of State functions by Australian Government authorities is neither as frequent nor as extensive, but there are instances of the provision of services or facilities, *e.g.* the Australian Electoral Office maintains the House of Assembly electoral roll; State Land Tax may be paid at Post Offices.

### Judicature

The degree to which South Australians are subject to the jurisdiction of Australian and South Australian courts respectively varies with the type of action. Most criminal and civil actions are heard, at least originally, in State courts, but many individuals are subject exclusively to jurisdiction of Australian courts in industrial matters.

Generally speaking, the decisions of the lower courts (the South Australian Magistrates and Local Courts) may be the subject of appeal to the State Supreme Court, and the decisions of this higher court, acting in either its original or appellate jurisdiction, may be the subject of appeal to the High Court of Australia.

Included in the jurisdiction of the High Court of Australia is the review of legislation to test its constitutional validity.

## 3.2 AUSTRALIAN GOVERNMENT

### Federation

The Commonwealth of Australia was proclaimed on 1 January 1901 in 'An Act to constitute the Commonwealth of Australia', a statute of the Imperial Parliament, which received Royal Assent in July 1900. The draft constitution, which was enacted with only minor amendment, had been prepared at inter-colonial conferences during 1897, 1898, and 1899, and was accepted at referenda during 1899 by South Australia, New South Wales, Victoria, Queensland and Tasmania, and in 1900 by Western Australia.

### Separation of Powers

The Constitution provides, in sections 52, 69, 86, 90 and 115, for certain powers to be vested exclusively in the Australian Government and, in section 51, for certain specified fields of interest to be common to both the Australian and State Governments; in cases of conflicting legislation, that of the former prevails to the extent of the inconsistency. All other fields of interest remain the exclusive province of the State Governments until amendment is made to the Constitution Act or until the State Parliaments cede particular powers.

### Financial Resources

Since Federation the distribution of financial resources between the Australian and State Governments has been an almost constant problem. Under the original terms of the Constitution three-quarters of the net revenues from the duties of customs and excise, for ten years, was returned to the States; provision also existed for general and particular grants to the States. Significant changes have been made in the distribution of financial resources since 1910. These are reviewed in some detail in Part 11—Public Finance.

## AUSTRALIAN LEGISLATURE

The Constitution provides that 'the legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives'. Provision for constitutional amendment includes a requirement that a proposed amendment must be submitted to a referendum.

### Franchise

Qualifications for franchise are possessed by any British subject, not under eighteen years of age and not disentitled on other grounds, who has lived in Australia for six months continuously. Residence in a subdivision for a period of one month before enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to Aboriginal natives of Australia.

A member of the Defence Forces on service outside Australia who is a British Subject not less than eighteen years of age and has lived in Australia for six months continuously is entitled to vote at Australian elections, whether enrolled or not.



Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer or, persons who are holders of temporary entry permits under the *Migration Act 1958-1973* or are prohibited immigrants under that Act are excluded from the franchise.

### **Membership**

Qualifications necessary for membership of either House of the Australian Parliament are possessed by any British subject, eighteen years of age or over, who has resided in Australia for at least three years and who is, or is qualified to become, an elector. The principal reasons for disqualification of persons otherwise eligible as members of either House are; membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the Australian Public Service except as a member of an incorporated company of more than twenty-five persons.

## EXECUTIVE GOVERNMENT

### **Governor-General**

On 11 July 1974 His Excellency the Hon. Sir John Robert Kerr, KCMG, QC, was sworn in as the nineteenth Governor-General of Australia. His authority as the Queen's representative is derived from Letters Patent, Instructions under the Royal Sign Manual and Signet, and the relevant sections of the Australian Constitution.

### **Executive Council**

Members of the Federal Executive Council are chosen, summoned and sworn by the Governor-General and hold office during his pleasure. All Ministers are members. Councillors usually retain membership for life but it is customary for attendance at meetings to be limited to Ministers of the day.

### **Ministry**

Members of the forty-second Ministry (the second Whitlam Ministry) are listed below.

#### **Whitlam Ministry at 30 June 1975**

##### *Prime Minister*

The Hon. E. G. Whitlam, QC, MP (NSW)

##### *Deputy Prime Minister and Minister for Environment*

The Hon. J. F. Cairns, MP (Vic.)

##### *Minister for Minerals and Energy*

The Hon. R. F. X. Connor, MP (NSW)

*Treasurer*

The Hon. W. G. Hayden, MP (Qld)

*Minister for Agriculture and Leader of the Government in the Senate*

Senator the Hon. K. S. Wriedt (Tas.)

*Minister for Foreign Affairs*

Senator the Hon. D. R. Willesee (WA)

*Minister for Overseas Trade*

The Hon. F. Crean, MP (Vic.)

*Minister for Services and Property and Leader of the House*

The Hon. F. M. Daly, MP (NSW)

*Special Minister of State and Manager of Government Business in the Senate*

Senator the Hon. D. McClelland (NSW)

*Minister for Northern Australia*

The Hon. R. A. Patterson, MP (Qld)

*Minister for Science and Consumer Affairs*

The Hon. C. R. Cameron, MP (SA)

*Minister for Education*

The Hon. K. E. Beazley, MP (WA)

*Minister for Manufacturing Industry*

The Hon. L. F. Bowen, MP (NSW)

*Minister for Social Security and Minister for Repatriation and Compensation*

Senator the Hon. J. M. Wheeldon (WA)

*Minister for Urban and Regional Development*

The Hon. T. Uren, MP (NSW)

*Postmaster-General and Minister Assisting the Minister for Defence*

Senator the Hon. R. Bishop (SA)

*Minister for Aboriginal Affairs*

The Hon. L. R. Johnson, MP (NSW)

*Minister for Transport*

The Hon. C. K. Jones, MP (NSW)

*Minister for Health*

The Hon. D. A. Everingham, MP (Qld)

*Attorney-General*

The Hon. K. E. Enderby, QC, MP (ACT)

*Minister for Labor and Immigration and Minister Assisting the Prime Minister in Matters Relating to the Public Service*

Senator the Hon. J. R. McClelland (NSW)

*Minister for the Capital Territory*

The Hon. G. M. Bryant, ED, MP (Vic.)

*Minister for the Media*

The Hon. M. H. Cass, MP (Vic.)

*Minister for Police and Customs*

Senator the Hon. J. L. Cavanagh (SA)

*Minister for Defence and Minister Assisting the Minister for Foreign Affairs in Matters Relating to the Islands of the Pacific*

The Hon. W. L. Morrison, MP (NSW)

*Minister for Tourism and Recreation, Vice-President of the Executive Council and Minister Assisting the Treasurer and the Minister for Social Security and Minister for Repatriation and Compensation*

The Hon. F. E. Stewart, MP (NSW)

*Minister for Housing and Construction and Minister Assisting the Minister for Urban and Regional Development*

The Hon. J. M. Riordan, MP (NSW)

### **Salaries and Allowances**

From 1 March 1975 the annual salary for each member has been \$20 000 with electorate allowance of \$4 100.

The following additional payments are also made:

Prime Minister—\$27 000 plus expense allowance of \$10 900;

Deputy Prime Minister—\$12 500 plus expense allowance of \$5 200;

Ministers—\$10 500 plus expense allowance of \$4 875;

Speaker (House of Representatives)—\$10 500 plus expense allowance of \$4 250;

President (Senate)—\$10 500 plus expense allowance of \$4 250;

Chairman of Committees (House of Representatives)—\$4 000 plus expense allowance of \$900;

Chairman of Committees (Senate)—\$4 000 plus expense allowance of \$900;

Leader of the Opposition (House of Representatives)—\$10 500 plus expense allowance of \$4 875;

Deputy Leader of the Opposition (House of Representatives)—\$7 500 plus expense allowance of \$4 250;

Leader of the Third Party (House of Representatives)—\$5 000 plus expense allowance of \$2 500;

Leader of the Opposition (Senate)—\$7 500 plus expense allowance of \$4 250;

Deputy Leader of the Opposition (Senate)—\$3 200 plus expense allowance of \$900;

Government Whip (House of Representatives)—\$2 500;

Other Whips (House of Representatives)—\$2 000;

Whips (Senate)—\$2 000;

Assistant Whips (House of Representatives and Senate)—\$500.

### Superannuation

The *Parliamentary Retiring Allowances Act 1948-1973* provides for the payment of retirement benefits on the retirement or death of persons who have served as members of the Australian Parliament.

All members are required to contribute for a parliamentary retiring allowance at the rate of 11.5 per cent of the monthly amount of their parliamentary allowance. Members who retire involuntarily are eligible for a retiring allowance after eight years service, while those who retire voluntarily and have attained the age of forty-five years are eligible after twelve years service. Where there is no entitlement to a retiring allowance the benefit is a lump sum payment comprising a refund of contributions plus a supplement, the amount of which depends on length of service and whether retirement is involuntary or voluntary.

A former Prime Minister who is over the age of forty-five years and has held office as Prime Minister for not less than two years is entitled on retirement, in addition to the normal parliamentary retiring allowance, to a non-contributory Prime Minister's retiring allowance.

A parliamentary annuity is payable to the widow or widower of a serving member or of a former member in receipt of a retiring allowance at the rate of five-sixths of the retiring allowance that was or would have been payable to the deceased. The widow or widower of a Prime Minister is entitled to an additional annuity at the rate of one-half the additional retiring allowance that was or would have been payable to the former Prime Minister. A parliamentary annuity is also payable to a dependent child if both parents have died.

## THE SENATE

The Senate is the Upper House. Originally it was intended that this House should protect the rights and interests of the States, but with the growth of the parliamentary system of party-line voting, its role has become mainly that of a house of review.

### Representation

At present the Senate consists of sixty members—ten from each State. The original provision was that each State, voting as a single electorate, should elect six Senators but by the Representation Act of 1948, which was effective for the 1949 elections, the number was raised to ten. Except in extraordinary circumstances each Senator is elected for a term of six years, five from each State retiring every three years.

Parliament has the power to vary the number of Senators above a minimum of six for each State. Under the terms of the Constitution any variation in the number of Senators necessitates a change in the number of members of the House of Representatives.

Following the rejection of vital legislation by the Senate in April 1974, the Governor-General, on the advice of the Prime Minister, dissolved both Houses of Parliament. This meant that at the general election held on 18 May 1974, all of the sixty Senate seats as well as the 127 House of Representatives seats were contested.

At 1 July 1975 representation in the Senate was as follows:

State	ALP	CP	LP	Others
New South Wales . . . . .	4	1	4	1 (b)
Victoria . . . . .	5	1	4	—
Queensland . . . . .	4	3	3	—
<b>South Australia</b> . . . . .	<b>5</b>	—	<b>4</b>	<b>1 (a)</b>
Western Australia . . . . .	5	1	4	—
Tasmania . . . . .	5	—	5	—

(a) Liberal Movement (LM).

(b) Independent.

ALP Australian Labor Party. CP Country Party. LP Liberal Party of Australia.

The members representing South Australia in the Senate are:

To Retire 30 June 1976:

Cameron, Donald Newton (ALP)  
Davidson, Gordon Sinclair (LP)  
Drury, Arnold Joseph (ALP)  
McLaren, Geoffrey Thomas (ALP)  
Jessop, Donald Scott (LP)

To Retire 30 June 1979:

Bishop, the Hon. Reginald (ALP)  
Laucke, Condor Louis (LP)  
Hall, Raymond Steele (LM)  
Cavanagh, the Hon. James Luke  
(ALP)  
Young, Harold William (LP)

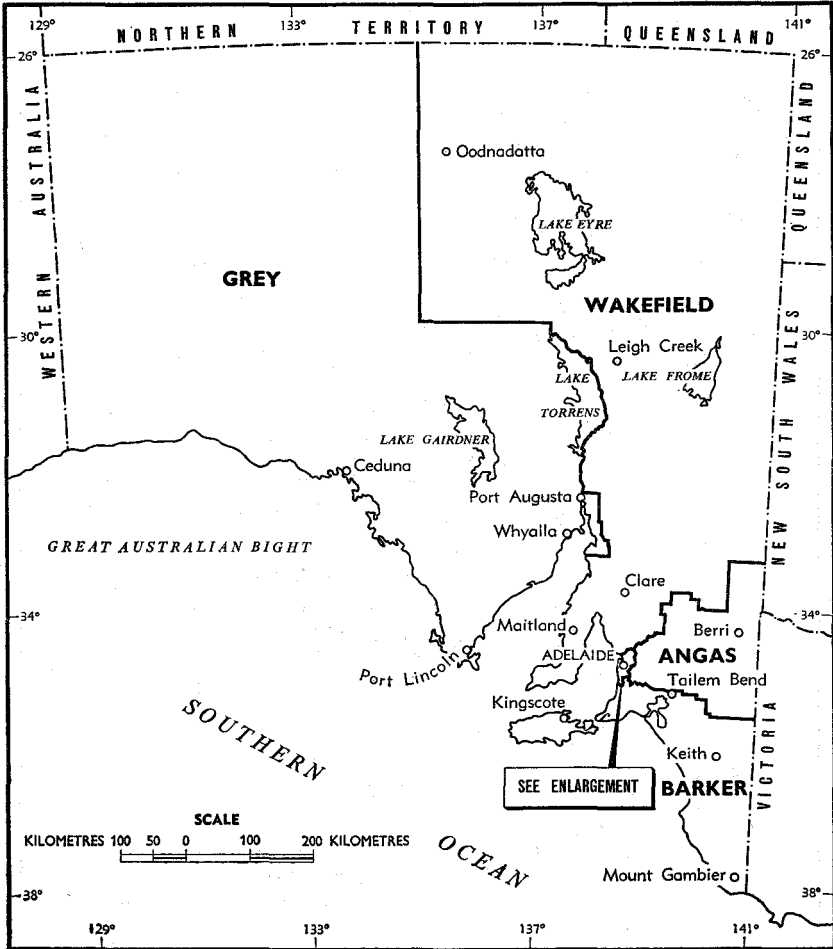
#### Elections for the Senate: Voting, South Australia

Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949 . . . . .	434 224	420 437	96·82	48 838	11·62
28 April 1951 . . . . .	440 454	427 593	97·08	24 792	5·80
9 May 1953 . . . . .	453 496	437 583	96·49	21 297	4·87
10 December 1955 . . . . .	462 747	444 827	96·13	39 802	8·95
22 December 1958 . . . . .	490 930	473 832	96·52	36 677	7·74
9 December 1961 . . . . .	521 396	501 312	96·15	28 284	5·64
5 December 1964 . . . . .	551 341	528 464	95·85	39 421	7·46
25 November 1967 . . . . .	594 480	568 823	95·68	32 864	5·78
21 November 1970 . . . . .	639 807	609 268	95·23	42 306	6·94
18 May 1974 . . . . .	750 144	722 434	96·31	82 191	11·38

#### Voting System

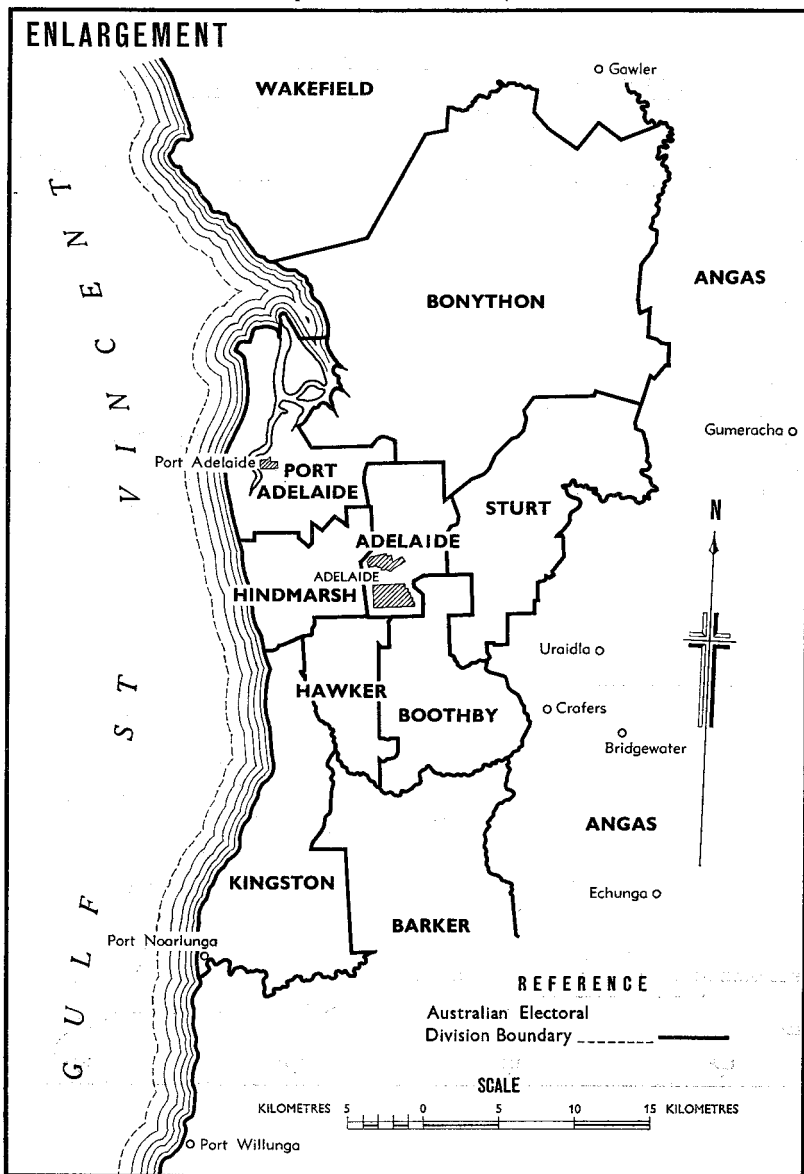
Before the election in 1949 the system of preferential voting was used for Senate elections, but for the 1949 and subsequent elections a system of proportional representation has been used. This system was discussed in detail on pages 55-6 of the *South Australian Year Book* 1971.

SOUTH AUSTRALIA  
AUSTRALIAN ELECTORAL DIVISIONS  
As proclaimed 21 November 1968



# PORTION OF SOUTH AUSTRALIA AUSTRALIAN ELECTORAL DIVISIONS

As proclaimed 21 November, 1968



THE HOUSE OF REPRESENTATIVES

**Representation**

The members of the House of Representatives (the Lower House) are elected in single-member electorates. The number of electorates into which a State is divided is determined by the proportion that the population of the State bears to the population of Australia as a whole. Section 24 of the Constitution provides that the number of members in the House of Representatives shall be as nearly as possible twice the number of Senators and prescribes the formula to be used, 'until the Parliament otherwise provides', for allocating to each State its share of the available seats, but stipulates that no original State shall have less than five members in the House. In addition one member is elected from the Northern Territory and two members are elected from the Australian Capital Territory.

Preferential voting is used for elections for the House of Representatives.

After the election of 18 May 1974 representation in this House was as follows:

Party	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
ALP . . . . .	25	16	6	7	5	5	—	2	66
CP . . . . .	9	6	5	—	—	—	1	—	21
LP . . . . .	11	12	7	5	5	—	—	—	40

ALP Australian Labor Party. CP Country Party. LP Liberal Party of Australia.

**House of Representatives, 1974 Elections**

**Voting and Party Representation in South Australian Electorates**

Electorate	Electors on Roll	Electors Voting	Successful Candidates		
			Name	Party	First Preference Votes
Adelaide . . . . .	61 061	58 415	Hurford, C. J.	ALP	31 572
Angas . . . . .	55 388	53 662	Giles, G. O'H.	LCL	27 704
Barker . . . . .	62 083	59 849	Forbes, Hon. A. J.	LCL	28 280
Bonython . . . . .	79 489	76 506	Nicholls, M. H.	ALP	44 723
Boothby . . . . .	62 126	59 345	McLeay, J. E.	LCL	26 193
Grey . . . . .	57 339	55 172	Wallis, L. G.	ALP	28 373
Hawker . . . . .	60 770	58 526	Jacobi, H. R.	ALP	31 735
Hindmarsh . . . . .	63 576	61 127	Cameron, Hon. C. R.	ALP	37 106
Kingston . . . . .	70 962	68 649	Gunn, R. T.	ALP	35 647
Port Adelaide . . . . .	60 822	58 633	Young, M. J.	ALP	36 679
Sturt . . . . .	67 497	65 294	Wilson, I. B. C.	LCL	28 799
Wakefield . . . . .	49 031	47 256	Kelly, Hon. C. R.	LCL	22 761



## Elections for the House of Representatives: Voting, South Australia

Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949 . . . . .	434 224	420 437	96.82	9 380	2.23
28 April 1951 . . . . .	440 454	(a)384 082	(a)97.09	7 910	2.06
29 May 1954 . . . . .	455 872	(a)357 854	(a)96.77	8 812	2.46
10 December 1955 . . . . .	462 747	444 827	96.13	18 050	4.06
22 December 1958 . . . . .	490 930	473 832	96.52	15 619	3.30
9 December 1961 . . . . .	521 396	501 312	96.15	15 629	3.12
30 November 1963 . . . . .	541 536	523 135	96.60	13 963	2.67
26 November 1966 . . . . .	585 465	563 341	96.22	16 220	2.88
25 October 1969 . . . . .	624 626	599 719	96.01	20 562	3.43
2 December 1972 . . . . .	671 081	644 211	96.00	16 845	2.61
18 May 1974 . . . . .	750 144	722 434	96.31	20 311	2.81

(a) Contested electorates only.

## REFERENDA

Alteration to the Constitution must be initiated in the Australian Parliament and requires the approval of a majority of electors voting in a majority of the States as well as a majority of all the electors voting in Australia as a whole.

Of the thirty-two proposals so far submitted to the people of Australia for amendment to the Constitution, only five have been approved (one in each of 1906, 1910, 1928, 1946 and 1967). In addition proposals concerning compulsory overseas military service were submitted to the people in 1916 and 1917 respectively; both proposals failed to gain the necessary majority of votes.

At the most recent referendum, held at the same time as the general election of 18 May 1974, four alterations to the Constitution were proposed. All four proposals were defeated.

## 3.3 GOVERNMENT OF SOUTH AUSTRALIA

The Constitution Act, 1855-1856, which inaugurated the system of responsible government in South Australia, was passed and came into force on 24 October 1856. A summary of early constitutional history and the introduction of responsible government was included on pages 60-2 of the *South Australian Year Book* 1971.

## VICE-REGAL REPRESENTATION

Sir Mark Laurence Elwin Oliphant, KBE was sworn in as the Queen's representative in South Australia on 1 December 1971.

The title of the vice-regal representative has been varied from time to time. The first three holders of the Office were styled 'Governor and Commander-in-Chief', the next two, 'Lieutenant-Governor', and the following two, 'Captain-General and Governor-in-Chief'. The title then reverted to its original form

until Federation in 1901. Since then, because of the appointment of a 'Governor-General and Commander-in-Chief in and over the Commonwealth', the holder of the State office has been described simply as 'Governor', and this title is used in the following table, which lists occupants of the office since the foundation of South Australia.

As titular head of the Government of South Australia the Governor exercises powers, duties, and functions, similar to those of a constitutional sovereign. On the one hand he is indirectly responsible to the Imperial Parliament through the Secretary of State for Foreign and Commonwealth Affairs, and on the other hand he usually acts on the advice of his Ministers, who take the responsibility for their advice. Nevertheless, the Governor retains important spheres of discretionary action and is thus enabled to maintain something of a safeguard against malpractice and injustice, particularly in extreme circumstances. To ensure continuity of services, the Governor has power to appropriate up to one per cent of the total amount appropriated from the State's general revenue by the Appropriation Acts for public service without specific Parliamentary authority.

#### Governors of South Australia

Name	From	To
Captain John Hindmarsh, RN, KH ..	28 December 1836	16 July 1838
Lt-Col George Gawler, KH .. . . .	17 October 1838	15 May 1841
George Grey .. . . . . . . . . .	15 May 1841	25 October 1845
Lt-Col Frederick Holt Robe .. . . .	25 October 1845	2 August 1848
Sir Henry E. F. Young .. . . . . .	2 August 1848	20 December 1854
Sir Richard G. MacDonnell, CB .. . .	8 June 1855	4 March 1862
Sir Dominick Daly .. . . . . . . .	4 March 1862	19 February 1868
Rt Hon. Sir James Fergusson, Bart ..	16 February 1869	18 April 1873
Sir Anthony Musgrave, KCMG .. . . .	9 June 1873	29 January 1877
Lt-Gen. Sir Wm. F. D. Jervois, GCMG, CB .. . . . . . . . . . . . . . . .	2 October 1877	9 January 1883
Sir Wm C. F. Robinson, GCMG .. . . .	19 February 1883	5 March 1889
Rt Hon. the Earl of Kintore, PC, GCMG .. . . . . . . . . . . . . . . .	11 April 1889	10 April 1895
Sir Thomas F. Buxton, Bart, GCMG ..	29 October 1895	29 March 1899
Rt Hon. the Lord Tennyson, KCMG ..	10 April 1899	17 July 1902
Sir George R. Le Hunte, KCMG .. . . .	1 July 1903	18 February 1909
Admiral Sir Day Hort Bosanquet, GCVO, KCB .. . . . . . . . . . . . . .	18 February 1909	22 March 1914
Lt-Col Sir Henry L. Galway, KCMG, DSO .. . . . . . . . . . . . . . . .	18 April 1914	30 April 1920
Lt-Col Sir Wm E. G. Archibald Weigall, KCMG .. . . . . . . . . . .	9 June 1920	30 May 1922
Lt-Gen. Sir George T. M. Bridges, KCB, KCMG, DSO .. . . . . . . . . . .	4 December 1922	4 December 1927
Brig.-Gen. the Hon. Sir A. G. A. Hore- Ruthven, VC, KCMG, CB, DSO ..	14 May 1928	26 April 1934
Maj.-Gen. Sir W. J. Dugan, KCMG, CB, DSO .. . . . . . . . . . . . . . . .	28 July 1934	23 February 1939
Sir Charles M. Barclay-Harvey, KCMG	12 August 1939	26 April 1944

## Governors of South Australia (continued)

Name	From	To
Lt-Gen. Sir C. W. M. Norrie, KCMG, CB, DSO, MC . . . . .	19 December 1944	19 June 1952
Air Vice-Marshal Sir Robert A. George, KCMG, KCVO, KBE, CB, MC	23 February 1953	7 March 1960
Lt-Gen. Sir Edric M. Bastyan, KCMG, KCVO, KBE, CB . . . . .	4 April 1961	1 June 1968
Maj.-Gen. Sir James W. Harrison, KCMG, CB, CBE . . . . .	4 December 1968	16 September 1971
Sir Mark L. Oliphant, KBE . . . . .	1 December 1971	

A Governor is normally appointed for a term of five years, but he can be reappointed for one or more subsequent terms. At present he is granted a basic salary of \$20 000 a year and an expense allowance which is altered in accordance with the Consumer Price Index number for Adelaide. The amount appropriated from Consolidated Revenue for the Governor's salary and allowances for 1974-75 was \$40 000.

In the absence or prolonged illness of a Governor other persons have been appointed to administer the government of the State. These persons have been variously styled 'Lieutenant-Governor', 'Deputy-Governor', 'Deputy Lieutenant-Governor', and 'Administrator', and several of them have held office more than once. The eighteen persons so appointed have been:

Name	Occupancy of Office		Occasions in Office	Total Period	
	First	Most Recent		Years	Days
George Milner Stephen . . . .	16/7/1838	17/10/1838	1	—	93
Boyle Travers Finnis . . . .	20/12/1854	8/6/1855	1	—	170
Lt-Col Francis G. Hamley . . .	19/2/1868	16/2/1869	1	—	364
Maj. James Harwood Roche . .	6/4/1870	5/5/1870	1	—	29
Hon. Sir Richard D. Hanson	7/12/1872	9/6/1873	1	—	184
Rt Hon. Sir Samuel J. Way, Bart . . . . .	29/1/1877	17/11/1915	65	6	117
William W. Cairns, CMG . . . .	24/3/1877	17/5/1877	1	—	54
Hon. James P. Boucaut . . . .	26/10/1885	16/9/1897	9	—	263
Hon. William H. Bunday . . . .	30/7/1888	9/8/1888	1	—	10
Hon. Sir G. J. R. Murray, KCMG . . . . .	25/9/1916	9/2/1942	103	6	47
Hon. Thomas Slaney Poole . . .	20/3/1925	22/11/1925	2	—	240
Hon. Sir H. Angus Parsons . . .	11/6/1935	19/2/1942	6	—	54
Hon. Sir J. Melliis Napier, KCMG	21/4/1942	17/5/1973	179	9	140
Hon. Sir Herbert Mayo . . . .	15/10/1946	9/1/1965	25	—	187
Hon. Sir G. S. Reed . . . . .	24/7/1951	4/11/1957	5	—	31
Hon. J. J. Bray . . . . .	25/6/1968	7/7/1971	4	—	51
Hon. D. S. Hogarth . . . . .	8/7/1971	8/7/1971	1	—	1
Walter R. Crocker, CBE . . . .	7/9/1973	27/11/1974	11	—	58

## CABINET AND EXECUTIVE GOVERNMENT

In South Australia all Ministers are members of the Cabinet and all Ministers are *ex officio* members of the Executive Council. Although the Governor may, subject to any law enacted by the Legislature, appoint other persons to the Executive Council, membership is in practice limited to Ministers of the day.

The Constitution Act of 1855-1856 provided that every Minister must be a member of either the Legislative Council or the House of Assembly or become a member within three months of appointment. However, in 1873 an amendment was made to the Act authorising the Governor to appoint an Attorney-General from outside Parliament; this provision was retained until 1953, and four Attorneys-General were so appointed.

The maximum number of Ministers has been varied from time to time. In 1856 the number was five; in 1873, six; 1901, four; 1908, six; 1953, eight; 1965, nine; 1970, ten; and 1973, eleven. In 1908 it was specified that no more than four Ministers were to be in the House of Assembly, but in 1953 this limit was increased to five, in 1965 to six, in 1970 to seven and in 1973 to eight.

The Constitution of 1856 provided for salary payments to Ministers only and salary payments to other members did not commence until 1887. The 1974-75 appropriation for salaries and allowances for eleven Ministers is \$249 000 which includes salaries and allowances received by Ministers as members.

Cabinet, as such, has no legal powers. Some Cabinet decisions result in the initiation and subsequent enactment of legislation; other decisions become legally binding through ratification by Executive Council or through powers vested in individual Ministers for the administration and control of their respective departments of government. In addition to government departments statutory authorities also come under some degree of ministerial or parliamentary oversight.

## Premiers

Since 1856 the following thirty-six persons have held the office of Premier.

## Premiers of South Australia

Name	Dates of Office	Total Period in Office	
		Years	Days
Hon. Boyle T. Finnis . . . . .	24/10/1856- 21/8/1857	—	301
Hon. John Baker . . . . .	21/8/1857- 1/9/1857	—	11
Hon. Robert R. Torrens . . . . .	1/9/1857- 30/9/1857	—	29
Hon. Richard D. Hanson . . . . .	30/9/1857- 9/5/1860	2	222
Hon. Thomas Reynolds . . . . .	9/5/1860- 8/10/1861	1	152
Hon. G. M. Waterhouse . . . . .	8/10/1861- 4/7/1863	1	269
Hon. Francis S. Dutton . . . . .	4/7/1863- 15/7/1863; 22/3/1865- 20/9/1865	—	193

## Premiers of South Australia (continued)

Name	Dates of Office	Total Period in Office	
		Years	Days
Hon. Sir Henry Ayers, KCMG . . . . .	15/7/1863- 4/8/1864; 20/9/1865-23/10/1865; 3/5/1867- 24/9/1868; 13/10/1868- 3/11/1868; 22/1/1872- 22/7/1873	4	35
Hon. Arthur Blyth . . . . .	4/8/1864- 22/3/1865; 10/11/1871- 22/1/1872; 22/7/1873- 3/6/1875	2	254
Hon. John Hart, CMG . . . . .	23/10/1865- 28/3/1866; 24/9/1868-13/10/1868; 30/5/1870-10/11/1871	1	339
Hon. James P. Boucaut, QC . . . . .	28/3/1866- 3/5/1867; 3/6/1875- 6/6/1876; 26/10/1877- 27/9/1878	3	11
Hon. H. B. Strangways . . . . .	3/11/1868- 30/5/1870	1	208
Hon. John Colton . . . . .	6/6/1876-26/10/1877; 16/6/1884- 16/6/1885	2	142
Hon. William Morgan . . . . .	27/9/1878- 24/6/1881	2	270
Hon. John C. Bray . . . . .	24/6/1881- 16/6/1884	2	358
Hon. Sir J. W. Downer, KCMG, QC . . . . .	16/6/1885- 11/6/1887; 15/10/1892- 16/6/1893	2	239
Hon. Thomas Playford . . . . .	11/6/1887- 27/6/1889; 19/8/1890- 21/6/1892	3	323
Hon. J. A. Cockburn . . . . .	27/6/1889- 19/8/1890	1	53
Hon. F. W. Holder . . . . .	21/6/1892-15/10/1892; 8/12/1899- 15/5/1901	1	274
Rt Hon. C. C. Kingston, QC . . . . .	16/6/1893- 1/12/1899	6	168
Hon. V. L. Solomon . . . . .	1/12/1899- 8/12/1899	—	7
Hon. J. G. Jenkins . . . . .	15/5/1901- 1/3/1905	3	290
Hon. Richard Butler . . . . .	1/3/1905- 26/7/1905	—	147
Hon. Thomas Price . . . . .	26/7/1905- 5/6/1909	3	314
Hon. A. H. Peake . . . . .	5/6/1909- 3/6/1910; 17/2/1912- 3/4/1915; 14/7/1917- 8/4/1920	6	312
Hon. John Verran . . . . .	3/6/1910- 17/2/1912	1	259
Hon. Crawford Vaughan . . . . .	3/4/1915- 14/7/1917	2	102
Hon. Sir H. N. Barwell, KCMG . . . . .	8/4/1920- 16/4/1924	4	8
Hon. John Gunn . . . . .	16/4/1924- 28/8/1926	2	134
Hon. Lionel L. Hill . . . . .	28/8/1926- 8/4/1927; 17/4/1930- 13/2/1933	3	160
Hon. R. L. Butler . . . . .	8/4/1927- 17/4/1930; 18/4/1933- 5/11/1938	8	210
Hon. R. S. Richards . . . . .	13/2/1933- 18/4/1933	—	64
Hon. Sir Thomas Playford, GCMG . . . . .	5/11/1938- 10/3/1965	26	125
Hon. F. H. Walsh . . . . .	10/3/1965- 1/6/1967	2	83
Hon. D. A. Dunstan, QC . . . . .	1/6/1967- 17/4/1968; 2/6/1970-		
Hon. R. S. Hall . . . . .	17/4/1968- 2/6/1970	2	47



### **Voting System**

Members for both Houses are elected by secret ballot; the preferential system of voting is used. In filling the vacancy for each House of Assembly District the candidate who has received the largest number of first preference votes is elected if this number constitutes an absolute majority (*i.e.* greater than one-half of the total formal votes). If no candidate has received an absolute majority of first preference votes a second count is made in which the second preferences of the candidate who has received the fewest first preference votes are distributed. This distribution of second preferences of the successive candidate with the fewest votes is repeated until one candidate has received an absolute majority of votes.

For Legislative Council elections in recent years, the State has been divided into five 4-member electoral districts with two members for each district retiring at each Legislative Council election. The first vacancy in each district has been filled in the same manner as those in the single-member House of Assembly districts discussed above. The second vacancy in each district has been filled by re-arranging all ballot papers according to first preferences and allotting each ballot paper of the first elected candidate according to the second preferences. If a candidate then had an absolute majority he was elected, otherwise subsequent counts were made eliminating candidates with the fewest votes until one remaining candidate had received an absolute majority.

However, as a result of the passing of the Constitution and Electoral Acts Amendment Act, 1973 which was assented to on 22 November 1973, the number of electorates and the voting system has been changed for future Legislative Council elections. This Act has increased the number of members of the Legislative Council from twenty to twenty-two and has introduced a system of proportional representation with the whole of the State as a single multi-member electoral district. Under the new system electors may register preferences for groups of candidates rather than individuals (although a group may contain only one candidate) and a candidate's election will depend on the proportion of votes his group obtains and his position within the group on the ballot paper. Because an optional preference voting system will apply it will not be necessary for electors to indicate preferences for each group in order to register formal votes.

### **Members, Qualifications, and Privileges**

Certain requirements must be met before a person qualifies for membership of the South Australian Parliament. The following persons are not eligible for membership of either House: Judges, persons under the age of eighteen, aliens, members of the Australian Parliament, persons who are not residents of South Australia, holders of contracts for the Public Service, occupants of offices of profit under the Crown, persons of unsound mind, persons attainted of treason, undischarged bankrupts and insolvent persons, and, amongst others, persons under sentence for any offence punishable by imprisonment for at least a year. Other requirements applicable only to one house or the other are mentioned on pages 81 and 85.

Each member is required to take an oath or make an affirmation of allegiance to the Crown before being permitted to sit or vote in Parliament. All members of the Parliament are entitled to such privileges, immunities, and powers as were held by members of the House of Commons on 24 October 1856, the date on which the Constitution Act came into force.



### **Franchise**

Details of the franchise for the separate Houses are shown on page 82. South Australia was the first, at the general election of 25 April 1896, of the Australian States to give voting rights to women, and the existence of this provision in this State contributed to the decision to include full adult franchise in proposals for Federation. For the first eighty-five years of responsible government voting for both Houses of Parliament was voluntary but the Electoral Act Amendment Act of 1942 made voting for the House of Assembly compulsory for persons whose names appear on the House of Assembly Electoral Roll.

### **Functions of Parliament**

The function of Parliament is to legislate for the peace, order, and good government of the State. Principal among the tasks of Parliament is the raising of revenue and the appropriation of funds for the development and maintenance of the State through its public services.

Legislation may be initiated by any member in either House except that money bills must be initiated by Ministers of the Crown in the House of Assembly; the Legislative Council may suggest amendments to money bills although it may not effect such amendments itself. Most bills are initiated by the Government as a result of the deliberations of Cabinet. The Opposition and Independent members usually confine their activities to examination, criticism, and amendment, of Government measures. Legislation, other than to amend the Constitution, may be passed by a simple majority of the votes of the members present.

### **Constitutional Amendment**

Alteration to the Constitution Act is in the hands of Parliament itself. An alteration to the Constitution requires at the second and third readings of the bill acceptance by a majority of all the members (not only those present or voting) of each House voting separately.

### **Deadlocks**

A deadlock results from the refusal by the Upper House to pass the same (or substantially the same) Bill during two consecutive Parliaments, provided that a general election for the Lower House has been held between the refusals and that on the second occasion an absolute majority of all the members of the Lower House voted in favour of the Bill at its second and third readings. In the event of a deadlock between the Houses, provision is made for the dissolution of both Houses or alternatively for the election of two additional members for each Legislative Council district.

### **Life of Parliament**

The term of office of each Parliament is generally three years from the day on which it first meets for the dispatch of business but it may be prorogued or dissolved by the Governor before the expiration of this period.

By legislation introduced in 1933 the life of the twenty-eighth Parliament was extended to five years and in 1937 the Constitution Act was amended for each subsequent Parliament to have a life of five years. However the twenty-ninth Parliament repealed this provision and re-introduced three-year Parliaments.

### Number of Members and Electorates

Alterations made to the number of members and number of electorates for each of the two Houses are shown in the following table.

Date	Legislative Council		House of Assembly	
	Members	Electorates	Members	Electorates
1856 .. .. .	18	1	36	17
1863 .. .. .	18	1	36	18
1875 .. .. .	18	1	46	22
1882 .. .. .	24	4	46	22
1884(a) .. .. .	24	4	52	26
1890 .. .. .	24	4	54	27
1902 .. .. .	18	4	42	13
1912(b) .. .. .	18	4	40	12
1915 .. .. .	20	5	46	19
1938 .. .. .	20	5	39	39
1970 .. .. .	20	5	47	47

(a) Separate representation for Northern Territory.

(b) Cession of Northern Territory to Australian Government control.

The present allocation of twenty-eight metropolitan and nineteen country electorates for the House of Assembly was introduced on 12 March 1970 with the proclamation of the Constitution Act Amendment Act, 1969. Before this date there were thirteen metropolitan and twenty-six country House of Assembly electoral districts. The first election incorporating the new boundaries was held on 30 May 1970.

The Constitution and Electoral Acts Amendment Act, 1973, assented to on 22 November 1973, has increased the number of members in the Legislative Council from twenty to twenty-two and reduced the number of electorates to one with the whole State becoming a single electorate with members elected on a proportional representation basis. This amendment will not become fully effective for two general elections as only half the Legislative Councillors retire at each election and eleven members instead of ten as previously will be elected at each general Legislative Council election.

### Salaries and Allowances

The annual salary from 1 February 1975 is \$16 500 per member with allowances of between \$2 500 and \$5 100 depending on the area of the member's electorate and the distance from the City of Adelaide. The following additional payments are also made:

- Premier and Treasurer—\$16 500, plus expense allowance of \$2 600.  
Deputy Premier—\$10 500, plus expense allowance of \$2 100.  
Leader of the Government in the Legislative Council—\$10 000, plus expense allowance of \$2 000.  
Other Ministers—\$9 000, plus expense allowance of \$1 750.  
President of Legislative Council and Speaker of House of Assembly—each \$5 400, plus expense allowance of \$650.  
Chairman of Committees, House of Assembly—\$2 700, plus expense allowance of \$290.  
Leader of the Opposition, House of Assembly—\$9 000, plus expense allowance of \$1 750.  
Leader of the Opposition, Legislative Council—\$3 500, plus expense allowance of \$550.  
Deputy Leader of the Opposition, House of Assembly—\$3 500.  
Government Whip—\$1 800.  
Opposition Whip—\$1 800.

In addition allowances are paid to the members of the various Parliamentary Committees.

### **Superannuation**

All members are required to contribute to a Superannuation Fund established under the Parliamentary Superannuation Act, 1974, which provides for the payment of superannuation pensions to persons, or widows or widowers or eligible children of persons, who have served as Members of the State Parliament. No member can qualify for a pension until he has served a minimum of six years. The standard contribution to this fund is 11·5 per cent of salary, presently \$1 380 a year, with optional additional contributions available to all Ministers and Officers of Parliament and Members of Parliamentary Committees. According to the length of service the pension payable to ordinary members varies between 41·2 per cent of salary (presently \$4 944 a year) and 75 per cent of salary (presently \$9 000 a year). Greater amounts of pension accrue to those members who have made additional contributions based on additional salary as a Minister or an office holder.

At 30 June 1974 there were sixty-seven contributors to the fund; twenty-four ex-members and twenty widows were in receipt of pensions.

## **LEGISLATIVE COUNCIL**

### **Members and Electorates**

Before the passing of the Constitution and Electoral Acts Amendment Act, 1973, each member of the Legislative Council, in addition to fulfilling the general requirements mentioned on page 78, must have attained the age of thirty years, have been a British subject, and have resided in the State for at least three years.

For the purpose of electing members to the Council the State was divided into five electorates each having four members. Each electorate normally elected two members every three years, and each member occupied his seat for a minimum of six years. When a casual vacancy occurred because of the death, resignation or disqualification of a member, such a casual vacancy was filled, at a by-election in the particular electorate, for the unexpired portion of the previous member's term.

Under the Constitution and Electoral Acts Amendment Act, 1973 the age limit is reduced to eighteen years and the State becomes a single electorate of twenty-two members with eleven members generally retiring each three years. In future casual vacancies will be filled by a person chosen at a joint sitting of the members of both the Legislative Council and House of Assembly.

### **Franchise**

Voting for the Legislative Council is voluntary for those persons whose names are on the Legislative Council Electoral Roll. Enrolment is voluntary and an eligible voter must be an adult British subject who has resided in the State for at least six months. House of Assembly electors generally are qualified to vote at Legislative Council elections.

### **President and Chairman of Committees**

At the first meeting of the Council in each Parliament the members choose one from among their number to fill the position of President and Chairman of Committees. The person so elected is then entitled to a casting vote only.

## HOUSE OF ASSEMBLY

### **Seat of Government**

The House of Assembly can be regarded as the more important Chamber in that the Government of the day holds its position as such only so long as it controls a majority in this House. When it no longer controls such a majority in vital issues, particularly 'money bills', the Government must resign or go to the polls. Once defeated in the Lower House on a 'money bill' the Government is unable to finance the administration of the State.

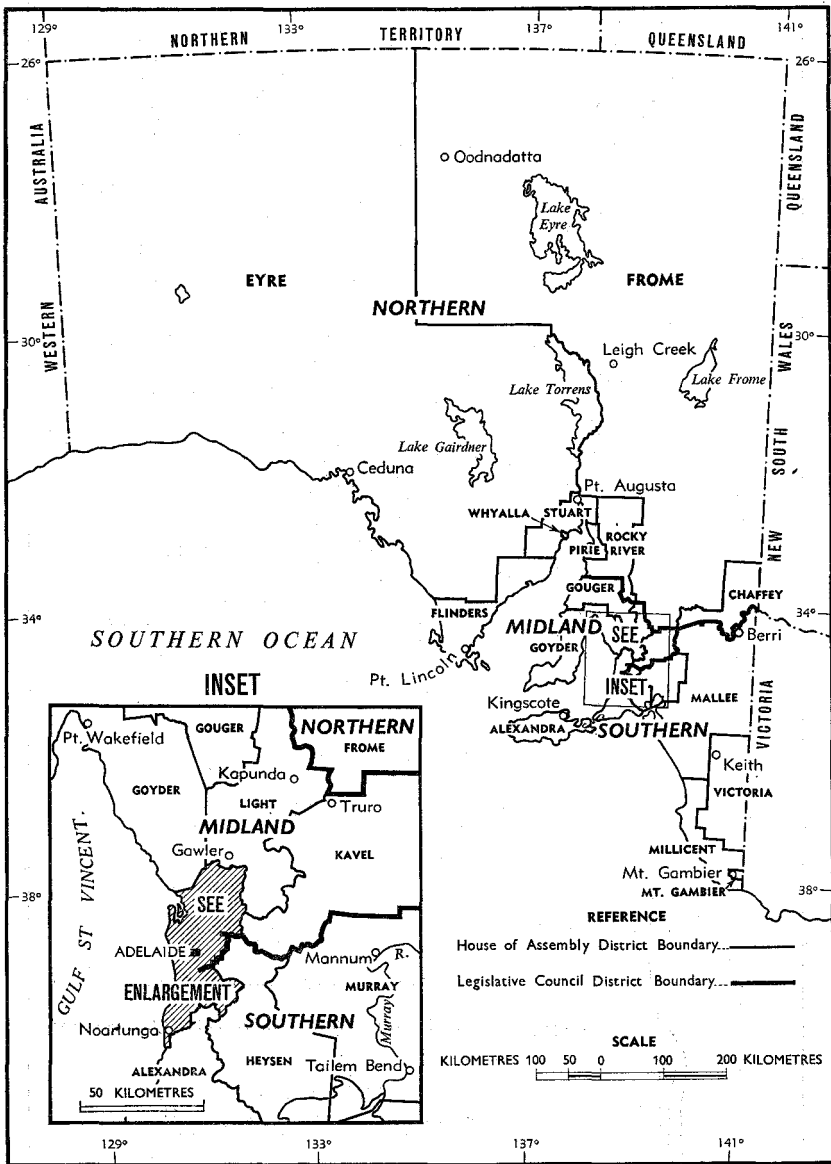
### **Franchise**

A British subject at least eighteen years of age who:

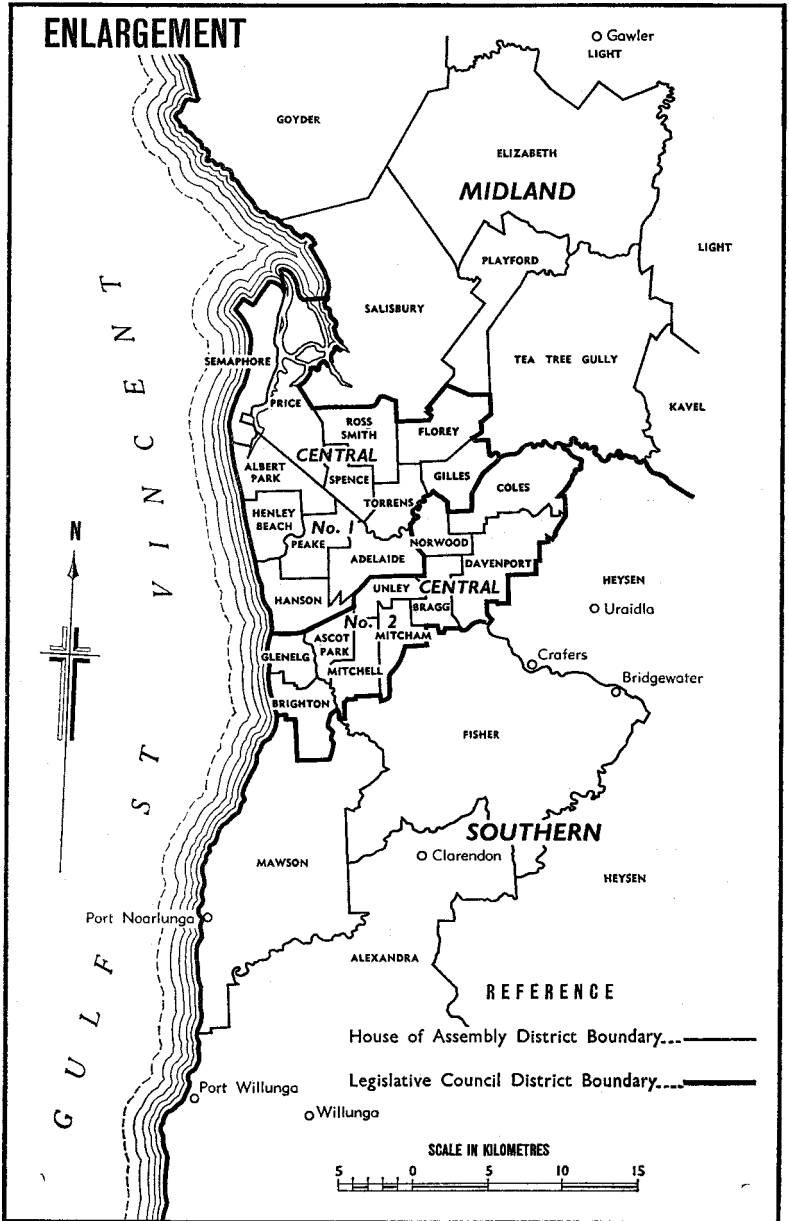
- (i) has lived continuously in Australia for at least six months, and in South Australia for at least three months, and in a Subdivision for at least one month immediately preceding the date of his or her claim for enrolment; or
- (ii) is or has been (as qualified by the Constitution Act) a member of the Australian Naval, Military or Air Force, or a member of the Mercantile Marine, during any war in which Australia is or has been engaged;

is entitled to vote at an election for a Member of the House of Assembly if, at the time of the election, he or she is enrolled on the Electoral Roll for a Subdivision of the Assembly District in which the election is held.

SOUTH AUSTRALIA  
 SOUTH AUSTRALIAN ELECTORAL DISTRICTS  
 As proclaimed 12 March 1970



PORTION OF SOUTH AUSTRALIA  
**SOUTH AUSTRALIAN ELECTORAL DISTRICTS**  
 As proclaimed 12 March 1970



Enrolment for the House of Assembly is not compulsory but in practice, as a consequence of the operation of the Australian and House of Assembly Joint Electoral Rolls, most persons enrolling for the Australian Electoral Roll are also enrolled for the House of Assembly.

### Membership

Subject to the exclusions mentioned on page 78 election to the House of Assembly is open to those eligible to vote in an election for the House. Members of this House are elected for a maximum of three years, for single-member districts. The seat of a member becomes vacant in cases similar to those stated for Legislative Councillors and may be filled at a by-election.

### Officers and their Functions

A Speaker presides over the House, and his election is the first business when a Parliament first meets. He presides over debate, maintains order, represents the House officially, communicates its wishes and resolutions, defends its privileges when necessary, and applies its procedure. The Speaker may exercise a casting vote only. There is also a Chairman of Committees elected by the House at the beginning of each Parliament; he presides over the deliberations of the House in Committee and acts as Deputy Speaker when required.

Other officers of the Parliament include the Leader and Deputy Leader of the Opposition in either House and the various party whips whose function is to ensure that their party members are present in the House for divisions and other important business.

## ELECTIONS AND PARTY REPRESENTATION

The following table gives details of the numbers of electors on the Electoral Rolls and voting in contested electorates for all general elections from 1947 to 1973. It appears that compulsory voting for the House of Assembly, introduced by the 1942 amendment to the Electoral Act, also caused a considerable increase in voting for the Legislative Council.

### South Australian Parliament, Voting at Elections, 1947 to 1973

Date	Legislative Council			House of Assembly		
	Contested Electorates			Contested Electorates		
	Electors Enrolled	Electors Voting	Per Cent	Electors Enrolled	Electors Voting	Per Cent
8 March 1947 .. .. .	155 847	124 826	80.10	306 059	285 765	93.37
4 March 1950 .. .. .	68 347	52 954	77.48	311 658	290 306	93.15
7 March 1953 .. .. .	97 968	79 373	81.02	354 273	336 592	95.01
3 March 1956 .. .. .	22 963	16 002	69.69	299 048	280 811	93.90
7 March 1959 .. .. .	86 278	70 007	81.14	426 340	400 531	93.95
3 March 1962 .. .. .	118 218	98 786	83.56	444 197	417 462	93.98
6 March 1965 .. .. .	186 899	149 910	80.21	542 436	513 064	94.59
2 March 1968 .. .. .	275 701	262 328	95.15	609 626	575 948	94.48
30 May 1970 .. .. .	—	—	—	635 533	603 952	95.03
10 March 1973 .. .. .	383 758	357 971	93.28	696 290	655 937	94.20

The following table shows the Party representation in both Houses of the South Australian Parliament resulting from each general election from 1947.

**South Australian Parliament, Party Representation at Elections, 1947 to 1973**

Date	Legislative Council			House of Assembly		
	ALP	LP	Other	ALP	LP	Other
8 March 1947	4	16	—	13	23	3
4 March 1950	4	16	—	12	23	4
7 March 1953	4	16	—	14	21	4
3 March 1956	4	16	—	15	21	3
7 March 1959	4	16	—	17	20	2
3 March 1962	4	16	—	19	18	2
6 March 1965	4	16	—	21	17	1
2 March 1968	4	16	—	19	19	1
30 May 1970	4	16	—	27	20	—
10 March 1973	6	13	1 (a)	26	18	3 (b)

(a) Liberal Movement.

(b) 2 Liberal Movement, 1 Country Party.

ALP Australian Labor Party. LP Liberal Party of Australia.

At present there are forty-seven electorates represented in the House of Assembly, twenty-eight metropolitan and nineteen country. The table below shows the electoral returns for the general election held on 10 March 1973.

**House of Assembly: Party Representation, 1973**

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
<b>Metropolitan:</b>					
Adelaide	16 718	15 524	Wright, J. D.	ALP	9 792
Albert Park	16 667	15 822	Harrison, C. A.	ALP	10 716
Ascot Park	16 326	15 480	Virgo, Hon. G. T.	ALP	9 685
Bragg	15 911	14 880	Tonkin, D. O.	LP	9 619
Brighton	18 059	17 133	Hudson, Hon. H. R.	ALP	10 099
Coles	18 908	18 046	King, Hon. L. J., QC	ALP	10 341
Davenport	17 734	16 677	Brown, D. C.	LP	11 082
Elizabeth	17 348	15 866	Duncan, P.	ALP	9 904
Fisher	18 209	17 129	Evans, S. G.	LP	9 876
Florey	19 774	18 704	Wells, C. J.	ALP	12 517
Gilles	17 318	16 415	Slater, J. W.	ALP	8 846
Glenselg	17 422	16 428	Mathwin, J.	LP	8 465
Hanson	18 868	17 676	Becker, H. T.	LP	9 022
Henley Beach	18 632	17 526	Broomhill, Hon. G. R.	ALP	9 661
Mawson	24 639	23 169	Hopgood, Hon. D. J.	ALP	13 812
Mitcham	16 662	15 670	Millhouse, R. R.	LM	9 528
Mitchell	16 968	16 039	Payne, R. G.	ALP	9 472
Norwood	16 907	15 711	Dunstan, Hon. D. A., QC	ALP	9 033



## House of Assembly: Party Representation, 1973 (continued)

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
<b>Metropolitan: (continued)</b>					
Peake . . . . .	16 417	15 534	Simmons, D. W., DFC	ALP	8 855
Playford . . . . .	20 213	18 925	McRae, T. M.	ALP	11 545
Price . . . . .	16 343	15 408	Ryan, Hon. J. R.	ALP	9 396
Ross Smith . . . . .	15 734	14 879	Jennings, J. J.	ALP	11 102
Salisbury . . . . .	15 970	15 001	Groth, R. W.	ALP	10 943
Semaphore . . . . .	17 375	16 478	Hurst, Hon. R. E. (a)	ALP	11 472
Spence . . . . .	15 789	14 969	Crimes, E. H.	ALP	11 363
Tea Tree Gully . . . . .	23 572	22 302	Byrne, Mrs M. V.	ALP	13 525
Torrens . . . . .	16 555	15 369	Coumbe, J. W. H.	LP	8 202
Unley . . . . .	15 920	14 798	Langley, G. R. A.	ALP	8 357
<b>Country:</b>					
Alexandra . . . . .	11 447	10 930	Chapman, W. E.	LP	5 229
Chaffey . . . . .	11 164	10 624	Arnold, P. B.	LP	5 561
Eyre . . . . .	9 441	8 377	Gunn, G. M.	LP	5 848
Flinders . . . . .	10 725	10 190	Blacker, P. D.	CP	5 221
Frome . . . . .	8 286	7 747	Allen, E. C.	LP	4 584
Gouger . . . . .	9 993	9 526	Russack, E. K.	LP	4 502
Goyder . . . . .	9 940	9 562	Hall, R. S. (b)	LM	4 678
Heysen . . . . .	11 383	10 729	McAnaney, W. P.	LP	7 327
Kavel . . . . .	10 062	9 657	Goldsworthy, E. R.	LP	5 267
Light . . . . .	10 480	10 020	Eastick, B. C.	LP	6 031
Mallee . . . . .	10 187	9 744	Nankivell, W. F.	LP	4 901
Millicent . . . . .	10 681	10 279	Corcoran, Hon. J. D.	ALP	5 724
Mount Gambier . . . . .	11 030	10 475	Burdon, A. R.	ALP	5 991
Murray . . . . .	11 061	10 603	Wardle, I. A.	LP	5 929
Pirie . . . . .	10 208	9 736	McKee, Hon. D. H.	ALP	6 749
Rocky River . . . . .	9 928	9 518	Venning, H. M.	LP	4 454
Stuart . . . . .	12 755	11 536	Keneally, G. F.	ALP	8 702
Victoria . . . . .	10 133	9 598	Rodda, W. A.	LP	5 768
Whyalla . . . . .	10 428	9 528	Brown, M. J.	ALP	6 878

(a) Following the death of the Hon. R. E. Hurst, a by-election was held on 2 June 1973. The successful candidate was Mr. J. W. Olson (ALP). (b) Following the resignation of Mr. R. S. Hall to contest a Senate vacancy in the Australian Parliament a by-election was held on 8 June 1974. The successful candidate was Mr. L. D. Boundy (LM).

ALP Australian Labor Party. CP Country Party. LM Liberal Movement.  
LP Liberal Party of Australia.

*Speaker:* The Hon. J. R. Ryan, MP

*Chairman of Committees:* A. R. Burdon, MP

*Leader of the Opposition:* B. C. Eastick, MP

*Deputy Leader of the Opposition:* J. W. H. Coumbe, MP

*Government Whip:* G. R. A. Langley, MP

*Opposition Whip:* S. G. Evans, MP

*Clerk of the House of Assembly:* A. F. R. Dodd

The members of the Legislative Council and the districts they represent are:

*To Retire in 1976*

Kneebone, Hon. A. F. . . . .	(ALP)	Central No. 1
Shard, Hon. A. J. . . . .	(ALP)	Central No. 1
Hill, Hon. C. M. . . . .	(LP)	Central No. 2
Rymill, Hon. Sir Arthur . . . . .	(LP)	Central No. 2
Cameron, Hon. M. B. . . . .	(LM)	Southern
Springett, Hon. V. G. . . . .	(LP)	Southern
Dawkins, Hon. M. B. . . . .	(LP)	Midland
Story, Hon. C. R. . . . .	(LP)	Midland
Gilfillan, Hon. G. J. . . . .	(LP)	Northern
McEwin, Hon. Sir A. Lyell . . . . .	(LP)	Northern

*To Retire in 1979*

Banfield, Hon. D. H. L. . . . .	(ALP)	Central No. 1
Casey, Hon. T. M. . . . .	(ALP)	Central No. 1
Cooper, Hon. Mrs J. M. . . . .	(LP)	Central No. 2
Potter, Hon. F. J. . . . .	(LP)	Central No. 2
DeGaris, Hon. R. C. . . . .	(LP)	Southern
Burdett, Hon. J. C. . . . .	(LP)	Southern
Chatterton, Hon. B. A. . . . .	(ALP)	Midland
Creedon, Hon. C. W. . . . .	(ALP)	Midland
Geddes, Hon. R. A. . . . .	(LP)	Northern
Whyte, Hon. A. M. . . . .	(LP)	Northern

*President and Chairman of Committees:* Hon. Sir Lyell McEwin, MLC

*Leader of the Opposition:* Hon. R. C. DeGaris, MLC

*Clerk of the Legislative Council:* I. J. Ball

### **Court of Disputed Returns**

In South Australia, provision is made in the Electoral Act, 1929-1973, for the constitution of a Court of Disputed Returns which has jurisdiction to hear and determine all questions of disputed returns affecting either House of the State Parliament which are referred to it by the House concerned. No return on an election writ may be disputed, except by a petition to this Court. A subsidiary function of the Court is to hear petitions for exoneration from liability for failure to file certain electoral returns or vouchers under Part XIV of the Electoral Act.

The Court is constituted by the senior puisne Judge of the Supreme Court, or where he is not available by the puisne Judge next in order of seniority who is available.

The Court sits as an open court, usually at Parliament House Adelaide, and has power, *inter alia*:

- (a) to compel the attendance of witnesses and the production of documents;
- (b) to examine witnesses upon oath;
- (c) subject to any Supreme Court rules, to regulate the form and mode of its own proceedings;

- (d) to declare that any person who was returned as elected was not duly elected;
- (e) to declare any candidate duly elected who was not returned as elected;
- (f) to declare any election void;
- (g) to dismiss or uphold any petition in whole or in part;
- (h) to award any costs; and
- (i) to punish any contempt of its authority.

Most cases have related to House of Assembly elections. Since 1857, the Court of Disputed Returns has considered twenty-one petitions referred to it by the House of Assembly concerning the election of twenty-six members of that House. The Court's decisions in these cases are summarised hereunder:

Election voided and member unseated .. . . .	15
Member unseated but other candidate declared to be duly elected .. . . .	2
Petitions unsuccessful .. . . .	2
Petitions dismissed .. . . .	6
Petition withdrawn .. . . .	1

**REFERENDA**

Since the inception of responsible government in South Australia in 1856 seven referenda have been held—the first in 1896 and subsequent ones in 1898, 1899, 1911, 1915, 1965 and 1970—and ten proposals have been submitted.

Three proposals related to education (1896) of which only one was approved; three were constitutional (1898 and 1899)—all approved; one related to Parliamentary salaries (1911)—not approved; one related to bar-room closing hours (1915)—favoured 6 p.m. closing; one related to the establishment of a lottery (1965)—approved; and one related to extended shopping hours in the metropolitan area—not approved.

The last referendum, held on 19 September 1970, asked House of Assembly electors in the Adelaide Metropolitan Planning Area and the Municipality of Gawler 'Are you in favour of shops in the Metropolitan Planning Area and the Municipality of Gawler being permitted to remain open for trading until 9 p.m. on Fridays?' Of the 463 629 electors qualified to vote 177 296 voted 'Yes' and 190 826 voted 'No'.

**ADMINISTRATION**

The South Australian Public Service consists of forty-six departments, many of which are very small. In the following list, the departments have been grouped according to Ministerial control.

**PREMIER AND TREASURER**

Hon. Donald Allan Dunstan, QC, MP

Premier's Department	Valuation Department
Treasury Department	Department of the Public Service Board
Superannuation Department	Art Gallery Department
State Taxes Department	

DEPUTY PREMIER, MINISTER OF WORKS AND MINISTER OF MARINE

Hon. James Desmond Corcoran, MP

Minister of Works Department  
Engineering and Water Supply  
Department

Public Buildings Department  
State Supply Department  
Department of Marine and Harbors

CHIEF SECRETARY, MINISTER OF LANDS, MINISTER OF REPATRIATION AND MINISTER OF IRRIGATION

Hon. Alfred Francis Kneebone, MLC

Chief Secretary's Department  
Government Reporting Department  
Auditor-General's Department  
Government Printing Department

Police Department  
Department of the Public Actuary  
Department of Correctional Services  
Department of Lands

MINISTER OF EDUCATION

Hon. Hugh Richard Hudson, MP

Minister of Education Department  
Education Department

Libraries Department

ATTORNEY-GENERAL, MINISTER OF COMMUNITY WELFARE AND MINISTER OF PRICES AND CONSUMER AFFAIRS

Hon. Leonard James King, QC, MP

Attorney-General's Department  
Crown Law Department  
Public Trustee Department  
Department of Community Welfare  
Supreme Court Department

Local and District Criminal Courts  
Department  
Registrar-General's Department  
Electoral Department

MINISTER OF TRANSPORT AND MINISTER OF LOCAL GOVERNMENT

Hon. Geoffrey Thomas Virgo, MP

Department of Transport

Highways Department

MINISTER OF AGRICULTURE AND MINISTER OF FORESTS

Hon. Thomas Mannix Casey, MLC

Minister of Agriculture Department  
Agriculture Department

Woods and Forests Department  
Produce Department

MINISTER OF ENVIRONMENT AND CONSERVATION, MINISTER OF TOURISM, MINISTER OF RECREATION AND SPORT AND MINISTER OF FISHERIES

Hon. Glen Raymond Broomhill, MP

Department of Environment and Con-  
servation  
Department of Fisheries

Department of Tourism, Recreation  
and Sport  
Botanic Garden Department

MINISTER OF LABOUR AND INDUSTRY

Hon. David Hugh McKee, MP

Department of Labour and Industry

MINISTER OF HEALTH

Hon. Donald Hubert Louis Banfield, MLC

Hospitals Department  
Chemistry Department

Department of Public Health

MINISTER OF DEVELOPMENT AND MINES AND MINISTER ASSISTING  
THE PREMIER

Hon. Donald Jack Hopgood, MP

Mines Department

THE OMBUDSMAN

The office of the Ombudsman is established under the Ombudsman Act, 1972-1974. The Ombudsman is empowered to investigate complaints from members of the public concerning the administrative acts of State Government departments, State statutory authorities and local government authorities.

The jurisdiction of the Ombudsman does not extend to Australian Government departments or authorities, judicial decisions, police actions, or actions by private individuals or companies.

A complaint to the Ombudsman is usually made by the person or enterprise directly affected by an administrative act, although a Member of the South Australian Parliament or some other person may act on the complainants behalf. Complaints may be by telephone or personal visit, but it is preferable for a complaint to be in writing giving full details including copies of any correspondence with the authority concerned.

The Ombudsman has the powers of a royal commission in private. Complainants are informed of the final result of any inquiry and where appropriate progress reports are given while an investigation is proceeding. The Ombudsman service is provided free-of-charge.

During 1973-74, 961 complaints were registered and of those fully investigated, approximately 20 per cent were found to be justified fully or in part.

LEGISLATION

During 1974, 132 Public Acts were passed by the South Australian Parliament. Details of some of the more important legislation passed during this period are given below.

Adelaide to Crystal Brook Standard Gauge Railway Agreement Act, 1974 (No. 105). An Act to approve an agreement made between the Australian and South Australian Governments for the construction of a standard gauge railway between Adelaide and Crystal Brook.

Boating Act, 1974 (No. 132). An Act to provide for the registration of motor boats, the licensing of drivers and the requirement for boats to carry life saving equipment.

- Brighton to Christie Downs Railway Duplication and Extension Act, 1974 (No. 46). An Act to provide for the construction of a railway from Christie Downs to Port Noarlunga South and for the duplication of the railway from Brighton to Christie Downs.
- Business Franchise (Petroleum) Act, 1974 (No. 95). An Act to provide for the licensing of persons who carry on the business of selling petroleum products, licence fees being related to sales.
- Business Franchise (Tobacco) Act, 1974 (No. 96). An Act to provide for the licensing of persons who carry on the business of selling tobacco, licence fees being related to sales.
- Classification of Publications Act, 1974 (No. 23). An Act to provide for the classification of publications and to impose conditions on the distribution of publications classified as restricted.
- Constitution Act Amendment Act, 1974 (No. 45) amended the Constitution Act, 1934-1973 to provide for an increase in the Governor's basic salary from \$15 000 to \$20 000.
- Licensing Act Amendment Act (No. 2), 1974 (No. 110) amended the Licensing Act, 1967-1974 to allow hotels to trade until 12 midnight on Fridays and Saturdays.
- Lottery and Gaming Act Amendment Act, 1974 (No. 127) amended the Lottery and Gaming Act, 1936-1973 to provide for financial assistance to the racing industry following the Hancock inquiry into racing in South Australia.
- Psychological Practices Act, 1974 (No. 37). An Act to provide for the registration of psychologists and to provide for the protection of the public from unqualified persons and certain harmful practices.
- Road Traffic Act Amendment Act (No. 6), 1974 (No. 93) amended the Road Traffic Act, 1961-1974 to provide for a 'stop' sign at an intersection or junction to mean 'stop and give way to all other vehicles, whether on the left or the right'.
- State Transport Authority Act, 1974 (No. 41). An Act to establish a State Transport Authority and to set out its powers and functions.
- Tarcoola to Alice Springs Railway Agreement Act, 1974 (No. 104). An Act to approve an agreement made between the Australian and South Australian Governments for the construction of a standard gauge railway between Tarcoola in South Australia and Alice Springs in the Northern Territory.
- Transplantation of Human Tissue Act, 1974 (No. 55). An Act to make provision for the removal of human tissues for therapeutic use and to amend the Anatomy Act, 1884-1954.

Complete details of Acts passed are contained in the volumes of *Acts of the Parliament of South Australia*.

### OVERSEAS REPRESENTATION

South Australia is represented in London by the Agent-General for South Australia, at South Australia House, 50 Strand, London. As official representative of the State, it is the function of the Agent-General to work in close co-operation with the High Commissioner for Australia, to keep the State Government informed of political and economic developments overseas, to promote industrial

development and investment in South Australia, to encourage immigration to the State and to foster trade with the United Kingdom and other countries. The present Agent-General and Trade Commissioner is Mr. J. S. White.

### INTERSTATE REPRESENTATION

The South Australian Tourist Bureau maintains offices at 402 George Street, Sydney, NSW, and at 8 Royal Arcade, Melbourne, Victoria, to foster and facilitate tourist travel to South Australia.

### CONSULAR REPRESENTATIVES

There are twenty-two countries represented in South Australia by consuls, vice-consuls, consular-agents or consul-generals.

*Austria*: John A. Nelson, Consular-General<sup>(a)</sup>

*Belgium*: Robert E. Porter, Consul

*Britain*: Eric W. Cook, Consul General <sup>(b)</sup>

Derek Reed, Vice-Consul (Commercial) <sup>(b)</sup>

*Denmark*: Trevor R. Taylor, Consul

*Dominican Republic*: Peter H. D. Lathlean, Consul

*Finland*: C. C. Verco, Consul

*France*: Rex J. Lipman, Consul

*Germany*: Bruce R. Macklin, Consul

*Greece*: Vasille P. Apostol, Consul

*Guatemala*: Robert M. Napier, QC, Consul

*Italy*: Dr Antonino Provenzano, Vice-Consul<sup>(b)</sup>

*Japan*: J. Langdon Parsons, Consul

*Lebanon*: Archie M. Hambour, Consul

*Liberia*: William B. Coombs, Consul

*Mexico*: John J. Roche, Consul

*Netherlands*: M. M. Keukenmeester, Consul

*Norway*: John N. Howe, Consul

*Peru*: Max J. Hill, Consul

*Philippines*: J. Rolfe Sabine, Consul

*Portugal*: Raymond F. Walters, Vice-Consul

*Sweden*: Mrs June Tanner, Consul

*Switzerland*: Paul A. Richter, Vice-Consul

*United States of America*: Thomas Manuel, Consular-Agent

(a) Dean of the Consular Corps.

(b) *Consul de Carriere*.

### STATE EMBLEMS

A description of the South Australian Coat-of-Arms, the State Badge, the State Flag and the Floral Emblem together with coloured illustrations was included on pages 94-5 of the *South Australian Year Book* 1970.

On 27 September 1970 the hairy-nosed wombat (*Lasiorhinus latifrons*) was adopted as South Australia's official Faunal Emblem.

### 3.4 PUBLIC CORPORATIONS

A public corporation is defined, for statistical purposes, as a body (other than a local government authority or body whose receipts and payments are included in the public accounts of the Australian Government, a State, or a Territory) created by or under legislation to carry out an activity or activities on behalf of a Government, or a body in which a Government has a controlling interest.

Some authorities, such as marketing boards which are set up by Acts of Parliament, are not regarded as public corporations because their activities are carried out on behalf of industries rather than on behalf of any Government.

Most public corporations have independent powers for the recruitment of staff. All possess greater administrative and financial autonomy than government departments but there is a wide variation in the degree of autonomy accorded, in various aspects, to different authorities.

Activities carried out by public corporations include tertiary education, hospital services, power supply, public transport, banking services, fire control, irrigation and drainage in rural areas, control and regulation of milk supply, slaughtering of animals for human consumption, housing development, off-course totalisators and lotteries, and investigation of problems relating to the development of mineral resources.

In appropriate parts of this Year Book reference is made to the activities of most of the public corporations which operate in South Australia.

### 3.5 LOCAL GOVERNMENT

#### LOCAL GOVERNMENT AUTHORITIES

##### Local Government Areas: Number, Size and Status

At 1 January 1975 there were 137 local government areas in South Australia, and with the exception of one area, each is controlled by a council consisting of members elected by local ratepayers and exercising powers under the Local Government Act, 1934-1974. The Garden Suburb Commission, Colonel Light Gardens, is administered by a Commissioner appointed by the Governor.

The total area incorporated in local government areas at 1 January 1973 was 149 847 square kilometres; this is only slightly above 15 per cent of the total area of the State but contains almost 99 per cent of the State population.

There are two major types of local government areas—district council areas and municipalities. Usually district council areas consist predominantly of rural land but contain one or more towns. Generally, to qualify for proclamation as a municipality an area must be used predominantly for either residential, business, industrial, or manufacturing purposes (or a combination of these purposes), and be able to support itself financially. Some municipalities are constituted as cities, the qualification being 15 000 inhabitants for metropolitan municipalities (the twenty-one local government areas which form the metropolitan area as defined under the Local Government Act and which, before June 1966, corresponded to the statistical Urban Adelaide) and 10 000 persons in other areas.



Of the 137 local government areas at 1 January 1975, 40 were municipalities (including 24 cities) and 97 were district council areas.

The Governor may create, abolish, or vary the size, status, or organisation of, any local government area or portion thereof, provided certain requirements are satisfied. Such alterations usually stem from petition by ratepayers or a council.

As a result of legislation passed in 1969 district councils may apply to the Governor for mayoral status; in previous years only municipal councils had mayors. Since the legislation eight district councils, Berri, Clare, Gumeracha, Kanyaka-Quorn, Kapunda, Millicent, Loxton and Waikerie have been granted mayoral status.

### Functions of Local Government

The Local Government Act, 1934-1974 prescribes most of the 'powers and authorities' which each council shall or may exercise 'for the good government' and 'the management of the affairs' of its area, but some functions devolve from other Acts. To enable it to sue and be sued and to participate in transactions involving the purchase and sale of land and other property each council is constituted as a corporate body.

The functions performed by councils vary somewhat with the area concerned, but there are general functions which are common to them all. Many of these functions receive more detailed attention in the parts of this book dealing with the appropriate subjects, *e.g.* road construction and maintenance in Part 8.3, Physical Development; health services and Local Boards of Health in Part 6.5, Social Environment, and libraries in Part 6.4, Social Environment. Among the many other functions of local governing authorities are the provisions of street lighting, the licensing and inspection of slaughterhouses, the maintenance of cemeteries, the maintenance of foreshores and jetties, the control of the location of industries (especially noisy trades), the prevention of fires within certain areas, and the policing of provisions relating to vermin and weeds. Councils also employ social workers and carry out functions in relation to social welfare.

### Organisation and Representation

Whereas a municipality must be divided into at least two areas known as wards, a district council need not have wards; however, only four district councils have undivided areas. No council may comprise less than five members, and each ward in a municipality must be represented by two councillors. No district council area may be divided into more than ten wards, and the number of councillors for each ward is established by proclamation.

A candidate for election as a councillor must be an adult British subject owning or occupying ratable property within the area for which he seeks election. Special magistrates, undischarged bankrupts, persons holding contract or employment under the council, persons under sentence for crimes, persons overdue with council rates and any associated fines and persons of unsound mind are ineligible for election.

Each year half the number of councillors retire. In councils with wards one councillor from each ward, the one who has been 'the longest in office without re-election', retires; in other councils the councillors who did not retire one year do so the next. In all cases a retiring councillor is eligible for re-election.

Any municipality may apply to add no less than three and no more than six aldermen to its council. The qualifications for councillors apply to aldermen, except that aldermen are not bound by the limits of wards, and an alderman must have served at least one year as a member of the council. Although the functions of aldermen are not specifically defined the concept is that they should impartially consider the interests of the area as a whole and so resolve any conflict which may arise between sectional interests represented by councillors.

Mayors of municipalities and of certain district councils are elected annually on the same basis as aldermen. The chairman of a district council is chosen annually by councillors from among their number.

### **Allowances**

Council members, other than mayor or chairman, are not paid salaries or allowances, but may be reimbursed any expenses incurred in the performance of council business, and in the case of district councils, may be reimbursed the cost of travelling to and from council meetings.

The mayor or chairman receives an annual allowance which is determined at a council meeting in July of each year. This allowance, payable in advance, is to compensate for any expenses he is likely to incur in the execution of his official duty in the current financial year.

### **Franchise**

British subjects, over the age of eighteen, who either own or occupy ratable property within an area are eligible to be enrolled for, and to vote at, elections for that area provided that they are not in arrears with their rates. The lawful spouse of an owner is deemed to be the occupier. Companies or corporations owning or occupying ratable property within the area are entitled to nominate up to three persons to vote on their behalf at the elections for that area, depending on the method of valuation; the entitlement is for the nomination of one vote for each \$300 of annual (improved) value of \$2 000 of unimproved (land) value or part of either, up to three voters for any one property. Special provision is also made to allow certain defence personnel to vote.

### **Officers and their Functions**

Each council may appoint any officers it considers necessary to carry out its duties, including special constables to facilitate the maintenance of law and order within its area. Each council must appoint a town clerk (in a municipality) or a district clerk (in a district council) as the chief administrative officer, and an auditor.

Employment in local government administration is now regarded as a career; most town and district clerks are full-time employees, and councils are required to employ in those positions only those persons who have passed examinations qualifying them for the work. The town or district clerk maintains the voters roll and in many cases is appointed returning officer for elections. The characteristics of particular areas determine to some extent the nature of the duties performed by town and district clerks; they often undertake a very wide variety of functions, especially in smaller areas, where even the part-time employment of specialist officers for particular tasks is not warranted. Other

officers employed in local government are required to hold appropriate qualifications; these include engineers, overseers, building surveyors and inspectors, health inspectors and authorised weed officers.

The auditor for each council is appointed for a term of two years. He is not eligible for appointment unless he holds a Local Government Auditor's Certificate of competence issued by the Local Government Auditors Examining Committee.

Whenever a council itself undertakes a new assessment of property values within its area it is required under the Local Government Act to appoint a valuer who recommends to the council a valuation of each property for rating purposes. A ratepayer may appeal against a council's valuation of his own property or that of another ratepayer. Instead of undertaking its own assessment of property values it is now not uncommon for a council to adopt the valuations of the Valuation Department. When this is done a council avoids the necessity of employing a valuer but a fee for each valuation is payable to the Valuation Department. There is no right of appeal to the council against valuations so based; in respect of the Government unimproved valuation the right of appeal lies against the Department when the valuation is made.

### Finance

Local government authorities derive their revenue from many different sources, including sundry licences and fines, but the principal sources are rates, loans raised against the security of future rates, and government grants. The relative importance of these sources of revenue varies between areas and through time within areas, *e.g.* in closely settled well developed areas rate revenue is usually predominant; in large sparsely settled areas government grants, mainly for road-works, may at times be the chief item of revenue; in areas being rapidly and extensively developed for housing or industrial purposes both government grants and loan funds may be prominent.

Australian Government grants, generally, are not made direct to local government authorities but are administered by appropriate State Government departments. The most important example of this is the distribution of portion of Commonwealth Aid Roads Grant to local government authorities by the Highways Department in conjunction with the State Treasury.

A large proportion of local government expenditure from both loan funds and other revenue is for the construction and maintenance of roads, footpaths, and stormwater drains.

### Local Government Report

A major 'Report by the Local Government Act Revision Committee on Powers, Responsibilities and Organisation of Local Government in South Australia' was released early in 1970. The Report, prepared following the appointment of the Committee in 1965, is the first in Australia to investigate the functions and responsibilities of local government. The Committee received 8 470 pages of transcript and written submissions criticising 1 005 of the 1 029 sections of the existing Act. The Committee has recommended that a new Local Government Act be prepared and that local authorities should be given wider powers to more effectively provide services and other assistance to ratepayers.

### 3.6 TOWN AND REGIONAL PLANNING

#### Legislation

In 1920 the South Australian Parliament passed the Town Planning and Development Act which followed the Control of Subdivision of Land Act of 1917. These Acts were the first of their kind in Australia. The Act of 1920 made provision for the preparation of town planning schemes and by-laws, for the appointment of a Government Town Planner and a Town Planning Department. The Department prepared plans for various areas, including Colonel Light Gardens and the townships of Iron Knob and Barmera. The Acts of 1917 and 1920 were repealed by the Town Planning Act, 1929 which dealt only with the control of land subdivision.

The Town Planning Act, 1929 was amended in 1955 to provide for a Town Planning Committee which was required to prepare a plan to guide the future development of the metropolitan area of Adelaide. The Committee considered the probable future population of the metropolitan area, the provision of public transport, adequacy of highways, provision of open spaces such as parks and sports grounds, the zoning of industrial districts, and the subdivision of land in relation to the economic provision of sewerage, water supply, electricity and gas services.

The Metropolitan Development Plan, together with its accompanying Report on the Metropolitan Area of Adelaide, was laid before both Houses of Parliament in October 1962, and an amendment to the Town Planning Act followed in 1963. The amendment required the Committee to call for and consider objections to the Plan as submitted to Parliament and the Committee was authorised to make regulations to implement the Plan.

The Planning and Development Act, 1966-1967 repealed the Town Planning Act, 1929-1963. It established an eleven-member State Planning Authority (with the Director of Planning as Chairman) and an independent Planning Appeal Board of four members. Provisions were made for the Planning Authority to implement and review the 1962 Development Plan, to prepare similar plans for other parts of the State and in conjunction with local government authorities to determine broad policies to guide the growth of towns and cities throughout the State.

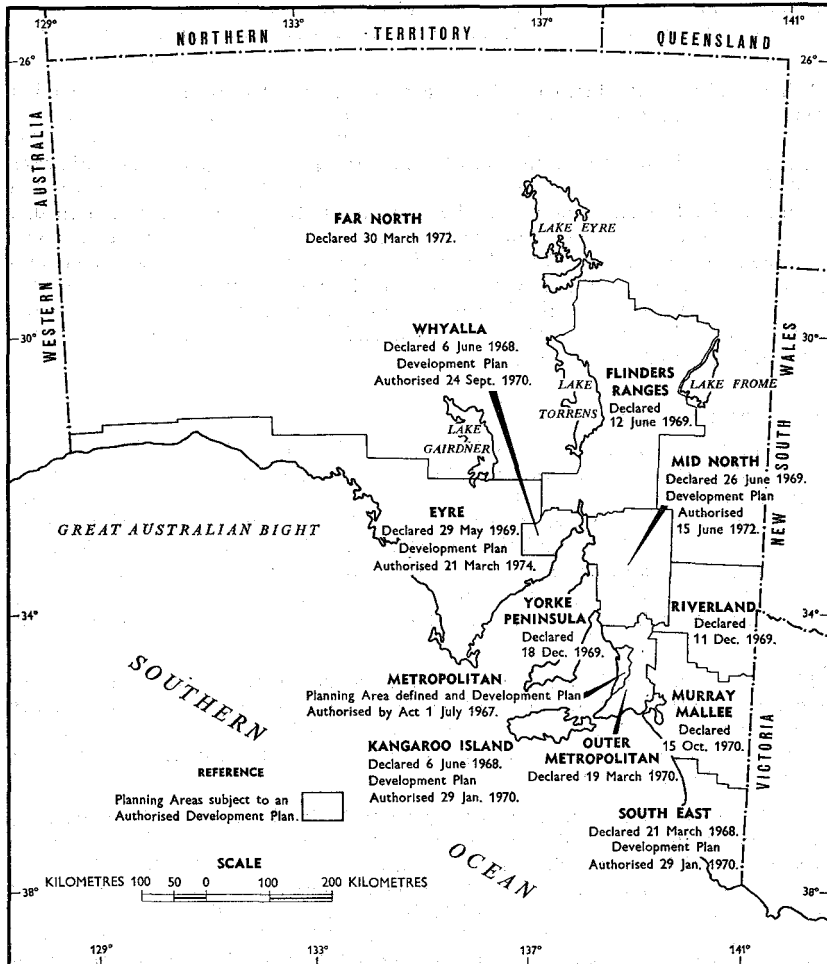
The Planning and Development Act Amendment Act, 1971 reconstituted the State Planning Authority to include a wider representation of experts in the fields of local government, conservation and aesthetics. Further amendments in 1972 permitted the appointment of permanent commissioners to the Planning Appeal Board, established special interim provisions for the City of Adelaide, enabled the State Planning Authority to acquire and develop land within the Port Adelaide District Business Zone, and established a 4-hectare minimum allotment size within the Hills Face Zone.

#### Development Plans

Twelve planning areas have been declared covering the whole of the State. Development plans have been authorised for seven of these areas, namely, Metropolitan (1 July 1967), South East (29 January 1970), Kangaroo Island (29 January 1970), Whyalla (24 September 1970), Mid North (15 June 1972),

Flinders Ranges (8 February 1973) and Eyre (21 March 1974). Work on preparing development plans for the remaining areas of the State is proceeding. In some parts of the State, such as in the Metropolitan area and Whyalla, the planning emphasis is on controlled development, whereas in the Flinders Ranges and Kangaroo Island, conservation of the natural resources and beauty of the area is being stressed.

SOUTH AUSTRALIA  
PLANNING AREAS



The process of preparing a development plan involves a considerable amount of public participation. Local councils, government departments and interested groups and individuals are consulted during the preparation of the plan, and the general public is given the opportunity to comment on it during a two month public exhibition period. Following the receipt of any representations the State Planning Authority submits the development plan to the Minister in its original or amended form. The Minister in turn forwards the plan to the Governor with his recommendation for action.

The Governor may decide to authorise the plan, reject it, amend it, on the basis of the representations received or send it back to the Authority for further consideration. Although rather a lengthy process, it does mean that the public has an opportunity to participate in the future development and conservation of the State.

Where existing development plans need to be updated or revised, a similar process is put in motion for the preparation of a supplementary development plan. In the metropolitan planning area a supplementary development plan to amend the alignment of a number of major transportation routes was authorised on 4 November 1971. A supplementary development plan to redevelop 5.5 hectares of land at Hackney was authorised on 14 December 1972 and a further supplementary development plan for the development of the Willunga area was authorised on 12 July 1973. Work is proceeding on other supplementary development plans for those portions of the Mount Lofty Ranges west of the Hills Face Zone and within the Metropolitan Planning Area, for detailed development of the City of Adelaide, and to amend other proposals shown on the Metropolitan Development Plan.

### **Development Control**

Control of development in accordance with a development plan is by regulation and the State Planning Authority or the appropriate local government body can recommend to the Minister that regulations be made. Such regulations may, for example, deal with land use zoning or reservation of land for acquisition for a particular purpose. The regulations must be exhibited publicly and opportunity given for objections to be lodged before submission to the Minister. Any person aggrieved by a decision given under a regulation may appeal to the Planning Appeal Board with a subsequent right of appeal to the Land and Valuation Court.

Most local councils in the Metropolitan area have gazetted zoning regulations to control development within their areas. A number of councils in country areas have also taken steps to introduce zoning regulations. Many local authorities operate interim development control powers delegated to them under the provisions of the State Planning Act.

The State Planning Authority directly controls development in the Hills Face Zone, comprising the high land overlooking Metropolitan Adelaide between Gawler and Sellicks Beach. The intention is to retain the basically rural character of the area. The State Planning Authority has interim development control over the area between Adelaide and Monarto, the Flinders Ranges Planning Area, the area around the proposed Redcliff petrochemical works, Kangaroo Island and some small portions of Metropolitan Adelaide. It is co-operating with local councils to introduce controls along the River Murray.

The Authority is empowered to buy land, either by agreement or compulsorily, to assist in promoting development in accordance with the development plan, and a Planning and Development Fund exists in the Treasury to assist the Authority in carrying out this function.

By October 1972, 1 764 hectares of land had been acquired for major open spaces and regional parks in the metropolitan area at a cost of \$2 800 000. The Planning and Development Fund is also being used to acquire the properties comprising the Hackney redevelopment area.

The control of land subdivision throughout the State, with the exception of the City of Adelaide where there is no control, is vested in the Director of Planning and the local government authority in the area in which the land is situated. If permission to subdivide is refused, there is a right of appeal to the Planning Appeal Board.

The Minister of Environment and Conservation is responsible for the administration of the Planning and Development Act. The Director of Planning heads the State Planning Office which forms a division of the Department of Environment and Conservation.

### **Monarto**

A new city to cater for over 100 000 people is to be established in the vicinity of Murray Bridge, 80 kilometres south-east of Adelaide.

The Murray New Town (Land Acquisition) Act, 1972 authorised the State Planning Authority to acquire an area of not more than 10 000 hectares within 30 kilometres of Murray Bridge for the purpose of establishing a new city. Subsequently the area was changed to 16 000 hectares. A site for the city, to be named Monarto, has now been chosen and detailed planning is now proceeding.

The Monarto Development Commission is responsible for the implementation of the project which is expected to break ground in three or four years. The new city is to be planned with a broad economic base and will eventually attain self-government status. Development control around the city will remain the responsibility of the State Planning Authority.

### **Coast Protection**

The Coast Protection Act, 1972 provides for the conservation and protection of the State's coastline, including its foreshore and beaches. A Coast Protection Board of five members has been established under the chairmanship of the Director of Planning. Its objectives are broadly to protect and restore the coast, to develop any part of it for enjoyment by the public and to carry out research.

The Board makes grants to local government authorities to assist them with conservation projects and to help them maintain boat launching ramps, car parks, grassed foreshore reserves and other public amenities. Loss of sand from several metropolitan beaches is a major problem and the Board is devoting technical and financial resources to a sand replenishment program.

Coast protection districts may be established for any part of the coast, after which management plans are to be prepared setting out the measures needed to protect the coast and secure its most appropriate use. Proposed developments that are contrary to the management plan may be refused by the Board subject to right of appeal to the Planning Appeal Board.

Two coast protection districts, Metropolitan and Yorke, were declared in 1973; Fleurieu Coast Protection District was declared in 1974; and the declaration of the Eyre, Spencer, South East and Kangaroo Island Coast Protection Districts will follow.

The management plan for the Metropolitan Coast Protection District which extends from Sellicks Beach to Port Gawler is expected to be completed in 1975. This will be followed by the management plan for the Yorke District which includes the coastline from Port Gawler to the northern boundary of the District Council of Port Broughton.

In 1973-74 the Coast Protection Board expended \$623 000 on foreshore repairs, improvements and restoration. Of this amount \$462 000 was paid to local government bodies.



## LAND SETTLEMENT

### 4.1 LAND TENURE

#### IDENTIFICATION OF LAND AND REGISTRATION OF TITLE

To facilitate the identification of land, the southern portion of the State encompassing all the arable land and certain pastoral areas has been subdivided into counties and, these in turn have been generally subdivided into smaller units known as hundreds.

The first Surveyor-General, Colonel Light, had been instructed by the Colonisation Commissioners to divide the colony into towns and counties, and in 1842 the first nine counties were proclaimed. As the administration was having considerable difficulty in regulating the leasing of unsold lands for pasturage it was proposed in 1846 that boundaries of areas smaller than counties be created and the system of hundreds used in some counties in England was adopted.

The boundaries of early counties and hundreds followed natural features. As further counties and hundreds were declared, natural features suitable for boundary delineation were not always available and in most cases the boundaries were set parallel to lines of longitude and latitude.

In 1887 an area of 100 000 hectares was declared to provide for the town and irrigation area of Renmark on the River Murray. Similar areas were subsequently surveyed and proclaimed adjacent to other sections of the river.

There are currently forty-nine counties covering 23 per cent of the State, the last of these being declared in 1933. The counties have an average size of 463 000 hectares, varying from County Light, north of Adelaide, with 217 470 hectares to County Jervois on Eyre Peninsula with 959 000 hectares.



of Lands (or the Minister of Irrigation in the case of irrigated lands) is required before the transfer, mortgage or sublease of any of the forms of tenure administered by the Department.

Land available for leasing is allotted by the Land Board and, in the case of pastoral lands, by the Pastoral Board, who interview applicants and make allotments on merit. The Boards also advise the Minister on matters connected with land settlement.

Leases and licences under the various mining Acts are issued and supervised by the Department of Mines, while the Woods and Forests Department and the Engineering and Water Supply Department are responsible for the issuing of leases over reserves and areas under their control.

CURRENT TENURE

In the table below, occupied land in South Australia is classified according to its present form of tenure. Thus 'Area sold, dedicated, etc.' does not represent the accumulated total of all alienated lands as certain alienated lands repurchased by the Crown are currently held under leases.

At 30 June 1974 land in South Australia was occupied as follows:

	Area Hectares	Proportion Per Cent
Area sold, dedicated, etc.;		
Sold . . . . .	5 589 848	5.67
Free grants . . . . .	372 970	0.38
Dedicated (a) . . . . .	127 482	0.13
Under agreement to purchase . . . . .	103 287	0.11
<b>Total . . . . .</b>	<b>6 193 587</b>	<b>6.29</b>
Area under lease and licence (b);		
Perpetual . . . . .	8 510 650	8.64
Pastoral . . . . .	51 215 133	52.03
Other . . . . .	628 426	0.64
<b>Total . . . . .</b>	<b>60 354 209</b>	<b>61.31</b>
Area in occupation . . . . .	66 547 796	67.60
Remainder of State;		
Lakes and lagoons . . . . .	3 198 943	3.25
Open for allotment or selection . . . . .	96 384	0.10
Other vacant land (c) . . . . .	28 594 554	29.05
<b>Total area of State . . . . .</b>	<b>98 437 677</b>	<b>100.00</b>

(a) Includes State forest reserves.

(b) Includes areas held under Mining Acts.

(c) Includes surveyed roads, railways and other reserves, 9 290 427 hectares; of which 7 805 054 hectares are set apart as Aboriginal reserves.

In 1901 the area sold, granted and leased, i.e. the area occupied, was 37 934 751 hectares, increasing to 57 472 548 in 1924, but falling to 52 370 744 in 1931 because of decreased areas under pastoral lease. Since 1931 there has been a fairly steady increase to the present figure of 66 547 796 hectares.

## METHODS OF ALIENATING LAND

### Sales under Agreement to Purchase

There is provision for Crown lands to be alienated through an agreement to purchase. The purchase money is payable over varying terms not exceeding sixty-four years and the purchaser must comply with certain special conditions concerning the improvement and the development of the land, including the fencing of the property within the first five years. It is not necessary for an agreement to run the full term as, subject to the Minister's approval, purchase may be completed after six years provided the purchaser has complied with all the necessary conditions. Land allotted under Agreements to Purchase amounted to 37 hectares in 1973-74.

### Sales at Auction

Certain Crown lands may be sold at auction for cash. These include town lands, suburban lands exempt from the operations of the Land Board, and Crown lands which have been offered for lease and not taken up within two years. Town lands so sold are subject to limitations on resale and conveyance through mortgage during the first six years, and it is usually conditional that improvements, for an agreed function and of a certain minimum value, be erected within a stipulated period.

### Free Grants and Reservations

A free grant of Crown lands may be made for any public purpose. Of the 372 970 hectares thus alienated at 30 June 1974, 310 798 hectares had been granted for the Weapons Research Establishment. Lands may also be dedicated and reserved for a variety of purposes such as forest reserves, Aboriginal reserves, national parks, conservation parks, recreation parks, parklands and schools.

## METHODS OF LEASING AND LICENSING LAND

### Leases for Limited Terms

Pastoral lands outside the counties and large areas in the northern counties are held under pastoral leases granted for terms of forty-two years (except in the case of previously unoccupied lands when the term is twenty-one years) or for shorter terms where the land may be required for other purposes. Under the conditions of these leases the lessee must expend in improvements a sum as recommended by the Pastoral Board and must comply with certain conditions on stocking. Rent is based on the carrying capacity of the land, the distance from markets and the proximity of transport facilities, and, in the case of recent leases, is reviewed every seven years. Such lands may be reallocated to the same lessees on expiry of the existing terms.

Persons may be granted a permit to search for water and if successful may take up a lease of 250 square kilometres of land. Such leases are granted for forty-two years at a nominal rental for the first ten years and a low rental thereafter. Conditions of stocking are also modified.

In certain circumstances, for example, where land has not been surveyed or its potential is uncertain, or where permanent alienation is not desirable, miscellaneous leases are issued for periods up to twenty-one years. Certain business and industrial sites may also be held under miscellaneous lease. Annual licences may be granted over Crown lands for certain industrial sites, grazing areas, fishermen's residences, holiday shack sites and other approved purposes.

Land reserved for the Woods and Forests Department was leased for cultivation or grazing purposes for a period not exceeding forty-two years. At 30 June 1974, 388 hectares of forest land were under lease.

### Perpetual Leases

Leases in perpetuity may be offered over Crown lands which have been surveyed or delineated on the public maps. The lessee is required to provide boundary fencing and may be required to clear and render available for cultivation a certain proportion of the land within a specified period.

In certain cases special perpetual leases are available under which no rent is payable for the first four years, and with less than full rent over the next six years.

Sections in government controlled irrigation areas are offered on perpetual lease and, if the land has not been cultivated previously, rents and water rates are payable on a sliding scale for the first three years. Certain improvements are required to be made. Town allotments in irrigation areas may be offered under perpetual lease either at auction, by calling applications, or may be let on annual licence. Allotments may also be offered at auction for cash or for agreement to purchase. Allotments not sold at auction may be sold by private contract.

During 1973-74, 554 hectares in irrigation areas were allotted under perpetual leases.

## MINING CLAIMS, LEASES AND LICENCES

### Legislation

The Mining Act, 1971 which repealed the Mining Act, 1930-1962, was assented to in December 1971 and came into force on 3 July 1972. The current legislation is the Mining Act, 1971-1973.

Under the present Act, all claims current at 3 July 1972 remained in existence for twelve months irrespective of their previous termination date; the rights of current 'Authority to Enter' holders were protected for twelve months from that date; and a person lawfully mining on 'private land' immediately before the commencement of the new Act was able to continue mining for six months from that date and longer if he officially declared the mine to be a 'private mine'.

The pegging of new claims and granting of leases and licences is now governed by the current Act and its regulations.

### Tenements Held Under Mining Acts, South Australia At 30 June

Particulars	1970	1971	1972	1973	1974
Mineral claims . . . . .	1 180	1 498	1 394	1 330	415
Precious stones claims . . . . .	780	846	1 015	1 810	1 472
Leases . . . . .	918	1 009	1 183	1 188	1 477
Exploration licences (a) . . . . .	169	167	117	71	60
Petroleum licences and permits	28	24	23	24	21

(a) Formerly Special Mining Leases under the repealed Mining Act, 1931-1962.

A total of 135 private mines were declared by proclamation during 1972-73. Mineral royalties received by the Department of Mines during 1973-74 amounted to \$1 943 823.

### **Minerals Resumed**

The mineral rights on private land have been resumed by the Crown so that all minerals are now the property of the Crown and there are no 'lands with the mineral rights alienated by the Crown' with different conditions applying to them. However, if minerals (other than extractive minerals) which have been resumed under the Mining Act, 1971-1973 are mined at any time in the future, any royalties collected upon the minerals recovered are payable to the person so divested of his property in minerals upon his application.

A royalty of 2.5 per cent (5 per cent for extractive minerals) of the value of the minerals, immediately upon recovery from the earth, is payable to the Minister of Development and Mines on all minerals (except precious stones) recovered and sold or used for commercial purposes. No royalty is payable on precious stones. Royalty for extractive minerals is payable to the Extractive Areas Rehabilitation Fund.

### **Extractive Minerals**

Extractive minerals are defined as sand, gravel, stone, shell, shale or clay but not fire-clay, bentonite or kaolin. No person is permitted to peg claims for extractive minerals on freehold land other than the person who, immediately before the operation of the Mining Act, 1971 held the mineral rights or had rights to mine the minerals by holding a claim or lease over the deposit. Normal pegging rights apply to extractive minerals on other than freehold land or exempt land, and also apply to other minerals on freehold land.

Under the present Act, all the royalties collected from the mining of extractive minerals are paid into an 'Extractive Areas Rehabilitation Fund' to be used in rehabilitating land disturbed by the mining of or searching for extractive minerals. Receipts into this Fund during 1973-74 amounted to \$472 000.

### **General Conditions**

A current miners right or, in the case of precious stones, a precious stones prospecting permit must be held by every prospector to authorise the pegging of the appropriate class of claim.

At least three weeks notice of entry for prospecting or mining purposes must be given to the landowner if the land is freehold or held on perpetual lease. Three weeks notice must also be given to the landowner before 'declared equipment' can be used on his land. In either case the landowner may lodge an objection with the Warden's Court.

A claim (other than a precious stones claim) has a maximum term of twelve months, is not transferable and must be converted to a lease before minerals can be removed for sale or used for commercial purposes.

A mining lease may be granted after twenty-eight days notice in the *South Australian Government Gazette* for a term of up to twenty-one years with certain rights of renewal. A mining lease is transferable with the Minister's consent and an annual rent is payable on a mining lease. Nineteen-twentieths of the rent collected on a lease on freehold land is paid to the landowner.

Exploration licences replaced Special Mining Leases as used under the old Act. They have a maximum life of two years and a maximum area of 2 500 square kilometres and are subject to the terms agreed. Twenty-eight days notice must be given in the *South Australian Government Gazette* before an exploration licence is granted.

Mining leases and exploration licences are granted only under conditions which give proper consideration to the protection of the natural environment.

## 4.2 LAND SETTLEMENT SCHEMES

### CLOSER SETTLEMENT

There is provision in the Crown Lands Act for acquisition of land for subdivision to encourage closer settlement. Such land is divided into blocks and offered under conditional agreements to purchase with payment over thirty-five and sixty-four year periods.

No land has been purchased for closer settlement since 1952-53, by which time 384 298 hectares had been purchased at a cost of \$5 730 400, including 21 008 hectares set apart for returned service personnel from the 1914-18 War, 1 302 hectares for forest and water conservation purposes and 10 758 hectares purchased in connection with the reclamation of River Murray swamp lands.

At 30 June 1974 a total of 27 379 hectares of closer settlement lands were held under agreement to purchase or lease.

### MARGINAL AREAS ASSISTANCE

The excessive opening up of the drier marginal lands for wheat growing resulted in many settlers in these areas being forced to leave their holdings, particularly in the 1930s.

Investigations showed that if the settlers were to succeed, cereal growing would need to be replaced by grazing. The Australian Government established a Marginal Lands Improvement Fund to assist this development. The money was used to purchase properties from certain settlers with a view to enlarging the holdings of others, to provide fencing and water supplies and to pay small grants to settlers vacating holdings in which there was no equity.

The fund was provided by the Australian Government under the *Wheat Industries Assistance Act* 1938. An amount of \$1 426 000 was allocated to South Australia. By arrangement with the Australian Government the rentals and income from sales of improvements on marginal lands which had been subject to adjustments under the above fund are retained as an additional fund to be used for assistance to settlers in marginal areas. Receipts for 1973-74 amounted to \$26 300.

During 1967-68 an amount of \$150 000 was transferred from this fund to the Farmers Assistance Fund. No advances were made from this fund during 1973-74. The balance of the fund at 30 June 1974 was \$370 671.

### CROWN LANDS DEVELOPMENT

The Crown Lands Development Act, 1943-1973, administered by the Department of Lands, provides for the development of Crown lands, or lands which the Department may purchase, and for the allotment of such lands to suitable settlers.

A substantial proportion of the land under the Act was developed with the object of inclusion in the War Service Land Settlement Scheme. Properties not accepted for the scheme were subsequently allotted under the Act, and since then a number of individual properties have been surrendered to the Crown for development and re-allotment to the former holders.

### ASSISTANCE FOR RETURNED SERVICE PERSONNEL

#### 1914-18 WAR

Following the 1914-18 War the State Minister for Repatriation was authorised to acquire land for the purpose of re-settling discharged servicemen. Such land could be purchased by agreement or acquired compulsorily, whether held in fee simple or under Crown lease. Crown lands could also be set apart for this purpose. The land acquired was subdivided where appropriate and offered under agreement to purchase, perpetual lease or a term lease. Provision was also made for the discharging of existing mortgages on freehold properties already held by ex-servicemen, with fresh mortgages in favour of the Minister of Repatriation.

In all, 3 801 ex-servicemen were settled under this Act with 3 008 settling in 'dry lands' and 793 in irrigation areas.

#### 1939-45 WAR AND KOREA-MALAYA OPERATIONS

##### War Service Land Settlement

Under the War Service Land Settlement Scheme, provision was made for the settlement on rural holdings of certain ex-servicemen from the 1939-45 War and Korea and Malaya operations.

Suitable Crown land was made available and other land was acquired. This land was subdivided and developed to a stage where it could be brought into production by the individual settler within a reasonable time. Basic structural improvements were provided and it was then offered to eligible settlers on perpetual lease. Credit facilities are available to these settlers for working capital, the purchase of stock and equipment, and the effecting of further improvements.

During the first year after allotment in the case of 'dry lands' settlers, and the first year after an irrigation holding became self-supporting the settler was granted a living allowance and was exempted from the payment of rent or interest in respect of the holding, and of payments on account of principal or interest in respect of advances, other than advances for working capital. Provisions exist for a settler on 'dry lands' to convert property to freehold after a period of ten years by the payment of a fixed purchase price and the repayment of all advances. There is no provision for freeholding in government irrigation areas.

The following table shows for recent years the number of farms allotted and total expenditure under the War Service Land Settlement Scheme.





discovery that the retarded nature of the country was caused by certain soil deficiencies, and that these deficiencies could be overcome by the addition of trace elements (mainly copper sulphate and zinc sulphate) to the soil.

Large tracts of unimproved land were obtained either by purchasing existing leases or by Crown allotment. Intending settlers were employed by the Society in the development work, covering a period of approximately five years, and were then allotted a holding over which they had a perpetual lease title. The Society provided finance for the purchase and for stock, plant and working expenses. In all, 38 880 hectares were taken up by employees of the Society.

In addition to the development of land for employees a large area was developed to various stages and sold to the public; sales in this category amounted to 132 435 hectares.

### **ADVANCES TO THE RURAL SECTOR GOVERNMENT ADVANCES**

#### **Advances Administered by State Bank**

In addition to advances made under schemes mentioned above, the State Bank administers certain funds provided by the State for rural development.

Under the Advances to Settlers Act, 1930-1972, the bank makes advances to settlers for a variety of purposes including general improvements, the purchase of livestock and the discharging of existing mortgages. The Loans to Producers Act, 1927-1962 empowers the bank to make advances for certain developmental projects and the purchase of certain capital equipment. The bank also administers Acts providing loans for the construction of vermin-proof fencing, general fencing and the laying of water piping.

#### **Rural Industry Assistance (Special Provisions) Act, 1971-1972**

This Act, which became operative on 27 May 1971 effects an agreement between the Australian and South Australian Governments for a scheme of assistance to help restore to a profitable basis those farms and farmers with a capability to service commitments and reach a stage of commercial viability within a reasonable time. The scheme provides for carry-on finance, debt reconstruction, farm build-up and rehabilitation loans.

Carry-on finance and debt reconstruction are designed to assist the farmer who, although having sound prospects on a long-term basis, has used all of his cash and credit resources and cannot meet his financial commitments. Advances for carry-on finance and/or debt reconstruction bear interest at the rate of 4 per cent a year.

Farm build-up is to assist the process whereby farms which are too small to be profitable can be enlarged to an economic unit. Interest on advances is chargeable at 6.25 per cent a year.

Funds were provided initially by the transfer of the balance of the Primary Producers Debt Adjustment Fund (\$804 636) to the Rural Industry Fund. Other contributions to the Fund are made by the Australian Government in accordance with the Agreement and at 30 June 1974, \$13 400 000 had been received.

Details of the number of applications received and the expenditure involved are shown in the following table.

**Rural Industry Assistance: South Australia, Applications, Approvals and Expenditures from Commencement of Operations to 30 June 1974 (a)**

<b>Debt reconstruction:</b>	
Applications received . . . . .	826
Applications declined . . . . .	482
Applications approved . . . . .	326
Total assistance approved . . . . .	\$7 031 295
Expenditure to 30 June 1974 . . . . .	\$6 446 503
Average assistance approved (including outstanding balance current account) . . . . .	\$21 568
<b>Farm build-up:</b>	
Applications received . . . . .	378
Applications declined . . . . .	123
Applications approved . . . . .	221
Total assistance approved . . . . .	\$8 581 742
Expenditure to 30 June 1974 . . . . .	\$7 723 253
Average assistance approved . . . . .	\$38 831
<b>Rehabilitation:</b>	
Applications received/approved . . . . .	11
Total assistance approved . . . . .	\$17 500
Expenditure to 30 June 1974 . . . . .	\$17 807
<b>Current Account budgets:</b>	
Budgets approved . . . . .	154
Total of approved budget expenditure . . . . .	\$4 273 304
Actual expenditure to 30 June 1974 . . . . .	\$2 161 507
Less advances recouped . . . . .	\$2 000 563
<b>Balance . . . . .</b>	<b>\$160 944</b>

(a) Commenced 27 May 1971.

**Marginal Dairy Farms (Agreement) Act, 1971**

This Act gives effect to an Agreement between the South Australian and Australian Governments to overcome the problem of low incomes within the dairy industry, particularly in the case of producers relying on the sale of milk or cream for manufacturing purposes.

The scheme provides for farmers whose farms have insufficient potential to become viable economic units, while based on the sale of milk or cream for manufacturing purposes, to voluntarily sell their land to the State at market value. The State may then dispose of the land on the basis of the most profitable and economic land use, particularly with a view to building other rural properties to economic levels.

At 30 June 1974, eighteen applications had been received of which seven were approved and eleven were declined. Funds for the scheme are provided by the Australian Government when required. At 30 June 1974, \$210 000 had been received and \$195 222 had been expended on the purchase of dairy farms for approved applicants.

**Financial Details**

The following table gives details of total advances made to the rural sector by government authorities and balances outstanding at 30 June 1974.

**Advances to Settlers, South Australia**

Particulars	Advances made during 1973-74	Total Advance at 30 June 1974	Principal Outstanding at 30 June 1974	
			Persons	Amount
	\$	\$	Number	\$
<b>Department of Lands:</b>				
Advances to soldier settlers . . . . .	—	10 143 560	161	169 484
Advances under closer settlement Acts . . . . .	—	5 461 033	131	144 068
Settlement of returned service personnel (1939-45 War) (a) . . . . .	1 321 078	40 144 287	605	8 324 372
Advances under Crown Lands Development Act . . . . .	—	985 623	47	577 126
Advances in drought affected areas . . . . .	63 831	802 180	62	107 003
Advances under Marginal Dairy Farms Reconstruction Scheme (a) . . . . .	—	153 445	7	135 404
Advances under Rural Industry Assistance Scheme (a) . . . . .	5 254 943	16 323 470	512	12 076 541
Advances under Fruitgrowing Reconstruction Scheme (a) . . . . .	66 838	71 862	65	71 862
Advances to soldier settlers; Irrigation . . . . .	—	2 096 343	55	67 140
<b>State Bank of South Australia:</b>				
Advances to settlers for improvements (b) . . . . .	74 015	4 257 353	317	1 281 289
Advances under vermin and fencing Acts (c) . . . . .	740	2 975 464	48	79 854
Advances under loans to producers Acts . . . . .	2 867 048	26 774 179	100	10 502 310
<b>Total . . . . .</b>	<b>9 648 493</b>	<b>110 188 799</b>	<b>2 110</b>	<b>33 536 453</b>

(a) Advances made from funds provided by the Australian Government.

(b) Adjustment of cancelled and re-allotted holdings.

(c) Vermin proof fencing and loans for fencing and water piping.

**PRIVATE INSTITUTIONAL ADVANCES**

Many financial institutions advance funds for rural development.

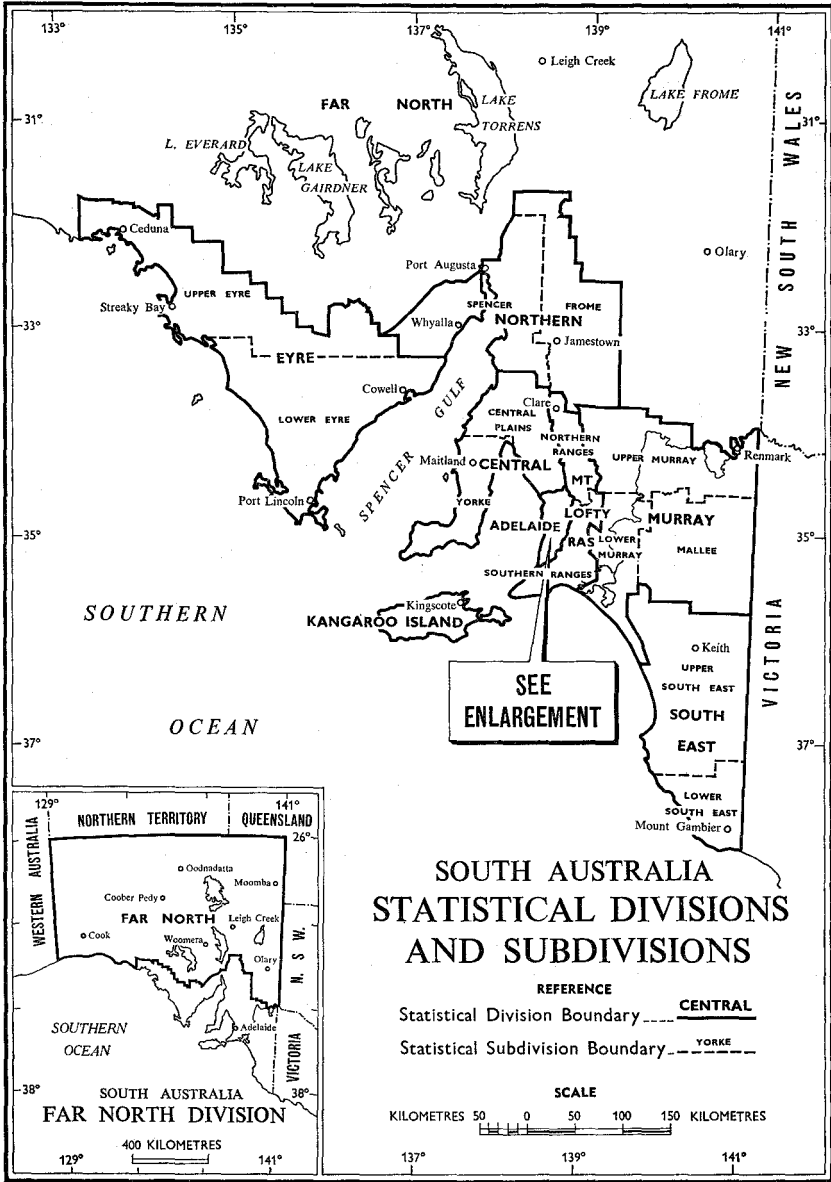
At July 1974 the major trading banks had advances outstanding to residents of South Australia employed in agriculture, dairying and grazing, of \$84.1 million. At June 1974 branches of major pastoral finance companies located in South Australia had \$72.0 million outstanding on similar advances.

**4.3 STATISTICAL DIVISIONS AND SUBDIVISIONS**

For the purpose of presenting the statistical series of South Australia, the State is divided into a number of areas which are entitled statistical divisions.

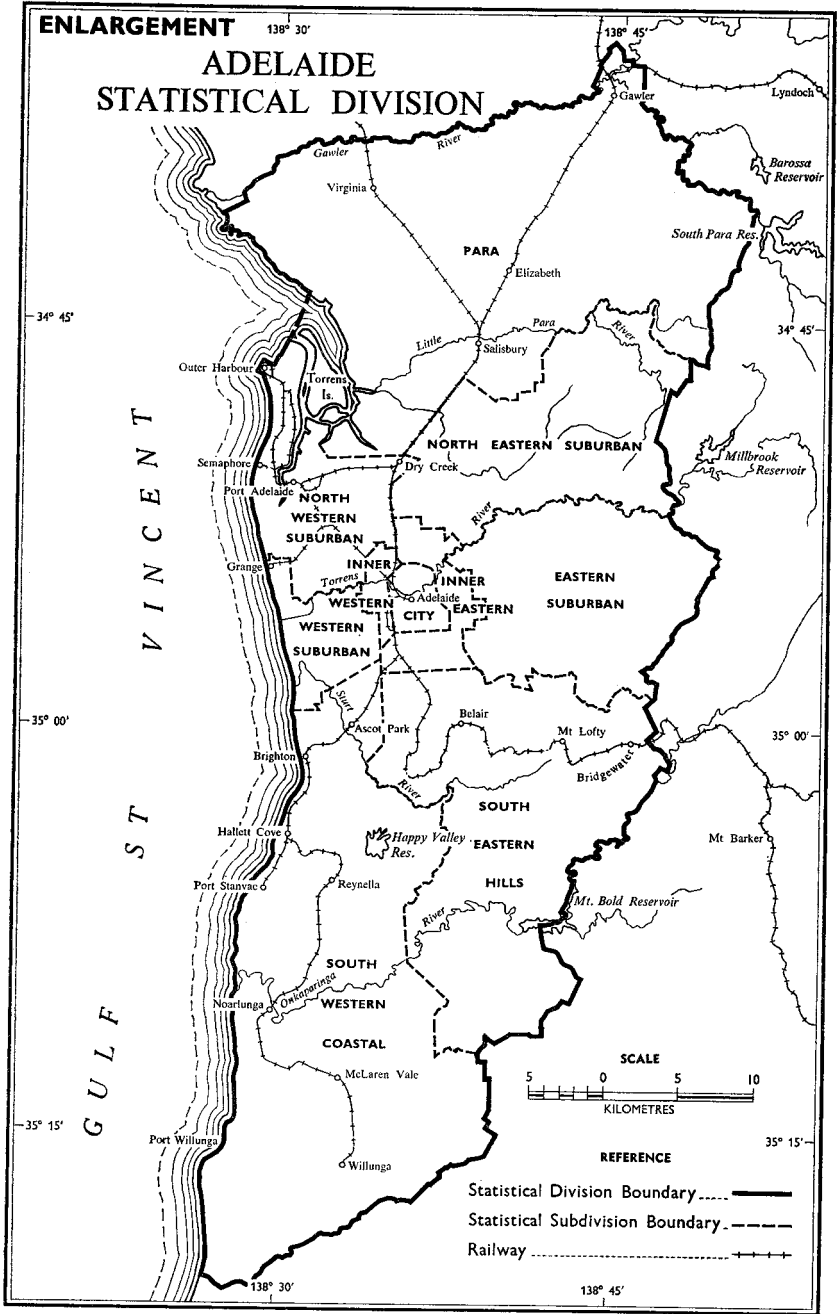
**PREVIOUS STATISTICAL DIVISIONS**

Statistical series for South Australia have been published at various times under two different sets of statistical divisions—'Primary' Statistical Divisions, the boundaries of which have followed the boundaries of proclaimed counties, and 'Census' Statistical Divisions, where boundaries for the most part have followed the boundaries of local government areas.



**ENLARGEMENT**

**ADELAIDE  
STATISTICAL DIVISION**



34° 45'

35° 00'

35° 15'

138° 45'

Lyndoch

Barossa Reservoir

South Para Res.

PARA

Elizabeth

Little Para River

NORTH EASTERN SUBURBAN

Millbrook Reservoir

NORTH WESTERN SUBURBAN

Grange

INNER WESTERN CITY

INNER EASTERN CITY

EASTERN SUBURBAN

WESTERN SUBURBAN

Adelaide

WESTERN SUBURBAN

Ascot Park

Brighton

Hallett Cove

Port Stanspac

Reynella

South Western Coastal

Norlunga

McLaren Vale

Willunga

South Western Coastal

McLaren Vale

Willunga

Belair

Ascot Park

Brighton

Hallett Cove

Port Stanspac

Reynella

South Western Coastal

Norlunga

McLaren Vale

Willunga

South Western Coastal

McLaren Vale

Willunga

34° 45'

35° 00'

35° 15'

SCALE



REFERENCE

- Statistical Division Boundary.....
- Statistical Subdivision Boundary.....
- Railway.....

138° 45'

Before 1889 agricultural statistics were published for counties from at least 1851, and local government areas from 1854. Publication of statistics by 'Primary' Statistical Divisions commenced in 1889 on the basis of five statistical divisions made up of thirty-eight counties. In 1920-21 an additional division was created to limit the number of counties in each division (as the number had by this time increased to forty-eight) and the number of 'Primary' divisions remained at six from that date.

Early population census results were published on the basis of local government areas and counties, but for the 1891 and 1901 Censuses the five 'Primary' Statistical Divisions were used. The Census of 1911, which was the first conducted by the Australian Government, reverted to the use of counties for published results whereas subsequent censuses, up to and including 1947, were published using local government areas. Details of the 1954 and subsequent population censuses have been published by 'Census' Statistical Divisions.

For the 1966 Census an additional division, the Adelaide Statistical Division, was delineated to embrace the area expected to contain the urban development of Adelaide during a period of at least twenty years.

### CURRENT DIVISIONS AND SUBDIVISIONS

Although, ideally, statistical division boundaries should remain unchanged over time so as to enable comparisons to be made of constant areas, growth in certain statistical divisions, together with the adoption of the Adelaide Statistical Division for the 1966 Population Census, made it desirable to review the boundaries and to select a new group of statistical divisions.

The new statistical divisions were designed to represent closely allied and meaningful areas of production and community interest and where areas smaller than divisions were considered to be important, subdivisions were introduced. Where practicable, entire local government areas are embraced in divisions and subdivisions. This facilitates the aggregation of statistics in a hierarchical structure rising from local government area to whole State through subdivision and division totals. Apart from major changes in relevant local government area boundaries, for which special provision will necessarily have to be made, it is considered that the statistical division and subdivision boundaries now adopted, should be suitable for a period of fifteen to twenty years.

These statistical divisions and subdivisions have been adopted for the publication of official statistics from 1 January 1971. Maps showing the statistical divisions and subdivisions are included on pages 115 and 116. A more detailed article together with descriptions of the divisions and subdivisions was included on pages 96-104 of the *South Australian Year Book* 1971.

## **PART 5**

# **POPULATION**

## **5.1 THE CENSUS**

### **Early 'musters'**

#### **PRE-FEDERATION ACTIVITY**

Population returns in one form or another have existed from a very early period in the history of Australia. The earliest enumerations were known as 'musters', and although the actual results of very few of them have been preserved, it is probable that during the early days of colonisation they were of frequent occurrence. The first official 'muster' was taken in 1788 soon after the new settlement at Sydney Cove was formed, and in 1803 the first 'muster' of convicts in Van Diemen's Land (now Tasmania) was conducted.

### **Development of the census**

The first regular census in Australia was taken in New South Wales in November 1828, and included the population of Moreton Bay (now Queensland) but not Van Diemen's Land (Tasmania). Details of the names, ages and civil conditions of the inhabitants were sought. The next census was taken in 1833, and was followed by another in 1836, when arrangements were made for the enumeration of the population of the newly-established settlement at Port Phillip (Victoria). The first censuses taken in Tasmania, Victoria and Queensland as separate colonies were in 1841, 1854 and 1861 respectively. The first recognised census in South Australia was taken in 1844 and in Western Australia in 1848. The 1881 census was the first simultaneous census taken in Australia and formed part of the first simultaneous census of the British Empire.



## CENSUSES OF AUSTRALIA

Under the Commonwealth of Australia Constitution Act of 1900, 'Census and Statistics' became Australian Government functions and with the passing of the empowering legislation, the *Census and Statistics Act 1905*, all censuses of Australia have been taken under the authority of this Act (now *Census and Statistics Act 1905-1973*) and the regulations made thereunder. The first Australian census collected under the Act was that of 1911; subsequent censuses were taken in the years 1921, 1933, 1947, 1954, 1961, 1966 and 1971, while the next census is planned for 1976. The Act provides that the census should be taken by means of a householder's schedule delivered to every dwelling and that this schedule should contain particulars of the dwelling and its inmates.

**Periodicity and date of the census**

The *Census and Statistics Act 1905* provided that the Census should be taken 'in the year one thousand nine hundred and eleven and in every tenth year thereafter'. But in 1930 this was amended by the addition of the words 'or at such other time as is prescribed'. Because of the economic depression prevailing in 1931 the third Australian census was not taken until 1933, and because of war conditions the fourth Australian census was not taken until 1947. Consideration was then given to the practicability of holding future censuses in the series of years originally envisaged. However, it was considered that the interval of years from 1947 to 1951 was too short; therefore it was decided to take the fifth census in 1954 at the mid-point of the period from 1947 to 1961. The sixth census was held in 1961. Because of the administrative demand for more frequent counts of the population the seventh census was held in 1966 and the eighth in 1971.

The *Census and Statistics Act* provides that 'the Census day shall be a day appointed for that purpose by proclamation', but the actual date is not specified. The census is conducted on a strictly *de facto* basis, i.e. it records the population actually in Australia at the place where located on census day (as distinct from a *de jure* basis, which records the population according to place of usual residence). In the selection of census day every endeavour is made to choose a date when there is a minimum displacement of population. In 1911 and 1921, census day was near the beginning of April, but in 1933 and subsequently, census day has been at or near the end of June because this time has fulfilled the condition mentioned and is otherwise suitable, being the end of a fiscal year and of a quarterly period used extensively for statistical purposes.

**Scope of the census**

The census covers the population of Australia and the dwellings in which it lives.

Persons excluded from results of Censuses up to 1966 were:

- (i) diplomatic representatives of other Governments and their families and staffs having diplomatic immunity in accordance with international practice;
- (ii) full-blood Aborigines, pursuant to Section 127 of the Constitution which specifically excluded them from the count of the population.

Diplomatic representatives, families and staffs are still excluded but, following the results of a referendum held in 1967, Section 127 of the Constitution was repealed and full-blood Aborigines were included in the 1971 Census and will be included in all future censuses. In 1971 Census publications, where 1966 figures

are also shown, these figures have been amended to include Aborigines and thus provide comparability: this can be done for all tables other than those on the labour force.

Broadly the principle is to record at the census babies born at or before midnight of census day and to exclude persons dying before midnight of census day. Travellers on ships in or between Australian ports at midnight of census day are also included.

For census purposes the Act defines a dwelling as 'a building, erection, or tenement, whether permanent or temporary, which is wholly or partly used for the purpose of human habitation and includes any ship or other vessel in any port of the Commonwealth or in any inland waters thereof, or any ship or vessel on a passage between any two Commonwealth ports.' Section 10 (2) provides that 'where a building is let, sub-let or held in different apartments and occupied by different persons or families, each part so let, sub-let, or held and used for the purpose of human habitation shall be deemed a dwelling'. Measurable characteristics such as 'class' of dwelling, materials of outer walls, number of inmates in relation to number of rooms, facilities and rentals are recorded.

The census data on occupied dwellings are obtainable from the completed householder's schedules. However, census collectors are responsible for recording, from personal observations or inquiry, particulars also of dwellings which are unoccupied on census day, including those temporarily unoccupied or those used for 'holiday purposes'. Dwellings excluded from census results are those occupied by accredited persons having diplomatic immunity. Dwellings occupied solely by full-blood Aborigines also were excluded at censuses before 1971.

#### **Australian Parliamentary representation and the census**

The *Representation Act* 1948-1973 obliges the Chief Electoral Officer to ascertain the number of people in Australia and in each of the States from time to time for the purpose of determining the number of Members of the House of Representatives to be chosen from each State, all 'Statistical Officers' being authorised and required to furnish all the information the Chief Electoral Officer needs for this purpose.

After each census the Chief Electoral Officer requests the Australian Statistician to supply the information required for the purposes of the Representation Act. From such information the Chief Electoral Officer prepares the requisite certificate and this is published in the *Australian Government Gazette*.

A more detailed description outlining the history, purposes, legal basis, organisation and publication of the results of the population census in Australia was included on pages 77-86 of the *South Australian Year Book* 1968.

## **5.2 POPULATION GROWTH AND DISTRIBUTION**

The population of South Australia had reached 17 366 persons at the first Census on 26 February 1844. In 1861, twenty-five years after the first settlers arrived, the population was 126 830 and this figure had more than doubled by the Census in 1881. By 1921 the population was almost 500 000 persons and it is estimated to have reached 1 000 000 persons in January 1963. The population enumerated at the Census of 30 June 1966 was 1 094 984 persons and at the Census of 30 June 1971 it was 1 173 707 persons.

## Population: South Australia, Censuses 1844 to 1971

Census Date	Population (a)			Average Annual Increase	
	Males	Females	Persons	Number	Per Cent
1844 26 February ..	9 686	7 680	17 366	..	..
1846 26 February ..	12 670	9 720	22 390	2 512	14.47
1851 1 January ..	35 302	28 398	63 700	8 262	36.90
1855 31 March ..	43 720	42 101	85 821	5 530	8.68
1861 8 April ..	65 048	61 782	126 830	6 835	7.96
1866 26 March ..	85 334	78 118	163 452	7 324	5.78
1871 2 April ..	95 236	90 189	185 425	4 395	2.69
1876 26 March ..	109 841	102 687	212 528	5 421	2.92
1881 3 April ..	145 113	130 231	275 344	12 563	5.91
1891 5 April ..	161 920	153 292	315 212	3 987	1.45
1901 31 March ..	180 485	177 861	358 346	4 313	1.37
1911 3 April ..	207 358	201 200	408 558	5 021	1.40
1921 4 April ..	248 267	246 893	495 160	8 660	2.12
1933 30 June ..	290 962	289 987	580 949	7 149	1.44
1947 30 June ..	320 031	326 042	646 073	4 652	0.80
1954 30 June ..	403 903	393 191	797 094	21 574	3.34
1961 30 June ..	490 225	479 115	969 340	24 607	3.09
1966 30 June ..	550 196	544 788	1 094 984	24 507	2.53
1971 30 June ..	586 051	587 656	1 173 707	15 745	1.44

(a) Excludes full-blood Aborigines before 1966 Census.

Following the repeal in August 1967 of Section 127 of the Australian Constitution, official figures of population include full-blood Aborigines from 1966.

Reporting at the 1966 Census was insufficiently precise to enable a reliable dissection of full-blood and half-blood Aborigines to be made and consequently the difference between inclusive figures and exclusive figures of full-blood Aborigines should not be taken as a reliable measure of the Aboriginal population.

In the following table, increases in the population have been classified as *recorded natural increase* (the excess of recorded births over recorded deaths) and *other increase* (which consists mainly of the excess of arrivals over departures, either from overseas or interstate). Annual average increases which are given for each 10-year period since 1861 show some important aspects of the development of the State, namely:

- (i) the net migration, especially of males, away from South Australia following the mineral discoveries in other States in the 1880s and early 1890s;
- (ii) the slow growth during the economic depression of the 1930s when natural increase fell to a particularly low level; and
- (iii) the high rate of migration in the post 1939-45 War period up to 1960.

Increases in the Population, South Australia<sup>(a)</sup>

Period	Recorded Natural Increase			Other Increase			Total Increase
	Males	Females	Persons	Males	Females	Persons	Persons
<b>Annual Average:</b>							
1861-1870 .. . . . .	2 052	2 121	4 173	1 003	720	1 723	5 896
1871-1880 .. . . . .	2 366	2 555	4 921	2 889	1 375	4 264	9 185
1881-1890 .. . . . .	3 349	3 535	6 884	(-) 1 488	(-) 1 141	(-) 2 629	4 255
1891-1900 .. . . . .	2 832	3 024	5 856	(-) 973	(-) 567	(-) 1 540	4 316
1901-1910 .. . . . .	2 665	2 745	5 410	(-) 44	(-) 404	(-) 448	4 962
1911-1920 .. . . . .	3 508	3 614	7 122	366	926	1 292	8 414
1921-1930 .. . . . .	3 131	3 300	6 431	1 201	714	1 915	8 346
1931-1940 .. . . . .	(b) 1 787	(b) 1 929	(b) 3 716	(-) 860	(-) 397	(-) 1 257	2 459
1941-1950 .. . . . .	(b) 3 977	(b) 4 026	(b) 8 003	2 705	1 671	4 376	12 379
1951-1960 .. . . . .	5 631	5 923	11 554	6 279	5 585	11 864	23 418
1961-1970 .. . . . .	5 973	6 395	12 368	3 916	4 726	8 642	21 010
<b>Year:</b>							
1969 .. . . . .	6 055	6 585	12 640	1 946	2 652	4 598	17 238
1970 .. . . . .	5 979	6 500	12 479	3 686	4 690	8 376	20 855
1971 .. . . . .	6 487	6 823	13 310	824	1 131	1 955	15 265
1972 .. . . . .	5 822	6 258	12 080	(-) 1 389	355	(-) 1 034	11 046
1973 .. . . . .	4 973	5 599	10 572	2 107	1 914	4 021	14 593

(a) Excludes full-blood Aborigines before 1966.

(b) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase.

The State's rate of population increase was slower than the Australian rate in every decade from 1881-90 to 1931-40. In the next two decades the steep rise in the rate of net migration enabled an above-average growth rate to be achieved, and this was maintained until 1966. Since then the State's growth rate has been below the Australian rate.

Rate of Increase of Population, South Australia and Australia<sup>(a)</sup>

Period	South Australia			Australia		
	Recorded Natural Increase	Other Increase	Total Increase	Recorded Natural Increase	Other Increase	Total Increase
<b>Annual Average</b>						
1861-1870 .. . . . .	26.46	10.92	37.38	24.31	12.06	36.37
1871-1880 .. . . . .	22.34	19.36	41.70	20.45	10.01	30.46
1881-1890 .. . . . .	22.67	(-)8.66	14.01	19.96	14.23	34.19
1891-1900 .. . . . .	16.90	(-)4.44	12.46	16.91	0.71	17.62
1901-1910 .. . . . .	14.70	(-)1.22	13.48	15.29	1.00	16.29
1911-1920 .. . . . .	15.99	2.90	18.89	15.77	4.20	19.97
1921-1930 .. . . . .	11.87	3.53	15.40	12.97	5.23	18.20
1931-1940 .. . . . .	(b) 6.33	(-)2.14	4.19	(b) 7.92	0.60	8.52
1941-1950 .. . . . .	(b)12.50	6.83	19.33	(b)12.04	4.34	16.38
1951-1960 .. . . . .	13.81	14.18	27.99	13.71	8.73	22.44
1961-1970 (c) .. . . . .	11.57	8.09	19.66	11.78	5.75	17.53

(a) Rate per 1 000 of mean population.

(b) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase.

(c) Excludes full-blood Aborigines before 1966.

Estimates of the population of the State for the last ten years are given in the following table. The total increase for each year and the rate of growth are also shown.

**Estimated Population at 31 December, South Australia<sup>(a)</sup>**

Year	Males	Females	Persons	Total Increase for Year	Rate of Growth
					Per Cent
1964 .. .. .	527 600	521 600	1 049 200	29 361	2.88
1965 .. .. .	542 600	537 300	1 079 900	30 796	2.94
1966 .. .. .	554 000	549 800	1 103 700	20 684	1.92
1967 .. .. .	559 300	556 700	1 115 900	12 186	1.10
1968 .. .. .	566 700	565 400	1 132 100	16 211	1.45
1969 .. .. .	574 700	574 700	1 149 400	17 238	1.52
1970 .. .. .	584 400	585 900	1 170 200	20 855	1.81
1971 .. .. .	591 700	593 800	1 185 500	15 265	1.30
1972 .. .. .	596 100	600 400	1 196 500	11 046	0.93
1973 .. .. .	603 200	608 000	1 211 100	14 593	1.22

(a) Excludes full-blood Aborigines before 30 June 1966.

Intercensal estimates of population are derived by adding to the population ascertained at the Census the recorded natural increase and the allocation to the State of portion of the net gain to Australia by overseas migration; gains and corresponding losses that result from movement between South Australia and other States are also taken into account, in so far as they are recorded as transfers of residence under child endowment procedures or Australian Government electoral procedures, supplemented by results of any special count or sample survey. Estimates before 1971 have been revised according to Census results.

The estimates show that an annual increase in population of over 20 000 persons was maintained during the period 1964 to 1966, but has since generally fluctuated below that level.

The rate of growth of the population, *i.e.*, the increase during the period expressed as a percentage of the population at the beginning of the period, fluctuated widely before 1921 then settled at about 2 per cent a year. From 1923 to 1940 the rate was less than 1 per cent but from 1947 to 1961 it was above 2 per cent with some years in the 1950s exceeding 3 per cent. In the eight years to 1973 the rate has been below 2 per cent.

The estimated mean population for South Australia is calculated for the years ended 30 June and 31 December. Estimates for the last 10 years are shown in the next table.

Estimated Mean Population, South Australia<sup>(a)</sup>

Year	Year Ended 30 June			Year Ended 31 December		
	Males	Females	Persons	Males	Females	Persons
1965 .. .. .	527 800	521 500	1 049 300	535 000	529 000	1 064 000
1966 .. .. .	542 300	536 600	1 078 900	549 800	544 500	1 094 400
1967 .. .. .	553 800	549 300	1 103 100	556 800	553 100	1 110 000
1968 .. .. .	559 400	556 300	1 115 700	562 600	560 200	1 122 800
1969 .. .. .	566 500	564 800	1 131 400	570 500	569 500	1 140 000
1970 .. .. .	574 800	574 300	1 149 100	579 200	579 500	1 158 600
1971 .. .. .	583 500	584 600	1 168 100	587 400	589 100	1 176 500
1972 .. .. .	590 900	592 900	1 183 700	593 400	596 000	1 189 400
1973 .. .. .	596 000	599 600	1 195 600	599 200	603 400	1 202 600
1974 .. .. .	p602 700	p607 600	p1 210 300			

(a) Mean population figures for periods before 30 June 1966 are based on estimates exclusive of full-blood Aborigines.

## EARLY HISTORY OF SETTLEMENT

A detailed description of early settlement in South Australia together with information on the 1851 Census was included on pages 116-7 of the *South Australian Year Book 1970*.

## DISTRIBUTION OF POPULATION

For the purpose of presenting population and dwelling statistics urban centres are delimited by methods first adopted at the Census of June 1966 and applied uniformly throughout Australia.

At each Census of Population and Housing a boundary is drawn around each population cluster of 1 000 or more persons (or around known holiday resorts of less population if they contain 250 or more dwellings of which at least 100 are occupied). These clusters are named urban centres and the population and dwellings enumerated therein are classified as urban for statistical purposes.

In delimiting urban centres with 25 000 or more population the basic criterion used is *population density*. The geographic units classified according to the density criterion are collector's districts, the smallest units available. These areas vary in size and shape, but as far as possible they have been designed to ensure that significant urban development in large rural collector's districts is split off as a separate collector's district. Particular rules apply to contiguous areas with special functions, such as airports, sporting areas and industrial areas, which do not meet the density criterion. A gap in urban development which is less than three kilometres (by the shortest rail or road distance) between the edge of one area of urban development and another is ignored and the urban

areas are treated as contiguous; two urban areas separated by a gap of three or more kilometres are treated as separate urban areas even if the gap comprises mainly reserved land or a natural barrier.

The boundary of such an urban centre is, therefore, the peripheral boundary of an aggregate of contiguous urban collector's districts, the densities of which are at least 200 persons per square kilometre. The boundary is a moving one which reflects the process of urbanisation. The use of objective criteria enables valid comparisons to be made between one urban centre and another, and between the population for an urban centre at one census with the population at succeeding censuses.

When delimiting urban centres of less than 25 000 population the urban centres are delimited subjectively (by the inspection of aerial photographs, by field inspection and/or by consideration of any other information that is available). All continuous urban growth is included, together with close but non-contiguous development which could be clearly regarded as part of the centre.

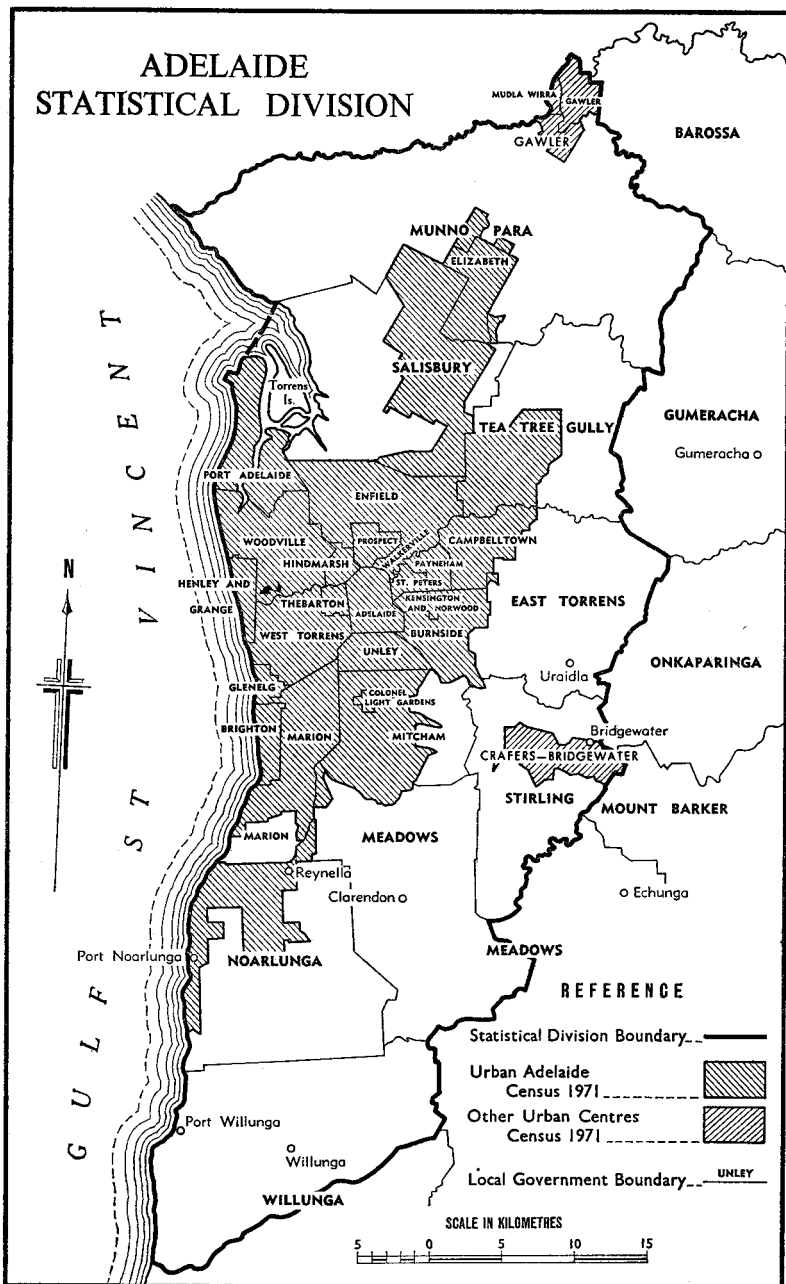
Around Adelaide (and all other urban centres with a population of at least 100 000) two boundaries have been defined. The outer one, which is fixed, circumscribes the area in close economic and social contact with the main city, and which contains the anticipated urban development of the city for a period of at least twenty to thirty years. This boundary defines the Adelaide Statistical Division (see map on page 126). The inner boundary indicates the area which, at the time of each census, meets the criteria for urban areas described above. As urbanisation proceeds, this boundary will move outwards to encompass peripheral development. This boundary defines Urban Adelaide.

At the 1966 Census, Urban Adelaide contained nearly all the metropolitan areas as defined at the 1961 Census, and, in addition, included the City of Elizabeth and large portions of the Cities of Salisbury and Tea Tree Gully, and small parts of Munno Para and East Torrens District Councils. Results of the 1971 Census indicate that Urban Adelaide has extended to encompass the whole of the urban area of Reynella-Port Noarlunga and fringe development particularly in northern suburbs (see map on page 126). The area of Urban Adelaide at 30 June 1971 was 554.9 square kilometres.

At the 1971 Census 809 482 persons (68.97 per cent of the State population) lived in Urban Adelaide, and a further 183 187 (15.61 per cent) were in other urban areas; this is a continuance of the trend of increased urbanisation in South Australia.

In 1921 the rural population was 195 054 and at that time represented 39.4 per cent of the total population (42.1 per cent of males and 36.7 per cent of females). There were 214 762 persons classified as living in rural areas at the 1933 Census but the total had fallen slightly to 200 065 in 1961, and the proportion of the total population was down to 20.6 per cent (21.7 per cent of males and 19.6 per cent of females). Further falls occurred during 1961-66 and 1966-71. The total rural population was 190 167 persons at 30 June 1966, and the proportion of the total population had fallen further to 17.4 per cent. Figures for the 1971 Census again show a decline in the rural population to 15.3 per cent (16.1 per cent of males and 14.4 per cent of females).

# ADELAIDE STATISTICAL DIVISION





**Urban and Rural Population, South Australia<sup>(a)</sup>  
Censuses 1921 to 1971**

Census	Urban				Rural		Total (including Migratory)
	Adelaide (b)		Other (c)		Number	Per Cent	
	Number	Per Cent	Number	Per Cent			
1921 .....	255 375	51·57	41 637	8·41	195 054	39·39	495 160
1933 .....	312 619	53·81	51 456	8·86	214 762	36·97	580 949
1947 .....	382 454	59·20	65 911	10·20	196 007	30·34	646 073
1954 .....	483 508	60·66	110 107	13·82	201 133	25·23	797 094
1961 .....	587 957	60·66	177 380	18·30	200 065	20·64	969 340
1966 .....	(b)728 279	66·51	174 964	15·98	190 167	17·37	1 094 984
1971 .....	809 482	68·97	183 187	15·61	179 148	15·26	1 173 707

(a) Excludes full-blood Aborigines before the 1966 Census.

(b) See text for definition of Urban Adelaide.

(c) 'Other Urban' up to the 1947 Census comprised all municipalities outside Urban Adelaide. For the 1954 and 1961 Censuses non-municipal towns of 1 000 or more persons were also excluded, but in 1961 municipalities of less than 1 000 persons were excluded. The 1966 and 1971 figures comprised clusters of 1 000 or more persons; included also were four centres, namely Goolwa, Port Elliot, Port Broughton and Port MacDonnell which, although having a population of less than 1 000, were regarded as urban on a dwelling density basis.

**Population by 1966 Residence: South Australia<sup>(a)</sup> Census 30 June 1971**

1966 Residence	1971 Residence (South Australia)					
	Urban			Rural		
	Males	Females	Persons	Males	Females	Persons
Same address in 1966 as in 1971 ..	245 742	256 398	502 140	53 066	47 593	100 659
Moved from 1966 residence in:						
South Australia:						
Urban .....	110 075	115 359	225 434	10 949	10 946	21 895
Rural .....	13 213	14 154	27 367	10 472	9 444	19 916
New South Wales:						
Urban .....	4 877	4 911	9 788	567	504	1 071
Rural .....	478	480	958	202	139	341
Victoria:						
Urban .....	5 211	5 207	10 418	761	649	1 410
Rural .....	799	769	1 568	300	241	541
Queensland:						
Urban .....	1 544	1 544	3 088	222	183	405
Rural .....	268	233	501	98	56	154
Western Australia:						
Urban .....	1 236	1 158	2 394	154	130	284
Rural .....	256	218	474	121	97	218
Tasmania:						
Urban .....	602	610	1 212	32	29	61
Rural .....	103	120	223	30	18	48
Northern Territory:						
Urban .....	803	703	1 506	123	93	216
Rural .....	128	111	239	45	35	80
A.C.T.:						
Urban .....	350	325	675	27	19	46
Rural .....	19	15	34	0	0	0
Overseas .....	33 856	33 072	66 928	1 468	1 335	2 803
Not stated .....	6 481	6 439	12 920	1 428	1 141	2 569
<b>Total .....</b>	<b>426 041</b>	<b>441 826</b>	<b>867 867</b>	<b>80 065</b>	<b>72 652</b>	<b>152 717</b>

(a) Excludes persons aged under 5 years and persons who were not usual residents of the dwelling in which they were enumerated.

At the 1971 Census 992 669 persons lived in urban areas of South Australia. Of these, 502 140 (50.58 per cent) were at the same address in 1966. Of the 183 187 persons living in rural areas in 1971, 100 659 (54.95 per cent) were at the same address in 1966. The second table on page 127 shows the population of South Australia at the 1971 Census by their 1966 residence.

For statistical purposes the State is divided into nine statistical divisions, most of which are further divided into subdivisions, as described on page 117. The population of each division and subdivision at the 1966 and the 1971 Censuses, and estimates for subsequent years are shown in the following table.

### Population of Statistical Divisions and Subdivisions, South Australia

Statistical Division and Subdivision	Census 30 June		Estimate 30 June	
	1966	1971	1972	1973
<b>Adelaide:</b>				
City .....	18 619	16 313	15 600	15 000
Inner Western .....	25 992	24 351	23 600	23 000
Inner Eastern .....	100 939	99 171	98 500	98 000
North Eastern Suburban .....	91 544	117 640	124 200	130 500
Eastern Suburban .....	81 779	89 681	90 200	91 000
South Eastern Hills .....	62 017	67 793	69 200	70 000
South Western Coastal .....	107 274	124 673	129 000	133 900
Western Suburban .....	72 820	79 248	79 300	79 600
North Western Suburban .....	135 927	132 403	131 700	130 900
Para .....	74 684	91 420	93 700	96 100
<b>Total Adelaide</b> .....	<b>771 595</b>	<b>842 693</b>	<b>855 000</b>	<b>868 000</b>
<b>Central:</b>				
Central Plains .....	21 569	20 464	20 300	20 200
Yorke .....	11 728	10 731	10 700	10 600
<b>Total Central</b> .....	<b>33 297</b>	<b>31 195</b>	<b>31 000</b>	<b>30 800</b>
<b>Kangaroo Island</b> .....	<b>3 375</b>	<b>3 156</b>	<b>3 150</b>	<b>3 150</b>
<b>Mount Lofty Ranges:</b>				
Northern Ranges .....	21 852	21 447	21 300	21 350
Southern Ranges .....	30 561	30 384	31 250	31 250
<b>Total Mount Lofty Ranges</b> .....	<b>52 413</b>	<b>51 831</b>	<b>52 550</b>	<b>52 600</b>
<b>Murray:</b>				
Upper Murray .....	31 802	31 359	31 250	31 150
Lower Murray .....	17 984	18 839	19 000	19 050
Mallee .....	7 597	6 756	6 600	6 500
<b>Total Murray</b> .....	<b>57 383</b>	<b>56 954</b>	<b>56 850</b>	<b>56 700</b>
<b>South East:</b>				
Upper South East .....	20 724	20 691	20 600	20 350
Lower South East .....	36 880	37 290	37 250	37 250
<b>Total South East</b> .....	<b>57 604</b>	<b>57 981</b>	<b>57 850</b>	<b>57 600</b>
<b>Eyre:</b>				
Upper Eyre .....	8 180	9 009	9 000	8 950
Lower Eyre .....	20 820	20 802	20 700	20 650
<b>Total Eyre</b> .....	<b>29 000</b>	<b>29 811</b>	<b>29 700</b>	<b>29 600</b>



Population at 30 June, Adelaide Statistical Division<sup>(a)</sup>

Local Government Area	Census		Estimate	
	1961	1966	1971	1973
Adelaide (C) . . . . .	23 051	18 619	16 313	15 000
Brighton (C) . . . . .	20 337	22 638	22 583	22 200
Burnside (C) . . . . .	36 266	38 776	39 339	38 900
Campbelltown (C) . . . . .	20 945	32 083	37 942	39 400
Colonel Light Gardens (M) . .	3 671	3 404	3 369	3 200
East Torrens (DC) . . . . .	3 664	3 822	4 202	4 500
Elizabeth (C) . . . . .	(b)	32 956	33 389	33 400
Enfield (C) . . . . .	72 427	80 336 (c)	77 435	76 600
Gawler (M) . . . . .	5 639	5 703	5 495	5 500
Glenslg (C) . . . . .	14 492	14 763	15 237	15 500
Henley and Grange (C) . . . .	11 680	14 146	16 128	16 800
Hindmarsh (M) . . . . .	12 914	11 367	10 306	9 600
Kensington and Norwood (C)	13 476	11 943	11 081	10 800
Marion (C) . . . . .	58 464	66 984	67 572	67 700
Meadows (DC) (part) . . . . .	2 242	2 824	5 128	7 600
Mitcham (C) . . . . .	43 122	49 485	54 377	55 600
Mudla Wirra (DC) (part) . . .	111	155	186	200
Munno Para (DC) . . . . .	3 154	14 279	20 179	20 100
Noarlunga (DC) . . . . .	5 492	14 214	28 464	35 900
Payneham (C) . . . . .	14 930	16 847	17 543	17 500
Port Adelaide (C) . . . . .	38 923	39 846	38 968	37 500
Prospect (C) . . . . .	22 184	21 415	20 934	20 500
Salisbury (C) . . . . .	35 715	35 766	56 279	65 600
Stirling (DC) . . . . .	7 075	7 552	8 359	9 000
St Peters (M) . . . . .	11 727	11 339	10 675	10 300
Tea Tree Gully (C) . . . . .	5 887	21 315	36 708	45 600
Thebarton (M) . . . . .	12 884	12 303	11 831	11 200
Unley (C) . . . . .	40 280	39 735	39 928	39 900
Walkerville (M) . . . . .	4 464	4 593 (c)	7 208	7 200
West Torrens (C) . . . . .	40 681	46 233	50 097	49 500
Willunga (DC) (part) . . . . .	2 210	2 190	2 614	2 700
Woodville (C) . . . . .	71 039	73 930	72 806	73 000
Not incorporated . . . . .	—	—	(d) 18	—
<b>Total . . . . .</b>	<b>659 146</b>	<b>771 561</b>	<b>842 693</b>	<b>868 000</b>

(a) Excludes full-blood Aborigines before 30 June 1966. (b) Elizabeth (C) was constituted out of Salisbury (C) in July 1964. (c) Comparisons with previous censuses is affected by transfer in July 1970 of the Suburb of Vale Park (approximately 2 200 persons) from Enfield (C) to Walkerville (M). (d) Torrens and Garden Islands included in Adelaide Statistical Division subsequent to 1966 Census.

(C) Municipality with city status (M) Municipality (DC) District Council

## Population Beyond the Adelaide Statistical Division

Only a very small proportion (15.6 per cent) of South Australia's population is located in urban centres outside of the capital city compared with the three eastern States, New South Wales, Victoria and Queensland. Whereas, in each of the eastern States, there are at least four centres outside the capital city with a population in excess of 20 000, Whyalla with a population of 32 109 at the Census of 30 June 1971 is the only such centre in South Australia.

The following table illustrates the change in the population of urban centres outside the Adelaide Statistical Division between 1966 and 1971.

**Population of Urban Centres: South Australia, Censuses 1966 and 1971<sup>(a)</sup>**

Urban Centre	Census		Urban Centre	Census	
	June 1966	June 1971 (b)		June 1966	June 1971 (b)
Angaston . . . .	1 887	1 813	Mount Barker ..	1 934	2 475
Balaklava . . . .	1 199	1 114	Mount Gambier .	17 261	17 934
Barmera . . . . .	1 490	1 687	Murray Bridge ..	6 444	7 441
Berri . . . . .	2 232	2 713	Naracoorte . . .	4 380	4 429
Bordertown . . . .	1 759	1 979	Nuriootpa . . . .	2 041	2 468
Burra . . . . .	1 342	1 276	Penola . . . . .	1 383	1 293
Ceduna . . . . .	1 457	2 070	Peterborough . . .	3 117	3 023
Clare . . . . .	1 582	2 099	Port Augusta . . .	10 457	12 224
Cooper Pedy . . . .	(c)	1 394	Port Broughton .	418	488
Crystal Brook . . .	1 235	1 181	Port Elliot . . . .	565	566
Goolwa . . . . .	561	681	Port Lincoln . . .	8 912	9 158
Jamestown . . . .	1 392	1 331	Port MacDonnell .	531	585
Kadina . . . . .	3 022	2 828	Port Pirie . . . .	15 567	15 456
Kapunda . . . . .	1 119	1 261	Quorn . . . . .	(c) 900	1 008
Keith . . . . .	1 097	1 212	Renmark . . . . .	3 054	3 278
Kingscote . . . . .	1 071	1 011	Strathalbyn . . . .	1 449	1 535
Kingston (SE) . . .	1 065	1 173	Tailem Bend . . . .	1 952	1 982
Lobethal . . . . .	1 098	1 377	Tanunda . . . . .	1 986	1 939
Loxton . . . . .	2 420	2 663	Victor Harbor . . .	3 142	3 527
Maitland . . . . .	1 017	1 020	Waikerie . . . . .	(c) 989	1 252
Mannum . . . . .	2 034	2 043	Wallaroo . . . . .	2 113	2 097
Millicent . . . . .	4 539	5 075	Whyalla . . . . .	22 131	32 109
Moonta . . . . .	1 702	1 570	Woomera- Maralinga . . . .	4 749	4 082

(a) Outside Adelaide Statistical Division. For definition of 'urban' see page 124.

(b) For comparability, 1966 urban centre figures are based on boundaries as defined for the urban centres at the Census of 30 June 1971.

(c) Non-urban in 1966. Where an urban centre at the 1971 Census was non-urban at the 1966 Census, figures for both Censuses (where available) have been shown for comparison.

Since 1966 population growth has been particularly evident in Whyalla, the centre for steel-making and ship-building; Port Augusta situated at the head of Spencer Gulf; towns in the Lower South East; and urban centres situated in the Upper Murray. The growth of urban centres in the Upper Murray has been encouraged by the increased availability of irrigated land and the expansion of secondary industry associated with the area's primary production.

Further growth in these and other centres, together with the proposed establishment of the new city of Monarto near Murray Bridge, is likely to arrest the decline in the proportion of the State's population living in areas outside Urban Adelaide.

Outside the Adelaide Statistical Division there are only five municipalities which have been proclaimed as cities, namely Whyalla, Mount Gambier, Port Pirie, Port Augusta and Port Lincoln. The following table shows the growth since the 1947 Census, of these and other municipalities with a population of about 3 000 or more. Differences in population between the municipality and the corresponding urban centre shown in the previous table are attributable to the growth of the urban centre outside the municipality area in Mount Gambier, Murray Bridge, Port Pirie and Whyalla. The Municipality of Renmark contains a considerable rural area and the population in the rural area is not included in the population for the urban centre.

**Population of Municipalities at 30 June, South Australia<sup>(a)</sup>**

Municipality	Census					Estimate 1974
	1947	1954	1961	1966	1971	
Mount Gambier . . . .	6 771	10 331	15 388	17 261	17 386	17 600
Murray Bridge . . . .	3 690	4 362	5 404	5 958	6 709	7 150
Naracoorte . . . . .	2 202	3 329	4 410	4 380	4 429	4 450
Peterborough . . . .	2 890	3 437	3 430	3 117	3 023	2 900
Port Augusta . . . . .	4 351	6 704	9 711	10 132	12 224	12 950
Port Lincoln . . . . .	3 972	5 871	7 508	8 912	9 158	9 350
Port Pirie . . . . .	12 019	14 223	14 003	13 965	13 227	12 550
Renmark . . . . .	4 832	5 484	6 070	6 275	6 333	6 350
Whyalla . . . . .	7 845	8 598	13 711	21 281	31 570	33 500

(a) Excludes full-blood Aborigines before 30 June 1966.

### 5.3 BIRTHS AND DEATHS

Compulsory registration of births and deaths was first provided in South Australia in 1842 when an Act 'for registering births, deaths and marriages in the Province of South Australia' was passed. Current legislation is contained in the Births, Deaths and Marriages Registration Act, 1966-1972 which came into operation on 1 January 1968 and the administration of the Act is the responsibility of the Principal Registrar of Births, Deaths and Marriages. For registration purposes the State is divided into twenty-two registration districts each of which has a registry office in the charge of a District Registrar.

The Principal Registrar maintains a register of all live births and of all deaths registered in the State and each District Registrar maintains, in a register, duplicate copies of the registrations of births and deaths which occurred in the

district under his jurisdiction. Up to the end of 1967 separate registers were kept of still births, which were not included in the registration or statistics of either live births or of deaths. Compulsory registration of still births was introduced in South Australia in 1937.

The current legislation does not require the Principal Registrar to maintain a register of still births, but it provides for a 'Medical Certificate of Cause of Perinatal Death' to be filled in and forwarded to the Principal Registrar by the attending medical practitioner in respect of a 'child not born alive of at least twenty weeks gestation or four hundred grams weight'. The 'perinatal' certificates are also required from attending medical practitioners for children dying within twenty-eight days of birth.

The birth of each live-born child is required to be registered by a parent within sixty days of the date of birth. Registration of a live birth after the expiration of sixty days following the date of birth requires also the payment of a fee and a declaration in a form prescribed by the Act.

A death is required to be registered within fourteen days of the date of death by the occupier of the building or place in which the death occurred. Special provisions and penalties exist for the late registration of a death. A body may not be buried unless the undertaker is in possession of a 'Notice of signing of Medical Certificate of Cause of Death' signed by a medical practitioner or of an order by a coroner for burial, and the undertaker is required within seven days of the disposal of the body to notify the Principal Registrar of such disposal.

Births and deaths of Aborigines when registered are incorporated in registers, but to the end of 1965 have been excluded from statistics where there was definite indication that they were of full-blood. Statistics of births and deaths for 1966 and subsequent years cover all registrations.

In accordance with international practice, statistics for a period are on the basis of the births and deaths which were registered during that period. However, numbers registered in a period usually differ from the number of occurrences in the same period and, mainly because of the longer period allowed for registration, such variations generally are more apparent in birth than in death figures.

## BIRTHS

The South Australian birth rate per thousand of mean population during 1973 was 16.97 compared with the Australian rate of 18.81 per thousand. This was also the lowest rate recorded by any of the Australian States or Territories for the same period. Although there has been no lower post-war rate recorded, there was a period from 1931 to 1940 inclusive when the rate remained below this 1973 level and the lowest ever recorded rate of 14.14 was established in 1935. Fluctuations in the rate over time can be seen in the Statistical Summary, Appendix A.

The difference between births which actually occurred and those registered during the five years to 1973 is shown in the following table. The masculinity rate, *i.e.*, the number of male births per hundred female births, is also shown.

## Live Births Occurred and Registered, South Australia

Year	Total Live Births Occurred (a)	Live Births Registered				
		Total	Rate (b)	Males	Females	Masculinity (c)
1969 .. . . .	21 991	21 977	19.28	11 262	10 715	105.10
1970 .. . . .	22 588	22 617	19.52	11 555	11 062	104.46
1971 .. . . .	22 753	22 996	19.55	11 797	11 199	105.34
1972 .. . . .	21 756	21 844	18.37	11 299	10 545	107.15
1973 .. . . .	19 391	20 407	16.97	10 475	9 932	105.47

(a) Figures are subject to the addition of late registrations, particularly to 1973.

(b) Number per 1 000 of mean population.

(c) Number of male births per 100 female births.

## Ex-nuptial Births and Legitimations

Since 1960 there has been a marked increase in the number and rate of ex-nuptial births. For the previous forty years, the rate remained relatively steady at about three per hundred live births, but in recent years the rate has increased sharply, reaching a record level of 8.82 per hundred live births in 1973.

The legitimization of an ex-nuptial child upon the subsequent marriage of the parents which was first provided for in South Australia by the Legitimation Act, 1898, the provisions of which were later incorporated in the Births and Deaths Registration Act, was possible only if there was no legal impediment to the marriage of the parents at the time of the birth of the child. The *Marriage Act 1961-1973*, which came into operation on 1 September 1963, provides for the legitimization of a child upon the subsequent marriage of the parents whether or not there was a legal impediment to the marriage at the time of the birth of the child. Legitimizations under this Act take place whether or not the child was living at the time of marriage, and the child is considered legitimate from the date of birth or, in the case of a child born before 1 September 1963, at that date.

## Ex-nuptial Live Births and Legitimations, South Australia

Year	Ex-nuptial Births				Legitimations
	Males	Females	Total	Rate per 100 Live Births	
1969 .. . . .	748	760	1 508	6.86	260
1970 .. . . .	886	829	1 715	7.58	323
1971 .. . . .	898	884	1 782	7.75	337
1972 .. . . .	931	872	1 803	8.25	296
1973 .. . . .	921	879	1 800	8.82	280



**Confinements and Live Births**

In the table below confinements in each of the years 1970 to 1973 have been shown in relation to age group of the mother and nuptiality.

**Confinements: Age Group of Mother and Nuptiality, South Australia**

Age Group	Number of Confinements (a)				Percentage of Total in each Category			
	1970	1971	1972	1973	1970	1971	1972	1973
<b>NUPTIAL CONFINEMENTS</b>								
10-14	—	1	1	—	—	0.0	0.0	—
15-19	1 681	1 711	1 602	1 502	8.1	8.1	8.1	8.1
20-24	7 815	8 135	7 408	6 923	37.8	38.7	37.3	37.6
25-29	6 695	6 958	7 132	6 766	32.4	33.1	35.9	36.7
30-34	2 944	2 756	2 591	2 240	14.2	13.1	13.0	12.2
35-39	1 179	1 124	877	808	5.7	5.4	4.4	4.4
40-44	344	289	230	173	1.7	1.4	1.2	0.9
45 and over	21	19	19	21	0.1	0.1	0.1	0.1
Not stated	—	—	—	1	—	—	—	0.0
<b>Total</b>	<b>20 679</b>	<b>20 993</b>	<b>19 860</b>	<b>18 434</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>EX-NUPTIAL CONFINEMENTS</b>								
10-14	10	11	9	14	0.6	0.6	0.5	0.8
15-19	647	749	760	813	38.1	42.3	42.4	45.6
20-24	594	598	573	520	35.0	33.8	32.0	29.2
25-29	237	232	273	239	14.0	13.1	15.2	13.4
30-34	106	109	110	129	6.2	6.2	6.1	7.2
35-39	76	55	40	55	4.5	3.1	2.2	3.1
40-44	26	15	26	11	1.5	0.8	1.4	0.6
45 and over	1	1	—	—	0.1	0.1	—	—
Not stated	—	1	—	2	—	0.1	—	0.1
<b>Total</b>	<b>1 697</b>	<b>1 771</b>	<b>1 791</b>	<b>1 783</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(a) Includes only those confinements which resulted in one or more live births.

The next table shows the number of confinements and live births for 1972 and 1973 classified separately for single births and multiple births in which at least one issue was live-born.

**Confinements and Live Births: Class of Birth, South Australia**

Particulars	1972				1973			
	Confinements (a)	Live Births			Confinements (a)	Live Births		
		Male	Female	Total		Male	Female	Total
<b>Nuptial:</b>								
Single births	19 680	10 197	9 483	19 680	18 261	9 374	8 887	18 261
Twins	179	169	189	358	171	174	166	340
Triplets	1	2	1	3	2	6	—	6
<b>Total nuptial</b>	<b>19 860</b>	<b>10 368</b>	<b>9 673</b>	<b>20 041</b>	<b>18 434</b>	<b>9 554</b>	<b>9 053</b>	<b>18 607</b>
<b>Ex-Nuptial:</b>								
Single births	1 779	915	864	1 779	1 766	907	859	1 766
Twins	12	16	8	24	17	14	20	34
Triplets	—	—	—	—	—	—	—	—
<b>Total ex-nuptial</b>	<b>1 791</b>	<b>931</b>	<b>872</b>	<b>1 803</b>	<b>1 783</b>	<b>921</b>	<b>879</b>	<b>1 800</b>
<b>Total</b>	<b>21 651</b>	<b>11 299</b>	<b>10 545</b>	<b>21 844</b>	<b>20 217</b>	<b>10 475</b>	<b>9 932</b>	<b>20 407</b>

(a) Includes only those confinements which resulted in one or more live births.

In each year from 1950 to 1963 multiple confinements occurred at a rate of a little over ten per 1 000 confinements but have fallen below this level in seven of the ten years since 1963. There is a marked tendency for multiple births to be of the same sex; in 1973 there were 127 cases of twins of the same sex compared with only 61 cases of one male and one female issue.

Nuptial confinements classified according to the relative age groups of the parents, and ex-nuptial confinements classified to the age group of the mother are shown for 1973 in the following table.

### Confinements: Relative Ages of Parents, South Australia, 1973(a)

Age Group of Father (Nuptial Births) (Years)	Age Group of Mother (Years)							Total (b)
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	
Under 20 .. . . . .	253	58	—	—	—	—	—	311
20-24 .. . . . .	1 022	2 852	333	24	1	1	—	4 233
25-29 .. . . . .	187	3 321	3 801	235	11	3	—	7 558
30-34 .. . . . .	37	556	2 090	1 051	91	7	—	3 832
35-39 .. . . . .	1	90	431	682	328	18	1	1 551
40-44 .. . . . .	2	31	78	186	267	77	4	645
45-49 .. . . . .	—	10	22	46	88	50	10	226
50 and over .. . . .	—	1	10	15	21	17	6	69
Not stated .. . . . .	—	4	1	1	1	—	—	8
<b>Mothers:</b>								
Married .. . . . .	1 502	6 923	6 766	2 240	808	173	21	18 434
Unmarried .. . . . .	827	520	239	129	55	11	—	1 783
<b>Total .. . . . .</b>	<b>2 329</b>	<b>7 443</b>	<b>7 005</b>	<b>2 369</b>	<b>863</b>	<b>184</b>	<b>21</b>	<b>20 217</b>

(a) Includes only those confinements which resulted in one or more live births. (b) Includes not stated.

The table which follows shows the number of confinements classified by duration of marriage and previous issue. Previous issue is the number of live-born children of the existing marriage born before the current confinement.

### Nuptial Confinements: Duration of Marriage and Previous Issue of Mother South Australia, 1973

Duration of Marriage	Number of Confinements (a)	Previous Issue of Marriage						
		0	1	2	3	4	5	6 and over
Under 1 year .. . . . .	2 196	2 144	47	3	1	—	—	—
1 year .. . . . .	2 204	1 823	363	14	2	1	—	—
2 years .. . . . .	2 570	1 430	1 077	59	3	—	—	—
3 years .. . . . .	2 773	1 005	1 550	210	7	1	—	—
4 years .. . . . .	2 115	489	1 261	328	30	6	—	1
5 years .. . . . .	1 611	273	840	419	70	7	1	1
6 years .. . . . .	1 213	156	505	430	100	20	2	—
7 years .. . . . .	947	108	296	398	118	19	4	4
8 years .. . . . .	677	48	178	283	124	35	8	1
9 years .. . . . .	453	35	90	172	103	34	14	4
10 years .. . . . .	380	25	70	138	92	36	13	6
11 years .. . . . .	291	13	25	102	86	37	20	8
12 years .. . . . .	215	5	24	67	72	35	7	5
13 years .. . . . .	190	14	23	49	53	28	12	11
14 years .. . . . .	141	10	10	31	43	22	12	13
15 years and over .. . . .	451	13	30	81	101	82	58	86
Not stated .. . . . .	7	1	1	3	1	—	—	1
<b>Total .. . . . .</b>	<b>18 434</b>	<b>7 592</b>	<b>6 390</b>	<b>2 787</b>	<b>1 006</b>	<b>363</b>	<b>151</b>	<b>141</b>

(a) Includes previous issue not stated.

Between 1964 and 1973 the number of nuptial first live births rose from 6 552 to 7 592 (*i.e.*, from 33·38 to 40·80 per cent of total nuptial births registered). Over the same period the number of fourth or subsequent children born into existing marriages declined from 4 154 to 1 665, a fall from 21·16 to 8·95 per cent of total nuptial births registered. These figures reflect the decline in the average number of children born into the family unit.

The following table illustrates a trend, which has been apparent since 1964, towards a longer period after marriage before the birth of the first child. In particular, there has been a decrease in the percentage of nuptial first live births to women who had been married less than two years, from 68·39 per cent in 1964 to 52·25 per cent in 1973. A corresponding increase is evident in the two to four years duration of marriage groups; from 22·95 per cent to 38·52 per cent.

Only existing marriages are taken into account, therefore some inclusions in the table relate to the first birth of an existing marriage to a mother who has had a child or children by a previous marriage.

**Nuptial First Live Births: Duration of Marriage of Parents  
South Australia**

Duration of Marriage	Nuptial First Live Births				Percentage of Total			
	1970	1971	1972	1973	1970	1971	1972	1973
Under 5 months . . . . .	698	703	653	611	8·58	8·42	8·13	8·05
5 months . . . . .	563	566	513	463	6·92	6·78	6·39	6·10
6 months . . . . .	537	497	425	332	6·60	5·95	5·29	4·37
7 months . . . . .	199	175	159	119	2·45	2·10	1·98	1·57
8 months . . . . .	143	124	135	119	1·76	1·49	1·68	1·57
9 months . . . . .	269	216	206	161	3·30	2·59	2·57	2·12
10 months . . . . .	228	212	165	165	2·80	2·54	2·05	2·17
11 months . . . . .	222	210	178	174	2·73	2·52	2·22	2·29
<b>Total under 1 year</b>	<b>2 859</b>	<b>2 703</b>	<b>2 434</b>	<b>2 144</b>	<b>35·14</b>	<b>32·37</b>	<b>30·30</b>	<b>28·24</b>
1 year . . . . .	1 972	2 110	1 942	1 823	24·24	25·27	24·18	24·01
2 years . . . . .	1 384	1 515	1 462	1 430	17·01	18·14	18·20	18·84
3 years . . . . .	844	896	980	1 005	10·38	10·73	12·20	13·24
4 years . . . . .	461	480	531	489	5·67	5·75	6·61	6·44
5 years . . . . .	231	253	285	273	2·84	3·03	3·55	3·60
6 years . . . . .	111	139	177	156	1·36	1·66	2·20	2·05
7 years . . . . .	79	81	77	108	0·97	0·97	0·96	1·42
8 years and over . . . . .	190	170	139	163	2·34	2·04	1·73	2·15
Not stated . . . . .	4	3	5	1	0·05	0·04	0·06	0·01
<b>Total</b>	<b>8 135</b>	<b>8 350</b>	<b>8 032</b>	<b>7 592</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>

## DEATHS

The 9 835 deaths registered in South Australia during 1973 was the third highest number ever recorded, contrasting with a crude death rate of 8.18 per thousand of mean population which was one of the lowest on record. Although crude death rates in excess of 16.0 were recorded in the 1860s, the rate has not exceeded 9.0 since 1956, with the lowest ever rate of 8.06 being recorded in 1961. Other fluctuations in the number of deaths and the crude death rate over time can be seen in the Statistical Summary, Appendix A.

## Deaths: Numbers Registered and Rates, South Australia

Year	Number Registered			Crude Death Rate (a)		
	Males	Females	Persons	Males	Females	Persons
1969 .. . . .	5 207	4 130	9 337	9.13	7.25	8.19
1970 .. . . .	5 576	4 562	10 138	9.63	7.87	8.75
1971 .. . . .	5 310	4 376	9 686	9.04	7.43	8.23
1972 .. . . .	5 477	4 287	9 764	9.23	7.19	8.21
1973 .. . . .	5 501	4 334	9 835	9.18	7.18	8.18

(a) Number of deaths per 1 000 of estimated mean population.

## Deaths: Deaths Registered in Age Groups, South Australia

Age Group	Males			Females			Persons		
	1971	1972	1973	1971	1972	1973	1971	1972	1973
Under 1 year .. . . .	204	212	174	162	155	102	366	367	276
1 year .. . . .	17	21	16	14	10	13	31	31	29
2 years .. . . .	9	11	12	3	5	6	12	16	18
3 years .. . . .	10	10	11	5	5	4	15	15	15
4 years .. . . .	5	6	7	4	6	6	9	12	13
Total under 5 years ..	245	260	220	188	181	131	433	441	351
5-9 years .. . . .	21	25	20	18	19	14	39	44	34
10-14 years .. . . .	19	27	13	9	19	12	28	46	25
15-19 years .. . . .	85	75	95	42	31	29	127	106	124
20-24 years .. . . .	77	71	67	36	16	20	113	87	87
25-29 years .. . . .	41	51	57	27	24	18	68	75	75
30-34 years .. . . .	54	45	46	35	30	29	89	75	66
35-39 years .. . . .	72	59	61	37	37	29	109	91	90
40-44 years .. . . .	105	123	97	66	57	63	171	180	160
45-49 years .. . . .	188	211	202	98	109	115	286	320	317
50-54 years .. . . .	259	309	317	154	142	151	413	451	468
55-59 years .. . . .	455	451	438	191	235	195	646	686	633
60-64 years .. . . .	517	584	593	266	281	304	783	865	897
65-69 years .. . . .	642	707	723	374	350	374	1 016	1 057	1 097
70-74 years .. . . .	726	680	759	537	477	502	1 263	1 157	1 261
75-79 years .. . . .	674	689	660	674	666	667	1 348	1 355	1 327
80-84 years .. . . .	612	594	614	715	744	746	1 327	1 338	1 360
85-89 years .. . . .	377	366	383	562	541	616	939	907	999
90-94 years .. . . .	112	123	114	265	266	250	377	389	364
95 years and over .. .	29	27	22	82	67	78	111	94	100
All ages .. . . .	5 310	5 477	5 501	4 376	4 287	4 334	9 686	9 764	9 835

A long established trend of increases in the number of deaths at the higher ages has been offset to some degree by a decrease in those in the younger age groups. The effect of this trend related to the changes in age distribution of the population is illustrated in the next tables, which show age-specific death rates, *i.e.* deaths in each age group expressed as a rate per 1 000 of the population in that age group. Because age constitution of the population is known accurately only at censuses, the periods shown are those with a census date as their centre.

### Age-Specific Death Rates: Males, South Australia<sup>(a)</sup>

Age Group	Death Rate (b)							
	1880-82	1900-02	1920-22	1932-34	1946-48	1953-55	1960-62	1970-72
0-4	51-85	32-12	19-98	9-90	8-09	6-41	5-82	4-66
5-9	3-33	2-81	2-33	1-18	1-00	0-52	0-50	0-43
10-14	2-59	1-85	1-55	1-08	0-68	0-65	0-46	0-38
15-19	4-48	2-88	2-41	1-69	1-42	1-50	1-08	1-48
20-24	4-85	4-19	3-47	2-35	1-44	1-88	1-37	1-55
25-29	6-32	5-16	3-67	2-51	1-59	1-70	1-59	1-12
30-34	7-51	5-30	3-97	2-51	1-88	1-57	1-62	1-41
35-39	9-00	6-77	5-12	3-23	2-41	2-29	2-08	2-04
40-44	12-25	8-50	6-10	4-73	3-63	3-56	3-43	3-15
45-49	16-10	10-26	8-37	6-82	6-12	5-48	5-44	5-49
50-54	17-29	14-19	11-58	9-82	10-74	10-16	9-24	9-37
55-59	25-28	20-74	18-99	15-11	16-28	15-71	15-75	16-01
60-64	31-77	30-23	26-02	24-98	26-08	24-33	24-39	25-10
65-69	46-67	47-24	41-62	36-14	40-08	39-31	37-84	41-00
70-74	63-52	64-27	62-49	57-07	60-79	62-59	59-47	64-42
75-79	92-49	89-66	105-50	92-60	97-69	94-55	88-56	96-09
80-84	138-02	140-35	158-90	147-86	145-56	141-64	135-85	142-39
85 and over	247-47	246-96	269-50	257-03	248-89	235-84	227-39	230-02
All ages	15-76	12-03	10-75	9-29	10-87	9-80	9-00	9-31

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Average annual number of deaths per 1 000 of population at ages shown.

### Age-Specific Death Rates: Females, South Australia<sup>(a)</sup>

Age Group	Death Rate (b)							
	1880-82	1900-02	1920-22	1932-34	1946-48	1953-55	1960-62	1970-72
0-4	45-36	27-20	16-29	8-29	7-12	5-01	3-93	3-39
5-9	3-28	2-02	2-30	1-04	0-54	0-45	0-35	0-32
10-14	2-49	1-64	1-32	0-88	0-38	0-42	0-30	0-29
15-19	4-16	3-47	2-71	1-25	0-75	0-52	0-37	0-65
20-24	5-59	4-16	2-91	2-36	1-04	0-63	0-58	0-48
25-29	8-01	5-00	3-95	2-73	1-65	0-85	0-70	0-60
30-34	7-67	5-66	4-18	2-66	1-91	0-99	0-96	0-91
35-39	10-29	6-90	5-27	3-85	2-03	1-79	1-33	1-18
40-44	9-76	7-85	4-99	4-10	3-48	2-56	1-80	1-86
45-49	11-65	8-20	6-42	5-80	4-59	3-65	3-03	2-95
50-54	13-09	10-83	9-18	8-06	7-09	5-88	5-22	4-60
55-59	14-86	14-08	10-65	11-24	10-33	9-04	7-82	7-41
60-64	24-30	20-45	18-07	17-68	14-97	14-06	12-74	12-16
65-69	36-27	35-51	33-15	27-16	25-22	23-01	21-05	20-32
70-74	53-10	53-80	46-20	42-19	42-17	40-35	35-52	33-42
75-79	93-21	87-96	83-56	75-53	72-07	72-20	58-28	57-60
80-84	94-83	126-07	131-63	121-15	121-57	109-92	108-61	99-42
85 and over	161-90	222-58	232-84	233-59	214-35	215-80	199-38	186-55
All ages	13-97	10-25	9-00	8-23	9-19	8-31	7-38	7-50

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Average annual number of deaths per 1 000 of population at ages shown.

## CAUSES OF DEATH

The classification of causes of deaths in Australia since 1907 has been based on the International Lists of Causes of Deaths (ICD). From time to time revisions to these lists have affected the comparability of the figures. Up to 1949 the effect of these revisions had been negligible but the introduction in 1950 of the Sixth Revision of the ICD introduced major changes which, together with the adoption of more flexible rules for selecting the underlying cause where certificates of cause of death showed more than one cause, affected the comparability of figures for years before 1950 with those for 1950 and later. A complete classification of causes of deaths for each State and Territory of Australia for 1950 according to both the Fifth and Sixth Revisions was published by the Commonwealth Statistician in Demography 1950, Bulletin No. 68. The Seventh Revision adopted in Australia in 1958 did not affect comparability significantly.

The Eighth Revision brought into use in Australia in 1968 provided a few changes to the structure of the tabular list, e.g. the transferring of cerebrovascular diseases from the section covering diseases of the nervous system and sense organs to that covering diseases of the circulatory system. Comparability has not been affected greatly by the changes with the exception of the categories within the section now entitled 'Certain Causes of Perinatal Morbidity and Mortality'—the Seventh Revision title was 'Certain Diseases of Early Infancy'. Seventh Revision classification in this section was related to the condition in the infant whereas the Eighth Revision provides primarily for classification wherever possible to maternal diseases or conditions or to the circumstances of the birth rather than to the resultant condition in the infant. ICD Eighth Revision code numbers have been shown where appropriate in the tables which follow.

In the following table, deaths registered in 1973 are shown classified according to the abbreviated list of the Eighth Revision together with the percentages from each cause and the rate per 10 000 of mean population.

## Causes of Death: South Australia, 1973

Abbreviated Classification (a)	ICD Code Number	Number of Deaths	Proportion of Total	Rate per 10 000 of Mean Population
			per cent	
3 Bacillary dysentery and amoebiasis . . . . .	004, 006	2	0.02	0.02
4 Enteritis and other diarrhoeal . . . . .	008, 009	15	0.15	0.12
5 Tuberculosis of respiratory system . . . . .	010-012	6	0.06	0.05
6 Other tuberculosis including late effects . . . . .	013-019	3	0.03	0.02
11 Meningococcal infection . . . . .	036	2	0.02	0.02
17 Syphilis and its sequelae . . . . .	090-097	3	0.03	0.02
18 Other infective and parasitic diseases . . . . .	{ Remainder }	24	0.24	0.20
	000-136			
19 Malignant neoplasms . . . . .	140-209	1 796	18.27	14.93
20 Benign and unspecified neoplasms . . . . .	210-239	9	0.09	0.07
21 Diabetes mellitus . . . . .	250	171	1.74	1.42
22 Avitaminoses and other nutritional deficiency . . . . .	260-269	4	0.04	0.03
23 Anaemias . . . . .	280-285	14	0.14	0.12
24 Meningitis . . . . .	320	8	0.08	0.07
26 Chronic rheumatic heart disease . . . . .	393-398	74	0.75	0.62
27 Hypertensive disease . . . . .	400-404	102	1.04	0.85
28 Ischaemic heart disease . . . . .	410-414	3 085	31.37	25.65
29 Other forms of heart disease . . . . .	420-429	430	4.37	3.58
30 Cerebrovascular disease . . . . .	430-438	1 364	13.87	11.34
31 Influenza . . . . .	470-474	2	0.02	0.02

**Causes of Death: South Australia, 1973 (continued)**

Abbreviated Classification (a)	ICD Code Number	Number of Deaths	Proportion of Total	Rate per 10 000 of Mean Population
			per cent	
32 Pneumonia . . . . .	480-486	252	2.56	2.10
33 Bronchitis, emphysema and asthma . . . . .	490-493	313	3.18	2.60
34 Peptic ulcer . . . . .	531-533	60	0.61	0.50
35 Appendicitis . . . . .	540-543	7	0.07	0.06
36 Intestinal obstruction and hernia . . . . .	550-553, 560	55	0.56	0.46
37 Cirrhosis of liver . . . . .	571	99	1.01	0.82
38 Nephritis and nephrosis . . . . .	580-584	53	0.54	0.44
39 Hyperplasia of prostate . . . . .	600	29	0.29	0.24
40, 41 Complications of pregnancy, childbirth and puerperium . . . . .	630-678	2	0.02	0.02
42 Congenital anomalies . . . . .	740-759	97	0.99	0.81
43 Birth injury, difficult labour and other anoxic and hypoxic conditions . . . . .	764-768, 772, 776	47	0.48	0.39
44 Other causes of perinatal mortality . . . . .	760-763, 769-771, 773-775, 777-779	70	0.71	0.58
45 Symptoms and ill-defined conditions . . . . .	780-796	104	1.06	0.86
46 All other diseases . . . . .	Residual	820	8.34	6.82
47 Motor vehicle accidents . . . . .	E810-E823	313	3.18	2.60
48 All other accidents . . . . .	E800-E807	271	2.76	2.25
49 Suicide and intentional self-inflicted injuries . . . . .	E825-E949	121	1.23	1.01
50 All other external causes . . . . .	E950-E959 E960-E999	8	0.08	0.07
<b>Total all causes . . . . .</b>	<b>..</b>	<b>9 835</b>	<b>100.00</b>	<b>81.78</b>

(a) No deaths were recorded in 1973 in the following categories: 1 Cholera (000), 2 Typhoid fever (001), 7 Plague (020), 8 Diphtheria (032), 9 Whooping cough (033), 10 Streptococcal throat and scarlet fever (034), 12 Acute poliomyelitis (040-043), 13 Smallpox (050), 14 Measles (055), 15 Typhus and other rickettsioses (080-083), 16 Malaria (084), 25 Active rheumatic fever (390-392).

The following table shows for 1973 the main causes of deaths in selected age groups.

**Main Causes of Death: Age Groups, South Australia, 1973**

International Classification Number	Age Group and Cause of Death	Deaths	Proportion of Total Deaths in Age Groups	Proportion of Total Deaths from the Specified Cause
	<b>0-4 Years</b>	<b>No.</b>	<b>%</b>	<b>%</b>
740-759	Congenital anomalies . . . . .	76	21.7	78.4
760-763, 769-771 773-775, 777-779	Other perinatal causes, including maternal conditions, prematurity, etc. . . . .	70	19.9	100.0
764-768, 772, 776	Birth injury, difficult labour, etc. . . . .	47	13.4	100.0
E800-E999	Accidents, poisonings, violence . . . . .	39	11.1	5.5
780-796	Symptoms and ill-defined conditions . . . . .	39	11.1	37.5
	Other causes . . . . .	80	22.8	—
	<b>5-14 Years</b>			
E800-E999	Accidents, poisonings, violence . . . . .	28	47.5	3.9
140-209	Malignant neoplasms . . . . .	11	18.6	6
740-759	Congenital anomalies . . . . .	4	6.8	4.1
	Other causes . . . . .	16	27.1	—

## Main Causes of Death: Age Groups, South Australia, 1973 (continued)

International Classification Number	Age Group and Cause of Death	Deaths	Pro- portion of Total Deaths in Age Groups	Pro- portion of Total Deaths from the Specified Cause
		No.	%	%
15-24 Years				
E800-E999	Accidents, poisonings, violence . . . . .	158	74.9	22.2
140-209	Malignant neoplasms . . . . .	21	10.0	1.2
320-389	Diseases of nervous system and sense organs . . . . .	10	4.7	9.7
480-493	Pneumonia, bronchitis, emphysema, asthma . . . . .	7	3.3	1.2
	Other causes . . . . .	15	7.1	—
25-34 Years				
E800-E999	Accidents, poisonings, violence . . . . .	77	54.6	10.8
140-209	Malignant neoplasms . . . . .	19	13.5	1.1
393-398, 410-429	Heart disease . . . . .	10	7.1	0.3
480-493	Pneumonia, bronchitis, emphysema, asthma . . . . .	6	4.3	1.1
	Other causes . . . . .	29	20.5	—
35-44 Years				
140-209	Malignant neoplasms . . . . .	68	27.2	3.8
E800-E999	Accidents, poisonings, violence . . . . .	56	22.4	7.9
393-398, 410-429	Heart disease . . . . .	42	16.8	1.2
430-438	Cerebrovascular disease . . . . .	26	10.4	1.9
	Other causes . . . . .	58	23.2	—
45-54 Years				
393-398, 410-429	Heart disease . . . . .	256	32.6	7.1
140-209	Malignant neoplasms . . . . .	220	28.0	12.2
430-438	Cerebrovascular disease . . . . .	70	8.9	5.1
E800-E999	Accidents, poisonings, violence . . . . .	69	8.8	9.7
480-493	Pneumonia, bronchitis, emphysema, asthma . . . . .	37	4.7	6.5
571	Cirrhosis of liver . . . . .	32	4.1	32.3
	Other causes . . . . .	101	12.9	—
55-64 Years				
393-398, 410-429	Heart disease . . . . .	613	40.1	17.1
140-209	Malignant neoplasms . . . . .	401	26.2	22.3
430-438	Cerebrovascular disease . . . . .	148	9.7	10.9
E800-E999	Accidents, poisonings, violence . . . . .	79	5.2	11.1
480-493	Pneumonia, bronchitis, emphysema, asthma . . . . .	71	4.6	12.6
571	Cirrhosis of liver . . . . .	36	2.3	36.4
	Other causes . . . . .	182	11.9	—
65-74 Years				
393-398, 410-429	Heart disease . . . . .	1 005	42.6	28.0
140-209	Malignant neoplasms . . . . .	507	21.5	28.2
430-438	Cerebrovascular disease . . . . .	312	13.2	22.9
480-493	Pneumonia, bronchitis, emphysema, asthma . . . . .	139	5.9	24.6
250	Diabetes mellitus . . . . .	66	2.8	38.6
E800-E999	Accidents, poisonings, violence . . . . .	65	2.8	9.1
	Other causes . . . . .	264	11.2	—
75 Years and over				
393-398, 410-429	Heart disease . . . . .	1 659	40.0	46.2
430-438	Cerebrovascular disease . . . . .	799	19.2	58.6
140-209	Malignant neoplasms . . . . .	538	13.0	30.0
480-493	Pneumonia, bronchitis, emphysema, asthma . . . . .	273	6.6	48.3
440-448	Diseases of arteries, arterioles and capillaries . . . . .	246	5.9	73.4
E800-E999	Accidents, poisonings, violence . . . . .	142	3.4	19.9
250	Diabetes mellitus . . . . .	66	1.6	38.6
	Other causes . . . . .	427	10.3	—





Malignant Neoplasms: Deaths, Site of Disease, South Australia<sup>(a)</sup>

Site of Disease	1960	1965	1970	1972	1973
	Number				
Malignant neoplasm of:					
Buccal cavity and pharynx (140-9)	21	20	35	31	29
Digestive organs and peritoneum (150-9) . . . . .	425	479	546	561	586
Respiratory system (160-3) . . . . .	130	201	291	314	321
Skin (172, 173) . . . . .	28	34	44	44	53
Breast (174) . . . . .	120	107	146	153	147
Uterus (180-2) . . . . .	66	61	52	64	78
Other female genital organs (183, 184) . . . . .	39	47	63	74	72
Male genital organs (185-7) . . . . .	74	84	110	104	119
Urinary organs (188, 189) . . . . .	67	88	79	80	81
Brain and nervous system (191, 192) . . . . .	32	50	43	57	52
Other and unspecified sites (170, 171, 190, 193-9) . . . . .	48	84	83	97	92
Neoplasms of lymphatic and haematopoietic tissue (200-9)	97	128	160	182	166
<b>Total deaths (140-209) . . . . .</b>	<b>1 147</b>	<b>1 383</b>	<b>1 652</b>	<b>1 761</b>	<b>1 796</b>
	Rate (b)				
Buccal cavity and pharynx (140-9)	0.22	0.19	0.30	0.26	0.24
Digestive organs and peritoneum (150-9) . . . . .	4.50	4.50	4.72	4.72	4.87
Respiratory system (160-3) . . . . .	1.38	1.89	2.51	2.64	2.67
Skin (172, 173) . . . . .	0.30	0.32	0.38	0.37	0.44
Breast (174) . . . . .	1.27	1.01	1.26	1.29	1.22
Uterus (180-2) . . . . .	0.70	0.57	0.45	0.54	0.65
Other female genital organs (183, 184) . . . . .	0.41	0.44	0.54	0.62	0.60
Male genital organs (185-7) . . . . .	0.78	0.79	0.95	0.87	0.99
Urinary organs (188, 189) . . . . .	0.71	0.83	0.68	0.67	0.67
Brain and nervous system (191, 192) . . . . .	0.34	0.47	0.37	0.48	0.43
Other and unspecified sites (170, 171, 190, 193-9) . . . . .	0.51	0.79	0.72	0.82	0.77
Neoplasms of lymphatic and haematopoietic tissue (200-9) . . . . .	1.03	1.20	1.38	1.53	1.38
<b>Total rate (140-209) . . . . .</b>	<b>12.14</b>	<b>13.00</b>	<b>14.26</b>	<b>14.81</b>	<b>14.93</b>

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966. (b) Per 10 000 of mean population.

The next table indicates a steady increase in deaths from malignant neoplasms and the table of age-specific death rates which follows shows how the rate increases with age. Therefore, the increase over the period in the rate at all ages is partly because of the increasing proportion of the population in the higher age groups.

Deaths from Malignant Neoplasms (140-209), South Australia<sup>(a)</sup>

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
<b>Annual Average:</b>						
1945-49 .. ..	416	424	840	12.88	12.97	12.92
1950-54 .. ..	462	483	945	12.11	12.96	12.53
1955-59 .. ..	565	519	1 084	12.79	12.06	12.43
1960-64 .. ..	656	617	1 273	13.16	12.58	12.88
1965-69 .. ..	820	698	1 518	14.77	12.67	13.72
<b>Year:</b>						
1969 .. . . .	919	755	1 674	16.11	13.26	14.68
1970 .. . . .	876	776	1 652	15.13	13.39	14.26
1971 .. . . .	912	748	1 660	15.53	12.70	14.11
1972 .. . . .	970	791	1 761	16.35	13.27	14.81
1973 .. . . .	975	821	1 796	16.27	13.61	14.93

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.  
 (b) Number of deaths per 10 000 of mean population.

Malignant Neoplasms: Age-Specific Death Rates, South Australia<sup>(a)</sup>

Age Group	Death Rate (b)					
	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72
<b>MALES</b>						
0-4 .. . . .	—	0.49	1.18	1.02	1.14	1.27
5-14 .. . . .	0.12	0.51	1.05	0.82	0.97	0.79
15-24 .. . . .	0.31	0.07	1.64	0.86	0.90	0.90
25-34 .. . . .	1.05	1.18	1.21	1.33	1.62	1.24
35-44 .. . . .	3.36	2.57	4.63	4.29	3.72	5.36
45-54 .. . . .	8.65	12.35	10.42	11.57	15.09	14.80
55-64 .. . . .	35.41	32.77	33.43	36.52	43.46	43.94
65-74 .. . . .	89.18	82.62	69.54	83.67	87.28	101.64
75 and over ..	147.57	148.98	149.45	142.29	151.06	175.14
All ages ..	11.40	13.60	12.54	12.86	14.09	15.69
<b>FEMALES</b>						
0-4 .. . . .	0.30	0.41	1.24	0.79	0.57	0.57
5-14 .. . . .	0.13	0.23	0.34	0.79	0.55	0.38
15-24 .. . . .	0.25	0.40	0.72	0.46	0.82	0.56
25-34 .. . . .	1.49	1.74	1.99	2.16	1.70	2.39
35-44 .. . . .	6.32	4.42	5.95	6.66	5.68	4.88
45-54 .. . . .	16.86	15.39	12.67	16.69	16.14	15.83
55-64 .. . . .	34.61	30.12	32.91	28.19	30.33	30.90
65-74 .. . . .	55.98	57.21	52.26	52.24	49.90	55.38
75 and over ..	115.15	108.52	98.41	99.76	94.61	102.54
All ages ..	11.37	13.12	12.64	12.68	12.30	13.13

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.  
 (b) Average annual number of deaths per 10 000 of population at ages shown.

**Cerebrovascular Disease**

The increase in both numbers and rates of deaths from cerebrovascular disease (commonly referred to as 'a stroke') is further evidence of the effect of the increased proportion of the population at higher ages.

Although the rate generally has fallen since 1954, deaths from this cause still constituted 19.2 per cent of deaths of persons aged seventy-five years and over in 1973. During the period 1920-24 deaths classified to this cause were only 6.7 per cent of all deaths, but during 1965-69 they were 14 per cent of all deaths.

**Deaths from Cerebrovascular Disease (430-438), South Australia<sup>(a)</sup>**

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
<b>Annual Average:</b>						
1925-29 . . . . .	171	188	359	6.03	6.80	6.41
1930-34 . . . . .	201	231	432	6.94	8.01	7.47
1935-39 . . . . .	231	294	525	7.84	9.95	8.90
1940-44 . . . . .	271	368	639	8.96	12.03	10.51
1945-49 . . . . .	321	431	752	9.92	13.21	11.57
1950-54 . . . . .	404	553	957	10.62	14.82	12.70
1955-59 . . . . .	481	614	1 095	10.89	14.27	12.55
1960-64 . . . . .	490	645	1 135	9.83	13.16	11.48
1965-69 . . . . .	567	731	1 298	10.21	13.26	11.73
<b>Year:</b>						
1969 . . . . .	557	743	1 300	9.76	13.05	11.40
1970 . . . . .	579	822	1 401	10.00	14.19	12.09
1971 . . . . .	611	832	1 443	10.40	14.12	12.26
1972 . . . . .	587	792	1 379	9.89	13.29	11.59
1973 . . . . .	585	779	1 364	9.76	12.91	11.34

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10 000 of mean population.

**Diseases of the Heart**

The following table shows the number of deaths attributed to heart disease and rates per 10 000 of the mean population since 1935.

The percentage of total deaths classified to heart disease increased from 11.0 per cent in the period 1920-24 to 37.3 per cent during 1965-69. Over the same period the rate per 10 000 of population increased from 10.7 to 31.4. Apart from the effect of the ageing population, there are other difficult-to-measure factors which have influenced this large increase, namely changes in the mode of certification and classification, and improvement both in diagnosis and certification; therefore any comparison of numbers, rates and percentages of deaths from this cause over the period ought only be made with caution.

Deaths from Diseases of the Heart (393-398, 410-429), South Australia<sup>(a)</sup>

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
<b>Annual Average:</b>						
1935-39 . . . . .	639	498	1 137	21.63	16.88	19.25
1940-44 . . . . .	886	704	1 590	29.29	23.02	26.14
1945-49 . . . . .	1 094	822	1 916	33.84	25.15	29.47
1950-54 . . . . .	1 342	996	2 338	35.22	26.70	31.01
1955-59 . . . . .	1 519	1 111	2 630	34.38	25.81	30.15
1960-64 . . . . .	1 776	1 245	3 021	35.61	25.42	30.56
1965-69 . . . . .	2 036	1 432	3 468	36.69	25.97	31.35
<b>Year:</b>						
1969 . . . . .	1 989	1 386	3 375	34.86	24.34	29.60
1970 . . . . .	2 136	1 575	3 711	36.88	27.18	32.03
1971 . . . . .	1 976	1 445	3 421	33.64	24.53	29.08
1972 . . . . .	2 074	1 456	3 530	34.95	24.43	29.68
1973 . . . . .	2 105	1 484	3 589	35.13	24.59	29.84

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.  
 (b) Number of deaths per 10 000 of mean population.

**External Causes**

In the table which follows deaths from selected categories of external cause (accidents, poisonings, and violence) are shown for recent years.

**Deaths: External Causes (Accidents, Poisonings and Violence), South Australia**

Year	Cause							Total Deaths for Causes (E800-E999)
	Motor Vehicle Traffic Accidents (E810-E819)	Accidental Drownings (E830, E832, E910)	Accidental Poisonings (E850-E877)	Accidental Falls (E880-E887)	Suicide and (Intentional) Self-inflicted Injury (E950-E959)	Homicide and Injury Purposely Inflicted (E960-E969)	Other External Causes (Balance E800-E999)	
<b>MALES</b>								
1969 . . . . .	181	30	7	53	92	7	74	444
1970 . . . . .	262	27	5	57	97	14	78	540
1971 . . . . .	213	35	5	35	87	9	66	450
1972 . . . . .	212	41	4	39	94	10	75	475
1973 . . . . .	214	36	1	34	79	5	75	444
<b>FEMALES</b>								
1969 . . . . .	70	8	2	68	48	6	26	228
1970 . . . . .	92	5	5	68	41	14	29	254
1971 . . . . .	88	4	3	63	35	13	30	236
1972 . . . . .	81	6	2	60	33	7	12	201
1973 . . . . .	90	11	6	66	42	3	51	269

Motor vehicle traffic accident deaths are considerably fewer than deaths caused by either heart disease, cerebrovascular disease or malignant neoplasms. However it ranks with the other major causes when considered in terms of 'life

years lost'. In 1973 there were 211 deaths from all causes of persons in the 15-24 years age group and of these 51·7 per cent were caused by motor vehicle traffic accidents.

**Deaths: External Causes (Accidents, Poisonings and Violence), Age Groups  
South Australia, 1973**

Age Groups	Cause							Total Deaths for Causes (E800-E999)
	Motor Vehicle Traffic Accidents (E810-E819)	Accidental Drownings (E830, E832, E910)	Accidental Poisonings (E850-E877)	Accidental Falls (E880-E887)	Suicide and Intentional Self-inflicted Injury (E950-E959)	Homicide and Injury Purposely Inflicted (E960-E969)	Other External Causes (Balance E800-E999)	
<b>MALES</b>								
Under								
15 years ..	11	12	1	—	—	1	11	37
15-24 years ..	91	9	—	—	15	1	15	131
25-34 years ..	27	7	—	—	13	1	14	62
35-44 years ..	23	—	—	—	8	—	4	36
45-54 years ..	18	3	—	4	10	—	7	42
55-64 years ..	18	4	—	2	16	—	10	50
65-74 years ..	18	—	—	5	13	1	9	46
75 years and over .. ..	8	1	—	22	4	—	5	40
Total ..	214	36	1	34	79	5	75	444
<b>FEMALES</b>								
Under								
15 years ..	13	5	5	—	—	—	7	30
15-24 years ..	18	3	—	—	4	1	1	27
25-34 years ..	8	—	—	—	6	1	—	15
35-44 years ..	8	—	1	—	6	—	5	20
45-54 years ..	9	1	—	—	12	1	4	27
55-64 years ..	12	2	—	2	9	—	4	29
65-74 years ..	10	—	—	2	5	—	2	19
75 years and over .. ..	12	—	—	62	—	—	28	102
Total ..	90	11	6	66	42	3	51	269

**INFANT MORTALITY**

The infant mortality rate, *i.e.* the number of deaths of children under one year to every 1 000 live births, has shown a marked decline from 148·77 in 1875-79 to 17·05 in 1965-69, and the rate of 13·52 in 1973 was the lowest ever recorded in this State. The number of infant deaths and infant death rates for selected years since 1851 are shown in the Statistical Summary, Appendix A.

Many factors have contributed to the remarkable improvement in the infant mortality rate, principally measures taken (both legislative and educative) to control preventable diseases and the provision of facilities by the Mothers and Babies Health Association for the promotion of child health. The rate for male infant deaths is consistently higher than for female infant deaths.

## Infant Mortality: Age at Death, South Australia

Year	Under 1 Day	1 Day and under 1 Week	1 Week and under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 12 Months	Total under 12 Months	
							Number	Rate (a)
<b>MALES</b>								
1969	91	41	23	21	16	13	205	18.20
1970	95	68	15	22	16	10	226	19.56
1971	79	52	14	19	26	14	204	17.29
1972	90	54	11	12	31	14	212	18.76
1973	68	40	9	23	22	12	174	16.61
<b>FEMALES</b>								
1969	56	27	10	17	16	16	142	13.25
1970	57	33	8	13	18	12	141	12.75
1971	72	40	12	15	13	10	162	14.47
1972	54	31	18	20	17	15	155	14.70
1973	38	20	10	18	9	7	102	10.27
<b>PERSONS</b>								
1969	147	68	33	38	32	29	347	15.79
1970	152	101	23	35	34	22	367	16.23
1971	151	92	26	34	39	24	366	15.92
1972	144	85	29	32	48	29	367	16.80
1973	106	60	19	41	31	19	276	13.52

(a) Rate per 1 000 live births.

The causes of infant deaths in 1973 classified according to age group are shown in the following table.

## Infant Mortality: Causes in Age Groups, South Australia, 1973

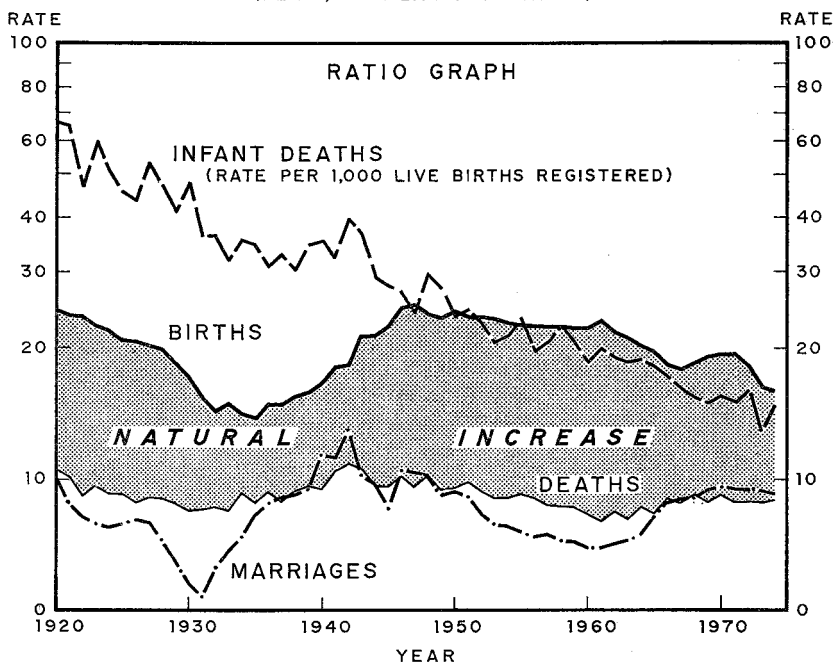
Cause of Death	Age Group						Total under 12 Months
	Under 1 Week	1 Week and under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 12 Months		
	Infectious and parasitic diseases (000-136)	1	3	3	2	3	
Diseases of nervous system and sense organs (320-389)	—	1	—	3	2	6	
Diseases of respiratory system (460-519)	3	—	3	4	3	13	
Congenital anomalies (740-759)	37	9	13	5	5	69	
Perinatal causes:							
Maternal diseases and conditions (760-763)	15	1	—	—	—	16	
Difficult labour (764-768)	2	—	—	—	—	2	
Conditions of placenta and cord (770-771)	16	1	—	—	—	17	
Haemolytic disease (774-775)	—	1	—	—	—	1	
Anoxic and hypoxic conditions n.e.c. (776)	41	1	—	—	—	42	
Immaturity, unqualified (777)	11	—	—	—	—	11	
Other perinatal causes (769, 772, 773, 778)	28	—	—	—	—	28	
Sudden death (cause unknown) (795)	1	1	19	14	3	38	
All other diseases	11	1	2	2	2	18	
Accidents, poisonings, violence (E800-E999)	—	—	1	1	1	3	
<b>Total all causes</b>	<b>166</b>	<b>19</b>	<b>41</b>	<b>31</b>	<b>19</b>	<b>276</b>	

Statistics of infant mortality shown in the previous table are inclusive of the neo-natal segment of perinatal deaths which are discussed in the following paragraphs. It should be noted that owing to reconciliation difficulties between the sources of information from which the data was compiled from 1968 to 1973, minor differences will be noted when comparing neo-natal deaths with infant deaths under four weeks shown in this section.

## VITAL STATISTICS RATES

SOUTH AUSTRALIA 1920 TO 1974

(PER 1,000 MEAN POPULATION)



### PERINATAL DEATHS

Perinatal deaths comprise:

- (a) *Foetal deaths*: a child not born alive, of at least twenty weeks gestation or 400 grams weight;
- (b) *Neo-natal deaths*: a live-born child dying within twenty-eight days after birth.

Legislation which became effective from the beginning of 1968 requires a Medical Certificate of Cause of Perinatal Death to be filled in by the attending



medical practitioner and forwarded to the Principal Registrar. Before 1968 neo-natal deaths were not separated for registration purposes from other deaths. However, from 1937 to 1967 a separate register of all still births (foetal deaths) was maintained by the Principal Registrar; registration of a still birth was compulsory and related to any child which after the twenty-eighth week of gestation did not breath or show any signs of life at any time after being completely expelled from its mother. Only total numbers of the registered still births were recorded and no detailed statistics were compiled.

**Foetal Deaths, Neo-Natal Deaths and Perinatal Deaths: Number and Rate, South Australia**

Year	Males		Females		Total	
	Number	Rate	Number	Rate	Number	Rate
<b>FOETAL DEATHS (a)</b>						
1969 .. . . .	125	10.98	121	11.17	246	11.07
1970 .. . . .	127	10.87	131	11.70	258	11.28
1971 .. . . .	142	11.89	108	9.55	250	10.75
1972 .. . . .	119	10.42	110	10.32	229	10.37
1973 .. . . .	120	11.33	124	12.33	244	11.82
<b>NEO-NATAL DEATHS (b)</b>						
1969 .. . . .	154	13.67	94	8.77	248	11.28
1970 .. . . .	177	15.32	101	9.13	278	12.29
1971 .. . . .	143	12.12	123	10.98	266	11.57
1972 .. . . .	156	13.81	103	9.77	259	11.86
1973 .. . . .	115	10.98	70	7.05	185	9.07
<b>PERINATAL DEATHS (c)</b>						
1969 .. . . .	279	24.50	215	19.84	494	22.23
1970 .. . . .	304	26.03	232	20.73	536	23.43
1971 .. . . .	285	23.87	231	20.43	516	22.20
1972 .. . . .	275	24.08	213	19.99	488	22.11
1973 .. . . .	235	22.18	194	19.29	429	20.77

(a) Foetal death rate is the number of foetal deaths per 1 000 of the total of live births and foetal deaths.

(b) Neo-natal death rate is the number of neo-natal deaths per 1 000 live births.

(c) Perinatal death rate is the number of perinatal deaths per 1 000 of the total of live births and foetal deaths.

Despite the improvements which have already been achieved, infant and perinatal mortality still presents one of the most challenging areas for medical and scientific research. The following table shows the causes of perinatal deaths and highlights the potential areas for research.

## Perinatal Deaths: Causes of Death, South Australia

Cause of Death	1970	1971	1972	1973
Chronic circulatory and genito-urinary disease in mother . . . . .	3	3	2	—
Other maternal conditions unrelated to pregnancy . . . . .	17	12	15	14
Toxaemias of pregnancy . . . . .	41	27	37	39
Maternal ante- and intrapartum infection	2	3	10	4
Difficult labour with abnormality of bones, organs or tissues of pelvis . .	6	2	2	2
Difficult labour with disproportion . . .	4	2	2	1
Difficult labour with malposition of foetus . . . . .	8	13	7	8
Difficult labour with abnormality of forces of labour . . . . .	4	1	7	—
Difficult labour with other and unspecified complications . . . . .	5	1	5	1
Other complications of pregnancy and child-birth . . . . .	64	54	44	53
Conditions of placenta . . . . .	90	100	91	75
Conditions of umbilical cord . . . . .	23	34	19	29
Birth injury without mention of cause . .	6	6	4	3
Haemolytic disease of new-born . . . .	32	16	14	11
Anoxic and hypoxic conditions not elsewhere classified . . . . .	84	82	68	55
Other conditions of foetus and new-born	50	55	56	32
Congenital anomalies . . . . .	84	82	91	82
Infections of foetus and new-born . . .	3	3	2	4
Other diseases of foetus and new-born . .	8	20	11	16
External causes of injury to new-born . .	2	—	1	—
<b>Total . . . . .</b>	<b>536</b>	<b>516</b>	<b>488</b>	<b>429</b>

## EXPECTATION OF LIFE

The expectation of life at age  $x$  is defined as the average number of years lived after age  $x$  by each of a group of persons aged exactly  $x$  years. Because detailed information of the age structure and mortality experience of the population is required, the calculation of the expectation of life for each age is generally based on a period which spans a population census (the only time at which a sufficiently accurate age distribution is available).

The table which follows shows the expectation of life at specified ages in Australia based on mortality experience in the decade to 1910 and for the three years spanning each of the Censuses of 1921, 1933, 1947, 1954, 1961, and 1966. Generally, the figures shown in the table indicate that the number of years which people of all ages in Australia can expect to live has increased steadily since the turn of the century.

## Expectation of Life, Australia

Age	1901-10	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67
<b>MALES</b>							
0 .. .. .	55.2	59.2	63.5	66.1	67.1	67.9	67.6
5 .. .. .	57.9	60.4	62.6	63.8	64.3	64.8	64.4
10 .. .. .	53.5	56.0	58.0	59.0	59.5	59.9	59.5
15 .. .. .	49.0	51.4	53.4	54.3	54.7	55.1	54.6
20 .. .. .	44.7	47.0	48.8	49.6	50.1	50.4	50.0
25 .. .. .	40.6	42.7	44.4	45.0	45.5	45.8	45.4
30 .. .. .	36.5	38.4	39.9	40.4	40.9	41.1	40.7
35 .. .. .	32.5	34.2	35.5	35.8	36.3	36.5	36.0
40 .. .. .	28.6	30.1	31.1	31.2	31.7	31.8	31.4
45 .. .. .	24.8	26.0	26.9	26.8	27.2	27.4	27.0
50 .. .. .	21.2	22.2	22.8	22.7	22.9	23.1	22.8
55 .. .. .	17.7	18.5	19.0	18.8	19.0	19.2	18.8
60 .. .. .	14.3	15.1	15.6	15.4	15.5	15.6	15.3
65 .. .. .	11.3	12.0	12.4	12.3	12.3	12.5	12.2
70 .. .. .	8.7	9.3	9.6	9.6	9.6	9.8	9.5
75 .. .. .	6.6	6.9	7.2	7.2	7.3	7.5	7.3
80 .. .. .	5.0	5.0	5.2	5.4	5.5	5.6	5.5
<b>FEMALES</b>							
0 .. .. .	58.8	63.3	67.1	70.6	72.8	74.2	74.2
5 .. .. .	60.8	63.6	65.6	67.9	69.6	70.8	70.6
10 .. .. .	56.4	59.2	61.0	63.1	64.8	65.9	65.8
15 .. .. .	51.9	54.6	56.3	58.3	59.9	61.0	60.8
20 .. .. .	47.5	50.0	51.7	53.5	55.1	56.2	56.0
25 .. .. .	43.4	45.7	47.2	48.7	50.2	51.3	51.2
30 .. .. .	39.3	41.5	42.8	44.1	45.4	46.5	46.3
35 .. .. .	35.4	37.3	38.4	39.5	40.7	41.7	41.6
40 .. .. .	31.5	33.1	34.0	34.9	36.0	37.0	36.9
45 .. .. .	27.6	29.0	29.7	30.5	31.4	32.3	32.3
50 .. .. .	23.7	24.9	25.6	26.1	27.0	27.9	27.8
55 .. .. .	19.9	21.0	21.6	22.0	22.8	23.6	23.6
60 .. .. .	16.2	17.2	17.7	18.1	18.8	19.5	19.5
65 .. .. .	12.9	13.6	14.2	14.4	15.0	15.7	15.7
70 .. .. .	10.0	10.4	11.0	11.1	11.6	12.2	12.2
75 .. .. .	7.6	7.7	8.2	8.3	8.7	9.2	9.2
80 .. .. .	5.7	5.6	6.0	6.0	6.3	6.7	6.7

## 5.4 MIGRATION

## Powers and Legislation of the Australian Government

Under the Constitution, the Australian Parliament is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals.

Immigration into Australia is regulated by the *Migration Act* 1958-1973 which came into force on 1 June 1959. The *Aliens Act* 1947-1973 provides that a register of aliens shall be maintained for every State or mainland Territory of Australia and that, unless exempted, aliens sixteen years of age and over are

required to register with the Department of Labor and Immigration. Under the provisions of the *Australian Citizenship Act 1948-1973* aliens may, upon application, be granted citizenship; generally, this is after three years residence but may be earlier under certain circumstances. Legislation and conditions of immigration into Australia and of naturalisation are discussed in detail in the *Official Year Book of Australia*.

### **Assisted Migration**

From early colonial times free or assisted passages were given to large numbers of migrants from Britain, and to lesser numbers from other countries. Responsibility for migrant recruitment and transport was originally with the Colonial Governments, then the States, and in 1920-21 was transferred to the Federal Government.

After the 1939-45 War, Australia and Britain entered into agreements to provide free passages for ex-servicemen and assisted passages for other British Migrants. The first agreement ended in 1955, but the assisted passage agreement continued until 1972. Since then Australia has provided unilateral assistance for British migrants.

Large-scale assisted migration from Europe began with Australian participation in the resettlement of Displaced Persons under the auspices of the International Refugee Organisation. Agreements with a number of European countries, either directly or through the agency of the Inter-Governmental Committee for European Migration, resulted in a preponderance of European assisted migration to Australia over the next twenty-five years. During this time Australia developed unilateral arrangements to assist other migrants from Europe, the United States and elsewhere.

Since May 1973 there has been a uniform policy on assisted migration from all countries, with priority given to the close dependent relatives of Australian residents and to persons whose skills are needed in Australia.

Assisted settler arrivals from January 1947 to June 1974 totalled 1 972 741 of whom 1 094 253 were British. Of the total, 222 508 stated on arrival that their proposed destination was South Australia.

### **Overseas Arrivals and Departures**

Since 1924 the movements of overseas travellers have been classified into two main categories according to declared intention regarding residence short term and long term (including permanent). For short term movements, overseas visitors and Australian residents are identified separately.

The principal categories of travellers according to stated purpose of travel are as follows:

*Permanent movement*; consisting of persons arriving with stated intent to settle permanently in Australia, and Australian residents departing with stated intent to reside permanently abroad.

*Long term movement*; consisting of the arrival of visitors and the departure of residents with stated intent to stay (in Australia or in a country abroad respectively) for twelve months or more.

*Short term movement*; consisting of all other movements, including the movement of Australian troops irrespective of period of stay.

Separate figures for permanent and long term movements are not available on a State basis; hence these movements are combined in the table below showing overseas arrivals at, and departures from, South Australia. This table does not include persons who disembarked in other ports in Australia and subsequently settled in South Australia or South Australians who embarked from other ports for overseas.

### Overseas Arrivals and Departures, State of Embarkation/Disembarkation South Australia

#### Intended Term of Residence

Year	Long Term and Permanent		Short Term				Total		Persons
			Australian Residents		Visitors				
	Males	Females	Males	Females	Males	Females	Males	Females	
ARRIVALS (a)									
1964 . . . . .	5 019	5 101	650	686	632	282	6 301	6 069	12 370
1965 . . . . .	3 720	3 945	594	692	560	358	4 874	4 995	9 869
1966 . . . . .	3 739	3 857	729	820	583	367	5 051	5 044	10 095
1967 . . . . .	2 315	2 352	634	810	537	315	3 486	3 477	6 963
1968 . . . . .	2 400	2 455	729	511	772	308	3 901	3 274	7 175
1969 . . . . .	2 206	2 159	1 204	559	775	361	4 185	3 079	7 264
1970 . . . . .	2 392	2 364	700	687	654	289	3 746	3 340	7 086
1971 . . . . .	1 713	1 694	1 263	654	760	321	3 736	2 669	6 405
1972 . . . . .	913	1 048	430	448	538	339	1 881	1 835	3 716
1973 . . . . .	783	768	311	329	222	104	1 316	1 201	2 517
DEPARTURES (a)									
1964 . . . . .	1 724	1 653	1 087	1 131	815	470	3 626	3 254	6 880
1965 . . . . .	2 010	2 155	1 876	1 411	708	546	4 594	4 112	8 706
1966 . . . . .	2 358	2 275	1 345	1 504	850	687	4 553	4 466	9 019
1967 . . . . .	2 002	1 972	1 793	1 139	796	520	4 591	3 631	8 222
1968 . . . . .	1 951	1 964	1 612	1 009	919	457	4 482	3 430	7 912
1969 . . . . .	2 077	2 004	1 718	1 249	1 143	601	4 938	3 854	8 792
1970 . . . . .	1 567	1 640	1 080	1 069	658	429	3 305	3 138	6 443
1971 . . . . .	1 169	1 291	1 534	763	752	344	3 455	2 398	5 853
1972 . . . . .	907	951	571	605	492	302	1 970	1 858	3 828
1973 . . . . .	1 154	1 128	822	714	547	237	2 523	2 079	4 602

(a) Crew members and 'through' passengers (*i.e.* persons remaining on board a ship while in Australian waters or travelling in an aircraft passing through Australia) are excluded.

The number of long term and permanent arrivals in 1964 (10 120) and departures in 1966 (4 633) were the highest ever recorded in South Australia.

#### Australian Citizenship

The *Nationality and Citizenship Act 1948* came into force on Australia Day, 26 January 1949, and repealed all previous legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of 'Australian Citizen'. In this respect the Act was complementary to citizenship legislation passed or about to be passed by other countries of the Commonwealth of Nations. The Act has been amended from time to time and under existing provisions of the *Australian Citizenship Act 1948-1973* all migrants, regardless of origins, are required to satisfy uniform requirements

for the grant of citizenship. All Australian citizens, and the citizens of other countries of the Commonwealth of Nations are declared to have the status of British subjects. In the table which follows, numbers of migrants granted citizenship are shown according to previous citizenship.

**Previous Citizenship of Persons Granted Australian Citizenship, South Australia**

Nationality	1968	1969	1970	1971	1972	1973
Austrian	58	69	51	46	31	25
Belgium	30	23	22	21	25	5
Czechoslovak	22	15	18	19	76	104
Danish	15	13	14	19	12	20
Dutch	494	335	311	180	165	187
Egyptian	7	28	7	17	11	17
Finnish	40	28	23	11	12	18
French	6	17	29	16	32	61
German	372	294	253	161	161	279
Greek	710	498	550	608	626	961
Hungarian	81	59	55	52	25	23
Italian	893	647	684	534	453	739
Lebanese	12	12	17	19	27	49
Polish	151	154	88	164	120	104
Spanish	28	21	21	29	7	26
Turkish	9	5	13	6	25	32
Yugoslav	307	232	253	207	244	370
Stateless	50	49	75	21	25	49
Other	161	116	111	80	98	143
<b>Total</b>	<b>3 446</b>	<b>2 615</b>	<b>2 595</b>	<b>2 210</b>	<b>2 175</b>	<b>3 212</b>

There were 1 981 certificates of citizenship granted in 1972 and 2 795 in 1973. Each certificate covers the person being granted citizenship and his/her children under the *Australian Citizenship Act 1948-1973*. At the end of December 1973 it was estimated that there were 40 000 registered adult aliens residing in South Australia.

## 5.5 CHARACTERISTICS OF THE POPULATION

Statistics relating to characteristics of the population of South Australia are derived from information obtained at each population census. At the 1971 Census, these characteristics include the sex distribution, age distribution and the marital status of the population. Information was also obtained on the country of birth, period of residence, nationality, religion, educational attainment, occupational status, industry and occupation of the population. Figures for censuses before 1966 exclude full-blood Aborigines.

**Sex Distribution**

The masculinity of the population of South Australia, *i.e.* the number of males to each 100 females at each census is shown below.

Census Year	Masculinity	Census Year	Masculinity
1844 .. . . .	126.1	1901 .. . . .	101.5
1846 .. . . .	130.4	1911 .. . . .	103.1
1851 .. . . .	124.3	1921 .. . . .	100.6
1855 .. . . .	103.8	1933 .. . . .	100.3
1861 .. . . .	105.3	1947 .. . . .	98.2
1866 .. . . .	109.2	1954 .. . . .	102.7
1871 .. . . .	105.6	1961 .. . . .	102.3
1876 .. . . .	107.0	1966 .. . . .	101.0
1881 .. . . .	111.4	1971 .. . . .	99.7
1891 .. . . .	105.6		

At each Census except 1947 and 1971 the State's masculinity was greater than 100, *i.e.* there were more males than females in South Australia. The lower rate at the 1947 Census was partly attributable to the loss of male lives in the 1939-45 War, while the subsequent increase is mainly because of the predominantly male migration inflow of the early post-war period. This is shown very clearly in the following table which gives masculinity in five-yearly age groups at the five censuses 1947 to 1971. The larger number of males in the younger age groups reflects the fact that the masculinity of births is consistently over 100 while the higher male death rate is reflected in the very low masculinity ratios of the older age groups.

**Masculinity of Population According to Age, South Australia  
Censuses 1947 to 1971**

Age Last Birthday (Years)	1947	1954	1961	1966	1971
0-4 .. . . .	104.30	104.46	103.21	105.73	105.07
5-9 .. . . .	106.18	104.85	104.98	104.01	105.61
10-14 .. . . .	104.60	105.38	105.75	105.26	103.90
15-19 .. . . .	100.43	105.27	105.55	104.70	103.43
20-24 .. . . .	95.29	113.81	109.21	103.05	99.73
25-29 .. . . .	96.70	111.99	110.23	104.00	103.03
30-34 .. . . .	99.26	106.65	110.78	105.49	101.34
35-39 .. . . .	101.27	105.80	105.31	108.13	103.85
40-44 .. . . .	107.23	107.05	104.86	104.43	107.41
45-49 .. . . .	99.93	110.99	107.65	104.45	103.07
50-54 .. . . .	89.83	104.54	106.49	104.43	101.38
55-59 .. . . .	96.52	91.53	105.42	101.79	101.44
60-64 .. . . .	93.65	87.94	88.90	97.59	94.03
65-69 .. . . .	88.05	87.80	77.48	80.52	88.85
70-74 .. . . .	83.07	81.72	78.01	68.46	71.06
75-79 .. . . .	77.76	73.53	71.88	69.06	59.34
80-84 .. . . .	70.90	66.71	62.44	60.33	56.42
85-89 .. . . .	65.19	62.38	59.06	52.12	48.27
90 and over ..	56.17	53.08	40.60	41.25	38.44
All ages ..	98.16	102.72	102.32	100.99	99.73

## Age Distribution

Details of the age distribution of the population are of particular importance because, as well as revealing changes which have occurred in the age structure from one census to the next, they also supply basic material for the calculation of fertility rates, mortality rates, annuity rates and probabilities of survival.

Age distribution of the population at the 1966 and 1971 Censuses is given in the following table. During the five-year period the population increased by 78 723 persons (7·2 per cent). Large absolute changes in population occurred in the age groups 20-24, which increased by 20 199, and 35-39, which fell by 6 739. The movement in these two age groups is partly because of the post 1939-45 War birth rate increase and the low birth rates of the depression years of the early 1930s respectively.

**Age Distribution of Population, South Australia  
Censuses 1966 and 1971**

Age Last Birthday (Years)	30 June 1966			30 June 1971			Increase
	Males	Females	Persons	Males	Females	Persons	Persons
0-4 .. .. .	55 499	52 492	107 991	55 308	52 641	107 949	(-) 42
5-9 .. .. .	58 151	55 908	114 059	58 274	55 179	113 453	(-) 606
10-14 .. .. .	55 235	52 474	107 709	60 358	58 090	118 448	10 739
15-19 .. .. .	52 927	50 552	103 479	54 334	52 532	106 866	3 387
20-24 .. .. .	39 698	38 525	78 223	49 144	49 278	98 422	20 199
25-29 .. .. .	33 791	32 493	66 284	40 647	39 450	80 097	13 813
30-34 .. .. .	31 983	30 318	62 301	34 791	34 330	69 121	6 820
35-39 .. .. .	37 738	34 900	72 638	33 572	32 327	65 899	(-) 6 739
40-44 .. .. .	38 335	36 710	75 045	37 937	35 319	73 256	(-) 1 789
45-49 .. .. .	33 235	31 818	65 053	37 673	36 551	74 224	9 171
50-54 .. .. .	31 034	29 719	60 753	31 686	31 256	62 942	2 189
55-59 .. .. .	24 993	24 553	49 546	28 917	28 507	57 424	7 878
60-64 .. .. .	19 259	19 734	38 993	22 295	23 711	46 006	7 013
65-69 .. .. .	14 082	17 487	31 569	16 408	18 467	34 875	3 306
70-74 .. .. .	10 665	15 578	26 243	11 042	15 540	26 582	339
75-79 .. .. .	7 777	11 261	19 038	7 236	12 194	19 430	392
80-84 .. .. .	3 997	6 625	10 622	4 277	7 581	11 858	1 236
85-89 .. .. .	1 415	2 715	4 130	1 690	3 501	5 191	1 061
90 and over .. .. .	382	926	1 308	462	1 202	1 664	356
Total .. .. .	550 196	544 788	1 094 984	586 051	587 656	1 173 707	78 723

The mean or average age of the population of South Australia (excluding full-blood Aborigines before 1966) at the Census of 1954 was 32·2 years (males 31·5 and females 32·9); in 1961 it was 31·3 years (males 30·6 and females 32·1), but at 1971 it had risen again to 31·6 years (males 30·8 and females 32·5).

The next table shows that the proportion of the population under 15 years of age fell markedly between 1901 and 1947, rose significantly between 1947 and 1961 but fell slightly between 1961 and 1971. Fifteen years and under 65 years showed an upward trend to 1947, but has since maintained a fairly stable level of approximately 61 per cent. The proportion of the population 65 years and over continued to rise over the period 1901 to 1954, but since 1954 has fallen slightly.





**Marital Status**

The marital status of the population was ascertained at the 1966 and 1971 Censuses, when a statement of never married, married, married but permanently separated (legally or otherwise), widowed, or divorced was required in respect of every person enumerated.

In 1971 the number of persons who were stated to have been never married represented 45.8 per cent of the total population, approximately the same proportion as in 1966. Married persons in 1971 represented 47.0 per cent of the total compared with 45.6 per cent in 1966.

**Marital Status of Population, South Australia  
Censuses 1966 and 1971**

Marital Status	30 June 1966				30 June 1971			
	Males		Females		Males		Females	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
<b>Never married:</b>								
Under 15 years of age	168 881	30.69	160 866	29.53	173 940	29.68	165 910	28.23
15 years of age and over	110 983	20.17	81 906	15.03	113 130	19.30	85 163	14.49
<b>Total never married</b>	<b>279 864</b>	<b>50.87</b>	<b>242 772</b>	<b>44.56</b>	<b>287 070</b>	<b>48.99</b>	<b>251 073</b>	<b>42.72</b>
<b>Married</b>	<b>249 571</b>	<b>45.36</b>	<b>249 290</b>	<b>45.76</b>	<b>275 465</b>	<b>47.00</b>	<b>276 232</b>	<b>47.01</b>
Married but permanently separated	5 503	1.00	6 214	1.14	6 565	1.12	7 204	1.23
Widowed	11 019	2.00	41 658	7.65	11 364	1.94	46 617	7.93
Divorced	4 239	0.77	4 854	0.89	5 587	0.95	6 530	1.11
<b>Total</b>	<b>550 196</b>	<b>100.00</b>	<b>544 788</b>	<b>100.00</b>	<b>586 051</b>	<b>100.00</b>	<b>587 656</b>	<b>100.00</b>

At the 1966 Census 79.1 per cent of widowed persons were female and this proportion had increased to 80.4 per cent in 1971. The disparity between the number of widowed males and widowed females is the result of the greater longevity of females coupled with the usually younger age at marriage.

**Country of Birth**

The Australian-born content of the population in South Australia was 85.7 per cent in 1911, 88.3 per cent in 1921, 90.3 per cent in 1933, and 93.3 per cent in 1947. Overseas migration had lowered the proportion of Australian-born persons to 86.1 per cent by 1954, while in 1971 the proportion was down to 76.1 per cent. The proportion of the population born in the United Kingdom, including the Republic of Ireland, fell from 11.0 per cent in 1911 to 5.1 per cent in 1947 and rose to 12.6 per cent in 1971.

**Country of Birth of Population, South Australia  
Censuses 1966 and 1971**

Country of Birth	30 June 1966		30 June 1971		Increase
	Persons	Males	Females	Persons	Persons
Australia .. . . .	849 036	439 365	454 273	893 638	44 602
New Zealand .. . . .	2 188	1 657	1 569	3 226	1 038
Europe:					
United Kingdom and Republic of					
Ireland .. . . .	122 030	74 929	73 091	148 020	25 990
Germany .. . . .	16 213	7 582	7 828	15 410	(-803)
Greece .. . . .	14 660	7 716	7 001	14 717	57
Italy .. . . .	30 848	17 675	14 753	32 428	1 580
Netherlands .. . . .	12 443	6 252	5 491	11 743	(-700)
Poland .. . . .	7 253	4 271	2 787	7 058	(-195)
Yugoslavia .. . . .	6 352	5 269	3 662	8 931	2 579
Other .. . . .	22 606	12 863	9 952	22 815	209
Total Europe .. . . .	232 405	136 557	124 565	261 122	28 717
Other countries .. . . .	11 355	8 472	7 249	15 721	4 366
Total born outside Australia	245 948	146 686	133 383	280 069	34 121
Total .. . . .	1 094 984	586 051	587 656	1 173 707	78 723

Of persons born in Europe, the greatest numerical increase between 1966 and 1971 was in persons born in the United Kingdom, including the Republic of Ireland (25 990 persons). The greatest proportionate increase (40.6 per cent) was recorded for persons born in Yugoslavia. The percentage increase over the period 1966 to 1971 of persons born in the United Kingdom, Greece and Italy was much less than for the period 1961 to 1966.

### Religion

Information on the religious affiliations of the population is obtained only at population censuses. There is, however, no legal obligation to answer the question on religion and at the 1966 Census respondents representing approximately 10 per cent of the South Australian population chose not to answer. The decline in non-response to this question (from 10 per cent in 1966 to 6 per cent in 1971) was partly because of changes in the wording of the question. This is reflected in the increase, from 0.8 per cent in 1966 to 8.2 per cent in 1971, in the number of persons who stated that they had no religion.

The Church of England has always had the greatest number of adherents, its relative importance having been fairly consistent since 1866 when it accounted for 31.8 per cent of answers compared with 24.4 per cent in 1971.

Changes in the pattern of religious affiliation appear to some extent attributable to migratory movements. This is particularly noticeable in the case of Catholics (*i.e.* persons described as either Catholics or Roman Catholics) who accounted for only 14.3 per cent of the answers in 1933 compared with 20.6 per cent in 1971, thus reflecting the pattern of post-war migration.

**Religious Denomination of Population, South Australia  
Censuses 1966 and 1971**

Religious Denomination	30 June 1966		30 June 1971		Increase Per Cent
	Persons	Males	Females	Persons	
<b>Christian:</b>					
Baptist . . . . .	22 243	10 146	11 864	22 010	(—) 1.1
Brethren . . . . .	630	573	619	1 192	89.2
Catholic, Roman (a) . . . . .	74 991	57 861	55 950	113 811	51.8
Catholic (a) . . . . .	145 624	63 147	65 208	128 355	(—) 11.9
Churches of Christ . . . . .	25 362	10 368	12 434	22 802	(—) 10.0
Church of England . . . . .	286 323	138 951	147 803	286 754	0.2
Congregational . . . . .	18 316	6 929	8 309	15 238	(—) 16.8
Lutheran . . . . .	59 951	30 702	31 939	62 641	4.5
Methodist . . . . .	227 717	102 778	112 550	215 328	(—) 5.4
Orthodox . . . . .	27 754	17 194	15 442	32 636	17.6
Presbyterian . . . . .	42 778	19 416	20 504	39 920	(—) 6.7
Salvation Army . . . . .	7 372	3 838	4 349	8 187	11.1
Seventh Day Adventist . . . . .	3 004	1 271	1 604	2 875	(—) 4.3
Protestant (undefined) . . . . .	12 979	12 921	13 686	26 607	105.0
Other (including Christian un- defined) . . . . .	14 335	11 342	12 178	23 520	64.1
<b>Total Christian . . . . .</b>	<b>969 379</b>	<b>487 437</b>	<b>514 439</b>	<b>1 001 876</b>	<b>3.4</b>
<b>Non-Christian:</b>					
Hebrew . . . . .	1 249	552	579	1 131	(—) 9.5
Other . . . . .	1 208	1 199	853	2 052	69.9
<b>Total Non-Christian . . . . .</b>	<b>2 457</b>	<b>1 751</b>	<b>1 432</b>	<b>3 183</b>	<b>29.6</b>
Indefinite (b) . . . . .	3 561	2 091	1 660	3 751	(—) 5.3
No religion (b) . . . . .	8 623	57 868	38 006	95 874	1 011.8
No reply . . . . .	110 964	36 904	32 119	69 023	(—) 37.8
<b>Total . . . . .</b>	<b>1 094 984</b>	<b>586 051</b>	<b>587 656</b>	<b>1 173 707</b>	<b>7.2</b>

(a) So described in individual census schedules.

(b) See text on page 161.

**Period of Residence in Australia**

The post-war migration flow into Australia is shown by the number of persons who have taken up residence in Australia since the late 1940s.

**Period of Residence in Australia of Persons in South Australia  
Censuses 1966 and 1971**

Period of Residence in Australia	30 June 1966			30 June 1971			Visitors Persons
	Males	Females	Persons	Residents			
				Males	Females	Persons	
Under 1 year . . . . .	12 235	11 062	23 297	7 686	7 460	15 146	2 123
1 year and under 2 . . . . .	10 332	9 742	20 074	8 309	8 034	16 343	
2 years and under 3 . . . . .	8 834	8 262	17 096	6 950	6 724	13 674	
3 years and under 4 . . . . .	5 961	5 757	11 718	4 962	4 721	9 683	
4 years and under 5 . . . . .	4 349	4 441	8 790	6 032	6 003	12 035	
5 years and over . . . . .	87 919	73 586	161 505	103 438	92 166	195 604	466
Not stated . . . . .	1 935	1 533	3 468	6 887	7 005	13 892	
Born outside Australia . . . . .	131 565	114 383	245 948	144 264	132 113	276 377	3 692
Born in Australia . . . . .	418 631	430 405	849 036	439 365	454 273	893 638	..
<b>Total . . . . .</b>	<b>550 196</b>	<b>544 788</b>	<b>1 094 984</b>	<b>583 629</b>	<b>586 386</b>	<b>1 170 015</b>	<b>3 692</b>

For the first time, in 1971, overseas born persons were asked to specify whether they were a resident of Australia or a visitor to Australia, along with details of the period of their residence in Australia. At the 1971 Census, of the 280 069 overseas born residents, 3 692 (1.3 per cent) were visitors to Australia. In 1947 there were 43 552 residents in South Australia (including visitors) who were not born in Australia and only 5 per cent of these had lived in Australia for less than five years. By 1954 the number of such persons had risen to 110 605, of whom 51 per cent had resided in Australia for less than five years. By 1971 the number (excluding visitors) had increased to 276 377, but the proportion of those who had lived in Australia for less than five years had fallen to 24.2 per cent.

### Nationality

The nationality (or country of allegiance) of the population of South Australia at June 1966 and 1971 is given in the following table. For purposes of this table, Irish nationality is included with British. Decreases in the number of persons of most nationalities in 1971 are partly because of British naturalisation of former aliens. Persons of British nationality represented 99.7 per cent of the State population in 1947, but this proportion had fallen to 94.9 per cent by 1971.

**Nationality (i.e. Allegiance) of Population, South Australia  
Censuses 1966 and 1971**

Nationality	30 June 1966		30 June 1971		Increase
	Persons	Males	Females	Persons	Persons
<b>British (a):</b>					
Born in Australia . . . . .	849 036	439 365	454 273	893 638	44 602
Born outside Australia . . . . .	193 955	114 961	104 670	219 631	25 676
<b>Total British . . . . .</b>	<b>1 042 991</b>	<b>554 326</b>	<b>558 943</b>	<b>1 113 269</b>	<b>70 278</b>
<b>Foreign:</b>					
Dutch . . . . .	6 677	2 391	2 226	4 617	(-) 2 060
German . . . . .	5 682	2 173	1 996	4 169	(-) 1 513
Greek . . . . .	9 863	4 400	4 403	8 803	(-) 1 060
Italian . . . . .	17 762	9 006	8 367	17 373	(-) 389
Polish . . . . .	1 611	572	497	1 069	(-) 542
US American . . . . .	816	1 022	731	1 753	937
Yugoslav . . . . .	2 492	2 007	1 577	3 584	1 092
Other . . . . .	5 932	5 095	3 964	9 059	3 127
Stateless . . . . .	1 158	5 059	4 952	10 011	8 853
<b>Total foreign . . . . .</b>	<b>51 993</b>	<b>31 725</b>	<b>28 713</b>	<b>60 438</b>	<b>8 445</b>
<b>Total . . . . .</b>	<b>1 094 984</b>	<b>586 051</b>	<b>587 656</b>	<b>1 173 707</b>	<b>78 723</b>

(a) Includes Irish.

### Educational Attainment

#### Level of Schooling

At the 1971 Census information was sought for the first time on the highest level of schooling attended. The following table summarises the details obtained for South Australia.

**Level of Schooling of Population, South Australia  
Census 1971**

Highest Level Attended	Currently Attending School			Not Currently Attending School		
	Males	Females	Persons	Males	Females	Persons
Child not yet attending school . . . . .	..	..	..	56 767	53 990	110 757
Primary:						
Grades 1, 2, 3 . . . . .	40 144	37 010	77 154	4 674	5 079	9 753
Grade 4 . . . . .	12 881	12 129	25 010	4 819	5 253	10 072
Grade 5 . . . . .	12 989	12 300	25 289	12 054	12 236	24 290
Grade 6 . . . . .	12 671	12 196	24 867	16 043	15 943	31 986
Grade 7 . . . . .	12 384	12 052	24 436	82 239	93 903	176 142
Secondary:						
1st Year . . . . .	12 460	11 636	24 096	28 317	31 023	59 340
2nd Year . . . . .	11 934	11 524	23 458	45 022	49 247	94 269
3rd Year . . . . .	10 147	9 849	19 996	73 368	83 512	156 880
4th Year . . . . .	7 849	6 515	14 364	51 029	49 130	100 159
5th Year . . . . .	3 598	2 523	6 121	60 070	44 690	104 760
Total at school . . . . .	137 057	127 734	264 791	..	..	..
Other, never attended school . . . . .	..	..	..	2 206	2 920	5 126
Not stated . . . . .	..	..	..	12 386	12 996	25 382
Total population . . . . .	137 057	127 734	264 791	448 994	459 922	908 916

*Educational Qualifications*

At the 1971 Census information was sought on the type of educational qualification obtained. The following table shows that of the total population 15 years of age and over, only 19.5 per cent had obtained any educational qualification since leaving school.

**Educational Qualifications of Population, South Australia  
Census 1971**

Highest Level of Qualification Obtained	Males	Females	Persons
No qualification . . . . .	294 747	376 279	671 026
Trade level . . . . .	76 688	7 595	84 283
Technician level . . . . .	13 331	13 439	26 770
Tertiary (excluding degrees) . . . . .	12 721	12 369	25 090
Bachelor degree, post graduate-diploma or equivalent . . . . .	9 341	3 063	12 404
Higher degree level or equivalent	1 477	302	1 779
Qualification not classified by level	3 773	8 676	12 449
Inadequately described . . . . .	33	23	56
Total with qualifications	117 364	45 467	162 831
Total population 15 years of age and over . . . . .	412 111	421 746	833 857

**Other Characteristics**

Some census details of occupation, occupational status and industry are set out in Part 7.1.

## **SOCIAL ENVIRONMENT**

### **6.1 LAW, ORDER AND PUBLIC SAFETY**

#### **LAW AND ADMINISTRATION**

The law in force in South Australia consists of:

- (i) so much of the common law of England and such English statute law as came into force on the original settlement of the colony in 1836;
- (ii) Acts passed by the Parliament of the State of South Australia, together with regulations, rules, orders, etc. made thereunder;
- (iii) Acts passed by the Australian Parliament within the scope of its allotted powers, together with regulations, rules, orders, etc. made thereunder;
- (iv) Imperial law binding South Australia as part of the British Commonwealth, as part of Australia or as a State—subject, since 1931, to the Statute of Westminster (this relates mainly to external affairs or matters of Imperial concern);
- (v) Case law (this consists of judicial decisions of the English, Australian, or State Courts, respectively, and represents an important part of the law in force in South Australia).

The scope of Australian legislation is limited to the subjects specified in the Australian Constitution. In some cases Australian Government powers of legislation are exclusive of, in others concurrent with, those of the State. In all cases of conflict, valid Australian laws override State laws.

## LEGAL PROFESSION

Legal practitioners in South Australia are admitted to the Bar, after the prescribed academic training and service in articles, as barristers and solicitors. This means that the legal profession is not divided, as it is in New South Wales, Victoria and Queensland—a practitioner is entitled to act in either capacity.

The legal profession is controlled by the Legal Practitioners Act, 1936-1973. Rules of Court regulate articles of clerkship and prescribe the conditions of entry to the profession. Practitioners duly admitted to practice, and who are principals, have the right of audience in all courts of South Australia; those other than principals have this right in all courts except the Supreme Court. The Act provides for the hearing of charges of unprofessional conduct by the statutory committee of the Law Society and for its report to be referred to the Supreme Court which may make any order it thinks fit.

In 1974 there were 505 legal practitioners in private practice in South Australia.

## LEGAL DEPARTMENT

In South Australia the Attorney-General is a Minister of State Parliament. There is a Solicitor-General who, under the Attorney-General, acts as legal advisor to the Government.

The Attorney-General is charged with the conduct of business relating to the Supreme Court and inferior Courts, the Crown Law Department (which includes the Crown Prosecutor) and the Parliamentary Counsel as well as statute law revision and consolidation. He also advises Ministers on questions on which his legal opinion is required, initiates and defends proceedings by and against the State and determines whether informations should be laid in cases of indictable offences.

The Attorney-General also administers Acts of Parliament relating to justices, coroners, lands titles, registration of companies and business names, liquor licensing and the Electoral Department.

## SUPREME COURT

The various jurisdictions of the Court are civil, criminal, land and valuation, matrimonial causes and testamentary causes.

Judges of the Supreme Court are appointed by commission of the Governor on the advice of the Executive Council. A person may not be appointed a judge of the Supreme Court unless he is a legal practitioner of ten years standing.

The Supreme Court Act, 1935-1974, provides *inter alia* for the constitution, jurisdiction, powers and duties of the Supreme Court and its judges. One of the powers of the judges of the Court of particular importance is that of making Rules of Court regulating the procedure of the Court. In particular the Rules, which are published in the *South Australian Government Gazette*, regulate the admission to practice of practitioners of the Supreme Court and control their conduct.

There are at present nine judges of the Supreme Court, comprising the Chief Justice, Dr J. J. Bray, QC, and eight puisne judges. A judge holds office until the age of seventy years at a salary fixed by statute. The Court sits in Adelaide, but holds circuit sessions three times each year at Port Augusta and Mount Gambier.



### Civil and Criminal Jurisdiction

Generally speaking, the Supreme Court has unlimited civil and criminal jurisdiction, except in respect of matters which are reserved for the original jurisdiction of Australian Courts. The Court as a rule determines its own practice.

Following the establishment of District Criminal Courts, jurisdiction to hear many indictable offences was vested in these Courts late in 1970.

Crimes and misdemeanours prosecuted by indictment in the Supreme Court must be tried before a jury of twelve persons who find as to the facts of the case; the penalty being determined by the judge. Capital punishment applies in the case of murder, treason and certain offences under the *Crimes Act* 1914-1973 and *Crimes (Aircraft) Act* 1963-1973. The Court has original jurisdiction over all litigious matters arising in the State except where its jurisdiction is excluded by statute. Its original jurisdiction is usually exercised by one judge although it is possible in theory to try a civil issue with a jury.

The Court also has power to restrain inferior courts from acting in excess of their jurisdiction and may, by order, compel them to enforce a legal right. The Court also acts as a court of appeal from inferior courts. During 1973, the Supreme Court heard 180 appeals from inferior courts. Of these 75 were dismissed, 70 were allowed, 9 were remitted for rehearing, 10 were withdrawn and orders had not been made for 16.

In proper cases, appeals may be carried from decisions of the Supreme Court to the High Court of Australia.

The following table gives details of persons tried, convicted and executed for the years 1964 to 1973. In the post-war period to the end of 1973 a total of forty-two persons have been sentenced to death in South Australia, thirty-six of these sentences being subsequently commuted. No female has been executed in the State since 1873.

**Supreme and Circuit Courts: Trials, Convictions and Executions  
South Australia**

Year	Tried		Convicted		Executed
	Males	Females	Males	Females	Males
1964	650	21	608	21	1
1965	707	28	687	26	—
1966	751	19	720	18	—
1967	706	38	674	33	—
1968	698	38	659	33	—
1969	721	24	689	23	—
1970 (a)	603	23	570	18	—
1971	188	14	178	14	—
1972	114	12	95	10	—
1973	149	21	125	17	—

(a) Comparability affected from 1970 by transfer of some jurisdiction late in 1970 to District Criminal Courts—see text above.

Details of convictions classified by type of offence are set out in the following table.

**Supreme and Circuit Courts: Persons Convicted, South Australia<sup>(a)</sup>**

Type of Offence	1969	1970(b)	1971	1972	1973
<b>Offences against the person:</b>					
Murder and attempted murder . . . . .	3	6	9	4	5
Other acts causing death, injury or endangering life . . . . .	20	34	16	14	17
Offences against females . . . . .	147	116	11	7	16
Unnatural offences . . . . .	18	21	4	2	4
Other offences against the person . . . . .	19	10	3	2	1
<b>Total . . . . .</b>	<b>207</b>	<b>187</b>	<b>43</b>	<b>29</b>	<b>43</b>
<b>Offences against property:</b>					
Robbery . . . . .	20	24	36	32	40
Breaking and entering and burglary . . . . .	340	272	23	5	16
Embezzlement and stealing by servants . . . . .	9	6	5	—	—
Fraud and false pretences . . . . .	22	11	—	2	2
Other offences against property . . . . .	43	39	7	5	12
<b>Total . . . . .</b>	<b>434</b>	<b>352</b>	<b>71</b>	<b>44</b>	<b>70</b>
<b>Other offences:</b>					
Forgery and offences against the currency . . . . .	16	13	13	10	13
Breach of recognisance . . . . .	32	10	43	6	5
Other . . . . .	23	26	22	16	11
<b>Total . . . . .</b>	<b>71</b>	<b>49</b>	<b>78</b>	<b>32</b>	<b>29</b>
<b>Total (all offences) . . . . .</b>	<b>712</b>	<b>588</b>	<b>192</b>	<b>105</b>	<b>142</b>

(a) In the case of multiple charges, where more than one conviction is recorded, the most serious offence is counted.

(b) Comparability affected from 1970 by transfer of some jurisdiction late in 1970 to District Criminal Courts—see text page 167.

### Matrimonial Causes Jurisdiction

As in other States, the Supreme Court exercises jurisdiction in matrimonial causes pursuant to the *Matrimonial Causes Act 1959-1973*. The Act superseded the existing State law, making many important changes in the practice and procedure of the Supreme Court in matrimonial causes.

'Matrimonial cause' normally refers to proceedings for a decree of dissolution of marriage; however, the Court also hears proceedings for a decree of nullity of marriage, judicial separation or restitution of conjugal rights.

The jurisdiction of the Supreme Court is co-extensive with the Supreme Courts of the other States; there is no requirement that either or both parties shall be domiciled or resident within the territorial boundaries of the jurisdiction of the Court. However, the Court will transfer to the most convenient court any suit for which it considers itself not to be the appropriate court.

Proceedings for a decree of dissolution of marriage, or of nullity of a voidable marriage, can be instituted only by a person domiciled in Australia; while proceedings for a decree of nullity of a void marriage can be instituted by a person domiciled or resident in Australia. The grounds upon which a petition for dissolution of marriage may be granted are set out in Section 28 of the Act, the most common being desertion for two years, adultery, separation for five years, and habitual cruelty. Details of divorces granted and the grounds for divorce are shown in Part 6.8.

At the same time as the proceedings for principal relief, the Court may hear a claim for permanent maintenance and also a claim for custody of children. The powers of the Court in proceedings with respect to the custody, guardianship, welfare, advancement or education of children of the marriage are dealt with in Section 85 which provides that the Court shall regard the interests of the children as the paramount consideration but, subject to that, may make such order as it thinks proper. The Court also has wide powers in respect of the settlement of property.

### **Testamentary Causes Jurisdiction**

The Supreme Court in its testamentary causes jurisdiction is the only authority competent to grant probate of the will, or administration of the estate, of any deceased person who leaves real or personal property in the State. With a few exceptions, the property of a deceased person cannot be dealt with in any way until a grant has been obtained. Pending a grant of probate or administration, all property of a deceased person, in respect of which he died intestate, is vested in the Public Trustee. The Court does not issue a grant until succession duty (if any) on the estate has been paid or security accepted for the due payment of duty.

The powers of the Court are exercised by a judge, the Master and the Registrar or Deputy Registrar of Probates. The latter deal with all applications for probate and administration where there is no contention and any matters prescribed by the rules. In cases of doubt or difficulty, the Registrar may obtain the direction of a Judge. The records of the Court are available for public inspection, and copies of wills and other documents may be obtained.

Some statistics of the estates of deceased persons appear in Part 12.3.

## **LOCAL AND DISTRICT CRIMINAL COURTS**

Local and District Criminal Courts are now constituted under the Local and District Criminal Courts Act, 1926-1974. An amendment to the Act in 1969 increased the jurisdiction of local courts, established District Criminal Courts and provided for the appointment of a Senior Judge and other judges.

### **Local Courts**

Local Courts were first established in South Australia by an ordinance of 1850 and originally had criminal as well as civil jurisdiction. The Local Courts Act, 1926 effected important alterations in the structure and jurisdiction of Local Courts by abolishing juries in Local Courts and also justices as constituent members of Courts of Full Jurisdiction (except on the application of a party), by conferring equitable jurisdiction on the Local Court of Adelaide of Full Jurisdiction, and by giving a full appeal to the Supreme Court on facts as well as on law from all judgments, determinations and orders of local courts in actions involving more than \$60.

Local Courts are divided into three groups—Full Jurisdiction, Limited Jurisdiction and Special Jurisdiction. The courts vested with all three jurisdictions are the Local Courts of Adelaide, Berri, Mount Gambier, Port Lincoln, Port Pirie and Whyalla. These courts may hear and determine actions for amounts up to \$20 000. The equitable jurisdiction provisions have also been extended to all Local Courts of Full Jurisdiction. Local Courts of Limited Jurisdiction may hear and determine claims of up to \$2 500, with special provisions for hearing 'small claims' as defined for a pecuniary sum not exceeding \$500. Courts of Special Jurisdiction may hear and determine any unsatisfied judgment summons whatever the amount of the judgment.

A Local Court of Full Jurisdiction may be constituted of a Judge of the Supreme Court or a Local Court judge, and exercise all jurisdictions under the Act. A special magistrate may exercise limited jurisdiction and special jurisdiction, while two justices of the peace sitting together or one special justice sitting alone may exercise special jurisdiction only.

Any Local Court may reserve any question of law arising in any action for the decision of the Supreme Court, and any party who is dissatisfied with any final judgment, determination or order of a local court, if the claim exceeds \$500, may appeal to the Supreme Court. Appeals involving claims under \$500 may be made if leave of the Supreme Court is obtained.

Pursuant to Section 28 of the Act, the Senior Judge or any other judge may make rules of court for carrying into effect the Act or any other Act conferring jurisdiction upon Local Courts.

### Local Courts: Summary of Transactions, South Australia

Year	Total Claims		Verdicts and Judgments					Service and Execution of Process Act		
	Sum-moneses Issued (a)	Amount Sued For	Verdicts by Trial		Judgment by Default		Total		Sum-moneses for Service out of Jurisdiction	Certifi-cates
			Num-ber	Amount	Num-ber	Amount	Num-ber	Amount		
		\$'000		\$'000		\$'000		\$'000		
1969	93 679	8 684	1 989	466	47 535	4 362	49 524	4 828	1 805	1 703
1970	96 261	10 048	1 681	520	44 516	4 368	46 197	4 888	1 697	1 734
1971	98 181	13 435	1 916	1 291	45 013	5 501	46 929	6 792	1 787	1 821
1972	101 780	19 128	1 595	1 346	45 082	4 911	46 677	6 257	1 755	1 583
1973	95 474	19 660	1 564	1 447	40 657	6 034	42 221	7 480	752	1 142

(a) Including those withdrawn or settled out of Court.

### District Criminal Courts

These courts came into operation on 31 August 1970 and have jurisdiction to hear and determine many of the indictable offences that previously could only be tried by the Supreme Court. The State is divided into three proclaimed districts; Central Criminal Court District, Northern Criminal Court District, and the South Eastern Criminal Court District.

The jurisdiction of a District Criminal Court is exercisable by a District Criminal Court Judge sitting in open court, with or without a jury, or in chambers as the case may require. The Crown is represented in District Criminal Courts by the Attorney-General or by counsel appearing on his behalf. The other party may conduct his own case or may engage counsel on his behalf. A person who is not a practitioner of the Supreme Court entitled to practise cannot appear in a District Criminal Court on behalf of any party.

Appeals against verdicts and sentences of District Criminal Courts are to the Full Court.

Pursuant to Section 321 of the Act the Senior Judge and two other judges may make rules of court for carrying into effect the district criminal court provisions of the Act.

#### District Criminal Courts: Convictions, South Australia

Type of Offence	Convicted			
	1970	1971	1972	1973
<b>Offences against the person:</b>				
Acts (except murder) causing death, injury or endangering life . . . . .	6	15	23	67
Offences against females . . . . .	18	148	164	101
Unnatural offences . . . . .	4	18	13	11
Other offences against the person . . . . .	1	7	3	3
<b>Total . . . . .</b>	<b>29</b>	<b>188</b>	<b>203</b>	<b>182</b>
<b>Offences against property:</b>				
Breaking and entering and burglary . . . . .	56	434	474	445
Embezzlement and stealing by servants . . . . .	2	15	13	6
Fraud and false pretences . . . . .	3	16	16	36
Other offences against property . . . . .	8	33	67	65
<b>Total . . . . .</b>	<b>69</b>	<b>498</b>	<b>570</b>	<b>552</b>
<b>Other offences . . . . .</b>	<b>8</b>	<b>53</b>	<b>86</b>	<b>106</b>
<b>Total (all offences) . . . . .</b>	<b>106</b>	<b>739</b>	<b>859</b>	<b>840</b>

#### COURTS OF SUMMARY JURISDICTION

Courts of Summary Jurisdiction are established in all major towns and hear many criminal cases. In offences of dishonesty their jurisdiction is in most instances confined to cases where the property value is not more than \$400, and the limit of their jurisdiction as to penalty is imprisonment for two years. Their procedure is regulated by the Justices Act, 1921-1975. They are presided over, either by a special magistrate, a special justice or by two justices of the peace, with the more serious causes generally being heard by a special magistrate.

Special magistrates are appointed under the Justices Act and the Local Courts Act, and each appointment must be approved by the Chief Justice. Generally appointees are required to be practitioners of the Supreme Court who have been practising for some years.

Offences under the Road Traffic and Motor Vehicles Act accounted for 63 per cent of total convictions in 1972-73—this compares with 57 per cent in 1962-63 and 42 per cent in 1952-53.

**Courts of Summary Jurisdiction (Magistrates Courts), Persons Convicted  
South Australia<sup>(a)</sup>**

Offence	1968-69	1969-70	1970-71	1971-72	1972-73
Against the person . . . . .	484	595	569	697	584
Against property:					
Burglary and housebreaking ..	17	105	10	48	22
Larceny (various) . . . . .	1 921	1 700	1 912	1 906	1 865
Other . . . . .	1 353	1 672	1 738	1 546	1 381
Against morality . . . . .	218	388	273	288	185
Against good order:					
Drunkenness . . . . .	7 431	9 528	9 185	9 975	8 314
Unlawfully on premises . . . . .	449	420	420	348	307
Vagrancy . . . . .	425	528	594	520	308
Other . . . . .	2 203	2 575	2 774	2 930	2 092
Other, relating to:					
Road Traffic and Motor Vehicles Acts . . . . .	66 071	68 905	63 742	71 255	59 303
Licensing . . . . .	1 005	925	838	661	495
Social welfare . . . . .	1 630	974	1 206	1 063	1 267
Police Act . . . . .	1 193	1 317	1 518	1 295	1 055
Local government . . . . .	2 994	3 862	4 952	5 679	5 293
Australian Broadcasting Act ..	2 903	2 575	2 648	2 883	2 250
Income tax assessment . . . . .	1 083	1 908	1 653	2 637	1 452
Other . . . . .	5 482	7 105	5 983	8 485	7 895
Total persons convicted:					
Males . . . . .	88 573	96 004	91 076	101 323	84 143
Females . . . . .	8 289	9 078	8 939	10 893	9 925
Total . . . . .	96 862	105 082	100 015	112 216	94 068

(a) Excludes juveniles. Where multiple charges have been laid against one individual at the same time each type of offence has been counted separately.

### JUVENILE COURTS

Proceedings in juvenile courts are regulated by the Juvenile Courts Act, 1971-1974 which came into force on 1 July 1972. A judge appointed under this Act exercises administrative control over juvenile courts throughout the State.

Juvenile courts may be presided over by a judge, a special magistrate or, in certain circumstances, two justices of the peace who have been approved as suitable to exercise this jurisdiction. The courts, if constituted of a judge or a special magistrate may try any offence (except homicide) committed by a juvenile. Limitations are placed on the jurisdiction of two justices of the peace.

Juvenile offenders appearing before courts are classified into two basic groups according to the age of the child. Children under sixteen years are charged with being in need of care and control as a consequence of an alleged offence. When dealing with children in this group the court may discharge the child, release the child on a bond with or without supervision, or place the child under the care and control of the Minister of Community Welfare. A child under sixteen cannot be convicted of an offence. Children over sixteen may be charged with an offence and dealt with as above with or without conviction; in addition the Act provides that a fine may be imposed. Juvenile courts also exercise jurisdiction over truants, neglected children and uncontrolled children.

In most cases when a child under sixteen years is alleged to have committed an offence, the matter is referred to a non-judicial body called a juvenile aid panel for consideration. Difficult cases may be referred by the panels to the juvenile courts. For further details see Part 6.6, page 304.

**Juvenile Offenders: Offences proved in Juvenile Courts and Aid Panels, South Australia<sup>(a)</sup>**

Type of Offence	Juvenile Courts		Juvenile Aid Panels	
	1972-73	1973-74	1972-73	1973-74
Homicide . . . . .	—	2	—	—
Assault . . . . .	139	201	16	33
Robbery . . . . .	23	32	2	5
Rape . . . . .	3	7	—	—
Other heterosexual offences . . . . .	121	71	13	21
Breaking and entering . . . . .	1 244	1 237	474	563
Vehicle theft . . . . .	825	1 016	158	166
Other theft . . . . .	1 307	1 226	1 320	1 459
Wilful damage . . . . .	252	218	155	176
Receiving . . . . .	127	98	98	71
Fraud . . . . .	191	294	44	48
Drug offences . . . . .	44	61	—	7
Driving and traffic <sup>(b)</sup> . . . . .	543	601	309	412
Liquor . . . . .	328	406	38	39
Unlawfully on premises . . . . .	106	148	131	109
Indecent behaviour . . . . .	144	141	18	19
Drunk, disorderly . . . . .	329	394	53	86
Other . . . . .	607	690	204	207
<b>Total offences . . . . .</b>	<b>6 333</b>	<b>6 843</b>	<b>3 033</b>	<b>3 421</b>
Male . . . . .	5 552	6 091	2 443	2 725
Female . . . . .	781	752	590	696
<b>Individual offenders:</b>				
Male . . . . .	2 519	2 512	1 439	1 672
Female . . . . .	498	444	441	529

(a) Under 18 years. Excludes truants and children found to be neglected, destitute or uncontrolled.

(b) Excludes most minor traffic offences.

## FAMILY COURT SECTION

In November 1973, a section of the Adelaide Local Court and the Adelaide Magistrate's Court was reserved to hear on law matters connected with the family which are below the jurisdiction of the Supreme Court. The stated objects of this section include the stabilisation of marriages and the avoidance of family breakdowns.

Classes of judicial work heard within the section include the full jurisdiction Local Court proceedings under the Guardianship of Infants Act; proceedings relating to matrimonial property; separation, affiliation and maintenance proceedings under the Community Welfare Act; adoption applications; *Marriage Act* applications; and peace complaints and assault charges involving the members of a family.

The Senior Judge in the Adelaide Juvenile Court administers the Section and the courts within it are presided over by a judge or senior magistrate with the exception of adoption application hearings, where the Court consists of a special magistrate and two justices of the peace, one of whom must be a woman. Adoptions are discussed in detail in Part 6.6 Social Welfare.

It is expected that in the future a separate Family Court with its own jurisdiction and special powers appropriate to its task will be established.

## THE LICENSING COURT

The licensing of hotels and the issue of liquor licences and permits is governed by the Licensing Act, 1967-1974 under which is constituted a Licensing Court consisting of a Chairman (who has the rank and title of Judge), a Deputy Chairman, and a panel of Licensing Magistrates.

The more important work of the Court, for example, the granting of new licences and the forfeiture and removal of licences, can only be carried out by a Full Bench of three, one of whom must be the Chairman or Deputy Chairman. All other matters may be dealt with by any member of the Court sitting alone.

The classes of licences that may be granted are:

- |  |                             |
|--|-----------------------------|
| (a) Full publican's licence.           | (j) Packet licence.         |
| (b) Limited publican's licence.        | (k) Railway licence.        |
| (c) Wholesale storekeeper's licence.   | (l) Restaurant licence.     |
| (d) Retail storekeeper's licence.      | (m) Cabaret licence.        |
| (e) Wine licence.                      | (n) Theatre licence.        |
| (f) Brewer's Australian ale licence.   | (o) Special licence.        |
| (g) Distiller's storekeeper's licence. | (p) Twenty litre licence.   |
| (h) Vigneron's licence.                | (q) Hotel broker's licence. |
| (i) Club licence.                      |                             |

The demands and interests of tourism have been met by legislation to provide for the granting of special licences to National Pleasure Resorts and Parks, festivals of historic, traditional or cultural significance, the Adelaide Festival Theatre and the Adelaide Festival of Arts. New wine licences can only be granted to genuine museums or art galleries situated in, or close to, areas in



the State where wine is produced. A special class of hotels has been created, to be known as *Tourist Hotels*, and these must be so designated by the Minister of Tourism. Holders of both full and limited publican's licences, restaurant or wine licences may apply to the Court for an outdoors permit under which they can provide food and liquor in open-air and street-side areas outside the licensed premises.

The following table shows the number of licences and permits issued during the years ended 31 March 1970 to 1974.

#### Liquor Licences and Permits, South Australia

Licence or Permit	Year ended 31 March				
	1970	1971	1972	1973	1974
<b>Licence:</b>					
<b>Publicans;</b>					
Full . . . . .	601	598	599	599	601
Limited . . . . .	28	36	40	42	48
Storekeepers (a) . . . . .	169	168	171	172	179
Vigneron's . . . . .	46	47	46	52	62
Club . . . . .	55	70	88	121	157
Restaurant . . . . .	65	90	102	117	134
Other . . . . .	93	53	65	57	63
<b>Permits:</b>					
Special licensed premises . . .	6 386	6 209	7 049	6 730	6 673
Special unlicensed premises . .	19 554	15 286	15 282	15 652	16 953
Booth . . . . .	9 125	7 330	6 998	7 653	7 877
Club . . . . .	1 952	2 001	1 737	1 888	2 097
Other . . . . .	420	345	344	521	914

(a) Covers wholesale, retail and distillers.

Fees for licences are paid in accordance with the amount of liquor purchased (or in some cases sold) during the preceding twelve months and at present, in the case of the retail licences, is calculated at 8 per cent of the amount of purchases.

In December 1974, legislation was enacted to authorise discretionary hotel bar trading hours from 5 a.m. to 10 p.m. Monday to Thursday and 5 a.m. to 12 midnight Friday and Saturday, and to fix obligatory trading hours, Monday to Saturday from 11 a.m. to 10 p.m., or some other continuous period of not less than eleven hours fixed by the Court. Before this trading hours were generally from 9 a.m. to 10 p.m.

In the case of a full publican's limited publican's and restaurant licence, liquor may be sold and disposed of in the dining area each weekday from 12 noon to 1.30 a.m. on the following morning and on Sundays between 12 noon and 10.45 p.m. by diners with an additional thirty minutes within which the liquor may be consumed. Similar provisions apply to wine licences where substantial food is served. Approval may be granted to *Tourist Hotels* to sell and dispose of liquor for consumption from 9 a.m. to 3 a.m. on the following morning.

The Court may upon the granting or renewal of a full publican's licence, having regard to the needs of the public, exempt the holder of the licence from the obligation to supply lodging.

Permits may be granted under certain circumstances to extend the trading hours of licensed premises and to allow the sale, supply or consumption of liquor in unlicensed premises. Permits may be granted to clubs, for periods of up to one year, for the sale and supply to members for consumption on club premises—at 31 March 1974, 734 of these permits were current and in addition 1 363 permits were issued for separate club functions during the year. Clubs whose takings from the sale of liquor exceed \$25 000 in any one year are not eligible for a permit but are required to apply for a Club Licence.

### BANKRUPTCY

Since 1928 bankruptcy has been under Australian Government jurisdiction. Under the *Bankruptcy Act* 1966-1973 South Australia is a bankruptcy 'district' and jurisdiction is exercised through the Court of Insolvency of the State of South Australia exercising Australian Government jurisdiction in bankruptcy.

#### Bankruptcies: Number, Liabilities, Assets, South Australia

Year	Bankruptcies and Orders for Administration of Deceased Debtors' Estates			Compositions, Deeds of Arrangement and Deeds of Assignment			Total Debtors
	Number	Assets	Liabilities	Number	Assets	Liabilities	
		\$	\$		\$	\$	
1969-70 . . . .	602	1 485 488	2 999 527	22	811 540	927 835	624
1970-71 . . . .	611	2 579 476	4 211 801	15	293 317	437 190	626
1971-72 . . . .	622	1 884 312	3 695 896	21	728 755	938 616	643
1972-73 . . . .	528	1 176 909	2 821 609	26	212 981	498 022	554
1973-74 . . . .	358	1 049 624	2 036 653	15	375 849	433 540	373

A debt of at least \$500 is necessary before a creditor may commence bankruptcy proceedings. Preferential creditors include employees for amounts owing in respect of wages and salaries, workers compensation, long service leave, annual leave, recreation leave or sick leave, and the Commissioner of Taxation for unpaid tax on one year's income.

A bankrupt who has not previously been discharged is automatically discharged after five years unless an objection is filed with the Registrar in Bankruptcy.

### JURY SYSTEM

The procedure in relation to juries is governed by the Juries Act, 1927-1974.

Indictable offences are tried before a Judge and twelve jurors sitting in the criminal jurisdiction of either the Supreme Court or District Court, depending on the gravity of the offence.

Jury districts for the metropolitan and certain country areas are fixed by proclamation pursuant to the Juries Act and consist of a number of subdivisions of the House of Assembly electoral districts. Legislation passed in 1965 provided for women to serve on juries as well as men, and, with certain exceptions, all persons over the age of twenty-five and under sixty-five who are enrolled as House of Assembly electors within the proclaimed jury districts are qualified and liable to serve as jurors.

Persons exempted from liability to serve are listed in the third schedule to the Act and include judges, Members of Parliament, certain public officers, members of the defence forces, clergymen, legal practitioners, magistrates, university professors, police officers, doctors, dentists, pharmacists, opticians, physiotherapists, veterinary surgeons, newspaper editors and school teachers. Women automatically exempted include nurses, and the wives of judges, magistrates and police officers, but any other woman may also cancel her liability for jury service by giving notice to the Sheriff to that effect within six days after receipt of a jury summons.

A jury list is compiled annually by the Sheriff for each jury district. The jurors summoned to hear and determine an issue are selected by ballot. Accused persons and the Crown each have the right to challenge three jurors without assigning reasons. About 1 000 persons serve on juries each year in South Australia.

#### STATE INDUSTRIAL TRIBUNALS

Industrial arbitration in South Australia was inaugurated in 1894 by the establishment of Boards of Conciliation. Since then the system has undergone fundamental changes from time to time and the present basis is the Industrial Code, 1967-1972, under which the Industrial Court, Industrial Commission, Conciliation Committees and Commissioners have been established. For details on the composition of these bodies and their functions see Part 7.2.

#### LEGAL ASSISTANCE SCHEME

The Legal Assistance Scheme, administered by the Law Society of South Australia Incorporated, has been operating since 1933. This voluntary Scheme which has legislative recognition in the Legal Practitioners Act, 1936-1972, is supported by the legal profession and is designed to ensure that no person who is deserving of legal assistance shall be deprived of it by lack of finance.

The South Australian Government makes an annual grant to the Law Society to assist in the administration of the Scheme and, since 1960, the Government has made special annual grants to partially recompense legal practitioners acting in assigned cases. On 1 July 1970 the Legal Practitioners Trust Account was instituted and from that date further financial assistance to the Law Society and legal practitioners acting in assigned cases has been received from portion of the interest on this Trust Account.

In addition, the Law Society conducts an advisory service for preliminary advice at no cost to pensioners and students, and to others at a nominal charge.

Practitioners also attend on a voluntary basis at Magistrates Courts at Adelaide, Port Adelaide, Christies Beach, Berri, Whyalla, Mount Gambier and Naracoorte to assist defendants appearing before the court to obtain adjournments, remands and legal assistance. General advice and guidance is given. No charge is made for this service.

## PUBLIC TRUSTEE

The office of Public Trustee was established in 1881 and is now regulated by the Administration and Probate Act, 1919-1973. It provides a service to the public in the administration of estates and the protection of infants and absentee beneficiaries in estates administered by private administrators. A person may appoint the Public Trustee to be the executor and trustee of a will or as trustee of any disposition of property creating a trust.

The Public Trustee, where directed by the Court, becomes administrator of certain deceased estates; acts as guardian of certain infants; controls a protected person's property under the Aged and Infirm Persons' Property Act, 1940-1975; and receives, invests and distributes for the benefit of widows and minor dependants, amounts awarded under the Workmen's Compensation Act, 1971-1973.

Under the Mental Health Act, 1935-1974 the Public Trustee has control of the estates of some of the patients who have been admitted to Government mental hospitals, and may be appointed to act for the estate of any person found to be of unsound mind.

## THE SOUTH AUSTRALIAN POLICE FORCE

A police force was first established in South Australia in 1838 and has been administered by a Commissioner of Police since 1840. The number of Police officers rose steadily from 127 in 1851 to a peak of 802 in 1929, fell to 674 in 1943 and has since risen steadily to 2 264 in 1974. The number of persons per police officer has fallen from 910 in 1943 to 537 in 1974.

The maintenance of law and order and the reduction of opportunities for criminal activity are the main functions of the Uniformed Branches. At 30 June 1974, there were thirty-five suburban and 112 country Police Stations. Recent changes in policy have enabled women police officers to have equal opportunities and carry out the same duties as male officers.

Police Personnel, South Australia<sup>(a)</sup>

At 30 June

Personnel	1970	1971	1972	1973	1974
Commissioned officers . . . . .	57	58	61	69	81
Non-commissioned officers . . . . .	400	445	501	522	566
Constables . . . . .	1 424	1 468	1 501	1 576	1 617
<b>Total active police force . . . . .</b>	<b>1 881</b>	<b>1 971</b>	<b>2 063</b>	<b>2 167</b>	<b>2 264</b>
<b>Persons per active member . . . . .</b>	<b>616</b>	<b>595</b>	<b>575</b>	<b>553</b>	<b>537</b>

(a) Active police force strength; includes women police (77 in 1973). Excludes trainees and cadets, women police auxiliaries, civil staff, etc.

The Traffic Division, while policing the general regulations relating to road use and the control of traffic, also aims at improving road safety by testing vehicles for roadworthiness, lecturing on road courtesy and safety, and conducting driving tests for licence applicants.

In Adelaide, the Criminal Investigation Branch comprises squads, each of which is responsible for the investigation of particular types of crime. Suburban areas are served by decentralised Criminal Investigation Branches, and country areas by detective personnel based at selected centres. Auxiliary services provided by the Modus Operandi, Records, Fingerprints, Photographic, Documents, Ballistics, Crime Scene and Laboratory sections are essential aids in criminal investigation.

In 1959, a Police Emergency Operations Group consisting of Cliff Rescue, Underwater Recovery, Sea Rescue and Emergency Squads, was constituted under the direction of a Superintendent who is appointed also the Police Co-ordinator of Emergency Planning.

The Commissioner of Police is responsible for the Emergency Fire Services, operations of which are outlined on pages 182-3.

The changing police role in the community, together with continual changes in law and investigational techniques, has resulted in special emphasis being placed upon the training of all personnel within the Force. There are two levels of recruitment. Cadets are enrolled at seventeen years of age and are given a three-year course of academic and practical instruction before graduation to operational duties. Adults are enlisted between the ages of twenty and thirty years and are given twenty-two weeks instruction before serving a probationary period on general duties before being permanently appointed. All personnel are required to undergo refresher training at selected intervals of service. In addition, courses are regularly conducted for such specialist appointments as prosecutors, detectives technicians, drivers and instructors. Commissioned officer and non-commissioned officer training, in addition to external tertiary studies, are provided. At 30 June 1974, there were 392 cadets in training, and during the year 106 adult recruits graduated. Formal instruction was given to 1060 members in refresher or specialist courses.

In 1971 the use of light aircraft was instituted by the Department for the transport of personnel and prisoners throughout the State.

An extensive re-organisation of general police in the metropolitan area was begun early in 1973. This involved the division of metropolitan Adelaide into three territorial regions, each commanded by a Chief Superintendent, the implementation of a sector system in regions and the restructuring of patrol areas designed to give emphasis to personal contact between the patrol force and the public. Advanced VHF/UHF interface repeater radio equipment between car and constable has been introduced to make foot patrolling more effective.

Other innovations introduced are a crime prevention unit, a criminal intelligence centre and regional crime collators. A tactical reserve designated as a 'task force' has been formed under the command of the Metropolitan Senior Chief Superintendent to co-ordinate the activities of the metropolitan regions. Members of the task force receive special training to deal with extraordinary emergencies and provide supplementary assistance at special events.

The Police Community Affairs and Information Service was formed in mid-1973 to foster better relations between the police and the general public. Early in 1974, a Dog Squad, comprising six handlers and six dogs became operational. As well as carrying out foot and mobile patrol duties, the squad is used in tracking and drug searches.

The following table gives details of the revenue and expenditure of the South Australian Police Force in recent years.

**South Australian Police Force, Revenue and Expenditure<sup>(a)</sup>**

Year	Expenditure			Revenue	Net Cost	
	Wages and Salaries	Other	Total		Total	Per Head
Dollars						
1969-70 . . . .	8 700 055	2 068 500	10 768 555	147 093	10 621 462	9-24
1970-71 . . . .	10 218 913	2 161 493	12 380 406	199 630	12 180 776	10-43
1971-72 . . . .	11 947 148	2 354 245	14 301 393	1 339 915	12 961 478	10-95
1972-73 . . . .	14 172 215	2 412 472	16 584 687	1 477 843	15 106 844	12-64
1973-74 . . . .	18 131 664	2 840 914	20 972 578	(b) 1 638 929	19 333 649	15-97

(a) As reflected in Consolidated Revenue Account only—capital expenditure is met from Loan Fund.

(b) Includes \$1 238 000 recouped from Highways Fund for traffic and road safety purposes which became payable under an amendment to the Highways Act from 1 July 1971.

### GAOLS AND PRISONS

There were eight gaols and prisons and nine police prisons administered by the South Australian Department of Correctional Services during 1973-74. Adelaide Gaol is a holding centre for remand and short-term sentenced prisoners. Yatala Labour Prison, South Australia's largest prison, provides for long-term male prisoners under maximum, medium and minimum security ratings. Adjacent to Yatala is the Northfield Security Hospital which was officially opened in November 1973, to accommodate criminal mental defectives. This modern hospital is staffed by trained medical personnel and provides specialised treatment programs for both males and females. Port Augusta Gaol, Port Lincoln Prison and Mount Gambier Gaol are medium security prisons which accommodate male and female prisoners. It is intended that Gladstone Prison, which has been operating as a medium security prison for males, will be phased out of use and closed at the end of 1975. Cadell Training Centre on the River Murray is a dual purpose institution which operates as a pre-release centre for long-term prisoners as well as accommodating medium security short-term prisoners. The Women's Rehabilitation Centre at Northfield is a multi-purpose prison for females from all parts of the State. The nine police prisons serve as short-term detention centres for both males and females, and are mainly situated in the more remote country areas.

In common with other States and countries the emphasis in South Australian prisons is on rehabilitation. Industrial and trade training in various fields is available throughout the institutions, enabling prisoners to be prepared for ultimate outside employment. A wide range of correspondence courses are available through the Colleges of Advanced Education and the South Australian College of External Studies under the supervision of the prison education officers. Special migrant and remedial classes are also conducted by the Education Division of the Department. A classification committee ensures that prisoners serving long-term sentences are correctly assessed for education, employment, social and other training purposes. In a wide range of matters affecting the well-being and after-care

of prisoners and their families, the prison administration is assisted by chaplains, the Prisoners Aid Association, the Salvation Army and other voluntary organisations. Community services rendered by prisoners include the provision of emergency fire service units and the production of soft toys for children's homes.

A fast developing branch of the Department is the Adult Probation Service, the officers of which supervise persons placed on probation or bonds by the courts and prisoners released on parole or licence. The preparation of pre-sentence reports for courts is a valuable and increasingly important function of this service. Offices situated at Christies Beach, Elizabeth, Gilles Plains and Port Adelaide provide for probationers and parolees in these areas.

#### Gaols and Prisons, South Australia

Year	Total Accommodation for Prisoners	Prisoners Received to Serve Sentence (a)		Prisoners in Gaol under Sentence (b)	
		Males	Females	Males	Females
1969-70	1 356	6 290	714	797	43
1970-71	1 414	6 871	694	818	38
1971-72	1 497	6 952	758	795	29
1972-73	1 493	7 323	560	654	25
1973-74	1 482	7 028	574	735	30

(a) Counted once each time received. (b) At 30 June.

## PUBLIC SAFETY

### FIRE SERVICES

#### The Fire Brigades Board

Provision for the establishment and maintenance of fire brigades in South Australia under the control and management of the Fire Brigades Board was first instituted in 1882.

In accordance with its general duty of extinguishing fires and protecting life and property in case of fire, the Board maintains suitably equipped fire brigades in proclaimed fire districts in the Adelaide Metropolitan Area and in country towns. At 30 June 1974 there were thirty-nine fire brigade stations of which seventeen were metropolitan and twenty-two were country. During the year 1973-74 these brigades received 5 279 calls of which 562 were false and malicious calls. Some of these brigades are manned by permanent personnel and others by auxiliary firemen, there being at 30 June 1974, 491 officers and firemen and 117 auxiliary firemen.

In addition to its main function, the Board provides a service section for the regular maintenance of private fire equipment installed in public and private premises, and makes its officers available for inspection of premises and for advice on fire protection generally, as well as to demonstrate the use and handling of various types of first aid fire equipment.

The Fire Brigades Act, 1936-1974 provides that the expenses and maintenance of brigades be defrayed in the proportion of two-ninths by the State Treasury; five-ninths by insurance companies; and two-ninths by the municipalities and district councils concerned. The statutory contribution to be made by the Treasury is limited to \$20 000 plus two-ninths of the estimated annual cost of the staff superannuation scheme. However, owing to the increasing costs of fire protection, the Treasury has made substantial special grants for many years. If the Treasury proportion exceeds its statutory contribution the excess is borne five-sevenths by insurance companies and two-sevenths by municipalities and district councils.

The total revenue for the year 1973-74 was \$4 118 018 including contributions of \$4 066 515 made up as follows; insurance companies \$2 526 306; municipalities and district councils \$957 110; and Treasury \$583 099 which included special grants of \$507 735.

The relevant proportions to be contributed by the above bodies from 1974-75 onwards were changed by the Fire Brigades Act Amendment Act, 1974. The State Treasury and local government bodies are now required to each contribute one-eighth of the expenditure, and the remaining three-quarters is provided by insurance companies.

#### South Australian Emergency Fire Services

The South Australian Emergency Fire Services was formed as a branch of Civil Defence during the 1939-45 War. When Civil Defence was disbanded, redundant trailer pumps were issued to local governing bodies by the State Government and the Emergency Fire Service (EFS) was developed into a volunteer country fire service, to protect those areas outside the districts covered under the Fire Brigades Act, 1936-1974. The responsibility and authority for fire prevention and control in these outer areas are vested in local government by the Bush Fires Act, 1960-1972 and Local Government Act, 1934-1974.

#### South Australian Emergency Fire Services

Particulars	1971	1972	1973	1974
Strength of service at 30 June:				
Affiliated organisations . . . . .	431	437	438	441
Volunteer members . . . . .	9 000	9 000	9 000	9 000
Fires attended in twelve months ended 30 June:				
Number of fires;				
Urban type . . . . .	261	328	256	280
Bush . . . . .	1 066	1 204	755	657
Acres destroyed in bush fires . .	110 909	74 795	37 164	131 167
Financial losses;				
			Dollars	
Urban type . . . . .	628 946	500 141	387 892	3 069 192
Bush . . . . .	210 848	50 611	96 080	133 515

EFS Headquarters, a branch of the Police Department, functions as a co-ordinating centre. The Director of Emergency Fire Services, responsible to the Commissioner of Police, advises on fire protection problems, conducts competitions and training programs, and co-ordinates fire-fighters and auxiliaries



in major fire control. Fire equipment purchased by EFS organisations and councils is subsidised by the Bush Fires Equipment Subsidies Fund (equal contributions by the State Government and by fire insurers), and government subsidies are provided for maintenance.

The main fire attended by the Emergency Fire Service during 1973-74 was the Berri Co-operative Winery and Distillery Fire which caused damage estimated at \$2 002 000 (the costliest in South Australia since 1970).

## LIFE SAVING

### **The Royal Life Saving Society—Australia**

The South Australian Branch of the Royal Life Saving Society—Australia was established in 1909 and the formation of clubs at various beaches followed. In 1952 an agreement was made with the Surf Life Saving Association whereby this body undertook responsibility for life saving on ocean beaches, the Royal Life Saving Society retaining responsibility in all other areas of activity.

In South Australia the Society has developed into a large teaching body administered by a Council, giving instruction to schools and other interested bodies in the various methods of life saving, including the current methods of artificial respiration. This is done through the medium of honorary instructors and examiners. In the winter months the emphasis is on talks and demonstrations on resuscitation, but during the swimming season weekly life saving instruction and examination, and the performance of life saving demonstrations are conducted throughout the State. Awards totalling 25 542 were issued to candidates who passed the various examinations in the 1973-74 season.

The honorary work of the Society is financed mainly by grants made by the Australian and the State Governments, and by donations.

### **The Surf Life Saving Association**

The South Australian State Centre of the Surf Life Saving Association of Australia was formed in 1952, with the co-operation of the South Australian Branch of the Royal Life Saving Society and the Surf Life Saving Association of Australia.

The Henley, Glenelg and Moana Life Saving Clubs formed the nucleus of this body, which has eighteen affiliated clubs situated at Semaphore, Grange, Henley, West Beach, Glenelg, Somerton, Brighton, Sealcliff, Christies Beach, Port Noarlunga, Southport, Moana, Chiton Rocks, Port Elliot, Whyalla, Taperoo Beach, Hallett Cove and Goolwa.

Voluntary members give many hours to patrolling their respective beaches each weekend and public holiday from the beginning of November until the end of March. At 30 June 1974 there were 1 334 members in Association clubs. From 1952 to the end of the 1973-74 season 1 714 rescues were performed with no loss of life on South Australian beaches while being patrolled by club members. During this same period many hundreds of persons received first-aid treatment.

The South Australian State Centre receives an annual grant from the State Government and individual clubs have been assisted with subsidies when building their club houses.

### **'Learn to Swim' Campaign**

Vacation swimming classes organised by the Education Department were first established on an extensive scale in January 1956. Thirty-six country and fourteen metropolitan swimming centres were set up and over 7 000 children enrolled for instruction. The January 'Learn to Swim' campaign has been continued in each subsequent year and has grown steadily; in the summer vacation of 1973-74, 123 country and 74 metropolitan swimming centres were used, and the total student enrolment was over 47 500. Instruction is provided over a period of ten days by qualified swimming instructors. Instruction in Surf Life Saving was offered for the first time in 1972 at eleven metropolitan and four country beaches.

Swimming classes have also been conducted in school time since October 1954. In the first term of 1974, 44 000 and in the third term, 61 000 children were enrolled in these classes.

Although swimming is still a major part of the program, the Education Department has introduced a number of water safety skills into the swimming program. All instructors are trained to teach water safety, life saving and swimming by the most up-to-date methods available.

### **INDUSTRIAL ACCIDENT PREVENTION**

The post-war growth of industrial activity in this State was accompanied by an increasing toll of injuries and fatalities sustained during the course of employment. Legislation requires certain minimum standards of safety in working conditions to be provided in various industries, and inspections are made to ensure compliance with legislative requirements. However, legislation and inspection are not the only means of minimising industrial accidents and in the late 1950s the South Australian Government implemented a program of education for management, supervisors and employees in accident prevention measures, with the object of making all sections of industry more 'safety conscious'.

Safety officers employed in the Department of Labour and Industry actively pursue this policy by conducting safety training courses, presenting lectures, screening films and distributing industrial safety pamphlets produced within the Department.

In addition the Safety Engineering Society of Australasia, the Australian Institute of Management (Adelaide Division), the South Australian Institute of Technology and the Department of Labour make valuable contributions within their particular spheres of activities to the promotion of industrial safety. Further details relating to industrial accidents are included in Part 7.4.

### **NATIONAL SAFETY COUNCIL OF AUSTRALIA SA DIVISION**

The National Safety Council of Australia SA Division was formed in 1963 as the Industrial Accident Prevention Society of SA Inc., a voluntary non-profit educational body. It is an autonomous branch of the largest organisation in Australia devoting its entire resources to the reduction of accidents in most areas of the community. In South Australia the Council's efforts are largely devoted to occupational, child and home, and water safety problems; traffic safety being the function of the Road Safety Council of South Australia. The SA Division is also responsible for servicing the requirements of members in the Northern Territory and regular visits are made to that area for safety training and promotional purposes.

The aims of the Council are carried out by the provision of safety consultant services, lectures, training courses and the distribution of safety publications and materials. Finance is derived from membership fees, services, an annual grant from the State Government and assistance from the Australian Government. The Council's activities are controlled by a body representative of all spheres of community interest.

### ROAD SAFETY COUNCIL OF SOUTH AUSTRALIA

The Road Safety Council of South Australia was formed in December 1965. The Council appointed by State Cabinet consists of an independent chairman and ten members representing the National Council of Women, the Road Traffic Board, the Police Department, the Royal Automobile Association of South Australia, the Fire and Accident Underwriters Association of South Australia, the Local Government Association (Metropolitan and Country), the Education Department, the South Australian Railways, the Trades and Labor Council of South Australia and the Australian Medical Association.

The objectives of the Council are to prevent road accidents involving death, injury or property damage through united action by all sections of the community, and to advise and assist government, semi-government and local authorities as well as private organisations in the adoption of precautionary measures in an attempt to prevent such accidents. In its efforts to achieve its objectives the Council concentrates on the education of road users in correct practices.

The Council is a section of the Department of the Minister of Transport and the Minister of Local Government. Its administrative headquarters are at the Road Safety Instruction Centre at Oaklands Park. The facilities of the Centre include lecture rooms and instructional areas for children and licensed drivers of all classifications and all age groups. Appropriate courses in road safety education and driver re-education are conducted.

The Council operations are financed from the \$1 derived from each driver's licence fee under the Motor Vehicles Act, 1959-1974.

### CONSUMER PROTECTION

Consumer protection in South Australia is the responsibility of the Commissioner for Prices and Consumer Affairs who is in charge of the Prices and Consumer Affairs Branch of the Attorney-General's Department. The activities of this Branch include the investigation of consumer complaints, research into consumer problems, consumer education and, under certain circumstances, the institution of legal proceedings on behalf of a consumer against any other person or body, or the defence of a consumer in any proceedings brought against him.

Legislation giving the Commissioner the necessary powers to act on behalf of consumers is contained in several Acts of Parliament, the more important being the Prices Act, 1948-1974, the Door to Door Sales Act, 1971, the Book Purchasers Protection Act, 1963-1972, the Unfair Advertising Act, 1970-1972, the Second-hand Motor Vehicles Act, 1971 and the Unordered Goods and Services Act, 1972. The effect of each of these Acts was discussed in detail in a special article on consumer protection included on pages 167-71 of the *South Australian Year Book* 1973.

A further aspect of consumer protection was the introduction of the Consumer Transactions Act, 1972-1973 and the Consumer Credit Act, 1972-1973 which came into force on 1 November 1973. The effect of these two Acts is to give added protection to persons who enter into contracts for the purchase of goods or services up to the value of \$10 000. In particular the provisions with regard to purchase on credit have been revised extensively.

The following table gives details of complaints investigated by the South Australian Commissioner for Prices and Consumer Affairs during 1974.

**South Australian Commissioner for Prices and Consumer Affairs  
Formal Complaints Investigated, 1974**

Particulars	Number of Complaints	Percentage of Total
<b>Second-hand Motor Vehicles Act:</b>		
		<b>Per cent</b>
Used motor vehicles;		
Faulty . . . . .	434	9.1
Misrepresentation of year of model . . . . .	66	1.4
Other . . . . .	46	1.0
Total motor vehicles . . . . .	546	11.5
<b>Door to door sales:</b>		
Electrical and household appliances . . . . .	33	0.7
Freezer food plans . . . . .	28	0.6
Books and magazines . . . . .	49	1.0
Other . . . . .	42	0.9
Total door to door sales . . . . .	152	3.2
Unfair advertising . . . . .	331	6.9
Unordered goods and services . . . . .	36	0.8
Consumer credit . . . . .	191	4.0
Excessive charges for goods . . . . .	330	6.9
Excessive charges for services . . . . .	646	13.6
<b>Faulty goods and services:</b>		
Building work and allied trades . . . . .	352	7.4
Electrical and household appliances . . . . .	263	5.5
Furniture, floor coverings, household fittings . . . . .	195	4.1
Motor trade . . . . .	150	3.1
Other . . . . .	322	6.8
Total faulty goods and services . . . . .	1 282	26.9
<b>Unfair dealing:</b>		
Motor trade . . . . .	209	4.4
Rental bonds . . . . .	133	2.8
Other . . . . .	830	17.4
Total unfair dealing . . . . .	1 172	24.6
Miscellaneous complaints . . . . .	83	1.8
<b>Total complaints . . . . .</b>	<b>4 769</b>	<b>100.0</b>

## 6.2 EDUCATION

In South Australia attendance at school is compulsory for children from six to fifteen years of age. Children who are five years of age by the last day of February may be admitted to State schools on the first school day in February; children who are five years of age on or before 2 July may be admitted on the first Monday after the last Saturday in June of that year. From 1 July 1974, the two-intake system is being progressively replaced over a four-year period, by a system which allows continuous admission of five-year-olds as soon as they reach their fifth birthday. The initial implementation of this policy began in about 150 country and twenty-five metropolitan schools. Most private schools have the two-intake system and those with kindergartens integrated with the school accept children under five years of age.

Education at the primary and secondary level is available at State schools controlled by the Education Department and at private schools, most of which are denominational. Some private schools provide boarding facilities. In both State and private schools there has been a trend towards co-education in recent years. From the beginning of 1975 the term 'year' to denote class level in both primary and secondary schools has been used. Primary classes are now designated Year 1 through to Year 7, and secondary classes Year 8 to Year 12.

At the tertiary level the University of Adelaide, the Flinders University of South Australia and the Colleges of Advanced Education are independently controlled but are financially dependent on government grants.

Facilities for adult education are provided by the Department of Further Education, the Workers Educational Association and the University of Adelaide.

South Australian schools will celebrate the centenary of State education in October 1975. The present system of State schools, controlled and supported by the Government, and of compulsory education dates from the Education Act, 1875. Special displays will be held in schools as well as at the State Library, Museum, Art Gallery and the Royal Show.

A historical summary of education in South Australia was included on pages 153-4 of the *South Australian Year Book* 1969.

### PRE-SCHOOL EDUCATION

The kindergarten movement in South Australia was founded in 1905 and up to the end of the 1939-45 War kindergartens were primarily designed for the care and education of under-privileged children. Since 1946 they have become generally accepted as a phase of education, with a consequent rapid increase in facilities. Although some independent kindergartens are conducted by private individuals, or by private schools, the majority of pre-school education is under the supervision of the Kindergarten Union of South Australia (Inc.). This organisation supervises 206 subsidised and eight unsubsidised kindergartens situated throughout the State together with one mobile unit. In 1974 the subsidised kindergartens had an enrolment of 10 783 children and employed 596 persons, 417 of whom were teaching staff.

While the supervision covers various aspects of organisation it is largely concerned with the educational program. As well as encouraging the creative, physical and mental development of four to five-year-old children the kindergarten prepares them for the experiences of formal schooling. Sessions are

generally of two and a half to three hours duration each day with enrolments limited to thirty children a session; two sessions are held daily at most kindergartens. The work of kindergartens is now being expanded to a wider pattern of child care to encompass extended hours care, playgroups and resource facilities for the community.

The Kindergarten Union, although a voluntary organisation, receives a large proportion of its revenue for recurrent expenditure from a State Government grant. Part of this grant is in turn used to subsidise the salaries of teachers at individual kindergartens. However, local committees are responsible for the equipping and maintenance of their own kindergartens, revenue for these purposes coming from either direct contributions or various fund raising activities.

During April 1974 the Australian Government approved the expenditure of \$1.87 million in South Australia on capital projects for pre-school and child care services. South Australia also received recurrent assistance grants of \$656 000 to 30 June 1974, for salaries for Education Department and Kindergarten Union of South Australia pre-school teachers, and for training more teachers. A further program of development was announced in December 1974 which will provide capital funding for the Kindergarten Union of \$634 500 and recurrent and ongoing expenses of \$3 883 575. Of this amount \$2 000 000 is being provided by the State Government. This program provides for the rebuilding of five kindergartens, the building of two new places with additional child care facilities and two larger complexes to provide full day care.

The grants will supplement State funds in a joint program, by the Education Department and the Kindergarten Union, which will provide twenty-nine new pre-schools and the rebuilding or extension of a further four. The Education Department opened its first seven pre-schools between July and September 1974; these were set up within the grounds of primary schools and involved the conversion of existing buildings. A further ten pre-schools, built in conjunction with existing primary schools, are expected to open in mid-1975. The Kindergarten Union will open nineteen new pre-schools before the end of 1975, and will rebuild or extend another four.

### GENERAL SCHOOL EDUCATION

The State Government, through the Education Department, provides free facilities for primary and secondary education; however, parents may choose between State and private schools. The Education Department functions under the Minister of Education. The permanent head of the Department is the Director-General of Education, assisted by two Deputy Directors-General of Education and Directors of Primary Education, Secondary Education, Educational Services and Resources, and Administration and Finance. A Director of Further Education heads the Department of Further Education which is concerned with technical colleges and adult education. The Education Department employs some staff for Northern Territory schools but this responsibility is being assumed progressively by the Australian Government.

The work of the schools is materially assisted by the school councils, and also by the mothers clubs, parents and friends associations and welfare clubs. These bodies have for many years been instrumental in raising large sums for the purchase of additional amenities for the schools.

In country areas many children are conveyed to State schools by free bus services provided by the Education Department. At the end of 1974 there were 689 bus services carrying an average of 25 200 pupils daily to 309 schools.

Although private primary schools largely follow the State schools in their curricula, the Education Department exercises no formal authority over these schools beyond requiring them to submit certain statistical returns relating to compulsory attendance. The similarity between courses in the State and private secondary schools is attributable to the influence of the Public Examinations Board of South Australia syllabus and the close liaison of the administration and teachers of both types of school.

The Catholic school system is organised on a diocesan basis, South Australia being divided into two dioceses, Adelaide and Port Pirie. Within the former, supervision is exercised by the Archbishop through the Director of Catholic Education and Co-ordinators of Religious Education, Secondary Education and Primary Education; within the latter, by the Bishop through his Director of Catholic Education.

The State Government now pays a grant of \$10 a year for each primary and \$20 for each secondary student liable to pay fees at an approved private school. In 1974 additional payments on a needs basis varying from \$32 to \$60 a student were made to 129 schools catering for primary students and from \$40 to \$60 a student to forty-seven schools catering for secondary students.

### Schools

Details of schools operating in South Australia in 1974 are given in the next table. The average size of State schools has increased rapidly since 1940 partly as a result of the consolidation of country schools. There were 613 State schools in 1974 compared with 1 043 in 1940 and 1 108 in the peak year of 1935. In 1940 there was an average of 73 pupils to each State school, with this figure increasing to 125 by 1950, 255 by 1960 and 379 by 1974. There has been a similar movement in the average size of private schools.

**Schools by Size, South Australia  
At 1 August 1974**

Pupils on Roll	State Schools				Total	Private Schools
	Primary	Primary-Secondary	Secondary	Special (a)		
Under 21 .. . . .	29	—	—	—	29	4
21 to 35 .. . . .	37	—	—	10	47	6
36 to 100 .. . . .	104	4	—	19	127	27
101 to 200 .. . . .	42	12	5	4	63	56
201 to 300 .. . . .	21	13	11	—	45	19
301 to 400 .. . . .	33	11	10	1	55	15
401 to 600 .. . . .	67	6	21	—	94	15
601 to 800 .. . . .	51	4	19	—	74	8
801 to 1 000 .. . . .	28	—	8	—	36	7
1 001 to 1 200 .. . . .	12	—	15	—	27	—
1 201 to 2 000 .. . . .	2	—	14	—	16	—
<b>Total .. . . .</b>	<b>426</b>	<b>50</b>	<b>103</b>	<b>34</b>	<b>613</b>	<b>157</b>

(a) Occupation centres, schools at institutions and schools for Aborigines.

**Teachers**

The numbers of teachers employed in primary and secondary schools in recent years are shown in the following table.

**Teachers, South Australia**

At or about 1 August	State Schools				Private Schools			
	Full-time		Part-time (a)		Full-time		Part-time (a)	
	Males	Females	Males	Females	Males	Females	Males	Females
1972 . . . . .	4 402	5 851	81	433	522	983	29	188
1973 . . . . .	4 837	6 252	59	458	573	998	30	176
1974 . . . . .	5 148	6 764	67	510	589	962	51	217
Type of School								
1974								
Primary . . . . .	1 664	4 001	3	176	68	497	4	49
Prim-Secondary . .	460	454	4	33	412	340	36	130
Secondary . . . . .	2 924	2 114	59	294	109	100	11	33
Special (b) . . . . .	100	195	1	7	—	25	—	5

(a) Equivalent full-time units of part-time teaching. Total part-time teachers at 1 August 1974, State schools, 86 males and 857 females; Private schools, 122 males and 498 females.

(b) Includes occupation centres, schools at institutions and schools for Aborigines.

**Pupils**

Enrolments in recent years, classified by State and private schools and by age of the pupil are given in the following tables.

**Primary and Secondary Pupils, South Australia  
At or about 1 August**

Age	At State Schools (a)			At Private Schools		
	1972	1973	1974	1972	1973	1974
5 . . . . .	16 323	17 295	18 020	2 439	2 652	2 990
6 . . . . .	19 336	18 904	19 884	2 684	2 465	2 614
7 . . . . .	19 806	19 075	19 027	2 785	2 680	2 601
8 . . . . .	20 173	19 771	19 666	2 770	2 838	2 718
9 . . . . .	20 583	20 237	19 918	3 073	2 918	2 894
10 . . . . .	20 892	20 625	20 536	3 083	3 055	3 022
11 . . . . .	21 233	20 972	20 905	3 182	3 263	3 242
12 . . . . .	20 601	21 109	20 558	3 431	3 573	3 495
13 . . . . .	20 451	20 809	20 842	3 342	3 506	3 709
14 . . . . .	19 692	20 106	20 649	3 382	3 248	3 503
15 . . . . .	16 364	16 115	16 594	3 082	3 071	3 308
16 . . . . .	11 022	10 883	10 451	2 518	2 696	2 685
17 . . . . .	4 428	4 424	4 176	1 347	1 405	1 469
18 . . . . .	1 176	1 093	949	262	303	325
19 . . . . .	273	236	204	54	46	34
20 . . . . .	69	46	40	13	5	6
21 and over . .	100	86	60	18	11	2
Total . . . . .	(b)232 812	231 786	232 479	37 465	37 735	38 617

(a) From 1974 excludes Northern Territory correspondence pupils; 317 in 1973.

(b) Includes 290 age not stated.



A division of enrolments in 1974 between primary and secondary levels is set out in the next table. This table illustrates the relatively greater involvement of private schools at the secondary level where they account for 17.2 per cent of enrolments compared with 12.6 per cent at the primary level.

**Primary and Secondary Pupils, South Australia  
At 1 August 1974**

Age	State			Private			Total Pupils
	Primary	Secondary	Total	Primary	Secondary	Total	
5 .. . . .	18 020	—	18 020	2 990	—	2 990	21 010
6 .. . . .	19 884	—	19 884	2 614	—	2 614	22 498
7 .. . . .	19 027	—	19 027	2 601	—	2 601	21 628
8 .. . . .	19 666	—	19 666	2 718	—	2 718	22 384
9 .. . . .	19 918	—	19 918	2 894	—	2 894	22 812
10 .. . . .	20 536	—	20 536	3 022	—	3 022	23 558
11 .. . . .	20 847	58	20 905	3 228	14	3 242	24 147
12 .. . . .	12 702	7 856	20 558	1 856	1 639	3 495	24 053
13 .. . . .	1 621	19 221	20 842	182	3 527	3 709	24 551
14 .. . . .	210	20 439	20 649	12	3 491	3 503	24 152
15 .. . . .	132	16 462	16 594	2	3 306	3 308	19 902
16 .. . . .	111	10 340	10 451	4	2 681	2 685	13 136
17 .. . . .	86	4 090	4 176	—	1 469	1 469	5 645
18 .. . . .	73	876	949	—	325	325	1 274
19 .. . . .	62	142	204	—	34	34	238
20 .. . . .	2	38	40	—	6	6	46
21 and over ..	4	56	60	—	2	2	62
Total.. . .	152 901	79 578	232 479	22 123	16 494	38 617	271 096

**PRIMARY EDUCATION**

Children normally begin their schooling at the age of five years when they enrol for primary education at either a State or private school. Primary education involves a seven year course.

**STATE SCHOOLS**

Metropolitan children attend primary schools while country children normally attend a primary, rural, area or special rural school, although those in remote areas may receive lessons by correspondence. The table which follows shows the numbers of schools and pupils in the primary division in recent years.

## State Primary Education, South Australia

At or about 1 August	Schools		Pupils Enrolled				Total
	Primary	Area (a)	Primary Schools	Area Schools (a)	Corres- pondence School (b)	Other (c)	
1970 . . . . .	475	51	144 647	9 976	650	1 649	156 922
1971 . . . . .	450	51	144 075	9 716	682	1 985	156 458
1972 . . . . .	433	50	142 795	9 411	654	2 026	154 886
1973 . . . . .	429	50	140 567	9 108	675	2 348	152 698
1974 . . . . .	426	49	141 009	9 010	480	2 402	152 901

(a) Includes also special rural schools. The figures for pupils enrolled include primary pupils only.

(b) From 1974 Northern Territory pupils are excluded; 272 at 1 August 1973.

(c) Includes Aboriginal schools, schools for handicapped children and schools at institutions.

### Primary

In the first two years of school the emphasis is on the child's active involvement in learning. The curriculum is designed to extend children's experience of their environment, through social studies, science and mathematics. It provides for the development of language skills, especially fluency in speech and reading, and creative activities in movement, music, art, drama and writing.

The primary school curricula provide a general framework for the study of English, mathematics, social studies, science, music, art and craft and physical education. An increasing provision is being made for the study of elective subjects, such as foreign languages, ballet and instrumental music.

Ancillary services and expert advice are provided for primary schools by the Supervisors of School Libraries, Physical Education, Music and Educational Technology and their staffs. There are also consultants in all the basic subjects who visit the schools and conduct in-service courses.

During 1974 there were 195 South Australian primary and infant schools with open space accommodation. Nearly 26 800 children were housed in these open space units, which are designed to provide an environment conducive to learning and teaching. More open units, and complete schools in open space, are being provided in the school building program.

### Area and Special Rural

These schools, situated in country centres, cater for both primary and secondary pupils. The primary course is similar to that of the primary schools but the secondary courses offered are restricted by the availability of staff.

### Correspondence

The Correspondence School was started in 1920 to cater for children unable to attend ordinary schools. Most of these children live in remote parts of South Australia although there are others who cannot attend school because of invalidity. Connected with the Correspondence School is the School of the Air

at Port Augusta which provides two-way radio communication between teacher and pupil to supplement the correspondence lessons. At 1 August 1974 there were 246 boys and 234 girls receiving primary instruction.

#### PRIVATE SCHOOLS

At 1 August 1974, 22 123 children were receiving primary education at private schools. The majority of these children were attending Catholic schools (see table on page 197).

##### **Catholic**

Many children receiving primary education in the Catholic school system attend parish schools while the remainder attend colleges run by religious orders—both types of school charge fees. Parish schools are the property of the parishes which are also responsible for equipping and maintaining them but religious orders provide staff. Elected school boards assist in the financial administration of these schools and determine the fees that will be charged as well as concessions for parents in necessitous circumstances.

##### **Other**

The Church of England, the Lutheran Church and the Seventh Day Adventist Church conduct primary schools. Primary education is provided together with secondary education at primary/secondary schools conducted by the Church of England, the Methodist Church, and the Presbyterian Church, and at three non-denominational schools.

#### SCHOOLS FOR HANDICAPPED CHILDREN

The Education Department, through the Guidance and Special Education Branch, makes provision for children with intellectual and physical disabilities. The Guidance and Special Education Branch provides supporting services to schools and parents with slow-learning or problem children, many of whom are helped in special small or opportunity or remedial classes in primary or secondary schools. There are sixteen special schools in metropolitan and country areas which cater for mentally retarded children between the ages of five and twenty years. These schools include those conducted at Minda Home and the Strathmont Training Centre.

Other special schools cater for children with visual, hearing and physical handicaps (including cerebral palsy), there are special classes for children with speech and hearing defects, and there are schools within the institutions of the Department for Community Welfare. A number of private agencies also provide educational facilities for handicapped children.

#### SECONDARY EDUCATION

Children who have completed their primary schooling are required by law to attend a secondary school, either State or private, until their fifteenth birthday.

##### STATE SCHOOLS

The South Australian Education Department's policy is to provide comprehensive co-educational high schools which, consistent with their size and enrolment, offer the widest range of courses possible in an endeavour to meet the interests of the students.

Metropolitan pupils are required to attend schools within the zone in which they reside. The few schools that are not co-educational as well as Urrbrae Agricultural and Glenunga High Schools are unzoned at present. In the country, secondary education is provided by high schools in the larger towns, and by either high, area or special rural schools in many of the smaller centres. Certain pupils may use the facilities of the Correspondence School.

All new schools built in recent years, and some existing schools, have been provided with gymnasiums and music and drama areas. The upgrading of schools and the provision of open-plan units in existing schools is continuing.

### State Secondary Schools, South Australia

At or about 1 August	High and Technical High (a)		Area (b)		Correspondence Pupils Enrolled (c)	Other Pupils Enrolled (d)
	Number of Schools	Number of Pupils Enrolled	Number of Schools	Number of Pupils Enrolled		
1970	96	66 761	51	4 915	124	66
1971	97	69 837	51	4 904	141	100
1972	98	72 519	50	5 139	168	100
1973	102	73 619	50	5 116	224	129
1974	103	74 291	49	5 013	157	117

(a) Technical High Schools ceased to operate separately from High Schools by the end of 1974.

(b) Includes also special rural schools.

(c) Full correspondence pupils only. Excludes Northern Territory pupils from 1974 (forty-five at 1 August 1974).

(d) Pupils receiving secondary education at primary schools, in Aboriginal schools and in institutions.

### Changes and Developments

Secondary schools have common aims and a large area of common studies. At the same time schools have become more flexible offering a variety of syllabuses that allow for differences in the aspirations and abilities of individual students.

A system of tracks from 0 to 4, employed previously by many schools to indicate the purpose of the various syllabuses, is gradually being displaced. In most subjects, attempts have been made to formulate courses of study which have a core for all pupils and various extension or enrichment courses to suit the pupils' varying needs and abilities. Integrated courses of studies are now being developed in some schools. In the humanities, for example, the branches of history, geography and social studies have been combined. These courses are integrated in a meaningful manner to cater for the needs of individual schools. Girls and boys have equal access to all courses of study offered in high schools. Health education and religious education courses have been devised and are being tested in a number of schools. In 1974 a co-ordinating curriculum committee was set up to co-ordinate the primary and secondary curriculum development.

Flexible and varying methods of teaching and learning are freely employed. Student representative councils are to be found in many schools and all have school councils which assist in their administration.

## Secondary Schools

The breadth of courses sought during the first three years of secondary schooling (the Junior Secondary Curriculum) is believed to be best achieved by offering pupils as wide a selection of subjects as is compatible with their abilities and interests. For convenience and guidance the subjects are divided into two basic groups. The first, a core group of subjects, consists of English, social studies, mathematics, science, art or craft, and physical education, to which is added a selection of two, three or four subjects from a second group called electives. Subjects in this group include such disciplines as foreign languages, further mathematics, science and craft, art, agriculture (in country area schools and high schools), history and/or geography, and music. The number of electives taken will depend upon the facilities available, the ability of the pupil and his vocational interests.

Opportunities are also given for general experience in some of the elective group of subjects. Instruction referred to as general experience is below the norm in time for that regarded as a full subject, but is sufficient to stimulate and awaken latent interest. General experience subjects may include foreign languages at a conversational level, art, further craft, physical education, music, agriculture, consumer education, shorthand, typewriting, road safety and drama.

The junior secondary levels are regarded as exploratory and aim to provide the pupil with as wide a range of interests and educational experience as possible before he commits himself to a particular course of study at the senior level.

## Area Schools

Area schools are provided in certain country districts not served by high schools; they cater for both primary and secondary pupils and are co-educational. The range of subjects offered is more restricted than that available to larger secondary schools but all pupils have the opportunity to study core secondary syllabuses to Year 11 in their own district. Year 12 classes were established in six schools in 1974. English, social studies, mathematics, science, art or craft, and physical education, form a core to which may be added further mathematics, science or craft, history and/or geography. A foreign language is available in a few schools. The curriculum in many area schools is further broadened by general experience subjects.

## Special Rural Schools

These schools were first established in remote country areas in 1966 with the intention of supplying a limited secondary education in areas where it had been shown that there was an obvious need for secondary education but where the establishment of an area school was not warranted. Courses in these schools are restricted to the core subjects, English, social studies, mathematics, science—sometimes craft where facilities are available, and geography and/or history. Instruction does not proceed beyond Year 10 level.

## Correspondence School

Children who are unable to attend a secondary school may receive secondary education through the Correspondence School. Lessons are forwarded to cover eighteen academic subjects (all to Year 11 standard), and also certain drawing

subjects. Assistance may take the form of full correspondence or supplementary courses. Supplementary courses are conducted through a primary school head teacher who may, in the case of remoteness from secondary school facilities, conduct grades beyond Year 7. Courses are also supplied to students in smaller secondary schools who wish to do a specific subject which is not available because of staffing problems.

At 1 August 1974, 225 students were receiving secondary education through full correspondence courses; of these forty-five were living in the Northern Territory. Students who wish to do matriculation studies (Year 12) are enrolled through the South Australian College of External Studies.

### **The Curriculum**

The aim of all secondary schools is to provide courses of study that best suit the needs of individual pupils. An extension of individualised learning has resulted in schools offering as wide a range of subjects and syllabuses as possible.

Secondary school subject curriculum committees, which are comprised of representatives of a wide spectrum of interests associated with education, meet regularly to discuss courses of study and to establish new syllabuses for secondary students. Although syllabuses are distributed to all teachers, they are in no way prescriptive. They are adapted to cater for the needs and abilities of pupils.

The Secondary Advisory Curriculum Board has arranged for nominations from Independent and Catholic Schools for representation on subject curriculum committees and these committees are now officially representative of all schools.

### **PRIVATE SCHOOLS**

Secondary education is also provided by private schools; these schools, for the most part, are identified with various religious denominations. Private secondary schools usually charge fees; however, a limited number of internal scholarships are available and pupils may qualify for Australian Government Secondary Scholarships. In addition to normal day attendance many private schools offer boarding facilities for country pupils. Private schools provide academic courses preparing pupils for the PEB examination at the Year 12 level. Church schools give religious as well as secular education.

### **Catholic**

The Catholic school system provides secondary education at boarding and day colleges in metropolitan and country areas. There are no technical secondary schools, but both general and commercial courses are available to pupils for the Matriculation (Year 12) examination. Generally, Catholic secondary schools are the property of the religious communities who conduct them and are supported by the fees charged.

### **Other**

The Lutheran Church and the Seventh Day Adventist Church conduct secondary schools. Secondary education is provided also at primary/secondary schools (see page 193).

Training in typing and shorthand is provided at privately owned business colleges which specialise in this field. A number of these colleges also prepare pupils in certain Public Examinations Board subjects.

**Summary**

The following tables give details of all private schools and cover both primary and secondary education. Additional information is shown in the tables on pages 190-1.

**Private Schools, South Australia<sup>(a)</sup>**

Year	Number of Schools	Number of Teachers (b)	Pupils on Roll at or about 1 August				Total
			Primary		Secondary		
			Males	Females	Males	Females	
1970 .. . . .	170	1 604	11 016	11 448	7 408	7 234	37 106
1971 .. . . .	169	1 682	11 029	11 640	7 586	7 432	37 687
1972 .. . . .	163	1 722	10 870	11 362	7 557	7 676	37 465
1973 .. . . .	163	1 777	10 736	11 193	7 846	7 960	37 735
1974 .. . . .	157	1 819	10 896	11 227	8 123	8 371	38 617

(a) Excluding business colleges.

(b) Full-time teachers plus the full-time equivalent of part-time teachers.

In the next table private school pupils are classified according to the denominational affiliation of the school they attended. The predominant contribution of Catholic schools is clearly evident from the table. In 1974 Catholic schools accounted for 84 per cent of primary pupils and 55 per cent of secondary pupils attending private schools.

**Pupils at Private Schools, South Australia  
At or about 1 August**

Denomination of School	1970	1971	1972	1973	1974
<b>Primary:</b>					
Catholic .. . . .	18 108	18 191	17 815	17 571	17 686
Church of England .. . . .	1 490	1 517	1 438	1 360	1 367
Lutheran .. . . .	1 076	1 078	1 117	1 209	1 299
Methodist and Presbyterian (a) .. . . .	1 155	1 174	1 133	1 134	1 027
Seventh Day Adventist .. . . .	132	137	141	146	172
Udenominational .. . . .	503	572	588	509	572
<b>Total primary .. . . .</b>	<b>22 464</b>	<b>22 669</b>	<b>22 232</b>	<b>21 929</b>	<b>22 123</b>
<b>Secondary:</b>					
Catholic .. . . .	7 558	7 957	8 265	8 720	9 117
Church of England .. . . .	2 447	2 435	2 306	2 281	2 271
Lutheran .. . . .	727	778	808	880	971
Methodist and Presbyterian (a) .. . . .	3 064	3 034	3 017	3 053	2 825
Seventh Day Adventist .. . . .	36	30	51	79	116
Udenominational .. . . .	810	784	786	793	1 194
<b>Total secondary .. . . .</b>	<b>14 642</b>	<b>15 018</b>	<b>15 233</b>	<b>15 806</b>	<b>16 494</b>

(a) Includes Baptist and Congregational to 1973.

**EXAMINATIONS AND SCHOLARSHIPS****Examinations**

In addition to internal examinations conducted by the schools the Public Examinations Board (PEB) conducts a further examination at the completion of the fifth year of secondary education. Before 1966 this examination had been known as the Leaving Honours examination and while considered a desirable fore-runner to university study had not been compulsory for entrance to the University of Adelaide (matriculation being based on the Leaving examination). Commencing with 1966 this examination became the Matriculation examination.

Before 1966 the PEB had given a certificate for a pass in the required number of subjects at either the Intermediate or Leaving examinations and for a pass in one or more subjects in the Leaving Honours examination. From 1966 the Board has issued to each Intermediate, Leaving and Matriculation examinee a certificate showing the grade achieved in each of the subjects in which examined. The last PEB Intermediate examination was held in 1968 and the last Leaving examination in 1974. The total number of candidates for examination by the Board in one or more subjects in 1974 were Leaving, 14 850 and Matriculation, 9 834.

**Primary and Secondary Education Assistance**

The Australian Government, the State Government and various private benefactors provide assistance to various categories of primary and secondary pupils.

*South Australian Government*

On the completion of primary schooling, secondary pupils, whether at State or private schools, are entitled to a book and materials allowance of \$30 a year for the first four years, and \$32 for Year 12 respectively. Pupils who have to travel considerable distances to the nearest school, or school bus, may also receive travelling expenses.

A Book Loan Scheme designed to reduce the financial burden on parents has now been established in all secondary schools. Under this scheme the Book and Material Allowance is retained by the school and in return pupils are supplied with textbooks and class sets on loan. The allowance also covers the cost of certain materials. Parents are still asked to pay something towards the cost of amenities and additional materials, and in many schools this is covered by a standard fee.

If forced to live away from home, assistance under the Isolated Children's Scheme is provided by the Australian Government (*see* page 199). This scheme has replaced the South Australian Government boarding allowances and rural scholarships except in a few special cases not covered by the Isolated Children's Allowance.



*Australian Government*

Australian Government Secondary Scholarships were first introduced in 1965 to cover the last two years of secondary education. In 1973 this form of assistance to pupils in secondary grades was altered and the number of awards increased.

Each year approximately 2 500 Senior Secondary Scholarships are offered in South Australia. These scholarships are awarded on the results of the Australian Government Secondary Scholarships Examination prepared by the Australian Council for Educational Research (ACER), combined with an assessment of academic merit provided by schools. Pupils may sit for this examination in July of the third year of their secondary education. The scholarships, which are tenable at any approved government or private school, provide for a basic allowance of \$150 each year free of means test. An additional allowance of up to \$250 is payable each year subject to a means test on family income.

In 1973 assistance for the education of isolated children was introduced under the Isolated Children's Scheme. This scheme assists those pupils who, because of the geographic isolation of their homes, do not have reasonable access to a government school offering courses at the appropriate level. Benefits are provided either as a boarding allowance or as an allowance for correspondence studies. Where an eligible pupil lives away from home in order to attend a school the following allowances may be paid to his parents as a contribution towards the pupil's boarding costs:

- (1) a basic allowance of \$350 a year free of means test;
- (2) an additional allowance of up to a further \$350 a year subject to a means test on family income and to boarding costs actually incurred.

In cases of particular hardship additional assistance up to a maximum amount of \$450 a year may be paid to parents eligible on the means test for the maximum additional allowance.

Where an eligible pupil does not board away from home to attend school but lives at home and undertakes studies through a State Education Department correspondence school, an allowance of up to \$350 a year free of means test may be provided. This comprises a basic annual payment of \$200 and an additional payment of up to \$150 a year in respect of expenditure actually incurred for approved purposes.

In 1974, a new scheme, the Secondary Allowances Scheme, was introduced. The aim of this scheme is to assist families with a limited income to maintain their children at school for the final two years of secondary education. Under the scheme an allowance of up to \$450 a year is paid subject to a means test.

The Australian Government also provides financial assistance for the education of pupils of Aboriginal or Torres Strait Island descent who attend approved schools. This assistance is provided under the Aboriginal Secondary Grants Scheme. The grants are open to full-time pupils under the age of twenty-one who attend an approved secondary school. Grants also may be made available to full-time pupils who attend an approved primary school provided the pupil is fourteen years of age but under twenty-one years. Benefits under this scheme comprise textbook and uniform allowance, living allowance, personal

allowance, and fees. Pupils who must live away from their normal place of residence in order to attend school are eligible for a boarding allowance in lieu of living allowance, and for up to three return journeys to their home each year.

### Tertiary Education Assistance

In 1974 the Australian Government abolished tuition fees at universities, colleges of advanced education, and technical colleges and at the same time revised its schemes of assistance to tertiary students.

The Tertiary Education Assistance Scheme is intended to assist students in approved courses at universities, colleges of advanced education, technical colleges and certain other approved tertiary institutions. Assistance includes payment of a means tested living allowance of up to \$1 000 a year for students living at home and up to \$1 600 a year for independent students and students eligible to receive living allowance at the away from home rate. Eligible students also receive an incidentals allowance.

Commonwealth Teaching Service Scholarships are available for certain courses which lead to a professional teaching qualification for people wishing to enter the Commonwealth Teaching Service. Awards under the Pre-School Teacher Education Assistance Scheme are available to students in approved pre-school teacher education courses. The living allowance paid under these schemes is the maximum rate payable under the Tertiary Education Assistance Scheme but is not subject to a means test.

Aboriginal Study Grants are available for students of Aboriginal and Torres Strait Island descent who wish to study further after leaving school. Benefits include a living allowance and a textbook and equipment allowance.

Awards are also available for postgraduate study either in research or in course work. Assistance is by means of tax free allowances paid to award holders and an annual grant-in-aid to institutions. The allowances payable to award holders consist of a living allowance, an incidentals allowance and in certain circumstances special allowances in respect of dependants, cost of travel, cost in setting up residence, and a contribution to costs associated with the production of a thesis. The living allowance is \$3 520 a year.

### Students Receiving Australian Government Student Assistance, South Australia, at 30 June 1974

Scheme	No. of Students
Senior Secondary Scholarship (a) . . . . .	4 670
Assistance for Isolated Children . . . . .	492
Secondary Allowances . . . . .	740
Aboriginal Secondary Grants. . . . .	692
Tertiary Education Assistance . . . . .	6 548
Commonwealth Teaching Service Scholarships. . . . .	74
Pre-School Teacher Education . . . . .	238
Postgraduate Awards. . . . .	239

(a) No further awards are being offered.

## TERTIARY EDUCATION

## THE UNIVERSITY OF ADELAIDE

The University of Adelaide was established in 1874 by Act of Parliament passed by the South Australian Parliament. The academic work of the University began in March 1876, with four professors, three part-time lecturers, a registrar-librarian, and eight matriculated and fifty-two non-graduating students attending classes in arts and science subjects. Within a decade, law, music and medicine were added; in 1888 studies in engineering were instituted in collaboration with the South Australian School of Mines and Industries; and at the turn of the century the University broke new ground for Australian universities by founding a conservatorium of music and by instituting studies in commercial subjects. Between the two wars the Waite Agricultural Research Institute and faculties of dentistry and economics were established, studies in agricultural science and engineering greatly developed, and diploma courses in pharmacy, public administration and physical education instituted.

The original full-time academic staff of four in 1876 had grown by June 1974 to 68 professors, 84 readers, 208 senior lecturers, 160 lecturers, and 126 tutors and demonstrators. Teaching by part-time staff amounted in 1974 to 57 000 hours. Part-time staff were mainly engaged in large first-year science classes involving laboratory work and in the faculties of engineering, law, medicine and dentistry.

The governing body of the University of Adelaide is the Council, comprising the Chancellor and the Vice-Chancellor (*ex officio*), twenty-two members elected by a Convocation of Electors, four members elected by the undergraduates and five members appointed by Parliament. The principal advisory committees of the Council are the Education Committee and the Finance Committee each of which is appointed by the Council. There is also the usual university structure of faculties, boards of studies and special committees to advise on particular aspects of the University's work.

In 1975 the University has twelve faculties: arts (11 departments); economics (2); science (11); agricultural science (6); engineering (4); medicine (7); law; mathematical sciences (5); music; dentistry (4); architecture and town planning; and technology and applied science. Higher degrees are provided in all faculties except technology and post-graduate diploma courses are provided in applied psychology, computing science and education.

Intending students are normally required to have passed the Matriculation examination at a prescribed overall standard. Interstate and overseas students, however, may be accepted on alternative qualifications.

The period of study ranges from three years for certain degree and diploma courses to six years for medicine. As from 1974 all tuition fees and associated charges for degree and diploma courses were abolished. However, fees are still payable in respect of courses in the Adult Education Department and for studies in the Elder Conservatorium of Music which do not form part of a degree

course. All students are still required to pay a Union Fee, *i.e.* an entrance fee of \$20 and an annual fee of \$87 for full-time students and \$43.50 for part-time and post-graduate students.

Details of student enrolments are given in the next two tables.

**The University of Adelaide, Enrolments<sup>(a)</sup>**

Course	1970	1971	1972	1973	1974
Higher degree candidates (b) . . . .	852	966	996	997	1 101
Undergraduate, diploma, certificate and miscellaneous students:					
Agricultural science . . . . .	195	202	194	196	212
Applied science . . . . .	150	100	47	23	10
Architecture . . . . .	186	180	166	165	172
Arts . . . . .	2 565	2 672	2 787	2 678	2 816
Dentistry . . . . .	182	206	235	281	301
Economics . . . . .	498	545	544	630	655
Engineering . . . . .	561	610	625	623	605
Law . . . . .	382	450	477	558	566
Mathematical sciences . . . . .	—	—	—	234	262
Medicine . . . . .	571	593	617	725	723
Music . . . . .	97	103	125	134	159
Pharmacy (degree) . . . . .	89	47	17	5	2
Science . . . . .	1 382	1 495	1 500	1 296	1 331
Technology . . . . .	347	225	111	55	29
Physical education . . . . .	61	23	6	—	—
Physiotherapy . . . . .	57	32	11	—	—
Social Studies . . . . .	2	—	—	—	—
Miscellaneous (SAIT) (c) . . . . .	91	81	103	100	96
Elder Conservatorium (d) . . . . .	296	207	210	205	210
Visiting students (e) . . . . .	—	—	18	31	51
Total . . . . .	8 564	8 737	8 789	8 936	9 301

(a) Each student is counted once only; in the category appropriate to his principal course.

(b) Includes Master's qualifying candidates.

(c) Students enrolled in subjects as part of a diploma course at the South Australian Institute of Technology.

(d) Students not also enrolled for degree or diploma subjects.

(e) Students enrolled at another university, who may subsequently qualify for a degree of that other university, but who are undertaking part of their degree work at the University of Adelaide.

During the last decade significant changes have occurred in the composition of the student body. The proportion of full-time students has steadily risen, and the proportion taking part-time studies has steadily declined. The most significant change, however, has been in the numbers of students proceeding to honours and higher degrees and post-graduate diplomas; here the rate of growth is considerably more than that of undergraduate enrolments.

The University of Adelaide, Enrolments, 1974<sup>(a)</sup>

Course	New Students (b)	All Students				Total
		Full-time	Part-time	External	Staff	
Higher degree candidates . . . .	246	571	280	117	102	1 070
Master's qualifying candidates .	18	2	29	—	—	31
Undergraduate, diploma and miscellaneous students:						
Agricultural science . . . . .	77	178	34	—	—	212
Applied science . . . . .	—	1	8	1	—	10
Architecture . . . . .	45	156	16	—	—	172
Arts . . . . .	989	1 506	1 229	81	—	2 816
Dentistry . . . . .	71	262	39	—	—	301
Economics . . . . .	217	368	287	—	—	655
Engineering . . . . .	178	532	73	—	—	605
Law . . . . .	156	509	57	—	—	566
Mathematical sciences . . . . .	85	190	72	—	—	262
Medicine . . . . .	124	703	20	—	—	723
Music . . . . .	57	141	18	—	—	159
Pharmacy . . . . .	—	2	—	—	—	2
Science . . . . .	456	1 069	261	1	—	1 331
Technology . . . . .	—	6	23	—	—	29
Misc. (SAIT) (c) . . . . .	54	—	96	—	—	96
Elder Conservatorium (d) . . . . .	70	—	210	—	—	210
Visiting students (e) . . . . .	44	4	47	—	—	51
<b>Total . . . . .</b>	<b>2 887</b>	<b>6 200</b>	<b>2 799</b>	<b>200</b>	<b>102</b>	<b>9 301</b>

- (a) Each student is counted once only; in the category appropriate to his principal course.
- (b) Figures for undergraduate courses include students who have transferred from another undergraduate course either in this or another university, or who are commencing a second course.
- (c) Students enrolled in subjects as part of a diploma course at the South Australian Institute of Technology.
- (d) Students not also enrolled for degree or diploma subjects.
- (e) Students enrolled at another university, who may subsequently qualify for a degree of that other university, but who are undertaking part of their degree work at the University of Adelaide.

From its inception until the end of 1974 the University had conferred 24 625 degrees and 7 785 diplomas by examination. The growth of the University in recent years is indicated by the number of degrees and diplomas awarded in 1974 which totalled 1 859, compared with 1 031 in 1964.

**Waite Agricultural Research Institute**

The Waite Institute was established at Urrbrae in 1924, through the generous benefaction of Mr Peter Waite, and this was largely responsible for the strong development of Agricultural Science in the University.

In 1883 an Agricultural College was founded at Roseworthy, 50 kilometres north of Adelaide, and in 1905 it became affiliated with the University. Upon his death in 1922, Peter Waite endowed the University with the properties of Urrbrae,

Claremont, and Netherby (approximately 120 hectares) together with Urrbrae House and ancillary buildings together with a Trust Fund of \$120 000, and by 1924 the Waite Agricultural Research Institute was established.

Since its establishment, the Waite Institute has conducted research into a wide range of agricultural problems. The research program is today organised into six departments: agricultural biochemistry and soil science; agronomy; animal physiology; entomology; plant pathology; and plant physiology. Over the years, research projects have been carried out on the chemistry of soils, plant viruses, pasture management, ecological studies of insects, and numerous other subjects vital to the agricultural progress of the State and the nation.

The Mortlock Experimental Station of 275 hectares near Mintaro, north of Adelaide, was established in 1965 by the generosity of Mrs J. J. Mortlock. It provides more area for field experiments.

### **The Library**

The central library of the University is named the Barr Smith Library in honour of its original benefactor, Robert Barr Smith, and his son, Tom Elder Barr Smith. During his life Robert Barr Smith provided funds for the purchase of books and members of his family gave the University a substantial donation in 1920 in his memory. Tom Elder Barr Smith provided the first part of the present building in 1930 at a cost of nearly \$70 000.

The central library includes the medical library. In addition there are branch libraries for law, music and the Waite Agricultural Research Institute. Borrowing facilities are available to staff, students and graduates.

Holdings at the end of 1974 were as follows: central library 651 000 volumes (including medical library 75 000); law library 41 000; music library 2 000 (and 13 000 pieces of music in sheets); and the Waite Agricultural Research Institute 31 000; making total holdings of 738 000 volumes. In addition, the Library held the equivalent of 53 000 volumes in microform.

During 1974 the Library made 248 000 loans to students, staff and graduates; 21 000 to other libraries in South Australia; and 7 000 to libraries in other States and countries. It received 5 000 loans from other libraries. Accessions totalled 41 000 volumes and the equivalent of 650 volumes in microform, while withdrawals numbered 1 000 volumes. Serials titles received exceeded 18 000. Expenditure on staff, books, serials and binding and for other library purposes amounted to \$1 427 000 or 6.4 per cent of total university revenue expenditure.

### **Elder Conservatorium of Music**

Adelaide was the first University in Australia to establish a Chair of Music (1884) and a Conservatorium of Music (1897). In addition to full degree courses in practical studies, musicology and composition, the University School of Music provides instruction in the various branches of musical performance for part-time students.

Concert experience for students is provided through regular informal concerts internal to the Conservatorium and by occasional public concerts. The University Music Society, each year, arranges a series of night concerts by members of the staff, who also provide a series of Sunday afternoon public concerts and recitals during the winter months.

In 1974 there were 159 students proceeding to the degree of Bachelor of Music and 210 students taking single subject practical studies.

**Finance**

Details of income and expenditure for the period 1970 to 1973 are shown in the following table.

**The University of Adelaide, Finance<sup>(a)</sup>**

Particulars	1970	1971	1972	1973
	\$'000			
<b>Income for capital purposes:</b>				
Australian Government . . . . .	1 346	1 305	481	898
State Government . . . . .	1 346	1 305	481	898
<b>Income for other purposes:</b>				
Australian Government . . . . .	5 322	5 676	6 208	6 842
State Government . . . . .	5 924	6 612	7 020	9 661
Student fees . . . . .	1 689	1 837	2 226	2 376
Other . . . . .	1 730	1 944	1 138	1 138
<b>Total income . . . . .</b>	<b>17 357</b>	<b>18 679</b>	<b>17 554</b>	<b>21 813</b>
<b>Expenditure:</b>				
Teaching and research . . . . .	11 506	11 710	12 673	12 315
Administration . . . . .	1 098	1 221	1 636	2 164
Libraries . . . . .	782	853	1 008	1 179
Buildings, premises, grounds . . . . .	3 714	3 972	2 558	3 899
Other . . . . .	480	539	981	864
<b>Total expenditure . . . . .</b>	<b>17 580</b>	<b>18 296</b>	<b>18 856</b>	<b>20 421</b>

(a) Includes Waite Agricultural Research Institute.

**Residential Colleges**

The residential colleges are independent bodies affiliated with the University. Three of the four colleges for undergraduates were founded by churches, but impose no denominational restrictions on admission; the fourth undergraduate college and the college for postgraduate students have no denominational affiliation. All are situated in North Adelaide within easy walking distance of the University. Their names, church affiliations, years of founding and residential capacities are:

St Mark's . . . . .	Church of England . . . . .	1925	146 students, 11 tutors;
St Ann's . . . . .	Non-denominational . . . . .	1947	121 students, 8 tutors;
Aquinas . . . . .	Catholic . . . . .	1948	95 students, 12 tutors;
Lincoln . . . . .	Methodist . . . . .	1952	160 students, 15 tutors;
Kathleen Lumley . . . . .	Non-denominational (postgraduate) . . . . .	1968	70 students.

St Mark's confines its membership to men; in 1973 St Ann's and Lincoln and in 1974 Aquinas made their facilities available to both men and women. Kathleen Lumley has been co-residential since its foundation.

#### **Department of Adult Education**

This department offers a range of courses for members of the general public (see page 222).

#### **Other Special Features**

Unusual features of the University's work include its extensive research into the linguistics, myths, legends and musicology of the Aborigines; teaching and research in Computing Science ranging from first year undergraduate level to the Doctorate of Philosophy; the Mawson Institute for Antarctic Research (which also takes postgraduate students); upper atmosphere research by balloon and rocket; mineral exploration; and arid zone studies.

### **THE FLINDERS UNIVERSITY OF SOUTH AUSTRALIA**

During 1958 when the University of Adelaide began to plan two major new buildings on its existing 13 hectare site it became apparent that further expansion would have to take place elsewhere.

Early in 1961 the South Australian Government indicated that it would make available to the University of Adelaide an area at Bedford Park, of some 150 hectares, situated about eleven kilometres from the centre of Adelaide in the foothills of the Mount Lofty Ranges. Consequently the University of Adelaide made a submission for financial support to the Australian Universities Commission in 1962, which gave approval for the planning of Bedford Park. The institution became known as 'The University of Adelaide at Bedford Park'. Towards the end of 1965 the South Australian Government decided to make the University of Adelaide at Bedford Park a fully autonomous university under the name 'The Flinders University of South Australia', after the great explorer and hydrographer, Matthew Flinders. A more detailed history of the Flinders University was included on pages 163-8 of the *South Australian Year Book 1967*.

The Flinders University of South Australia Act came into force on 1 July 1966. The Act places the whole management of the University in the hands of a council with powers to make statutes and regulations subject to the approval of Convocation which comprises the graduates of the University, graduates of other universities who have been awarded a diploma of the University and full-time members of the staff. The Council comprises thirty-one members: the Chancellor; the Vice-Chancellor; the President of the Students Representative Council; five members of the Parliament of South Australia; three members appointed by the Governor; eight members of the academic staff elected by the academic staff; one member of the ancillary staff elected by the ancillary staff; four persons elected by Convocation; one postgraduate student elected by the postgraduate students; three undergraduate students elected by the undergraduate students; and not more than three other members co-opted by the Council.



The first academic year of the University began in 1966, with enrolments of 382 first-year undergraduates and thirty-five graduate students. Details of enrolments for the years 1971 to 1974 are shown in the following tables.

### The Flinders University of South Australia, Enrolments

Course	1971	1972	1973	1974
<b>Bachelors degrees:</b>				
Arts . . . . .	878	1 035	1 251	1 447
Science (a) . . . . .	640	679	548	508
Economics . . . . .	181	220	233	273
Education . . . . .	140	168	240	265
Medicine . . . . .	—	—	—	64
<b>Postgraduate diplomas:</b>				
Social administration . . . . .	43	61	69	120
Education . . . . .	81	90	120	141
Higher degree (including master's qualifying)	155	227	256	287
Miscellaneous . . . . .	27	30	49	68
Other . . . . .	—	35	—	—
<b>Total . . . . .</b>	<b>2 145</b>	<b>2 545</b>	<b>2 766</b>	<b>3 173</b>

(a) Includes the following numbers of medical students who intended to transfer to the University of Adelaide at the end of their first year: 1971, 129; and 1972, 135. The Flinders University medical school commenced in 1974.

### The Flinders University of South Australia: Enrolments, 1974

Course	Commencing Students	All Students		
		Full-time	Part-time	Total
Arts . . . . .	652	1 132	315	1 447
Science . . . . .	153	445	63	508
Economics . . . . .	126	190	83	273
Education . . . . .	98	211	54	265
Medicine . . . . .	64	64	—	64
Higher degrees . . . . .	76	135	115	250
Master's qualifying . . . . .	17	7	30	37
Postgraduate diplomas . . . . .	216	236	25	261
Miscellaneous . . . . .	60	5	63	68
Other . . . . .	—	—	—	—
<b>Total . . . . .</b>	<b>1 462</b>	<b>2 425</b>	<b>748</b>	<b>3 173</b>

### Academic Organisation

The academic organisation of the University is based on 'schools' instead of faculties or departments. The school is the basic academic and administrative unit and one of the professors of each school is appointed to act as the chairman of the school.

At present there are seven schools: the Schools of Humanities; Social Sciences; Mathematical Sciences; Physical Sciences; Biological Sciences; Medicine; and Earth Sciences. The School of Biological Sciences is an integrated one; there are no divisions into the traditional disciplines of botany, zoology, micro-biology, etc., the emphasis being on the manner in which the teaching and research are organised, *e.g.* cellular biology, molecular biology. The remaining schools have a total of twenty-four disciplines established within them.

The establishment of full-time staff of the University at 1 January 1975 is shown in the following table.

**The Flinders University of South Australia,  
Full-time Staff Establishment, 1975**

<b>Schools:</b>	
Academic (teaching and research) . . . . .	310
Technical . . . . .	143
Clerical . . . . .	77
<b>Library:</b>	
Professional . . . . .	25
Other . . . . .	43
<b>Registry:</b>	
Senior administrative . . . . .	34
Clerical . . . . .	65
Caretaking, grounds and maintenance . . . . .	63
<b>Student services:</b>	
Professional . . . . .	6
Other . . . . .	4
<b>Total</b> . . . . .	770

### The Library

The acquisition of books for the library commenced in 1963 when the first library staff were appointed. By the time teaching began in 1966 a collection of some 60 000 volumes had been assembled. At the end of 1974 the collection totalled 290 000 volumes and approximately 30 000 volumes are being added each year; 6 900 periodicals are currently received. Emphasis is placed on the acquisition of material to support the current teaching and research programs of the University. Loans to staff and students during 1974 totalled more than 110 000.

### Admission to the University

Normally students must have qualified for matriculation by passing the Matriculation Examination of the Public Examinations Board in a prescribed manner, and must be selected by the University. Flinders University, the University of Adelaide and the South Australian Institute of Technology have established an Admissions Office for Higher Education to which all students wishing to enter any of these institutions must apply for admission. Selection for admission is based, as far as practicable, on academic merit.

### **Degrees Offered**

The University offers the following degrees; Bachelor of Arts, Bachelor of Economics, Bachelor of Education, Bachelor of Medicine and Bachelor of Surgery, Bachelor of Science, Bachelor of Social Administration, Bachelor of Special Education, Master of Arts, Master of Arts (Drama), Master of Economics, Master of Education, Master of Psychology, Master of Social Administration, Master of Science, Doctor of Philosophy, Doctor of Letters and Doctor of Science. In addition there are postgraduate diplomas in Social Sciences and Education.

### **The Flinders Institute of Atmospheric and Marine Sciences**

In November 1972, the Council approved the establishment of the Flinders Institute for Atmospheric and Marine Sciences. The Institute succeeded the Horace Lamb Centre for Oceanographical Research and furthers the University's interests in physical and environmental aspects of the air and the sea.

As an association of members with related research interests, the Institute is able to undertake a relatively wide variety of investigations, the locations of which, range from Antarctica to Lake Eyre, dealing with both theoretical and experimental aspects of pure and applied problems. Much of this work is supported by the Australian Research Grants Committee, the University's own research budget and the US National Science Foundation.

The Institute also ensures that the University's academic and technological capabilities in atmospheric and marine sciences are made known to such government instrumentalities and private sectors of industry as may make use of them to the mutual benefit of both the outside group and the University. The Institute co-ordinates contract and consulting work in many areas of the environmental and earth sciences and plays an active role in introducing senior undergraduate students and postgraduate research scholars to some of the scientific needs of the community. Tidal and specialised meteorological data libraries, instrumental facilities and field stations on the Coorong and Cape du Couedic as well as a series of publications are maintained.

### **Flinders University Institute of Solar and Electrochemical Energy Conversion**

An Institute of Solar and Electrochemical Energy Conversion has been formed at Flinders University with a membership extending through the disciplines of biology; chemistry; physics; geography and meteorology. The aim of the Institute is to explore alternative methods of energy production which are non-polluting and economically viable. The projects already under investigation fall into three main areas: fuel cell research; solar energy; and electric transportation studies.

### **Institute of Labour Studies**

An Institute of Labour Studies has been established in the School of Social Sciences with the purpose of encouraging graduate study, research and publication in the areas of industrial relations, labour economics, industrial psychology and sociology, and labour history.

The Institute is administered by a management committee comprising a director, research associates and persons outside the University. The research associates include members of staff of the School of Social Sciences who are active in labour studies and members of staff of some other tertiary institutions in Australia.

### University Hall

University Hall, the University's first hall of residence was completed early in 1971. During the academic year it provides accommodation for nearly 200 students, mostly in single furnished study bedrooms. In addition some double study bedrooms are provided together with flat accommodation. During University vacations the Hall is also available for accommodation and conferences organised by outside bodies.

### Finance

Details of income and expenditure for the period 1970 to 1973 are shown in the following table.

**The Flinders University of South Australia, Finance**

Particulars	1970	1971	1972	1973
Income for capital purposes:				
				\$'000
Australian Government . . . . .	842	884	501	1 416
State Government . . . . .	842	884	501	1 416
Income for other purposes:				
Australian Government . . . . .	1 524	1 886	2 271	3 027
State Government . . . . .	2 156	2 654	3 033	3 925
Student fees . . . . .	338	379	508	548
Other . . . . .	178	218	182	111
<b>Total income . . . . .</b>	<b>5 879</b>	<b>6 904</b>	<b>6 996</b>	<b>10 443</b>
Expenditure:				
Teaching and research . . . . .	2 869	3 534	3 945	4 998
Administration . . . . .	459	553	710	956
Libraries . . . . .	446	527	644	740
Buildings, premises, grounds . . . . .	1 845	2 305	1 485	3 495
Other . . . . .	60	189	154	269
<b>Total expenditure . . . . .</b>	<b>5 679</b>	<b>7 109</b>	<b>6 938</b>	<b>10 458</b>

### ADVANCED EDUCATION

The South Australian Board of Advanced Education was established under the South Australian Board of Advanced Education Act, 1972 to function as a co-ordinating body for Colleges of Advanced Education in South Australia.

The Board is responsible for the development of a balanced system of tertiary education (outside the universities) to meet the needs of South Australia for persons qualified in a wide range of vocations. The Board is the State accrediting

authority for awards in advanced education; it exercises financial supervision over the capital and recurrent budgets of the Colleges; and it is responsible for forward planning in advanced education in South Australia.

The Board is empowered to negotiate and co-operate with the Commission on Advanced Education, the Australian Council On Awards In Advanced Education and other national bodies concerned with tertiary education.

The Colleges are the Adelaide College of Advanced Education; Kingston College of Advanced Education; Murray Park College of Advanced Education; Roseworthy Agricultural College; Salisbury College of Advanced Education; South Australian Institute of Technology; Sturt College of Advanced Education; and Torrens College of Advanced Education.

It is State Government policy to develop the former teachers colleges as multi-purpose institutions; for example, journalism has been introduced at Murray Park College of Advanced Education and Torrens College of Advanced Education (incorporating the South Australian School of Art) provides courses in art and design.

In 1975 further diversification will be provided by courses such as nursing and speech therapy at Sturt College of Advanced Education and recreation at Salisbury College of Advanced Education.

Further details of College activities are listed below.

#### ADELAIDE COLLEGE OF ADVANCED EDUCATION

Adelaide Teachers College had its beginnings as a Training School, later called the Training College, which was established in 1876 with thirty students. The College first occupied its present site in Kintore Avenue, adjacent to the University of Adelaide, in 1927 and substantial development has taken place including construction of the multi-storey Schulz Building. The College gained autonomy and was renamed the Adelaide College of Advanced Education on 1 January 1973.

The College at present offers courses for pre-service training of secondary teachers in general, but also caters especially for commerce and physical education teachers and nurse educators. Post-graduate awards are offered in specialist areas for teachers holding a three-year diploma and in the professional area of teaching for university graduates.

#### KINGSTON COLLEGE OF ADVANCED EDUCATION

The Kindergarten Training College was established in 1907 under the auspices of the Kindergarten Union of South Australia. In 1967 the College changed its title to the Adelaide Kindergarten Teachers College. The reconstitution of the College as an autonomous College of Advanced Education was finalised when the Kingston College of Advanced Education Act was proclaimed on 6 June 1974.

The buildings on the present site in Childers Street, North Adelaide, were completed in 1972. Because of the limiting factor of the present site and the demand for trained pre-school teachers, Kingston College of Advanced Education

continues to specialise in courses for teachers in early childhood education. In addition to a three-year diploma course for the training of kindergarten teachers and conversion courses for experienced primary teachers holding a two-year diploma, graduates of Universities or other Colleges of Advanced Education are able to undertake a one-year professional course to qualify them for kindergarten teaching.

#### MURRAY PARK COLLEGE OF ADVANCED EDUCATION

Murray Park College of Advanced Education was formerly the Wattle Park Teachers College, established in 1957 as the second Teachers College in South Australia. The College was granted autonomy and renamed on 1 January 1973.

In 1968 the 13 hectare Murray Park property in Magill, about 8 kilometres east of the city, was purchased as a new site for the College. When the College was granted autonomy it took its name from this historic property.

In the field of teacher education Murray Park College of Advanced Education provides undergraduate and postgraduate courses for primary and early childhood teachers. A postgraduate course is also available for candidates holding an approved tertiary award who wish to qualify for primary teaching. In developing as a multi-discipline College, an undergraduate journalism course and a postgraduate music course are being conducted.

#### ROSEWORTHY AGRICULTURAL COLLEGE

Roseworthy Agricultural College is a College of Advanced Education located 50 kilometres north of Adelaide. Established in 1883, it is the oldest of Australia's agricultural colleges.

The College provides advanced education and training and conducts research in the theory, management and practice of primary production, in methods of agricultural marketing and in the industrial processes involved in the agricultural processing industries. In addition to normal classroom facilities the 1 200 hectare campus includes a dairy, modern winery, vineyards and orchard. About 500 hectares are cropped annually as part of the educational program for students. Residential accommodation is provided for students. A wide range of sporting facilities is available.

Studs are conducted for cattle (Jersey and Poll Shorthorn), sheep (Merino and Poll Dorset), and pigs (Berkshire and Large White). The College is involved in research and experimental work applicable to the area and in the production of pure seed of wheat and oat varieties suitable for South Australia. A major wheat and oat breeding program is also conducted.

The College currently offers three undergraduate and one postgraduate course: the Roseworthy Diploma in Agriculture (RDA), the Roseworthy Diploma in Oenology (RDO), the Diploma in Wine Production and Marketing, and the Roseworthy Diploma of Agricultural Technology (RDAT).

To be eligible for admission to the undergraduate courses, applicants normally must have completed full secondary schooling. Selection is based on performance in examinations at fifth-year level of secondary education in South Australia, or

equivalent, and on the assessed capacity of the applicant to complete the course. Provision is made for the admission of mature age students. RDAI applicants must have qualified for the RDA at an acceptable level.

At 30 June 1974 there were 165 students in residence at the College.

#### SALISBURY COLLEGE OF ADVANCED EDUCATION

The College, located on a 28 hectares site approximately 19 kilometres north of Adelaide, was established in 1968 as the Salisbury Teachers College. The College was granted autonomy and renamed Salisbury College of Advanced Education on 1 January 1973.

At the present time the College concentrates on teacher education with courses for primary and secondary teachers. Graduate diplomas in teaching are available to those who have satisfactorily completed a three-year teaching diploma.

Outside the field of teacher education Salisbury College of Advanced Education has introduced an associate diploma in recreation in 1975 for the preparation of persons to work in this developing area.

#### SOUTH AUSTRALIAN INSTITUTE OF TECHNOLOGY

The South Australian Institute of Technology, which adopted its present name in 1960, was established in 1889 as the South Australian School of Mines and Industries.

After its inception there was co-operation between the University of Adelaide and the School, and in 1903 joint engineering courses were established. An important development in the history of technical education came in 1957 with an agreement between these institutions whereby certain courses of study at the School would lead to the degree of Bachelor of Technology at the University. Other degree courses have subsequently been introduced. Current government policy aims at the independent development of Colleges of Advanced Education and the last degree students under the joint arrangement with the University of Adelaide were enrolled in 1969. The South Australian Institute of Technology Act was revised in 1972 and the Institute is now empowered to grant its own degrees. The first of these awards was made at the 1973 graduation ceremony.

The Institute maintains a close and harmonious relationship with the Education Department and the Department of Further Education, and since 1959 there has been a progressive transfer of control of certain activities. Classes up to and including Matriculation level and all trade classes were transferred to the control of the Education Department, as was the Adelaide Technical High School in September 1963.

The Department of Further Education is progressively taking over technician courses from the Institute and this has enabled the Institute to expand its work in the professional and more advanced semi-professional fields. However, some courses, not approved for awards in advanced education by the Australian Commission on Advanced Education, will continue to be offered. In addition to its campuses at North Terrace, City, and The Levels (approximately 13 kilometres north of the city), the Institute operates a centre at Whyalla teaching at both professional and semi-professional level.

The Institute is administered by a Council which has complete authority within the limits of the finance placed at its disposal and for which it is responsible annually to Parliament. The autonomy provided by this feature of control for many years made the Institute unique among Australian technical institutes, but in recent years, the interstate colleges have been granted autonomous government.

Details of income and expenditure for the period 1970 to 1973 are shown in the following table.

**South Australian Institute of Technology, Revenue and Expenditure**

Particulars	1970	1971	1972	1973
	\$'000			
Income for capital purposes:				
Australian Government . . . . .	1 599	2 131	865	1 469
State Government . . . . .	1 565	2 085	1 101	1 206
Other . . . . .	27	39	64	—
Income for other purposes:				
Australian Government (a) . . . . .	1 072	1 290	1 253	2 235
State Government (a) . . . . .	1 678	2 404	2 843	3 434
Fees from students . . . . .	787	812	948	922
Other . . . . .	37	63	54	65
Total income . . . . .	6 765	8 824	7 128	9 331
Expenditure:				
Capital (land, buildings, plant, furniture and equipment) . . . . .	3 334	3 825	2 452	2 235
Revenue . . . . .	3 735	4 574	5 315	6 509
Total expenditure . . . . .	7 069	8 399	7 767	8 744

(a) Includes amounts transferred to Capital Account for equipment and furnishings purchased: 1970, (33); 1971, (49); 1972, (42); 1973, (38).

A wide range of courses and subjects to various levels is offered; some courses lead to the award of a degree of the University of Adelaide (this arrangement will discontinue as students at present enrolled complete the course) or to a degree, a diploma or certificate of the Institute. Of the professional courses presented by the Institute, sixteen have been accredited, by the Australian Council On Awards In Advanced Education, for the award of Institute degrees and eight further courses which at present lead to Diploma in Technology awards, will progressively be submitted through the national accrediting machinery for acceptance as degree courses. The Institute presents one course which leads to a Master's award, and eight courses designed to provide graduate level training in a discipline for graduates of other disciplines which lead to the award of a Graduate Diploma. Diploma and certificate courses applicable to local needs are conducted at Whyalla.



**South Australian Institute of Technology, Students and Staff**

Particulars	1970	1971	1972	1973	1974
<b>Students:</b>					
Individual enrolments ..	6 755	6 103	5 732	5 714	5 558
Subject enrolments ..	17 307	17 215	16 631	17 084	18 262
Full-time teaching staff .. .	228	251	266	278	301
Part-time teaching staff .. .	598	600	643	608	693

In 1974, the Institute conducted over 630 classes. Of the 5 558 individuals enrolled in 1974, 3 917 were taking professional courses, and 1 641 certificate level courses.

The majority of students attending the Institute do so on a part-time basis. There were 1 800 full-time students in 1974.

**STURT COLLEGE OF ADVANCED EDUCATION**

Sturt College of Advanced Education was formerly Bedford Park Teachers College established in 1966 at the same time as The Flinders University of South Australia. The College was granted autonomy and renamed on 1 January 1973. The College occupied its present buildings in 1967. The site, of about 9 hectares, is located approximately 14 kilometres south of Adelaide and is adjacent to Flinders University.

The diploma of teaching is offered in the areas of infant, primary and secondary teaching. Infant and primary teachers may graduate as teachers after a three-year full time program but it is common for prospective secondary school teachers to complete a fourth year of study at the College before commencing work as secondary teachers.

In 1975 Sturt College of Advanced Education began the first diploma in nursing (Diploma of Applied Science (Nursing)) to be conducted in South Australia at tertiary education level. The three-year program will be conducted jointly with the new Flinders Medical Centre which is situated a few hundred metres from Sturt College.

A course for the training of speech therapists also commenced in 1975.

**TORRENS COLLEGE OF ADVANCED EDUCATION**

Torrens College of Advanced Education, established as an autonomous College of Advanced Education on 1 January 1973, incorporates the former Western Teachers College and the South Australian School of Art, both of which were responsible to the Education Department. The Western Teachers College, established in 1962, had developed from two annexes begun in 1959 to relieve pressure on the Adelaide Teachers College. The South Australian School of Art was established in 1861 under the title of the School of Design and first received

Australian Government finance under the States Grants (Advanced Education) legislation in the 1967-69 triennium.

The Torrens College of Advanced Education Act, 1972 provided for the retention of the name of the SA School of Art. There are two other schools, the School of General and Specialist Education and the School of Liberal Studies.

The College at present occupies several sites scattered over the metropolitan area. A site of approximately 18 hectares on the banks of the Torrens River at Underdale approximately 6 kilometres from the centre of Adelaide will finally contain all Schools of the College.

In the field of education, three-year courses are offered for primary teachers, for secondary teachers in the specialist areas of art, craft, home economics and for technical teachers in Colleges of Further Education. A fourth year of study is also available to graduates wishing to improve their qualifications, particularly in areas of special education.

Outside the field of education the College, through the School of Art, provides tertiary level training for those wishing to become practising artists, designers and craftsmen. Diploma courses are for four years on a full-time basis while associate diplomas are designed for part-time study also over four years.

**Colleges of Advanced Education, Students by Course Level and Field of Study  
South Australia, 1974p**

	Males	Females	Persons
<b>Master degree:</b>			
Para-medical . . . . .	3	—	3
<b>Graduate diploma:</b>			
Applied sciences . . . . .	35	1	36
Building, surveying and architecture . . . . .	27	3	30
Commercial and business studies . . . . .	53	—	53
Liberal studies . . . . .	8	19	27
Para-medical . . . . .	3	9	12
Teacher education . . . . .	449	315	764
<b>Total . . . . .</b>	<b>575</b>	<b>347</b>	<b>922</b>
<b>Bachelor degree:</b>			
Applied sciences . . . . .	175	22	197
Building, surveying and architecture . . . . .	291	8	299
Commercial and business studies . . . . .	1 016	76	1 092
Engineering and technology . . . . .	630	4	634
Liberal studies . . . . .	109	185	294
Para-medical . . . . .	107	226	333
<b>Total . . . . .</b>	<b>2 328</b>	<b>521</b>	<b>2 849</b>

**Colleges of Advanced Education, Students by Course Level and Field of Study  
South Australia, 1974p (continued)**

	Males	Females	Persons
<b>Diploma:</b>			
Agriculture . . . . .	15	—	15
Art and design . . . . .	155	122	277
Liberal studies . . . . .	33	16	49
Para-medical . . . . .	2	17	19
Teacher education . . . . .	2 548	4 560	7 108
<b>Total . . . . .</b>	<b>2 753</b>	<b>4 715</b>	<b>7 468</b>
<b>Associate diploma:</b>			
Agriculture . . . . .	88	—	88
Applied sciences . . . . .	26	2	28
Art and design . . . . .	35	16	51
Building, surveying and architecture . . . . .	121	41	162
Commercial and business studies . . . . .	188	13	201
Engineering and technology . . . . .	273	1	274
Para-medical . . . . .	38	79	117
<b>Total . . . . .</b>	<b>769</b>	<b>152</b>	<b>921</b>
<b>Total:</b>			
Agriculture . . . . .	103	—	103
Applied sciences . . . . .	236	25	261
Art and design . . . . .	190	138	328
Building, surveying and architecture . . . . .	439	52	491
Commercial and business studies . . . . .	1 257	89	1 346
Engineering and technology . . . . .	903	5	908
Liberal studies . . . . .	150	220	370
Para-medical . . . . .	153	331	484
Teacher education . . . . .	2 997	4 875	7 872
<b>Total . . . . .</b>	<b>6 428</b>	<b>5 735</b>	<b>12 163</b>

### FURTHER EDUCATION

The Department of Further Education, established in 1972, is responsible for a wide range of post-secondary educational activities conducted by technical colleges and further education centres in all areas of the State. Adult education centres in the metropolitan area, which were administered from and located in secondary schools, are now administered from a technical college or further education centre.

Much of the educational development is directed towards an improvement in vocational education. This includes the provision of courses for the employment sectors of industry, commerce and government. These courses are provided at many levels from basic trade (apprentice) to post-trade, certificate and diploma level (see pages 222-4). Also associated with this vocational orientation are Preparatory or General Education courses.

Further Education also caters for continuing education for people of all ages by providing a wide variety of general, academic, craft, art, cultural and general interest courses. During 1974 there were more than 123 000 subject enrolments in 1 700 courses and subjects.

The following table shows the range of educational activities conducted by the Department of Further Education during 1973 and 1974, and student hours involved.

**Further Education: Distribution of Educational Activities, South Australia**

Courses	Student Hours			
	1973		1974	
	No.	Percentage of Total	No.	Percentage of Total
Degree and diploma . . . . .	17 204	0.2	39 837	0.4
Technician or certificate or post-trade . . . . .	1 584 115	19.8	2 267 885	22.1
Basic trade or apprenticeship . . . . .	2 047 991	25.6	2 437 740	23.7
Other skilled trade and vocational . . . . .	675 097	8.4	1 106 358	10.8
Preparatory or general education . . . . .	1 006 299	12.6	1 945 445	18.9
General interest, enrichment and improvement . . . . .	2 677 946	33.4	2 476 333	24.1
<b>Total . . . . .</b>	<b>8 008 652</b>	<b>100.0</b>	<b>10 273 598</b>	<b>100.0</b>

A more precise distribution of the Department's activities in 1974, in terms of fields of study, is shown in the following table.

**Further Education, Student Hours by Courses and Fields of Study, South Australia September 1974**

Field of Study	No. of Courses	Student/Hour Involvement Per Cent
Applied science . . . . .	8	2.7
Art and design . . . . .	45	9.5
Building industry . . . . .	49	15.2
Business studies . . . . .	55	14.9
Engineering . . . . .	103	19.3
Rural and horticultural . . . . .	43	2.5
Music . . . . .	11	2.3
Paramedical services . . . . .	5	0.2
Service industries . . . . .	83	11.9
General studies . . . . .	82	21.5
<b>Total . . . . .</b>	<b>484</b>	<b>100.0</b>

There is a trend towards greater diversification in courses undertaken and also towards an increase in the certificate level of study.

The following table shows the number of subject and individual student enrolments in the years 1972, 1973 and 1974.

#### Further Education: Enrolments, South Australia

Course	1972	1973	1974
Subject Enrolments			
Degree and diploma . . . . .	317	243	428
Technician, certificate and post-trade . . . . .	19 160	21 580	28 442
Basic trade or apprenticeship . . . . .	25 255	24 363	26 337
All other skilled trade and vocational . . . . .	8 881	9 848	14 928
Preparatory and general education . . . . .	10 600	11 136	19 819
General interest, enrichment and improvement . . . . .	44 268	41 215	33 713
<b>Total . . . . .</b>	<b>108 481</b>	<b>108 385</b>	<b>123 667</b>
Individual Enrolments			
Degree and diploma . . . . .	286	243	381
Technician, certificate and post-trade . . . . .	12 489	14 049	17 845
Basic trade or apprenticeship . . . . .	7 640	7 984	8 578
All other skilled trade and vocational . . . . .	7 798	8 664	13 816
Preparatory and general education . . . . .	7 770	7 980	13 389
General interest, enrichment and improvement . . . . .	42 557	39 294	34 145
<b>Total . . . . .</b>	<b>78 540</b>	<b>78 214</b>	<b>88 154</b>

The following table shows the numbers of staff employed in colleges and centres.

#### Further Education: Staffing, South Australia

Staff	1972	1973	1974
Full-time teaching . . . . .	708	735	860
Part-time teaching (a) . . . . .	2 521	2 320	2 680
<b>Total . . . . .</b>	<b>3 229</b>	<b>3 055</b>	<b>3 540</b>
Non-teaching (ancillary) . . . . .	296	377	451
<b>Total . . . . .</b>	<b>3 525</b>	<b>3 432</b>	<b>3 991</b>

(a) The large number of part-time teachers in each year reflects the Department's policy to have teaching staff who are currently involved in activities in commerce, industry and government, and to provide courses for groups, particularly in country centres, where full-time staff are not warranted.

#### Curriculum

The establishment in the Department of a curriculum development section closely associated with industry and commerce has stimulated the development of new courses. This development has gone beyond the apprentice level and over a wider range of disciplines.

Certificate courses offer a wide range of study opportunities and have shown the greatest growth rate, as many vocational subjects have been upgraded to certificate level. This provides a more complete education for the student as well as meeting the needs of commerce and industry. Trade and vocational courses have increased in number and depth while the enrichment studies have remained relatively constant because of consolidation and fiscal controls. While apprentice courses have remained as an important part of the Department's activities, adult education in the technical fields has gained increased emphasis. Details related to curriculum development are shown in the following table.

**Further Education: Curriculum, Courses and Subjects, South Australia**

	1972		1973		1974	
	Courses	Subjects	Courses	Subjects	Courses	Subjects
Degree and diploma ..	3	14	3	14	3	14
Technician, certificate and post-trade .. .	54	414	72	537	77	648
Basic trade or appren- ticeship .. . . . .	45	—	45	—	44	—
All other skilled trade and vocational .. .	144	186	152	177	161	202
Preparatory and general education .. . . . .	62	62	62	62	46	62
General interest, enrich- ment and improvement	205	205	217	217	153	242
<b>Total .. . . .</b>	<b>513</b>	<b>881</b>	<b>551</b>	<b>1 007</b>	<b>484</b>	<b>1 168</b>

**Teaching Methods**

The Department has continued to offer courses on a full-time or part-time basis either by attendance or by correspondence. During 1974 more opportunity was given to students to attend colleges for extended and continuous periods: the numbers of block release students and the numbers of country apprentices attending Adelaide colleges for continuous periods of practical studies have increased. Correspondence students in country areas have also attended colleges and further education centres for supervised study.

The integrated training approach to vocational education has been further developed in many colleges. The more traditional divisions of technical courses into theory, drawing and practical plus on the job experience, have been broken down. Integration of course work on a project basis has resulted in a more meaningful learning experience for the students.

During 1974 there was a continuing involvement by teachers in the production and utilisation of different kinds of multi-media materials. Many colleges now produce and use a wide range of learning materials to meet this need. These materials which include slide and overhead transparencies, video tapes, and audio tapes as well as multi-media packages have become increasingly available for internal and external students.

The Multi-Media Centre located as a school of Kilkenny Technical College, provides a State-wide service in the production of learning materials and their usage. Part of this service has been to produce a number of video programs for general distribution and educational television service for a number of teachers.

During 1974 steps were taken to continue development of the concepts and facilities of the library/resource centre. Book stocks, sound and video tapes, slides and transparencies have all been increased. A number of meetings and visits have been held to initiate and develop the concept of the resource centre as a central factor in the learning process.

### **Administration**

Colleges, Further Education Centres and Schools of the Adelaide Technical College function along autonomous lines. This autonomy encompasses enrolments, staffing at the lecturer and teacher levels and budgeting within the State allocations.

The general organisation of the Department is on a functional basis which allows for cross-sectional activities. Day to day administration is the function of the Operations branch; curriculum development, staff training and development, research and planning is the responsibility of the Resources branch; and service functions under Administration, Finance and Clerical Services, support all areas of the Department's activities.

### **Current and Future Developments**

The major areas of change and emphasis include the following inter-related developments:

- the development of the community college, both conceptually and physically;

- the further development of general studies in colleges which were predominantly technical by tradition;

- the adaptation of the 'open university' approach to education so as to reach a broader sample of the South Australian population at the post-secondary level;

- the multi-media emphasis in the teaching-learning situation partly through the planned development of library/resource centres;

- the further development of teaching staff with the appointment of staff-development officers;

- extended provision for student welfare by the development of College Counselling Services and associated staffing.

### **Workers Educational Association of South Australia**

The Workers Educational Association of South Australia Incorporated (WEA) was established in 1914. Patterned on the English WEA, it is a voluntary adult education organisation which works in close co-operation with other adult education organisations, and the trade union movement.

Activities it organises directly, or in which it provides major assistance to other bodies, include a comprehensive day and evening class program, postal courses for trade unionists, and an international adult and children's film festival. It

possesses an adult education centre in the city. Courses are offered at the University of Adelaide, The Flinders University of South Australia, the Institute of Technology and the Murray Park and Salisbury Colleges of Advanced Education.

In 1974 there were 183 classes with a total enrolment of 6 584 students organised by the WEA, and a further twenty postal courses with an enrolment of 1 751. An innovation in 1973 was the appointment of two trade union education officers whose work during the year involved approximately 300 students.

### **University of Adelaide: Department of Adult Education**

The University initiated adult education classes in 1917 under a Department of Tutorial Classes. A Department of Adult Education was established in 1957.

The Department provides lectures and discussion courses, short schools and seminars in a range of subjects for members of the general public. In recent years it has conducted television discussions and lectures on issues of public concern in association with the Australian Broadcasting Commission and has organised seminars on current issues. It publishes a quarterly journal *Issue* and also arranges special courses for professional people and former graduates.

In June 1972 the University opened an educational radio station under the call sign of VL5UV. Established by a private donation of \$100 000, the station is administered by the Department of Adult Education and costs are met by the University and listeners' subscriptions. Since its opening the station has provided structured courses for professional people and the general public as well as providing educational and cultural programs.

In 1975, 5UV began operating under the conditions of a new experimental broadcast licence which has enabled an expansion of its education work. In addition, it now offers alternative music for serious listening and community access programs.

Total enrolments for all departmental activities during 1974 were about 7 000.

## **TRADE EDUCATION**

Legislation governing apprenticeships in South Australia is contained in the Apprentices Act, 1950-1974 which is administered by an Apprenticeship Commission consisting of a full-time chairman and five part-time members representing employer organisations, trade unions and the Minister of Education.

An employer must receive the approval of the Commission before he can employ an apprentice. The Commission determines the term of indenture in any particular trade and no term can exceed four years. In the following table the number of new apprenticeships commenced for the period 1970 to 1974 are given for the major industry groups.



## Number of New Apprenticeships Commenced: Trade Groups, South Australia

Trade	1970	1971	1972	1973	1974
Metal . . . . .	1 099	1 094	951	1 105	1 470
Electrical . . . . .	404	375	330	381	392
Building . . . . .	278	349	347	476	498
Furniture . . . . .	107	122	128	189	226
Printing . . . . .	82	70	60	69	108
Vehicle industry . . . . .	95	128	112	129	172
Ship and boat-building . . . . .	8	12	8	10	17
Bootmaking . . . . .	18	21	14	18	7
Clothing . . . . .	3	3	2	—	—
Coopering . . . . .	1	—	1	2	6
Food . . . . .	128	189	146	178	143
Hairdressing . . . . .	296	267	295	389	342
Leather and canvas goods . . . . .	5	3	—	4	3
Miscellaneous . . . . .	9	9	15	18	20
Total all trades . . . . .	2 533	2 642	2 409	2 968	3 404

The following table shows the number of new apprenticeships commenced, indentures completed, indentures cancelled, and apprentices employed at 31 December for the years 1970 to 1974.

## Apprenticeships, South Australia

Particulars	1970	1971	1972	1973	1974
New apprenticeships commenced . . . . .	2 533	2 642	2 409	2 968	3 404
Number of indentures completed . . . . .	2 215	2 175	2 089	2 229	2 477
Number of indentures cancelled . . . . .	282	288	298	386	439
Number of apprentices employed . . . . .	10 467	10 737	10 682	11 186	11 948

The technical education of apprentices is the responsibility of the Minister of Education but the Commission has authority to make recommendations to the Minister on matters affecting their technical education.

Apprentices are required to attend technical colleges during working hours for eight hours a week or an eight week course in the first and second year. Exceptions occur for certain trades where the apprentice must attend, during working hours, a technical college for twenty-four hours (three days) for every four weeks the college is open for instruction during the first, second and third years after commencement of his course.

Although apprentices are required to attend a technical college to complete basic training (normally three years), facilities are provided for those showing ability to attend voluntarily for a fourth year. During these years, apprentices

normally commence studies of an advanced nature most of which are components of various Post-Trade Certificate courses which the apprentices are encouraged to complete as adults. These advanced subjects, and others designed to meet special demands for training in new processes and techniques, are also available to adult tradesmen and others employed in industry.

**Effective Apprentice Enrolment in Technical Colleges, South Australia**

Colleges	1970	1971	1972	1973	1974
Metropolitan technical colleges . . . .	6 575	6 603	6 250	7 903	7 385
Country technical colleges . . . . .	1 012	1 069	992	1 280	1 156
South Australian College of External Studies (a) . . . . .	794	720	865	837	516
Total . . . . .	8 381	8 392	8 107	10 020	9 057

(a) Includes Northern Territory apprentices.

Since 1960 the Commonwealth Development Bank has awarded Post-Apprenticeship Scholarships annually to financially assist young tradesmen and outstanding apprentices to further their education and technical qualifications. The scholarship scheme is administered on behalf of the Bank by the Australian Apprenticeship Advisory Committee. A change in the system of awarding scholarships, brought about by the abolition of fees for post-secondary institutions, occurred in 1974. This resulted in a decrease in the number awarded to South Australians to twelve, compared with thirty-six in 1973.

**NATIONAL APPRENTICESHIP ASSISTANCE SCHEME**

The objective of this scheme, which is administered by the Department of Labor and Immigration, is to encourage employers to employ apprentices and to provide more and better training in basic practical skills during the first three years of apprenticeship.

A subsidy is payable to all employers who employ one or more apprentices for every four tradesmen employed or who increase the level of apprentice employment compared with that for the preceding year. The subsidy is related to the age of the apprentice and is payable for the first year of the apprenticeship only. For each qualifying first year apprentice under the age of eighteen years the employer's subsidy is \$1 222 for the year. Increased amounts are paid for apprentices aged eighteen to twenty years and over twenty-one years.

In addition to these basic payments, subsidies are payable to employers to encourage them to allow their apprentices to engage in full-time off-the-job training in basic practical skills. Where an employer provides full-time training to approved standards in training centres, annexes or under other approved arrangements, or releases apprentices for full-time training in appropriate courses at technical education institutions or in other approved training centres, a subsidy of \$20 a week for each eligible apprentice is payable for the duration of the approved course. This subsidy is available for full-time off-the-job training during the first three years of the apprenticeship, subject to a maximum

subsidised period of fifty-two weeks and provided not more than twenty-six weeks are taken during the second and third years combined. Employers who make available their own training facilities for use by other employers are eligible for a subsidy which is determined by the Department of Labor and Immigration and related to the costs of training provided.

A living-away-from-home allowance is payable to both country and metropolitan apprentices who have to live away from home to obtain or remain in an apprenticeship. This allowance, which offsets some of the additional costs associated with youths living away from home, is paid at the rate of \$12.60 a week to first year apprentices and \$5 a week to those in their second year. If the employer is paying the apprentice a lodging allowance the amounts paid by the Department of Labor and Immigration are reduced by the amount paid by the employer.

### **Trainer Training**

As part of its responsibility of implementing an effective national manpower policy the Department of Labor and Immigration has established a trainer training service to improve the extent and quality of training practices throughout industry and commerce.

The general aims of the service are to promote training as a concept in industry and commerce; to improve training and to assist individuals who need training to adjust to the labour market. The service is directed at those with responsibilities for training others, including manpower training—instructional specialists and line personnel with duties for administering or implementing training. The service is divided into several trainer training areas: Training Officer Service, Instructor Service and a Supervisor Trainer Service.

The Instructor Service aims to provide basic instructional techniques for those who instruct groups of employees and those who provide individual instruction on the job. During 1975 Group Instructor, Operator-Instructor and Clerk-Instructor courses will be given.

The Supervisor Training Service aims to provide resources to trainers to meet some basic needs of supervisors. Trainers in this service may be engaged in full-time or part-time training duties. The courses covered include Instruction-Communication, Inter-personal Relations, Accident Prevention and Method Improvement. These courses will be provided in 1975.

The Training Officer Service is, at the moment, operating only in Melbourne and Sydney.

### **National Employment and Training System**

The National Employment and Training System (NEAT) provides a comprehensive system of labour market training capable of selective and speedy application to remedy labour imbalances in industrial sectors and geographical regions. NEAT forms a basis for the Australian Government's manpower policy, and is designed for operation by the Commonwealth Employment Service with the following broad objectives:

- to alleviate unemployment wherever it may occur and contribute to overcoming skills in short supply;
- to assist in the long term restructuring of the workforce, promote regional development, and bring about increases in the general levels of skills;

to serve the social as well as the economic needs of the community and of individuals by means of special assistance, guidance, remedial training, and other measures designed to aid the removal of inequalities and enhance employment opportunities.

The NEAT System supersedes other employment training schemes such as those for women; widow pensioners; war widows; persons displaced by redundancy or technological change; Aborigines; general retraining for employment; rural reconstruction; permanent forces resettlement; disabled members of the forces; former regular servicemen; and national servicemen. These schemes were designed to bring training only to defined categories of people. In a general sense anyone who is genuinely in need of help to find suitable employment is eligible for NEAT assistance. Individuals assisted under NEAT must have specific employment objectives; and these objectives should be realistic for the individual and compatible with the requirements of the labour market.

Approved training can be undertaken full-time or part-time at training institutions, within industry or commerce, or by correspondence course. Persons undertaking full-time formal studies through NEAT are paid a weekly allowance up to the equivalent of the average adult male award wage. Companies providing on-the-job training for NEAT trainees receive a percentage of the average adult male award wage as a subsidy.

#### **Block Release Training**

A new form of technical education known as Block Release Training was introduced in 1973 for country apprentices in some trades in which apprentices previously were required to study by correspondence. It involves first and second year apprentices, who live outside a technical school district, attending a metropolitan technical college for a total period of eight weeks each year. In some cases it will be four blocks of two weeks and in other cases two blocks of four weeks. These apprentices will receive the same training as those employed in the metropolitan area and in country school districts and will not be required to undertake any correspondence course training. The Apprenticeship Commission arranges accommodation in the government hostel at Pennington, or private accommodation may be arranged, with a subsidy being payable in either case.

#### **TRAVEL TO SCHOOL**

A sample survey was conducted in May 1970 to obtain information about the principal means of transport by which full-time students of all ages travelled to school, university or other educational institution, the time at which they usually left home and the time usually spent on the journey. Details of the survey were included on pages 194-5 of the *South Australian Year Book 1972*.

#### **STATE EXPENDITURE ON EDUCATION**

The following table shows details of expenditure by the South Australian Government on education for the years 1972-73 and 1973-74.

State Expenditure on Education, South Australia

Purpose	1972-73p	1973-74p
<b>Consolidated Revenue Fund expenditure (a):</b>		
	\$'000	
General administration, regulation and research . . . . .	2 374	3 694
Transportation of students . . . . .	2 267	2 641
Primary and secondary education (b) . . . . .	93 405	121 053
Vocational training (b) . . . . .	6 056	8 466
University education . . . . .	19 633	27 329
Other higher education (c) . . . . .	19 748	26 726
Other education programs;		
Handicapped children . . . . .	1 189	1 526
Adult education (b) . . . . .	2 524	2 715
Other (d) . . . . .	1 612	2 463
<b>Total</b> . . . . .	<b>148 808</b>	<b>196 613</b>
<b>Consolidated Revenue Fund receipts:</b>		
General administration, regulation and research . . . . .	225	245
Transportation of students . . . . .	68	60
Primary and secondary education (b) . . . . .	1 754	4 659
Vocational training (b) . . . . .	711	1 204
University education (e) . . . . .	7 508	19 667
Other higher education (c) (e) . . . . .	3 239	13 004
Other education programs;		
Adult education (b) . . . . .	287	392
Other . . . . .	95	680
<b>Total</b> . . . . .	<b>13 887</b>	<b>39 911</b>
<b>Consolidated Revenue Fund net expenditure</b> . . . . .	<b>134 921</b>	<b>156 702</b>
<b>Loan Fund expenditure:</b>		
General administration, regulation and research . . . . .	—	64
Transportation of students . . . . .	448	430
Primary and secondary education . . . . .	24 269	28 319
Vocational training . . . . .	2 717	2 193
University education . . . . .	5 399	8 381
Other higher education (c) . . . . .	6 430	6 959
<b>Total</b> . . . . .	<b>39 263</b>	<b>46 346</b>
<b>Loan Fund receipts (e):</b>		
General administration, regulation and research . . . . .	263	637
Primary and secondary education . . . . .	3 319	8 405
Vocational training . . . . .	842	1 200
University education . . . . .	2 239	7 306
Other higher education (c) . . . . .	3 626	6 361
<b>Total</b> . . . . .	<b>10 289</b>	<b>23 909</b>
<b>Loan Fund net expenditure</b> . . . . .	<b>28 974</b>	<b>22 437</b>

(a) Includes maintenance of buildings and pensions; excludes interest and sinking fund.  
 (b) Includes a component of the Department of Further Education. (c) Includes Colleges of Advanced Education. (d) Includes general Kindergarten Union grants.  
 (e) Mainly Australian Government grants.

## 6.3 SCIENTIFIC AND RESEARCH ORGANISATIONS

### AUSTRALIAN MINERAL DEVELOPMENT LABORATORIES

The Australian Mineral Development Laboratories (Amdel) is a non-profit contract research and technical consulting organisation serving the mineral industry in Australia and overseas. A wide range of services are offered including chemical analysis, mineralogy, petrology, computer techniques, ore reserves calculations, mine planning, mineral engineering, chemical metallurgy, process control, materials science, plant evaluation, process design and commissioning and environmental studies.

Amdel employs approximately 200 people, including about eighty with professional degrees. It maintains extensive laboratories and pilot plant equipment in Adelaide, and has an office in Sydney, a small laboratory in Perth, and a resident representative in Indonesia.

Contract research earnings currently are approximately \$2 million annually.

### AUSTRALIAN MINERAL FOUNDATION

The Australian Mineral Foundation has been established by the industries, institutions and departments concerned with minerals and petroleum. It is administered by a council representative of these groups.

The mining and petroleum industries are confronted with a rapid development in technology and a continual requirement for transmitting new information both to operating staff and to post-graduate students. The Foundation fills this communication need in several ways:

- by providing short term concentrated training courses for professional and other specialised staff;
- through the medium of symposia, conferences and distinguished lecturers;
- through a specialised resource centre including a geoscience library and information service;
- by selective film showings.

In addition, it offers for hire an auditorium, seminar rooms and offices.

### AUSTRALIAN WINE RESEARCH INSTITUTE

The Australian Wine Research Institute situated at Urrbrae promotes research and other scientific work for the Australian wine industry; it was established in 1955, having grown from a small research unit formed in 1934 within the University of Adelaide.

The Institute is administered by a nine-member council consisting of representatives from the Australian wine industry, the Australian Government, the Commonwealth Scientific and Industrial Research Organization and the University of Adelaide, and scientific advisers.

Comprising laboratories and an experimental winery, the Institute conducts research into wines, brandies, and winemaking, and specialises in the microbiology and chemistry of wines and brandies. A technical advisory section assists commercial winemakers with technical problems. Tested yeast cultures for wine fermentation are made available to the wine industry.

The John Fornachon Memorial Library maintained by the Institute is a specialised library of technical literature on wine.

### COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANIZATION

The Commonwealth Scientific and Industrial Research Organization (CSIRO) is Australia's largest research organisation. It is a statutory body created by the Australian Government in 1949 to replace the former Council for Scientific and Industrial Research (CSIR), which had been established in 1926. The powers and functions of CSIRO include scientific research in connection with Australian primary and secondary industries or any other matter referred to it by the Minister for Science, the training of scientific research workers and the awarding of studentships, the making of grants in aid of scientific research, the recognition and support of research associations, the maintenance of the national standards of measurement, the dissemination of scientific and technical information and the publication of scientific and technical reports.

CSIRO is governed by an Executive comprising a full-time Chairman, four other full-time members, and four part-time members. The Organisation has thirty-six research Divisions, three of which have their headquarters in South Australia: these are the Divisions of Human Nutrition; Soils; and Horticultural Research.

#### **Division of Human Nutrition**

The Division of Human Nutrition replaced the former Division of Nutritional Biochemistry on 1 January 1975. The interests of the Division of Human Nutrition are: the nutritive value of foods; problems related to food additives and pollutants; the nutritional significance of trace elements, minerals and vitamins, and fundamental studies on the biochemical aspects of nutrition. The Division has its headquarters laboratory in the grounds of the University of Adelaide and has a field station at O'Halloran Hill.

#### **Division of Soils**

The Division of Soils is one of three Divisions comprising the Land Resources Laboratories along with the Division of Land Use Research (centred in Canberra) and the Division of Land Resources Management (centred in Perth). The research program of this Division is concerned with the use of soils in agriculture and forestry, and the role of soils and soil materials in hydrology, plant growth and as habitats for flora and fauna. Increasing emphasis is placed on the importance of soil research in problems of the environment,

although, from its inception the Division has necessarily been environmentally oriented. While early field programs in the Division involved survey and mapping, this aspect is now largely the responsibility of the various State Departments and pedologists are now engaged on more basic studies of the principles of soil occurrence, geomorphology, geochronology and sedimentology.

The work is organised into several programs, each of which comprises a number of projects. Because soil is a complex mixture of organic and inorganic materials, with a micro-flora and micro-fauna that vary with the material from which it was formed, the climate in which it occurs, and the plants and animals that occupy its surface, very few problems in soils are capable of a unidisciplinary solution. Consequently, although the Division operates through seven Sections, Chemistry, Microbiology, Micromorphology, Mineralogy, Pedology, Physics and Zoology, several of the programs involve work in more than one Section.

The headquarters laboratory is in Adelaide, with smaller groups in regional laboratories in Brisbane, Canberra, Hobart and Townsville. About half the staff are in the Adelaide laboratories, which hold the major groups for all sections except Micromorphology, which is at the Canberra laboratory. Not all the regional laboratories have each Section represented but scientists from Pedology and Chemistry Sections are located at all of them. Soil physicists and hydrologists are located at Brisbane and Canberra; the Mineralogy Section has a large group in Adelaide and a smaller unit in Brisbane.

#### **Division of Horticultural Research**

The work of this Division is concerned primarily with research on the perennial horticultural crops of the temperate zone, especially grapevines.

For both drying and wine grapes it aims to provide better planting material through breeding new hybrids, selecting and producing virus-free and genetically superior clones of established varieties, and through testing newly imported varieties and rootstocks, in particular those resistant to nematodes. Research in spacing, trellising, pruning, and mechanical harvesting looks for better returns from vineyard operation, and investigation into the technology of grape drying helps towards the marketing of dried fruit. These studies, together with research in the ecology of apple and citrus orchards, and the finding of varieties of species such as the avocado, pistachio, guava and mango which would grow and fruit in Southern Australia, take place at the Merbein (Victoria) laboratory of the Division. A Tasmanian group at Hobart studies the nutrition and physiological disorders of apples.

At the Division's headquarters in Adelaide, research in plant physiology and biochemistry provides a knowledge and understanding of economic crops used in the field. Problems of photosynthesis, plant hormones, flowering, ripening and abscission of fruit, and of plant parasitic nematodes are being studied.

#### **MATERIALS RESEARCH LABORATORIES**

A South Australian Branch of the Materials Research Laboratories (MRL) of the Department of Defence is located at Woodville North. The laboratory which was established in 1947 provides a scientific service to all branches of the Defence Services. After meeting defence requirements the facilities may also



be made available on a commercial basis to non-defence government departments and to private industry provided such facilities are not available elsewhere in the State.

The laboratory works principally in the fields of chemistry, physics and metallurgy, and has a program of long term defence research projects which are related to these disciplines. In addition it has excellent facilities for standards and calibration work and for providing a consulting and testing service in the disciplines mentioned.

The laboratory has been formally appointed a Verifying Authority under the *Weights and Measures (National Standards) Act 1960-1973* in ten fields of precision measurement. In these particular fields, the laboratory can verify and re-verify subsidiary standards for use by other laboratories in the State in accordance with the requirements of the *Weights and Measures Act*.

The major research projects of the establishment are concerned with the development of defence and commercial applications for electrophotography and electroradiography and with fundamental aspects of photoconductivity in order to provide basic information for use in establishing and improving electrophotographic processes.

A new process for the liquid development of electrophotographic images was invented at the laboratory in 1953 and world-wide patents have been taken out to cover this and many other related processes which have been established since that time. These new processes have found numerous defence applications including medical and industrial radiography, cartography, the printing of aerial photographs, the high density recording of electrical signals and facsimile transmission. In addition the MRL liquid development process has had wide commercial application in office copying equipment and in colour printing and proofing. At the present time the royalties paid to the Australian Government by overseas licensees of the electrophotography patents amount to approximately \$1 million each year. Total payments to date exceed \$6 million.

At the end of 1974 the total staff of the laboratory was sixty-three including nineteen research scientists and experimental officers.

### INDUSTRIAL RESEARCH INSTITUTE OF SOUTH AUSTRALIA

The Industrial Research Institute of South Australia is sponsored by the South Australian Government. Its role is to liaise with industry, research organisations, academic institutions, and government in order to serve as adviser, advocate, catalyst and promoter in industrial research in South Australia.

The Institute acts as scientific and technological adviser to South Australian industry and the South Australian Government. It develops research and development programs to meet the needs of specialist sectors of industry, provides technological information services, undertakes resource studies, offers project management services, and arranges student projects in industry.

The Institute does not undertake research projects itself, but arranges for other research organisations such as Amdel, CSIRO, the universities and the South Australian Institute of Technology, to undertake the actual research work.

The Institute has a small full-time staff which is supplemented by the advice and services of research workers, academic staff and retired businessmen appropriate to individual activities.

### INSTITUTE OF MEDICAL AND VETERINARY SCIENCE

The Institute of Medical and Veterinary Science was established in 1937, under the Institute of Medical and Veterinary Science Act, 1937, to incorporate the functions of the former Adelaide Hospital Laboratory. The Director of the Institute is the chief executive officer of the council which is responsible to the Minister of Health.

The Institute provides diagnostic facilities in all branches of clinical pathology for the Royal Adelaide Hospital and other metropolitan and country hospitals, for public health authorities, for industry, and for private practitioners. It also undertakes work in all branches of veterinary pathology for the Department of Agriculture, and for veterinary practitioners and stockowners. Research is conducted into selected problems connected with disease in man, and in animals of economic importance. The staff of the Institute takes part in the teaching of the medical sciences to graduates, students and technicians.

#### The Institute of Medical and Veterinary Science

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Staff at end of year:					
Graduate . . . . .	85	91	99	111	164
Other . . . . .	305	366	399	448	481
Tests performed . . . . .	1 133 123	1 470 474	1 752 943	2 036 425	2 470 909
Revenue:					
	Dollars				
State Government grant	1 195 976	1 371 130	1 690 280	2 280 000	3 330 000
Fees for laboratory tests	484 608	1 120 341	1 207 494	1 145 815	1 292 342
Other . . . . .	100 431	153 894	126 315	184 054	309 097
Total . . . . .	1 781 015	2 645 365	3 024 089	3 609 869	4 931 439
Expenditure:					
Salaries and wages . . . . .	1 314 923	1 764 556	2 201 285	2 691 840	3 725 993
Other . . . . .	503 527	682 126	768 613	836 114	1 240 932
Total . . . . .	1 818 450	2 446 682	2 969 898	3 527 954	4 966 925

At the Royal Adelaide Hospital the Institute operates a Division of Nuclear Medicine and undertakes all required autopsies. To meet the growing need for blood transfusion and laboratory services in rural areas, Regional Laboratories, staffed and administered by the Institute, have been established in nine towns.

The increase in volume of work is reflected in the increased number of tests performed: 27 000 in 1938-39; 175 528 in 1952-53; and 2 470 909 in 1973-74. Sections of the Institute that have recently grown in size and importance are the Renal Pathology Unit, the Gastro-intestinal Pathology Unit and the Electron Microscopy Unit.

A computerised system of laboratory reporting, accounting and data storage for rapid retrieval has been introduced and is progressively being developed. There are two remote terminals linked to the central computer, one at Modbury Hospital and one in the Casualty Section of the Royal Adelaide Hospital; further units will be provided in the intensive care wards. Telex links are operating to Port Lincoln, Whyalla, Mount Gambier and Berri. Plans have been prepared for the Institute's computing service to be the base for a State laboratory computing organisation to cover the needs of several other large hospital laboratories in the metropolitan area.

### WAITE AGRICULTURAL RESEARCH INSTITUTE

The Waite Agricultural Research Institute was established, within the University of Adelaide, in 1924. The research projects conducted at the Institute cover a wide range of topics, of which the following are a few examples: relationship of stocking rates to pasture composition and fertiliser practices; the protein chemistry of the wheat grain; the genetics and breeding of cereals and pasture plants; flower and fruit development in horticultural plants; studies on soil-borne and virus diseases of plants; nutrition of the honey bee; and the biochemistry of nitrogen fixation.

Further details relating to the Waite Institute may be found in Part 6.2 Education.

### WEAPONS RESEARCH ESTABLISHMENT

The Weapons Research Establishment, situated at Salisbury, is the largest of three research and development organisations within the Australian Department of Defence, and is responsible for research and scientific development in relation to defence, including the operations of the Joint United Kingdom-Australia Weapons Research Project. The Weapons Research Establishment is concerned with research, development and testing of guided missiles, experimental research in the upper atmosphere, and research and development in other defence areas including aerodynamics, propulsion, electronics, computing, systems analysis and operational research.

The headquarters of the Weapons Research Establishment occupies an area of 1 170 hectares at Salisbury. Facilities within the area have been provided for branches of British firms which have contracted with the British Ministry of Defence to develop weapons systems or components.

The establishment comprises four main sections or wings, namely, Trials Wing, Applied Physics Wing, Weapons Research and Development Wing and Engineering Wing. Trials Wing is concerned with the operation, development, and instrumentation of the Woomera Range and the planning, execution and assessment of trials there. Applied Physics Wing is responsible for Australian defence

research programs in the fields of electronics, optics, systems analysis, radio and optical propagation, radar, lasers, infra-red, visual surveillance and electronic warfare. Weapons Research and Development Wing supports Australian defence and development programs in the fields of aero-ballistics, rocket propulsion, weapon systems and marine physics. Engineering Wing provides engineering support including specification, manufacture, installation and maintenance of equipment; design and development in electronic, communications and mechanical engineering fields; and library services in technical publications and associated activities.

Testing ranges have been established at Woomera, which is approximately 500 kilometres north-west of Adelaide. A township, together with modern amenities including hospital, school, kindergarten, community store, swimming pool and all sporting facilities, has been built at Woomera to accommodate the range and allied service personnel and their families. Woomera has a population of 4 220 including dependants and support personnel. The total strength of the Weapons Research Establishment including staff at Salisbury and Woomera was about 4 200 at December 1974.

Edinburgh Airfield which adjoins Weapons Research Establishment at Salisbury is the headquarters of the Royal Australian Air Force (RAAF) in South Australia and is a fully operational RAAF base. When necessary, aircraft associated with joint project or other trials are operated from this base.

A special article on the Weapons Research Establishment together with maps and diagrams was included on pages 184-92 of the *South Australian Year Book* 1969.

#### **United States Space Projects**

As a result of an agreement between the Australian and United States Governments a Defence Space Communication facility has been constructed near Woomera.

## **6.4 CULTURE AND RECREATION**

### **LIBRARIES**

#### **The State Library**

The State Library of South Australia has its origin in a collection of books assembled in London in 1834, two years before the province of South Australia was founded. The modern character of the Library was established in 1940 when, after the Price Report of 1937, the Library was separated from the Museum and Art Gallery and became a State Government department administered by the Libraries Board of South Australia.

The oldest section of the Library is the Reference Library, which is the central basic collection. Since 1946, except for rare irreplaceable volumes and reference works, most of the books have been available for loan. Over 4 000 periodicals

are received annually, and the Newspaper Reading Room files 349 overseas and Australian newspapers; in 1973-74, 50 300 periodicals were lent. In the same year the Map Collection answered a record number of over 8 200 inquiries from its 33 100 maps. Legislation since 1878 provides for the deposit in the Library of copies of all items published in South Australia.

The Reference Library has a representative basic collection of nineteenth and twentieth century material in all subjects except medicine and law. It has considerable strength in a number of subjects including librarianship, wine, jazz, Australian Aborigines, River Murray shipping, sailing ships, and nineteenth century illustrated works on natural history. In addition there is a collection of tape recordings of Australian authors, folksongs and Aboriginal music. The Library is an official depository for the publications of the Australian, British and Californian governments, and receives selected publications from the United States government and the United Nations.

In 1973-74 the Reference Services Branch answered 154 400 inquiries. This Branch supplies lists of references and arranges for the borrowing of books, periodicals and photocopies from libraries in other states and overseas. *Pinpointer*, a bi-monthly index to popular periodicals and the quarterly *Index to Australian Book Reviews*, are published.

In 1919 the Archives Branch was established for the collection of original South Australian historical material. In 1925 legislation was passed requiring reference to the Libraries Board before destroying or disposing of public documents. At the end of June 1974 there were 8 400 metres of occupied shelf space in the Archives. In 1973-74, 5 700 inquiries were dealt with involving 15 400 issues of documents, views, maps or printed sources. A journal, *South Australiana* is published twice a year.

The Juvenile Services Branch includes the Children's Services and the Youth Lending Service. The Children's Services, formerly the Children's Library, was established in 1915 and is believed to be the oldest in Australia. The carefully selected stock includes some 13 300 books in the Children's Literature Research Collection, a special collection assembled to assist in the study of children's books. School classes visit the Library, and talks and stories are addressed to groups of children, both inside the Library and at outside venues, and to groups of parents and various societies. There are 20 300 registered borrowers in the metropolitan area and books are sent to 4 000 country children living in areas that do not have a public library.

To cater for the needs of young people between the ages of thirteen and eighteen the Youth Lending Service was established in 1957. Over 29 000 young people from the metropolitan area and country places are enrolled as members in the Service. The collection includes, besides general literature, publications of special interest to young people dealing with hobbies and careers. Posters and paperbacks are also available for loan.

In 1938 a Country Lending Service was established to provide books for residents in the country districts of the State, none of which had a free local public library at the time. The service continues today, but is restricted to residents of local government districts which have not been provided with their own public library service, and to people in the unincorporated districts of the

State. In 1946 the Adelaide Lending Service was founded so that residents of the metropolitan area might enjoy direct borrowing privileges. In 1972 these two services were amalgamated to form the Adult Lending Services Branch, and at the same time the children's and young people's collections previously functioning as part of the Country Lending Service were taken over by the Children's Library and Youth Lending Service respectively.

Since 1972, the Adult Lending Services Branch has enlarged its collection to include large print and foreign language books and periodicals, paperbacks, prints and posters. Car manuals, musical scores and drama sets are also available. The Branch supplies bulk loans to several hospitals and institutions, and to a number of prisons in South Australia. Extension services also cater for housebound residents and invalids. Non-technical inquiries and requests for information are dealt with at the Readers Adviser Desk. The total number of adult borrowers in the metropolitan area is in excess of 70 000, and there are more than 5 000 adults in the country registered as borrowers from the Adult Lending Services.

#### State Library of South Australia

Year	Reference Library	Children's Library	Adult Lending Services	Central Pool for Local Public Libraries	Youth Lending Service	Total
At 30 June:			VOLUMES HELD			
1970	269 000	41 000	(a) 210 000		16 000	536 000
1971	282 000	46 000	(a) 304 000		17 000	649 000
1972	295 000	49 000	(a) 264 000		18 000	626 000
1973	308 000	51 000	69 000	232 000	21 000	682 000
1974	320 000	63 000	93 000	175 000	24 000	675 000
To 30 June:			VOLUMES LENT			
1970	100 000	203 000	465 000	—	86 000	854 000
1971	101 000	188 000	486 000	—	89 000	864 000
1972	105 000	194 000	533 000	—	98 000	930 000
1973	108 000	246 000	466 000	—	122 000	942 000
1974	109 000	247 000	521 000	—	111 000	988 000

(a) Separate details not available before 30 June 1973.

Photographic and electrostatic copying facilities are available to the public. In 1962 the Libraries Board began an extensive program of publishing facsimile editions and other works of Australian interest. Over 170 works have now been published, including the first edition ever of *The Journal of Post Captain Nicolas Baudin*. Other publications include several series of *Occasional Papers* in various subject fields, and an annual *Miscellanea Musicologica*, published in association with the University of Adelaide.

### Local Public Libraries

Local public libraries financed by municipal authorities are subsidised under the Libraries (Subsidies) Act, 1955-1958. With general oversight and planning by the Libraries Board, subsidies (\$380 330 in 1973-74) are paid on a dollar for dollar basis. Thirty-two libraries, operated by twenty-two local government authorities, serving over half of the population of the State had been established at June 1974. All book stocks are interchangeable with a central pool maintained by the Libraries Board.

#### Local Public Libraries, South Australia

Year	Libraries at End of Year	Registered Readers	Books Lent	Stocks at End of Year
1969-70 . . . . .	31	139 000	2 073 000	281 000
1970-71 . . . . .	31	145 000	2 084 000	275 000
1971-72 . . . . .	31	127 000	2 366 000	303 000
1972-73 . . . . .	32	150 000	2 621 000	330 000
1973-74 . . . . .	32	157 000	2 867 000	389 000

### The Adelaide Circulating Library

The Adelaide Circulating Library also traces its origin to the collection of books dispatched from London shortly after foundation of the State. In 1884 the collection which had grown from this nucleus was divided, the text and reference books going to the newly formed Public Library, and the remaining works constituting the Adelaide Circulating Library. The Library, which receives a government grant each year, is controlled by a committee elected by subscribers and at 30 June 1974 contained over 69 000 volumes.

### Institute Libraries

Several country and suburban centres had formed institutes in the early 1850s. The first legislation on libraries was passed in the 1855-56 session of Parliament and resulted in the establishment of the South Australian Institute. In 1861, a new building was erected on the corner of North Terrace and Kintore Avenue for the Institute, which in 1884 was divided into two organisations, the Public Library and the Adelaide Circulating Library.

Institute libraries, which are situated in metropolitan and country areas throughout the State, are largely dependent on members subscriptions and in some cases on income from the Institute hall, but they also receive a government subsidy and about two-thirds of them receive support in varying degrees from local councils.

The Institutes Association of South Australia Inc. acts as a co-ordinating authority and as a purchasing agency for affiliated Institutes, these, however, retain complete autonomy, being governed by a committee elected by members.

The conduct of Institutes is regulated by the Libraries and Institutes Act, 1939-1974.

The borrowing facilities of Institutes are available to subscribers and the general public has access to, and the use of, reading facilities in the library. Many Institute libraries allow children to borrow books from the library without charge.

**Institute Libraries, South Australia  
At 31 December**

Particulars	1971	1972	1973	1974
Number of institutes . . . . .	186	182	180	172
Subscribers . . . . .	43 250	46 349	48 063	47 202
Number of volumes . . . . .	761 560	758 970	763 997	738 024
Volumes circulated during year . . . .	1 736 245	1 684 113	1 773 869	1 654 259

**Other Libraries**

Particulars relating to the Barr Smith Library at the University of Adelaide (738 000 volumes, including 53 000 microformes, at the end of 1974) and the Flinders University Library (290 000 volumes at the end of 1974) are given on pages 204 and 208 respectively. Other libraries include those of the Royal Society of South Australia (approximately 27 000 volumes), the South Australian Branch of the Royal Geographical Society of Australasia (approximately 16 000 volumes) and the Parliamentary Library (about 60 000 volumes).

**MUSEUMS**

**The South Australian Museum**

Founded in 1856 as part of the South Australian Institute the South Australian Museum became a separate institution with its own board in 1940 under the provisions of the Museum Act, 1939. The Museum's first permanent building, the West Wing, was opened in 1884, the North Wing was completed in 1895 and the East Wing was added in 1912-15. Since then the Museum has expanded to occupy the historically and architecturally significant buildings of the Old Police Barracks. Similar to other major museums in Australia and overseas, it makes and preserves collections, carries out research and acts as an education centre for primary, secondary and tertiary students and for the public. Its main areas of interest are ethnology, natural history and geology.

The South Australian Museum has a staff of seventy-five with nineteen professional research workers responsible for the care of the collections and for carrying out research. Several of the collections of specimens and data are outstanding. The collection of Australian ethnological material is of world renown while those of New Guinea ethnological objects, minerals, insects and southern Australian animals are excellent.



The research of the scientific staff is primarily taxonomic, involving the naming, identification and classification of animals, however, considerable stress is laid on their ecology, and inter-relationships with the environment. With the current interest in, and need for knowledge concerning conservation and environmental deterioration, this work is of increasing importance. Results of the research work of staff members are published in the *Records of the South Australian Museum* and in scientific journals throughout the world. The Museum's scientific Library houses more than 31 000 volumes.

Advice, based on their research results and on their specialised knowledge, is given by the scientific staff to many other research institutions and government departments. The anthropologists and archaeologists are, in addition to their research and other responsibilities, called upon to assist with the preservation of Aboriginal and historic relics (see page 241).

The Museum has a general Information Service dealing with about 11 000 inquiries annually and approximately 40 000 school children pass through the Education Centre each year.

Public entertainment and education involves the presentation of displays in galleries covering nearly 4 000 square metres of which about 1 000 square metres are being currently redesigned. Education booklets on a variety of subjects, mostly written by Museum staff and published by the Museum, are on sale at a nominal price. Cards are also published and are sold throughout Australia.

The scientific work of the Museum is supported by a number of distinguished scientists who are appointed as honorary associates, by the Cave Exploration Group of South Australia and by the general public. In particular the Friends of the South Australian Museum have given considerable support since their foundation in 1964.

### Other Museums

A number of historic residences serve as museums. In 1961 the 'Old Government House' at Belair was refurnished with relics of the colonial era and opened for public inspection. At 'Whalers Haven', Victor Harbor, a pioneer cottage has been restored and features many relics of early settlement with particular emphasis on the whaling industry. The home of the poet Adam Lindsay Gordon, 'Dingley Dell' at Port MacDonnell, is maintained as a historic house and Captain Charles Sturt's original home at Grange is open to the public. Items of historical interest are exhibited in old buildings in many of the early established country towns.

A railway museum is maintained at Mile End by the Australian Railway Historical Society. Exhibits on display are of five gauges from the South Australian Railways (SAR), the Commonwealth Railways, the Silverton Tramway and private lines operating in conjunction with the SAR. Included are nineteen steam locomotives built between 1886 and 1954, two railcars, two diesels, one petrol locomotive and ten units of passenger and goods rollingstock dating from 1877, as well as a large selection of associated railway equipment. The museum is open to the public on the first and third Sundays of each month.

Various items of maritime association including pictures, models and fittings from early ships are displayed at the Nautical Museum at Port Adelaide.

A number of special museums are maintained at the University of Adelaide for the use of the staff and students and a Museum of Economic Botany is associated with the Botanic Garden.

### **The National Trust of South Australia**

The National Trust of South Australia was established by Act of Parliament in 1955. It encourages the preservation and restoration of buildings of architectural, historic or scientific interest, the protection of scenic beauty and the conservation of land, flora and fauna.

The Trust, which is administered by a council, has forty-four branches spread throughout the State. Finance is provided by means of gifts, legacies, fund raising functions, subscriptions and a government grant.

Buildings of particular significance in South Australia are assessed on their architectural or historic merit and are categorised in accordance with the criterion adhered to by the Australian Council of National Trusts as either:

Classified, *i.e.* buildings having great historic significance or high architectural qualities, the preservation of which is essential to the heritage of the State; or

Recorded, *i.e.* buildings which contribute to the heritage of Australia and which should be recorded and their preservation encouraged.

Examples of the natural areas cared for are 'Willibalangaloo' at Berri, 'Wati-paringa' at Eden Hills, 'Roachdale' at Kersbrook and 'Engelbrook' at Bridgewater. The many beautiful or historic Trust properties include Beaumont House and the Marble Hill ruins and reserve. Marble Hill was officially opened on 15 February 1975 by His Excellency the Governor, Sir Mark Oliphant. Magnificent views of the Adelaide Hills and Plains can be obtained from the many vantage points in the thirty-one hectares of park-like setting in which the building stands. Original plans of the building are on view, together with photographs of both the exterior and interior before the building was destroyed by fire on 2 January, 1955. The original stables have been restored and converted for use as a kiosk.

The Trust also owns the G. S. Sandison Reserve at Hallett Cove, an area of international scientific interest because of its glacial pavements.

In 1963 the paddle steamer *Marion*, which now floats in the old graving dock at Mannum, was purchased and refitted; while the Willunga Court House and Police Station, both built in the mid-nineteenth century, were restored in 1969. In the following year the Trust fully restored the Customs House at Robe and in 1971 played a prominent part in persuading the State Government to save from demolition the architecturally classic and beautiful ANZ Bank Building in King William Street which had been classified by the Trust. This building has been renamed Edmund Wright House and is now occupied by the South Australian

Registrar of Births, Deaths and Marriages, and many marriage ceremonies are held there.

At December 1974, the National Trust of South Australia controlled forty-nine reserves totalling 1 184 hectares and some forty-two restored buildings, many of which are used as folk museums in various country centres.

The headquarters of the National Trust in South Australia is in the historic and beautiful residence of Ayers House, once the home of the first and seven times Premier of South Australia, Sir Henry Ayers. It is situated at 288 North Terrace, and is being fully restored.

### **Aboriginal and Historic Relics**

The protection of Aboriginal relics and of traces of the early settlement of the State is governed by the Aboriginal and Historic Relics Preservation Act, 1965. The administration of this Act is the responsibility of the Minister of Environment and Conservation, and the Director of the South Australian Museum, who is *ex officio* Protector of Relics.

Remnants of Aboriginal culture such as prehistoric camp-sites, ceremonial grounds, cave paintings, rock engravings and canoe trees are to be found in various parts of the State. Although many such relics were destroyed following European settlement several remain which are of great scientific and tourist interest. Similarly there are many interesting examples of early European settlement, all of which are protected by the provisions of the Act.

A particular relic or series of relics may be protected by the Governor declaring the area in which it is found either a Prohibited Area or a Historic Reserve. Inspectors and Wardens are appointed to safeguard such areas and the Protector of Relics maintains a complete register of all prohibited areas and reserves, and also of unproclaimed known occurrences of relics.

A special article on Aboriginal relics together with a list of declared areas at 30 June 1969 was included on pages 201-8 of the *South Australian Year Book* 1969 and areas declared between 1 July 1969 and 31 October 1973 have been included in subsequent issues of the *South Australian Year Book*.

The only area declared between 1 November 1973 and 31 October 1974 was:  
Makiri Prohibited Area      Important Aboriginal mythological and cultural site.  
*Prohibited Area*

## **ART GALLERIES**

### **The Art Gallery of South Australia**

The National Gallery of South Australia was founded in 1881 as a part of the South Australian Institute which in 1884 became the Public Library, Museum and Art Gallery of South Australia. This institution was dissolved by Act of Parliament in 1940, and the Gallery became a government department under the Art Gallery Board. The name was changed to the Art Gallery of

South Australia in 1968. The first portion of the present building, the Elder Wing, was completed in 1900, the Melrose Wing on the western side and the facade were added in 1936, and in 1962 a three storey air-conditioned wing was built at the northern end.

The collections are broad in scope and include a representative selection of Australian and European paintings and sculpture. There are large collections of prints, drawings, silver, glass and ceramics (including an important section devoted to South-East Asia), as well as furniture, arms and armour, and an important collection of coins and medals. In addition the South Australian Historical Museum incorporates early South Australian relics and paintings.

In addition to the permanent collections, the Gallery has a full program of visiting international and interstate exhibitions. With the establishment of the Adelaide Festival of Arts in 1960, the Gallery has participated as the organiser and venue of all the official art exhibitions brought to South Australia for this important cultural activity.

The Gallery has received many bequests, the Elder, Morgan Thomas, David Murray, Ragless, Boxall, Mortlock and Kolhagen bequests together totalling over \$252 000. Money has also been bequeathed for the Maude Vizard-Wholohan Prize awarded alternatively for a landscape or a figure subject in oils; there are additional Maude Vizard-Wholohan prizes for watercolour, print and sculpture from time to time. In addition the State Government makes an annual grant for the purchase of works of art.

The staff of professional and technical officers undertake the research and development, care and conservation of the collections and the preparation of exhibits for public education and enjoyment. They also attend to public inquiries for authentication of works of art and guidance in conservation.

A regular program of film evenings, lectures and demonstrations is given and the Travelling Art Exhibition, a fully equipped van with illuminated portable screens, accompanied by a driver and a lecturer, tours country centres during school term. In 1974, eighty-two centres were visited and the exhibition was viewed by 49 000 adults and children. A Reproduction Lending Service is also conducted for the benefit of suburban and country schools and government departments.

A society, The Friends of The Art Gallery of South Australia, was founded in 1969 for people interested in the fine arts and to create a body of people who would be informed about the activities of the Gallery. Membership stands at 1 325 and falls into four categories—Institutional, Family, Ordinary and Junior.

### **Other Galleries**

South Australia's two leading art societies, the Royal SA Society of Arts (Australia's oldest art society which was founded in 1856) and the SA branch of the Contemporary Art Society of Australia Incorporated (founded in 1942) conduct exhibitions in their own galleries. An exhibition area, known as 'The Gallery', has been provided by the Adelaide Festival Centre Trust. Its inaugural exhibition was staged to coincide with the official opening of the Playhouse on

26 October 1974. A continuous, changing exhibition is mounted on its own premises by the Adelaide Potters' Club, South Australia's longest established craft society.

The SA Craft Authority was set up by the State government in 1974 with administrative offices at St Peters. Groups which will operate there in 1975 include the Crafts Association of SA and the Experimental Art Foundation Incorporated (SA).

The first permanent gallery to mount regular fortnightly shows opened at John Martin's emporium in the mid 1940s under the directorship of Stefan Heysan. The Bonython Art Gallery (now the Andris Lidums), which opened at North Adelaide in 1961, was the first establishment in Adelaide to be devoted solely to the business of fine art dealing. The Llewellyn Galleries at Dulwich, which opened in 1967 but has now ceased operations was the first building in Adelaide to be architecturally designed and erected to function as a commercial exhibition gallery. Since then, many commercial galleries have been established throughout the State. There are now over forty commercial galleries operating rotating exhibitions throughout the metropolitan area.

Outdoor exhibitions have been popular among amateur clubs, beginning with the Citizen's Art Group in 1954. The Advertiser's annual open-air exhibition is supported by professionals and amateurs alike. The 1974 exhibition contained 1 121 exhibits submitted by 1 675 entrants resulting in sales totalling \$25 248.

## MUSIC AND DRAMA

### MUSIC

The range and quality of music concerts in Adelaide is steadily increasing, with high standard amateur and semi-professional activity as well as the professional performances from the Adelaide Symphony Orchestra, the Adelaide String Quartet, the University of Adelaide Wind Quintet, and New Opera, South Australia's regional company. Regular concerts are given in the Festival Complex, the Elder Conservatorium and Union Church. A recent interesting innovation is an annual Autumn series at Crafers, in the Adelaide Hills.

During 1974 the final stages of the Adelaide Festival Complex were completed and officially opened. The Complex provides a centre for cultural activities of such diversity and quality that there have been many more people attending the theatre. Public response to the summer holiday performances was so great that extra performances had to be scheduled.

### Australian Broadcasting Commission

In the metropolitan area the Adelaide Symphony Orchestra each year gives twenty orchestral subscription concerts and six youth orchestral subscription concerts, usually featuring overseas conductors and/or soloists. The Australian Broadcasting Commission (ABC) also presents a recital series of six performances by overseas artists. In addition there are at least six free orchestral concerts annually as well as a series of three Prom concerts.

During 1974 the Orchestra gave twenty-two free concerts for schoolchildren in the metropolitan area. Broken Hill had its own ABC subscription series of four concerts; one by the Adelaide Symphony Orchestra and three by international recital artists. In addition the Symphony Orchestra toured the country areas and during 1974 visited six other centres giving two free concerts for schoolchildren in each centre in addition to a public concert.

### **Elder Conservatorium of Music**

The Elder Conservatorium of Music at the University of Adelaide provides a comprehensive course of training for students in courses leading to the degree of Bachelor of Music, and also caters for part-time students by providing instruction in the various branches of music as single studies.

Particulars relating to the Elder Conservatorium at the University of Adelaide are given on pages 204-5.

### **DRAMA**

The South Australian Theatre Company (SATC), a fully professional company, presents a repertory of both classics and significant modern plays. In October 1974 the company moved into its permanent quarters, the Playhouse in the Adelaide Festival Centre, with the premiere of a new Australian play. This theatre is the drama theatre of the Adelaide Festival Theatre complex which, together with its experimental theatre space and outdoor amphitheatre, provides excellent facilities for the presentation of drama, orchestral concerts, opera, ballet, recitals and films. The company includes a youth activities team working full-time in the area of drama in education.

Touring productions of plays, ballet and opera from overseas and interstate are presented by commercial managements and by the Elizabethan Theatre Trust in Her Majesty's Theatre, which has a seating capacity of 1 150.

The Olde King's Music Hall, a theatre restaurant, offers performances of vaudeville and melodramas. The same management operates the Royalty Theatre staging mainly musical plays and light comedies. The tiny Cottage Theatre presents both farces and musical comedies while the Q Theatre is mainly concerned with modern Australian plays.

There are over twenty amateur theatrical groups operating in South Australia, the oldest of which is the Adelaide Repertory Theatre Inc. which has its permanent home in the Arts Theatre. The Adelaide University Theatre Guild which plays in the Union Theatre of Adelaide University has premiered many Australian plays. The new Little Theatre in the University Union, opened in 1974, provides another venue for intimate theatre presentations. Many actors in the professional theatre have graduated from such groups as the Adelaide Theatre Group and the Therry Society.

Numerous country centres support amateur theatre groups. The Department of Further Education provides some tuition in country towns while the Arts Council of Australia (SA Division) arranges country tours by theatre groups.

### THE ADELAIDE FESTIVAL CENTRE\*

The Adelaide Festival Centre is a \$17 million performing arts complex at present nearing completion on a 2.5 hectare site near the centre of the city of Adelaide. The Centre comprises a multi-purpose concert hall and lyric theatre, two drama theatres, an open air amphitheatre and surrounding plaza areas.

The first plans for the Adelaide Festival Centre revolved solely around the largest auditorium, the Festival Theatre, which was financed by public donations of \$100 000, an Australian Government Grant of \$200 000 with the remainder raised by the Adelaide City Council (one-third) and the South Australian Government (two-thirds). The site for the Centre was chosen in 1969; final sketch plans were prepared that year and work commenced on the site in March 1970. A year later the South Australian Government decided to enlarge the Centre to include three smaller auditoriums and associated works. This is being financed by Government-guaranteed loans to the Adelaide Festival Centre Trust, a statutory body incorporated under the Adelaide Festival Centre Trust Act, 1971-1974. The entire complex is scheduled for completion late in 1976.

#### The Setting

Adelaide, the capital of South Australia, in a setting between the Mount Lofty Ranges and the beaches of Gulf St Vincent has parklands covering 688 hectares surrounding the 2.5 square kilometre commercial centre, separating it from the suburbs beyond. There are more than 800 000 people, just over two-thirds of the State's population, living in Urban Adelaide. It includes the State's main port and is the commercial and industrial centre of the State.

The River Torrens separates the northern suburbs from the city's centre. This river passes through the Botanic Gardens and curves towards the city centre before flowing out to sea. The Adelaide Festival Centre is constructed on gently sloping land between Parliament House and the River Torrens.

In years of even number, Adelaide stages a Festival of Arts—a feast of music, opera, theatre, ballet, art, literature and light entertainment. Writers, musicians and artists congregate from all over Australian and many overseas countries for this two-yearly event. The Festival Centre will be the heart of the next Festival of Arts which will be presented in 1976.

#### Adelaide Festival Centre Trust

The Adelaide Festival Centre Trust, established in 1971 under the Adelaide Festival Centre Trust Act, is responsible for the financing, construction and administration of the Centre and also for the encouragement of artistic, cultural and performing arts activities throughout South Australia.

The construction of the Festival Theatre was the responsibility of the Corporation of the City of Adelaide and the construction of the drama complex and associated works and facilities has been the responsibility of the Trust. The Festival Theatre which was opened on 2 June 1973 had not been vested in the Trust at 30 June 1974.

With the consent of the South Australian Treasurer the Trust is empowered to borrow money in the exercise of its functions. The repayment of such moneys is guaranteed by the Treasurer. During 1973-74 the Trust borrowed \$2.8 million for capital purposes from various lending institutions (mainly banks and insurance companies) and a total of \$7.3 million had been borrowed from

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\*Contributed by the Publicity Department of the Adelaide Festival Centre.

these institutions at 30 June 1974; of this amount \$5 773 000 had been paid to the South Australian Public Buildings Department, the constructing authority for the Centre. In 1973-74 the State Government provided funds for several purposes including interest on borrowings, catering plant and equipment, and works of art. A special grant of \$15 000 was made through the Minister of Education to encourage performances for schools at the Centre.

The Chairman of the six-member Trust is Mr H. J. Baily, Director of the Art Gallery of South Australia, and the General Manager of the Trust is Mr Anthony Steel, previously Planning Manager of the South Bank Concert Halls in London. Mr. Steel is also Artistic Director for the Adelaide Festival of Arts. A staff of more than 250 full and part-time employees administer and manage the Centre.

### **The Festival Theatre**

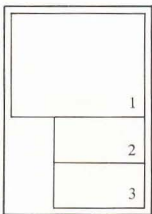
The \$7 million Adelaide Festival Theatre was the first completed auditorium of the Centre and was officially opened by the Prime Minister of Australia, the Hon. E. G. Whitlam, on 2 June 1973. Seating nearly 2 000 people on three levels and in a series of tiered boxes, the Theatre has been designed for a kaleidoscopic range of theatre activities, including orchestral concerts and recitals, large-scale opera, ballet and drama, films, musical comedy, variety and jazz concerts, conventions and conferences. The seats extend across the Theatre in continental style with access from large foyers along the sides of the auditorium.

The Theatre can change, within a short time, from a normal lyric theatre to concert hall through the erection of a timber-clad orchestral enclosure with a capacity for 100 musicians and a choir of 200. Because the Theatre has been designed for such a wide variety of uses, many of the auditorium's features have special acoustical properties—such as walls of timber blocks, an open framework timber ceilings and curtaining at the rear of each auditorium level. By varying the uses of some of these materials, including large retractable woollen blinds above the ceiling, it is possible to change the acoustical properties of the auditorium to suit differing needs. The seating capacity of the Theatre can be increased from 1 827 to 1 978 by the installation of extra rows in the orchestra pit area. In the first full year of operation more than 570 000 people attended performances at the Festival Theatre.

The proscenium opening of the stage can be adjusted from a height of 10·37 metres down to a minimum of 7·32 metres and from a width of 16·75 metres down to 12·19 metres allowing for visual flexibility for the varied activities of the Theatre. The performing area—16·75 metres by 15·85 metres, with wing space four times as large—allows for maximum flexibility of productions. The orchestra pit can accommodate up to ninety musicians, and backstage there is dressing room accommodation for more than 100 performers in addition to the orchestra. The Theatre is equipped with a simultaneous translation system, roving and stage microphones and closed circuit television which make it an ideal venue for international conventions.

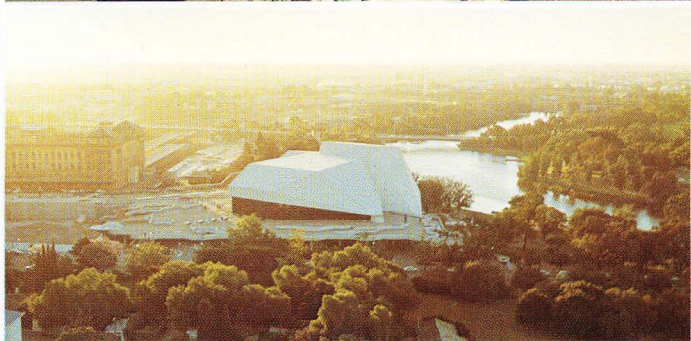
Catering facilities in the Theatre include a restaurant seating 120 diners, a licensed bar-lounge and an outdoor cafe on the northern terrace overlooking Elder Park. During interval, patrons can also enjoy a drink at the foyer bars. Box office facilities in the Theatre are unrivalled in Adelaide and have been designed to serve the Adelaide Festival of Arts every two years when some forty different attractions are being booked concurrently. A music and book shop in the box office lobby provides an additional service to theatre-goers and to the general public.



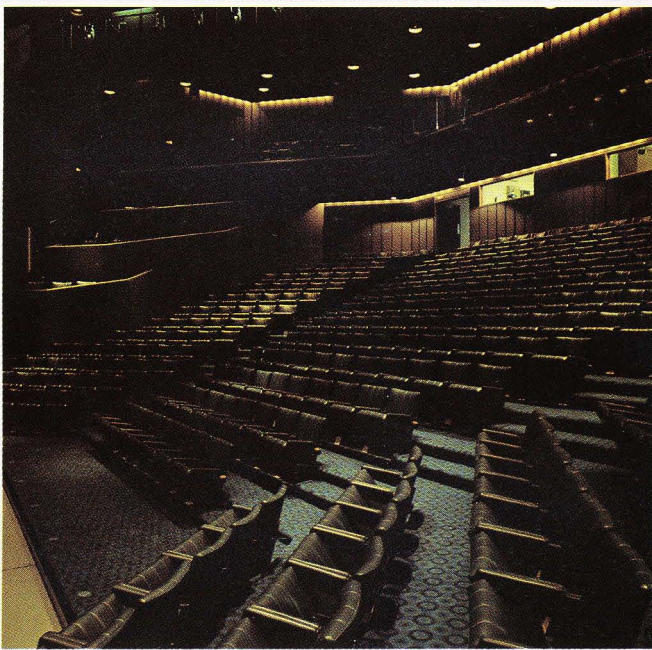
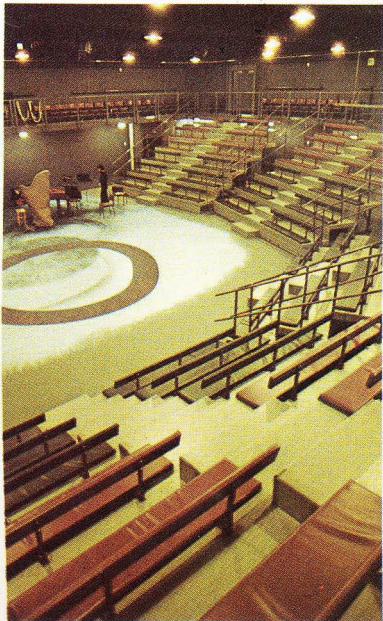
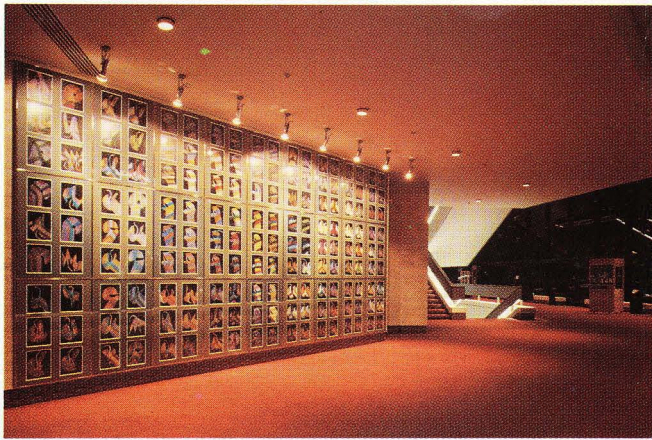


1. The Adelaide Festival Centre viewed from Parliament House, looking north.
2. From Adelaide Railway Station, looking north.
3. From Adelaide University, looking west.

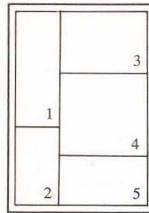
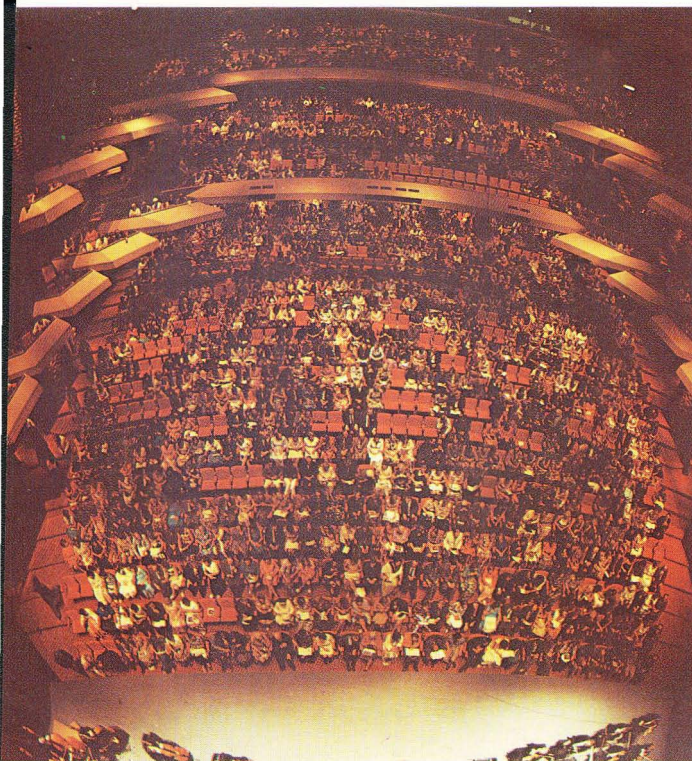
Photographs by Jan Dalman





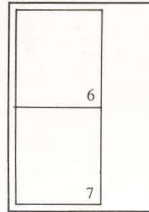






1. The Festival Theatre with Bert Flugelman's environmental sculpture in stainless steel on the plaza outside.
2. The interior of The Space.
3. First Balcony foyer in The Festival Theatre with Sidney Nolan's *Rainbow Serpent* mural.
4. Interior of The Playhouse.
5. The Festival Theatre at night showing the Leonard French tapestry *Ancient Sun*.

Photographs by Jan Dalman, except no. 2 by Douglas McNaughton, courtesy of the Australian Information Service)

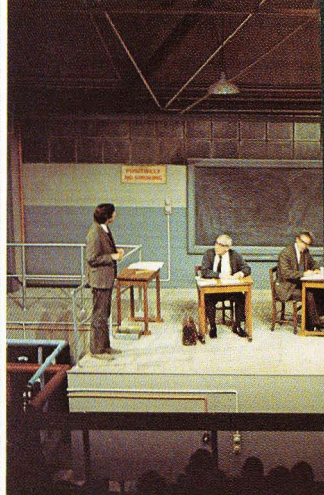


6. Interior of The Festival Theatre as seen with a fish eye lens.
7. The Ampitheatre opening day concert, October 27, 1974.

Photographs by Jan Dalman





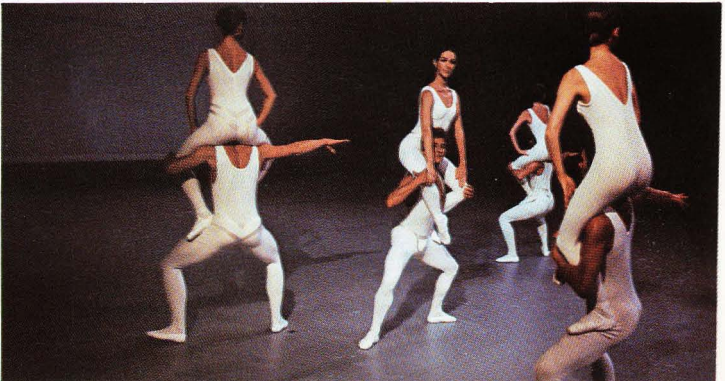
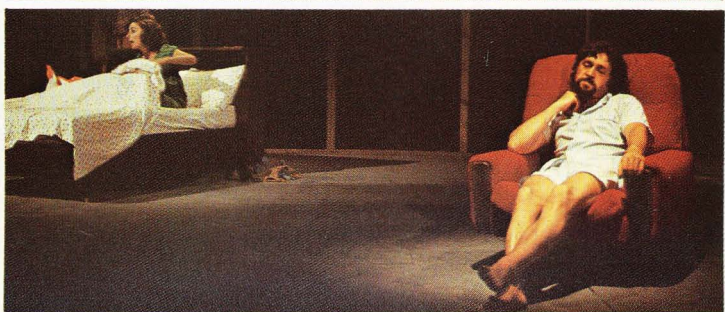
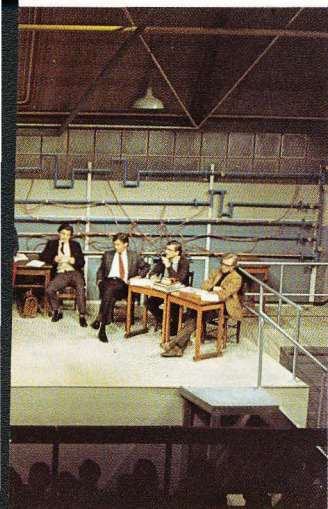


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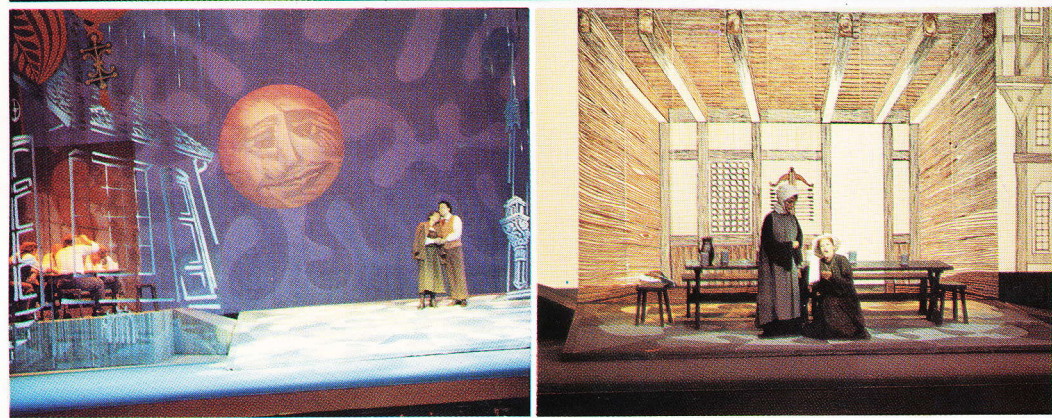
1. Gilbert & Sullivan's *The Mikado*, presented in The Festival Theatre by the Adelaide Festival Centre Trust, December and January, 1973-74.
2. David Williamson's *The Department*, a world premiere production by the South Australian Theatre Company in The Playhouse, November 1974.
3. *The Russian Spectacular*, presented by Michael Edgley International in The Festival Theatre, February 1975.
4. Concert by the New Zealand Broadcasting Corporation Orchestra with soprano Kiri Te Kanawa in The Festival Theatre, October 1974.
5. Commedia dell'arte production of *The Three Cuckolds*, presented by the South Australian Theatre Company, which officially opened The Playhouse on October 26, 1974.
6. Barry Oakley's *Bedfellows*, presented by the Australian Performing Group in The Space, March 1975.
7. *Cheque Mate*, presented by The Adelaide New Music Players in The Space, May 1975.
8. Ballet Victoria in Garth Welch's *Images* at The Festival Theatre, July 1974.

Photographs by Jan Dalman except no. 2 (by Grant Matthews)

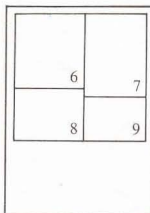
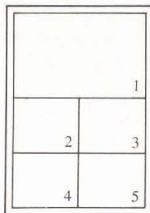
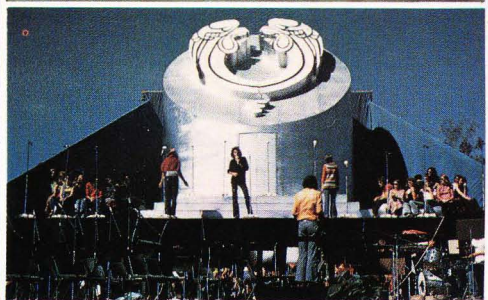
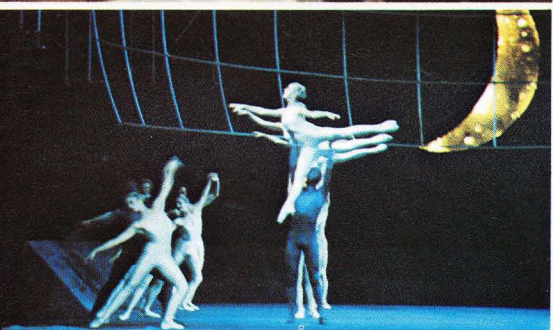








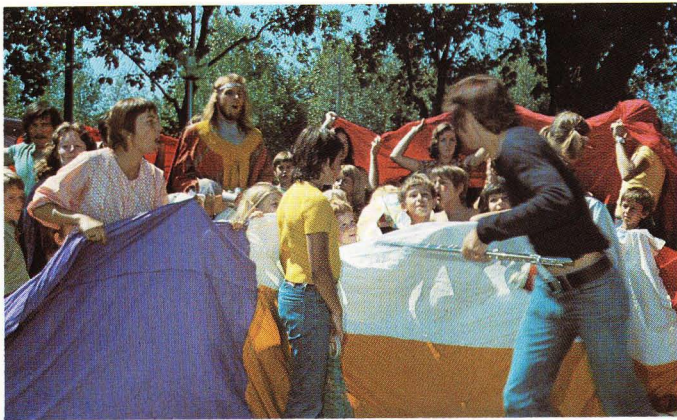




- 1, 2 and 3 The Janacek opera *The Excursions of Mr Broucek*, presented by New Opera South Australia in The Festival Theatre. An Australian premiere performance at the 1974 Adelaide Festival.
4. The Australian Aboriginal Portrayed in Art — one of the visual art exhibitions at the Art Gallery of South Australia during the 1974 Festival.
5. The South Australian Theatre Company in *Adelaide Anthology* at Edmund Wright House, 1974 Festival.
6. Peter Maxwell Davies and The Fires of London rehearsing for the 1974 Festival at the Adelaide Town Hall.
7. Slansk, the Polish national song and dance company which appeared at the 1974 Festival.
8. Sir Robert Helpmann's *Perisynthyon* — a world premiere production by The Australian Ballet at the 1974 Festival.
9. Rehearsal for the spectacular outdoor concert production of *Jesus Christ Superstar* at the 1972 Festival.

Photographs by Grant Matthews 1, 2, 3); Ron Langman, by courtesy of The Adelaide City Council (4, 5, 6); and Bill St. Clair Johnson, by courtesy of The South Australian Government Tourist Bureau (8, 9).

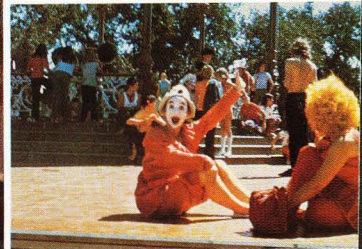




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1. Street theatre, Elder Park 1974.
2. Patchwork carpet, Elder Park 1974.
3. Craft Fair, Elder Park 1974.
4. Boulevard Cafe, North Terrace, 1972.
5. Folk dancing in Rymill Park, 1972.
6. Cheskoo Raree Clowns, Elder Park 1974.

Photographs by Ron Langman, courtesy of The Adelaide City Council (1, 2, 3); and Bill St Clair Johnson, courtesy of The South Australian Government Tourist Bureau (4, 5, 6).





The Festival Centre Trustees have a policy of commissioning and purchasing works of art for the Centre which now has a collection valued at more than \$250 000. Two of these works were purchased with money over-subscribed to the public appeal for the building fund. One is a series of thirteen magnificent oil paintings by Australian landscape artist, Fred Williams, which hang on two walls of the stalls foyers. Some of these panels were inspired by a trip the artist made to the Riverland area of South Australia along the Murray near Loxton. The other purchase from public subscriptions is a 3.5 metre high bronze sculpture—'Ultimate Form' by Dame Barbara Hepworth—placed on the plaza at the northern end of the Theatre.

In the first balcony foyers of the Theatre, two walls are devoted to Sidney Nolan's monumental 'Rainbow Serpent' mural. Mr Nolan has generously given this mural to the Theatre on permanent loan. Below the main staircase in the stalls foyer is Max Lyle's environmental sculpture in stainless steel, commissioned from this Adelaide artist by the Festival Centre. Also in the stalls foyer near the bar-lounge is John Coburn's tapestry 'Night', this, the first private art gift to the Theatre, was donated by the Hardy Family. Hanging above the main scissors staircase, between first and second balcony levels is a 5.2 by 4.3 metre tapestry 'Ancient Sun' by Australian artist Leonard French, especially commissioned by Associated Securities Limited as a gift to the Theatre.

As well as Barbara Hepworth's 'Ultimate Form' there are three other pieces of sculpture on the plaza at the front of the Theatre. One is Phillip King's 'Yellow Between', an abstract piece in painted steel which is on permanent loan from the collection of a British industrialist. Another, a giant brass sundial by Adelaide's Owen Broughton, was commissioned as a memorial to a South Australian community and charity worker, Miss Ruth Gibson, CBE. The most recent gift to the complex is Bert Flugelman's \$14 000 stainless steel sculpture, comprising seven joined tetrahedral shapes, which stands in front of the plaza entrance to the Festival Theatre and was the gift of the Broken Hill Proprietary Company Limited.

### The Drama Complex

In October 1974 work was completed on the \$6.5 million drama complex alongside the Festival Theatre. The largest auditorium in this complex is The Playhouse, a 600-seat, two-level theatre which is designed for both proscenium and thrust-stage productions. It has a stage acting area of 15.85 by 11.9 metres and an 11.9 metre adjustable proscenium plus a thrust stage or orchestra pit to seat thirty musicians. Amplification equipment is available for incidental music, sound effects, lectures, symposia and stage and audience participation. There is total dressing room accommodation for ninety performers in the drama complex.

The Playhouse is the home of the South Australian Theatre Company and is served by a production workshop consisting of design studio, carpentry and paint shops, assembly areas, wardrobe, millinery and wigmaking sections and a photographic dark room. The foyer areas of the Playhouse and the Bistro restaurant have panoramic views out over Elder Park and the Torrens River at the northern end of the Theatre.

Alongside the Playhouse and beneath plaza level is The Space, a 380-seat experimental theatre, 21.33 metres square with wall balconies running around the four inside walls some 3 metres from the ground. A completely flexible

auditorium, The Space can be arranged in almost any variation of seating and acting areas and incorporates electronic music facilities. It has been designed as an ideal venue for experimental performances and teaching workshops.

Where the Festival Theatre and Playhouse meet on the Elder Park side of the Festival Centre site, there is an open air Amphitheatre which is formed by the natural slope of the site where the plaza steps down to Elder Park. The 12 square metre acting area, on the edge of the Park itself, will be screened by a natural backdrop of trees and earth banks at the same level as the dressing rooms of both the Festival Theatre and Playhouse so that either can be used by performers in the Amphitheatre. The audience can approach their seats either from the south, over the plaza, or from the walkway traversing the northern boundary of the Centre. Seating on simple stone aggregate tiers is provided for 800 people in the Amphitheatre, with an overflow capacity of a further 400 on the steps and walkway above. Lighting and amplification are provided from special standards. On a busy evening, as many as 3 800 people may be attending four simultaneous attractions at the Festival Centre.

By 1976, an additional \$3.4 million will have been spent on the complex to complete the entire plaza area of 1.42 hectares, and on the construction of a 300-vehicle car park and additional office accommodation beneath the plaza, where the former Government Printing Office stood. The plaza extensions will include a spectacular environmental sculptural element designed by the West German artist, O. H. Hajek.

The Centre's architects have made every effort to blend the buildings with their setting. The huge slanting roof panels reflect the natural fall of the land. The multifaceted shapes of the roofs are emphasised by the whiteness of the concrete cladding material. Huge bronze-tinted windows soften the brightness of the extensive roof area while giving extensive river views from the north facade.

The sweeping plaza will lead around the theatres to a garden walk by the river. It will make the theatres an important community centre situated within minutes of the city's main streets.

### **The Centre's Activities**

Australian national touring companies, The Australian Opera and The Australian Ballet, give annual seasons in the Festival Theatre and the resident Adelaide Symphony Orchestra uses the Theatre for its annual orchestral and youth concert series as well as for special celebrity concerts by international artists and orchestras. The Adelaide Festival Centre Trust and principal Australian commercial entrepreneurs use the Theatre for a wide variety of other presentations. Since it opened, the Theatre has played host to many international groups including The Royal Shakespeare Company, The Leningrad Kirov Ballet, the Scottish Ballet (with Dame Margot Fonteyn), The Stuttgart Ballet, the Kwang Chow Acrobatic Troupe from the People's Republic of China, the Cleveland, Hungarian State Symphony and New York Philharmonic Orchestras, the Georgian State Dance Company and the Vienna Boys' Choir. Individual artists have included such diversely talented performers as Birgit Nilsson, Rod McKuen, David Frost, Cleo Laine, Acker Bilk, The Supremes, Dave Brubeck and Ivan Rebroff.

The Playhouse is occupied by The South Australian Theatre Company for a major portion of each year but will also be the venue for performances by other Australian and international drama companies as well as being used occasionally by South Australia's resident opera and dance groups.

A wide ranging group of companies and performers use The Space, particularly local professional drama, dance, opera, music and puppetry groups, for performance and workshop activities. The Amphitheatre is used mostly during the summer months for rock, folk and variety concerts but is suitable also for drama, dance and opera.

### THE ADELAIDE FESTIVAL OF ARTS

In 1958, a small group of Adelaide citizens were called together by Sir Lloyd Dumas and with the assistance of Professor John Bishop (Director of the Elder Conservatorium of Music) they developed plans for the first Adelaide Festival of Arts, which was held in 1960. Further festivals have been held in March in years of even number from 1962.

Of the first Festival in 1960, the then Lord Mayor of Adelaide recorded . . . 'With the subsequent backing of twenty South Australian firms and individuals to an amount of £15,000, we decided to go ahead immediately. Professor John Bishop was then appointed Artistic Director; we sought the aid of Mr Ian Hunter, the London impresario, who had wide experience in Edinburgh Festivals; the various committees were appointed and the Festival began to develop. The response to appeals for further guarantees was most encouraging. The fact that these now total £45,000, that the Commonwealth Government of its own volition has granted us £7,000, that the South Australian Government offered another £5,500 towards publicity, all gave us confidence to set about arranging a comprehensive program . . .

In the city of (then) less than 600 000 people, total attendance at theatres, halls and galleries at the first Festival was 298 000. Some 38 000 listened to symphony concerts and recitals, a total of 230 000 visited twenty-eight exhibitions, and more than 80 000 watched opera, drama and puppet shows.

The first Festival brought together many artists of world stature: French pianist Phillippe Entremont; Canadian soprano Lois Marshall; violinist Gioconda di Vito from Italy; Viennese opera conductor Dr Karl Frankl and Joan Hammond in the first Australian performance of Strauss's *Salome*; the Janáček string quartet from Prague; British Shakespearean Sir Donald Wolfitt; and Robert Speaight in a memorable production of T. S. Eliot's *Murder in the Cathedral*. There were exhibitions from the Tate Gallery collection of Turner's masterpieces, a definitive exhibition of William Dobell and a five-day seminar for composers sponsored by UNESCO. There were four Australian symphony orchestras and an abundance of chamber music.

Professor John Bishop remained Artistic Director of the Festival until his death in December 1964; he programmed the 1962 and 1964 Festivals as well as the inaugural one in 1960. He was succeeded for the 1966 Festival by a panel of Artistic Advisors, Mr Robert Campbell, Professor B. L. D. Coghlan and Mr John Horner.

Sir Robert Helpmann was appointed Artistic Consultant to the fifth Festival in 1968, aided by a panel of advisors, and became Artistic Director of the 1970 Festival. He in turn was succeeded by Mr Louis van Eyssen (1972 Festival) and the present Artistic Director, Mr Anthony Steel, who was Artistic Advisor to the 1974 Festival and has since assumed full artistic responsibility for the 1976 Festival.

The Adelaide Festival has achieved many artistic triumphs in its fourteen year history and has been instrumental in bringing to Australia for the first time many notable overseas companies, performers and artists. It has seen the first

performances of scores of major Australian productions including Sir Robert Helpmann's lyrebird ballet *The Display*, and Patrick White's play *A Night on Bald Mountain*. Australian premiere performances at Adelaide Festivals have included Benjamin Britten's *War Requiem* and Sir William Walton's opera *Troilus and Cressida* (both in 1964) and Britten's church parable, *The Burning Fiery Furnace* (1970).

Notable overseas companies, orchestras and performers taking part in the Festival program over the years have included The London Philharmonic Orchestra, The Black Theatre of Prague, The London Symphony Orchestra, The Swiss Kammermusiker, The Salzburg Marionette Theatre, The Jacques Loussier Trio, The Warsaw Philharmonic Orchestra, The Royal Shakespeare Company, The Bunraku National Puppet Theatre of Japan, The Academy of St Martin-in-the-Fields, The Prospect Theatre Company, Tito Gobbi, Rudolf Nureyev, Marlene Dietrich, Rita Streich, Yehudi Menuhin, Sir Malcolm Sargent, Siobhan McKenna and Carlos Montoya.

World famous writers who have been guests at Festival Writers Week include Yevgeny Yevtushenko, Edna O'Brien, Anthony Burgess, Allen Ginsberg, John Updike, Alan Moorhead, Angus Wilson and Nadine Gordimer.

The completion of the \$17 million Adelaide Festival Centre has caused a shift in the emphasis of the Festival of Arts. The regular appearances of leading overseas performers and companies at the Centre throughout the year has enabled the Festival to engage in activities considered more appropriate to arts festivals. These include the commissioning of new works, the encouragement of local companies and artists and the provision of a variety of programs to attract greater public interest and appreciation.

### The 1974 Festival

The Festival commissioned a new score from British composer Peter Maxwell Davies, *Miss Donnithorne's Maggot*, to a text by Randolph Stow. This work was given its world premiere in Adelaide by the Fires of London under the direction of the composer. Ross Edwards' *Antiphon* was the 1974 John Bishop memorial commission. Dr Paul Sacher commissioned an oboe concerto from the internationally renowned Adelaide-based composer Richard Meale especially for the Festival; it was performed by Heinz Holliger with the Collegium Musicum of Zurich under Dr Sacher.

Recitalists included André Tchaikowsky who performed the entire Klavierübung of Bach, Hans Hotter (who also conducted a master class) and the Brazilian guitarists, the Abreu Brothers.

Orchestral concerts were given by the Adelaide (then known as the South Australian) Symphony Orchestra, including a 'Boston Pops' program with Arthur Fiedler, and also by the Hungarian State Symphony Orchestra on their first Australian tour. Each of their programs, which were conducted by Janós Ferencsik and Ervin Lukacs, included a major Bartók work.

The many other concerts included a program by the Triton Trio entitled 'Gold-Diggers of 1852' commissioned by the Adelaide Festival and the South Australian Division of the Arts Council of Australia, a program in the Adelaide Zoo featuring the Premier, the Honourable D. A. Dunstan, reading Ogden Nash's verses to Saint-Saëns *Carnival of the Animals*, and a performance by massed military bands in Elder Park of Berlioz' Funeral and Triumphal Symphony.

The major operatic content of the Festival was provided by New Opera South Australia in Janacek's *The Excursions of Mr Broucek*, the first professional production of any Janacek opera in Australia and the first production of Broucek anywhere in English. Also making their Australian debuts were the Stratford National Theatre of Canada in Molière's *The Imaginary Invalid* and the National Theater of the Deaf from New York.

The first performance of a new play by Australia's Alexander Buzo, *Coralie Lansdowne Says No*, was given by Nimrod Street Theatre, and Theatre 62 mounted a production of Tankred Dorst's *Ice Age* in a specially commissioned translation. The South Australian Theatre Company's repertoire included the first production by a professional company of Louis Esson's *The Bride of Gospel Place* which was also the work's first performance since its premiere in 1926. The Australian Ballet presented the world premiere of Sir Robert Helpmann's ballet *Perisynthyon*, and the Australian Dance Theatre's season included five new works.

Overseas artists ranged from 'Slansk'—the Polish National Song and Dance Company—and the Great Moscow Circus to solo performers Nancy Cole, Jack Emery and Tom Fleming.

Exhibitions at the South Australian Art Gallery included a series of paintings by Sidney Nolan entitled 'Ern Malley and the Paradise Garden' which the artist generously donated to the State of South Australia; a Matthew Flinders bi-centenary exhibition; and 'The Australian Aborigine Portrayed in Art', an exhibition conceived to coincide with the release of a book by Geoffrey Dutton of the same title. Anne Schofield's collection of women's fashions covering more than a century and a half was displayed at Carclew.

Under the name of 'Come Out', the 1974 Children's program was an attempt to involve children on a real and separate basis from adults. Other children's attractions were provided by The Marionette Theatre of Australia and the Cheskoo Raree-Show pantomime.

Writers' Week in 1974 had a fuller and more varied program than ever before. The Week now is regarded as the most important convention of Australian authors and at the same time it is assuming international significance. It attracted over a score of writers from a number of countries. An important innovation, which may become a regular feature, was a session by children's authors on books for children.

Finance for the Festival is still raised largely in South Australia. For the 1974 Festival the State Government gave total grants of \$200 000 to the Festival administration; the Adelaide City Council contributed \$27 000; private and corporate donations totalled \$31 000; and guarantors (business firms and individuals) were called upon for a further \$23 000. In addition, the Friends of the Festival, who pay a biennial fee of \$25 in return for benefits such as concessions on admission prices and membership of The Festival Club, contributed \$29 500. The total subsidies from The Australia Council totalled \$70 000.

The next Festival will be held from 6 to 28 March 1976. Emphasis will be placed on new and previously unrepresented works and on creating a balance between attractions presented by international and national artists and companies.

## BROADCASTING

The supervision of radio and television broadcasting is an Australian Government responsibility and is carried out by the Australian Broadcasting Control Board under the *Broadcasting and Television Act 1942-1974*. An office of the Board is maintained in South Australia to administer the Act and in particular to supervise the program content and the technical quality of transmission.

Radio and television stations fall into two categories; national and commercial. National stations are operated by the Australian Broadcasting Commission. These stations do not broadcast advertising material, the Commission being supported by an annual grant from Australian Government revenue. Commercial stations operated by companies licensed by the Postmaster-General, derive their revenue from advertising.

## Radio

There are at present five metropolitan and thirteen country stations operating. The country or regional stations relay programs from metropolitan stations and in addition provide programs of local interest. The call signs and locations of stations are given in the following table; all call signs in South Australia are prefixed by the number '5'. Adelaide's three commercial stations broadcast continuously, while all other stations operated between 121 and 130 hours a week at June 1974.

Radio Stations, At 31 December 1974  
South Australia

National Stations		Commercial Stations	
Call Sign	Location	Call Sign	Location
5AN	Adelaide	5AD	Adelaide
5CL	Adelaide	5DN	Adelaide
5CK	Port Pirie	5KA	Adelaide
5LC	Leigh Creek	5AU	Port Augusta
5LN	Port Lincoln	5MU	Murray Bridge
5MG	Mount Gambier	5PI	Crystal Brook
5MV	Renmark	5RM	Renmark
5PA	Naracoorte	5SE	Mount Gambier
5SY	Streaky Bay		
5WM	Woomera		

Since 1963, the Australian Broadcasting Control Board has made surveys of all metropolitan programs twice yearly to obtain information as to the general availability of programs in each city. The program analysis covers the period of transmission between 6.00 a.m. and 10.30 p.m. Results of the surveys indicate that commercial stations broadcast mainly light entertainment in contrast to the national stations which, being independent of advertising revenue, provide a much wider variety of programs. The distribution of types of program matter is set out in the following table. Details for South Australia are not available separately but closely approximate those of the Australian distribution.

**Broadcasting Programs by Categories, Australia 1973-74**  
**All Metropolitan Stations**

Category	Commercial	National	All Stations
	Per Cent		
<b>Entertainment:</b>			
Light and popular music . . . . .	53.3	31.9	46.6
Incidental matter . . . . .	6.5	7.1	6.7
Variety . . . . .	1.3	1.9	1.5
Drama . . . . .	0.3	3.6	1.3
The arts . . . . .	0.2	21.0	6.7
<b>Information and services:</b>			
News . . . . .	9.7	11.2	10.2
Sport . . . . .	6.4	3.7	5.5
Information . . . . .	1.9	6.6	3.4
Religious . . . . .	1.1	1.4	1.2
Social and political . . . . .	3.2	5.6	3.9
Family . . . . .	1.2	0.5	1.0
Children . . . . .	—	2.2	0.7
Educational . . . . .	—	3.3	1.1
Advertisements . . . . .	14.9	—	10.2
<b>Total . . . . .</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Details of broadcast listeners' licences current at 30 June in each of the years 1970 to 1974 are given below.

**Broadcast Listeners Licences, South Australia<sup>(a)</sup>**  
**(Current at 30 June)**

Type of Licence	1970	1971	1972	1973	1974
Ordinary . . . . .	255 993	259 650	262 359	275 387	277 267
Hirers' and short-term hirers' . . . . .	1 597	3 090	3 342	2 379	4 027
Pensioner . . . . .	42 246	44 816	46 751	51 071	54 747
Other . . . . .	2 683	2 929	3 160	3 574	3 475
<b>Total . . . . .</b>	<b>302 519</b>	<b>310 485</b>	<b>315 612</b>	<b>332 411</b>	<b>339 516</b>

<sup>(a)</sup> Includes Northern Territory (8 530 licences at 30 June 1974). Includes combined (broadcast and television) licences—268 847 at 30 June 1974.

From 17 September 1974 broadcast listeners' licences and television viewers' licences were abolished.

### Television

Television stations have been established in South Australia in accordance with the Australian Broadcasting Control Board's planned development of television services in Australia. The following table shows the stations in service and the dates on which they commenced operations.

**Television Stations At 31 December 1974  
South Australia**

Call Sign and Channel	Location	Date Service Commenced
<b>NATIONAL STATIONS</b>		
ABS—2	Adelaide	March 1960
ABNS—1	Port Pirie	April 1965
ABGS—1	Mount Gambier	December 1965
ABRS—3	Loxton	January 1971
ABCS—1	Ceduna	July 1973
ABWS—1	Woomera	November 1973
<b>COMMERCIAL STATIONS</b>		
NWS—9	Adelaide	September 1959
ADS—7	Adelaide	October 1959
SAS—10	Adelaide	July 1965
SES—8	Mount Gambier	March 1966
GTS—4	Port Pirie	March 1968

As the early stations became established their transmitting time was increased until in December 1963 the two commercial stations were transmitting in excess of seventy-seven hours a week and the national station sixty-seven hours. Since December 1974 the hours of service for the four Adelaide stations have varied between eighty-nine and 111 hours each week.

From 19 October 1974 to 28 February 1975 a restricted number of hours per week of colour television were transmitted for test purposes and on 1 March 1975 colour television was officially introduced in South Australia on a full-scale basis.

On commercial channels there is a considerable emphasis on drama and light entertainment, whereas the Australian Broadcasting Commission devotes more time to programs of an informative and educational nature. The Australian Broadcasting Control Board's analysis of television programs is derived from data obtained directly from commercial and national stations and is calculated on the actual duration of the programs and not, as formerly, on the scheduled duration as shown in program journals. The time occupied by advertising is not dissected in the analysis but a separate study of advertising time based on data supplied in audience measurement survey reports carried out in Melbourne provides some indication of the proportion of time occupied by advertisements; in 1973-74 this was estimated at 15.2 per cent of the total televising time of commercial stations.

Results of surveys conducted by the Broadcasting Control Board in 1973-74 indicating the proportions of total broadcasting time (other than advertising) for various types of programs are given in the following table. Details for South Australia are not available separately but closely approximate those for Australia.



Television Programs: Categories, Australia, 1973-74

Category	Metropolitan and Country Stations	Metropolitan Stations		Country Stations	
	National	Commercial	All Stations	Commercial	All Stations
	Per Cent				
Drama:					
Adventure . . . . .	4.1	10.3	8.9	9.1	6.2
Domestic and comedy	10.9	17.1	15.7	20.8	15.2
Other . . . . .	7.6	21.5	18.3	21.9	13.8
Light entertainment:					
Cartoons . . . . .	2.6	6.4	5.5	4.1	3.2
Personality programs . .	1.3	10.9	8.7	10.4	5.3
Variety . . . . .	2.0	4.1	3.7	3.6	2.7
Other . . . . .	2.3	1.2	1.5	2.7	2.5
Sport . . . . .	11.6	5.8	7.1	6.6	9.4
News . . . . .	6.7	4.4	4.9	8.0	7.2
Children . . . . .	20.2	10.1	12.4	4.5	13.4
Family . . . . .	0.8	2.6	2.2	2.4	1.5
Information . . . . .	4.1	1.8	2.3	2.2	3.3
Current affairs and political . . . . .	8.2	2.2	3.6	2.2	5.6
Religious . . . . .	2.0	1.0	1.2	1.2	1.7
The arts . . . . .	0.9	0.1	0.3	—	0.5
Education . . . . .	14.7	0.5	3.7	0.3	8.5
Total . . . . .	100.0	100.0	100.0	100.0	100.0

Details of television viewers licences for the five years ending June 1974 are given in the next table.

Television Viewers Licences, South Australia<sup>(a)</sup>  
(Current at 30 June)

Class of Licence	1970	1971	1972	1973	1974
Ordinary . . . . .	213 978	218 958	225 015	235 886	237 315
Hirers' and short-term hirers' . . . . .	41 357	43 904	49 553	54 329	57 301
Pensioner . . . . .	33 847	37 003	39 784	44 145	48 094
Other . . . . .	3 177	3 387	4 005	4 662	4 743
Total . . . . .	292 359	303 252	318 357	339 022	347 453

(a) Includes Northern Territory (4 460 licences at 30 June 1974). Includes combined (broadcast and television) licences—268 847 at 30 June 1974.

From 17 September 1974 broadcast listeners' licences and television viewers' licences were abolished.

THE PRESS

The State's first newspaper, *The South Australian Gazette & Colonial Register*, was first printed in London in 1836, six months before colonisation. The second issue of this paper, which served both as the official government publication and as an unofficial reporter of the news, was produced in Adelaide twelve months later. *The South Australian Gazette* (renamed *The South Australian Government Gazette* in 1840) emerged as a separate organ in 1839 and the newspaper continued as *The Register*. In 1850 *The Register* became the first continuous daily paper.

In the next twenty years several more daily newspapers were introduced, and for many years there were two morning and two evening papers daily. However, since the mid-1920s the present system of three major newspapers—one morning daily, one evening daily and one weekend publication—has emerged.

*The Advertiser*, published each morning except Sunday, was first issued in 1858 as *The South Australian Advertiser* and absorbed *The Register* in 1931. It is distributed throughout the State, with about 30 per cent of its circulation in country districts.

*The News*, published each evening except Sunday, was introduced in 1923 replacing two evening newspapers, *The Express & Telegraph* and *The Journal*, which traced back their origins to the 1860s. Almost 80 per cent of sales of *The News* are in Adelaide and suburbs.

*The Sunday Mail*, printed on Saturday evenings and distributed mainly on Sunday mornings, first appeared under this name in 1955 following a merger between *The Mail*, first printed in 1912 and the *Sunday Advertiser*, which was introduced in 1953. About 25 per cent of sales of the *Sunday Mail* are in country districts.

In addition *The Chronicle* and the *Stock Journal* are published weekly. *The Chronicle*, established as a country newspaper in 1858, has the largest circulation of any weekly agricultural newspaper in South Australia. *The Stock Journal*, previously the *Adelaide Stock and Station Journal*, was established in 1904 and provides up-to-date information on stock and wool markets and the technical aspects of farming and property management.

To support these major State-wide newspapers, a strong provincial press has been built up. There are at present thirty-one country newspapers operating in the State with a combined circulation of over 110 000. Most of these are published weekly, although two appear bi-weekly and three tri-weekly. Of those still existing, *The Border Watch* (Mount Gambier) in 1861 and *The Bunyip* (Gawler) in 1863 were first to appear. Earlier publications are, however, recorded; *The Port Lincoln Herald*, for example, was printed in the early 1840s. There are also district papers containing items of local interest circulated in a number of suburbs of Adelaide.

## PARKS AND GARDENS

### Adelaide Botanic Garden

The Adelaide Botanic Garden, occupying about 20 hectares east of the Royal Adelaide Hospital, was established in 1855 and was opened to the public in 1857. An area of about 30 hectares north of the Garden was acquired in 1874 and this area, known as Botanic Park, has been developed as an arboretum.

Since 1860 powers of management have been vested in a Board of Governors of eight members who serve for a period of four years but who may be re-elected for further terms.

The Garden contains an extensive collection of about 6 000 species of plants. Important features are the collections of native plants from dryland regions, cacti and succulents, the glass ground, glass house displays and the Wisteria arbor. The Museum of Economic Botany, opened in 1879, houses a comprehensive carpological collection, displays of plant products and educational displays.

In 1954 the State Herbarium was re-established within the Botanic Garden Department and a new herbarium building was completed and occupied in 1965. At present it contains about 250 000 specimens.

State-wide advisory services are available on all matters relating to ornamental horticulture.

Experimental tree plantations have been established at Giles Corner, Kulpara, Lameroo, Stansbury and Meningie. Mount Lofty Botanic Garden of approximately 80 hectares was established in 1960 and is expected to be opened to the public in the next few years.

In the mid-1960s the Wittunga garden at Blackwood was donated to the Botanic Garden. This comprises approximately 15 hectares which has a nucleus planting of Australian and South African plants. It is hoped to open this to the public by the late 1970s.

### **Zoological Gardens**

The Royal Zoological Society of South Australia was founded in 1878, and in 1883 approximately 8 hectares of Botanic Park were granted to the Society for the establishment of the Zoological Gardens. At the same time arrangements were made for the various exotic and Australian animals and birds previously housed in the Botanic Garden to be transferred to the Zoological Gardens.

During 1973-74 a total of 113 species and varieties of mammals, including a large collection of marsupials, were exhibited. Of particular interest is a colony of Yellow-footed Rock-Wallabies, the only such colony in any zoological garden in the world. The Zoological Gardens also contain a fine collection of Australian birds, a total of 256 species and varieties of Australian and exotic birds having been exhibited during 1973-74.

The many mammals, reptiles, and birds are displayed in cages and enclosures; the enclosures for some animals are moated yards freely open to public view. A large walk-through aviary and a Children's Zoo, where the animals can be handled and fed, are features of the Gardens.

The revenue necessary for maintaining and developing the gardens is obtained through an annual State Government grant, from gate receipts and sundry sources.

During 1973-74 about 383 000 persons visited the Zoological Gardens.

### **National Parks and Wildlife Service**

The National Parks and Wildlife Act, 1972 (proclaimed 3 July 1972) repealed several Acts and amalgamated the previous functions of and areas controlled by the National Parks Commission, National Pleasure Resorts, the Fauna and Flora Board and the fauna section of the Fisheries and Fauna Conservation Department to form the National Parks and Wildlife Service. The Service is a division of the Department of Environment and Conservation and its purpose is to establish and manage reserves for public benefit and enjoyment, and to conserve wildlife.

The Act provides for the protection of all fauna, flora and natural features within reserves and all protected and rare species of fauna and

flora outside reserves. The areas are classified into the following types of reserves:

1. National Parks (parks of national significance);
2. Conservation Parks (primarily for conservation);
3. Recreation Parks (to allow for recreation without undue danger to natural areas);
4. Game Reserves (to enable management of wildlife).

At 31 December 1973 the reserves comprised 167 areas throughout the State and consisted of eight National Parks, 132 Conservation Parks, fifteen Recreation Parks and six Game Reserves. The total area was almost 3.6 million hectares, or 3.7 per cent of the State. Areas under Service control ranged from 0.4 hectares (Lipson Island Conservation Park) to 2 132 600 hectares (an unnamed conservation park in the north-west of the State).

A description of some of the parks, recreation reserves and places of historical or scenic interest was included on page 217 of the *South Australian Year Book* 1972. Flora and fauna are discussed in Part 1.4 Natural Environment.

#### **Municipal Parks and Gardens**

The City of Adelaide is surrounded by 700 hectares of parklands, considerable areas of which are devoted to gardens (136 hectares), golf courses (100 hectares) and other recreational areas. The form of development and flexibility of areas permits varied usage by the public including equestrian activities, swimming, boating, ball games, picnicking, fetes, Christmas parties, art displays and pop concerts. Plantings during the year 1973-74 included 928 trees and 1 225 shrubs.

Most suburban and country local government authorities maintain parks and gardens within their areas.

#### **PHYSICAL FITNESS**

The National Fitness Movement began in Australia when the Australian Government made funds available to each State for the purpose of setting up National Fitness Councils. A National Fitness Act was passed in 1941.

The National Fitness Council of South Australia, which is appointed by the Government of South Australia, administers funds received from the Australian and South Australian Governments and other sources, and appoints its own staff.

The Council promotes physical fitness generally, conducting training and coaching courses in many games and outdoor activities as well as giving active support to youth and other organisations concerned with physical welfare.

Staff provide advice on all forms of recreation and maintain contact with bodies concerned with recreation. Council manages the Duke of Edinburgh's Scheme, and assists the Women's Memorial Playing Fields, Outward Bound SA and similar bodies. It owns or controls camps at ten sites throughout South Australia.

Publications of the Council include books and pamphlets on adventure training, physical conditioning, fitness programs, sports coaching and walking tracks. Surveys are made of recreation space, recreational needs, government assistance,

sports participation and youth activities. In addition the Council maintains a library which is available for loans or reference. It contains books, pamphlets, journals, maps, plans and films on physical education, sports, recreation and health education.

### SPORTING FACILITIES

In terms of attendance the most popular spectator sport is Australian Rules football; during the 1974 season the average attendance at the 110 minor round matches was 8 731 while the average at the six final matches was 33 782.

Adelaide Oval, occupying approximately 6 hectares of the north parklands, has been used for major cricket and Australian Rules football matches. The record attendances have been 62 543 on 2 October 1965 for Australian Rules football and 50 962 for Test cricket on 14 January 1933. In addition there are first class suburban ovals at which major sports are played.

From 1974 the South Australian National Football League Inc. has used its headquarters ground, Football Park, at West Lakes for major games, with the Adelaide Oval as a support oval for matches when Football Park is unavailable or when other matches have been programmed there.

The Olympic Sports Field is the Headquarters of the South Australian Amateur Athletic Association which is affiliated with the Amateur Athletic Union of Australia. Each Saturday from October to March inter-club contests are held at this arena with an approximate annual attendance of 100 000 spectators. The Olympic Sports Field is also used by the South Australian Women's Amateur Athletic Association which conducts competitions on Saturday afternoons. A new synthetic all-weather track has been laid recently at a cost of \$250 000.

The Apollo Stadium at Richmond is a multi-purpose air-conditioned building with seating for 4 390 spectators at which a weekly basketball competition is conducted. It is situated on a 2-hectare site and is the headquarters of the South Australian Amateur Basketball Association Inc. The stadium is also used by visiting entertainers. Other basketball stadiums are at Forestville, Bowden, Marion, Hillcrest, Colonel Light Gardens, Campbelltown, Woodville, Salisbury and several country centres. Many school gymnasiums have basketball facilities and this sport is played in the open at various centres.

The parklands of the City of Adelaide are used extensively for sporting purposes and during 1973-74, 400 sports permits were issued catering for eighteen different sports.

Sports grounds are distributed throughout suburban Adelaide, at approximately two to three kilometres intervals, and throughout country areas. In addition sports areas are available at most State and private schools.

### Race Courses

There are four registered metropolitan courses; Morphettville, Cheltenham, Victoria Park (occupying approximately 23 hectares of the east parklands) and Oakbank. In addition there were, at 30 June 1974, forty-three registered racing clubs and twenty-eight registered country courses. Picnic race meetings are held at a number of outlying centres.

### **Trotting Tracks**

Metropolitan trotting in South Australia is conducted at Globe Derby Park, Bolivar, a modern and well-appointed track. There are twelve other courses in use in the State and seven of these (Gawler, Kadina, Kapunda, Mount Gambier, Naracoorte, Port Augusta and Port Pirie) have facilities for the conduct of night trotting. Meetings are now conducted throughout the year with meetings in the winter months at the two major tracks, Globe Derby Park and Gawler.

### **Dog Racing**

Greyhound racing (with betting) was introduced into South Australia in May 1971 with meetings at Whyalla and Strathalbyn. Other tracks have been established at Angle Park, Gawler and Port Pirie since that date. Meetings are held three times a week. Average attendance at Angle Park, the city track, is approximately 3 000. At present about 4 000 people own or train greyhounds in South Australia. The estimated greyhound population is 10 000 dogs.

### **Golf Courses**

At 30 June 1974 there were eight suburban public courses, four 18-hole courses including one at National Park, Belair, and four par-3 links. There were also fourteen private courses operating within suburban Adelaide. The last course completed was an 18-hole par-3 course at Valley View in 1974. In addition there are courses at many country centres.

### **Motor Racing**

Adelaide International Raceway at Virginia was opened on 2 January 1972. It occupies an area of 65 hectares and contains two racing circuits of 2 and 3 kilometres respectively, and a drag racing strip. There is provision for 20 000 spectators and approximately fifty meetings are held each year.

### **Tennis Courts**

The South Australian Lawn Tennis Club's courts (thirty-four grass and eight hard) at Memorial Drive, North Adelaide occupy approximately 4 hectares of the north parklands. The centre court was the venue for Davis Cup matches in 1952, 1956, 1963, 1968 and 1975. At 31 December 1974 the parklands also contained 230 other tennis courts. Courts associated with schools, churches and private clubs exist throughout the State.

### **Lawn Bowling Clubs**

At 30 June 1974 there were 237 bowling clubs registered with the Royal South Australian Bowling Association—sixty-seven in and near Adelaide and 170 in country areas, including four at Broken Hill, New South Wales. The size of clubs varied from thirty-five rinks at Bordertown to as few as three rinks, with the two largest suburban clubs being Holdfast Bay and Lockleys, each with thirty-two rinks. There are also 229 bowling clubs registered with the South Australian Women's Bowling Association, sixty-three in the metropolitan area (including seven clubs exclusively for women) and 166 in the country.

### **Swimming Facilities**

At 31 December 1974 there were seventy-eight public swimming pools in South Australia, of which fifty-six were in country centres. Of these only eight country and two metropolitan pools had been in use before 1950, recent activity having been stimulated by a State Government subsidy on pool construction. Of the seventy-eight pools, seventy-two had treated water, the remainder were in lakes, dams, rivers or the sea, or utilised sea water. While mainly used for recreational and instructional purposes, the facilities provide a base for fifty-three swimming clubs providing instruction and competition in swimming, diving and water polo. These clubs have a total membership of 6 475.

Swimming pools are provided at forty-nine State schools, eighteen of these being in country areas. Swimming facilities are also available at a number of private schools. The Education Department encourages school committees to build swimming pools by granting subsidies for their construction.

The Adelaide Swimming Centre in the north parklands, opened on 20 December 1969, is a complex of four pools, including a 50-metre eight lane pool, a diving/water polo pool, both of which comply fully with international competition requirements, a 20 metre by 20 metre learner's pool and a toddler's pool. The whole is contained in a 2-hectare grassed area with spectator accommodation for 2 000 people forming an amphitheatre arrangement surrounding the competitive pools.

The nature of Adelaide's foreshore and that of many country beaches, combined with the prevailing climate, provides ideal conditions for open sea summer bathing.

### **Division of Recreation and Sport**

The Division of Recreation and Sport was established by the South Australian Government in October 1973 as part of the new Department of Tourism, Recreation and Sport. The functions of this Division include:

- the planning of new programs and facilities to meet the sporting and recreational needs of the community;
- the examination of applications for financial support for the development of sporting and recreational facilities and the recommendation of priorities to South Australian and Australian Governments for financial assistance;
- the co-ordination of the work of other departments and independent organisations involved in the provision of sporting and recreational facilities and programs;
- the provision of recreation officers and project officers on a consultative basis to both local government and voluntary organisations in order to improve the quality of recreation and sporting facilities and services throughout the State;
- the sponsoring of seminars on various aspects of recreation and sport;
- the positive encouragement and support to those who wish to experiment with innovative projects in recreation and sport;
- the sponsorship of a Recreation Advisory Council and a Sports Advisory Council, with representation from non-government sources, to provide advice to the Minister and the Department on major policy matters.

## LOTTERIES AND BETTING

## LOTTERIES

The State Lotteries Act, 1966-1974 provides for the promotion and control of lotteries by the Government of the State. In November 1966 a Lotteries Commission, consisting of a chairman and two other members, was appointed to administer the Act which came into operation on 8 December 1966 and the first draw was made in May 1967.

In accordance with Section 16 of the Act all moneys received by the Commission are paid into a Lotteries Fund from which moneys are made available for meeting the expenses of the Commission and paying prizes. The balance of the Lotteries Fund, which represents the surplus of income over expenditure and prize money not claimed for over six months, is transferred to a Hospitals Fund.

Up to 31 December 1974, \$49 300 487 was received from the sale of tickets including X Lotto, of which \$29 980 641 was distributed in prize money, and approximately \$15·0 million had been transferred to the Hospitals Fund.

Originally, only one lottery, a 50 cent series was conducted but in July 1967 a Jackpot series was introduced. At the commencement, the Jackpot lottery filled in approximately six weeks; it is now being drawn every two weeks. In addition a few special lotteries have been conducted with tickets sold at \$2, \$3, \$4, \$5 or \$10 each. The last of the 50 cent lotteries was drawn on 2 July 1974 and on 3 July 1974 a 60 cent lottery was introduced.

In April 1973, a new type of lottery called 'X Lotto' (Cross Lotto) was introduced. This scheme originated in Germany after the Second World War, and is very similar to Football Pools except the subscriber selects numbers instead of teams.

Initially the popularity of X Lotto was not great but it grew towards the end of 1974. For the year ending 31 December 1974, \$2 243 052 was invested of which 60 per cent was allocated as prize money.

The Commission operates an account service by accepting deposits from persons wishing to invest in each lottery without the need to purchase tickets themselves. At 31 December 1974, 2 450 subscribers availed themselves of this service.

At 31 December 1974 there were 207 Lotteries Commission Agents appointed in South Australia. Of these 135 were in the Adelaide and suburban area; fifty-five in country areas and seventeen were subscriber (non-ticket selling) agents.

## BETTING

Legalised betting in South Australia is governed by the provisions of the Lottery and Gaming Act, 1936-1974 and is restricted to horse racing, trotting, dog racing and coursing events. Betting on dog racing events was first authorised by an amendment to the Lottery and Gaming Act in December 1970.

The Act makes provision for betting with the totalisator and with bookmakers at horse race, trotting and dog race meetings. The totalisator cannot be used at coursing meetings but bookmakers may operate at these meetings.



Before December 1933 legalised betting was restricted to totalisator betting at registered race meetings. From 1933 to 1967 it was limited to 'on-course' totalisators and to betting with bookmakers who were licensed to bet on courses where meetings were held, and also (from January 1934 to February 1942) with bookmakers who were licensed to bet 'off-course' in specially registered premises.

As a war-time measure racing and betting in South Australia were banned from March 1942 until October 1943. Off-course betting facilities were not re-established until 1946, when they were restricted to country areas. Port Pirie is the only town where bookmakers now operate in registered premises. Details of on-course betting and betting in registered premises are given in the table below for the years 1971-72 to 1973-74.

**Betting: Amounts Invested with Bookmakers and On-Course Totalisators and Distribution of Commissions, Taxes and Fractions, South Australia**

Particulars	1971-72	1972-73	1973-74
Amount invested:		\$'000	
Totalisator;			
Horse racing . . . . .	5 770	6 375	7 151
Trotting . . . . .	1 606	1 702	1 837
Dogs . . . . .	816	1 556	1 744
Total. . . . .	8 191	9 633	10 732
Bookmakers;			
On-course . . . . .	71 377	80 557	96 017
Registered premises . . . . .	2 167	2 189	2 388
Total. . . . .	73 544	82 746	98 405
<b>Total amount invested . . . . .</b>	<b>81 736</b>	<b>92 379</b>	<b>109 137</b>
Distribution of commissions, taxes and fractions derived from betting transactions:		\$'000	
State Government;			
Totalisator tax and licences . . . . .	401	468	513
Commission on bets . . . . .	759	841	1 000
Stamp duty on betting tickets . . . . .	135	134	130
Dividends and winning bets unclaimed . . . . .	109	122	132
Total paid to Consolidated Revenue. . . . .	1 404	1 566	1 775
Clubs;			
Commission on bets . . . . .	671	753	904
Commission on totalisator takings . . . . .	753	877	977
Total. . . . .	1 424	1 629	1 880
Charitable institutons;			
Totalisator fractions . . . . .	82	98	113
<b>Total distribution . . . . .</b>	<b>2 909</b>	<b>3 293</b>	<b>3 768</b>

In October 1966, provision was made for the setting up of the Totalizator Agency system of 'off-course' betting, and agencies have since been established in the metropolitan area and at numerous country towns. A Board consisting of a Chairman and seven other members representative of racing and trotting interests was appointed to administer the new system and the Totalizator Agency Board (TAB) Headquarters was established in Adelaide during December 1966. The Board was enlarged during 1970-71 to include a representative of the greyhound racing interests. The TAB first operated on 29 March 1967 on a country race meeting while it operated for the first time on a metropolitan meeting on 1 April 1967.

Thirteen agencies were open on the first day of TAB operations. At 30 June 1974, 169 agencies were operating of which sixty-four were sub-agencies operated in conjunction with other businesses. Further premises in the city, suburbs and country towns are being established progressively to provide a complete coverage of the whole State. In addition, a system of telephone betting is available to persons who have established accounts with the TAB. At 30 June 1974 the Board employed seventy-six permanent officers and 1 079 part-time staff.

For the year ended 30 June 1974 off-course investments totalled \$59 286 102 of which approximately 86 per cent was payable as dividends. The following amounts became payable to the South Australian Government (to be paid into the Hospitals Fund at the State Treasury) from the operations of the Board during that year:

	\$
Stamp Duty . . . . .	2 964 305
Fractions . . . . .	540 878
Unclaimed dividends . . . . .	198 869
Commission on NSW (Broken Hill) Investments . .	3 591
	<hr/> 3 707 643 <hr/>

In addition, for the year ended 30 June 1974, an amount of \$1 745 900 became available for distribution to racing, trotting and greyhound clubs under a scheme of distribution prepared by the Board and approved by the Chief Secretary. Since commencing operations in 1967 the Board has distributed a total of \$7 175 144 to participating clubs while in the same period, the South Australian Government has received \$14 606 520.

## 6.5 HEALTH

### HISTORICAL

The first Health Act in South Australia was passed in 1873. This Act, which was modelled on earlier English legislation, established a Central Board of Health, and a number of town councils were constituted as local boards. The present Health Act dates from 1935. Administration continued under the authority of the Central Board of Health until 1949 when the Department of Public Health was formed to co-ordinate the work of the board and other health

activities. The first hospital in South Australia was built in 1837. It was a small thatched hut situated on North Terrace and measured 6 metres by 4 metres. The foundation stone of the first Adelaide Hospital was laid in 1840. This building, which was demolished in 1938, contained two 12-bed wards and four smaller rooms. The first buildings of the present Royal Adelaide Hospital were erected in 1856-57. Hospitals in the country were established at Mount Gambier in 1869, Wallaroo and Port Lincoln in 1870, Port Augusta in 1875, and Port Pirie in 1890. The Port Adelaide Casualty Hospital was erected in 1882.

The State's first mental hospital, now demolished, was situated in Botanic Park. The Parkside Psychiatric Hospital (now Glenside Hospital) commenced operation in 1870 under the control of the Colonial Surgeon. The Enfield Receiving House and the Northfield Mental Hospital (now Hillcrest Hospital) were established in 1922 and 1929 respectively.

### ADMINISTRATION

The administration of health in South Australia is principally under the control of three main authorities: the South Australian Department of Public Health and Hospitals Department, and the Australian Department of Health. Broadly the Department of Public Health concentrates on general health matters including the prevention of disease, the Hospitals Department on hospitalisation, and the Department of Health on health on a national basis including quarantine.

The Department of Public Health embraces the activities of the Central Board of Health, the Occupational Health Branch, the School Health Branch (including the Deafness Guidance Clinic), the Dental Health Branch, the Epidemiology Branch, the Food and Drugs Advisory Committee, the Radiological Advisory Committee, the Geriatrician, the Clean Air Committee, and also the public health aspects of the control of tuberculosis, including the Chest Clinic and the State X-ray health surveys. The Department is also responsible for health education, including the drug and smoking education programs sponsored by the Australian Government, and for Aboriginal health in South Australia.

The Central Board of Health administers the Health, Food and Drugs, Narcotic and Psychotropic, Noxious Trades and Bakehouse Registration Acts. The Board also has responsibilities under the Local Government Act and the Cremation Act.

The Health Act and the Food and Drugs Act constitute every municipal or district council a local board of health or local authority for its area, except that in the metropolitan area, the Metropolitan County Board (representing twenty metropolitan corporations) is the local authority under the Food and Drugs Act. The Central Board of Health acts as a supervisory body over all the 137 local boards under the Health Act, the Food and Drugs Act and the Bakehouse Registration Act. It has concurrent jurisdiction with local boards. Outside the boundaries of local boards the Central Board is the administering authority.

The Hospitals Department administers government hospitals and supervises the work of government subsidised hospitals in South Australia.



Public General Hospitals, South Australia<sup>(a)</sup> (continued)

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Revenue:					
State Government aid . . . . .	23 198	32 971	42 373	44 832	62 945
Australian Government (c) . . . . .	4 066	4 367	4 331	5 213	6 098
Fees . . . . .	10 829	13 471	20 079	22 258	26 246
Other . . . . .	3 408	3 132	3 152	3 590	4 093
<b>Total . . . . .</b>	<b>41 500</b>	<b>53 942</b>	<b>69 935</b>	<b>75 894</b>	<b>99 382</b>
Expenditure:					
Salaries . . . . .	22 025	29 644	36 308	44 815	60 703
Maintenance, etc. . . . .	10 765	11 818	14 196	16 543	20 782
Buildings:					
New . . . . .	6 025	10 070	16 073	10 094	13 757
Repairs . . . . .	1 450	1 784	2 122	2 713	3 234
<b>Total . . . . .</b>	<b>40 264</b>	<b>53 316</b>	<b>68 699</b>	<b>74 164</b>	<b>98 476</b>

(a) Public hospitals comprise those operated and maintained by State Government or semi-government authorities and those which receive a conditional subsidy or a regular grant from the State Government for maintenance purposes, but exclude those which receive only Australian Government hospital benefits.

(b) Includes visiting specialists paid on a sessional basis, unpaid visiting specialists and honorary consultants. Before 1971-72 for some hospitals in country districts includes general practitioners treating patients in those hospitals.

(c) Mainly hospital, pharmaceutical and tuberculosis benefits.

Public General Hospitals: South Australia, 1973-74<sup>(a)</sup>

Particulars	Royal Adelaide Hospital	Queen Elizabeth Hospital	Adelaide Children's Hospital	Other General Hospitals	Total
Staff (at end of year):					
Medical;					
Permanent . . . . .	227	169	83	37	516
Other (b) . . . . .	398	69	70	102	639
Nursing . . . . .	2 382	853	653	3 153	7 041
Attendants and others . . . . .	2 079	1 175	785	2 276	6 315
In-patients:					
Admitted and re-admitted	31 455	21 077	17 879	94 386	164 797
Average daily number resident . . . . .	1 042	508	292	2 264	4 106

(a) Public hospitals comprise those operated and maintained by State Government or semi-government authorities and those which receive a conditional subsidy or a regular grant from the State Government for maintenance purposes but exclude those which receive only Australian Government hospital benefits.

(b) Includes visiting specialists paid on a sessional basis, unpaid visiting specialists and honorary consultants.

**Royal Adelaide Hospital**

The Royal Adelaide Hospital is a general hospital controlled by a board of three members, with the Director-General of Medical Services as Chairman. The hospital, which incorporates a department of dentistry, is a school of medical and dental instruction in conjunction with the University of Adelaide. Charges are made for in-patient treatment, and patients requiring out-patient treatment at the various clinics are subject to a means test as to eligibility for treatment.

In addition to the main hospital there are wards at Northfield, a section of which is used to accommodate patients with infectious conditions, and a section of the Morris Hospital, Northfield is occupied by the Spinal Injuries Unit.

At 30 June 1974 there were 1 281 beds at the hospital including forty-seven in the infectious diseases wards at Northfield.

**Queen Elizabeth Hospital**

The Queen Elizabeth Hospital at Woodville is a general, casualty and maternity hospital controlled by a board of management of three members. It is a University teaching hospital affiliated with the University of Adelaide for the clinical teaching of undergraduate medical students. The first section was opened in 1954 and further blocks were open in 1957 and 1959. Building extensions and additions to provide a new wing of specialist wards commenced in June 1968 and these are being progressively occupied. Extensions to the outpatients department, the operating theatres and the pharmacy were opened early in 1973.

At 30 June 1974 there were 666 staffed beds available at the Hospital, including ten rehabilitation beds at the Mareeba Annexe, Woodville Park, about a kilometre from the main Hospital. Also at the Annexe is the recently opened day treatment centre and domiciliary care service.

**Modbury Hospital**

The Modbury Hospital is a general hospital comprising medical, surgical, maternity and children's wards, and casualty and outpatient services. It is controlled by a board of management of seven members.

The hospital complex was designed to provide facilities for 224 beds initially but is planned to extend to 450 beds by 1981. The hospital was officially opened on 16 February 1973, with 134 beds staffed. Since that time additional beds have been opened progressively and by the end of 1974, 210 beds were in use.

**Queen Victoria Hospital**

The Queen Victoria Hospital, founded by public subscription, was opened in 1902. It primarily provides facilities for midwifery, neo-natal paediatrics and gynaecology and is a university teaching hospital. Controlled by a board of management the hospital is financially dependent on State Government aid. In 1973-74 State aid constituted 56.4 per cent and fees from patients 39.2 per cent of the revenue received for maintenance purposes. Accommodation at 30 June 1974 was 176 beds.

### Adelaide Children's Hospital

The Adelaide Children's Hospital was founded by public subscription in 1876 and the first patient was admitted in 1879. It is controlled by a board of management and supported by State Government grants, public subscriptions and fees. In 1973-74 the hospital received 66 per cent of its revenue in the form of State Government Grants.

Children fourteen years and under may receive in-patient and out-patient treatment. The hospital provides a training school for nurses and nurse aides and instruction for medical students. The University of Adelaide Department of Paediatrics is situated at the hospital.

There were 400 beds at the hospital at 30 June 1974.

### REPATRIATION HOSPITALS

The Department of Repatriation and Compensation maintains two hospitals in South Australia, the Repatriation General Hospital, at Daw Park, and an auxiliary hospital, the Repatriation Hospital 'Birralee' at Belair.

The Daw Park Hospital was a military hospital during the 1939-45 War, coming under the control of the Department in 1947. Medical, surgical and psychiatric in-patient treatment is provided for eligible ex-service personnel, eligible dependants, serving members of the forces, and, under certain conditions, for non-eligible ex-service personnel and civilians. 'Birralee' was re-opened on 12 December 1974, after having been closed for approximately two years. Accommodation is provided for up to twenty patients requiring Nursing Home care.

The average daily number of patients in the Repatriation General Hospital during 1973-74 was 290 and the staff at the end of the year, including those employed in the out-patient department, was 710.

At 30 June 1974 there were 358 beds in the hospital.

### PRIVATE HOSPITALS

Details of all private institutions approved for payment of Australian Government hospital or nursing home benefits are given in the following table.

#### Private Hospitals and Nursing Homes, South Australia

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Number of hospitals . . . . .	59	56	53	50	51
Number of nursing homes . . . .	127	130	127	131	131
Number of beds at end of year:					
Hospitals . . . . .	2 044	2 078	2 137	1 929	2 026
Nursing homes . . . . .	3 032	3 236	3 382	4 286	4 512

There are several large private hospitals in the metropolitan area including Calvary Hospital, the Memorial Hospital and St Andrew's Presbyterian Hospital, all of which are run by denominational bodies. Another large institution is the Home for Incurables at Fullarton which provides accommodation and nursing attention for persons suffering from chronic disease. Kalyra Sanatorium at Belair conducted by the James Brown Memorial Trust Inc. is the main institution for in-patient treatment of tuberculosis. An extensive rebuilding program to provide better facilities at this hospital was completed during 1972.

### MENTAL HEALTH SERVICES

The Director of Mental Health Services is responsible for the management of public psychiatric services within South Australia. Operating as a division of the Hospitals Department this Service controls four major institutions—Glenside Hospital, Enfield Hospital, Hillcrest Hospital and the Strathmont Centre—and in addition three hostels for accommodating discharged patients, two child guidance clinics, two community mental health centres and the St Corantyn Psychiatric Day Hospital.

In addition to the Enfield Hospital, there are separate 'short-term' receiving units at Glenside and at Hillcrest Hospitals where treatment is directed towards early discharge. In general the duration of stay in these units is a few months terminating in either transfer as a 'long-term' patient or in discharge. A summary of the number of persons receiving Mental Health Services treatment in the years 1968-69 to 1972-73 follows.

#### Government Psychiatric Institutions, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
<b>In-patients:</b>					
Admitted and re-admitted . . . . .	2 964	3 378	3 527	3 602	3 225
Discharged . . . . .	2 939	3 243	3 433	3 486	3 023
Deaths during year . . . . .	207	149	170	150	153
Remaining at end of year;					
Certified, males . . . . .	685	541	471	403	383
females . . . . .	561	454	396	336	346
Voluntary, males . . . . .	538	674	726	739	765
females . . . . .	499	600	600	681	714
<b>Total . . . . .</b>	<b>2 283</b>	<b>2 269</b>	<b>2 193</b>	<b>2 159</b>	<b>2 208</b>
<b>Out and day-patients:</b>					
Treated during year;					
Males . . . . .	2 050	2 134	2 149	2 109	2 245
Females . . . . .	2 488	2 488	2 356	2 281	2 174
<b>Persons . . . . .</b>	<b>4 538</b>	<b>4 622</b>	<b>4 505</b>	<b>4 390</b>	<b>4 419</b>



The number of in-patients remaining at the end of the year indicates a shift in emphasis from 'certified' to 'voluntary' over the period; certified patients comprised nearly 55 per cent in June 1969 compared with only 33 per cent in June 1973.

Details of diagnosis and of the number of attendances by out-patients and day-patients during 1972-73 are shown in the next table.

**Out-patients and Day-patients Treated in Government Psychiatric Institutions**  
**Diagnosis and Number of Attendances, South Australia, 1972-73**

Diagnosis	Number of Patients who Attended					Total Patients Treated
	1-4 Times	5-9 Times	10-15 Times	16-22 Times	23 or more Times	
<b>MALES</b>						
Senile and pre-senile dementia	6	—	—	—	—	6
Alcoholic psychosis	2	3	1	—	1	7
Other organic psychoses	3	1	1	—	—	6
Schizophrenia and paranoid states	168	74	15	17	28	302
Depressive psychosis	51	21	4	1	8	85
Other functional psychoses	23	12	5	1	4	45
Depressive neurosis	145	64	9	2	10	230
Other neuroses and psychosomatic disorders	157	56	18	5	6	242
Alcoholism	20	6	—	2	5	33
Drug addiction	2	—	1	—	—	3
Other personality disorders	220	67	21	3	23	334
Transient situational disturbances and behaviour disorders of childhood	413	103	27	3	5	551
Non-psychotic mental disorders associated with physical condition	68	22	9	1	1	101
Mental retardation	250	8	—	1	3	262
Non-psychiatric diagnosis	34	1	—	—	3	38
<b>Total</b>	<b>1 562</b>	<b>438</b>	<b>111</b>	<b>37</b>	<b>97</b>	<b>2 245</b>
<b>FEMALES</b>						
Senile and pre-senile dementia	2	4	—	—	—	6
Alcoholic psychosis	4	1	1	—	—	6
Other organic psychoses	14	7	1	2	2	26
Schizophrenia and paranoid states	183	83	26	21	15	328
Depressive psychoses	99	56	12	5	12	184
Other functional psychoses	37	21	8	1	8	75
Depressive neurosis	247	103	19	10	45	424
Other neuroses and psychosomatic disorders	185	67	22	11	17	302
Alcoholism	7	1	—	—	1	9
Drug addiction	4	1	—	—	1	6
Other personality disorders	155	55	14	11	13	248
Transient situational disturbances and behaviour disorders of childhood	214	61	15	7	4	301
Non-psychotic mental disorders associated with physical condition	22	6	3	2	1	34
Mental retardation	175	7	2	1	6	191
Non-psychiatric diagnosis	29	3	1	—	1	34
<b>Total</b>	<b>1 377</b>	<b>476</b>	<b>124</b>	<b>71</b>	<b>126</b>	<b>2 174</b>

The next table shows that for both males and females admitted or re-admitted as in-patients during 1972-73 the most common diagnosis was 'schizophrenia and paranoid states'. Females out-numbered males by more than two to one in the diagnosis categories 'depressive psychosis' and 'depressive neurosis'.

**In-patients Admitted and Re-admitted to Government Psychiatric Institutions  
South Australia**

Diagnosis	1970-71		1971-72		1972-73	
	Males	Females	Males	Females	Males	Females
Senile and pre-senile dementia . . . . .	94	121	84	126	46	80
Alcoholic psychosis . . . . .	48	24	39	21	48	15
Other organic psychoses . . . . .	57	44	31	46	45	48
Schizophrenia and paranoid states . . . . .	463	344	433	354	410	380
Depressive psychosis . . . . .	67	130	79	171	83	168
Other functional psychoses . . . . .	68	108	71	116	80	108
Depressive neurosis . . . . .	149	303	113	299	123	253
Other neurosis and psychosomatic disorders . . . . .	35	66	37	69	37	54
Alcoholism . . . . .	396	34	452	55	396	59
Drug addiction . . . . .	20	25	9	28	16	21
Other personality disorders . . . . .	207	210	214	220	199	185
Transient situational disturbances and behaviour disorders of childhood . . . . .	26	19	21	24	25	33
Non-psychotic mental disorders associated with physical condition . . . . .	18	12	19	10	24	13
Mental retardation . . . . .	278	144	195	244	129	121
Non-psychiatric diagnosis . . . . .	6	11	12	10	18	8
<b>Total . . . . .</b>	<b>1932</b>	<b>1595</b>	<b>1809</b>	<b>1793</b>	<b>1679</b>	<b>1546</b>

In-patients discharged during 1972-73 are shown in the following table in relation to the period hospitalised and the condition treated.

**In-patients Discharged from Government Psychiatric Institutions  
Diagnosis and Period Resident, South Australia, 1972-73**

Diagnosis	Period Resident					Total Discharges
	Under 2 weeks	2 weeks and under 1 month	1 month and under 2 months	2 months and under 6 months	6 months and over	
<b>MALES</b>						
Senile and pre-senile dementia . . . . .	5	3	2	4	2	16
Alcoholic psychosis . . . . .	12	10	7	4	5	38
Other organic psychoses . . . . .	14	8	7	3	2	34
Schizophrenia and paranoid states . . . . .	88	93	102	83	39	405
Depressive psychosis . . . . .	18	22	23	12	4	79
Other functional psychoses . . . . .	20	22	15	13	—	70
Depressive neurosis . . . . .	37	39	22	23	3	124
Other neurosis and psychosomatic disorders . . . . .	17	9	4	2	2	34
Alcoholism . . . . .	141	75	76	99	5	396
Drug addiction . . . . .	6	—	3	4	—	13
Other personality disorders . . . . .	86	48	30	20	17	201
Transient situational disturbances and behaviour disorders of childhood . . . . .	12	2	6	3	1	24
Non-psychotic mental disorders associated with physical condition . . . . .	7	4	5	3	1	20
Mental retardation . . . . .	28	55	11	2	20	116
Non-psychiatric diagnosis . . . . .	8	1	3	3	—	15
<b>Total . . . . .</b>	<b>499</b>	<b>391</b>	<b>316</b>	<b>278</b>	<b>101</b>	<b>1585</b>

**In-patients Discharged from Government Psychiatric Institutions, Diagnosis and Period Resident, South Australia, 1972-73 (continued)**

Diagnosis	Period Resident					Total Discharges
	Under 2 weeks	2 weeks and under 1 month	1 month and under 2 months	2 months and under 6 months	6 months and over	
<b>FEMALES</b>						
Senile and pre-senile dementia . . . .	7	7	15	12	17	58
Alcoholic psychosis . . . . .	1	1	2	5	9	18
Other organic psychoses . . . . .	12	6	13	8	10	49
Schizophrenia and paranoid states . .	78	102	74	57	28	339
Depressive psychosis . . . . .	24	50	49	24	6	153
Other functional psychoses . . . . .	21	29	34	17	3	104
Depressive neurosis . . . . .	98	69	45	26	6	244
Other neuroses and psychosomatic disorders . . . . .	25	16	11	6	6	64
Alcoholism . . . . .	17	12	9	14	—	52
Drug addiction . . . . .	5	5	4	5	3	22
Other personality disorders . . . . .	88	42	23	27	6	186
Transient situational disturbances and behaviour disorders of childhood . . . . .	7	8	5	7	2	29
Non-psychotic mental disorders associated with physical condition . . . . .	4	2	3	2	—	11
Mental retardation . . . . .	24	42	12	4	18	100
Non-psychiatric diagnosis . . . . .	7	—	2	—	—	9
<b>Total . . . . .</b>	<b>418</b>	<b>391</b>	<b>301</b>	<b>214</b>	<b>114</b>	<b>1 438</b>

## MATERNAL AND CHILD WELFARE

### MOTHERS AND BABIES HEALTH ASSOCIATION

The Mothers and Babies Health Association, a voluntary body supported by government subsidy and public subscriptions, was established in 1909 and conducts maternal and infant welfare work throughout the State. At 305 regular centres, Association sisters give advice on the management of babies and infants while mothers who are unable to attend these centres may seek advice by correspondence.

The Association's mothercraft hospital, Torrens House, admits mothers with new-born babies for assistance in management and also treats babies and children up to the age of three years for feeding or behavioural disorders. Torrens House also serves as a Training School for infant welfare and mothercraft nurses.

### SCHOOL HEALTH SERVICES

The medical inspection of school children was first introduced into schools in 1913 and since 1951 these inspections have been the responsibility of a branch of the Department of Public Health. No treatment is carried out by the State but where a child has some defect the parents are notified and advised to obtain treatment. All State and private schools throughout the State are visited annually. Pupils in Year 1 in primary schools are medically examined by a doctor and a sister. In addition the vision and hearing only, of children in Years 4, 6, 8 and 10, are tested by a nursing sister.

During 1974, 85 642 children were examined by medical officers in 386 metropolitan and 212 country schools. Of these 4 748 required treatment for

defective vision, 5 175 for defective hearing and 2 334 for dental disorders. Hearing and vision tests were carried out also by screening sisters on 55 134 children. Of these 1 624 had hearing defects and 2 149 defective vision.

Dentists using seven mobile vans and dentists and therapists working in thirty-three static clinics examined 31 711 children in 1974. Children offered treatment numbered 34 100, of which 31 711 accepted. During 1974, 3 502 children attending the schools from which the training school for Dental Therapists draws its requirements were offered free dental treatment and 1 973 accepted.

There were 4 391 children examined at the Deafness Guidance Clinic including 2 633 examined for the first time in 1974; 954 of those first examined in 1974 were referred to doctors or hospitals for treatment.

An assessment clinic, under the direction of a medical practitioner, began in 1971 for children with learning and behavioural problems; seventy-four children attended with their parents. In 1974, 806 children were examined.

The staff of the School Health Branch at the beginning of 1975 included twelve medical officers (two part-time), seventeen nurses (one part-time), four registered sisters, one registered medical officer (part-time), thirty-three dental officers, seventy-eight dental therapists, one full-time and three sessional otologists, three audio-metrists and one social worker.

### COMMUNICABLE DISEASES

Under the Health Act, 1935-1973, certain diseases have been designated as 'infectious' and others as 'notifiable'. It is required that cases of infectious and notifiable diseases be reported to the local board of health, which in turn advises the Central Board of Health, and that cases of tuberculosis, gonorrhoea and syphilis be notified directly to the Central Board. It should be noted that the figures in the following table refer to cases notified and this may not reflect the actual number of occurrences of the disease in the population.

#### Communicable Diseases: Cases Notified, South Australia

Disease	1970	1971	1972	1973	1974
Diarrhoea, infantile . . . . .	37	47	22	13	9
Dysentery, bacillary . . . . .	190	183	277	126	31
Encephalitis . . . . .	5	3	1	1	8
Gonorrhoea . . . . .	652	817	989	1 492	2 091
Infectious hepatitis . . . . .	485	504	630	319	193
Malaria . . . . .	5	5	25	15	17
Meningococcal infection . . . . .	2	10	10	10	5
Paratyphoid . . . . .	—	2	5	2	3
Rubella . . . . .	223	59	168	311	40
Salmonella infection . . . . .	226	286	150	239	159
Scarlet fever . . . . .	44	44	28	20	15
Syphilis . . . . .	76	122	205	178	257
Trachoma . . . . .	—	11	1	1	—
Tuberculosis . . . . .	172	137	132	124	113
Typhoid fever . . . . .	1	2	—	2	1
Other diseases . . . . .	153	18	117	19	30

The Department of Public Health maintains a venereal diseases investigation clinic at 275 North Terrace, Adelaide.

### Anti-Tuberculosis Campaign

The Department of Public Health chest clinic has complete facilities for investigation, diagnosis and treatment of individuals with tuberculosis. In addition suspected cases are investigated and contacts are advised of precautionary measures and are periodically re-examined. The chest clinic has a static X-ray unit available to individuals and to which any doctor can refer patients for routine chest X-rays. In addition there are mobile units which are used for chest X-ray surveys in metropolitan and country areas. The chest clinic staff undertake tuberculin skin tests and vaccination programs in metropolitan and country schools.

Since March 1952 compulsory X-ray surveys of the population have been conducted in South Australia. With the advent of mobile survey units using miniature radiography it has been possible to X-ray all persons aged twenty-one years and over at appropriate intervals. Where necessary persons are subsequently referred to their medical practitioner.

Children in Year 9 at most State and certain private schools in the metropolitan area are given a tuberculin test, and where appropriate the children are vaccinated.

### Prevention of Poliomyelitis

In the 1950's South Australia was affected by an intense poliomyelitis epidemic which began in 1949 and continued for several years, reaching a peak in 1951 when 1 491 cases with 62 deaths were registered. From 1956, when mass immunisation against poliomyelitis with Salk vaccine was begun, the incidence of the disease declined. The last indigenous case of poliomyelitis in South Australia was recorded in 1963. Since then, one case, originating in the Northern Territory and treated in Adelaide was reported in 1970 and towards the end of 1974 a child with probable poliomyelitis was investigated at the Adelaide Children's Hospital.

The oral (Sabin) poliomyelitis vaccine was first introduced in July 1967, and is now the only vaccine used against poliomyelitis in this State. It is distributed by the Department of Public Health, to Local Boards of Health and private medical practitioners. The Department also organises poliomyelitis immunisation in areas without local government and conducts a clinic at the State Immunization Centre, Norwood.

### Poliomyelitis, South Australia

Period	Cases Notified	Deaths
1950-54	3 747	117
1955-59	331	11
1960-64	82	5
1965-69	—	—
1970-74	2	—

## ABORTION

Until December 1969 the law relating to abortions was included in Sections 81 and 82 of the Criminal Law Consolidation Act, 1935-1966. These Sections prohibited abortions under any circumstances. However, it was possible for legally qualified medical practitioners to perform abortions in a limited number of cases, at their discretion, under Common Law provisions. No separate statistics of such operations were recorded.

In December 1969 this Act was amended by the Criminal Law Consolidation Act Amendment Act, 1969 which was assented to on 8 January 1970. The amendment inserted a new section (Section 82a) which provided for certain exceptions to the prohibitions in Sections 81 and 82. These exceptions allow for termination of the pregnancy where:

- (1) it is necessary to save life, or prevent grave injury to the woman's physical or mental health; or
- (2) the continued pregnancy would involve greater risk to the mental or physical health of the woman, or there was a substantial risk that the child would suffer from such physical or mental abnormalities as to be seriously handicapped.

To qualify under these grounds, a woman must have resided in South Australia for a period of at least two months before the termination of her pregnancy.

Under the amended Act (the Criminal Law Consolidation Act, 1935-1974), a legally qualified medical practitioner may perform an operation to terminate a pregnancy, provided that he and another legally qualified medical practitioner are both of the opinion that one of the above grounds is met. There is provision for one legally qualified medical practitioner to terminate the pregnancy without recourse to a second opinion where it is immediately necessary to save the life, or to prevent grave injury to the physical or mental health of the pregnant woman. All operations must be performed in hospitals prescribed under regulations to the Act.

The following tables give details of abortions notified in recent years. The incidence of abortions notified per 1 000 live births registered was 138.8 in 1973 and 141.3 in 1974.

**Abortions Notified: Grounds on Which Granted, South Australia**

Grounds	1973		1974	
	Number	Per Cent	Number	Per Cent
Assault . . . . .	10	0.4	5	0.2
Potential damage to foetus . . . . .	119	4.2	101	3.5
Specified medical disorders . . . . .	162	5.7	141	4.9
Specified psychiatric disorders . . . . .	2 542	89.7	2 605	91.4
Total . . . . .	2 833	100.0	2 852	100.0

## Abortions Notified: Age Distribution, South Australia

Age Group	1970	1971	1972	1973	1974
	NUMBER				
Under 16 . . . . .	15	70	76	125	89
16-19 . . . . .	185	593	670	743	717
20-24 . . . . .	329	704	665	686	744
25-29 . . . . .	218	356	459	483	490
30-34 . . . . .	204	305	329	348	353
35-39 . . . . .	181	280	269	255	260
40-44 . . . . .	122	147	160	145	151
45 and over . . . . .	22	12	24	17	18
Not stated . . . . .	54	52	20	31	30
Total . . . . .	1 330	2 519	2 672	2 833	2 852

## Abortions Notified: Marital Status, South Australia

Marital Status	1973		1974	
	Number	Per Cent	Number	Per Cent
Single . . . . .	1 392	49.1	1 408	49.4
Married . . . . .	1 158	40.9	1 149	40.3
Widowed . . . . .	29	1.0	25	0.9
Divorced/separated . . . . .	254	9.0	270	9.4
Total . . . . .	2 833	100.0	2 852	100.0

## OTHER HEALTH SERVICES

## Blood Transfusion Service

The Red Cross Blood Transfusion Service collects and processes blood for the routine and emergency needs of all hospitals in South Australia. Blood donations are given at the Service's centre in Adelaide, at a mobile unit visiting metropolitan and country centres and at regional centres. In 1974 over 80 500 individual donations were received.

The Service maintains a blood bank at the Royal Adelaide Hospital, and a reference laboratory which, in addition to performing the necessary tests on donor blood, carries out investigations for hospitals and medical practitioners. There are subsidiary blood banks at the Queen Elizabeth Hospital, the Repatriation General Hospital, Modbury Hospital and the Lyell McEwin Hospital, Elizabeth, and regional blood transfusion centres have been established at Mount Gambier, Whyalla, Berri, Port Lincoln and Wallaroo.

The cost of maintaining the Blood Transfusion Service is met by the State Government (60 per cent), the Australian Government (35 per cent) and the Red Cross Society (5 per cent).

### **The Adelaide Chest Clinic**

The new chest clinic situated on North Terrace opposite the Royal Adelaide Hospital was officially opened by the Premier of South Australia, the Hon. D. A. Dunstan, on 11 March, 1974. The \$600 000 clinic, financed by the Australian Government under the joint Australian-States Anti-Tuberculosis Scheme, was planned and built on a site provided by the South Australian Government.

The City Unit, which is part of the clinic, provides X-ray facilities for those who attend spontaneously for a tuberculosis check as well as those who attend for consultations and regular check-ups by appointment. The ground floor is designed so that patients move in a clockwise direction from one department to the next. The reception desk, X-ray department, waiting area and consulting rooms, social workers office and dispensary are located in logical sequence with the clerical staff working in a central area encircled by the main 'traffic route'.

In addition to the modern design, the location of the new clinic is ideal. Being directly opposite the Royal Adelaide Hospital and quite close to the Adelaide University, it is a convenient location for patients as well as medical students who attend lectures at the chest clinic as part of their training.

### **Home Nursing**

The Royal District Nursing Society of South Australia, through its forty branches in metropolitan and country districts, provides nursing facilities to those in need of home nursing. The services of the fully trained nursing staff are provided free of charge to those unable to afford a fee, and to others according to their means. During 1973-74 a total of 270 856 visits were made by eighty-six full-time nurses. The Society also maintains a hospital at Marree and a medical centre at Iron Knob.

The Society obtains its revenue from State and Australian Government aid (80 per cent of total revenue in 1973-74), branch maintenance, including payments from patients, local government and other sources (17 per cent), and legacies and donations (3 per cent).

### **Aerial Medical Services**

The Royal Flying Doctor Service (RFDS) of Australia is a non-profit organisation and provides medical, dental, ophthalmic, School of the Air and telegram services in remote areas of Australia. The Royal Flying Doctor Service of Australia (SA Section) Inc. of the RFDS operates over an area of approximately 820 000 square miles in South Australia and the Northern Territory; it administers control stations at Port Augusta, and Alice Springs in the Northern Territory, two aircraft being based at each centre. For the year ended 30 June 1974 these aircraft flew a total of 278 205 miles in transporting 696 patients to hospital and treating 3 390 patients at outback clinics. A further 392 patients received dental treatment from Adelaide dentists on regular monthly visits. Doctors gave 5 528 radio consultations to outback residents and 75 352 telegrams were transmitted from 464 licensed fixed and portable outstations.

No flying charges are made to patients and the Service relies on donations, bequests and similar sources for approximately two-thirds of the finance required and one-third from State and Australian Government grants.



### **Ambulance Services**

The St John Council for South Australia Inc. provides a full-time ambulance service in the metropolitan area. This service is manned by the St John Ambulance Brigade. The Council also has administrative oversight over ambulance operations in country areas and in many cases the vehicles are manned by the Brigade. In the metropolitan area during 1974 St John ambulances travelled 2 078 957 kilometres and carried 179 744 patients. Two aerial ambulances, based at Whyalla, flew 1 308 hours in 1974. These aircraft are fitted out on the same basis as road ambulances and all the equipment throughout the State is interchangeable. A mobile radio communication system operates throughout the State on standard frequencies.

Common training programs are based on a Manual of Ambulance Transport Nursing published by the St John organisation in Adelaide. The establishment of a branch of Medic Alert International, a United States organisation, has facilitated the identification of people suffering from diseases and allergies which are not readily apparent. This knowledge is of assistance to both ambulance and hospital staffs in handling and treating patients.

### **Voluntary Agencies**

There are many other voluntary bodies operating in South Australia and doing health work of a special nature. Their activities cover such fields as care of the handicapped, hospital services, care of mother and baby, care of the aged and the provision of convalescent facilities.

## **CREMATORIUMS AND CEMETERIES**

The first crematorium in South Australia, the Adelaide Crematorium, was erected by the Cremation Society of South Australia, presented to the State Government in 1903 and subsequently was closed in November 1959. Cremations are currently conducted at two cemeteries in the State. The Centennial Park Crematorium was erected in 1956 and is operated by the Centennial Park Cemetery Trust. A second crematorium, constructed by the Enfield General Cemetery Trust, commenced operations in December 1969. There were 3 579 cremations in South Australia during 1974.

Cemeteries in South Australia are divided into three main groups: those under the control of the State Government or local government authorities, those under church control and those under the control of trusts. In each of the above groups the cemeteries are financed by the usual charges for burials and by the leasing of land for burial purposes. With church and trust cemeteries, the cost of maintenance is often derived from interest accruing from invested capital funds.

## **STATE GOVERNMENT EXPENDITURE ON PUBLIC HEALTH**

The following table shows the net expenditure by the State Government from Consolidated Revenue Account on various aspects of health which is defined as excluding sewerage, drainage and water supply. The dissection given is based on a revised classification of the purposes of government: figures now shown will therefore differ in content from those previously published. The figures include both the cost of maintaining State Government activities and subsidies paid to other organisations active in this field. For further details see Part 11.3 State Government Finance.

Net Expenditure on Health, South Australia<sup>(a)</sup>

Purpose	1972-73 <sup>p</sup>	1973-74 <sup>p</sup>
	\$'000	
General administration, regulation and research . . . . .	4 811	6 009
Hospital and clinical services:		
Mental health (b) . . . . .	9 561	12 173
Other (b) . . . . .	28 297	41 986
Other health services:		
Preventive services . . . . .	668	755
Maternal and infant health . . . . .	625	840
Health of school children . . . . .	932	(c) 501
Other health services . . . . .	3 095	4 571
Ambulance services . . . . .	538	562
<b>Total . . . . .</b>	<b>48 527</b>	<b>67 397</b>

(a) From Consolidated Revenue Account only. Includes expenditures on building maintenance and pensions; excludes interest and sinking fund.

(b) After allowing for receipts in respect of medical and pharmaceutical benefits. Excludes the School of Dental Therapists.

(c) Net after an Australian Government grant of \$707 000 received under the School Dental Scheme.

## MEDICAL PERSONNEL

The following table lists registrations with the Medical, Dental, Pharmaceutical, Physiotherapy, and Nurses Boards of South Australia, and with the Board of Optical Registration.

**Professional Medical Personnel, South Australia**  
**Number Registered at 31 December**

Profession	1970	1971	1972	1973	1974
Medical practitioners (a) . . . . .	2 568	2 707	3 054	3 154	3 348
Dentists . . . . .	389	414	442	477	521
Pharmaceutical chemists . . . . .	921	891	903	1 017	969
Opticians . . . . .	89	90	94	96	95
Nurses (b) . . . . .	9 855	10 506	11 201	11 923	12 717
Nurse aides (c) . . . . .	1 752	2 255	2 740	3 406	3 641
Midwives . . . . .	3 837	4 040	4 265	4 470	4 787
Psychiatric nurses . . . . .	708	771	830	865	955
Mental deficiency nurses . . . . .	444	444	464	483	519
Infant welfare nurses . . . . .	575	603	629	657	690
Mothercraft nurses . . . . .	116	145	175	198	220
Infectious diseases nurses . . . . .	37	34	34	33	34
Dental nurses . . . . .	120	122	142	156	169
Physiotherapists . . . . .	452	475	498	524	565

(a) Includes personnel not practising in South Australia. Date of registration is 31 January in following year.

(b) Nurses may also be registered and included as midwives, psychiatric nurses, mental deficiency nurses, etc.

(c) Known as enrolled nurses from January 1971.

The figures for registered medical practitioners show the number of persons registered to practise medicine in South Australia and not the number actually practising, which is estimated at approximately two-thirds of those registered. Since the 1939-45 War there has been a considerable re-organisation of general practice in medicine with a movement away from single practices to partnership and group practice arrangements.

### MEDICAL RESEARCH

#### **The Institute of Medical and Veterinary Science**

Details of this organisation are given under the heading of Scientific Organisations on pages 232-3.

#### **The Anti-Cancer Foundation**

The forerunner of the Foundation, the Anti-Cancer Campaign Committee, was formed within the University of Adelaide in 1928. The Committee's early activities were largely devoted to establishing and developing the Radiotherapy Department of the Royal Adelaide Hospital. As demand for these facilities grew the hospital assumed responsibility for routine treatment, and the Committee concentrated its activities on cancer research. In 1962 the Committee was re-organised and became the Anti-Cancer Foundation of the University of Adelaide.

Early research was of a clinical nature, but more recently the Foundation has subsidised cancer research projects within the Institute of Medical and Veterinary Science, the Flinders University of South Australia, the University of Adelaide, the Queen Elizabeth Hospital and the Royal Adelaide Hospital.

An education program is being conducted to encourage the public to seek early medical advice and prompt treatment. Social workers assist with problems associated with cancer patients being cared for at home by relatives who, in necessitous circumstances, receive financial help. The Foundation has established 'Martin House' a well-equipped hostel to accommodate country patients receiving treatment at the Royal Adelaide Hospital.

The income of the Foundation is derived from gifts and bequests, government grants and subsidies, and from direct public appeals. The Foundation has formed standing committees in the country districts of South Australia and the Northern Territory to assist in the expansion of its anti-cancer activities.

#### **The National Heart Foundation**

The National Heart Foundation of Australia, together with its South Australian Division, was established in February 1959. Its aims are research into the causes of heart diseases, education of doctors and laymen, and rehabilitation of heart sufferers. The National Heart campaign of 1961 raised \$5 124 000 for the work of the Foundation, of which \$662 000 was contributed in South Australia. An appeal for further funds which was made during 1969 raised \$268 000 in South Australia. Since then, the Heart Fund Continuing Support Program has been established with the aim of providing regular annual donations to support the three-part program.

The campaign funds are being spent on research (70 per cent), education (15 per cent) and rehabilitation (15 per cent). Research funds, distributed at the national level, support projects in various departments at the University of Adelaide, at Flinders University, and at the Institute of Medical and Veterinary Science, the Royal Adelaide Hospital and the Adelaide Children's Hospital. Research funds are also used in providing local and overseas fellowships and travel grants.

The National Heart Foundation Centre in Adelaide was established by the South Australian Division in 1963 for the rehabilitation of patients suffering from the effects of heart disease and stroke. Particular attention is given to professional and community education, to placement in suitable employment and to the provision of a full range of domiciliary rehabilitation services for stroke patients.

### HEALTH SERVICES USAGE IN SOUTH AUSTRALIA

As part of the February 1972 population survey conducted by the Australian Bureau of Statistics, data was obtained and used to derive measures of some characteristics of the incidence and distribution of health services used or required by one per cent of the population of South Australia during 1971. Details of this survey can be found in the *Survey of the Use of Health Services* bulletin published by the Deputy Commonwealth Statistician, Adelaide. Some findings of this survey, expanded in accordance with accepted statistical principles to represent the population of the State as a whole, were included on pages 279-81 of the *South Australian Year Book* 1974.

## 6.6 SOCIAL WELFARE

The Australian and State Governments and a large number of voluntary agencies see to the social welfare of the population. The Australian Government is concerned largely with providing fixed monetary pensions and benefits and repatriation services. State agencies operate in the field of child welfare and distribute emergency relief in circumstances where Australian Government assistance is not available or proves insufficient. The voluntary agencies, many of which receive government aid, provide a wide range of services in various fields of social welfare.

### AUSTRALIAN GOVERNMENT PENSIONS AND BENEFITS

#### EXPENDITURE

The following table sets out Australian Government expenditure on social security, which includes expenditure under the Social Services Act, other Acts, National Health Service and war and service pensions but the figures do not include administration costs.

Australian Government Expenditure on Social Welfare, South Australia<sup>(a)</sup>

Type of Benefit	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Social Services Act:					
Age and invalid pensions . . . .	58 720	64 714	76 545	101 625	131 771
Widows pensions . . . . .	8 053	8 969	10 458	14 364	18 403
Child endowment (b) . . . . .	20 287	18 284	19 766	22 780	20 098
Maternity allowance . . . . .	698	718	707	661	618
Unemployment benefits . . . . .	1 008	1 378	2 930	5 107	6 143
Sickness benefits . . . . .	576	840	1 243	2 226	3 633
Supporting mothers benefit . . . .	—	—	—	—	4 838
Other . . . . .	866	1 047	1 237	1 467	1 952
<b>Total . . . . .</b>	<b>90 208</b>	<b>95 950</b>	<b>112 886</b>	<b>148 230</b>	<b>187 456</b>
Delivered Meals Subsidy Act . . . .	39	43	48	78	166
Aged Persons Homes Act (c) . . . .	2 350	3 187	2 671	3 608	4 221
Aged Persons Hostels Act (d) . . . .	—	—	—	106	865
States Grants (Home Care) Act . . . . .	16	35	106	181	226
States Grants (Deserted Wives) Act . . . . .	210	294	464	776	1 534
National Health Service (e) . . . .	33 599	41 773	50 587	57 254	65 807
War Pensions (f) . . . . .	15 182	15 754	17 307	18 450	21 010
Service Pensions (f) . . . . .	4 253	4 651	5 186	7 467	10 340
<b>Total payments . . . . .</b>	<b>145 857</b>	<b>161 687</b>	<b>189 255</b>	<b>236 150</b>	<b>291 625</b>

(a) Where applicable the amounts shown include payments for supplementary assistance, allowances and additional pensions for children.

(b) Payments are made to claimants' bank accounts every twelve weeks. Five payments were included in 1969-70 and 1972-73, other years include four payments.

(c) From 1969-70 includes Personal Care Subsidy (\$725 000 in 1973-74).

(d) Commenced September 1972.

(e) Includes Northern Territory for some items (see page 293).

(f) Includes Northern Territory.

## AUSTRALIAN SOCIAL SECURITY

Brief details of Australian Government pensions and benefits are given in this section; however, in discussing the eligibility of persons for the various payments, all the necessary qualifications and exceptions to the general rule have not been delineated; such terms as 'income' and 'property' have not been defined.

## Age and Invalid Pensions

Age pensions are payable to men aged sixty-five and over and women aged sixty and over, who have lived in Australia continuously for a period of ten years.

Invalid pensions are payable to persons aged sixteen years and over who have lived in Australia continuously for five years and who are permanently incapacitated to an extent of at least 85 per cent, or are permanently blind. Where the incapacity or blindness occurred outside of Australia, other than during a temporary absence, ten years continuous residence is necessary.

If a person subject to the ten year qualification for either pension has completed five years but not ten years continuous residence, but has lived in Australia for periods which, in total exceed ten years, he may be eligible. Absences from Australia in certain circumstances and residence in New Zealand or the United Kingdom may be treated as residence in Australia.

From August 1974, for both age and invalid pensions, the standard rate for an unmarried pensioner, or for a married pensioner whose husband or wife was not receiving an age or invalid pension, a tuberculosis allowance or a service pension, was \$31 a week. Where married pensioner couples are living apart for an indefinite period because of the illness or infirmity of either or both, each receives a pension at the single rate. The married rate for a couple both being pensioners was \$20.75 a week each. A wife's pension is payable at the married rate to an age pensioner's wife who does not qualify for an age, invalid or repatriation service pension in her own right.

An additional pension of \$5.50 a week is payable for all children under sixteen years or who are full-time students. An unmarried age or invalid pensioner having the custody, care and control of a child under sixteen years or who is a full-time student is paid a guardian's allowance of \$4 a week in addition to the pension. The guardian's allowance is increased to \$6 a week if there is a child under six years, or if there is an invalid child under sixteen years requiring full-time care and attention.

Up to \$5 a week extra may be paid to a single pensioner or to a married couple (\$2.50 each) who pay rent or lodging. For single and married persons the maximum rate of supplementary assistance is reduced by the amount by which the pensioners' means exceed \$1 a week.

The standard rate and married rate pensions, unless the pensioner is over seventy-five years of age, are subject to a means test. Additional allowances are subject to means test regardless of age. Under the means test, a full pension is paid if the annual income plus one-tenth of the value of property in excess of \$400 (for a single pensioner) or \$800 (for a pensioner couple) does not exceed \$1 040 (for a single pensioner) or \$1 794 (for a pensioner couple). If the combined income and property figure exceeds \$1 040 (or \$1 794), the pension is reduced. The value of a house owned by a pensioner and occupied as the permanent home of that pensioner is exempt from the means test. Persons permanently blind are not subject to the means test.

**Age and Invalid Pensions, South Australia**  
**Number of Pensioners**

At 30 June	Age Pensioners			Invalid Pensioners		
	Males	Females	Total	Males	Females	Total
1970 . . . . .	21 806	51 571	73 377	6 473	5 226	11 699
1971 . . . . .	23 447	54 315	77 762	6 151	5 023	11 174
1972 . . . . .	24 429	56 210	80 639	6 643	5 489	12 132
1973 . . . . .	27 745	63 250	90 995	7 441	5 914	13 355
1974 . . . . .	31 510	69 792	101 302	8 425	6 390	14 815

**Widows Pensions**

Widows pensions are paid to widows and other women who satisfy certain conditions; there is a means test on income and property.

There are three classes of pensions:

Class A, a widow with one or more children under sixteen years of age or a full-time student in her custody, care and control;

Class B, a widow of at least fifty years of age with no children under sixteen years, or full-time students, or a widow of at least forty-five years of age who ceases to be eligible for a Class A pension because she no longer has a child in her custody, care and control;

Class C, a widow under fifty years of age who has no children under sixteen years of age but is in necessitous circumstances within twenty-six weeks of her husband's death. If a widow is pregnant, a pension may be continued until the birth of the child when she may qualify for a Class A pension.

For Classes A and B the term 'widow' includes a deserted wife who has been deserted at least six months, a divorcee, a woman whose husband has been in prison at least six months and a woman whose husband is in a mental hospital.

For all classes the term 'widow' may also include a woman who was the dependant of a man for at least three years immediately before his death.

**Widows Pensions, South Australia**  
**Number of Pensioners At 30 June**

Class	1970	1971	1972	1973	1974
A . . . . .	4 317	4 623	4 898	5 910	6 297
B . . . . .	4 291	4 415	4 459	5 111	5 448
C . . . . .	8	2	6	2	8
Total . . . .	8 616	9 040	9 363	11 023	11 753

A residential qualification is not required if a couple were permanent residents when the husband died or if an event occurs—such as divorce—which qualifies a woman as a 'widow'. In other circumstances five years continuous residence immediately preceding a lodgement of claim or ten years residence at anytime is required. Certain absences are not considered as breaking continuity of residence, and residence in New Zealand or the United Kingdom counts as residence in Australia. The means test operates similarly to that for age pensions except that for a Class A widow the property component is relaxed to some degree.

From August 1974, the rates of pension were: Class A widows, \$31 a week, plus a mothers allowance of \$4 a week (\$6 if there is an invalid child or a child under six years), plus \$5.50 (from November 1974) a week for each child under sixteen years or a full-time dependent student; for Class B widows, \$31 a week; for Class C widows, \$31 a week.

An additional payment of up to \$5 a week may be paid to widow pensioners who pay for rent or lodging, whose income is under \$6 a week and whose assets are also limited. In the case of a Class A widow the income limit may be increased by up to \$6 a week for each child.

### **Supporting Mother's Benefit**

Supporting Mother's Benefit was introduced in July 1973. To be eligible for the benefit a woman must have the custody, care and control of a child at least six months old, and be an unmarried mother, a deserted or separated wife, a separated *de facto* wife, a *de facto* wife whose *de facto* husband is in prison or a mother who is supporting a child on her own for any other reason. Separation must have existed for at least six months. The child must be either born of the woman or, in the case of a separated or *de facto* wife, a child whom the woman had the custody, care and control of before the date on which the separation occurred. The rates, means test and other conditions are the same as for a Class A widows pension.

### **Portability**

Pensions may be received in any country, subject to the following conditions:

- (1) the pension must be granted before departure from Australia;
- (2) normal residential requirements must be satisfied;
- (3) payment can only be made if the pensioner has left Australia on or after 8 May 1973.

### **Persons Living Overseas**

Pensions may be granted to persons living outside Australia subject to the following conditions:

- (1) the claimant had lived thirty years in Australia and was of age-pension age or within five years of that age at the time of departure from Australia. This residential qualification does not apply to a claimant who became permanently incapacitated for work (or permanently blind) or widowed, in Australia;
- (2) the claimant left Australia before 8 May 1973;
- (3) the claimant is in special need of financial assistance.

In addition, the claimant is required to satisfy the ordinary conditions for grant of pension in Australia, except that of living in Australia.

### **Child Endowment**

Persons resident in Australia who have the custody, care and control of one or more children under the age of sixteen are eligible for child endowment; approved institutions of which children are inmates are similarly eligible. Endowment is also paid for full-time students between the ages of sixteen and twenty-one years. There is no means test on child endowment, but one year's residence in Australia is required if the mother and child were not born in Australia; this requirement is waived if the Department of Social Security is satisfied that they are likely to remain in Australia permanently.



At 31 December 1974 endowment was paid at the rate of 50 cents a week for the first eligible child under sixteen years; \$1 for the second; \$2 for the third; and for each subsequent eligible child the rate increases by 25 cents a week over that payable for the next elder child *i.e.* \$2.25 for the fourth; \$2.50 for the fifth etc. Endowment of \$2 a week is paid for each child under the age of sixteen years in an institution, and \$1.50 a week for each full-time student between the ages of sixteen and twenty-one years.

### Child Endowment, South Australia

At 30 June	Families			Institutions			Total Endowed Children
	Endowed Families (a)	Endowed Children		Approved Institu- tions	Endowed Children		
		Under 16	Students 16-20		Under 16	Students 16-20	
1970 . . .	165 245	358 421	20 794	59	(b) 1 297	(b) 135	380 647
1971 . . .	168 289	361 652	21 869	63	1 294	145	384 960
1972 . . .	170 599	362 830	23 306	64	1 545	145	387 826
1973 . . .	172 453	361 539	24 068	67	1 203	120	386 930
1974 . . .	174 976	361 853	23 361	67	1 745	116	387 075

(a) Excludes those with only endowed student children.

(b) Payments in relation to children in certain Aboriginal mission stations made direct to families instead of to institutions as formerly.

### Maternity Allowances

Any woman, permanently resident in Australia, who gives birth to a child in Australia, is entitled to a maternity allowance. The amount payable depends on the number of existing children under sixteen years of age, and special allowance is made for multiple births. Maternity allowances are not subject to a means test.

### Maternity Allowances, South Australia (Claims granted during year)

Category	1969-70	1970-71	1971-72	1972-73	1973-74
Single births:					
No other children under 16 . . . . .	8 424	8 890	8 975	8 576	8 105
One or two children under 16 . . . . .	10 368	10 796	10 693	10 266	9 678
Three or more children under 16 . . . . .	3 000	2 740	2 467	1 984	1 604
Multiple births:					
Twins . . . . .	237	247	251	175	204
Triplets . . . . .	2	3	4	1	4
Quadruplets . . . . .	—	—	—	—	1
Total . . . . .	22 031	22 676	22 390	21 002	19 596

At 31 December 1974 a mother with no other children under sixteen years of age was entitled to an allowance of \$30; where there were one or two such children the rate was \$32, and where there were three or more such children \$35. An extra amount of \$10 is paid for each additional child in multiple births.

### Double Orphans Pension

A pension of \$11 a week is payable to the guardian of a child under sixteen years or a full-time student between the ages of sixteen and twenty-one years who has both parents dead or one dead and the other missing. It is also payable in respect of an adopted child.

If an orphan child is being cared for by an approved charitable or religious institution the pension may be paid to the institution.

### Unemployment and Sickness Benefits

Unemployment and sickness benefits are paid to persons who suffer temporary loss of regular earnings because of unemployment, sickness or accident. There is a means test on income but not on property. Persons eligible must be between sixteen and sixty-five years of age (sixty for women) with either twelve months residence or the intention to reside permanently in Australia. A person receiving an alternative social security pension is ineligible for unemployment and sickness benefits. A married woman is not usually qualified to receive sickness benefit if her husband can support her.

#### Unemployment and Sickness Benefits, South Australia

Year	Unemployment		Sickness		Special (a)	
	Number of Benefits Granted	Average Number on Benefit (b)	Number of Benefits Granted	Average Number on Benefit (b)	Number of Benefits Granted	Average Number on Benefit (b)
1969-70 ..	14 988	1 645	5 843	720	948	276
1970-71 ..	20 015	2 025	6 603	868	1 063	286
1971-72 ..	30 308	3 515	7 325	1 059	1 021	265
1972-73 ..	31 111	4 423	7 585	1 388	1 042	283
1973-74 ..	19 926	3 244	8 639	1 571	988	313

(a) Excludes special benefits to migrants in accommodation centres.

(b) Average number at the end of each week.

To qualify for unemployment benefit a person must (a) be unemployed and be able to show that unemployment was not because of his being a direct participant in a strike, (b) be able and willing to undertake suitable work, and (c) have taken reasonable steps to secure work, including registration with the Commonwealth Employment Service.

The amount of income which a person may receive and still qualify for the maximum rate of benefit is \$6 a week for an adult or married person under twenty-one, and \$3 a week for a single person under twenty-one. The benefit is reduced by any amount in excess of these figures. For unemployment benefit the income of the claimant's husband or wife is taken into account. In the case of

sickness benefit, income received by a claimant's wife is not included for means test purposes but may determine whether additional benefit is payable for her, and if so, the amount. Special conditions apply where the wife receives an age, invalid or service pension.

From August 1974 the maximum weekly amounts for sickness and unemployment benefits were \$31 for a single person and \$51.50 for a married couple plus \$5.50 (from November 1974) for each child.

In addition persons who have received sickness benefit for a continuous period of six weeks may receive a supplementary allowance of up to \$5 a week if they are entirely or substantially dependent upon the benefit and pay rent or lodging.

A special benefit may be granted to a person not normally qualified for unemployment or sickness benefit and who is not in receipt of some other social service pension or allowance, or a service pension, if he is unable to earn a sufficient livelihood for himself and his dependants.

### Rehabilitation

The Australian Government Rehabilitation Service assists people who are unable to work because of physical handicap or who have had to give up their employment because of sickness or injury. It aims at helping disabled people to reach their maximum physical fitness and to prepare for suitable employment. The service provides a co-ordinated program of treatment and training to meet the special needs of each disabled person. Rehabilitation is provided free to persons receiving, or eligible to receive, an invalid or widows pension, unemployment, sickness or special benefit. Recipients of tuberculosis allowance and children of fourteen and fifteen years otherwise likely to qualify for invalid pension at age sixteen are also eligible.

#### Rehabilitation, South Australia

Year	Number Accepted for Rehabilitation	Number Placed in Employment	Expenditure (a)
			\$
1969-70 .. . . . . .	251	226	298 624
1970-71 .. . . . . .	280	223	394 448
1971-72 .. . . . . .	208	188	470 521
1972-73 .. . . . . .	301	201	542 492
1973-74 .. . . . . .	258	203	709 355

(a) Excludes capital expenditure on sites and buildings, and administrative cost of the Rehabilitation Service.

All rehabilitation activities in South Australia are concentrated at the Commonwealth Rehabilitation Centre, Felixstow. The centre has a treatment capacity of approximately 120, comprising forty residents and eighty non-residents.

When a person begins treatment he continues to receive his existing pension or benefit plus certain expenses. When vocational training begins the pension or benefit is suspended and a rehabilitation allowance is paid instead. Certain

additional allowances may also be paid during the period of training. The rehabilitation allowance for an invalid pensioner or an unemployment, sickness, or special beneficiary is equal to and calculated in the same way as the pension for an invalid pensioner. A widow pensioner receives the same rate as under a widows pension.

The Department of Labor and Immigration Employment Service works with the Rehabilitation Service to help find employment for disabled people. Loans may be granted to assist certain persons in the establishment of home employment.

There is also a training scheme for Class A or Class B widow pensioners to help them to acquire a vocational skill to enable them to undertake full or part-time employment. This operates in much the same way as for those selected for training above, except that the pensioner is not required to be disabled to be eligible for training selection.

#### Training Scheme for Widow Pensioners, South Australia

Year	Number Accepted for Training	Number Placed in Employment	Expenditure (a)
			\$
1969-70 . . . . .	200	31	43 218
1970-71 . . . . .	302	70	68 164
1971-72 . . . . .	278	119	92 353
1972-73 . . . . .	266	164	72 677
1973-74 . . . . .	461	204	129 522

(a) Excludes administrative costs of the Training Scheme.

#### Funeral Benefits

A funeral benefit is payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a person who, but for his death, would have been granted an age or invalid pension. It is also payable in respect of the deceased child or deceased spouse of a pensioner or person who becomes a pensioner within six months after the death of the deceased person.

A funeral benefit is also payable in respect of deceased tuberculosis allowees or to claimants for tuberculosis allowance who, but for their claim for tuberculosis allowance, would otherwise have been eligible for a pension.

At 31 December 1974 the maximum benefit payable was \$20, or \$40 if the person responsible for payment of the funeral was a pensioner.

During 1973-74, 4 909 claims for funeral benefits were granted in South Australia.

#### Homes for the Aged

The *Aged Persons Homes Act 1954-1973* provides that grants may be made to certain organisations towards the capital cost of erecting or purchasing approved homes for aged people. Church, charitable, ex-servicemen's organisations and local governing bodies as well as any other approved organisation are eligible.

Grants may not exceed two-thirds of the capital cost of the home including land or twice the amount (excluding borrowings and other government grants) raised by the organisation towards the capital cost, whichever is less.

At 30 June 1974, 601 grants had been approved in South Australia since the inception of the scheme in 1954. The amount granted, \$34 274 370, was associated with the accommodation of 9 789 persons.

Since October 1969 the *Aged Persons Homes Act* has provided for a personal care subsidy to be paid to eligible organisations for persons aged eighty years and over who receive approved personal care while living in hostel type accommodation provided by these organisations. The present rate of subsidy is \$12 a week for each qualified person.

At 30 June 1974 there were fifty-three approved homes with 1 402 qualified residents and the personal care subsidy paid during 1973-74 was \$725 320.

Under the *Aged Persons Hostels Act 1972-1974*, the Australian Government meets the full cost of providing new hostel accommodation for the aged. Accommodation is provided for two persons for every one person residing in an unsubsidised home and for one person for every two residing in a home that is subsidised on a \$1 for \$1 basis. An additional subsidy of \$250 a person is also payable in respect of furnishings.

At 30 June 1974, five grants had been approved in South Australia since the inception of the scheme in 1972. The amount granted, \$2 278 899 (including \$44 250 towards furnishings) was associated with the accommodation of 281 aged persons.

#### **Delivered Meals Service**

Under the *Delivered Meals Subsidy Act 1970-1974*, financial assistance is provided to organisations to establish, maintain, expand and improve 'meals on wheels' services. These organisations must be non-profit charitable, benevolent or welfare bodies not controlled by the Australian or State Governments. The rate of subsidy is \$2.50 for each ten meals supplied with a further 50c for each ten meals where a vitamin C supplement is supplied.

At 30 June 1974 approvals had been given to eighteen metropolitan and thirty country meals services which had served a total of 2 387 699 meals since the scheme's inception and the total amount of subsidy paid was \$367 895.

#### **Sheltered Employment Assistance**

The *Sheltered Employment (Assistance) Act 1967-1973* provides for the payment of grants by the Australian Government to eligible organisations to contribute towards the cost of purchasing, altering, or extending premises for use as sheltered workshops; purchasing equipment for workshops; renting premises for use as workshops; and providing accommodation for disabled persons employed in sheltered workshops. The maximum amount payable by the Australian Government is two-thirds of the total cost in each case. Religious, charitable, ex-servicemen's organisations and local governing bodies are eligible to receive financial assistance in establishing or extending workshops.

Approved workshops are expected to provide opportunities for disabled persons to earn up to the limits imposed by their disabilities. At 30 June 1974, forty-three grants amounting to \$1 501 085 had been approved for workshop premises in South Australia since the inception of the scheme in 1967.

From 26 October 1970 the range of Australian Government grants was extended to include \$2 for \$1 subsidies for hostels for disabled persons who are engaged in normal employment, \$1 for \$1 subsidies towards the salaries of certain staff members employed by approved workshops and hostels, and the payment of a training fee of \$500 to organisations for each eligible employee trained by these organisations placed in open employment for not less than twelve months.

The *Social Services Act 1947-1974* contains provision for the payment of a sheltered employment allowance, at the same rates as invalid pensions, which reduces on a graduated scale as workshop earnings increase. The allowance is payable to eligible disabled persons employed at a workshop approved for payment of the allowance. At 30 June 1974, 335 persons in South Australia were receiving the allowance.

### **Handicapped Children Assistance**

The *Handicapped Children (Assistance) Act 1970-1973* provides for Australian Government grants on a \$2 for \$1 basis towards costs incurred by eligible organisations in establishing and equipping training centres and also the cost of providing residential accommodation for handicapped children attending approved training centres. Organisations eligible to apply for subsidies are non-profit charitable, benevolent or welfare bodies (not controlled by the Australian or State Governments), religious organisations and local governing bodies. Handicapped children for the purposes of this Act are persons suffering from a physical or mental disability who are under the age of twenty-one years and those who continue to receive approved training after reaching the age of twenty-one. Training which is designed to teach handicapped children the activities of daily living or which is of a social, remedial, pre-vocational or vocational nature is accepted as approved training. General education for which special facilities are required is also accepted. A benefit of \$3 a day is also payable for handicapped children under sixteen years of age in approved institutions.

### **Reciprocal Agreements**

*New Zealand.* An agreement exists between the Governments of Australia and New Zealand for reciprocity in social services. The arrangements cover age and invalid pensions, widows pensions, child endowment, and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

*Britain.* A reciprocal agreement on social services exists between Britain and Australia. Under the current agreement residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to Britain for permanent residence are treated in Britain as if they had been insured under the National

Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

### NATIONAL HEALTH SERVICES

#### Expenditure

The following table shows Australian Government expenditure in South Australia from the National Welfare Fund on the various aspects of the national health services. The amounts shown are the direct costs of these benefits and services and do not include the cost of administering the services.

#### National Health Services Expenditure, South Australia

Type of Benefit	Year First Paid	1970-71	1971-72	1972-73	1973-74
		\$'000			
Hospital and nursing home benefits (a) (b) . . . . .	1946	11 508	15 340	18 103	21 994
Medical benefits (b) . . . . .	1953	11 956	15 387	17 695	17 969
Pensioner medical service . . . . .	1951	2 048	2 968	3 243	3 826
Domiciliary nursing care (c) (d) . . . . .	1973	—	—	101	632
Pharmaceutical benefits (d) . . . . .	1948	10 265	10 098	10 667	13 049
Pensioner pharmaceutical benefits (d) . . . . .	1951	4 315	4 749	5 377	6 294
Anti-tuberculosis campaign . . . . .	1947	597	763	827	939
Milk for school children . . . . .	1951	892	1 060	990	700
Other . . . . .	—	191	222	251	404
<b>Total . . . . .</b>	<b>—</b>	<b>41 773</b>	<b>50 587</b>	<b>57 254</b>	<b>65 807</b>

(a) Includes Northern Territory for nursing home benefits.

(b) Includes benefits and payments for Northern Territory residents insured with South Australian hospital and medical organisations. There are no organisations registered in the Northern Territory.

(c) Commenced March 1973.

(d) Includes Northern Territory.

#### Hospital Benefits

The Australian Government pays hospital benefits to patients in approved hospitals under the following arrangements:

- (a) patients insured with a registered benefit organisation and in an approved hospital receive a benefit (\$2 a day) paid through the organisation. Details of registered organisations are given on pages 310-1;
- (b) uninsured patients are entitled to a benefit (80c a day) which is deducted from the patient's account and paid by the Australian Government to the hospital;
- (c) pensioners enrolled with the Pensioner Medical Service and their dependants in standard wards of public hospitals are entitled to a benefit of \$5 a day which is paid to the hospital;

- (d) a benefit of \$2 a day is payable direct to approved hospitals for patients treated without charge;
- (e) special financial assistance for hospital benefits insurance is provided through the Subsidised Health Benefits Plan to low income families, to people receiving unemployment, sickness or special benefits and to migrant settlers for hospital expenses incurred during the first two months in Australia.

Hospital benefit funds have a multiple table system with four tables to match standard, intermediate and private ward charges in public hospitals and private ward charges in private hospitals. Fund benefit payments are limited to the actual charges made by hospitals.

Benefit organisations preclude from membership a contributor or dependant already insured or covered by membership of another hospital benefit organisation. Benefits may not be payable where a patient receives a payment by way of compensation or damages.

### Hospital Benefits, South Australia

Type of Benefit	1970-71	1971-72	1972-73	1973-74
AMOUNT PAID (\$'000)				
Hospitals:				
Insured patients (a) . . . . .	2 449	2 634	2 747	2 683
Uninsured patients . . . . .	56	48	40	43
Special Account Advance and Deficit Payments (a) (b) . . . . .	2 040	3 744	4 038	5 949
Subsidised Health Benefits Plan payments (a) . . . . .	406	950	1 321	1 550
Patients treated without charge . . . . .	(c) 38	23	19	12
Pensioner patients . . . . .	1 999	1 885	1 896	1 912
Nursing home patients (d) . . . . .	4 520	6 055	8 027	9 778
Other nursing home payments (a) (e) . . . . .	—	—	14	68
<b>Total . . . . .</b>	<b>11 508</b>	<b>15 340</b>	<b>18 103</b>	<b>21 994</b>

(a) Includes benefits and payments for Northern Territory residents insured with South Australian organisations. There are no organisations registered in the Northern Territory.

(b) Covers amounts paid for special account deficits (these being reimbursements to registered hospital benefit organisations for losses incurred on chronic or pre-existing ailments and long-term illness and advances in respect of these deficits).

(c) Payable from 1 July 1970.

(d) Includes Northern Territory.

(e) Covers Subsidised Health Benefits Plan fund benefit reimbursements and Special Account Advance and Deficit payments payable from 1 January 1973.

### Nursing Home Benefits

An Australian Government nursing home benefit is paid for all qualified patients in approved nursing homes, whether the patient is insured or not. The benefit is deducted from the patient's account and paid by the Australian Government to the nursing home. The benefit for patients receiving ordinary



nursing home care is \$3.50 a day. In addition, a supplementary benefit of \$3 a day is paid to nursing homes (and deducted from patients' accounts) for patients requiring and receiving intensive nursing care. A nursing home fund benefit is also paid to non-pensioner contributors of registered hospital benefits organisations.

### **Domiciliary Nursing Care**

Domiciliary Nursing Care benefit of \$2 a day was introduced in March 1973. The benefit was designed to help meet the cost of home nursing and other professional care for aged people who are chronically ill but being cared for in the home environment. The benefit can be paid to any person who provides continuous care for a patient in a private home which is the residence of the person and the patient.

Patients must be sixty-five years of age or more, have a certificate from their doctor stating that they have a continuing need for nursing care by a registered nurse and they must be receiving this care by a registered nurse on a regular basis involving at least two visits each week.

### **Medical Benefits**

The Australian Government pays medical benefits in respect of medical expenses incurred by persons who are members of registered medical benefits organisations or by the dependants of such members. The benefits are normally paid through the organisations to the member upon receipt of a medical practitioner's account. The fund benefit and the Australian Government benefit are paid in accordance with the rates prescribed under the *National Health Act 1953-1974*. Benefits may not be payable where a patient receives a payment by way of compensation or damages.

Medical benefits are related to schedule fees which are determined through negotiation with the Australian Medical Association. The amount of the schedule fee to be met personally by a patient ranged from 80 cents for a general practitioner surgery consultation to \$5 for services with schedule fees of \$40 or more. The maximum of \$5 also applies to the schedule fees for an operation and services directly associated with it.

Special financial assistance for medical benefits insurance is provided through the Subsidised Health Benefits Plan to low income families, to people receiving unemployment, sickness or special benefits, and to migrant settlers for medical expenses incurred during the first two months in Australia. Expenditure for 1973-74 was \$362 000. Australian Government expenditure on medical benefits in South Australia in 1973-74 was \$17 969 000. Further details of medical benefits organisations are given on pages 310-1.

### **Special Account**

Contributors who would otherwise be ineligible for medical and hospital fund benefits because of limitations imposed by registered private health insurance organisation rules relating to pre-existing ailments and maximum benefits in the case of medical benefits, and pre-existing ailments, chronic illnesses and hospitalisation in excess of the maximum periods for which benefits are payable in the case of hospital benefits, may, under the Special Account arrangements continue to receive the same benefits as other contributors. Benefits so paid,

plus management expenses, are charged to the Account and contributions credited to it. The Australian Government reimburses the deficit balances of the Special Accounts.

Contributors who have been transferred to a registered hospital insurance organisation Special Account for one of the above reasons may receive nursing home fund benefits under the Special Account arrangements. However, a claim for nursing home fund benefits will not entitle a registered hospital benefits organisation to transfer a contributor to the Special Account.

The deficit balances reimbursed in 1973-74 were \$5 949 000 in the case of hospital payments, \$68 000 in the case of nursing home payments and \$136 000 in the case of medical payments.

### Pharmaceutical Benefits

Under the Pharmaceutical Benefits Scheme certain medicines, when prescribed by a doctor, are made available to the general public upon the payment of \$1. Persons holding a Subsidised Health Benefit certificate are required to pay 50 cents and pensioners are supplied free of cost. The drugs and medicinal preparations available as pharmaceutical benefits are determined on the advice of the Pharmaceutical Benefits Advisory Committee which also recommends the maximum quantities that can be prescribed. Pharmaceutical benefits are normally obtained through registered pharmacists but most public hospitals may also supply pharmaceutical benefits, as may doctors and certain recognised organisations in isolated areas.

#### Pharmaceutical Benefits, South Australia<sup>(a)</sup>

Year	Number of Benefit Prescriptions	Cost of Benefit Prescriptions			Additional Costs to Australian Government (b)
		Total Cost	Patients Contributions	Net Cost Australian Government	
	'000			\$'000	
1969-70.. ..	4 155	8 993	2 069	6 924	1 844
1970-71.. ..	4 527	10 338	2 255	8 083	2 182
1971-72.. ..	4 345	11 080	3 164	7 916	2 183
1972-73.. ..	4 378	11 977	4 328	7 649	3 018
1973-74.. ..	5 254	14 572	5 207	9 365	3 684

(a) Excludes pensioner benefits. Includes Northern Territory. (b) Payments to hospitals and miscellaneous services.

### Pensioner Medical Service

The Pensioner Medical Service is a general practitioner service provided free of charge to eligible pensioners and their dependants. The service does not extend to specialist treatment, general anaesthetics, pathology services, X-rays, operations or the treatment of fractures.

Doctors participating in the service are remunerated by the Australian Government on a fee-for-service basis. During 1973-74 fees for pensioner medical services were \$3 for surgery consultations and \$4.30 for domiciliary visits.

Pensioner Medical Service pensioners are entitled, under the Pharmaceutical Benefits Scheme, to receive a wide range of medicines free of cost.

In addition to the normal nursing home benefits, the Australian Government pays an additional nursing home benefit in respect of pensioners enrolled in the Pensioner Medical Service which enables most pensioners to retain a small amount from their pension and supplementary allowances to spend on their personal needs.

Persons eligible for the pensioner medical service are those receiving an age, invalid, widows or service pension, recipients of a sheltered employment allowance, and persons receiving a tuberculosis allowance. Dependent wives and children are also entitled to the benefits of the Pensioner Medical Service.

#### Pensioner Pharmaceutical and Medical Benefits, South Australia<sup>(a)</sup>

Year	Number of Pensioners and Dependants (b)	Number of Pharmaceutical Benefit Prescriptions	Australian Government Payments for Services		
			Pharmaceutical	Medical (c)	Total
	'000		\$'000		
1969-70 .. ..	117	2 053	3 991	1 979	5 970
1970-71 .. ..	120	2 127	4 315	2 056	6 371
1971-72 .. ..	124	2 188	4 749	2 979	7 728
1972-73 .. ..	135	2 384	5 377	3 257	8 634
1973-74 .. ..	143	2 629	6 294	3 845	10 139

(a) Includes Northern Territory.

(b) Enrolled at end of year.

(c) Includes payments for mileage vouchers.

#### Health Insurance Cover

In August 1972, a sample survey based on the quarterly population survey was conducted throughout Australia to obtain information about the extent to which persons aged fifteen years and over were covered by hospital or medical expenditure assistance schemes.

The survey indicated that in August 1972, 86.5 per cent of the non-institutional population aged fifteen years and over were covered by a hospital and/or a medical expenditure assistance scheme. Of all the States the highest coverage was recorded for South Australia (94.1 per cent).

For the purpose of the survey, hospital and/or medical expenditure assistance schemes comprised: (i) contributory hospital and/or medical benefits funds; (ii) non-contributory schemes, including the Pensioner Medical Service, free cover of persons on unemployment or sickness benefits, and free cover of low income families.

A hospital and/or medical benefits fund is defined as 'a non-profit organisation, registered under the *National Health Act 1953-1974*, providing benefits towards the cost of meeting hospital and/or medical expenses'. At the time of the survey there were ninety-four such organisations in Australia; seventy-three provided coverage for both hospital and medical expenses; sixteen provided coverage for hospital expenses only and five provided coverage for medical expenses only. About one-quarter of the funds restricted eligibility for membership by reference to employment, a particular profession, professional association or union.

The following table classifies this coverage according to the type of person and compares South Australia with the total rates for Australia.

**Non-institutional Civilian Population Aged 15 Years and Over: Coverage of Hospital and Medical Expenditure Assistance Schemes, August 1972**

Category	Percentage Covered by Hospital and Medical Expenditure Assistance Schemes	
	South Australia	Australia (a)
Married men . . . . .	95.4	89.4
Other males (b) . . . . .	86.4	73.7
All males . . . . .	92.6	84.3
Married women . . . . .	95.9	89.5
Other females (b) . . . . .	94.7	87.1
All females . . . . .	95.5	88.7
Persons . . . . .	94.1	86.5

(a) Includes the Northern Territory and the Australian Capital Territory.

(b) Never married, widowed and divorced.

There was a tendency for the proportion of persons covered by these schemes to increase in successively higher age groups, from 79.1 per cent, for those aged fifteen to nineteen years, to 95.3 per cent, for those aged seventy years and over. Coverage rates varied according to birthplace; 87.6 per cent of persons aged fifteen years and over who were born in Australia were covered, compared with 83.3 per cent for those born outside Australia. There was a wide variation between persons born in different countries from 92.5 per cent for persons born in the Netherlands to 62.5 per cent for persons born in Greece. Coverage rates also varied according to occupation; the highest rate being recorded for professional, technical and related workers (92.4 per cent) and the lowest for labourers (68.7 per cent).

Further information may be obtained from the bulletin, *Persons Covered by Hospital and Medical Expenditure Assistance Schemes, August, 1972* (reference 17.10) published by the Australian Statistician.

**Anti-Tuberculosis Campaign**

Since 1948 the Australian Government has paid for all additional capital expenditure on tuberculosis clinics and hospitals and for any increase in the cost of diagnosis, treatment, and control of tuberculosis.

The Australian Government also pays allowances to people suffering from tuberculosis to encourage them to give up work and undergo treatment. The allowances, paid to persons under 75 years of age, are subject to a means test on income. At 31 December 1974 the maximum income permitted before allowances were affected was \$20 per week for a single person and \$34.50 for a married couple.

**Anti-Tuberculosis Campaign, South Australia**

Australian Government Expenditure	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Allowances paid to sufferers . . . .	60	52	33	67	48
Maintenance expenditure (a) . . . .	585	582	757	811	988
Capital expenditure . . . . .	69	108	155	243	395
<b>Total . . . . .</b>	<b>714</b>	<b>742</b>	<b>945</b>	<b>1 121</b>	<b>1 430</b>

(a) Includes administrative expenses not paid from National Welfare Fund.

At 31 December 1974 the allowance for a married person with dependent wife was \$27.50 a week each plus an allowance of \$5.50 a week for each dependent child who was either under sixteen years of age or undergoing full-time education. A single person without dependants, if not hospitalised, received \$34.25 a week or, if receiving hospital treatment free of charge, \$31 a week. Widows or widowers with dependent children either under sixteen years of age or undergoing full-time education received \$35 a week, plus \$5.50 a week for each dependent child plus a mothers or guardians allowance of \$4 a week. An additional mothers or guardians allowance of \$2 a week was also paid where there was a dependent child under six years of age or a dependent invalid child requiring full-time care.

**Milk for School Children**

An Australian Government reimbursement to the State Government providing for the free distribution of milk daily to school children under the age of thirteen years ceased at 31 December 1973. The State Government had administered the scheme and the Australian Government covered the cost of milk supplied and half the cost of capital, administrative and incidental expenditure.

During 1973 approximately 5 469 000 litres of milk were supplied to children at State and private schools, kindergartens, child minding centres and children's homes; the total cost amounted to \$1 040 000.

## REPATRIATION BENEFITS

## War Pensions

War pensions are paid by way of compensation to ex-servicemen and women who suffer incapacity because of war service, to their eligible dependants, and to the dependants of those whose death is attributable to war service. There are four main classes of war pensions.

The special (TPI) rate (\$64.10 a week from 7 November 1974) is payable to those who are deemed totally and permanently incapacitated.

The intermediate rate (\$44.55 a week from 7 November 1974) is payable to an ex-serviceman who, because of the severity of his war-caused incapacity, can work only part-time or intermittently and in consequence is unable to earn a living wage.

The general rate is payable to those who suffered war-caused disabilities but still retained some earning capacity. The pension payable depends on the degree of incapacity, the maximum from 7 November 1974 being \$25 a week. Pensions are also payable for a wife and each child under sixteen years of age under both special and general pensions.

The widows rate is payable to widows of ex-servicemen who died as a result of war service, and to any children under sixteen years of age. An additional domestic allowance is payable to certain classes of widows. From 7 November 1974 the widows rate was \$31 a week and the domestic allowance \$12.

War Pensions, South Australia<sup>(a)</sup>

Year	Pensions in Force at End of Year			Total	Expenditure
	Incapacitated Ex-Servicemen	Dependants of Incapacitated Ex-Servicemen	Dependants of Deceased Ex-Servicemen		
	Number				\$'000
1969-70 . . .	20 349	28 586	5 199	54 134	15 151
1970-71 . . .	20 125	27 075	5 193	52 393	15 722
1971-72 . . .	19 844	25 612	5 126	50 582	17 270
1972-73 . . .	19 423	25 345	5 048	49 816	18 405
1973-74 . . .	19 092	24 413	4 986	48 491	20 962

(a) Excludes pensions payable under the *Seaman's War Pensions and Allowance Act* and various Cabinet decisions: 1973-74; forty-six pensions, expenditure \$47 000. Includes Northern Territory.

## Service Pensions

Service pensions are payable to ex-servicemen who served in a theatre of war and have reached the age of sixty years (fifty-five for women) or who are permanently unemployable or suffering from pulmonary tuberculosis. The service pension is equivalent in amount to the social services age and invalid pensions and is subject to the same means test. It also confers eligibility for a full range of medical and dental treatment. The dependants of service pensioners may continue to receive their appropriate allowance upon the death of the pensioner. All service pensioners aged seventy-five years and over have received the pension free of the means test from 27 September 1973.

Service Pensions, South Australia<sup>(a)</sup>

Year	Pensions in Force at End of Year				Expenditure (c)
	Ex-Servicemen	Dependants of Pensioner Ex-Servicemen	Dependants of Deceased Pensioners	Total (b)	
	Number				\$'000
1969-70 . . .	5 810	1 490	434	7 734	4 253
1970-71 . . .	5 949	1 540	465	7 954	4 651
1971-72 . . .	6 025	1 556	458	8 039	5 186
1972-73 . . .	6 929	2 444	456	9 829	7 467
1973-74 . . .	7 738	2 849	383	10 970	10 340

(a) Includes Northern Territory.

(b) Excludes Act of Grace pensions—fifteen in 1973-74.

(c) Includes payments for Act of Grace pensions.

## Medical Services

The Department of Repatriation and Compensation provides hospital treatment, general practitioner services, specialist facilities, pharmaceutical benefits, dental treatment, and nursing home benefits for eligible persons. A comprehensive rehabilitation and social worker service is also available. Medical treatment is provided for all service-related disabilities, pulmonary tuberculosis, and all forms of malignant cancers. Treatment for all non-service-related disabilities is made available to veterans receiving a disability pension at or above the 100 per cent general rate, veterans of the Boer and 1914-18 Wars; veterans who are ex-prisoners of war, veterans in receipt of service pensions (subject to means being within the limits governing the provision of free medical treatment and other fringe benefits), widows, and certain dependants of deceased male veterans whose deaths have been accepted as related to service.

Repatriation: Medical Services, South Australia<sup>(a)</sup>

Year	In-Patients: Total Treated			Out-Patients: Number of Visits			Pharmaceutical Benefits
	Daw Park	Birralee	Other Hospitals	Outpatient Clinic	Other Institutions	Visits to or by Medical Officer	
	Number						\$
1969-70 . . . .	6 099	163	953	47 152	11 679	201 270	1 269 973
1970-71 . . . .	5 919	138	900	47 547	13 830	194 107	1 322 498
1971-72 . . . .	5 269	162	847	48 063	21 478	198 007	1 422 955
1972-73 . . . .	5 251	119	840	48 723	24 927	209 872	1 514 849
1973-74 . . . .	5 839	—	882	50 342	24 657	180 257	1 571 946

(a) Includes Northern Territory.

In-patient and out-patient treatment is provided at the Repatriation General Hospital, Daw Park. Facilities at the Out-patient Department include radiological, pathological, physiotherapy, and chiropody services in addition to medical specialist examinations. The Department of Repatriation and Compensation also maintains an auxiliary hospital, 'Birralee' at Belair for patients who require nursing home care.

The Repatriation Artificial Limb and Appliance Centre, as well as attending to repatriation needs, provides appliances and services for other government departments and provides artificial limbs free of charge to all disabled members of the community.

### Education and Training

Assistance in education and training is provided, through the Department of Repatriation and Compensation, for children of ex-servicemen whose death, blindness or total and permanent incapacity is accepted as service-related. The Soldiers' Children Education Board guides and supervises the progress of children receiving such assistance.

In certain circumstances vocational training is also provided for disabled ex-servicemen and widows of ex-servicemen.

### Other Services

Other assistance, through the Department of Repatriation and Compensation, includes gift cars for certain disabled ex-servicemen, aids for blinded ex-servicemen and business re-establishment loans. Funeral grants of up to \$100 are paid on the death of certain ex-servicemen and dependants.

## STATE WELFARE SERVICES

### EXPENDITURE

The following table shows the net expenditure by the State Government from Consolidated Revenue Account on various aspects of welfare. The dissection given is based on a revised classification of the purposes of government: figures now shown will therefore differ in content from those previously published. For further details see Part 11.3 State Government Finance.

#### Net Expenditure on Welfare Services, South Australia<sup>(a)</sup>

Purpose	1972-73p 1973-74p	
	\$'000	
General administration and other	2 997	4 095
Care of and assistance to:		
Aged persons	1 185	3 354
Incapacitated and handicapped persons	475	591
Unemployed and sick persons	2 329	562
Ex-servicemen	159	77
Widowed and deserted persons	1 482	476
Families and children (b)	2 326	2 033
Services to Aborigines (c)	1 601	1 247
<b>Total</b>	<b>12 554</b>	<b>12 435</b>

(a) From Consolidated Revenue Account only. Includes expenditures on building maintenance etc.; excludes interest and sinking fund.

(b) Excludes reformative institutions.

(c) Includes only programs designed to meet specific needs of persons of Aboriginal descent.



## COMMUNITY WELFARE

The first official activity for the social welfare of children and adults was taken soon after colonisation. The early State immigration authorities cared for new arrivals, and sometimes immigrants were accommodated temporarily in tents on the parklands. A more permanent solution of the problems of the destitute came with the first Destitute Persons Relief Act in 1842. In 1849 a Destitute Board was formally appointed and assumed responsibility for the welfare of both children and adults. In 1886 a State Children's Council was formed to deal with children, while the Destitute Board continued with its other work. The Children's Welfare and Public Relief Board was created by the Maintenance Act, 1926 to do the work of both these earlier authorities. The Chairman of the Board was the permanent head of the Children's Welfare and Public Relief Department.

In 1965 a new portfolio of Minister of Social Welfare was created. Subsequently the Children's Welfare and Public Relief Board was abolished under the Social Welfare Act, 1926-1965, and its powers and functions vested in the Minister of Social Welfare, a body corporate under the Act. The Department then became the Department of Social Welfare and the Social Welfare Advisory Council was set up to advise the Minister on any question regarding social welfare. On 1 July 1970 this Department was amalgamated with the Department of Aboriginal Affairs to form the Department of Social Welfare and Aboriginal Affairs.

The Social Welfare Act, 1926-1971, the Aboriginal Affairs Act, 1962-1968 and the Children's Protection Act, 1936-1969 were replaced by the Community Welfare Act, 1972 which became operative on 1 July 1972. Under this Act the Department became the Department for Community Welfare with the objectives of promoting the general well-being of the community, encouraging the welfare of the family as the basis of community welfare, promoting co-ordination of services and collaboration amongst various agencies and promoting research, education and training in community welfare.

This Act provides for the establishment of community welfare centres at selected locations throughout the State and the full range of the Department's services is available from these centres. District offices have been established at Adelaide, Berri, Brighton, Campbelltown, Ceduna, Christies Beach, Elizabeth, Enfield, Mansfield Park, Mitcham, Modbury, Mount Gambier, Maitland, Murray Bridge, Norwood, Nuriootpa, Oodnadatta, Port Adelaide, Port Augusta, Port Lincoln, Port Pirie, Salisbury, Woodville and Whyalla, and branch offices at Glenelg, Marion, Thebarton and Leigh Creek.

The decentralisation program has led to a new sense of involvement in the community and its many welfare needs. There is greater flexibility and opportunity to support local efforts to provide new services for youth, the aged, single parents and others in need.

The Department intends to match all services to community needs through research and planning.

**Care and Supervision of Children**

Under the Juvenile Courts Act, 1971-1974 the emphasis is on the welfare and rehabilitation of young offenders, together with the adequate protection of the community. Offenders dealt with are between the ages of ten and eighteen years.

Any child up to the age of eighteen may be classified as neglected or uncontrolled and those up to the school leaving age may be charged with truancy. The Juvenile Court may place the child under the care and control of the Minister of Community Welfare or on a bond. He may be placed under the supervision of a Departmental officer or may be obliged to attend at a youth project centre as a condition of the bond. Either of these court orders results in Departmental help for the child for the period set by the Court.

Some children under the care and control of the Minister are placed in Departmental homes or centres for care, treatment and training. Many are placed with their parents or with foster parents, or in other substitute care under the supervision of a community welfare worker.

The Department for Community Welfare has established a special treatment services branch with the following functions:

- (1) the development of community based treatment projects including the Youth Project Centre at Magill and the Norwood Project Centre;
- (2) the oversight and development of Juvenile Aid Panels;
- (3) assistance for juveniles appearing before the Courts;
- (4) special residential care for;
  - (a) offenders who cannot be satisfactorily maintained by the community,
  - (b) offenders on remand from Court and sometimes needing assessment,
  - (c) children who have been neglected or whose foster placement has broken down.

The Youth Project Centre, Magill, provides intensive non-residential treatment facilities for young offenders. The Norwood Project Centre helps children who are referred with learning and behavioural difficulties.

Juvenile Aid Panels deal with certain children under sixteen years, alleged to have committed an offence, or be uncontrolled or habitual truants. A community welfare worker from the Department for Community Welfare and either a senior police officer (in most cases) or a justice of the peace constitute a panel. Panels may warn or counsel children or parents. They may request the child or his parents to co-operate in a rehabilitative program for the child. Panels have power to refer a child to a Juvenile Court and the child or his parents may ask for such a referral.

#### *Juvenile Court Services*

Officers from the Department for Community Welfare appear in all major Juvenile Courts to present reports and help Courts to reach a decision in the best interests of the child.

Juvenile Courts officers also represent the Department in the prosecution of neglect and uncontrolled charges when necessary. They protect the interests of children under the guardianship of the Minister when these children appear in court.

*Residential Care*

At 30 June 1974 the Department was operating thirty-four residential care homes and centres. The large number of family homes, cottage homes, hostels and training centres allows a wide range of choice in selecting the environment most appropriate to the needs of each individual.

The homes and centres under the control of the Department include McNally Training Centre for older youths, who have been committed for residential training by a Juvenile Court following an offence, and Brookway Park, which provides residential care and training for boys between ten and fifteen years, most of whom have been committed by a Juvenile Court following an offence.

Vaughan House provides remand and assessment facilities for girls, generally from twelve to eighteen years and Windana provides remand, assessment and safekeeping facilities for boys.

Seaforth Home provides open residential care for younger children placed under care as neglected or uncontrolled. It also caters for some children on remand, truants and some children placed there for safekeeping.

Lochiel Park is a training centre for boys, generally between the ages of fourteen and eighteen years, who are mentally retarded and under care and control of the Minister. In addition, cottage and family homes provide a family-like atmosphere for small groups of boys and girls.

Details of the number of children committed to the care and control of the Minister of Community Welfare are given in the following table. Of the 587 children committed during 1973-74, 290 were girls, of whom 100 were neglected or uncontrolled. Of 2 545 children under care and control at 30 June 1974, there were 1 627 boys and 918 girls.

**Children under Care and Control, South Australia<sup>(a)</sup>**

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Number of children newly committed during the year:					
Offenders . . . . .	515	386	484	252	182
Neglected . . . . .	190	164	144	160	143
Uncontrolled . . . . .	33	42	32	24	26
Truancy . . . . .	16	14	12	7	16
Temporary care and control . .	—	—	—	221	220
Total . . . . .	754	606	672	664	587
Number of State children at 30 June:					
Children in departmental institutions . . . . .	620	539	455	443	377
Children not in institutions . .	2 710	2 667	2 656	2 425	2 168
Total . . . . .	3 330	3 206	3 111	2 868	2 545

(a) Excludes children on remand, not committed.

In addition, there were 588 children placed on bonds requiring supervision by Departmental officers during 1973-74 and the total number of such children at 30 June 1974 was 1 163 (984 boys and 179 girls).

The importance of keeping a child in his own home whenever possible cannot be over-emphasised and children are placed out of Departmental homes and centres as soon as possible. Review boards consider the social background of each child under care and control and make recommendations regarding action to be taken for the child's benefit and welfare.

When a child is returned to his own home from an alternative placement, support is continued to the whole family through counselling, motivation of self-help programs, and through the full utilisation of appropriate resources throughout the Department and the community. The same services of a community welfare worker are available to all children under care and control or on bonds with supervision as well as to other families in the community seeking help.

Other responsibilities of the Department's welfare workers include the investigation of allegations that children are neglected, ill-treated or uncontrolled, and the counselling of youths and children voluntarily referred to Departmental officers. Children in the latter category numbered 316 at 30 June 1974. Departmental welfare workers are also appointed as attendance officers under the Education Act to assist in the prevention of school truancy. Medical and other specialists including psychologists are employed within the Department.

#### **Licensing of Foster Parents and Children's Homes**

Under the Community Welfare Act, 1972-1973 every foster parent caring for a child under the age of fifteen years must be approved by the Director-General of Community Welfare, who is responsible for each child's welfare. Departmental officers visit such homes regularly. Children's Homes and Child Care Centres also must be licensed by the Director-General.

#### **Adoptions**

South Australia has had an Adoption of Children Act since 1925, the current legislation being the Adoption of Children Act, 1966-1971. Under this Act the interests of the children are considered paramount. The right to place children for adoption is restricted to the Director-General of Community Welfare or to private adoption agencies which the Director-General has approved. The adoptive parents, who must be approved by the Director-General, become the legal parents once the adoption order is made (usually about six months after placement). Adoptions made in other Australian States are recognised in South Australia; similarly South Australian adoptions are recognised in the other States. A more detailed account of the South Australian legislation was included on pages 221-4 of the *South Australian Year Book* 1968.

There are two types of adoptions, namely, adoptions by placement and other adoptions. Adoptions by placement include those adoptions where the child is normally placed with the adoptive parents direct from birth, or within 12 months of birth (in a few cases the child may not be placed until after 12 months

from birth). Other adoptions mainly comprise those cases where children of a former marriage are adopted into the present marriage. The following statistics relate to those adoptions for which an order was made in the stated period, and not to the number of placements or other adoptions occurring in that period.

Of the total of 558 adoptions (283 males and 275 females) in 1973-74 (91 less than in 1972-73), 394 were placed and 164 were other adoptions. The average waiting time for a child to be placed varies from year to year, depending on the number of applicants and the number of children surrendered.

#### Number of Adoptions, South Australia

Age of Child (a)	1969-70	1970-71	1971-72	1972-73	1973-74
Under one year . . . . .	582	635	510	426	352
One year and under two . . . . .	44	44	44	46	37
Two years and under six . . . . .	77	69	89	75	68
Six years and under thirteen . . . . .	86	100	88	71	59
Thirteen years and under sixteen . . . . .	23	15	19	17	10
Sixteen years and over . . . . .	22	16	26	14	32
<b>Total . . . . .</b>	<b>834</b>	<b>879</b>	<b>776</b>	<b>649</b>	<b>558</b>

(a) At date of adoption order.

For adoption orders relating to children placed in 1973-74, the average age of the natural parents at the date of birth of the children was 20.1 years for the mother and 23.1 years for the father, while for the adoptive parents the respective ages at the date of adoption order were 31.3 and 33.9. The average age of adoptive parents for all adoptions, *i.e.* placed and other, was 32.5 for the mother and 35.3 for the father.

The following table shows details of the age of the adoptive parents for children placed in 1973-74.

#### Age of Adoptive parents at Date of Adoption Order: Children Placed, 1973-74

Age of Mother (Children Placed)	Age of Father						Total
	Under 21	21-24	25-28	29-32	33-36	37-40	
Under 21 . . . . .	—	—	—	—	—	—	—
21-24 . . . . .	—	2	11	3	1	—	17
25-28 . . . . .	—	—	54	65	15	4	140
29-32 . . . . .	—	—	3	55	34	13	109
33-36 . . . . .	—	—	—	11	33	25	80
37-40 . . . . .	—	—	—	3	5	6	22
Over 40 . . . . .	—	—	—	—	2	5	25
<b>Total . . . . .</b>	<b>—</b>	<b>2</b>	<b>68</b>	<b>137</b>	<b>90</b>	<b>53</b>	<b>43 (a) 394</b>

(a) Includes not stated.

### Legal Services

Prosecutions for neglected, ill-treated and uncontrolled cases are carried out by officers of the Department for Community Welfare who may also appear in Court where State children are involved. The Department assists by providing reports on the social background of children whose cases are considered by the Courts.

The Department provides a free legal service to deserted wives and other persons with maintenance, matrimonial and domestic problems. Officers interview and advise wives and husbands and negotiate with other parties and solicitors for settlements.

When necessary the officers institute legal proceedings and appear in Court on behalf of those seeking assistance to obtain Orders for separation, custody of children, access and maintenance. The Department does not take action for divorce. Some 1 842 maintenance payments are collected and paid weekly to deserted wives by the Department. Assistance is given to unmarried mothers in affiliation cases.

### Financial Assistance

The Director-General for Community Welfare may, subject to any directions of the Minister, provide assistance to families or individuals in need. The assistance may be provided in the form of money or commodities or the provision of other services which will promote the welfare of the family or individual.

During 1973-74 financial assistance was issued to 16 178 applicants, representing 36 121 persons. Deserted wives accounted for 22 per cent and unemployed people for 53 per cent of the total cases provided with financial assistance.

The Department provides residential care in a home at Magill for aged people in special need, most of whom are pensioners. The daily average occupancy of the Magill home was 165 during 1973-74.

### Rates Remission Scheme

From 3 July 1973, the South Australian Government introduced a remission of rates and taxes scheme for pensioners and others able to demonstrate exceptional circumstances of hardship. The scheme provides for a remission of up to 60 per cent of the cost of water and sewerage rates, land tax and council rates charged on dwellings, including flats and units owned and occupied by eligible applicants. Pensioners receive a direct remission from the rating authority on application. Applications from non-pensioners were processed by the Department, 706 claims being approved totalling \$10 889. The total cost of remissions by all authorities was met by the Department and totalled \$2 967 904 in the following categories:

	\$
Land Tax . . . . .	200 000
Water, Sewerage . . . . .	1 431 634
Local Government . . . . .	1 336 270

### Aboriginal Advancement

By agreement with the South Australian Government on 1 December 1973 the Australian Government assumed responsibility in relation to Aboriginal affairs policy, planning and co-ordination. Special provisions relating to

Aboriginal affairs contained in the South Australian Community Welfare Act, 1972 were repealed. These provisions related to the powers and functions of the State Minister in respect of Aboriginal affairs, including the establishment of the Aboriginal Resources Division whose function was to provide consultation, planning and advisory services in relation to the economic, social and cultural development of the Aboriginal people. Under the agreement, the staff of the former Aboriginal Resources Division has been transferred to the Australian Department of Aboriginal Affairs, operating as its South Australian Branch office.

The provision of legal assistance and support services for Aboriginals charged with offences, formerly provided by the Department for Community Welfare, was also accepted by the Australian Government and such services are now provided through the Aboriginal Legal Rights Movement which is funded by the Australian Government for that purpose.

The Australian Government also accepted responsibility for general matters relating to the press, public information and liaison between Aboriginal groups and Government Departments in South Australia.

The transfer of responsibilities, however, does not include the Aboriginal Reserves in South Australia which will continue to be managed and controlled by the Minister of Community Welfare.

The policy of the Australian Government is that, wherever possible, Aboriginal people should avail themselves of the normal facilities provided for the total community e.g. welfare, health and education, and the State or Australian Government Departments responsible for these functions will continue to provide such services. Where special additional programs are needed for Aboriginal people the Australian Government will provide the finance to enable these to be carried out through the appropriate Government or voluntary agency, with the co-ordination of arrangements being handled by the Regional Director of the Department of Aboriginal Affairs.

### Aboriginal Reserves

There are five Aboriginal reserves in this State at which Department for Community Welfare staff are employed and three Aboriginal missions operated on similar lines. These centres provide vocational training, health, education and housing facilities to give Aborigines the opportunity to adopt some modern modes of living within the security of their own communities, or they facilitate life in comparatively traditional ways for those Aborigines who choose it. There are reserves at Amata, Coober Pedy, Davenport, Indulkana, Koonibba, and missions at Ernabella and Yalata.

### Aboriginal Reserves: South Australia, Net Cost to Consolidated Revenue

Year	Point Pearce	Point McLeay	Davenport	North-West Reserve	Coober Pedy	Gerard	Koonibba	Indulkana	Total
					Dollars				
1969-70	134 764	84 350	147 355	105 978	38 151	87 395	83 596	65 177	746 766
1970-71	129 041	96 435	161 795	129 303	33 880	100 618	124 934	77 269	853 275
1971-72	93 350	88 619	160 993	177 487	39 443	91 896	164 712	96 817	913 317
1972-73	144	139 120	206 277	245 963	54 089	98 548	144 546	106 835	995 522
1973-74	—	85 361	202 919	222 164	51 781	69 898	139 992	150 577	922 692

From July 1974 the Point McLeay and Gerard Aboriginal Reserves have been managed and controlled by the Aboriginal Lands Trust in line with the goal that the people should manage and control the Reserves themselves.

The Australian Government made \$4 690 000 available for Aboriginal welfare in South Australia in 1973-74 to be used mainly for housing, health, education and employment programs. The financing of Aboriginal business enterprise is undertaken directly by the Australian Office of Aboriginal Affairs.

### PRIVATE WELFARE SERVICES

There are numerous charitable and benevolent organisations working within South Australia. A large proportion of these derive revenue from regular donations, subscriptions and income from bequests; nearly all derive revenue from special functions. A number also receive Australian, State or local government grants. The Collections for Charitable Purposes Act, 1939-1947, requires the registration of charitable organisations before they may actively solicit funds.

Organisations which have a wide range of activities include the Australian Red Cross Society, Marriage Guidance Council, Service to Youth Council, the welfare bureaux and missions of the various churches, and organisations catering for ex-servicemen and their dependants. Most of these agencies maintain full-time staff and generally employ professional social workers. Other organisations cater for more specific needs, covering a wide range of physical and sociological disabilities. This includes the care of physically and mentally handicapped persons such as crippled children, the blind, deaf-mutes and alcoholics; also of specific groups such as aged persons, Aborigines and migrants. Many of these organisations depend largely or entirely on voluntary aid.

For details of the numerous bodies concerned with social welfare, reference should be made to the *Directory of Social Resources* published jointly by the South Australian Council of Social Services and the Department of Public Health. For those in need, the Citizens Advice Bureau advises on how to benefit from and how to use wisely the many services provided by the Australian and State Governments and the various voluntary organisations.

### REGISTERED MEDICAL AND HOSPITAL ORGANISATIONS

Since 1953 Australia has had a system of voluntary health insurance supervised and financially supported by the Australian Government through the payment of 'Commonwealth' benefits. Australian Government medical benefits and full hospital benefits are payable to persons who have joined a registered benefits organisation. These organisations are operated on a non-profit basis and include a number of Friendly Societies. In most cases both medical and hospital benefits are provided by the one organisation. By paying regular contributions members become entitled to refunds covering the major part of medical and hospital expenses. The Australian Government benefit is combined with the fund benefit in a single payment made by the registered organisation.



Registered Hospital Organisations, South Australia<sup>(a)</sup>

Particulars	Unit	1969-70	1970-71	1971-72	1972-73	1973-74
Registered organisations (b) . . . . .	No.	12	10	9	9	9
Membership (b) (c) . . . . .	'000	430	433	433	444	453
Estimated persons covered (b) (c) . . . . .	'000	1 051	1 069	1 076	1 112	1 135
Fund benefits paid (d) . . . . .	\$'000	12 234	14 576	21 284	(e) 25 027	29 192

(a) State of registration of organisations. No organisations are registered in the Northern Territory and insured persons in the Northern Territory are covered by organisations registered in the States. (b) At end of period. (c) As advised by the organisations. (d) Includes Subsidised Health Benefits Plan fund benefit reimbursements (\$1 452 000 for hospital payments and \$1 000 for nursing home payments in 1973-74). Also includes Ancillary fund benefit. (e) Includes nursing home fund benefit from 1 January 1973.

The contributions (premiums) payable to hospital benefits organisations depend on the scale of fund benefits required. From 1 July 1970 all medical benefits organisations have paid medical benefits at the same rate. Contribution rates to medical and hospital organisations may vary slightly between funds, and single and family rates are available.

Details of registered medical organisations are given in the following table. The number of persons covered has increased steadily over the past ten years and the total estimated coverage at 30 June 1974 was 1 118 000.

Registered Medical Organisations, South Australia<sup>(a)</sup>

Particulars	Unit	1970-71	1971-72	1972-73	1973-74
Registered organisations (b) . . . . .	No.	7	7	7	7
Membership (b) (c) . . . . .	'000	408	420	432	443
Estimated persons covered (b) (c) . . . . .	'000	1 050	1 057	1 091	1 118
Cost of medical services:					
Met by fund benefit (d) . . . . .	\$'000	7 948	9 374	10 294	11 628
Met by Australian Government benefit (e) . . . . .	\$'000	10 394	13 509	15 607	15 845
Met by insured member . . . . .	\$'000	5 566	5 027	5 141	5 709
<b>Total . . . . .</b>	<b>\$'000</b>	<b>23 908</b>	<b>27 910</b>	<b>31 042</b>	<b>33 182</b>
Proportion (f) paid by:					
Fund benefit . . . . .	Per cent	33.2	33.6	33.2	35.0
Australian Government benefit . . . . .	Per cent	43.5	48.4	50.3	47.8
Insured member . . . . .	Per cent	23.3	18.0	16.6	17.2
Fund benefits for ancillary services (g) . . . . .	\$'000	280	312	327	349
Professional services per member:					
General practitioner . . . . .	No.	7.08	7.15	6.97	6.74
Other . . . . .	No.	3.99	4.52	4.61	4.54
<b>Total . . . . .</b>	<b>No.</b>	<b>11.07</b>	<b>11.67</b>	<b>11.59</b>	<b>11.28</b>

(a) State of registration of organisations. No organisations are registered in the Northern Territory and insured persons in the Northern Territory are covered by organisations registered in the States. (b) At end of period. (c) As advised by the organisations. (d) Excludes ancillary fund benefit but includes Subsidised Health Benefits Plan fund benefit reimbursements (\$300 000 in 1973-74). (e) Excludes Special Account Advance and Deficit payments. (f) Based on proportions paid in relation to matched services, i.e., those which attract both Australian Government and Fund benefits. (g) Services for which Australian Government benefits are not provided.

## FRIENDLY SOCIETIES

Friendly Societies are mutual organisations paying medical, hospital and other benefits to members and dependants in time of need. These societies are required to register under the Friendly Societies Act, 1919-1973. The Act is administered by the Chief Secretary through the Public Actuary who approves the table of contributions, the level of benefits and generally sees that the societies' rules and practices are in accordance with the law. A number of Friendly Societies are registered to pay Australian Government medical and hospital benefits (see previous section), while others re-insure such benefits through a society created for this purpose.

## Friendly Societies, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Number of registered societies (a) . . . . .	14	14	14	13	13
Number of members (a) (b) . . . . .	50 880	50 796	50 488	50 077	50 664
Revenue (c):			\$'000		
Contributions and levies	7 093	12 547	9 993	11 744	12 198
Interests, dividends and rent . . . . .	869	938	1 110	1 243	1 311
Other . . . . .	720	996	1 237	1 961	2 726
<b>Total revenue . . . . .</b>	<b>8 682</b>	<b>14 481</b>	<b>12 341</b>	<b>14 947</b>	<b>16 235</b>
Expenditure (c):					
Sick pay . . . . .	187	183	181	173	173
Medical attendance and medicine . . . . .	2 680	4 612	3 386	3 878	4 401
Sums payable at death	145	153	151	145	142
Hospital benefits . . . . .	3 347	6 563	4 982	7 198	8 432
Administration . . . . .	1 143	1 260	1 483	1 641	1 793
Other . . . . .	483	543	550	690	613
<b>Total expenditure . . . . .</b>	<b>7 985</b>	<b>13 314</b>	<b>10 733</b>	<b>13 726</b>	<b>15 554</b>
<b>Total funds . . . . .</b>	<b>18 188</b>	<b>19 355</b>	<b>20 962</b>	<b>22 184</b>	<b>22 865</b>

(a) At 30 June. (b) Full benefit members; does not include those who contribute for medical and hospital benefits only. (c) Receipts and payments of Australian Government medical and hospital benefit subsidies excluded.

Other benefits offered by the societies include sickness, funeral, pharmaceutical and physiotherapy benefits; endowment assurance is also available. The Friendly Societies Act requires that separate funds be maintained for each of these

benefits and members may contribute for all or for only a selection of benefits. However, a person is considered to be a full benefit member only if he contributes for sick pay and funeral benefits regardless of contributions for other benefits.

The level of benefits paid varies between societies, with sickness benefits generally on a declining scale as the period of illness lengthens. The Friendly Societies Act limits to \$4 000 any payment for endowment or funeral benefits and to \$21 any weekly payment to members for sickness or superannuation.

The Friendly Society Medical Association operates thirty pharmacies in the metropolitan area and one at Port Pirie where medicines are dispensed for Friendly Society members at concession prices.

The Friendly Societies Act also prescribes the nature of assets which societies may hold. Their most important investment is in property mortgages and in particular in housing loans to members. They may also invest in government securities.

## 6.7 MARRIAGE

Registration of marriage has been compulsory in South Australia since 1842 when Acts 'for regulating Marriages in the Province of South Australia' and 'for registering Births, Deaths and Marriages in the Province of South Australia' were passed. The present legislation relating to marriages is the *Australian Marriage Act 1961-1973* which came into full operation on 1 September 1963 superseding, in South Australia, the *Marriage Act, 1936-1957*.

The Principal Registrar of Births, Deaths and Marriages in South Australia carries out the statutory duties under the Act and has supervision over ministers of religion (as regards their duties under the Marriage Act), the District Registrars appointed to the twenty-two registration districts, and other persons authorised to perform marriages.

After a marriage the celebrant is required to forward the official certificate of marriage to the Principal Registrar who maintains at his office a register of all marriages celebrated in South Australia. In addition, a copy of the marriage certificate is forwarded by the office of the Principal Registrar to the District Registrar who maintains a register of the marriages celebrated in his district.

The total marriages and marriage rates for selected years from 1846 are shown in the Statistical Summary, Appendix A. Particulars relating to first marriages, remarriages and crude marriage rates for the last five years are shown in the following table. The crude marriage rate rose throughout the sixties from 6.99 in 1960 to 9.38 in 1970, but since then has gradually declined to a level of 8.99 in 1973. However, the crude marriage rate does not take into account changes over time in the age distribution of the population. Influences underlying the increase during the sixties include the upsurge of births immediately following the 1939-45 War, together with the effects of post-war immigration.

## Previous Marital Status of Persons Marrying, South Australia

Year	Bridegrooms			Brides			Total Marriages	Rate (a)
	Bachelor	Widower	Divorced	Spinster	Widow	Divorced		
1969 . . . . .	9 687	318	594	9 700	339	560	10 599	9.30
1970 . . . . .	9 900	333	631	9 961	339	564	10 864	9.38
1971 . . . . .	9 865	310	658	9 822	365	646	10 833	9.21
1972 . . . . .	9 779	323	727	9 798	359	672	10 829	9.10
1973 . . . . .	9 649	309	848	9 716	349	741	10 806	8.99

(a) Per 1 000 of mean population.

Since 1970 the absolute numbers of both brides and bridegrooms marrying for the first time has decreased but the number of divorced persons remarrying has risen substantially, bridegrooms by 34 per cent and brides by 31 per cent.

The following statement shows age at marriage of bridegrooms and brides who married during 1973 classified by marital status.

## Age at Marriage and Previous Marital Status, South Australia, 1973

Age	Previous Marital Status							
	Bridegrooms				Brides			
	Bachelor	Widower	Divorced	Total	Spinster	Widow	Divorced	Total
Under 21 years ..	1 930	—	—	1 930	5 297	4	4	5 305
21 to 24 years ..	5 095	—	24	5 119	3 399	7	65	3 471
25 to 29 years ..	1 952	5	170	2 127	742	22	210	974
30 to 34 years ..	375	13	195	583	162	20	136	318
35 to 39 years ..	130	14	123	267	42	22	111	175
40 to 44 years ..	69	31	114	214	31	29	85	145
45 years and over	98	246	222	566	43	245	130	418
All ages ..	9 649	309	848	10 806	9 716	349	741	10 806

During 1973 the median age (that age at which one half of the total number of persons are below the age and the other half exceed it) of persons marrying for the first time was 22.9 years for bachelors and 20.7 years for spinsters, a difference of 2.2 years. The following table shows median ages for the last five years of all persons marrying, classified by marital status at the time of marriage.

## Median Age at Marriage, South Australia

Year	Median Age of Bridegrooms (Years)				Median Age of Brides (Years)			
	Bachelor	Widower	Divorced	Total	Spinster	Widow	Divorced	Total
1969 .	23.0	55.8	39.7	23.4	21.1	49.0	36.4	21.3
1970 .	23.1	59.2	39.1	23.4	21.0	53.1	35.6	21.2
1971 .	23.0	58.8	38.0	23.3	20.8	51.2	34.3	21.1
1972 .	23.0	58.5	38.0	23.4	20.8	52.4	33.3	21.1
1973 .	22.9	58.3	36.4	23.4	20.7	51.6	33.4	21.1

The following table highlights the tendency for brides to marry bridegrooms older than themselves. Although the age difference has narrowed over the past decade, this phenomenon, together with the greater life expectancy of females compared to males as shown in the table on page 153 tends to perpetuate the predominance of aged widows over widowers within community and welfare institutions.

### Relative Age Differences of Parties to Marriage, South Australia

Elder Partner of Marriage	Number of Marriages			Proportion of Total Marriages		
	1971	1972	1973	1971	1972	1973
	Per cent					
<b>Bridegroom:</b>						
8 years or more . . . . .	890	918	945	8.2	8.5	8.7
7 years . . . . .	255	296	348	2.4	2.7	3.2
6 years . . . . .	440	470	496	4.1	4.3	4.6
5 years . . . . .	670	705	678	6.2	6.5	6.3
4 years . . . . .	1 092	976	1 005	10.1	9.0	9.3
3 years . . . . .	1 451	1 440	1 403	13.4	13.3	13.0
2 years . . . . .	1 709	1 736	1 702	15.8	16.0	15.8
1 year . . . . .	1 669	1 681	1 593	15.4	15.5	14.7
<b>Bride:</b>						
1 year . . . . .	627	562	600	5.8	5.2	5.6
2 years . . . . .	344	280	329	3.2	2.6	3.0
3 years . . . . .	164	187	179	1.5	1.7	1.7
4 years . . . . .	84	117	118	0.8	1.1	1.1
5 years or more . . . . .	224	238	216	2.1	2.2	2.0
No age difference . . . . .	1 214	1 223	1 194	11.2	11.3	11.0
<b>Total</b> . . . . .	<b>10 833</b>	<b>10 829</b>	<b>10 806</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### MARRIAGE OF MINORS

The *Marriage Act* 1961-1973 stipulates the marriageable age to be eighteen years or over for a male and sixteen years or over for a female. Under exceptional circumstances a judge or magistrate can, upon application by a party who has not attained marriageable age but who is at least sixteen in the case of a male or fourteen in the case of a female, authorise him or her to marry a particular person who is of marriageable age.

Before 1 July 1973 prior consent had to be obtained from either both parents, one parent, a guardian or guardians, or other prescribed authority, according to the circumstances, where a party to a marriage was under twenty-one years. From 1 July 1973 the age of majority for purposes of the *Marriage Act* was reduced to eighteen years.

The proportion of persons marrying under 21 years of age has changed significantly since details were first recorded in 1903. In that year 2.7 per cent of males and 19.2 per cent of females marrying were under twenty-one years of age. Over the years the proportion of males has ranged from a low of 2.6 per cent in 1916 to a high of 17.9 per cent in 1973. The corresponding proportions for females were 14.7 and 49.1 per cent recorded in 1919 and 1973 respectively.

Figures relating to the marriages of persons under twenty-one years of age for the five years to 1973 are shown in the following table.

## Marriages of Persons under 21 Years of Age, South Australia

Year	Age in Years							Total Under 21	Percentage of Total Marriages
	Under 15	15	16	17	18	19	20		
<b>BRIDEGROOMS</b>									
1969	—	—	—	20	224	476	839	1 559	14.7
1970	—	—	2	26	244	568	878	1 718	15.8
1971	—	—	1	25	247	576	938	1 787	16.5
1972	—	—	8	26	241	524	1 002	1 801	16.6
1973	—	—	4	24	257	554	1 091	1 930	17.9
<b>BRIDES</b>									
1969	1	10	167	402	947	1 486	1 703	4 716	44.5
1970	—	13	196	510	1 025	1 585	1 698	5 027	46.3
1971	3	20	212	491	1 133	1 601	1 745	5 205	48.0
1972	1	15	221	514	1 077	1 578	1 780	5 186	47.9
1973	3	8	215	487	1 220	1 682	1 690	5 305	49.1

## MARRIAGE RITES

The number of marriages performed by civil officers in South Australia during the decade from 1960 to 1969 accounted for 10.9 per cent of all marriages but reached a record level of 21.0 per cent in 1973. The increase in civil ceremonies during the 1970s is evident from the following table, and can partly be accounted for by the improved facilities now provided at the office of the Principal Registrar of Births, Deaths and Marriages.

## Marriages: Marriage Rites, South Australia

Rites	Number of Authorised Celebrants January 1974	Number of Marriages			Proportion of Total Marriages		
		1971	1972	1973	1971	1972	1973
Per cent							
Denomination:							
Baptist	72	285	296	236	2.6	2.7	2.2
Catholic	274	2 169	2 193	2 089	20.0	20.3	19.3
Churches of Christ	63	350	319	316	3.2	2.9	2.9
Church of England	197	2 135	2 052	1 867	19.7	18.9	17.3
Congregational	49	337	290	290	3.1	2.7	2.7
Lutheran	136	651	603	596	6.0	5.6	5.5
Methodist	209	2 440	2 460	2 347	22.5	22.7	21.7
Orthodox	14	159	166	169	1.5	1.5	1.6
Presbyterian	29	379	348	309	3.5	3.2	2.8
Salvation Army	36	71	61	73	0.7	0.6	0.7
Seventh Day Adventist	8	27	29	20	0.3	0.3	0.2
Other denominations	142	228	251	227	2.1	2.3	2.1
<b>Total</b>	<b>1 229</b>	<b>9 231</b>	<b>9 068</b>	<b>8 539</b>	<b>85.2</b>	<b>83.7</b>	<b>79.0</b>
Civil Ceremonies	31	1 602	1 761	2 267	14.8	16.3	21.0
<b>Grand Total</b>	<b>1 260</b>	<b>10 833</b>	<b>10 829</b>	<b>10 806</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## 6.8 DIVORCE

### LEGISLATION

The Supreme Court of South Australia has had jurisdiction in divorce from 1 January 1859, the date upon which the Matrimonial Causes Act, 1858 came into operation. The present law, contained in the Australian *Matrimonial Causes Act 1959-1973* which came into operation on 1 February 1961, provides a uniform law throughout Australia for dissolution of marriage and other matrimonial causes and vests the Supreme Courts of the States and Territories with jurisdiction to hear and determine causes under the Act. Its transitional provisions covered matrimonial causes instituted before 1 February 1961, and gave petitioners the advantages of the new Act without detracting from their position under the former legislation.

The principal form of relief petitioned for and granted by the Court is dissolution of marriage (commonly known as divorce) with provision also for petitions for nullity of marriage, judicial separation, restitution of conjugal rights and jactitation of marriage.

A decree of dissolution of marriage and, in some instances, of nullity of marriage is in the first instance a decree *nisi*. In general a decree *nisi* automatically becomes absolute at the expiration of three months, unless it has been rescinded by the Court, an appeal has been instituted, or there are children of the marriage in respect of whom proper arrangements have not been made for welfare, advancement and education.

The grounds on which petitions can be filed for dissolution of marriage under the *Matrimonial Causes Act 1959-1973* can be briefly described as: adultery; desertion for not less than two years; refusal to consummate the marriage; habitual cruelty for not less than one year; rape, sodomy or bestiality; habitual drunkenness or habitual intoxication by drugs for two years or more; frequent convictions for crime and failure to support (only on petition of wife); imprisonment for at least three years of a sentence of at least five years; conviction of attempted murder of or inflicting or attempting to inflict grievous bodily harm on the petitioner; failure for at least two years to pay maintenance; failure for at least one year to comply with a decree of restitution of conjugal rights; insanity; separation for at least five years; and presumption of death.

Details of the grounds covered in the 1858 Act and the changes to grounds made by enactment or amendment to State legislation before replacement by Australian legislation were shown on page 264 of the *South Australian Year Book 1971*.

The main alterations to grounds in South Australia resulting from the Australian legislation were that a petition on the ground of separation for five years no longer required a Court order granting judicial separation or relief from cohabitation as a pre-requisite, and the period for desertion to constitute a ground for dissolution of marriage was reduced from three to two years. In addition, the period of decree *nisi* is now three months, having been six months under State legislation.

It should be noted that fluctuations from year to year in the number of decrees granted may be independent of fluctuations in the number of petitions filed, because there is a considerable variation in the number of actions waiting to be heard at the end of each year.

#### PETITIONS FILED

Particulars of petitions filed during the five years to 1973 are shown in the following table. In each of these years petitions for dissolution lodged by wives outnumbered those lodged by husbands a pattern which has prevailed for over 50 years.

#### Dissolution of Marriage and Other Matrimonial Causes Petitions Filed, South Australia

Year	Dissolution of Marriage			Nullity of Marriage	Judicial Separation	Total Petitions (a)
	By Husbands	By Wives	Total			
1969 . . .	480	874	1 354	7	6	1 369
1970 . . .	507	858	1 365	7	4	1 380
1971 . . .	622	1 026	1 648	5	9	1 668
1972 . . .	727	1 250	1 977	6	6	1 997
1973 . . .	809	1 326	2 135	7	12	2 159

(a) Includes petitions filed for dissolution or nullity; 1969, 2; 1970, 2; 1971, 2; 1972, 4; 1973, 5 and petitions lodged for dissolution or judicial separation: 1970, 2; 1971, 4; 1972, 4.

#### DECREES GRANTED

The table below shows the number of decrees absolute granted for dissolution and nullity of marriage and decrees granted for judicial separation.

#### Dissolution of Marriage and other Matrimonial Causes Decrees Absolute Granted, South Australia

Period	Dissolution of Marriage			Nullity of Marriage	Judicial Separation
	To Husbands	To Wives	Total		
<b>Annual Average:</b>					
1946-50 . . . . .	317.0	329.0	646.0	3.6	1.6
1951-55 . . . . .	262.8	350.0	612.8	4.6	1.2
1956-60 . . . . .	244.2	294.2	538.4	7.6	1.6
1961-65 . . . . .	334.6	446.8	781.4	4.6	0.6
1966-70 . . . . .	363.8	599.2	963.0	5.8	1.8
<b>Year:</b>					
1969 . . . . .	362	601	963	6	1
1970 . . . . .	354	585	939	1	2
1971 . . . . .	473	791	1 264	8	3
1972 . . . . .	479	756	1 235	4	2
1973 . . . . .	585	997	1 582	6	—



In the table which follows details of the grounds on which petitions for dissolution have been granted are shown for the years 1969 to 1973.

**Dissolution of Marriage: Grounds of Decrees Absolute, South Australia**

Year	Grounds on which Granted						Multiple Grounds	Total
	Single Grounds							
	Adultery	Cruelty	Desertion	Drunkenness	Separation	Other		
<b>HUSBAND AS PETITIONER</b>								
1969 .. . . .	154	5	122	3	63	3	12	362
1970 .. . . .	143	3	146	2	52	2	6	354
1971 .. . . .	209	4	179	3	74	—	4	473
1972 .. . . .	234	1	177	—	65	—	2	479
1973 .. . . .	321	5	183	—	71	3	2	585
<b>WIFE AS PETITIONER</b>								
1969 .. . . .	142	136	191	19	80	6	27	601
1970 .. . . .	136	141	183	14	90	6	15	585
1971 .. . . .	237	170	258	24	86	4	12	791
1972 .. . . .	225	160	253	18	84	2	14	756
1973 .. . . .	313	232	306	22	111	2	11	997
<b>ALL DISSOLUTIONS</b>								
1969 .. . . .	296	141	313	22	143	9	39	963
1970 .. . . .	279	144	329	16	142	8	21	939
1971 .. . . .	446	174	437	27	160	4	16	1 264
1972 .. . . .	459	161	430	18	149	2	16	1 235
1973 .. . . .	634	237	489	22	182	5	13	1 582

The ages at marriage of persons divorced for the five years to 1973 are shown in the following table.

**Dissolution of Marriage: Decrees Absolute, Age at Time of Marriage South Australia**

Year	Age at Marriage							Total	
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over		Not Stated
<b>HUSBANDS</b>									
1969 .. . . .	93	489	216	77	39	19	29	1	963
1970 .. . . .	95	471	222	77	29	20	23	2	939
1971 .. . . .	139	694	254	82	37	25	32	1	1 264
1972 .. . . .	132	680	250	84	34	19	35	1	1 235
1973 .. . . .	174	900	295	93	51	27	39	3	1 582
<b>WIVES</b>									
1969 .. . . .	362	422	93	41	16	10	19	—	963
1970 .. . . .	374	372	94	46	22	14	16	1	939
1971 .. . . .	486	562	120	34	24	14	24	—	1 264
1972 .. . . .	475	549	106	46	21	17	21	—	1 235
1973 .. . . .	641	699	119	54	25	11	30	3	1 582

Information of the relative ages at marriage of husbands and wives for marriages dissolved in 1973 is contained in the following table.

**Dissolution of Marriage: Decrees Absolute, 1973**  
**Relative Ages at Marriage of Husbands and Wives, South Australia**

Age of Husband at Marriage	Age of Wife at Marriage							Total Husbands (a)
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over	
Under 20	147	27	—	—	—	—	—	174
20-24	403	458	30	5	3	1	—	900
25-29	79	158	43	13	1	—	1	295
30-34	10	36	25	16	3	1	2	93
35-39	2	14	13	10	8	2	2	51
40-44	—	2	4	9	6	2	4	27
45 and over	—	3	4	1	4	5	21	39
<b>Total wives (a)</b>	<b>641</b>	<b>699</b>	<b>119</b>	<b>54</b>	<b>25</b>	<b>11</b>	<b>30</b>	<b>(a) 1 582</b>

(a) Figures include two dissolutions where age of both parties is not stated, one with age of husband not stated and one with age of wife not stated.

The following table shows the duration of marriage, *i.e.* the interval between marriage and the date the decree was made absolute, for marriages dissolved during the last five years.

**Dissolution of Marriage: Decrees Absolute, Duration of Marriage**  
**South Australia**

Year	Duration of Marriage (Years)									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 and Over	
1969	89	260	192	147	144	78	34	12	7	963
1970	94	250	182	157	108	93	32	15	8	939
1971	108	380	247	185	169	100	54	11	10	1 264
1972	137	380	228	158	159	100	53	13	7	1 235
1973	175	507	313	217	176	114	50	23	7	1 582

Ages of husbands and of wives at time of decree absolute for each of the last five years are shown in the table which follows.

**Dissolution of Marriage, Age at Time of Decree Absolute**  
**South Australia**

Year	Age at Time of Decree Absolute								Total
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and Over	Not Stated	
<b>HUSBANDS</b>									
1969	38	154	172	139	157	117	185	1	963
1970	45	153	162	139	133	134	171	2	939
1971	67	230	226	185	172	166	217	1	1 264
1972	58	252	224	181	160	144	215	1	1 235
1973	69	368	300	226	195	175	246	3	1 582
<b>WIVES</b>									
1969	119	193	153	130	145	100	123	—	963
1970	110	191	155	135	109	111	127	1	939
1971	144	293	216	160	158	138	155	—	1 264
1972	157	302	190	162	147	129	148	—	1 235
1973	224	405	280	186	175	120	189	3	1 582

For marriages dissolved in 1973 the following table shows the relative ages of husbands and wives at the time of dissolution.

**Dissolution of Marriage: Decrees Absolute, Relative Ages of Husbands and Wives at Time of Dissolution, South Australia, 1973**

Age of Husband at Dissolution	Age of Wife at Dissolution							Not Stated	Total Husbands
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and Over		
Under 25 .. . . .	65	4	—	—	—	—	—	—	69
25-29 .. . . .	145	208	14	—	—	1	—	—	368
30-34 .. . . .	12	149	125	13	—	—	1	—	300
35-39 .. . . .	2	34	100	75	13	1	—	—	226
40-44 .. . . .	—	7	31	75	71	6	5	—	195
45-49 .. . . .	—	2	8	16	67	61	21	—	175
50 and over .. . . .	—	—	2	7	24	51	161	1	246
Not stated .. . . .	—	1	—	—	—	—	—	2	3
<b>Total wives .. . . .</b>	<b>224</b>	<b>405</b>	<b>280</b>	<b>186</b>	<b>175</b>	<b>120</b>	<b>189</b>	<b>3</b>	<b>1 582</b>

Information collected for petitions filed covers living 'children of the marriage' under twenty-one years of age, which, as defined in the Act, includes also adopted children, children of the husband and wife born before marriage and children of either the husband or the wife if members of the household.

The following table shows the number of children of marriages related to duration of marriage for decrees absolute for dissolution granted in 1973.

**Dissolution of Marriage: Decrees Absolute, 1973  
Duration of Marriage, and Children of the Marriage, South Australia (a)**

Duration of Marriage (Years)	Number of Marriages Dissolved With							Total Dissolutions	Total Children
	0 Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 Children and Over		
Under 5 .. . . .	116	46	12	1	—	—	—	175	73
5-9 .. . . .	174	177	118	34	2	1	1	507	534
10-14 .. . . .	36	54	137	63	19	3	1	313	614
15-19 .. . . .	19	20	63	66	30	13	6	217	566
20-24 .. . . .	24	27	56	34	20	9	6	176	407
25-29 .. . . .	34	31	25	11	7	1	5	114	184
30-34 .. . . .	32	11	4	3	—	—	—	50	28
35-39 .. . . .	22	—	1	—	—	—	—	23	2
40 and over .. . . .	7	—	—	—	—	—	—	7	—
<b>Total dissolutions of marriage .. . . .</b>	<b>464</b>	<b>366</b>	<b>416</b>	<b>212</b>	<b>78</b>	<b>27</b>	<b>19</b>	<b>1 582</b>	<b>—</b>
<b>Total children .. . . .</b>	<b>—</b>	<b>366</b>	<b>832</b>	<b>636</b>	<b>312</b>	<b>135</b>	<b>127</b>	<b>—</b>	<b>2 408</b>

(a) At time of petition.

The following table shows particulars of the number of children of marriages dissolved in the last five years.

**Dissolution of Marriage: Decrees Absolute, Children of the Marriage  
South Australia<sup>(a)</sup>**

Year	Number of Marriages Dissolved With							Total Dissolu- tions	Total Children
	0 Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 Children and Over		
1969 . . . . .	256	210	240	156	64	24	13	963	1 616
1970 . . . . .	283	196	228	131	53	32	16	939	1 517
1971 . . . . .	329	305	314	171	86	42	17	1 264	2 116
1972 . . . . .	349	301	293	172	78	26	16	1 235	1 949
1973 . . . . .	464	366	416	212	78	27	19	1 582	2 408

(a) At time of petition.

## LABOUR

### 7.1 EMPLOYMENT

#### THE LABOUR FORCE

Particulars of the number of persons who constitute the labour force in South Australia are available from periodic population censuses. For the 1966 Census the definition of the labour force was revised to accord with the recommendations of the Eighth International Conference of Labour Statisticians, and the revised approach was retained for the 1971 Census. The major factor in this change was the inclusion of a number of females working part-time who did not previously consider themselves as 'engaged in an industry, business, profession, trade or service'.

In the first table on page 324 population at the 1966 and 1971 Censuses is classified by occupational status, which refers to the status of each person in his or her occupation *e.g.* employer, worker on own account, working for wages etc. Those persons reporting themselves as not engaged in an industry, business, profession, trade or service take as their occupational status 'not in the labour force'.

The growth in the female proportion of the labour force, evident between the 1954 and 1966 Censuses, has somewhat levelled off with females constituting 30.0 per cent of the labour force in 1971 compared with 29.0 per cent in 1966. However, the proportion of married females in the labour force has continued to increase (from 13.8 per cent in 1966 to 18.9 per cent in 1971).

**Occupational Status of the Population, South Australia  
Censuses 1966 and 1971**

Occupational Status	30 June 1966 (a)			30 June 1971		
	Males	Females	Persons	Males	Females	Persons
<b>In labour force:</b>						
Employer ..	23 747	6 228	29 975	19 468	5 832	25 300
Self-employed	31 135	7 205	38 340	29 713	8 302	38 015
Employee ..	259 105	111 197	370 302	275 292	135 712	411 004
Helper ..	1 167	2 613	3 780	1 009	2 240	3 249
<b>Unemployed ..</b>	<b>4 464</b>	<b>3 563</b>	<b>8 027</b>	<b>4 682</b>	<b>3 673</b>	<b>8 355</b>
<b>Total labour force .. .</b>	<b>319 618</b>	<b>130 806</b>	<b>450 424</b>	<b>330 164</b>	<b>155 759</b>	<b>485 923</b>
<b>Not in labour force</b>	<b>228 912</b>	<b>412 539</b>	<b>641 451</b>	<b>255 887</b>	<b>431 897</b>	<b>687 784</b>
<b>Total population ..</b>	<b>548 530</b>	<b>543 345</b>	<b>1 091 875</b>	<b>586 051</b>	<b>587 656</b>	<b>1 173 707</b>

(a) Excludes full-blood Aborigines.

The following table shows the employed population at the 1971 Census classified by occupation. Occupation refers to the kind of work a person normally performs e.g. carpenter, clerk, and is classified according to the Australian Classification of Occupations which has been adapted from and closely adheres to the principles embodied in the International Standard Classification of Occupations issued by the International Labour Office, Geneva 1958. It contains 11 major groupings subdivided into 72 minor groups further subdivided into 367 individual categories.

**Employed Population: Occupation, South Australia, 30 June 1971**

Occupation Group	Males		Females		Persons	
	Number	Proportion of Total	Number	Proportion of Total	Number	Proportion of Total
		Per cent		Per cent		Per cent
Professional, technical and related workers . . . . .	27 418	8.42	22 538	14.82	49 956	10.46
Administrative, executive and managerial workers . . . . .	27 261	8.38	4 080	2.68	31 341	6.56
Clerical workers . . . . .	25 980	7.98	43 061	28.31	69 041	14.46
Sales workers . . . . .	19 211	5.90	20 911	13.75	40 122	8.40
Farmers, fishermen, hunters, timbergetters and related workers . . . . .	35 069	10.78	7 922	5.21	42 991	9.00
Miners, quarrymen and related workers . . . . .	1 823	0.56	32	0.02	1 855	0.39
Workers in transport and communication occupations	21 921	6.74	3 422	2.25	25 343	5.31
Craftsmen, production-process workers and labourers (n.e.i.) . . . . .	140 981	43.31	18 161	11.94	159 142	33.32
Service, sport and recreation workers . . . . .	11 686	3.59	25 758	16.94	37 444	7.84
Members of armed services, enlisted personnel . . . . .	3 000	0.92	144	0.10	3 144	0.66
Occupation inadequately described or not stated . . . . .	11 132	3.42	6 057	3.98	17 189	3.60
<b>Total employed population</b>	<b>325 482</b>	<b>100.00</b>	<b>152 086</b>	<b>100.00</b>	<b>477 568</b>	<b>100.00</b>

Industry refers to the branch of productive activity, trade or service in which the individual works or carries out his occupation. The Australian Standard Industrial Classification (ASIC), designed primarily as a system for classifying establishments (e.g. individual mines, factories, shops etc.) by industry, was used for the 1971 Census and divides the whole field of industry into twelve major industry groups, which in turn are divided into sixty subdivisions, 157 groups and 519 classes.

In the next table the number of employed males and females aged fifteen years and over at the 1971 Census are classified according to industry in conjunction with occupational status. The proportion of the employed population engaged in agriculture, forestry, fishing etc. declined from 10.7 per cent in 1966 to 8.6 per cent in 1971. The percentage recorded as employed in manufacturing industries fell from 28.0 in 1966 to 24.4 in 1971 reversing the trend which was evident between 1933 and 1966.

**Employed Population 15 Years and Over: Industry and Occupational Status  
South Australia  
Census 30 June 1971**

Industry Group	Employed				Total
	Employer	Self-Employed	Employee	Helper	
<b>MALES</b>					
Agriculture, forestry, fishing etc. . . . .	5 474	15 709	10 830	619	32 632
Mining . . . . .	48	503	2 816	61	3 428
Manufacturing . . . . .	1 217	1 030	90 798	17	93 062
Electricity, gas and water . . . . .	3	2	8 242	—	8 247
Construction . . . . .	2 644	3 592	27 209	13	33 458
Wholesale and retail trade . . . . .	5 715	4 396	45 421	59	55 591
Transport and storage . . . . .	714	1 755	17 732	8	20 209
Communication . . . . .	4	12	6 826	—	6 842
Finance, business services etc. . . . .	1 208	854	13 854	23	15 939
Public administration, defence . . . . .	—	—	13 479	—	13 479
Community services . . . . .	1 100	253	22 683	54	24 090
Entertainment, recreation, etc. . . . .	1 105	872	6 459	32	8 468
Other and not stated . . . . .	236	735	8 943	123	10 037
<b>Total males employed . . . . .</b>	<b>19 468</b>	<b>29 713</b>	<b>275 292</b>	<b>1 009</b>	<b>325 482</b>
<b>FEMALES</b>					
Agriculture, forestry, fishing etc. . . . .	1 386	3 747	2 057	1 083	8 273
Mining . . . . .	7	33	295	5	340
Manufacturing . . . . .	289	316	22 892	54	23 551
Electricity, gas and water . . . . .	1	1	508	—	510
Construction . . . . .	292	188	1 244	67	1 791
Wholesale and retail trade . . . . .	2 412	2 432	33 447	364	38 655
Transport and storage . . . . .	115	171	2 521	24	2 831
Communication . . . . .	1	11	2 182	1	2 195
Finance, business services etc. . . . .	161	226	11 789	22	12 198
Public administration, defence . . . . .	—	—	5 714	—	5 714
Community services . . . . .	205	365	35 346	166	36 082
Entertainment, recreation, etc. . . . .	907	630	13 125	99	14 761
Other and not stated . . . . .	56	182	4 592	355	5 185
<b>Total females employed . . . . .</b>	<b>5 832</b>	<b>8 302</b>	<b>135 712</b>	<b>2 240</b>	<b>152 086</b>

**Labour Force Survey**

In addition to complete census counts, estimates of the civilian labour force are prepared each quarter from the results of surveys conducted at a sample of dwellings throughout Australia. These surveys began in 1960 and were initially

confined to the six State capital cities, but in 1964 were extended to include non-metropolitan urban and rural areas, thereby enabling derivation of estimates of the total civilian labour force in Australia. The proportion of the population included in the surveys varies from State to State (1 per cent in South Australia) but in aggregate about 0.67 per cent of the Australian population is included.

Statistics obtained from the surveys include numbers employed and unemployed; labour force participation and unemployment rates; duration of unemployment; analyses of reasons for 'under employment'; as well as age, sex, occupation and industry characteristics.

The following table shows, for South Australia, quarterly estimates of the employment status of the civilian population fifteen years of age and over from February 1973 to November 1974.

**Civilian Population 15 Years of Age and Over: Employment Status,  
South Australia**

Month	In Labour Force					Not in Labour Force	Civilian Popu- lation Aged 15 years and Over
	Employed			Un- employed	Total		
	Agri- culture	Other Industries	Total				
<b>MALES ('000)</b>							
1973 Feb. ..	31.9	319.7	351.6	3.2	354.8	74.4	429.2
May ..	33.2	319.2	352.5	5.1	357.6	73.5	431.1
Aug. ..	30.7	321.7	352.4	4.2	356.6	75.7	432.3
Nov. ..	31.7	322.4	354.2	6.1	360.3	75.6	435.9
1974 Feb. ..	31.1	331.3	362.3	3.5	365.8	72.5	438.3
May ..	31.7	325.0	356.7	3.1	359.8	78.6	438.4
Aug. ..	31.6	326.4	358.0	5.0	363.0	80.4	443.4
Nov. ..	31.0	328.2	359.2	7.7	367.0	80.9	447.8
<b>FEMALES ('000)</b>							
1973 Feb. ..	10.5	164.7	175.2	6.3	181.5	255.8	437.3
May ..	8.6	168.0	176.7	4.7	181.4	257.2	438.6
Aug. ..	8.5	169.8	178.2	5.0	183.2	256.5	439.7
Nov. ..	9.5	175.3	184.8	5.0	189.8	254.1	443.9
1974 Feb. ..	9.1	175.4	184.5	6.9	191.3	253.4	444.7
May ..	7.1	177.7	184.8	4.0	188.8	257.7	446.5
Aug. ..	5.8	175.7	181.5	6.3	187.8	261.9	449.8
Nov. ..	7.3	181.8	189.1	8.3	197.4	257.1	454.5
<b>PERSONS ('000)</b>							
1973 Feb. ..	42.3	484.4	526.8	9.5	536.3	330.2	866.5
May ..	41.8	487.4	529.2	9.9	539.0	330.7	869.7
Aug. ..	39.1	491.5	530.6	9.2	539.8	332.2	872.0
Nov. ..	41.2	497.7	538.9	11.1	550.1	329.7	879.8
1974 Feb. ..	40.1	506.7	546.8	10.3	557.2	325.8	883.0
May ..	38.9	502.6	541.5	7.0	548.6	336.3	884.9
Aug. ..	37.4	502.1	539.5	11.3	550.9	342.3	893.2
Nov. ..	38.4	510.0	548.3	16.0	564.3	338.0	902.3



The definition of the labour force used in the Population Census is similar to that used in the survey. However, evidence from census post-enumeration surveys indicates that the personal interview approach as used in the quarterly survey, tends to identify a larger number of persons as being in the labour force than does the filling in of the questions on the census schedule by the householder, and that this tendency increased between the 1966 and 1971 Censuses. These considerations should be borne in mind when comparisons of the total labour force or labour force participation rates are made between the 1966 and 1971 Censuses, or between the 1971 Census and the 1971 labour force quarterly estimates.

Of particular note in recent years has been the increasing participation of married women in the labour force. The following table shows the labour force participation rates of all women, with a separate measure for married women with both categories further classified into age groups.

**Employed Women<sup>(a)</sup>: Labour Force Participation Rates<sup>(b)</sup>, Age and Marital Status, Australia**

August	Age Group (Years)							Total (a)	
	15-19	20-24	25-34	35-44	45-54	55-59	60-64		65 and over
<b>MARRIED WOMEN (per cent)</b>									
1970 . . . .	38.4	44.6	36.2	42.1	37.6	23.0	11.6	2.9	34.0
1971 . . . .	40.8	44.7	36.0	45.3	39.1	24.5	12.7	3.2	35.3
1972 . . . .	46.1	47.3	36.5	45.5	41.4	26.8	14.4	3.4	36.5
1973 . . . .	48.9	49.3	39.6	48.0	42.5	26.6	13.8	2.5	38.0
1974 . . . .	45.2	53.2	42.3	50.0	42.4	26.6	13.3	3.7	39.6
<b>ALL FEMALES (per cent)</b>									
1970 . . . .	57.4	61.8	41.3	44.6	40.7	28.2	15.6	3.5	38.6
1971 . . . .	53.1	59.8	40.6	47.9	42.3	29.1	17.1	4.0	38.7
1972 . . . .	54.8	60.6	41.1	48.3	44.3	30.3	16.8	3.5	39.4
1973 . . . .	53.4	61.0	44.4	50.4	45.3	30.6	16.4	3.3	40.3
1974 . . . .	52.7	62.9	46.3	51.9	44.8	30.5	15.5	3.8	40.9

(a) Civilians 15 years of age and over. (b) The labour force in each group as a percentage of the civilian population aged 15 years and over in the same group.

**Special Employment Studies**

The sample of dwellings referred to in respect of the Labour Force Survey has provided the framework for a number of special studies related to employment. These special studies have included: some characteristics of the attachment of school leavers to the labour force; some indications of the time and means of travel to work; measures of the extent of multiple job holding in the civilian labour force; the extent of coverage by hospital or medical expenditure assistance schemes (see pages 297-8); some characteristics of assisted and unassisted migrants; information about changes of employment or job location and other aspects of the mobility of the labour force; information about the arrangements people in the labour force having the responsibility for the care

of children under twelve years of age made to have their children cared for while they themselves were at work; and internal migration—the movement of persons within Australia. Brief summaries of some of these studies are given in the following pages.

Since the estimates provided in these studies are based on sample surveys they are subject to sampling error, the magnitude of which is described in some detail in the bulletins for each topic published by the Australian Statistician. Because of the nature of the sample used, national estimates are prepared and information is not generally available for individual States.

### *School Leavers*

The definition of school leavers adopted for these surveys is 'persons aged fifteen to twenty-four who had attended full-time at a school, university or other educational institution at some time during the previous year and were not returning to full-time education in the year in which the survey was conducted.' The number of school leavers who entered the labour force expressed as a percentage of total leavers describes their labour force participation rates. The table below shows that this rate for South Australian males in February 1974 was 100·0 compared with the national rate of 95·5 while the equivalent rates for females were 95·3 in this State and 91·6 for Australia.

### Labour Force, Attachment of School Leavers

February	South Australia			Australia		
	Total in Labour Force	Total Leavers	Labour Force Participation Rate	Total in Labour Force	Total Leavers	Labour Force Participation Rate
	'000		Per cent	'000		Per cent
MALES						
1970 . . . . .	10·7	10·9	98·2	90·8	95·1	95·5
1971 . . . . .	9·9	10·5	94·8	96·4	103·3	93·3
1972 . . . . .	10·2	10·5	96·8	96·4	101·2	95·3
1973 . . . . .	10·0	10·5	95·0	109·3	114·8	95·2
1974 . . . . .	11·3	11·3	100·0	114·0	119·4	95·5
FEMALES						
1970 . . . . .	8·4	9·1	92·1	81·2	91·7	88·5
1971 . . . . .	9·7	10·3	94·9	92·1	100·5	91·6
1972 . . . . .	9·4	10·2	91·8	83·2	92·0	90·5
1973 . . . . .	11·2	11·8	95·1	95·7	103·7	92·3
1974 . . . . .	8·5	8·9	95·3	100·7	109·9	91·6
PERSONS						
1970 . . . . .	19·0	20·0	95·4	171·9	186·8	92·0
1971 . . . . .	19·7	20·7	94·9	188·4	203·8	92·4
1972 . . . . .	19·6	20·8	94·3	179·6	193·1	93·0
1973 . . . . .	21·2	22·3	95·1	205·0	218·5	93·8
1974 . . . . .	19·8	20·2	98·0	214·7	229·4	93·6

### *Multiple Jobholding*

In August 1973 the labour force survey was extended to permit derivation of estimates of the extent of multiple jobholding throughout Australia during that month. A summary of preliminary results shows that an estimated 190 600 persons, or 3.3 per cent of the total Australian labour force, stated that they held more than one job in August 1973. Of these more than 25 per cent (48 300) had as their second jobs service, sport or recreation group occupations and almost 19 per cent (35 600) were farmers, fishermen, timber-getters etc., in their second jobs. In May 1971 when a similar survey was held, the corresponding total figures were 199 300 persons and 3.6 per cent of the total labour force. Detailed results of these surveys have been published in *Multiple Jobholding* bulletins (reference 6.10) published by the Australian Statistician.

### *Assisted and Unassisted Migrants*

In August 1972 a survey was conducted in conjunction with the quarterly population survey, in order to compare various characteristics of assisted migrants, who arrived in Australia in 1947 or later, with the same characteristics of other migrants and of persons born in Australia.

There were no marked differences in the labour force participation rates and unemployment rates of assisted migrants and unassisted migrants, except in the group, 'other females' (i.e. never married, widowed and divorced). Of assisted migrants in this group, 62.5 per cent were in the labour force compared with 50.8 per cent of the unassisted migrants. There were marked differences between the labour force participation rates for migrants arriving in Australia in 1947 or later, and for other groups; these differences reflect the different age structures of these groups.

Of the migrants who arrived in Australia in 1947 or later, 59.3 per cent were assisted (58.9 per cent of the males and 59.9 per cent of the females). Of those born in the UK or Ireland, 83.1 per cent were assisted compared with 22.4 per cent of those born in Italy. The proportions for those born in other countries varied between these extremes. Of the 1 153 500 migrants, 998 000 (86.5 per cent) were assisted by the Australian Government.

Further information may be obtained from the bulletin, *Assisted and Unassisted Migrants*, August 1972 (reference 17.9) published by the Australian Statistician.

### *Job Tenure*

In February 1974 a survey based on the quarterly population survey was conducted throughout Australia in order to obtain information about the job tenure of currently employed civilians aged fifteen years and over. Information was obtained for wage and salary earners, employers and self-employed persons showing the length of time which these persons had worked at their current jobs.

A summary of results indicates that:

in February 1974 almost one-third (30.2 per cent) of all male workers in Australia had been continuously employed at the same job for ten years or more;

for females the proportion was about one in eight (12.0 per cent);

about one-quarter of the males (22.5 per cent) and one-third of the females (34.5 per cent) had been employed in their current job for less than a year;

of the part-time workers more than one-third (38.8 per cent) of employers and self-employed and about one in ten (9.7 per cent) of wage and salary earners had been employed in their current job for ten years or more.

### Child Care

In May 1973 a survey, based on the quarterly population survey was conducted throughout Australia in order to obtain, for persons who were in the labour force and who also had the responsibility for the care of children under twelve years of age, information about the arrangements they made to have their children cared for while they themselves were at work (including arrangements for after-school and school holiday care). The inquiry was directed mainly to working mothers, but males with the sole responsibility for children were also included. The results of a similar survey conducted in May 1969 were included on pages 276-8 of the *South Australian Year Book 1971*.

The following tables indicate the numbers of persons responsible for children under twelve years of age, their labour force attachment, and the arrangements they made for the care of their pre-school children while they, themselves, were at work.

**Persons Responsible for Children Under 12 Years of Age**  
**Labour Force Status: States, May 1973**

State	In the Labour Force		Not in the Labour Force		Total
	'000	Per cent	'000	Per cent	
<b>Responsible for children under 6 years: (a)</b>					
NSW	102.0	28.2	260.2	71.8	362.2
Vic	77.5	27.5	203.9	72.5	281.4
Qld	35.7	23.7	115.2	76.3	150.9
SA	27.0	29.4	65.0	70.6	91.9
WA	23.5	28.4	59.3	71.6	82.8
Tas	6.6	21.4	24.3	78.6	30.9
Aust. (b)	281.7	27.4	745.6	72.6	1 027.3
<b>Responsible for all children under 12 years:</b>					
	'000	Per cent	'000	Per cent	'000
NSW	188.5	34.9	352.1	65.1	540.6
Vic	150.6	36.1	266.2	63.9	416.8
Qld	69.0	30.2	159.7	69.8	228.6
SA	51.2	37.2	86.5	62.8	137.8
WA	48.5	37.9	79.4	62.1	127.9
Tas	14.9	30.7	33.6	69.3	48.5
Aust. (b)	538.3	35.0	997.7	65.0	1 536.0

(a) Includes some persons responsible also for children aged 6-11 years.

(b) Includes NT and ACT.

**Children Aged 0-5 Years Who Were the Responsibility of Persons in the  
Labour Force: Child Care Arrangements, States, May 1973**

Child Care Arrangement	NSW	Vic	Qld	SA	WA	Tas	Australia (b)
				'000			
Nursery, creche, care centre, home care centre, etc. (a) . . . .	9.5	11.0	6.7	6.1	2.0	<i>n.a.</i>	38.7
At school . . . . .	18.1	11.4	4.4	2.8	<i>n.a.</i>	<i>n.a.</i>	40.2
At home with relatives (c) or friends . . . .	42.9	32.9	14.7	9.0	9.0	2.8	116.0
With relatives, not at child's home . . . .	17.1	15.8	7.3	6.2	3.8	1.5	52.0
With others, not at child's home . . . .	13.9	15.1	3.6	4.1	3.7	<i>n.a.</i>	43.0
Person responsible worked at home (d)	25.9	15.4	8.5	6.9	10.0	<i>n.a.</i>	69.5
Other arrangements . .	6.8	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	14.6
<b>Total . . . .</b>	<b>134.3</b>	<b>102.5</b>	<b>48.0</b>	<b>36.0</b>	<b>31.8</b>	<b>8.3</b>	<b>374.2</b>

(a) For unemployed persons, includes proposed care arrangements.

(b) Includes Northern Territory and Australian Capital Territory.

(c) Includes older brothers and sisters of the children.

(d) Includes working in a shop or other business on the same premises in which the person lived.

The child care survey questions were asked of all female survey respondents who were under the age of sixty, and all males of the same age group who were widowed, divorced or permanently separated, with the following exceptions: persons attending school, university etc. full-time; persons permanently unable to work; and inmates of institutions such as hospitals, sanatoria and gaols.

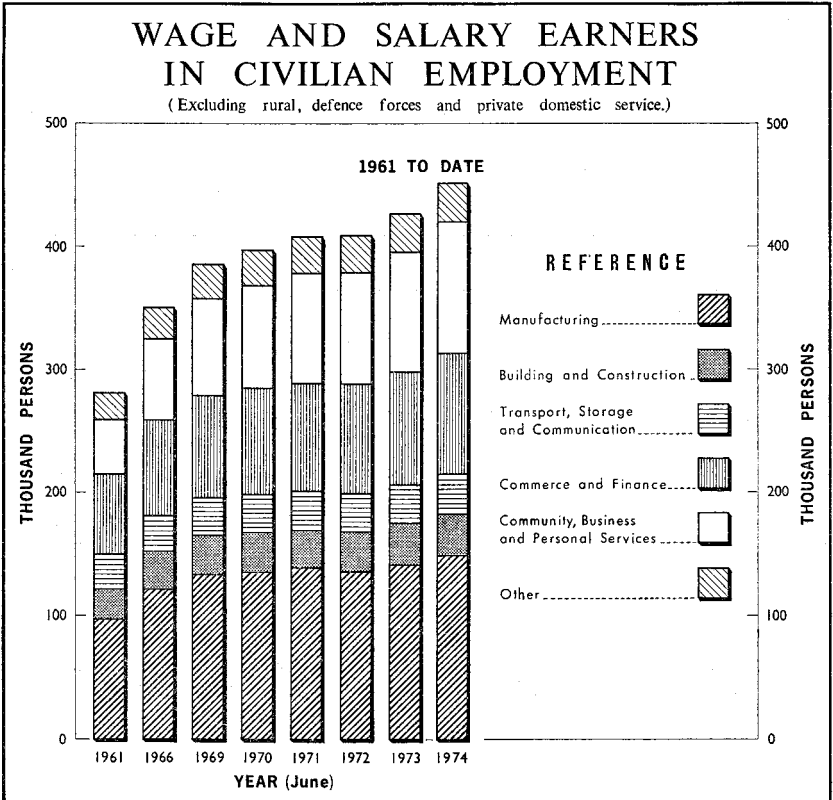
A child care centre was defined for the purposes of the survey as a registered or unregistered establishment other than a private dwelling, where care was provided for five or more children below compulsory school age. Centres such as pre-schools and kindergartens which are educational institutions were also included in this category. A home care centre was defined as one operated on a commercial basis in a private dwelling in which the proprietor generally lived.

Further information is available in the bulletin, *Child Care*, May 1973 (reference 17.2) published by the Australian Statistician.

### WAGE AND SALARY EARNERS IN EMPLOYMENT

Details of the number of wage and salary earners in civilian employment other than at census dates are available from periodic estimates. These estimates, which exclude employees in agriculture and private domestic service, are based on information obtained at population censuses, known as bench-marks, and adjustments to these bench-marks are made from certain current information.

An industry distribution of wage and salary earners derived from these estimates, and beginning with the census year 1961, is presented in the following bar chart. 'Manufacturing' includes employees of manufacturing enterprises who are not directly associated with the productive process, such as sales and distribution personnel. The category 'community, business and personal services' covers employees in education, health, amusement, hotels and restaurants, and professional and personal services but excludes private domestic service.



At the 1971 population census trainee teachers were, for the first time, classified as not in the labour force. From July 1971 they have been excluded from the estimates of employed wage and salary earners in civilian employment. The number of males and females excluded by this change in classification was 800 and 2 200 respectively. Estimated employment for June in the years 1970 to 1974 classified by industry group, is given in the following table.

Wage and Salary Earners in Civilian Employment, South Australia<sup>(a)</sup>

June	Manufacturing	Building and Construction	Transport, Storage and Communication	Commerce and Finance	Community, Business and Personal Services	Other	Total Employment
MALES ('000)							
1970 .. . . .	107.5	30.2	26.1	49.3	29.6	23.7	266.6
1971 .. . . .	110.1	30.0	26.5	49.5	31.4	24.2	271.7
1972 (b) .. . . .	107.8	30.7	26.5	49.4	32.3	24.4	271.1
1973 .. . . .	110.0	32.3	26.6	50.9	34.2	24.8	278.8
1974 .. . . .	113.3	31.7	27.2	53.8	35.7	25.3	287.2
FEMALES ('000)							
1970 .. . . .	27.7	1.2	4.6	37.1	54.4	4.9	129.9
1971 .. . . .	28.2	1.3	4.7	38.8	58.3	5.2	136.3
1972 (b) .. . . .	28.6	1.3	4.7	39.3	58.4	5.4	137.6
1973 .. . . .	31.2	1.4	4.8	41.3	63.0	5.9	147.7
1974 .. . . .	35.2	1.6	5.2	45.0	70.7	6.6	164.0
PERSONS ('000)							
1970 .. . . .	135.2	31.4	30.7	86.5	84.0	28.6	396.5
1971 .. . . .	138.3	31.3	31.2	88.3	89.7	29.4	408.0
1972 (b) .. . . .	136.4	32.1	31.2	88.7	90.7	29.8	408.7
1973 .. . . .	141.2	33.7	31.5	92.1	97.2	30.7	426.5
1974 .. . . .	148.5	33.3	32.3	98.8	106.4	32.0	451.2

(a) Excludes employees in agriculture, private domestic service and defence forces.

(b) From July 1971, excludes trainee teachers, some of whom were classified as wage and salary earners for earlier periods.

The government sector (government departments, local government authorities, public corporations and public trading and financial enterprises) employs 27 per cent of total civilian wage and salary earners. The following table shows the distribution of wage and salary earners at June 1973 and June 1974 by class of employer.

Wage and Salary Earners in Civilian Employment: Class of Employer South Australia<sup>(a)</sup>

Class of Employer	June 1973			June 1974		
	Males	Females	Persons	Males	Females	Persons
Private .. . . .	195.5	113.6	309.1	203.7	124.9	328.6
Government:						
Australian .. . . .	23.5	6.5	30.0	24.1	7.0	31.1
State .. . . .	53.2	26.7	79.9	54.9	31.1	86.0
Local .. . . .	6.6	0.9	7.5	4.6	0.9	5.5
Total government	83.3	34.1	117.4	83.5	39.1	122.6
Total employment	278.8	147.7	426.5	287.2	164.0	451.2

(a) Excludes employees in agriculture, private domestic service and defence forces.

Further information on employment in specific sectors such as factories, agriculture, the building industry etc. is found in the relevant sections of this Year Book.

## UNEMPLOYMENT

For the 1971 Census of Population and Housing, the employed population comprises persons fifteen years of age and over who, in the week before the Census, either worked for payment or profit or had a job from which they were temporarily absent. Persons helping but not receiving wages or salary who usually worked less than fifteen hours a week are excluded from the labour force but were included in the unemployed part of the labour force if they looked for work. Unemployed persons are those who are not employed and who were either laid off without pay for the whole week or were actively looking for work.

This approach conforms closely to the recommendations of the Eighth International Conference of Labour Statisticians held in Geneva in 1954 and to the approach used at the 1966 Census. The number unemployed in South Australia as recorded at the 1971 Census was 4 682 males and 3 673 females.

Monthly figures compiled by the Commonwealth Employment Service of the Department of Labor and Immigration provide indicators of movement in the level of unemployment. These figures are a count of the number of persons, registered with the Employment Service for employment on the Friday nearest the end of the month, who claimed at the time of registering that they were not employed, and who were still recorded as unplaced. Included are persons who have been referred to employers and those who may have obtained employment without notifying the Department. Also available is the number of vacancies, registered by employers, which were recorded as unfilled at the end of the month.

The next table gives the seasonally adjusted number of persons and vacancies registered at the end of each month for the years 1970 to 1974 *i.e.* it does not show the actual numbers unemployed, but a series from which seasonal variations have been removed so that long-term trends can be seen.

**Registration with Commonwealth Employment Service, South Australia<sup>(a)</sup>**  
(Seasonally Adjusted Series) <sup>(b)</sup>

Month	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<b>Year:</b>	<b>PERSONS REGISTERED FOR EMPLOYMENT ('000) (c)</b>											
1970 .. .. .	6.4	6.1	6.2	5.9	6.4	6.3	6.6	6.4	6.7	6.5	6.7	6.8
1971 .. .. .	7.1	7.3	7.8	8.0	8.1	8.1	8.0	8.2	8.6	9.0	9.2	9.5
1972 .. .. .	9.7	11.2	11.5	11.5	11.1	12.7	13.0	14.1	13.6	13.2	12.4	12.7
1973 (d) .. .. .	11.7	10.5	10.2	10.2	9.8	9.7	9.8	9.2	8.8	9.5	9.7	9.6
1974 .. .. .	9.5	9.5	8.7	8.3	8.8	8.3	9.8	11.1	12.5	16.8	20.1	19.9
	<b>VACANCIES REGISTERED ('000)</b>											
1970 .. .. .	3.2	3.8	3.9	3.7	3.2	3.1	3.0	3.0	3.2	3.1	3.3	3.1
1971 .. .. .	3.3	3.0	3.0	2.9	3.2	3.2	3.4	3.6	3.2	3.0	2.5	2.8
1972 .. .. .	2.9	2.7	2.7	2.8	2.7	2.5	2.6	2.4	2.6	2.8	2.9	3.2
1973 .. .. .	3.5	4.5	4.8	5.2	5.6	6.2	6.1	6.7	6.8	7.3	6.6	5.1
1974 .. .. .	5.8	7.6	7.4	7.5	6.1	5.9	4.6	4.6	4.1	3.6	3.2	2.2
	<b>EXCESS OF PERSONS REGISTERED OVER VACANCIES ('000)</b>											
1970 .. .. .	3.2	2.3	2.3	2.2	3.2	3.2	3.6	3.4	3.5	3.5	3.4	3.7
1971 .. .. .	3.8	4.3	4.8	5.1	4.9	4.9	4.6	4.6	5.4	6.0	6.7	6.7
1972 .. .. .	6.9	8.5	8.8	8.8	8.4	10.1	10.4	11.7	11.0	10.5	9.5	9.5
1973 (d) .. .. .	8.2	6.0	5.4	5.1	4.2	3.5	3.6	2.5	2.0	2.2	3.1	4.5
1974 .. .. .	3.7	1.9	1.3	0.8	2.6	2.4	5.2	6.5	8.4	13.1	16.9	17.7

(a) Includes Northern Territory.

(b) Figures are subject to revision.

(c) Persons who claimed they were unemployed.

(d) Break in continuity of series from July 1973 because of revised definition of school leavers.



One of the primary functions of the Labour Force Survey (see pages 325-7) is to provide regular and detailed information on unemployment in Australia. Separate details for South Australia are not available. The following table shows the number of unemployed persons and their duration of unemployment at the time of surveys conducted in August of each year from 1970 to 1974.

**Unemployed Persons, Australia<sup>(a)</sup>**

August	Unemployed		Proportion Unemployed for:				Total
	Number	Proportion of Labour Force	Under 2 Weeks	2 and Under 4 Weeks	4 and Under 13 Weeks	13 Weeks and Over	
	'000		Per cent				
<b>MALES</b>							
1970 .. . . .	33.5	0.9	25.7	31.3	31.1	11.9	100.0
1971 .. . . .	39.3	1.1	25.0	35.6	27.2	12.2	100.0
1972 .. . . .	67.4	1.8	14.5	27.5	38.9	19.1	100.0
1973 .. . . .	41.0	1.1	21.0	28.3	33.2	17.5	100.0
1974 .. . . .	61.1	1.6	21.8	31.6	33.4	13.2	100.0
<b>FEMALES</b>							
1970 .. . . .	31.5	1.8	26.3	25.4	34.0	14.3	100.0
1971 .. . . .	35.8	2.0	26.4	27.4	32.5	13.7	100.0
1972 .. . . .	53.9	2.9	18.5	22.0	38.2	21.3	100.0
1973 .. . . .	40.6	2.1	22.2	26.6	29.5	21.7	100.0
1974 .. . . .	54.6	2.8	20.7	33.6	33.5	12.2	100.0
<b>PERSONS</b>							
1970 .. . . .	65.0	1.2	26.0	28.3	32.6	13.0	100.0
1971 .. . . .	75.1	1.4	25.6	31.7	29.7	13.0	100.0
1972 .. . . .	121.3	2.2	16.3	25.0	38.6	20.1	100.0
1973 .. . . .	81.6	1.4	21.6	27.6	31.2	19.6	100.0
1974 .. . . .	115.7	2.0	21.2	32.6	33.4	12.8	100.0

(a) Civilians 15 years of age and over.

**EMPLOYMENT SERVICES**

The Commonwealth Employment Service, administered by the Department of Labor and Immigration, commenced operations in South Australia in May 1946. The main functions of the Employment Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to the demands of the employers' particular class of work.

Before unemployment benefit can be paid, persons seeking such benefit must be registered with the Employment Service which is responsible for certifying that suitable employment is not available.

Specialised facilities are provided for young people, persons with physical and mental handicaps, ex-members of the defence forces, Aborigines, migrants, rural workers, and persons with professional and technical qualifications. Vocational guidance, provided without charge by psychologists, is available to any person, but

is provided particularly for young people and handicapped persons. The Department of Labor and Immigration is also responsible for the administration of the National Employment and Training System (NEAT), a vocational training scheme designed to assist persons whose employment prospects would be enhanced by training.

The Regional Employment Development Scheme (RED) which came into operation in September 1974 is administered by the Department of Labor and Immigration. This scheme is designed to create employment opportunities in areas of excessive unemployment whether this is because of general economic conditions or to a labour market problem in a particular area which can be alleviated by the provision of bridging employment. The Commonwealth Employment Service is responsible for placing in employment migrant workers sponsored by the Australian Government under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment. Experts for overseas service under technical aid programs are recruited by the Employment Service.

In association with placement activities, regular surveys of the labour market are carried out. These include a monthly survey of employment in larger private factories covering a number of factories with 50 or more employees. A survey of the level of overtime and/or short-time being worked is conducted concurrently with this survey.

The Department of Labor and Immigration operates ten Commonwealth Employment Service offices, including a Professional Employment Office, in the metropolitan area and has offices in seven country areas backed up by agents in smaller centres. The South Australian Regional Office of the Department of Labor and Immigration is also responsible for employment offices at Katherine, Alice Springs and Darwin in the Northern Territory. The Professional Employment Office in Adelaide specialises in placement of the more highly qualified and professional applicants.

There are also a number of private employment agencies, all of which are required to register with the Department of Labour and Industry. At 31 December 1974 there were forty such agencies registered.

## 7.2 ARBITRATION AND INDUSTRIAL ORGANISATIONS

### INDUSTRIAL ARBITRATION

In Australia a unique system of conciliation and arbitration by Government-established tribunals has been developed, with the Australian and the State Parliaments each passing their own industrial legislation.

Under Section 51 of the Constitution, the Australian Parliament may make laws in relation to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. In addition the Parliament may legislate under certain industrial powers for the stevedoring industry, the maritime industry, the Australian Public Service, certain national projects, the Snowy Mountains Area and flight crew officers. Federal arbitration is binding only on the parties to a dispute and decisions need not be of general application to an industry.

Employees not specifically covered by Federal awards are subject to State industrial jurisdiction but where an award or determination of a State industrial tribunal is in conflict with an award of a Federal tribunal, the latter prevails.

### **Federal Industrial Tribunals**

Before 1956 a Court of Conciliation and Arbitration was responsible for the prevention and settlement of industrial disputes extending beyond the limits of any one State. In that year substantial amendments were made to the Conciliation and Arbitration Act separating the judicial and arbitral functions of the Court by the establishment of the Australian Industrial Court and the Australian Conciliation and Arbitration Commission.

The Industrial Court, which is comprised of a Chief Judge and up to nine other Judges, interprets and enforces awards, passes judgment on questions of law and determines questions arising in relation to organisations registered under the Act. Decisions of the Industrial Court are final, although in certain matters an appeal lies to the High Court, but only by leave of the High Court.

The Conciliation and Arbitration Commission comprises a President and as many Deputy Presidents and Commissioners as are necessary.

### **State Industrial Tribunals**

The South Australian legislation governing State intervention in industrial relations is the Industrial Conciliation and Arbitration Act, 1972-1974, the principal Act having come into operation on 1 January 1973. This Act, which made various changes in the existing industrial law provides for:

- (1) An Industrial Court which deals with matters of law and hears claims for recovery of money payable under awards or agreements;
- (2) An Industrial Commission which makes awards covering workers not under the jurisdiction of Conciliation Committees; and
- (3) Conciliation Committees which make or vary awards for an industry or area of the State in relation to which each Committee is appointed.

The President and any Deputy President of the Industrial Court are Judges of that Court. The Court itself consists of one or more Judges or the Industrial Magistrate as the President directs. The President and each Deputy President of the Industrial Court are also President and Deputy Presidents respectively of the Industrial Commission. Arbitral functions of the Commission may be exercised by a presidential member or a Commissioner as directed by the President. When required a Full Commission is constituted by either two presidential members and a Commissioner or a presidential member and two Commissioners as directed by the President.

Although the President and Deputy President must be persons eligible for appointment as Judges of the Supreme Court, the four Commissioners appointed by the Governor do not require law qualifications. The Act provides that one-half of the number of Commissioners must be experienced in industrial affairs through association with employers' interests, and the other half must have similar experience by having been associated with trade union affairs.

Conciliation Committees with a Commissioner as chairman are appointed for a three year term by the Minister of Labour and Industry on the recommendation of the President and have the same jurisdiction in industrial matters as the

Commission. If the process of conciliation before a Committee fails, then the Chairman sits as a Commissioner to determine the unresolved matters. All awards, both those made by the Commission and those made by Committees, operate as common rules in the industries concerned, unless the Commission determines otherwise.

Provision is made for the Commission, when constituted by a single member, or for the Chairman of a Conciliation Committee, to consult with the President as to whether a matter should be dealt with by the Full Commission and he is required to consult with the President on the application of any party to an industrial matter before him.

There is a right of appeal against awards and decisions of the Commission, when constituted by a single member, or of a Conciliation Committee. The appeal is heard by the Full Commission.

The Industrial Court may hear claims for the recovery of sums due under awards or registered agreements both Federal and State, and claims for long service leave, but it does not have power to award costs against either party. Where the claim has been heard by the Industrial Magistrate an appeal may be heard by a Judge of the Industrial Court.

Proceedings against persons or organisations breaching an award are heard in a Court of Summary Jurisdiction, which is normally constituted by the Industrial Magistrate, although where a question of law is involved the matter may be referred to the Industrial Court.

Proceedings before the Industrial Commission may be commenced by an application submitted by:

- (i) the Minister of Labour and Industry;
- (ii) an employer, or group or registered association of employers in an industry employing in the aggregate not less than twenty employees or 75 per cent of the employees in the industry, whichever is the lesser; or
- (iii) a group or registered association consisting of not less than twenty employees or 75 per cent of the employees within an industry, whichever is the lesser.

At 31 December 1974 there were four associations of employers and sixty-eight associations of employees registered with the Industrial Registrar. Membership of these employee associations totalled 193 959.

The Industrial Conciliation and Arbitration Act, 1972-1974 also provides that every full-time employee shall be entitled to the general standard of annual leave as determined by the Full Commission. It also enables the Industrial Commission to prescribe in awards preference for employment to members of registered associations where all factors relevant to the employment of such members and all other persons affected are otherwise equal. The Act also gives the Court jurisdiction to hear any question as to whether the dismissal of an employee is harsh, unjust or unreasonable, and has power to direct the employer to reinstate the dismissed employee to his former position on terms not less favourable than those held previously.

## EMPLOYEE ORGANISATIONS

At 31 December 1973 there were 135 separate unions operating in South Australia; although a number of unions exist only in this State, branches of interstate or federated unions account for the majority of total membership. Some of these are bound under a system of unification with centralised control while others are practically independent and self-governing, the federal bond existing only for limited specified purposes.

The central labour organisation for the State is the United Trades and Labor Council of South Australia, and combined union councils exist for Mount Gambier, Port Augusta, Port Pirie, the Upper Murray, Leigh Creek and Whyalla. These central organisations, together with individual unions are affiliated with the Australian Council of Trade Unions (ACTU). All major unions are affiliated with the Council, which was founded at an All-Australian Trade Union Congress in 1927. The Trades and Labor Council is the State branch of the ACTU and has the right to appoint one representative to act on the executive of the Council.

The following table gives particulars of the number of separate unions and union membership for the years 1969 to 1973. The table includes estimated percentages of trade union members to total wage and salary earners in employment. The estimates of total wage and salary earners have been calculated by adding estimates of rural and private domestic employees based on census results to estimates of wage and salary earners which normally exclude rural and private domestic employees. For this reason and because trade union membership includes some persons not in employment, the percentages shown in the table must be regarded as approximations.

Trade Unions, South Australia  
At 31 December

Year	Separate Unions	Members			Proportion of Members to Total Wage and Salary Earners		
		Males	Females	Persons	Males	Females	Persons
	No.		'000		Per cent		
1969 . . . . .	135	158.6	35.6	194.2	57	27	48
1970 . . . . .	137	163.2	39.4	202.7	57	28	48
1971 . . . . .	139	172.1	43.8	215.9	60	31	51
1972 . . . . .	132	171.6	52.1	223.7	60	36	52
1973 . . . . .	135	181.6	60.2	241.8	62	38	53

A historical summary of the growth of the trade union movement in South Australia was included on pages 280-1 of the *South Australian Year Book* 1969.

## EMPLOYER ORGANISATIONS

In industrial matters there are two dominant employer organisations in the State. These are the South Australian Employers' Federation Inc., which was founded in 1889 and the Chamber of Commerce and Industry Inc., which resulted from the amalgamation in 1972 of the South Australian Chamber of Manufactures

Inc. (established in 1869) and the Adelaide Chamber of Commerce Inc. (established in 1839). The Federation and the Chamber provide industrial services for the majority of South Australian employers and employer groups.

The Employers' Federation is an incorporated body being largely a federation of employer associations, although provision is made for individual membership. In 1973 there were thirty-nine affiliated associations encompassing some 12 000 employers, and approximately 1 000 individual members. The Federation is maintained by fees paid by members, together with charges made for industrial actions, and from secretarial charges from member associations for which the Federation acts as secretariat. A council, which contains a representative from each of the member associations and a number of personal representatives from member companies, is elected annually. The executive of the Federation is elected by the council.

Services provided by the Federation include the negotiating and drafting of industrial agreements, and the preparation and presentation of cases before Federal and State industrial tribunals. Advice is provided on existing awards and determinations, and on various aspects of industrial legislation. A comprehensive industrial service letter is forwarded to all members and affiliated associations monthly.

The Chambers were formed originally to promote the trade, commerce, shipping and manufactures of South Australia, the local, interstate and overseas trade of South Australia, and the products of South Australia. In 1940-41 the Chamber of Manufactures established an industrial department and has since accepted increasing responsibility for representing employer interests in the fixing of wages and the determination of employment conditions, both in State and Federal jurisdictions. The combined Chamber has over 3 900 members organised, where appropriate, into more than seventy-five trade sections. Administration is by a Council of 150 members representative of industry groups and trade sections, which in turn elect an executive committee of eight members and a finance committee of seven members. In addition to industrial matters, the Chamber reports and makes recommendations on behalf of its members on bills before State and Australian Parliaments, proposed regulations under those bills, proposals of local government authorities, matters before the Tariff Board, and regulations of government departments and instrumentalities.

### WORKER PARTICIPATION

In February 1972 two committees were appointed by the South Australian Cabinet to inquire into worker participation in management. One committee was to examine and report on the feasibility of introducing worker participation into industry and commerce in South Australia, the other to examine and report on worker participation in the public sector.

In April 1973 both committees recommended that the Government encourage the introduction of worker participation in management in the form of job enrichment schemes and joint consultative councils, and that a unit should be established in an appropriate Government department to advise and assist management and trade unions on all aspects of worker participation.

Consequently, a Worker Participation Branch was set up in the Department of Labour and Industry and became fully operational in February 1974. Its main role is encouraging the redesign and humanising of jobs, and the development of joint consultation to allow people to become more involved in decisions that affect their working lives.

INDUSTRIAL DISPUTES

Details of the number and extent of industrial disputes occurring in South Australia are shown in the next table. Effects on other establishments because of lack of materials, disruption of transport services, power cuts, etc. are not included in these statistics. Particulars of all disputes in progress during the year are included in the annual figures. Consequently, details of the number of disputes and of workers involved in the disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years. Working days and wages lost are included in the appropriate year. Workers involved in more than one dispute during the year are counted once for each dispute. Because of difficulties in identifying all participants in every dispute the statistics given in the following tables should be regarded as giving only a broad measure of the extent of work stoppages.

Industrial Disputes, South Australia<sup>(a)</sup>

Period	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
				\$'000
<b>Annual Averages:</b>				
1951-55.. . . . .	30	17 800	50 500	310.0
1956-60.. . . . .	24	12 800	22 400	157.4
1961-65.. . . . .	39	18 500	26 000	234.6
1966-70.. . . . .	82	45 100	62 600	717.6
<b>Year:</b>				
1969 .. . . . .	72	102 800	129 000	1 551.4
1970 .. . . . .	156	57 000	93 100	1 123.1
1971 .. . . . .	135	64 100	111 200	1 484.9
1972 .. . . . .	111	49 800	60 900	858.0
1973 .. . . . .	159	56 900	130 600	2 144.0

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved at the establishments where the stoppages occurred.

In the following table industrial disputes occurring during 1973 are compiled according to the Australian Standard Industrial Classification (ASIC). A dispute involving workers in more than one industry group is counted once only and is included in the industry group which has the largest number of workers involved. Other details are allocated to their respective industry groups.

Industrial Disputes: Industries, South Australia,<sup>(a)</sup> 1973

Industry	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
Agriculture, forestry, fishing and hunting . . . . .	..	'000	'000	\$'000
Mining . . . . .	2	0·1	0·1	2·0
Manufacturing:				
Food, beverages and tobacco . . . . .	8	1·9	12·9	173·8
Textiles, clothing and footwear . . . . .	7	1·3	3·5	56·5
Wood, wood products and furniture . . . . .	2	0·9	11·4	181·9
Paper and paper products, printing and publishing . . . . .	5	1·0	6·0	125·5
Chemical, petroleum and coal products . . . . .	56	36·8	60·2	1 013·7
Metal products, machinery and equipment (c) . . . . .	18	2·6	12·3	218·6
Other manufacturing (d) . . . . .	1	0·1	—	0·5
Electricity, gas and water . . . . .	10	3·0	9·5	169·8
Construction . . . . .	8	2·2	5·6	75·7
Wholesale and retail trade . . . . .				
Transport and storage, communication:				
Water transport . . . . .	22	1·4	1·9	29·2
Railway transport, air transport . . . . .	4	2·4	1·2	12·5
Road transport, other transport and storage, communication . . . . .	8	0·7	1·3	19·7
Entertainment, recreation, restaurants, hotels and personal services . . . . .	..	..	..	..
Other industries . . . . .	8	2·7	4·7	64·8
Total . . . . .	159	56·9	130·6	2 144·0

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved at the establishments where the stoppages occurred.

(c) Includes basic metal products, fabricated metal products, transport equipment and other industrial machinery and equipment and household appliances.

(d) Includes non-metallic mineral products and leather, rubber and plastic products.

## 7.3 WAGES AND HOURS

### WAGES

Before the National Wage Cases of 1967, wages consisted of two distinct elements, a basic or living wage and a margin or loading which was appropriate to the employee's occupation. A more detailed description of these elements was included on pages 253 and 257-8 of the *South Australian Year Book* 1967.

The total wage concept was accepted by the decision of the Conciliation and Arbitration Commission in June 1967. The application of this concept, referred to below, has limited the number of national wage cases in any year to one and provided the Commission with a flexible basis for decisions.

### National Wage Fixation

The *Conciliation and Arbitration Act* 1904-1973 gives the Australian Conciliation and Arbitration Commission power to make an award or to certify an agreement 'making provision for, or altering, rates of wages, or the manner in which rates of wages are to be ascertained, on grounds predominantly related to the national economy and without examination of any circumstance pertaining to the work upon which, or the industry in which, persons are employed'. The Commission holds wage inquiries from time to time with its findings applicable to industrial awards within its jurisdiction. A detailed account of the history of



national wage fixation before the introduction of the total wage concept appears in the Arbitration Reports and a summary was included on pages 257-60 of the *South Australian Year Book* 1968.

In the National Wage decision handed down by the Commission in May 1973 a combination increase of 2 per cent of current award rates plus a flat amount of \$2.50 (to apply to both adult male and adult female rates) was awarded. Proportionate increases were granted to male and female juniors and apprentices and the minimum wage was increased to \$59.60 a week, an increase of \$9. However, the claim for quarterly adjustments of the minimum wage according to changes in the Consumer Price Index was rejected.

The 1974 National Wage Case heard applications made under the Metal Industry Award, Salaried Staff (Qantas Airways Limited) Award and the Graphic Arts Award pursuant to the *Conciliation and Arbitration Act* 1904-1973 and applications to vary the Australian Public Service Determinations for Fourth Division officers and for professional officers pursuant to the *Public Service Arbitration Act* 1920-1973.

On 2 May 1974 the Commission handed down its decision in response to the following claims:

an increase of \$11 per week (approximately 18 per cent) in the minimum wage for adult males;

the extension of the minimum wage for adult males to adult females;

increases in total wages ranging from a flat increase of \$11 a week or 15 per cent of the average award rate at May 1973 to a uniform increase of between 9 per cent and 11 per cent plus \$2 a week in current award rates;

minimum wages and all award rates to be adjusted quarterly and automatically for changes in the Consumer Price Index.

After considering the large increase in the minimum wage in the previous year, the rise in prices and wages and discarding the concept of a family component, the Commission decided on an increase of \$8 a week in the minimum wage (bringing it to \$67.60 a week operative from the beginning of the first pay-period commencing on or after 23 May 1974) and promised to review it in six months time.

Following the equal pay principles which the Commission set in motion in 1972 and the submissions made, the decision was made to extend the adult male minimum wage to adult females in three stages. Adult females were thus entitled to 85 per cent of the new male minimum wage from the beginning of the first pay-period commencing on or after 23 May 1974, 90 per cent by the beginning of the pay-period in which 30 September 1974 occurred and 100 per cent from the beginning of the pay-period in which 30 June 1975 occurred.

As in the previous year, the total wage rates prescribed for adult males and adult females were increased by 2 per cent of current award rates plus a flat amount of \$2.50 with male and female juniors and apprentices receiving proportionate increases.

One of the arguments put forward in favour of automatic quarterly cost of living adjustments was that they would lead to abatement of wage claims and industrial disputation by compensating for price increases. Submissions made in favour of 'wage indexation' were all based on changes in the Consumer Price

Index but differed in their form of application. However, private employers and the Victorian Government opposed any form of indexation. The Commission decided against indexation at that stage because it had doubts concerning the merits of such a system, but saw it as a fresh approach which could provide the catalyst for significant long term improvement in industrial relations in Australia.

On 18 December 1974 the Commission handed down its decision on the review of the minimum wage. The minimum wage for adult males was increased by \$8 a week to \$75.60 and for adult females by \$7.20 a week to \$68.00 from the beginning of the first pay-period commencing on or after 1 January 1975.

### State Wage Fixation

All awards of both the State Industrial Commission and Conciliation Committees created under the Industrial Conciliation and Arbitration Act, 1972-1974 include a 'living wage', which in terms of the Act may be determined and declared for both adult male and adult female employees. In making such determinations the Full Commission may, as it deems fit, take into consideration any decision of the Australian Conciliation and Arbitration Commission which relates to awards of that tribunal and likely to affect employees subject to awards in South Australia. The Act also allows living wages for both males and females to be declared to avoid unjustifiable differences between comparable rates of wages fixed under Federal and State laws. The earlier definition of the 'living wage' expressed in the Industrial Code as 'a sum sufficient for the normal and reasonable needs of the average employee' was not repeated in the Industrial Conciliation and Arbitration Act, 1972-1974.

Living wage and minimum wage rates applicable since 1967 are recorded in the following table.

**Living Wage and Minimum Wage, South Australia**

Month First Operative	State Awards			Federal Awards	
	Living Wage			Minimum Wage	Minimum Wage
	State, except Whyalla and Iron Knob		Whyalla and Iron Knob		
	Males	Females	Males		
	Dollars				
July 1967 .....	33.30	25.20	33.80	37.05	37.05
Oct. 1968 .....	34.65	26.55	35.15	38.40	38.40
Dec. 1969 .....	34.65	26.55	35.15	41.90	41.90
Jan. 1971 .....	37.85	29.00	38.35	45.90	45.90
May 1972 .....	39.85	31.00	40.35	50.60	50.60
May 1973 .....	43.15	34.10	43.65	59.60	59.60
May 1974 .....	46.50	37.30	47.00	67.60	67.60
Jan. 1975 .....	46.50	37.30	47.00	75.60	75.60

(a) Before December 1969 not all State awards contained a minimum wage provision.

### Equal Pay

In recent years there have been significant developments in the attitude of government and arbitration authorities towards the awarding of equal pay for male and female employees.

In 1965 the South Australian Government decided to introduce progressively, over five years from July 1966, equal pay for women teachers employed by the Education Department. In 1966 this principle was extended to the State Public Service.

In June 1969 the Australian Conciliation and Arbitration Commission, in what was accepted as a test case, granted equal pay to some women in the meat processing industry, set a timetable for implementation of equality of remuneration by 1 January 1972, and set out principles to be followed by individual commissioners or the Public Service Arbitrator in deciding future applications for the extension of equal pay provisions to other awards. In February 1970, Commissioner Winter of the Australian Conciliation and Arbitration Commission granted progressive increases in the pay rates of adult female process workers employed under the Australian Metal Trades Award, so that from 1 January 1972 their rates would be equal to adult male rates.

In a decision handed down on 15 December 1972, the Full Bench of the Commission decided to enlarge the concept of 'equal pay for equal work' to that of 'equal pay for work of equal value,' *i.e.* award rates for all work should be considered without regard to the sex of the employee. The new principle is applied to all awards of the Commission. However, it was considered that the social and economic consequences of the decision would be wide-ranging and so under normal circumstances implementation would take place by three equal instalments so that one-third of any increase was payable no later than 31 December 1973, half of the remainder by 30 September 1974 and the balance by 30 June 1975. Under principles established in 1969, equal pay was to be given for equal work and the decision was not intended to rescind those principles under which females could become entitled to equal pay earlier than they would under the December 1972 decision.

Subsequent to the decision there have been instances of agreements guaranteeing full equal pay earlier than required by the decision. The most notable was the granting of equal pay to women in the Australian Public Service during 1973.

In the 1972 decision, the Commission rejected the claim that adult females be paid the same minimum wage as adult males because of the family considerations involved in male minimum wages. However, in the 1974 National Wage Case the Commission discarded the family component concept and decided to extend the male minimum wage to females in three stages.

A historical discussion on the relativities of male and female wage rates was included on pages 290-2 of the *South Australian Year Book* 1970.

### Award Wages

The minimum weekly amounts provided in awards, determinations, and registered agreements under Federal and State jurisdiction are known as award rates. The amounts shown in the following tables are a weighted average of minimum weekly wage rates payable to adult males and females in South

Australia. Generally these are award rates; however, in a few cases where unregistered agreements are dominant in a particular industry, rates prescribed therein are used. The amounts shown should not be regarded as actual current averages, but rather as indexes expressed in money terms. The minimum rates used are for representative occupations within each industry, the weights for each occupation and industry being based on sample surveys conducted in 1954, with allowance made where necessary for subsequent changes in the industrial structure. Because of coverage difficulties rural industries are excluded. The statistics are designed to show movements in minimum wages as distinct from salaries, with the result that those awards, etc. which relate solely or mainly to salary earners have been excluded.

The following table shows weighted average minimum weekly wage rates for adult males and adult females with separate details shown for award rates within Federal and State jurisdictions. The index numbers refer to the weighted average minimum weekly wage rates of all awards.

**Weekly Wage Rates: South Australia<sup>(a)</sup>**

31 December	Rates of Wage				Index Numbers All Groups (Base: Australia 1954 = 100)	
	Federal Awards		State Awards		Adult Males	Adult Females
	Adult Males	Adult Females	Adult Males	Adult Females		
	\$	\$	\$	\$		
1970 . . . . .	52.82	(b)	50.54	(b)	184.6	188.4
1971 . . . . .	60.29	45.84	57.34	43.01	210.3	221.8
1972 . . . . .	67.13	51.33	62.88	49.94	233.1	253.7
1973 . . . . .	76.22	63.67	73.00	61.03	265.3	312.0
1974 . . . . .	102.80	88.53	99.50	92.31	360.3	455.9

(a) Weighted average of minimum weekly rates payable for a full weeks work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

(b) Comparable figures are not available.

Classified as Federal are awards of, or agreements registered with, the Australian Conciliation and Arbitration Commission and the Coal Industry Tribunal, and determinations of the Australian Public Service Arbitrator. Incorporated under the State heading are awards or determinations of, or agreements registered with, State industrial tribunals, together with any unregistered agreements used in the computations.

In the next table weighted average minimum weekly wage rates for males and females are shown for individual industrial groups.

Weekly Wage Rates: Industrial Groups, South Australia<sup>(a)</sup>

At 31 December

Industrial Group	1970	1971	1972	1973	1974
Dollars					
ADULT MALES					
Mining and quarrying . . . . .	50.33	56.94	62.46	71.36	100.23
Manufacturing:					
Engineering, metal works, etc. . .	50.33	58.14	63.57	71.28	98.24
Textiles, clothing and footwear . .	49.84	55.92	61.66	71.17	91.18
Food, drink and tobacco . . . . .	50.02	55.66	61.85	72.27	96.77
Sawmilling, furniture, etc. . . . .	50.08	57.67	61.39	75.06	99.88
Paper, printing, etc. . . . .	56.62	65.32	72.49	81.11	104.41
All manufacturing groups . . . . .	50.73	58.23	63.87	72.67	98.51
Building and construction . . . . .	55.43	62.76	68.92	77.59	106.20
Railway services . . . . .	49.23	55.19	62.91	71.38	100.27
Road and air transport . . . . .	50.80	57.53	62.16	73.23	104.32
Shipping and stevedoring . . . . .	59.54	64.06	78.94	87.96	111.80
Communication . . . . .	68.88	77.05	86.18	101.96	126.51
Wholesale and retail trade . . . . .	50.67	58.56	66.05	75.90	103.43
Public authority (n.e.i.) and community and business services . .	49.59	56.83	62.03	74.16	95.65
Amusement, hotels, personal services, etc. . . . .	48.86	54.36	57.93	70.30	92.44
All industrial groups . . . . .	52.12	59.38	65.82	75.20	101.76
ADULT FEMALES					
Manufacturing:					
Engineering, metal works, etc. . .	37.84	45.57	53.30	61.80	91.58
Textiles, clothing and footwear . .	36.71	44.09	47.97	60.32	81.66
Food, drink and tobacco . . . . .	35.53	40.45	45.98	57.56	89.51
Other manufacturing . . . . .	35.78	42.75	49.10	60.67	87.04
All manufacturing groups . . . . .	36.66	43.62	49.60	60.39	87.47
Transport and communication . . . .	43.91	51.48	59.38	74.98	101.53
Wholesale and retail trade . . . . .	38.01	44.58	51.68	62.56	96.24
Public authority (n.e.i.) and community and business services . .	37.99	43.86	50.15	61.64	83.89
Amusement, hotels, personal services, etc. . . . .	35.01	40.81	45.26	59.90	84.94
All industrial groups . . . . .	37.51	44.16	50.50	62.11	90.77

(a) Weighted average minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

### Holiday Pay

On 7 June 1972 a Full Bench of the Arbitration Commission handed down a decision which will eventually result in increases in annual recreation leave pay to a large number of Australian workers. The Bench ruled that over-award payments, shift work premiums, industry allowances and some other allowances should be included in holiday pay. General provisions only were introduced as

each award was to be considered separately. Since September 1972, various awards have been altered to provide for a 17.5 per cent loading to be added to the payment which the employee would have received in respect of the ordinary time he would have worked had he not been on leave during the relevant period. In the Australian Public Service the leave loading is average weekly earnings for the September quarter before the accrual date.

### EARNINGS

Figures given in this section relate to actual average weekly earnings (including award wages, salaries, overtime earnings, over-award and bonus payments and prepayments) of all wage earners and salaried employees, whether adult or junior, full-time, part-time, or casual. Payments to members of the defence forces are excluded.

Particulars of wages and salaries are not available for males and females separately and average earnings have therefore been calculated by using total civilian employment expressed in terms of 'male units'. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings.

#### Average Weekly Earnings per Employed Male Unit, South Australia

Year	September Quarter	December Quarter	March Quarter	June Quarter	Year
			\$		
1969-70	68.60	72.20	67.40	72.80	70.30
1970-71	75.30	77.30	75.40	80.90	77.20
1971-72	83.70	87.20	82.00	88.20	85.30
1972-73	88.20	94.70	89.80	99.10	93.00
1973-74	103.70	110.90	106.60	121.90	110.80
1974-75	131.00	143.80	137.60	*	*

As quarterly figures are affected by seasonal influences, comparisons for trends should be made by relating complete years or corresponding quarters. Because of variation in coverage, etc. these figures cannot be related to the minimum weekly wage rates shown in the preceding section.

Separate estimates of the average weekly earnings of males and females, and of adults and juniors, shown in the next table, have been obtained from sample surveys conducted in the last pay-periods of October 1972 and 1973. The surveys were based on a sample selection of private employers subject to payroll tax and details of employees in non-government hospitals not subject to payroll tax, employees of Australian and State government departments, authorities and semi-government bodies and local government authorities. Employees in agriculture and domestic service were excluded as were those of religious, benevolent and similar organisations exempt from payroll tax.

**Average Weekly Earnings: Private and Government Employment  
South Australia<sup>(a)</sup>**

October	Adult Males			Junior Males	Adult Females	Junior Females
	Overtime	Ordinary Time	Total			
	\$	\$	\$			
1972 . . . . .	9.50	82.10	91.60	47.30	64.30	39.90
1973 . . . . .	12.40	96.70	109.10	56.00	77.40	47.20

(a) Full-time employees other than managerial, executive, professional and higher supervisory staff.

Similar surveys were also conducted in the last pay-periods of October for the years 1968 to 1971 but coverage in these years was restricted to private employers subject to payroll tax. Details of these earlier surveys were included on pages 344-5 of the *South Australian Year Book 1974*.

### HOURS OF WORK

The 40-hour week is the standard working week for employees under Federal and State awards; however, the number of hours constituting a full week's work varies between occupations. Significant variations to this standard working week were achieved in the stevedoring industry during 1972 where a 70-hour fortnight has operated from June 1975. Certain Federal awards covering rural industries prescribe hours in excess of forty, while other occupations by tradition work less than forty hours, although forty hours is generally retained in their awards.

The weighted average standard hours (excluding overtime) prescribed in awards, determinations, and agreements for a full working week for adult male where waterside workers were granted a 35-hour week and in the oil industry employees in all industries in South Australia, except rural, shipping, and stevedoring, was 39.95 hours at 31 August 1974. This compared with 43.83 hours at 30 September 1947 immediately before the introduction of the 40-hour week. The weighted average for female employees at 31 August 1974 was 39.77 hours. The weighted average figure for South Australian male employees has not changed significantly since 1953, nor for females since 1951. The normal working day in manual trades is of eight hours duration, and employees working beyond these hours are paid penalty rates.

The following table shows the relative distribution of employed civilian wage and salary earners in Australia according to the number of hours worked in a specified week, as recorded in the August Labour Force Surveys. The distribution is based on actual hours worked, including overtime, rather than hours paid for, and is therefore affected by public holidays, leave, absenteeism, temporary absence from work because of sickness, accident and industrial disputes, and work stoppages caused by plant breakdowns and weather.

Employed Persons: Hours Worked, Australia<sup>(a)</sup>

August	Proportion who Worked the Following Hours in the Specified Week							Total
	0	1-29	30-34	35-39	40	41-48	Over 49	
	Per cent							
1970 .. ..	5.2	10.2	5.3	11.9	39.3	12.2	15.9	100.0
1971 .. ..	4.4	10.2	4.1	11.3	42.3	11.8	15.9	100.0
1972 .. ..	5.8	10.4	3.7	11.1	41.3	11.6	16.1	100.0
1973 .. ..	5.8	11.3	3.8	10.8	39.8	12.4	16.1	100.0
1974 .. ..	6.1	12.0	4.3	12.7	37.9	11.8	15.3	100.0

(a) Employed civilian population, fifteen years of age and over.

## HOLIDAYS AND LEAVE

**Public Holidays**

A number of days are observed each year throughout the State as public holidays and additional days may be proclaimed either on a State-wide basis or applicable to particular localities. Employees required to work on public holidays normally receive an extra day's pay and are paid at penalty rates. From 1971 authorised public holidays are:

- New Year's Day (1 January or the following Monday if that day falls on a Saturday or Sunday),
- Australia Day (first Monday after 25 January),
- Good Friday,
- Easter Saturday,
- Easter Monday,
- Anzac Day (25 April or the following Monday if 25 falls on a Sunday),
- Adelaide Cup Day (third Monday in May),
- Queen's Birthday (usually observed on a Monday early in June),
- Labour Day (second Monday in October),
- Christmas Day (25 December or the following Monday if 25 falls on a Saturday or Sunday), and
- Proclamation Day (28 December or the following Monday if 28 falls on a Saturday or Sunday).

The Holidays Act makes provision for other days to be proclaimed in lieu of the authorised holidays. Additional holidays may also be proclaimed—in 1974 Monday 31 December was proclaimed a holiday.

**Annual Leave**

Under Federal awards generally, four weeks annual recreation leave is granted to employees who have completed twelve months continuous service and there are provisions for a proportionate payment where employment is terminated before the completion of twelve months. Under State awards the Federal standard has generally been adopted.



Employees of the South Australian Public Service are entitled to four weeks annual recreation leave. However, with the exception of some employees engaged in essential services *e.g.*, hospitals, motor vehicle registrations etc., State public servants are required to take three days of their recreation leave between the Christmas and New Year holidays. Australian public servants were granted four weeks annual recreation leave from 1 January 1973.

Certain employees in special occupations or where regular shift work is involved *e.g.* police officers, nurses, etc., are entitled to annual recreation leave in excess of four weeks.

In 1973 the South Australian Industrial Commission handed down a decision which will enable part-time workers, when taking annual leave, to be paid the normal weekly wage they would have received had they been at work.

### Sick Leave

The Industrial Conciliation and Arbitration Act, 1972-1974 for South Australia provides that all full-time employees shall be eligible to receive annually not less than ten days cumulative sick leave on full pay. This provision of two weeks sick leave a year is included in most Federal and State awards. The *Conciliation and Arbitration Act 1972-1974*, also provides for insertion in awards allowance for unlimited accumulation of sick leave.

### Long Service Leave

In 1964 the Australian Conciliation and Arbitration Commission included, for the first time in a Federal award, long service leave, granting employees in the graphic arts and metal trades industries leave on the basis of thirteen weeks for twenty years service in respect of employment before the date of the decision, and eight and two-thirds weeks in respect of each ten years of subsequent service; these provisions have been extended to many other Federal awards. In a number of other cases, registered agreements provide for thirteen weeks leave after fifteen years service.

The South Australian Long Service Leave Act, 1967-1972 entitles employees, in respect of continuous service after 1 January 1972, to thirteen weeks leave for each ten years service. In respect of service before 1 January 1972 the entitlement is calculated at the rate of thirteen weeks for fifteen years service for the period 1 January 1966 to 31 December 1971 and at the rate of thirteen weeks for twenty years service for the employment period up to 31 December 1965. The obligation to grant leave is imposed on all employers in South Australia except in regard to employees entitled to long service leave pursuant to an award of the Australian Conciliation and Arbitration Commission. The Industrial Commission has the power to exempt an employer from the provisions of the Act where the employees involved have access to benefits not less favourable than those prescribed by the Act. Other provisions of the Act relate to payment for leave, deferment of leave, claim for leave on termination of employment, and notice of granting of leave.

State and local government employees are in general entitled to thirteen weeks leave after ten years service, and Australian Government employees to three months after ten years service. The long service leave provisions which apply to State public servants are also extended to teachers employed under the Education Act.

The various long service leave arrangements provide for additional *pro rata* periods of leave for service in excess of the minimum, and for *pro rata* payments for employees who have completed a specified term of service but who, through the termination of their services or through death, do not complete the full entitlement period.

### **Maternity and Paternity Leave**

In 1966 the Public Service Act was amended to enable a permanent female employee of the Australian Public Service who was pregnant, whether married or not, to absent herself from duty for a period of twenty-six weeks at the time of confinement. The leave could be taken from sick leave, recreation leave or long service leave credits or as leave without pay. In 1973, new provisions were introduced which entitle female employees, whether permanent or temporary, to at least twelve weeks maternity leave on full pay and to a total period of absence of up to fifty-two weeks in respect of each confinement. At the time the new provisions were introduced, paternity leave was introduced for a male employee, permanent or temporary, who is the father, or a person accepting responsibility for the care and maintenance of an expected or newly-born child. Up to one weeks leave, may be granted in the period one week before the expected date of birth of the child to five weeks after the actual date of birth.

Maternity leave provisions also exist for female officers of the South Australian Public Service. The maximum special leave without pay is twenty-six weeks but leave on full pay to which the officer has an entitlement may be used in addition to, or in substitution for the special leave. No paternity leave is available to male officers.

There are provisions in the Education Act for maternity leave for teachers in the South Australian Education Department with the maximum leave being fifty-eight weeks and the minimum fourteen weeks. Leave is taken without pay except when long service credits are used.

At present neither maternity nor paternity leave provisions exist for workers covered by State or Federal awards. However eight Industrial Agreements filed with the South Australian Industrial Commission do contain such provisions.

## **7.4 INDUSTRIAL SAFETY**

### **SAFETY REGULATIONS AND INSPECTION**

On the recommendation of the Parliamentary Select Committee on Occupational Safety, Health and Welfare in Industry and Commerce, a new Act, the Industrial Safety, Health and Welfare Act, was passed in 1972. This Act will ultimately replace those sections of the Industrial Code, 1967-1972 that deal with the safety, health and welfare of persons employed in factories, shops, offices and warehouses and the Construction Safety Act, 1967 with respect to persons employed on building and construction sites.

Only general principles applicable to all employed persons in industry (primary as well as secondary), commerce and in State Government are contained in this Act. It authorises the making of detailed provisions by regulations for different

industries and different processes. The Act will progressively come into operation as regulations for different industries are prepared. The Construction Safety Regulations, 1974 were the first to be prepared and apply to persons employed on building and construction sites. They came into force on 1 April 1974 and revoked all regulations made under the Construction Safety Act, 1967. The Rural Industries (Machine Safety) Regulations, 1975 and the Power Driven Machinery (Safety) Regulations, 1975 came into effect on 1 January 1975.

At present most of the legislation directed at industrial safety is administered by the Department of Labour and Industry, although other authorities hold responsibilities in certain fields.

#### *Department of Labour and Industry*

The general working conditions in factories, shops, offices and warehouses are regulated by the Industrial Code, 1967-1972. Inspections are made by departmental officers to ensure that the requirements of the Industrial Code with respect to safeguarding of machinery, safety of processes, cleanliness and general working conditions in factories are being observed.

The registration and inspection of steam boilers and other pressure vessels is provided for under the Boilers and Pressure Vessels Act, 1968-1971. The Lifts and Cranes Act, 1960-1972 regulates the use of lifts, escalators, cranes and hoists, and requires the Department to approve new installations and to inspect regularly existing lift equipment. The Inflammable Liquids Act, 1961, and the Liquefied Petroleum Gas Act, 1960, regulate the storage and carriage of these products.

#### *Department of Mines*

Regulations under the Mines and Works Inspection Act, 1920-1970 provide for the health and safety of persons engaged in mining, quarrying or associated treatment plants and for the protection of the general public. Mining sites must be maintained in safe conditions with specific attention given to ventilation, sanitation and the use of explosives.

Officers of the Department inspect mines and quarries; check old workings; investigate mining accidents and complaints associated with mining activities; and give advice to industry on matters pertaining to mining and explosives.

#### *Department of Public Health*

Health aspects of industrial safety are the responsibility of the Occupational Health Branch of the Department of Public Health. The Department investigates health hazards resulting from the presence of toxic and noxious substances in industry, both on its own initiative and on reference from employers, unions, other authorities, and individuals. Investigations are carried out where radio-active and irradiating apparatus is in use for industrial, scientific, or medical purposes.

#### *Chemistry Department*

The Explosives Act, 1936-1974 regulates the importation, manufacture, carriage, storage, and sale of explosives. The Chemistry Department is responsible for the maintenance of government magazines and the licensing and

inspection of private magazines. Vehicles used in the carriage of explosives are also licensed. Commercial explosives entering the State are inspected by the Department.

#### *Electricity Trust of South Australia*

Consumers' electrical installations are required to conform to the service rules of the Electricity Trust and the wiring rules of the Standards Association of Australia, and are subject to inspection by Trust officers. Persons engaged in the installation, maintenance or repair of electrical installations and permanently connected equipment must be licensed to do this work in accordance with the provisions of the Electrical Workers and Contractors Licensing Act, 1965-1966. Under the Electrical Articles and Materials Act, 1940-1967 certain classes of electrical articles and materials may only be sold or hired or offered for sale or hire if they are of a type approved by the Trust or a recognised interstate authority.

### WORKMEN'S COMPENSATION

#### **Legislation**

Provisions describing assistance for workmen sustaining personal injury out of or in the course of their employment are included in the Workmen's Compensation Act, 1971-1973. The provisions of the Act extend to injuries arising out of or in the course of employment and cover accidents during recess periods, travelling to or from work, travelling to or from or while in attendance at a place of pick up, travelling to or from or attending a trade or technical school, and travelling for medical treatment while on compensation.

An injury may be physical or mental. It includes diseases contracted and the aggravation or recurrence of an injury or disease including any pre-existing coronary heart disease.

Compensation is payable when the injury results in death, or in total or partial, permanent or temporary incapacity. Where death results from the injury, the Act provides for payment to members of the family wholly or partly dependent on the earnings of the deceased. In such a case, compensation will be an amount equal to the sum of the workman's earnings in the six years before the accident plus \$500 for each dependent child, with a maximum of \$25 000. If the workman has not been in the same employment for six years the amount will be his average weekly earnings in the job at which he was working at the time of the accident multiplied by 312, with a maximum of \$25 000. Where a workman dies leaving no dependants, compensation will be paid into the estate covering medical, funeral and other expenses with a maximum of \$500.

Where the injury does not result in death, the most common form of compensation is weekly payment. If incapacity is for one week or more compensation is an amount equal to average weekly earnings during the twelve months preceding the incapacity. The maximum liability of an employer is \$18 000, unless the workman is totally and permanently incapacitated, when it is \$25 000 or such greater amount as may be fixed by the Court having regard to the special circumstances of the case. Weekly payments must begin within

two weeks of the workman providing the employer with a medical certificate and his declaration in the correct form stating that he believes himself entitled to compensation. The payment must be made to the workman on his usual pay day.

Provision is made for lump sum payments in lieu of weekly payments. Such payments are arranged by agreement; or after six months, by proceedings in the Industrial Court of South Australia on application of either employer or employee. Lump sum payments are payable for certain specified injuries *e.g.* loss of limbs, for permanent injuries which may involve total or partial incapacity for work whether actual or potential *e.g.* speech loss, or no incapacity for work *e.g.* severe facial scarring.

In addition to other compensation reasonable medical, hospital, nursing, constant attendance, rehabilitation and ambulance expenses are paid and compensation is provided to \$150 for loss or damage to clothing and personal effects and \$300 for loss or damage to tools of trade.

Excluded from the scope of the Act are members of the crews of fishing vessels remunerated by a share in the profits or the gross earnings of the working of such vessels, service personnel and Australian Government employees. Compensation for employees of the Australian Government is provided by the *Compensation (Commonwealth Employees) Act 1971-1974*.

#### Workmen's Compensation Insurance

The Workmen's Compensation Act requires every employer, unless specifically exempted, to obtain from a licensed insurance company a policy which fully covers his liability under the Act. The exemptions are the State Government which provides its own cover through the State Government Insurance Fund, the South Australian Railways Commissioner, and any employer who can satisfy the Minister of Labour and Industry of his ability to meet all probable claims and who is accordingly issued with a certificate of exemption.

The following table shows the number of effective claims lodged with, and total compensation payments made by, insurance companies and self insurers during each of the last five years. Payments shown against any year will include some payments arising from claims lodged in earlier years.

**Workmen's Compensation Claims, South Australia**

Year	Claims Lodged	Payments Made	Average Payment per Claim
	No.	\$'000	\$
1969-70 .. . . . . .	58 300	6 799	117
1970-71 .. . . . . .	56 300	7 688	137
1971-72 .. . . . . .	59 700	10 407	174
1972-73 .. . . . . .	71 100	14 960	210
1973-74 .. . . . . .	78 100	19 728	253

## INDUSTRIAL ACCIDENTS

Detailed information on industrial accidents in South Australia was first collected in 1961. Statistics are compiled from reports of workmen's compensation claims submitted by insurers through the Department of Labour and Industry. The collection is restricted to fatal accidents and to accidents causing an absence from work of one week or more. Cases involving travelling to or from place of employment, or occurring during a recess period, are excluded.

Particulars of the number of industrial accidents, of time lost, and compensation paid are given in the next table for the years 1970-71 to 1973-74. The figures for any one year relate to claims closed during the year and to unclosed claims at the end of the year which have been outstanding for three years. Fluctuations in the flow of processing and reporting of claims can significantly affect the figures for any given year. Of the 14 699 non-fatal accidents in 1973-74, 2 314 or 15·7 per cent involved females. The nine reports of fatal accidents received during the year all referred to male workmen.

## Industrial Accidents, South Australia

Particulars	Unit	1970-71	1971-72	1972-73	1973-74
<b>Accidents:</b>					
Fatal . . . . .	No.	8	9	9	9
Non-fatal . . . . .	No.	9 460	11 628	13 462	14 699
<b>Time lost (non-fatal accidents):</b>					
Total . . . . .	weeks	36 245	44 267	57 590	67 202
Average per accident . .	weeks	3·8	3·8	4·3	4·6
<b>Amount Paid (a):</b>					
Fatal accidents . . . . .	\$'000	136·9	116·0	91·9	146·0
Non-fatal accidents . . . .	\$'000	3 235·7	4 330·4	6 248·3	9 129·1
Total . . . . .	\$'000	3 372·6	4 446·4	6 340·2	9 275·1
Average per non-fatal accident . . . . .	\$	342	372	464	621

(a) Compensation for wages lost, hospital and medical expenses and lump sum settlements.

Industrial accidents for 1973-74 are classified in the next table by industry group. As the statistics are based on workmen's compensation claims, persons outside the scope of the Workmen's Compensation Act are excluded. Notable exclusions are self-employed persons and all Australian Government employees. Thus persons employed within some industry groups, e.g. defence services and communication, are not covered at all while coverage is reduced in other groups, particularly in commerce and primary production.

## Industrial Accidents: Industry Groups, South Australia, 1973-74

Industry Group	Fatal Accidents		Non-fatal Accidents			
	Number	Amount Paid (a)	Number	Proportion of Total	Time Lost	Amount Paid (a)
		\$'000		Per Cent	Weeks	\$'000
Primary production . . . . .	1	15.3	964	6.6	4 346	598.0
Mining and quarrying . . . . .	—	—	119	0.8	677	132.9
Manufacturing . . . . .	4	77.1	6 791	46.2	29 343	4 189.8
Electricity, gas, water, and sanitary services . . . . .	—	—	509	3.5	2 930	358.0
Building and construction . . . . .	1	15.3	2 132	14.5	10 220	1 434.1
Transport, storage and communications . . . . .	1	15.0	1 058	7.2	4 679	586.7
Finance and property . . . . .	—	—	35	0.2	234	27.0
Commerce . . . . .	1	16.2	1 726	11.7	7 361	977.4
Public authority (n.e.l.) and community and business services . . . . .	1	7.0	850	5.8	4 824	508.7
Amusement, hotels, accommodation, cafes, etc. . . . .	—	—	515	3.5	2 587	316.4
Total . . . . .	9	146.0	14 699	100.0	67 202	9 129.1

(a) Compensation for wages lost, hospital and medical expenses, and lump sum settlements.

In the following table industrial accidents are allocated to an accident factor, this being the underlying agency, other than human failing, which appeared to contribute most materially to the accident.

## Industrial Accidents: Accident Factor, South Australia

Accident Factor	1971-72		1972-73		1973-74	
	Fatal	Non-fatal	Fatal	Non-fatal	Fatal	Non-fatal
Machinery . . . . .	1	1 092	—	1 042	—	1 166
Vehicles . . . . .	3	486	5	541	4	488
Electricity, explosions, flames, hot substances . . . . .	2	274	1	314	1	355
Falling, slipping, stumbling, etc. . . . .	2	2 503	—	2 818	2	3 103
Striking against, stepping on, etc. . . . .	—	610	—	661	—	733
Handling . . . . .	—	3 167	—	4 381	—	4 871
Objects moving or falling . . . . .	—	1 818	1	1 880	—	1 855
Hand tools . . . . .	—	994	—	1 055	—	1 289
Other . . . . .	1	684	2	770	2	839
Total . . . . .	9	11 628	9	13 462	9	14 699

Almost half of the accidents reported during 1973-74 resulted in absences from work of one week or more but less than two weeks (48.5 per cent for males and 49.4 per cent for females). A further 27.2 per cent of males and 27.6

per cent of females involved in reported accidents experienced work absences of two to four weeks. Work absences of one year or more were reported in respect of 1.1 per cent males and 1.5 per cent females.

The following table indicates the distribution of non-fatal accidents for 1973-74 by the nature and location of injury.

**Industrial Accidents: Non-fatal Accidents, Nature and Location of Injury  
South Australia, 1973-74**

Nature of Injury	Head (including eye)	Neck and Spine	Trunk	Arm and Hand	Leg and Foot	Total (including other)
Persons						
Contusion, bruising and superficial injury . . .	83	37	352	771	965	2 217
Lacerations . . . . .	161	2	19	2 209	429	2 823
Foreign bodies . . . . .	231	—	—	—	—	231
Burns and scalds . . . .	66	3	28	211	158	468
Fractures . . . . .	32	17	155	677	555	1 436
Dislocations . . . . .	—	131	9	53	19	212
Sprains, strains, hernias	—	620	3 734	1 303	1 222	6 881
Traumatic amputations	—	—	—	65	2	67
Concussion . . . . .	105	—	—	—	—	105
Internal and nerve injury	19	6	14	39	2	80
Other and unspecified . .	28	5	4	36	39	179
<b>Total . . . . .</b>	<b>725</b>	<b>821</b>	<b>4 315</b>	<b>5 364</b>	<b>3 391</b>	<b>14 699</b>

### INDUSTRIAL DISEASES

The International Labour Office distinguishes an industrial disease from a work injury in that it exhibits the following characteristics:

- (i) the slow and protracted nature of its cause,
- (ii) its ascribability to repeated continuous action of a mechanical, physical or chemical cause; it is not the effect of a single event but of a cause acting imperceptibly and constantly,
- (iii) indeterminateness of the time of its beginning due to its slow and insidious development,
- (iv) the possible importance of individual predisposition as a factor in the development of the pathological conditions.

Where there is any evidence at all that a disease has resulted from an initial injury, the episode is classified as an injury rather than a disease. On the other hand, disabilities caused purely by continuous movements of a joint are treated as a disease.



## Industrial Diseases: South Australia, 1973-74

Disease	Number of Claims		Time Lost: Non-fatal Diseases	Amount Paid: Fatal and Non-fatal Diseases
	Fatal	Non-fatal		
			Weeks	\$'000
Infective and parasitic diseases . . . . .	1	32	119	13.4
Diseases of the nervous system and sense organs . . . . .	1	22	161	19.8
Disease of the circulatory system: Arteriosclerotic and degenerative heart disease . . . . .	7	18	478	156.9
Other . . . . .	—	6	79	6.4
Diseases of respiratory system . . . . .	—	10	34	4.2
Diseases of skin and cellular tissue: Occupational dermatitis . . . . .	—	170	772	53.6
Other . . . . .	—	81	242	20.2
Diseases of bone and organs of movement Other . . . . .	—	129	591	73.1
	—	16	119	6.9
<b>Total . . . . .</b>	<b>9</b>	<b>484</b>	<b>2 594</b>	<b>354.4</b>

## **PHYSICAL DEVELOPMENT**

### **8.1 WATER SUPPLY AND SEWERAGE**

#### **WATER SUPPLY**

With 96 per cent of the State receiving less than 500 millimetres of rain a year, and high evaporation increasing the demand for water and causing heavy losses from reservoirs, water conservation is of vital importance to South Australia.

The Waterworks Act, 1932-1974 gives the Minister of Works power to divert and impound the water from any streams or springs and take the water found in or under any lands for the purpose of constructing, completing, extending or maintaining any waterworks or for supplying water to or in any water district. The Act also gives the Minister power to declare any district, place or town a water district. The function of exploiting water resources is performed through the Engineering and Water Supply Department.

The Control of Waters Act, 1919-1925 provides that any stream in the State may be brought within the Act by proclamation. This Act has only been applied to the River Murray, making water available to riparian users through annual licence.

The Underground Waters Preservation Act, 1969-1973 provides for strict control within certain areas which may be defined by the Government. In such areas the owners must record full details of all wells with the Engineering and Water Supply Department and must have a permit to alter a well or sink others. Underground water usage can also be regulated. Further details concerning underground water appear on pages 39-41.



The individual river basins in this Division are very small. Rainfall in excess of 750 millimetres per year occurs only on a very small area in the Mount Lofty Ranges and in the north-west of the Division the annual average is less than 150 millimetres. In the south, apart from the more elevated areas, average precipitation exceeds evaporation only from May to August, and over most of the Division monthly evaporation rates exceed rainfall throughout the year.

Development of the streams in the Mount Lofty Ranges, mainly for supply to the closely settled area around Adelaide, has in most cases reached the practicable limit and there seems to be little scope for further development of surface water elsewhere in the Division. In fact this Division has long been an area of net import of water with supplies coming by pipeline to Adelaide and Whyalla from the River Murray.

The average annual run-off in this Division at the lowest practical dam sites is estimated at 430 000 megalitres but is subject to considerable variation. The two best streams, the Onkaparinga and the Torrens, account for 135 000 megalitres of the average flow and the combined annual flow of these two has varied between 467 000 megalitres down to 8 600 megalitres in the last eighty years.

The present average annual extraction of water by the Engineering and Water Supply Department from the Gulf Drainage Division is about 120 000 megalitres; private diversion may take a further 13 000 megalitres. In the future a yield of 185 000 megalitres a year might be achieved.

Most of the South Australian reservoirs are situated in this Division as can be seen from the map on page 365. The following table shows the capacity, area at full supply level and the catchment area of the nine largest at 30 June 1974.

#### Major Reservoirs, South Australia<sup>(a)</sup>

At 30 June 1974

Reservoir	Capacity	Area at Full Supply Level	Catchment Area
	Megalitres	Hectares	km <sup>2</sup>
South Para . . . . .	51 300	444	228
Mount Bold . . . . .	47 300	308	388
Myponga . . . . .	26 800	280	124
Kangaroo Creek . . . . .	24 400	129	289
Millbrook . . . . .	16 500	178	233
Happy Valley . . . . .	12 700	188	451
Tod River . . . . .	11 300	134	196
Bundaleer . . . . .	6 370	85	1 671
Warren . . . . .	6 370	137	119

(a) All reservoirs with a capacity in excess of 5 000 megalitres.

#### River Murray

The River Murray is the most important source of water supply for South Australia. Under the terms of the River Murray Waters Agreement (see page 373), South Australia is entitled to 1 546 810 megalitres of water annually

and, after Dartmouth Reservoir has been completed and declared to be effective, this entitlement will be increased to 1 850 250 megalitres, subject to the declaration of restriction by the River Murray Commission. Most of this water is used for irrigation purposes but more than 120 000 megalitres is used for water supply. The completion of present works will give pipelines with an ultimate demand of 400 000 megalitres.

Adelaide metropolitan water supplies are supplemented by River Murray water through the Mannum-Adelaide and Murray Bridge-Onkaparinga pipelines. The Morgan-Whyalla, Swan Reach-Stockwell and Taillem Bend-Keith pipelines provide the water supply for extensive country areas or augment local resources in these areas. The first water pumped through the Mannum-Adelaide pipeline reached the metropolitan system in 1954. The water is drawn from the River at Mannum nearly 67 kilometres in a direct line from Adelaide, and is raised by three pumping stations a total of 457 metres to a 137 megalitre summit storage near Tungkillo. At first the water flowed into the Torrens and Onkaparinga Rivers and hence into the metropolitan system; later the pipeline was extended to a terminal storage near Modbury. The Mannum-Adelaide pipeline is also connected to the Warren Reservoir on the South Para River and branches serve many country areas *en route*.

A second large pipeline to augment the metropolitan supply was completed in 1973. The pipeline extends for 48 kilometres from the River Murray near Murray Bridge to the River Onkaparinga near Hahndorf, and the water is distributed through the reservoirs on the latter stream. Three pumping stations lift the water 418 metres over the first 40 kilometres of the pipeline to a summit storage from which an 8-kilometre gravity section of the line discharges into the Onkaparinga. A branch main supplies the town of Murray Bridge and other branch mains supply areas in the Mount Lofty Ranges. This pipeline will be the source of supply for the new town of Monarto.

The Morgan-Whyalla pipeline, completed in 1944, includes four pumping stations which lift the water 478 metres over a distance of 92 kilometres from Morgan to a summit storage at Hanson. From here the water gravitates 267 kilometres *via* Port Augusta to Whyalla. Branch lines have been laid to Woomera (177 kilometres) and other country centres. The Morgan-Whyalla pipeline, being an additional source of supply for the Bundaleer system, has permitted reticulation over most of Yorke Peninsula. A second main was completed in 1966 and appurtenant works comprising additional storages and four new pumping stations were commissioned early in 1970. The second main which more than doubles the capacity of the scheme, parallels the original main to Baroota Reservoir, then extends westerly to Whyalla *via* a 12-kilometre undersea crossing of Spencer Gulf.

A 53-kilometre pipeline between Swan Reach and Stockwell which connects to the distribution section served by Warren Reservoir commenced operating in 1969 to supplement the supplies for lower northern areas from the Murray. An 143-kilometre pipeline between Taillem Bend and Keith completed in 1969 forms the backbone of a scheme involving 800 kilometres of branch mains subsequently laid to supply River Murray water to towns and farmlands in the Upper South East. The River Murray also supplies towns along its banks by means of direct pumping.

## Other Water Resources

### *The South East*

The hydrology of the South East covers a complex of surface and underground waters with substantial water resources but to date most work has been concentrated on the removal of water by drainage and this is discussed on pages 374-5.

The Eight Mile Creek to the east of Port MacDonnell carries a permanent natural overflow from the springs of the Ewen Ponds area and discharges 60 000 megalitres a year into the Southern Ocean and there are other visible outlets. The Blue Lake now provides 4 000 megalitres annually to Mount Gambier. There is scope for considerable development in the South East and it is likely that 120 000 megalitres could be used annually from the underground water resources of the Region.

### *Other Underground Supplies*

The Adelaide and North Adelaide Plains and other areas provide usable waters, but in total the quantities are not large. The aquifers of the North Adelaide Plains have provided an increasing supply for market gardens and related irrigation, but the demand level of 21 000 megalitres has been found to be beyond the permanent capability of the area. Usage is subject to Government control, and investigations on means of prolonging the life of the aquifers are in progress. A more complete discussion on underground water appears on pages 39-41.

## Water Consumption

The following table gives details of water used during the year and storage capacity of major reservoirs at the end of the year for metropolitan and country districts for the years 1970-71 to 1973-74. The quantity of water pumped from the River Murray through the major pipelines is also shown.

**Water Storage and Consumption, South Australia**

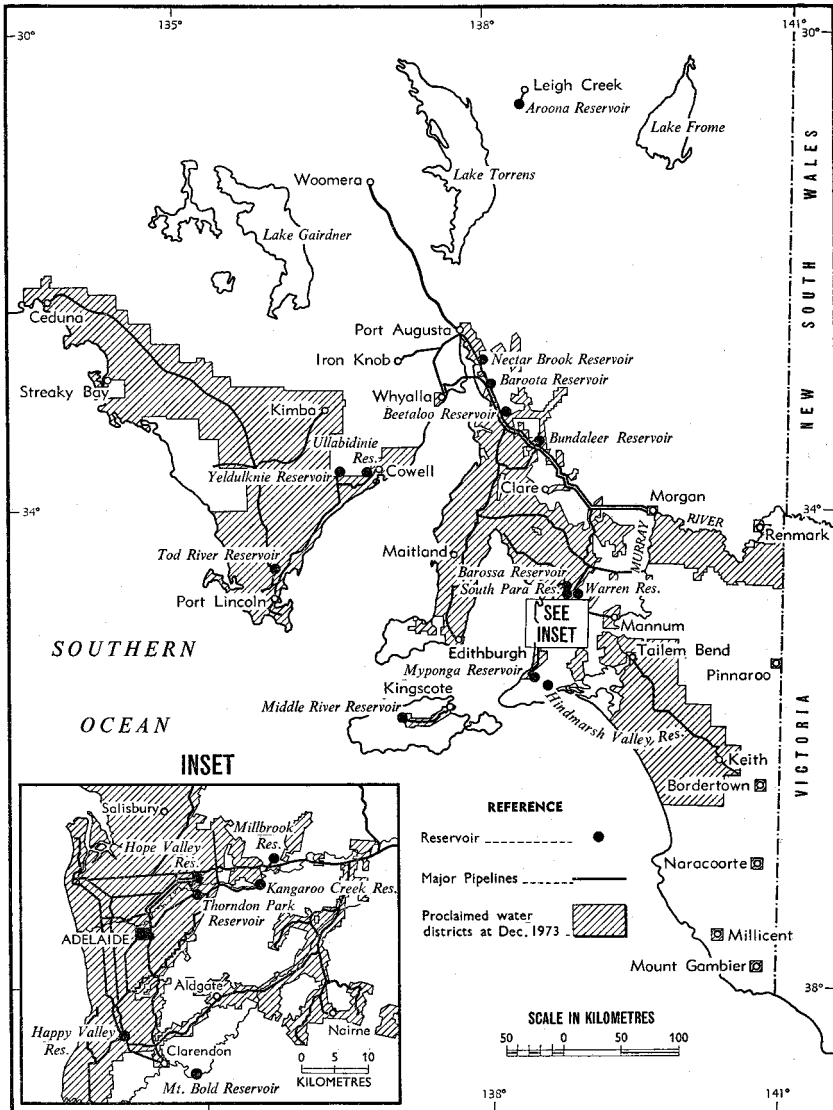
Particulars	1970-71	1971-72	1972-73	1973-74
Capacity of major storages (at end of year):	Megalitres			
Adelaide metropolitan water supply (a)	188 380	188 380	188 380	188 680
Country water supply . . . . .	36 150	36 150	36 150	36 150
Water consumption:				
Adelaide metropolitan water supply (b)	146 000	142 800	155 300	144 700
Country water supply (c) . . . . .	66 400	66 000	74 100	72 000
Pumped from River Murray:				
Mannum-Adelaide pipeline . . . . .	24 300	9 600	51 600	22 200
Murray Bridge-Onkaparinga pipeline	—	—	—	7 500
Morgan-Whyalla pipeline . . . . .	23 200	19 900	29 000	21 400
Other supply systems . . . . .	11 300	9 300	15 500	10 700

(a) Includes storages on the Mannum-Adelaide and Murray Bridge-Onkaparinga pipelines.

(b) Consumption within the Adelaide Statistical Division.

(c) Includes consumption in various areas outside of the Adelaide Statistical Division supplied from the Metropolitan distribution system.

PORTION OF SOUTH AUSTRALIA  
WATER SUPPLIES



**Metropolitan Water Supply**

In the following table, details of metropolitan services as well as revenue and expenditure are given for the metropolitan water supply district for the years 1970-71 to 1973-74.

**Adelaide Metropolitan Waterworks, South Australia**

Particulars (a)	1970-71	1971-72	1972-73	1973-74
Length of mains (kilometres) . . . . .	6 404	6 559	6 646	6 867
Number of services . . . . .	257 614	264 222	272 001	278 624
			\$'000	
Revenue:				
Rates and excess water . . . . .	14 412	15 618	18 761	20 486
Other . . . . .	101	154	154	213
Total . . . . .	14 513	15 773	18 915	20 699
Expenditure:				
Working expenses . . . . .	6 787	7 130	8 516	10 121
Interest . . . . .	5 887	6 414	6 738	7 543
Total . . . . .	12 674	13 544	15 254	17 664
Surplus . . . . .	1 839	2 229	3 661	3 035

(a) Includes particulars relating to near country areas supplied by extensions of Metropolitan distribution systems.

**WATER RATES AND CHARGES**

Water rates are levied on all properties served from or abutting a water main except where specific exemption from rating applies or the property is in an area not subject to rating.

Amounts payable by individual ratepayers are determined by a base water rate on the annual or unimproved property value and a water rate per kilolitre. Payment of the base rate on property permits use of a water allowance which is determined by dividing the sum involved by the water rate per kilolitre. Water used in excess of the allowance is charged at the rate per kilolitre.

The current base water rate on property in City and Township Water Districts throughout South Australia is 7.5 per cent a year on the annual value, with a minimum charge of \$16 applying in most Districts.

In Country Lands Water Districts (farm lands) current base water rates on property range from 12 cents to 90 cents per hectare annually according to the average unimproved value per hectare, with a minimum charge of \$16.

The current water rate per kilolitre applicable in City, Township and Country Lands Water Districts is 11 cents per kilolitre. Where water is supplied to properties outside of proclaimed water districts or otherwise beyond ratable limits it is supplied by measure at the ruling rate per kilolitre.

Approved churches, charitable institutions and schools are exempted from payment of water rates on annual values and water is supplied to them by measure at concessional prices. A remission of up to 60 per cent of water rates, with a maximum of \$40 a year, is provided to eligible pensioners.



Services from mains to property boundaries are installed and maintained by the Engineering and Water Supply Department. Connection fees are uniform throughout the State and are currently \$50 for a 20 millimetre service and \$60 for a 25 millimetre service with commensurately higher fees for larger services.

## SEWERAGE

### ADMINISTRATION

Sewerage of cities and towns in South Australia is undertaken by the State Government under the authority of the Sewerage Act, 1929-1974. The Act is administered by the Engineering and Water Supply Department for the Minister of Works and provides for waterborne sanitary sewerage schemes within proclaimed drainage areas. As a general rule the Government sewerage schemes are provided only in densely populated cities and towns where they are essential for public health reasons or in areas where it is necessary to protect surface or underground water resources from pollution by domestic or industrial wastes.

Local Government authorities are empowered under the Local Government Act, 1934-1974 to provide sanitary drainage schemes and in recent years a number of these authorities have installed common septic tank effluent drainage schemes discharging to biological filters or oxidation ponds.

### METROPOLITAN SEWERAGE

Sewerage for Adelaide was first authorised by an Act of Parliament in 1878. Construction began in 1879 and by 1881 sewage from the city and inner suburbs was admitted to a sewage farm at Islington. Since then continual expansion of sewerage systems has kept pace with development of the metropolitan area as far as physical and financial factors permit and Adelaide is now the most completely sewered of the Australian capital cities.

The next table shows details of metropolitan sewers for the last four years.

#### Metropolitan Sewers, South Australia

Particulars	1970-71	1971-72	1972-73	1973-74
Adelaide Drainage Area (km <sup>2</sup> )	536	544	550	642
Length of sewers (km) . . . .	3 759	3 888	4 060	4 193
Number of connections . . . .	254 495	265 755	276 652	288 166
			\$'000	
Revenue:				
Rates . . . . .	10 375	11 837	12 798	14 159
Other . . . . .	102	139	161	166
Total . . . . .	10 477	11 976	12 959	14 325
Expenditure:				
Working expenses . . . . .	4 270	4 909	5 463	6 950
Interest . . . . .	3 910	4 500	4 900	5 328
Total . . . . .	8 180	9 409	10 363	12 278
Surplus . . . . .	2 297	2 567	2 596	2 047

The proclaimed Adelaide Drainage Area at 30 June 1974 served an estimated population of 850 000 persons and covered 642 square kilometres of the Adelaide Plains between Darlington and Elizabeth, segments of development around Christies Beach and the Blackwood-Belair area. Subdivision developers are required to make capital contributions towards the cost of sewer and water extensions for all new allotments in areas capable of being served within the Drainage Area.

Four major sewerage systems are employed, each draining to separate sewage treatment works at Bolivar, Glenelg, Port Adelaide and Christies Beach. Islington Sewage Farm was abandoned in 1966 when the Bolivar Treatment Works were put into service. The Christies Beach Treatment Works began operating in August 1971, and will eventually serve the whole of the area between O'Halloran Hill and Moana Beach. At present there are a number of small temporary treatment works installed in the Reynella-Morphett Vale area which will be phased out following connection of the developed areas to the Christies Beach Works. A limited scheme was constructed at Stirling in 1973.

A large number of common effluent drainage systems have been installed in fringe areas by local government authorities and most of these have been, or are planned to be, connected to the sewerage systems. A charge for each house connected is levied against local government authorities whose common effluent drainage systems discharge to sewer mains. Property owners pay an annual rate for the service to the local government authority concerned.

#### COUNTRY SEWERAGE

At 30 June 1974 the drainage areas of country sewerage schemes constructed and operated by the Engineering and Water Supply Department totalled 103 square kilometres; the length of sewers laid was 604 kilometres and the number of connections totalled 23 871. Loan Funds invested to this date amounted to \$23 561 000.

Sewerage schemes are located at Angaston, Gawler, Gumeracha, Lobethal, Mannum, Millicent, Mount Gambier, Murray Bridge, Myponga, Naracoorte, Port Lincoln, Port Pirie, Victor Harbor and Whyalla.

Construction of the Port Pirie, Gawler and Victor Harbor sewerage systems is still in progress. In 1973-74, 29 kilometres of sewers and 2 511 new connections were laid in country drainage areas. In addition, the Engineering and Water Supply Department has constructed schemes at Mount Burr and Nangwarry townships for the Woods and Forests Department and numerous schemes to serve country hospitals, institutions etc. operated by other authorities.

Common effluent drainage schemes have been installed by local government authorities at Barmera, Pinnaroo, Maitland, Berri, Waikerie, Renmark, Streaky Bay, Nuriootpa, Kapunda, Eudunda, Cleve, Bordertown, Port Elliot, Lock, Mount Pleasant, Saddleworth, Mount Barker, Riverton, Cummins, Parndana, Port Augusta, McLaren Vale, Meningie, Tanunda, Willunga, Paringa, Birdwood and portion of Port Wakefield. Since the main installations in some townships, extensions to the systems have been made. In addition to local authorities installing township schemes, the South Australian Housing Trust have provided Housing Trust home areas with small schemes. These have been installed at Wallaroo, Loxton, Quorn, Echunga and Kingscote. The Commonwealth Railways have provided schemes for settlements in the areas of Stirling North, Hesso and Pimba.

Construction of systems is currently being carried out at Clare, Woodside, and extensions at Mount Barker and Tea Tree Gully. Surveys and designs are in progress for Goolwa, Williamstown, Kadina and Lyndoch and tenders have been let for schemes to be installed at Penola, Lameroo and Loxton.

Various other small schemes have been installed and include the Wilpena Pound chalet and camping area and aboriginal reserves at Ernabella, Point Pearce, Nepabunna, Amata and Point McLeay.

### SEWER RATES AND CHARGES

The Engineering and Water Supply Department provides sewer connections to property boundaries but internal drainage systems which are the responsibility of landholders must conform to regulations under the Sewerage Act and must be installed by authorised plumbers. Standard fees for sewer connections are \$100 and \$150 for 75-millimetre and 100-millimetre sizes respectively.

Sewer rates are levied on properties connected to or abutting a sewer, with a minimum annual charge of \$16. Current rates in the Adelaide Drainage Area are 6.75 per cent of assessed annual property values. Country charges for sewer connections are the same as for the metropolitan area. Current sewer rates in all country towns are 9 per cent of annual property value, with a minimum annual charge of \$16. A remission of up to 60 per cent of sewer rates to a maximum of \$40 is provided to eligible pensioners.

Rates levied by local government authorities on properties connected to common effluent schemes are usually proportionate to the costs and interest charges involved in the schemes.

### WATER AND WATER POLLUTION CONTROL LABORATORIES

The Engineering and Water Supply Department has the responsibility to control pollution of the State's water resources, to maintain public water supplies at an acceptable quality and to operate sewerage systems. For this purpose, the Department maintains Water and Water Pollution Control Laboratories at Bolivar, where a staff of chemists, biologists and other scientists and technical personnel examine over 40 000 samples of water, effluent and industrial wastes each year.

The Laboratories are divided into the following six sections, and although each section undertakes specialised functions, all the sections work in close liaison with each other, particularly where major water pollution and environmental surveys are involved.

#### Bacteriological Section

This Section has the function of ensuring the bacteriological safety of public drinking water supplies. Samples of water regularly taken from all supply sources and from various points in the supply systems are examined for the presence of coliform and faecal coliform organisms which are normally found in the intestinal tracts of humans and animals. Coliforms and faecal coliform organisms are harmless in themselves but they may indicate contamination by other bacteria which could cause infections ranging from mild gastro-enteritis to the serious water borne diseases, typhoid and cholera.

Most of the water supplies in South Australia are continuously disinfected by chlorination. The routine bacteriological examinations provide the data necessary to regulate the chlorine dosage to the most efficient level and also indicate whether any special action is necessary to safeguard a particular supply. This Section also tests sewage and sewage effluent for pathogenic bacteria harmful to man. As a precautionary measure the sewage effluents discharged into inland waters and into the sea near popular bathing areas are chlorinated and carefully monitored under laboratory supervision.

### **Biological Section**

This Section is mainly concerned with the identification, enumeration and control of algae and other micro-organisms which may affect the taste, odour, colour and turbidity of water. Organic and mineral substances which provide nutrients for these organisms are present in most of the surface waters in South Australia and action must be taken to guard against their building up at certain times during the year.

Tolerance levels have been established for various micro-organisms and when the laboratory examinations show that these limits have been, or are likely to be exceeded, remedial action is taken. This usually consists of treating the reservoir with very small amounts of copper sulphate.

The work of this Section includes also the surveillance of oxidation lagoons in sewage treatment works to study and control the breeding habits of insect pests, such as midges. Coastal and inland waters are surveyed to ascertain the relative abundance of plant and algal growth before and after sewage effluents are admitted to the waters.

### **Chemical Section**

Regular chemical analyses of water supplies throughout the State are undertaken by this Section to determine the amounts of dissolved salts, heavy metals, trace elements and nutrients present in the samples. The chemical analyses are used to monitor the safety and acceptability of water supply and provide information to consumers who may need to know the constituents of their water supply for industrial usage.

Chemical analyses are carried out also on industrial wastes to assess their likely effect on sewer structures, sewage treatment processes and the environment generally. This Section is involved in the development of materials resistant to the corrosive effect of hydrogen sulphide gas.

Since the fluoridation of metropolitan water supplies began in 1971, this Section has had the responsibility of testing the chemicals supplied by contractors to ensure that health requirements are met.

### **Special Testing Section**

Generally this Section carries out the applied research necessary for the efficient overall functioning of the Laboratories. Much of the work involves the development of techniques for estimating pesticides, heavy metals and other substances which may be present in water in very small quantities.

Gas chromatographic procedures have been developed for the estimation of organic carbon which is an accepted index of the volume of organic pollution in water and wastewaters. Phenols and detergents are detected and measured by other procedures.

Routine radioactive counts of water, sewage and effluents are undertaken also by the Section to ensure that there is no build up above normal radioactive levels.

### **Water Pollution Control Section**

While the Bacteriological, Biological and Chemical Sections are each concerned with separate types of water analysis, the Water Pollution Control Section has the responsibility for overall water quality control and for assessing and controlling factors on the watersheds causing changes in water quality.

Urbanisation, industrial development, recreation and animal husbandry in watersheds are among the more important contributing factors to change in water quality and are responsible for the run-off of undesirable substances, such as human, animal and industrial wastes, pesticides, herbicides and eroded soils.

Assessment of these factors and the extent to which they influence water quality is being undertaken by continuing surveys of watershed streams, reservoirs and the River Murray.

### **Wastewater Section**

This Section is primarily concerned with the regular examination of sewage and effluent liquids at the Bolivar Sewage Treatment Works and country sewage works. Samples from each stage of treatment process are examined for biochemical and chemical oxygen demand, detergents, grease, etc., to provide data on the efficiency of the different stages and on the overall sewage treatment plant performance.

This Section is involved in surveys to establish the pollutional loads represented by trade wastes to sewage treatment works and receiving waters. The corrosive effect of sulphides on sewer mains is also studied.

## **8.2 IRRIGATION AND DRAINAGE**

### **IRRIGATION**

The development of irrigation areas in South Australia has been carried out by both Government authorities and private interests. Since 1930 the administrative authority for Government irrigation areas has been the Department of Lands with the Engineering and Water Supply Department the constructing authority for the Minister of Irrigation. A more detailed historical discussion of irrigation in South Australia was included on pages 314-6 of the *South Australian Year Book 1970*.

Irrigation areas are confined almost exclusively to the Murray Valley and can be classified into two groups; highland areas requiring the pumping of water, and reclaimed lands watered by gravitation. During 1973-74, 220 848 megalitres of water were diverted from the River Murray in South Australia for irrigation purposes. Details of the production of these areas are given in Part 9.1, pages 419-20.

### Highland Areas

With the major exception of the Myponga Irrigation Area, highland irrigation is located in the hot and dry zone along the River Murray between Morgan and the Victorian border.

These areas are largely devoted to vineyards and citrus and stone fruit orchards which are irrigated by water pumped from the river in open concrete-lined channels or pipes. Many of the recently developed areas use a system of overhead or under-tree sprays for watering the blocks in preference to the traditional surface reticulation. Sprays are also being used to develop land too high for reticulated watering. Landholders on Government controlled areas and on private lands constituted under special Parliamentary Acts pay an annual rate for routine irrigation and a charge is made for additional water, except at Loxton and Cooltong where water is supplied on a measurement basis.

Irrigation systems must also provide for the removal of surplus water which accumulates beneath the surface of the land. Blocks have internal drainage systems either leading to shafts and bores or to comprehensive drainage systems which convey the water to evaporation basins.

### Reclaimed Areas

On the lower Murray between Mannum and Wellington, a series of swamp and overflow areas have been reclaimed by Government and private agencies.

Although these reclaimed areas contain some market gardens they are devoted principally to the growing of green fodder for dairy herds and sheep flocks. These lands are watered by gravitation and surplus water is run into main drains from which it is pumped back into the river. Approximately 600 hectares of highlands adjacent to reclaimed areas have also been developed for the production of fodder crops through the use of spray irrigation and there are 250 hectares at Myponga used for horticultural crops.

### Irrigation Areas, South Australia

Area Irrigated	1970-71	1971-72	1972-73	1973-74
Government controlled:				
			Hectares	
War Service schemes (1939-45 War)	3 330	3 350	3 178	3 253
Other . . . . .	13 151	12 493	12 712	12 850
Non-Government:				
Trusts, boards and association areas . .	7 875	7 875	7 875	7 875
Private schemes . . . . .	18 875	18 875	18 875	18 875

Further details of the 16 103 hectares irrigated in Government-controlled schemes in the year 1973-74 are shown in the following table.

**Government Controlled Irrigation Areas: South Australia, 1973-74**

Area Irrigated	Highland Areas		Reclaimed Areas	Total
	Surface Reticulation	Spray Irrigation		
	Hectares			
War Service schemes (1939-45 War) . .	1 567	1 686	—	3 253
Other . . . . .	7 548	1 726	3 576	12 850
<b>Total . . . . .</b>	<b>9 115</b>	<b>3 412</b>	<b>3 576</b>	<b>16 103</b>

**THE RIVER MURRAY AGREEMENT**

The *River Murray Waters Act* 1915 ratified an agreement between the Australian Government and the States of New South Wales, Victoria and South Australia. The River Murray Agreement provides that the minimum quantity of water to be allowed to be passed for supply to South Australia in each year shall be sufficient to maintain certain specified monthly flows in the lower river. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation.

Works, to regulate the flow and control of the level of the River Murray, have included the construction of a number of storage areas and the erection of a series of locks and weirs. By 1928 Lake Victoria, in New South Wales adjacent to the South Australian border, had been converted into a large storage area supplying water for the South Australian irrigation settlements. Between 1922 and 1930 six locks and weirs were erected between Blanchetown and the Victorian border. In addition, five barrages were placed at the Murray mouth to prevent the ingress of salt water from the sea and to maintain a higher level in the River for the use of the reclaimed areas. These barrages were completed in 1940.

The major storage area, the Hume Reservoir above Albury, was completed in 1936. Further works, the last being completed in 1961, have doubled the original capacity to more than 3 million megalitres. Except for that held in various lock pools, no water from the Murray is stored in South Australia. In 1962 agreement was reached for the construction of a reservoir of over 6 million megalitres covering 1 300 square kilometres with its dam at Chowilla, just inside the State border, but early in 1969 the River Murray Commission recommended that an alternative dam be built at Dartmouth in Victoria before further consideration be given to the completion of the Chowilla dam. Legislation ratifying an agreement based on the Commission's recommendation was passed by the Australian, New South Wales and Victorian Parliaments in 1970 and an Act ratifying the agreement was passed in the South Australian Parliament in August 1971. In June 1974 the River Murray Commission accepted a tender for the construction of the Dartmouth Dam and appurtenant works.

## DRAINAGE

With the exception of the reclaimed areas along the lower Murray, already discussed in the previous section, and certain works associated with metropolitan development, drainage schemes in South Australia are confined to the south-east corner of the State. The topography of this area reveals a series of fertile valleys or flats interspersed by low infertile ranges running parallel to the sea and thus preventing the natural drainage of the land. In consequence considerable sums of money have been expended in constructing drainage schemes to reclaim these areas.

The first major drainage scheme was commenced in 1863 and completed in 1885. This scheme, the Millicent Drainage System, reclaimed 40 000 hectares of land at a cost of \$300 000, this cost subsequently being included in the land allotment price. The system is maintained by the Millicent and Tantanoola District Councils from rates levied on landholders.

Following this early success the Government undertook the construction of further drains during the next sixty years. These drains were constructed under three sets of conditions: *National Drains* were constructed at Government expense, the cost being absorbed in the price of the land when sold; *Petition Drains* were constructed on requests from landholders who agreed to repay the full cost to the Government over a period of forty-two years; *Scheme Act Drains*, commenced in 1908, provided for the Government and the landholders to share the cost, the landholders share being repayable over forty-two years. After the Scheme Act Drains had been completed it was found that the cost exceeded the benefit derived, and subsequently, following a royal commission, the landholders' liability was reduced.

The passing of the South-Eastern Drainage Act Amendment Act, 1948 marked a new stage in the development of south-eastern drainage. Previously attention had been devoted to the construction of a system of drains removing large quantities of water from general areas and providing above all for the rapid removal of floodwaters. By 1948, 700 kilometres of drains had been constructed at a capital cost of \$1 441 752. However, in 1948, with the establishment of the Western Division Drainage Scheme, emphasis was placed on a complete drainage program as achieved by the earlier Millicent scheme. The Western Division Drainage Scheme, which aimed at the comprehensive drainage of 160 000 hectares of land between the Millicent and Kingston districts, has now been completed. In 1960 the Eastern Division Drainage Scheme, for the drainage of 300 000 hectares of flats lying between Kalangadoo and 65 kilometres north of Lucindale, was commenced and construction on this scheme was completed in November 1969.

Under the schemes introduced since 1948 landholders were required to repay an amount based on a 'betterment assessment' of their property. As in the other schemes this amount was repayable over forty-two years. The 1971 amendment to the South-Eastern Drainage Act extinguished the liability of landholders to make a capital contribution in respect to existing drainage construction.

At 30 June 1974 approximately 1 450 kilometres of drains (excluding the Millicent scheme) had been constructed at a capital cost of \$18 756 000. These drains vary considerably in size from only a few metres to over 60 metres bottom width.



In addition to new construction, continual attention must be paid to the prevention of silting and of weed growth and to the upkeep of over 500 bridges. Rates are levied on landholders to meet the costs of such maintenance. The closer settlement resulting from the drainage schemes has, in many areas, necessitated the construction of new bridges.

The system is administered by the South-Eastern Drainage Board under the South-Eastern Drainage Act, 1931-1974.

### 8.3 ROADS

Roads in South Australia are officially classified either as main roads, being those proclaimed as such under the provisions of the Highways Act, or district roads. Main and district roads within local government areas are vested in the various local governing authorities who primarily are responsible for construction and maintenance works within their respective areas. However, there is provision in the Highways Act for the Commissioner of Highways to construct, reconstruct, and maintain important roads after due notice has been given, and in practice most of the roads carrying heavy traffic are constructed and maintained by the Highways Department. In areas outside the control of local government authorities roads are vested in the Minister of Local Government under the control and management of the Commissioner of Highways.

Ferry services across the River Murray are provided on a free and continuous basis and are also under the control and management of the Commissioner of Highways.

The following table shows the length, as advised by the Highways Department, of main and district roads, customarily used by the public according to type of surface at 30 June 1974.

**Legal Classification of Roads: Type of Surface, South Australia  
At 30 June 1974**

Legal Classification	Type of Surface				Total
	Natural Surface	Formed Only	Paved		
			Unsealed	Sealed	
			Kilometres		
Main Roads . . . . .	337	990	3 506	8 294	13 127
District Roads . . . . .	36 770	23 504	17 807	8 867	86 948
<b>Total . . . . .</b>	<b>37 107</b>	<b>24 494</b>	<b>21 313</b>	<b>17 161</b>	<b>100 075</b>

The natural surface roads shown in the table include tracks in localities outside of local government areas, mainly routes to and between station homesteads and not on land reserved for roads.

In closely settled areas, particularly in the metropolitan area and country towns, most roads are surfaced with bituminous concrete or by bituminous penetration of a macadam base. In rural districts where traffic is light, roads may be formed of natural materials or be only lightly gravelled but the more important country roads are constructed of gravel or crushed rock and are improved, as traffic warrants, by the addition of a bituminous seal.

A continuous program of road improvement is carried out by reconstructing and widening arterial roads in the metropolitan area and the construction and sealing of important rural roads. Extensive road construction is carried out also in new housing development areas.

### ROAD FINANCE

Funds used for roadworks in South Australia are derived from four main sources, namely:

- (1) the net proceeds of fees imposed by the State Government for the registration of motor vehicles and the licensing of drivers;
- (2) grants from the Australian Government;
- (3) charges imposed by the State Government under the Road Maintenance (Contribution) Act;
- (4) property rates and other levies imposed by municipal and district councils.

Funds received from the first three sources are expended by the Commissioner of Highways on works authorised by the Minister of Transport. The Highways Act provides for fees received for vehicle registrations and drivers licences, less cost of collection, to be credited to the Highways Fund. The Fund is credited also with interest on and repayments of advances made to local government authorities for roadworks and for the purchase of machinery; special contributions from the Municipal Tramways Trust under the Highways Act; contributions from local government authorities towards the cost of lighting roads; licence fees collected under the Hawkers Act, 1934-1960, and other minor sundry receipts. Receipts under the Road Maintenance (Contribution) Act are paid into a special account at the State Treasury and applied only to the maintenance of public roads.

Exact figures are not available for total expenditure in South Australia on the construction, reconstruction, and maintenance of roads, streets, bridges, ferries, and associated works. During five recent years approximate total expenditure by State and local government authorities has been: 1969-70, \$57 million; 1970-71, \$57 million; 1971-72, \$66 million; 1972-73, \$68 million; and 1973-74, \$69 million. These figures include the cost of land purchased for new roads, for road widening, and charges for depreciation of plant and machinery. Local government figures used to derive the totals include expenditure which is subsequently recouped from the public and expenditure on footpath maintenance and stormwater drainage.

The Local Government Act provides for grants-in-aid to be paid from the Highways Fund to local government authorities for expenditure on roads, other than main roads, and related works: in 1973-74 the total of these grants paid was \$260 800.

**Highways Department, South Australia**  
**Receipts and Payments**

Particulars	1970-71	1971-72	1972-73	1973-74
<b>RECEIPTS (\$'000)</b>				
Motor vehicle registrations, licences, fees, fines, etc. . . . .	14 212	18 000	18 828	19 872
Road Maintenance Charges . . . .	2 958	3 287	3 401	3 859
Commonwealth Aid Roads Grants . .	23 500	25 500	28 000	31 000
Loans from State Government . . .	—	—	800	—
Repayments of, and interests on, advances to local authorities . . . .	917	629	762	386
Other . . . . .	147	522	1 168	2 028
<b>Total . . . . .</b>	<b>41 733</b>	<b>47 938</b>	<b>52 959</b>	<b>57 145</b>
<b>PAYMENTS (\$'000)</b>				
Construction and reconstruction of roads, bridges, etc. . . . .	27 056	32 049	33 604	35 210
Maintenance of roads, bridges, etc..	11 575	13 303	11 197	11 483
Interest, debt redemption, etc. . . .	556	580	619	653
Advances to local authorities . . . .	251	305	262	4
Net purchases of land, buildings, plant, equipment, materials, etc. . .	Cr. 62	1 484	2 032	339
Other (a) . . . . .	921	2 332	4 572	7 659
<b>Total . . . . .</b>	<b>40 298</b>	<b>50 053</b>	<b>52 286</b>	<b>55 348</b>

(a) This includes provision for leave and plant overhauls which may be a negative figure in some years.

The biggest single element of roads expenditure omitted from the above figures is the cost of work carried out under the provisions of the Planning and Development Act, 1966-1973 which requires persons and authorities (including the South Australian Housing Trust) who subdivide land for housing to provide roads to certain specifications. The actual work is sometimes performed by local government authorities at the expense of the subdividers: in such cases the costs of construction are included in the figures above but in most cases these roads are constructed by subdividers and few details are available.

The \$31 million received in Commonwealth Aid Roads Grants for 1973-74 consisted of \$16.76 million for urban arterial roads, \$13.77 million for rural roads and \$470 000 for planning and research.

#### **Australian Government Grants**

The South Australian share of Commonwealth Aid Roads Grants for the five years to June 1969 was approximately \$86 million. This represented approximately 11.5 per cent of the total grants which were distributed as follows: 5 per cent to Tasmania and the remaining 95 per cent to the mainland States; one-third according to population, one-third according to area and one-third proportionately to the number of motor vehicles registered. A portion of these grants was subject to matching expenditure by the States.

Commonwealth Aid Roads Grants for the five years 1969-70 to 1973-74 were announced after the Premiers' Conference in March 1969. A principal grant of \$1 200 million was allocated to the various States according to a formula which took into account both the formula applied in the preceding five years and principles of distribution recommended by the Australian Bureau of Roads after consideration of results of the Road Needs Survey. A supplementary amount slightly exceeding \$52 million was shared by South Australia, Western Australia and Tasmania to ensure that all States received grants at least 50 per cent higher than for the preceding five years. However, the \$129 million allocated to South Australia for the five years to 1973-74 represented only 10.3 per cent of total grants compared with 11.5 per cent of grants for the preceding five years.

Conditions attaching to these grants relate to the expenditure of specified sums on different classes of roads in particular areas, with a general proviso that State expenditure on roads shall increase proportionately to the increase in numbers of motor vehicles registered.

### ROADS SURVEY

A survey designated as the Australian Road Survey 1969-74 has been completed as a joint undertaking by the National Association of Australian State Road Authorities and the Australian Bureau of Roads. A report of the results of this survey has been prepared for the Australian Government to use as a basis of road finance legislation for the period 1974 to 1979.

### FUTURE DEVELOPMENT

The *South Australian Year Book* 1970, on pages 319-25, contained some details of the reports of two major studies: these were the reports of the Town Planning Committee of South Australia (Metropolitan Development Plan), submitted in 1962, and the Metropolitan Adelaide Transportation Study (MATS) report, released in 1968. In June 1970, the Government undertook to review the MATS proposals with particular reference to public transport. The resultant Adelaide Transportation Report 1970 or 'Breuning Report', was discussed in the *South Australian Year Book* 1971, on pages 317-8.

Some extensive and important roadworks have proceeded, and will continue, along lines recommended in the earlier reports. These include major arterial road and street improvements and the construction of a freeway from Verdun to Littlehampton which was completed in December 1974. Ultimately, as part of the progressive improvement of the main route to Melbourne, it is intended to extend the South East Freeway from Littlehampton to the outskirts of Murray Bridge: this project is tentatively scheduled for completion by 1979. Also as part of the development of this route a new bridge at Swanport, south of Murray Bridge, and an associated approach road are planned for completion in 1979.

### Supplementary Metropolitan Development Plan

In November 1971 the Government authorised a supplement to the Metropolitan Development Plan of 1962. The effect of the Supplementary Development Plan is firstly to amend the freeway proposals contained in the

Metropolitan Development Plan by deleting some sections and varying others, and secondly to recognise that freeway rights-of-way may eventually be used for newer forms of vehicular transport.

The Metropolitan Development Plan and the Supplementary Development Plan, with their reports, must be read together to obtain a complete picture of the proposed routes, details of which were set out on pages 334-5 of the *South Australian Year Book 1973*.

Supplementary Development Plan No. 2 relating to the redevelopment of about 5 hectares of land at Hackney for residential purposes was authorised in December 1962.

Supplementary Development Plan No. 4, authorised in July 1973, varies the 1972 Development Plan for the area of the District Council of Willunga. It provides for control of coastal development, proposes a major sub-regional centre at Aldinga and revises road and rail transportation proposals.

Supplementary Development Plan No. 3 (Arterial Roads), No. 5 (Mount Lofty Ranges), No. 6 (City of Woodville) and No. 7 (City of Adelaide) are all under investigation by the various authorities.

## RESEARCH

Because of the great area of South Australia and the wide variety of climatic and soil conditions, special sections of the Highways Department are engaged in constant investigation and testing of soils, materials, and construction methods to ensure that a high standard of road construction is maintained and that methods are adapted to the needs of particular areas.

South Australia contributes to Australian road development through its active participation in the National Association of Australian State Road Authorities. Specialist committees deal with bridge design, materials research, traffic engineering, bituminous pavements, plant and equipment, and long-term planning. The Association in 1960 established the Australian Road Research Board whose functions include the co-ordination and organisation of road research.

## 8.4 RAILWAYS

### Ownership and Control

Railway systems in South Australia are operated by both the Australian and South Australian Governments. Management of the Commonwealth Railways is vested in a Commonwealth Railways Commissioner.

In 1851 a 'Board of Undertakers' was appointed in connection with the construction of the Adelaide to Port Adelaide railway and in 1856 a Board of Railways Commissioners was appointed to control South Australian railway operations. This Board was abolished in 1859 and from then until 1887 control was vested in the Commissioner of Public Works. The South Australian Railways Commissioners Act of 1887 gave almost complete authority for management and administration to three Railways Commissioners, reserving (as in the past) financial control to Parliament. The powers of the three Commissioners passed

to one Commissioner in 1892. The present South Australian Railways Commissioners Act, 1936-1973, under which the Commissioner is appointed for a period of seven years, incorporates many of the provisions of the 1887 Act, including those for financial control.

In South Australia the only private railways open to general traffic are the lines owned by the Broken Hill Proprietary Co. Ltd: from Iron Knob and Iron Baron to Whyalla (82 kilometres) used for the carriage of iron ore; and from Coffin Bay to Port Lincoln (40 kilometres) used for the carriage of limestone.

### Operations

At 30 June 1974 the route length of railways operated by the State and Australian Government, open for traffic in South Australia totalled 5 996 kilometres. This consisted of 2 527 kilometres of broad gauge, 1 825 kilometres of standard gauge and 1 645 kilometres of narrow gauge.

Only a small portion of the Adelaide metropolitan area is served by railways, the main trunk routes passing through northern and southern suburbs. The line to Port Stanvac serves south-western suburbs and carries passenger traffic as far as Hallett Cove and goods traffic to Port Stanvac; an extension of this line to Christie Downs is under construction. This line will serve the rapidly expanding industrial and housing development along the coast south of Adelaide. The Port Adelaide line, its extensions to Semaphore and Outer Harbor, the branch line to Grange, and spur lines to industrial establishments provide better coverage in north-western suburbs than is achieved elsewhere in Adelaide.

Lines operated by the Australian Government in South Australia at 30 June 1974 were: narrow gauge from Stirling North to Hawker, 98 kilometres, and Marree to the Northern Territory border, 586 kilometres; and standard gauge from Port Pirie Junction to the Western Australian border, 1 053 kilometres, and Stirling North to Marree, 349 kilometres.

A standard gauge line between Whyalla and Port Augusta, operated by the Commonwealth Railways, was opened for traffic on 6 October 1972. The 76-kilometre line permits uninterrupted movement of steel from Whyalla steel works to other States.

An agreement has been reached between the South Australian and Australian Governments for the construction of a standard gauge line between Tarcoola in South Australia and Alice Springs in the Northern Territory to replace the existing narrow gauge line from Marree to Alice Springs; the enabling legislation was passed by the Australian and South Australian Parliaments in 1974. The contract for the initial construction was let in March 1975 and it is anticipated that the whole project will be completed in 1980. The route for the 830 kilometre line, estimated to cost \$145 million, has been carefully chosen to avoid areas subject to the flooding which renders the existing line inoperative for prolonged periods.

A more detailed historical survey was included on pages 263-6 of the *South Australian Year Book* 1966.

### Standardisation of Rail Gauges

The existence in South Australia of narrow, standard, and broad gauge systems has already been noted. For many years railway administrators have been greatly concerned about the increased costs and decreased efficiency associated with the transshipment of goods and passengers and with the provision, maintenance and operation of different sets of rolling stock. During recent years with the rapid development of road and air transport facilities there has been increasing pressure for standardisation of rail gauges in the interests of efficiency and economy of operation of transport services as a whole.

As part of an agreement enacted in 1949 to convert much of the South Australian Railways system to standard gauge, in 1963 the Australian Government decided to proceed with standardisation of the Port Pirie-Broken Hill Railway. During 1967 agreement was reached between the Governments of Australia, New South Wales and South Australia to link Cockburn and Broken Hill along a new line of 47 kilometres instead of converting the 56 kilometres previously owned and operated by the Silverton Tramway Company. Conversion of the Port Pirie-Cockburn section was completed during 1969, and the new Cockburn-Broken Hill line, owned and operated by the South Australian Railways, was completed in January 1970. The first revenue-earning passenger train to use the coast-to-coast standard gauge line left Sydney on 2 March 1970 for the 3 961 kilometre run to Perth.

With the opening of the Port Pirie-Broken Hill standard gauge railway and the extension of the broad gauge from Terowie to Peterborough, the South Australian Railways now operate two bogie exchange depots, one at Port Pirie and the other at Peterborough.

Before the financial provisions of the railways standardisation agreement can become effective in relation to any specific project Australian Government acceptance of that project is necessary. Early in August 1969 it was announced that the Australian and South Australian Governments had agreed on the terms of reference for a feasibility study on standardisation of the Adelaide-Port Pirie line and the carrying of traffic on existing narrow gauge lines affected by standardisation. Consultants were engaged to carry out the study and in March 1970 they submitted a report to the Australian Government. The State Government submitted alternative proposals expected to provide a more comprehensive scheme of standardisation and offering greater operational savings at a cost not greater than that estimated by the consultants.

Following consideration of the two proposals, consultants were commissioned to prepare a master plan which was duly presented to the respective Governments in January 1974. Enabling legislation was passed by both Parliaments late in 1974.

The scheme provides for a new standard gauge track to be built from Adelaide to Crystal Brook and the standard gauge line from Crystal Brook to Port Pirie to be duplicated. Standard gauge will be provided also as a third rail addition to the existing broad gauge track between Snowtown and Wallaroo.

In the Adelaide Metropolitan Area a standard gauge freight connection will be provided to Mile End, Islington, Pooraka and Port Adelaide while the passenger facilities at Adelaide Railway Station will be extended to handle standard gauge

passenger trains. Standard gauge marshalling yards will be constructed at Dry Creek and will include bogie exchange facilities which will replace the present bogie exchange depot at Port Pirie. The broad gauge lines from Virginia to Port Pirie and Bumbunga to Lochiel will be closed.

The project is estimated to cost \$77.7 million and will be financed by the Australian Government on a 70 per cent grant and 30 per cent loan basis. The first major field study for the project commenced in January 1975 and detailed work is now proceeding. It is expected that the project will be completed in 1980.

## 8.5 HARBOURS AND AERODROMES

### HARBOURS

The State of South Australia, including Kangaroo Island, has a coastline of more than 3 850 kilometres. There are two large indentations, Gulf St Vincent and Spencer Gulf, which have many harbours for shipping.

Of many seaports in South Australia, at present only nineteen are used by commercial shipping: twelve of these have State-owned wharves or jetties and seven have privately-owned wharves or jetties. In addition the State maintains jetties or wharves for promenade and fishing purposes at forty-six ports that are no longer used by commercial shipping and sixteen jetties are leased to district councils.

The Broken Hill Proprietary Co. Ltd owns and operates bulk handling facilities at Ardrossan, Rapid Bay, Whyalla and Proper Bay, while the Colonial Sugar Refining Co. Ltd owns and operates a bulk loading installation at Ballast Head, Kangaroo Island. The Commonwealth Railways operates the wharf at Port Augusta on behalf of the Australian Government, and the Port Stanvac oil terminal is owned by Petroleum Refineries (Aust.) Pty Ltd.

There are six deep-sea ports operated by the State, namely Port Adelaide, Port Pirie, Port Lincoln, Thevenard, Wallaroo and Port Giles while overseas vessels are also accommodated at Port Stanvac, Port Augusta, Whyalla and Ardrossan.

### CONTROL OF HARBOURS

The control of State-owned harbours (including the River Murray) is vested in the Minister of Marine; he is responsible for navigation within harbours and all harbour facilities including lights, buoys, beacons, bulk loading plants and fishing boat accommodation. Relevant legislation includes the Harbors Act, 1936-1974, the Marine Act, 1936-1973 and the Fisheries Act, 1971.

In 1973-74 the Department of Marine and Harbors handled 8 625 523 tonnes of cargo (including general cargo at private ports) or approximately 44 per cent of the total tonnage of 19 617 860 tonnes passing through all the ports in South Australia, the balance being handled independently at the privately owned wharves.



**Department of Marine and Harbors  
Indebtedness, Revenue and Expenditure**

Year	Loan Fund Indebted- ness	Revenue	Expenditure from Revenue			Surplus (+) or Deficit (-)
			Working Expenses	Interest	Total	
			\$'000			
1969-70.. . . . .	50 736	7 282	4 265	2 176	6 442	+840
1970-71.. . . . .	55 081	7 628	5 056	2 431	7 487	+141
1971-72.. . . . .	57 824	7 611	5 346	2 796	8 142	-530
1972-73.. . . . .	62 655	7 324	5 453	3 028	8 481	-1 157
1973-74.. . . . .	67 082	10 037	5 698	4 199	9 896	+141

### HISTORICAL

For a detailed description of development in the nineteenth century see pages 270-1 of the *South Australian Year Book* 1966.

#### Trend of Development

As shipping has increased through growth in trade many wharves and jetties have been strengthened or replaced by better structures. To keep most harbours open for larger vessels it has been necessary to deepen and widen navigation channels, deepen existing berths and extend jetties into deeper water. An example of this type of project was the redevelopment of Thevenard harbour, completed in 1972, which entailed the dredging of a deeper channel and the reconstruction of the jetty so that bulk carriers twice the size of those previously accommodated could be fully loaded.

Since the establishment of new soldier settlements in the 1950s, shipping to and from Kangaroo Island has increased. Additional harbour facilities were made available with the provision of a trailership berth at Kingscote for the roll-on roll-off vessel m.v. *Troubridge* which went into service in November 1961. Trailership berths were also built at Port Adelaide and Port Lincoln.

A change in the pattern of intrastate shipping has occurred with the provision of bulk handling facilities for grain at major ports progressively since 1952. These facilities are now available at Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, Thevenard and Port Giles, and also at Ardrossan under agreement with the owner of the private wharf. Grain is railed or trucked overland to terminal silos and loaded aboard ocean-going vessels by means of conveyors, so eliminating ketch trade from the smaller ports. Competition from intrastate road and rail transport has affected the larger ports as well, so that very little general cargo is carried between ports in this State.

To alleviate the delay in turn-around of vessels and to improve the handling of shipping cargo, port facilities in the major harbours have been or are being improved by such measures as the reconstruction of wharves, deepening of berths and channels, installation of cranes and increasing storage capacity. The construction of boat havens for fishing craft, and the provision of slipways at several ports throughout the State are other aspects of recent development.

Future developments at ports other than Adelaide are likely to be concerned primarily with bulk trades and the increasing size of bulk carriers. For example, bulk handling facilities, expected to cost \$10.8 million and to be completed in 1975, are being installed at Port Lincoln. The project involves extension of an existing jetty to provide two outer berths for loading grain ships and an inner berth for unloading phosphate-rock carriers: the grain berths will cater at first for ships up to 60 000 tonnes but could be modified for ships of 100 000 tonnes, while the phosphate-rock berth will cater for ships up to 35 000 tonnes.

#### **Development of Port Adelaide**

The Greater Port Adelaide Plan, details of which were released in 1949, included proposals for twenty projects for port development over the ensuing fifty years. Among those projects were:

- (1) the improvement and extension of wharves and allied cargo facilities;
- (2) the deepening, and widening of the shipping channels and provision of larger swinging basins;
- (3) the reclamation and development of low-lying land adjacent to the port for the creation of industrial, commercial and dock estates.

Some of these projects have been completed while others are still in progress. In April 1964 approval was given for a start on a scheme to widen and deepen the Port River estimated to cost \$10.6 million. Under this plan, the Port River has been deepened to 9 metres at Low Water and a swinging basin of 305 metres diameter has been provided in the inner harbour. Currently the river channel is being widened to a minimum width of 150 metres. The material dredged in this operation is being used to reclaim part of the 800 hectares of low-lying land intended to be used for industrial and commercial sites and for port extensions.

The advent of containerised cargo has affected only Port Adelaide as other ports in the State do not handle a sufficient quantity of cargo suitable for large containers. Although Port Adelaide has not yet been selected as a regular port of call by any of the container ship operators, planning is proceeding on the assumption that it will fulfil such a role in the future. As a result 160 hectares of land are being reclaimed at Pelican Point near the outer harbour where it will be possible to provide up to 2 000 metres of berth length with a depth of 14 metres Low Water if necessary. One berth on this waterfront for use by large container ships and roll-on roll-off vessels is under construction and it is expected to be completed in 1976.

Two container depots have been built by private enterprise in the dock industrial estate 800 metres from the inner harbour waterfront and offer acceptance, forwarding, packing and unpacking facilities for international and interstate containers and other unit loads: to facilitate shipment of wool in containers a large wool store and a high density wool dumping centre have been established adjacent to these depots.

An interstate roll-on roll-off terminal in No. 3 Dock was opened early in 1971 and later in the year the facilities were extended to serve larger roll-on roll-off vessels engaged in overseas trade. A berth in No. 1 Dock has been modified to provide a reinforced concrete pad for the stern-loading type of vessel to operate between Port Adelaide and ports in Tasmania. Recent developments include the provision of a steel handling berth to accommodate roll-on roll-off vessels and modifications to an outer harbour berth to serve larger overseas roll-on roll-off vessels.

A modern two-storey building, containing passenger terminal and cargo shed for overseas vessels at one of the outer harbour berths, was opened in October 1973. A new modern signal tower at the outer harbour, to replace the existing one, was opened in February 1974.

TIDES AND WATER DEPTH

Tides—the daily ebb and flow of the waters of the ocean—are brought about by the gravitational effect of the sun and moon. Spring and neap tides are associated with phases of the moon, *i.e.* spring tides with the new moon and full moon, and neap tides with the first quarter and last quarter of the moon.

All around the Australian coast there is a well-marked 'diurnal inequality'; that is, the forenoon and afternoon tides may differ considerably in height. The mean tide rises in the following table are shown as higher high water and lower high water, rather than high water springs and neaps. This method of measuring tides is used for the majority of Australian ports.

Tides and Water Depths: South Australian Ports, 1 January 1975

Port	Maximum Depth below Low Water Datum (a)	Tides		
		At	Mean Rise	
			Higher High Water	Lower High Water
Port Adelaide:	Metres		Metres	Metres
Outer harbour;				
Channel . . . . .	10.1	Wharf	2.4	2.0
Wharf . . . . .	10.7			
Inner harbour;				
Channel . . . . .	9.1	Wharf	2.4	2.0
Wharf . . . . .	10.7			
Ardrossan:				
Channel . . . . .	(b)	Jetty	2.7	2.1
Jetty—BHP . . . . .	8.2			
Port Augusta:				
Channel . . . . .	4.9	Wharf	2.8	2.2
Wharves . . . . .	6.1			
Port Giles:				
Channel . . . . .	(b)	Jetty	1.9	1.5
Jetty . . . . .	11.6			
Port Lincoln:				
Channel . . . . .	(c)	Jetty	1.5	1.1
Wharf (Bulk Loading) . . . . .	15.0			



Government and licensed aerodromes in South Australia are set out below.

*Government Owned*

Adelaide	Leigh Creek	Parafield
Ceduna	Mount Gambier	Port Lincoln
Kingscote	Oodnadatta	Whyalla

*Licensed*

Amata	Granite Downs	Mount Dare
Andamooka	Indulkana	Naracoorte
Cleve	Innaminka	Port Pirie
Cordillo Downs	Kimba	Renmark
Cowell	Loxton	Tieyon
De Rose Hill	Millicent	Tintinara
Ernabella	Minnipa	Waikerie
Fregon		

The main terminal in South Australia is the Adelaide Airport at West Beach, and although not an international airport it can be used by international aircraft when required. It is on the scheduled flights of interstate services from Sydney, Melbourne, Perth and Darwin and is the terminus of intrastate services. Since this airport was opened to commercial aircraft in February 1955, modern navigational aid systems and equipment (*e.g.* Australian designed visual approach slope guidance systems and long range radar) have been installed and various improvements to general airport facilities have been carried out.

Since the opening of the Adelaide Airport the aerodrome at Parafield, about 18 kilometres north of Adelaide, has been restricted principally to use by light aircraft.

Other aerodromes are situated near the larger towns *e.g.* Mount Gambier, Whyalla, Port Lincoln and Port Pirie. About half of the licensed aerodromes are on stations, missions, etc. in the northern part of the State.

In addition to the civil aerodromes there are two major aerodromes, one at Woomera controlled by the Department of Defence, through the Weapons Research Establishment, and the other at Salisbury (Edinburgh Airfield) which are used by aircraft associated with trials operations and by civil charter aircraft carrying passengers and freight. Edinburgh Airfield is also the base for a Royal Australian Air Force maritime squadron.

A joint Government Advisory Committee consisting of representatives from Australian Government Departments, South Australian Government Departments and local government authorities has been established to consider airport requirements for the Adelaide region.

### Control of Aerodromes

At a conference of Australian Government Ministers and State Premiers in May 1920, it was agreed that the Australian Government should introduce a Bill to give effect to the Convention for the Regulation of Air Navigation signed in Paris on 13 October 1919. The *Air Navigation Act 1920*, under which a Controller of Civil Aviation was appointed as head of the Civil Aviation Branch which came under the jurisdiction of the Department of Defence, had three main objectives:

- (1) generally to regulate civil aviation activities in Australia;
- (2) to carry out the provisions of the Convention on Air Navigation signed in Paris;
- (3) to apply the principles of the Convention to domestic as well as international flying operations.

Regulations were drawn up under this Act to provide, *inter alia*, for the registration and periodic inspection of aircraft, licensing of aerodromes, examination and licensing of personnel engaged in flying and in upkeep of machines, control of aircraft movements, rules of the air, etc.

The South Australian Parliament passed the Commonwealth Powers (Air Navigation) Act, 1921 in which it referred to the Australian Government powers to make regulations in connection with international and interstate air navigation. The Air Navigation Act, 1937 provided for the application of the Australian Government Air Navigation Regulations to and in relation to air navigation within the State of South Australia and repealed the earlier Act.

The Australian Government civil aviation legislation at present includes the *Air Navigation Act 1920-1974*, the *Australian National Airlines Act 1945-1972* and several other Acts, while the State legislation in South Australia includes the 1937 Act and the Civil Aviation (Carriers' Liability) Act, 1962-1971.

Civil aviation administration was a separate department under the Minister for Civil Aviation from 1939 until 1 December 1973 when it was incorporated in the Department of Transport.

### Historical

A description of early aerodromes in South Australia and development was included on pages 277-8 of the *South Australian Year Book 1966*: an article describing the first flight from England to Australia, in 1919, appeared on pages 334-5 of the *South Australian Year Book 1969*.

## 8.6 ELECTRICITY AND GAS

### ELECTRICITY

In 1946 the Electricity Trust of South Australia (ETSA), a public corporation, acquired the assets of the Adelaide Electric Supply Company and since then the Trust has been responsible for electricity supply throughout most of the State. Over the years indigenous fuels—coal from Leigh Creek and natural gas from the north-east of the State—have largely supplanted imported fuels. A detailed description of the development of electricity supply was included on pages 278-81 of the *South Australian Year Book 1966*.

### Power Generation

The Osborne 'A' station produced all of the requirements of the South Australian electricity net-work from 1923 until 1947 when the 'B' station commenced operations and the 'A' station was subsequently closed in 1968. At 30 June 1973 the remaining generating capacity at Osborne (excluding emergency generating plants) was 240 000 kilowatts.

A major decision by the Trust was the construction of the Thomas Playford Power Station at Port Augusta, designed to burn Leigh Creek coal exclusively. The 'A' section was completed in 1954 while the 'B' section was completed in 1964 to give a combined total generating capacity of 330 000 kilowatts.

Following the passing of the Electricity Trust of South Australia (Torrens Island Power Station) Act in 1962 work commenced on the construction of section 'A' of the Torrens Island Power Station. Section 'A' was completed in the first half of 1971 and comprises four 120 000 kilowatt turbo-generators with associated boiler equipment. Work has begun on section 'B' and the erection of the first of four units, each with a 200 000 kilowatt turbo-generator and associated boiler equipment, commenced in 1973. The first unit is scheduled to commence generation in 1975 and the second unit in 1976.

Three gas turbo-generators each with a capacity of 52 000 kilowatts have been ordered by the Trust to meet high load demands of short duration, and are being installed in a station constructed at Dry Creek. The first machine was commissioned on 1 November 1973, the second on 28 May 1974 and a third machine should be available in 1975.

**Electricity Generation, South Australia**  
**Installed Capacity of Generating Plant in Power Stations at 30 June**

Power Stations	1964	1967	1970	1973	1974
Electricity Trust:					
			kilowatts		
Osborne . . . . .	264 000	314 025	242 500	242 500	242 500
Port August . . . .	332 700	332 700	332 700	332 700	332 700
Torrens Island . . .	—	120 200	360 200	480 200	480 200
Dry Creek . . . . .	—	—	—	—	104 000
Mount Gambier . . .	22 230	22 230	22 230	22 230	22 230
Port Lincoln . . . .	6 890	9 600	9 600	9 600	9 600
<b>Total ETSA . . .</b>	<b>625 820</b>	<b>798 755</b>	<b>967 230</b>	<b>1 087 230</b>	<b>1 191 230</b>

### Fuels

The development of the Leigh Creek coal field and the use of this coal as a source of power freed the Trust from its relative dependence upon New South Wales coal as a fuel source. Since commissioning, the Thomas Playford Power Station at Port Augusta has used this type of fuel exclusively.

The construction of oil refineries in Australia resulted in residual oil being supplied at a price competitive with coal and, over the years, the Osborne Power Station and, more recently, the Torrens Island Power Station, have used this type of fuel.

Natural gas discoveries in the north-eastern areas of South Australia and the construction of a natural gas pipeline to Adelaide has given the Trust a further source of indigenous fuel. The four 120 000 kilowatt boilers at Torrens Island have been equipped to use natural gas or oil, or both fuels simultaneously. The Trust commenced using natural gas in 1969 and it uses more of this type of fuel for generation than any other electricity authority in Australia.

Wood has also been used since the construction of the Mount Gambier and Nangwarry power stations. Its future as a fuel is, however, uncertain and depends on alternative uses of waste wood, particularly in the pulp industry.

#### Electricity Trust of South Australia, Fuels Consumed in Steam Power Stations

Year	NSW Coal	Leigh Creek Coal	Oil	Wood (a)	Coke	Natural Gas
			Tonnes			Millions of MJ
1963-64 .. . . .	73 409	1 592 136	111 933	169 411	1 847	—
1966-67 .. . . .	51 045	2 123 459	232 674	187 687	—	—
1969-70 .. . . .	3 430	2 155 239	299 180	185 629	—	5 673
1972-73 .. . . .	—	1 588 735	37 893	198 496	—	29 040
1973-74 .. . . .	—	1 504 839	47 691	147 210	—	33 048

(a) Mill waste.

#### Transmission and Distribution

The Electricity Trust was specifically charged with the responsibility of expanding its services into country areas. In the immediate post-war years shortages of materials somewhat handicapped the rate of extension; however, a vigorous expansion of services in general has taken place as is illustrated in the following table.

#### Electricity Trust of South Australia, Transmission Lines At 30 June

Rated Voltage	1964	1967	1970	1973	1974
	Route Kilometres				
275 000 volt .. . . .	595	595	716	745	745
132 000 volt .. . . .	1 679	2 010	2 232	2 581	2 581
66 000 volt .. . . .	692	750	832	1 246	1 257
33 000 volt .. . . .	2 855	3 410	3 499	3 487	3 559
19 000 volt (SWER) (a) ..	8 151	13 591	17 083	18 694	18 915
11 000 and 7 600 volt .. .	7 446	9 024	10 731	12 076	12 652
Total .. . . .	21 419	29 380	35 093	38 830	39 709

(a) Single wire earth return system.

Electric power is transmitted over considerable distances at very high voltages and is stepped down at substations and distribution centres.

Transmission lines of 275 000 volts link power stations at Port Augusta and Torrens Island to a major substation at Para from which 275 000 volt connections radiate to Magill, Cherry Gardens and Happy Valley substations serving the Adelaide metropolitan area. One line from Port Augusta is tapped into a substation at Brinkworth to reinforce distribution to the mid-north area of the State. A further line is being constructed between Para and Tailem Bend.



Two 132 000 volt lines also link Port Augusta and Adelaide. These lines follow similar routes from Port Augusta to Bungama, near Port Pirie, where a substation serves the mid-north area. From Bungama the lines diverge, one passing through South Hummocks where a substation serves Yorke Peninsula and surrounding areas, and the other running *via* Brinkworth to Waterloo where a substation serves the Upper Murray.

Transmission lines of 132 000 volts extend as far as Woomera, Leigh Creek, Berri, Whyalla, Port Lincoln, Ardrossan South, Mobilong and Mount Gambier.

Extensive use of the single wire earth return system (see table on page 390) has resulted in the supplying of electricity to country areas where consumers are so scattered that supply by conventional methods would have been impracticable.

In recent years there has been a progressive change from conventional overhead street mains to underground street mains and most new subdivisions are now being supplied with 11 000 volt and low voltage underground systems.

In the following table the numbers of Electricity Trust consumers in the various categories are given at selected dates.

**Electricity Trust of South Australia, Number of Consumers**  
At 30 June

Consumers	1964	1967	1970	1973	1974
Residential . . . . .	277 399	321 731	353 289	392 314	405 678
General purpose ..	35 477	38 950	41 773	43 739	44 479
Industrial . . . . .	15 579	19 956	22 776	25 615	26 768
Bulk and traction ..	10	7	7	11	10
<b>Total . . . . .</b>	<b>328 465</b>	<b>380 644</b>	<b>417 845</b>	<b>461 679</b>	<b>476 935</b>

## GAS

The South Australian Gas Company, a privately owned company regulated by State legislation, was incorporated by Act of Parliament in 1861 to supply gas to Adelaide and surrounding villages. The first gas was produced at Brompton in 1863 and subsequent plants were opened at Port Adelaide in 1866 and Glenelg in 1875.

An Act authorising a second company, the Provincial Gas Company, was assented to in 1869. This company established a metropolitan works at Thebarton in 1871 and country works were opened at Gawler, Kapunda and Strathalbyn. In 1878 this undertaking was absorbed by the South Australian Gas Company and manufacturing at the Thebarton plant ceased. The country works were kept in operation until 1917. Gas was first produced at Port Pirie in 1892.

Following the development of higher pressure distribution facilities the South Australian Gas Company was able to centralise its metropolitan production at Brompton with the Port Adelaide and Glenelg plants ceasing production in 1922 and 1923 respectively. These plants together with the earlier Thebarton works

were retained as holder stations. In 1928 a new gas works was opened adjacent to the Port River at Osborne. The Osborne works were closed for several years during the 1930s depression.

Since the 1939-45 War a considerable expansion of manufacturing capacity and distribution facilities has taken place. This is evident from the following table which gives details of capital employed, number of consumers and length of mains at 30 June in selected years.

**South Australian Gas Company: Capital, Consumers and Mains  
At 30 June**

Particulars	1940	1950	1960	1970	1974
Capital employed (\$m) . . . . .	5.4	6.0	19.4	40.0	42.9
Number of consumers (a) . . . . .	61 207	84 629	121 720	186 670	209 656
Length of mains (km) . . . . .	1 455	1 677	2 525	3 603	4 191

(a) Includes consumers of bottled gas.

The manufacture of gas by the carbonisation of black coal imported from New South Wales was the conventional method of production until the end of the 1939-45 War. Under this process large quantities of coke and tar are produced as by-products but a declining market for these residuals together with the development of alternative production methods has resulted in less emphasis in recent years on this method of production.

In 1948 and 1950 the company installed plant at Osborne and Brompton for the manufacture of carburetted water gas from oil distillate and coke. This plant was introduced to help meet peak winter loads and could be brought into production much more rapidly than carbonising retorts.

In 1964 the first of four reforming plants was installed at Brompton. These plants operated initially on refinery tail gases and modifications were subsequently made to enable all four plants to reform a wider range of feedstocks, including light virgin naphtha and natural gas. A similar plant is in operation at Port Pirie for reforming light virgin naphtha.

When natural gas became available, the South Australian Gas Company contracted with the producers for a supply of this indigenous fuel. All coal carbonising and carburetted water gas plants making gas for distribution in the metropolitan area were shut down and the reforming plants ceased to operate in 1971 when the conversion of all appliances to use natural gas was completed. One section of the coal carbonising plant has been retained at the Osborne Works for the manufacture of metallurgical grade coke. Gas resulting from carbonisation is used partly for heating the coal chambers, the remainder being sold.

Gas is reticulated through most of the metropolitan area and Port Pirie. In addition liquefied petroleum gas is distributed by reticulation at Mount Gambier by the Mount Gambier Gas Company Ltd, at Whyalla by the South Australian Gas Company, and is available elsewhere as bottled gas.

An inter-connected system of high and intermediate pressure mains traverses the metropolitan area, extending south to Hackham, north-east to Tea Tree Gully and north to Elizabeth. The pressure in these mains is reduced by means of governors for distribution to consumers.

The conversion of the metropolitan distribution system to use straight natural gas brought a marked change in the Company's operations. The Company is now concerned largely with the distribution and marketing of gas, rather than manufacturing. Great emphasis is placed on marketing gas to industry, where as a cheap, non-polluting fuel it is able to compete successfully with other fuels. This has produced the situation where industrial gas sales made up 52 per cent of all gas sold in 1974 compared with 14 per cent in 1969.

At 30 June 1974 the company was maintaining 4 062 kilometres of mains in the metropolitan area serving 176 027 consumers with natural gas. The Port Pirie system involves 85 kilometres of mains serving 4 333 consumers. A distribution system has also been developed in Whyalla over the past five years, and at 30 June 1974 involved 44 kilometres of mains serving 1 591 consumers. An additional 27 705 customers are supplied with liquefied petroleum gas in bottles.

## 8.7 HOUSING AND BUILDING

### HOUSING

Features of housing development in South Australia have been the high proportion of stone houses built in earlier years, and of brick houses in more recent years. The familiar old-style stone houses are still to be seen in most settled parts of the State, especially in rural areas. The 1947 Census was the first at which houses with outer walls of brick outnumbered those with walls of stone.

The building materials used have largely been determined by the availability of building stone and deposits of clay suitable for brickmaking, and by the relative lack of natural timbers suitable for houses. In recent years brick veneer homes have become more popular, particularly in Urban Adelaide, but this is partly because of the poor building soil in some of the areas in and near Urban Adelaide.

### DWELLINGS: CENSUS DATA

Information on housing is obtained mainly from particulars of dwellings collected at each census. For the purpose of the census a 'dwelling' is any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term 'dwelling' includes houses, home units and flats, and in addition habitations ranging from a single-roomed shack to a multi-roomed hotel or institution. Dwellings have been classified as 'private' or 'non-private'. Private dwellings include private houses, home units, shares of private houses, self-contained flats, shares of self-contained flats, rooms, apartments, sheds and huts; non-private dwellings include hotels, motels, boarding houses, lodging houses and hostels, educational, religious, and charitable institutions, hospitals, and defence and penal establishments.

The classification of private dwellings has been extended since the 1966 Census to distinguish those dwellings classed as home units which were shown as houses or self-contained flats in the 1966 and previous censuses. Because of this change in the classification and because there are no standard definitions of home units and flats in common usage, care should be exercised in drawing comparisons between statistics at the 1971 Census and earlier censuses of houses, home units and self-contained flats.

Dwelling counts from the seven censuses to 1971 are shown in the next table: figures for censuses before 1966 exclude dwellings occupied solely by full-blood Aborigines.

#### Dwellings in South Australia, Censuses 1921 to 1971

Census	Occupied			Unoccupied (a)	Total Dwellings
	Private	Non-private	Total		
1921 . . . . .	104 295	3 619	107 914	4 431	112 345
1933 . . . . .	136 611	2 663	139 274	5 353	144 627
1947 . . . . .	166 118	2 420	168 538	3 547	172 085
1954 . . . . .	212 095	3 206	215 301	8 524	223 825
1961 . . . . .	259 344	2 564	261 908	17 061	278 969
1966 . . . . .	299 933	2 693	302 626	25 110	327 736
1971 . . . . .	342 064	2 048	344 112	30 553	374 665

(a) See page 400 'Unoccupied Dwellings'.

Total dwellings more than trebled in the fifty years to 1971, with the greatest increase (about 203 000 out of a total of 262 000) occurring subsequent to the 1947 Census.

In most of the tables which follow, details of dwellings at the 1971 Census are given by geographical distribution. New criteria were adopted at the 1966 Census for the delimitation of urban centres, a full description of which is contained in Part 5.2 pages 124-5. The relevant tables show totals for each section of the State only, namely:

- (a) Urban Adelaide; this area is the 'urban centre' of Adelaide.
- (b) Other Urban; includes all urban centres other than Urban Adelaide.
- (c) Rural; includes all areas not included in (a) or (b) above.

#### Occupied Dwellings

The next table gives details of occupied dwellings only, according to the class of dwelling. Private dwellings were classified into the following four categories:

*Private House*; houses (including semi-detached and terrace houses) used for dwelling purposes by a household group;

*Home Unit*; one of a group of three or more single or double storey homes, separate or joined together in sets of two or more, all occupying a common block of land;

*Other Self-contained Flat*; a part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

*Other Private Dwelling*; includes non-self-contained flats and such sheds, huts, caravans, etc. which are occupied on a permanent or semi-permanent basis.

**Occupied Dwellings by Class, South Australia  
Censuses 1966 and 1971**

Class of Dwelling	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
Private dwellings:					
Private house (a) . . . . .	271 171	210 921	48 420	47 287	306 628
Home unit (a) . . . . .	<i>n.a.</i>	12 604	699	127	13 430
Other self-contained flat (a) ..	20 802	14 834	1 377	358	16 569
Other private dwelling. . . . .	7 960	2 836	1 095	1 506	5 437
Total private dwellings . . . . .	299 933	241 195	51 591	49 278	342 064
Non-private dwellings . . . . .	2 693	988	542	518	2 048
Total occupied dwellings ..	302 626	242 183	52 133	49 796	344 112

(a) See notes on comparability page 394.

The following table shows the number of persons enumerated in each class of dwelling at the last two censuses.

**Number of Inmates by Class of Dwelling, South Australia  
Censuses 1966 and 1971**

Particulars	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
Persons enumerated:					
In private dwellings;					
Private house (a) . . . . .	981 870	723 702	166 919	168 190	1 058 811
Home unit (a) . . . . .	<i>n.a.</i>	22 029	1 434	298	23 761
Other self-contained flat (a) ..	45 268	30 313	3 098	851	34 262
Other private dwellings . . . . .	17 746	4 794	2 510	4 111	11 415
Total private dwellings . . . . .	1 044 884	780 838	173 961	173 450	1 128 249
In non-private dwellings . . . . .	47 217	28 592	9 147	5 540	43 279
Total occupied dwellings ..	1 092 101	809 430	183 108	178 990	1 171 528
Persons not enumerated in dwellings:					
Campers-out . . . . .	1 310	52	79	158	289
Migratory . . . . .	1 573	..	..	..	1 890
Total population . . . . .	1 094 984	809 482	183 187	179 148	1 173 707

(a) See notes on comparability page 394.

The percentage of persons enumerated in private dwellings was 95.4 at the 1966 Census, and by 1971 this percentage had increased slightly to 96.1. The percentage of persons enumerated in non-private dwellings decreased from 4.3 to 3.7.

### Occupied Private Dwellings

There were 299 933 occupied private dwellings at 30 June 1966, and by 30 June 1971 this number had increased to 342 064. Characteristics of these dwellings are shown in the tables which follow.

### Occupied Private Dwellings by Number of Rooms, South Australia Censuses 1966 and 1971

Number of Rooms Per Dwelling	Private House (a)	Home Unit (a)	Other Self- contained Flat (a)	Other Private	Total
30 June 1966					
1.. . . . .	146	<i>n.a.</i>	301	2 225	2 672
2.. . . . .	1 006	<i>n.a.</i>	3 048	2 097	6 151
3.. . . . .	4 526	<i>n.a.</i>	7 399	1 776	13 701
4.. . . . .	30 428	<i>n.a.</i>	6 922	909	38 259
5.. . . . .	131 128	<i>n.a.</i>	2 096	522	133 746
6.. . . . .	65 446	<i>n.a.</i>	628	236	66 310
7.. . . . .	24 865	<i>n.a.</i>	233	111	25 209
8 and over . . . . .	13 626	<i>n.a.</i>	175	84	13 885
Total . . . . .	271 171	<i>n.a.</i>	20 802	7 960	299 933
Average number of rooms per dwelling..	5.5	<i>n.a.</i>	3.6	2.6	5.3
30 June 1971					
1.. . . . .	305	273	651	2 407	3 636
2.. . . . .	1 416	1 940	2 792	1 348	7 496
3.. . . . .	6 512	5 747	6 510	868	19 637
4.. . . . .	36 721	4 816	4 866	353	46 756
5.. . . . .	158 321	512	1 085	192	160 110
6.. . . . .	68 741	88	345	115	69 289
7.. . . . .	22 544	27	132	83	22 786
8 and over . . . . .	12 068	27	188	71	12 354
Total . . . . .	306 628	13 430	16 569	5 437	342 064
Average number of rooms per dwelling..	5.3	3.3	3.3	2.2	5.1

(a) See notes on comparability page 394.

The number of rooms includes kitchen and enclosed sleep-out, but does not include bathroom, toilet, pantry, laundry or storerooms, halls or rooms used only for business purposes. A combined living-dining room or combined kitchen-living or kitchen-dining room was counted as one room.

The largest increase in the five-year period was in five-roomed dwellings. In 1966 five-roomed dwellings were 44.6 per cent of all occupied dwellings; by 1971 this percentage had increased to 46.8. The total increase in private dwellings was approximately 42 100 and 26 400 of these were five-roomed dwellings.

The average number of occupants per occupied private dwelling had fallen progressively from 4.03 in 1933 to 3.65 in 1947 and to 3.49 in 1954. The figures then rose slightly to 3.54 in 1961 fell to 3.48 in 1966, and fell further to 3.30 in 1971.

**Occupied Private Dwellings by Number of Inmates, South Australia**  
**Census 30 June 1971**

Number of Inmates Per Dwelling	Private House	Home Unit	Other Self- contained Flat	Other Private	Total
1.. . . . .	30 047	6 169	5 454	2 617	44 287
2.. . . . .	77 482	5 252	7 082	1 331	91 147
3.. . . . .	58 236	1 292	2 400	642	62 570
4.. . . . .	64 046	486	1 041	429	66 002
5.. . . . .	41 951	159	376	208	42 694
6.. . . . .	20 751	50	147	115	21 063
7.. . . . .	8 275	14	46	47	8 382
8 and over . . . . .	5 840	8	23	48	5 919
<b>Total . . . . .</b>	<b>306 628</b>	<b>13 430</b>	<b>16 569</b>	<b>5 437</b>	<b>342 064</b>
<b>Total inmates..</b>	<b>1 058 811</b>	<b>23 761</b>	<b>34 262</b>	<b>11 415</b>	<b>1 128 249</b>
<b>Average number of inmates per dwelling</b>	<b>3.45</b>	<b>1.77</b>	<b>2.07</b>	<b>2.10</b>	<b>3.30</b>

**Occupied Private Houses and Self-contained Flats**

The tables in this section give details of occupied private houses and self-contained flats only.

The following two tables give details of occupied private houses and self-contained flats by the type of occupancy and material of outer walls respectively.

For occupied private houses the proportion of owners and purchasers by instalments fell from 77.0 per cent to 73.8 per cent between the 1966 and 1971 Censuses and the proportion of tenants increased from 21.3 per cent to 22.3 per cent. On the other hand the increase in occupancy of flats was largely on a rental basis, up from 78.6 per cent to 82.0 per cent.

**Occupied Private Houses and Self-contained Flats by Nature of Occupancy  
South Australia, Censuses 1966 and 1971**

Nature of Occupancy	30 June 1966	30 June 1971			
	Total	Urban		Rural	Total
		Adelaide	Other		
<b>PRIVATE HOUSES (a)</b>					
Owner, purchaser by instalments . . . . .	208 744	162 951	29 585	33 896	226 432
Tenant of Housing Trust . . . . .	25 412	21 718	9 040	719	31 477
Tenant of employer . . . . .	<i>n.a.</i>	1 725	4 081	4 167	9 973
Tenant, other . . . . .	32 181	18 904	3 985	3 931	26 820
Other . . . . .	3 524	2 962	1 135	3 759	7 856
Not stated . . . . .	1 310	2 661	594	815	4 070
<b>Total private houses . . . . .</b>	<b>271 171</b>	<b>210 921</b>	<b>48 420</b>	<b>47 287</b>	<b>306 628</b>
<b>OTHER SELF-CONTAINED FLATS (a)</b>					
Owner, purchaser by instalments . . . . .	4 018	1 819	147	110	2 076
Tenant of Housing Trust . . . . .	2 083	1 124	12	1	1 137
Tenant of employer . . . . .	<i>n.a.</i>	171	112	40	323
Tenant, other . . . . .	14 270	10 972	1 007	149	12 128
Other . . . . .	339	386	62	42	490
Not stated . . . . .	92	362	37	16	415
<b>Total self-contained flats . . . . .</b>	<b>20 802</b>	<b>14 834</b>	<b>1 377</b>	<b>358</b>	<b>16 569</b>

(a) See notes on comparability page 394.

At the 1971 Census the number of private dwellings with outer walls of brick (including brick veneer) represented almost 67 per cent of all private houses and self-contained flats. This was a significant increase over the 1966 proportion of 59 per cent. Dwellings of stone walls accounted for nearly 20 per cent of the total in 1966 and fell to 17 per cent in 1971.

**Occupied Private Houses and Self-contained Flats by Material of Outer Walls  
South Australia, Censuses 1966 and 1971**

Material of Outer Walls	30 June 1966		30 June 1971	
	Houses (a)	Flats (a)	Houses	Flats
Brick . . . . .	144 848	13 722	183 784	12 452
Brick veneer . . . . .	13 822	488	18 613	330
Stone . . . . .	55 011	3 124	52 927	2 227
Concrete . . . . .	15 843	2 347	8 742	805
Timber . . . . .	12 679	222	13 160	173
Metal . . . . .	5 766	197	6 244	141
Fibro-cement . . . . .	22 502	680	22 253	412
Other . . . . .	700	22	905	29
<b>Total . . . . .</b>	<b>271 171</b>	<b>20 802</b>	<b>306 628</b>	<b>16 569</b>

(a) See notes on comparability page 394.





**Occupied Private Houses and Self-contained Flats by Number of Motor Vehicles  
South Australia, Censuses 1966 and 1971 (continued)**

Number of Vehicles	30 June 1966	30 June 1971			Total
	Total	Urban		Rural	
		Adelaide	Other		
		<b>OTHER SELF-CONTAINED FLATS (a)</b>			
No vehicles . . . . .	7 793	4 648	292	54	4 994
One vehicle . . . . .	10 176	8 050	779	200	9 029
Two vehicles . . . . .	1 604	1 437	218	63	1 718
Three vehicles . . . . .	210	188	32	26	246
Four or more vehicles . . . . .	69	103	15	8	126
Not stated . . . . .	950	408	41	7	456
<b>Total self-contained flats</b>	<b>20 802</b>	<b>14 834</b>	<b>1 377</b>	<b>358</b>	<b>16 569</b>

(a) See notes on comparability page 394.

### Unoccupied Dwellings

Unoccupied dwellings include vacant dwellings available for sale or renting, dwellings such as weekenders or holiday homes and seasonal workers quarters which were not occupied on Census night; dwellings normally occupied but whose occupants were temporarily absent on the night of the Census; newly completed dwellings where owners or tenants had not entered into occupation on Census night; dwellings described as 'to be demolished', 'condemned', 'exhibition home', etc.; and buildings constructed as dwellings but used for non-dwelling purposes on the night of the Census.

**Reason for being Unoccupied by Class of Unoccupied Private Dwellings  
South Australia, Census 1971**

Reason Unoccupied	Class of Dwelling				Total
	Private House	Home Unit	Other Self-contained Flat	Other Private	
For sale . . . . .	1 900	120	95	3	2 118
To let . . . . .	1 625	75	767	101	2 568
Newly built . . . . .	1 335	147	312	2	1 796
Vacant for repair . . . . .	1 296	10	77	12	1 395
Holiday house . . . . .	9 056	147	319	162	9 684
Condemned . . . . .	1 313	5	36	17	1 371
Temporarily vacant . . . . .	6 686	420	757	156	8 019
Other reasons . . . . .	2 770	37	85	35	2 927
Not stated . . . . .	572	21	56	26	675
<b>Total . . . . .</b>	<b>26 553</b>	<b>982</b>	<b>2 504</b>	<b>514</b>	<b>30 553</b>

## BUILDING

## BUILDING CONTROL

The Building Act, 1923-1965 gave local government authorities power to control building operations within their municipality or district. This power was not automatic but followed a request from a local government authority for all, or a specified portion, of its area, to be brought under the Act. The Building Act, 1970-1971 has brought each area of a local government municipality or district within the State under the provisions of the Act. However, a council may petition to the Governor for a proclamation that the Act (or any specified portion of the Act) shall not apply within an area or portion of an area. In areas outside the jurisdiction of the Building Act certain building provisions under the Local Government Act, 1934-1974 apply.

Persons erecting or altering buildings on land coming under the Building Act are required to submit to a building surveyor appointed by the local government authority details and plans of the work envisaged and to receive written approval before commencing operations. Authorities concern themselves with such things as the size and location of buildings, the materials used, the height of ceilings and the provision of ventilation and drainage. They have the power to disapprove plans, subject to a right of appeal. Following the approval of plans, local government inspectors visit the construction site to inspect foundations and may visit the site at other times to check that council requirements are being met.

In addition to administering the general site and structural requirements of the Act, authorities may effect their own by-laws under the Local Government Act, 1934-1974. A by-law may prescribe a higher minimum size for dwelling sites than that provided under the Act or may regulate the positioning of a dwelling on a site. One of the most important by-laws is that of defining particular areas or zones within which the nature of buildings and their use may be restricted. Thus certain areas may be proclaimed residential areas with industrial and commercial premises, beyond those already in existence, prohibited; other areas are designated as industrial zones.

In some local government areas such by-laws have been replaced by regulations under the Planning and Development Act, 1966-1973. During 1971 the Builders Licensing Act, 1967-1974 came into force with provisions for the licensing of builders.

## BUILDING OPERATIONS

Details of building operations in South Australia are compiled from returns collected from all builders of new buildings valued at \$2 000 and over on completion. The statistics relate only to buildings as distinct from other construction activity such as roads, bridges, earthworks and water storage. Alterations and additions of \$10 000 and over to existing buildings are included with new buildings.

All values shown exclude the value of land and unless otherwise stated represent the anticipated or actual value of buildings upon completion.

**Building Approvals**

The following table shows the value of new buildings, and alterations and additions valued at \$ 2 000 and over on completion for which approval was given during 1972-73 and 1973-74. In addition to information on permits issued to private persons and organisations for building in areas subject to building control, particulars have been included of buildings known to be projected or to have started in areas outside building control and details of contracts let or expenditure authorised by government and semi-government authorities.

**Building Approvals, South Australia**

Type of Building	1972-73			1973-74		
	Private	Govt	Total	Private	Govt	Total
	\$'000					
New buildings:						
Houses (a) . . . . .	125 900	12 563	138 462	159 491	13 658	173 149
Other dwellings . . . . .	27 069	2 151	29 220	52 973	2 939	55 911
Shops . . . . .	8 351	295	8 646	12 099	—	12 099
Hotels, etc. . . . .	3 176	—	3 176	5 678	—	5 678
Factories . . . . .	11 284	1 339	12 623	14 143	4 892	19 035
Offices . . . . .	15 217	3 085	18 302	13 637	15 090	28 728
Other business premises . . . . .	5 489	1 164	6 652	11 895	2 377	14 271
Entertainment, recreation . . . . .	3 183	4 202	7 385	3 854	364	4 218
Education . . . . .	1 249	26 618	27 867	1 720	36 767	38 487
Religion . . . . .	708	—	708	614	—	614
Health . . . . .	3 795	7 405	11 201	17 430	12 597	30 027
Miscellaneous . . . . .	5 870	10 657	16 527	3 533	10 899	14 433
Total value . . . . .	211 290	69 478	280 769	297 069	99 582	396 650
Alterations and additions (b) . . . . .	25 589	962	26 552	21 161	622	21 783
Total value of all buildings	236 880	70 441	307 321	318 230	100 203	418 433

(a) Before 1973-74, included semi-detached houses and cottage flats; these are now included with other dwellings.

(b) Alterations and additions of \$10 000 or more are included with new buildings.

In using approvals as an indicator of building activity it should be noted that certain projects may be cancelled, delayed or altered and resubmitted for approval, that large projects may be spread over a number of years, and that building costs may vary over the period of construction.

**Buildings Under Construction**

At the end of 1973-74 new buildings with an anticipated value when completed of \$312 045 000 were in the process of construction, with work done on these buildings valued at \$137 496 000. There were 5 364 houses and 3 363 other dwellings in the course of construction, having an anticipated value when completed of \$126 179 000.

**Value of Work Done**

Possibly the best measure of building activity is that of value of work done, i.e. of work actually carried out on buildings during the period. Information on the value of work done on owner-built houses is not collected; however, an

estimate based on the value of houses commenced, completed and under construction is calculated and this amounted to \$4 million, \$5.9 million and \$10.6 million in the years 1971-72, 1972-73 and 1973-74 respectively.

### Buildings: Value of Work Done, South Australia

Type of Building	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Houses (a) . . . . .	69 908	87 683	93 636	114 476	137 942
Other dwellings . . . . .	18 918	26 540	29 813	30 834	38 143
<b>Total dwellings (a) . . . . .</b>	<b>88 827</b>	<b>114 223</b>	<b>123 449</b>	<b>145 310</b>	<b>176 085</b>
Shops . . . . .	9 466	8 365	2 772	6 409	15 269
Hotels, etc. . . . .	3 818	4 015	3 577	4 689	4 602
Factories . . . . .	9 193	10 658	15 365	17 981	18 621
Offices . . . . .	10 551	11 536	19 735	17 630	19 472
Other business premises . . . . .	8 887	13 814	17 827	12 742	12 110
Entertainment, recreation . . . . .	1 472	2 262	4 247	8 469	6 434
Education . . . . .	14 064	20 637	20 447	23 968	25 395
Religion . . . . .	685	977	1 078	1 008	646
Health . . . . .	9 970	14 483	12 719	12 637	12 490
Miscellaneous . . . . .	4 773	7 153	3 870	5 561	11 447
<b>Total new buildings (a) . . . . .</b>	<b>161 706</b>	<b>208 124</b>	<b>225 083</b>	<b>256 402</b>	<b>302 571</b>

(a) Excludes owner-built houses. Before 1973-74 included semi-detached houses and cottage flats; these are now included with other dwellings.

### New Buildings Commenced

A building is recorded as commenced when work on the foundation has begun. In the table below commencements during 1972-73 and 1973-74 have been classified according to ownership at the date of commencement. Almost all houses recorded under the 'government' heading were being built for the South Australian Housing Trust, many of them being intended for sale on completion.

### New Buildings Commenced, South Australia<sup>(a)</sup>

Type of Building	1972-73			1973-74		
	Private	Govt	Total	Private	Govt	Total
			\$'000 (b)			
Houses (c) . . . . .	120 191	12 957	133 145	148 431	10 343	158 774
Other dwellings . . . . .	30 797	1 964	32 761	40 822	3 309	44 131
Shops . . . . .	9 250	123	9 374	16 959	12	16 971
Hotels, etc. . . . .	5 542	—	5 542	4 322	17	4 339
Factories . . . . .	14 246	2 791	17 036	18 337	1 751	20 088
Offices . . . . .	16 976	2 409	19 387	11 933	9 632	21 565
Other business premises . . . . .	5 796	2 827	8 623	9 923	2 654	12 576
Entertainment, recreation . . . . .	6 366	309	6 676	3 407	605	4 012
Education . . . . .	1 876	16 191	18 068	2 900	46 652	49 551
Religion . . . . .	1 067	—	1 067	493	—	493
Health . . . . .	2 770	9 603	12 372	6 933	10 353	17 289
Miscellaneous . . . . .	3 680	4 568	8 250	4 795	4 609	9 403
<b>Total value of new buildings commenced . . . . .</b>	<b>218 557</b>	<b>53 742</b>	<b>272 299</b>	<b>269 256</b>	<b>89 937</b>	<b>359 192</b>

(a) Alterations and additions of \$10 000 or more are included with new buildings.

(b) Anticipated completion value.

(c) Before 1973-74 included semi-detached houses and cottage flats; these are now included with other dwellings.

**New Buildings Completed**

Details of new buildings completed for the years 1969-70 to 1973-74 are given in the next table. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract or in the case of an owner-built house when the dwelling is either completed or occupied, whichever occurs first. However, the value in all cases is that of the building as a finished product.

**New Buildings Completed, South Australia**

Year	Number of Dwellings		Value of New Buildings			
	Houses (a)	Other Dwellings	Houses (a)	Other Dwellings (b)	Other	Total
						\$'000
1969-70 ..	7 504	2 657	72 898	16 007	58 733	147 638
1970-71 ..	8 308	4 000	84 639	26 001	90 256	200 895
1971-72 ..	9 061	4 184	97 834	27 411	89 792	215 036
1972-73 ..	8 977	4 217	110 357	30 333	114 702	255 394
1973-74 ..	9 045	3 963	133 537	35 694	103 067	272 296

(a) Before 1973-74 included semi-detached houses and cottage flats; these are now included with other dwellings.

The following table gives further details of dwellings completed over the five years to 1973-74. A noticeable feature of the table is the relative importance of other dwellings which accounted for 30 per cent of dwelling completions in 1973-74.

**Number of New Dwellings Completed, South Australia**

Type of Dwelling	1969-70	1970-71	1971-72	1972-73	1973-74
<b>Private:</b>					
Contract-built houses (a) .. ..	<i>n.a.</i>	6 042	6 635	7 117	7 632
Owner-built houses (b) .. .. .	<i>n.a.</i>	311	321	413	587
Total houses (a) .. .. .	5 902	6 353	6 956	7 530	8 219
Other dwellings .. .. .	2 612	3 755	4 114	4 039	3 468
Total private dwellings ..	8 514	10 108	11 070	11 569	11 687
<b>Government:</b>					
Houses (a) .. .. .	1 602	1 955	2 105	1 447	826
Other dwellings .. .. .	45	245	70	178	495
Total government dwellings	1 647	2 200	2 175	1 625	1 321
Total all dwellings .. .. .	10 161	12 308	13 245	13 194	13 008

(a) Before 1973-74 included semi-detached houses and cottage flats; these are now included with other dwellings.

(b) Owner-built houses are houses erected without services of contractor for whole job.

The value of buildings, other than dwellings, completed over the same period is shown below. Included under 'other business premises' are service-stations, warehouses and communication buildings and under 'miscellaneous' are defence establishments, buildings for law and order and certain institutional premises.

#### Value of New Buildings Other Than Dwellings Completed, South Australia<sup>(a)</sup>

Type of Building	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Shops .....	6 176	14 118	2 334	4 633	13 930
Hotels, etc. ....	2 974	4 093	3 246	3 779	4 682
Factories .....	7 945	10 734	17 889	12 529	20 603
Offices .....	6 870	13 178	16 800	14 118	12 484
Other business premises .....	9 966	9 699	8 772	25 996	11 497
Entertainment, recreation .....	1 337	1 532	2 178	8 767	3 114
Education .....	11 535	19 477	22 144	23 570	17 810
Religion .....	807	895	1 153	897	752
Health .....	8 067	8 164	11 663	16 808	10 191
Miscellaneous .....	3 057	8 365	3 618	3 605	8 004
<b>Total</b> .....	<b>58 733</b>	<b>90 256</b>	<b>89 792</b>	<b>114 702</b>	<b>103 067</b>

(a) Includes alterations and additions of \$10 000 and over to existing buildings, excludes alterations and additions less than \$2 000.

#### New Houses—Material of Outer Walls

A plentiful supply of clay and building stone together with a paucity of suitable timbers in South Australia has resulted in most houses being built of solid construction rather than brick veneer or other construction. In the table below new houses are classified according to the materials used in the outer walls.

#### New Houses: Material of Outer Walls, South Australia<sup>(a)</sup>

Year	Brick, Concrete, Stone		Brick Veneer and Stone Veneer		Asbestos-Cement		Other	
	Number	Value	Number	Value	Number	Value	Number	Value
		\$'000		\$'000		\$'000		\$'000
COMMENCED								
1969-70 .....	4 695	41 167	2 531	20 554	666	4 795	48	366
1970-71 .....	4 874	55 828	3 160	28 325	682	5 012	53	394
1971-72 .....	4 930	63 300	3 090	30 268	805	6 021	59	558
1972-73 .....	5 796	83 412	3 610	42 101	812	6 706	101	928
1973-74 .....	4 905	89 396	3 723	55 737	936	9 307	159	1 806
COMPLETED								
1969-70 .....	4 526	48 825	2 323	19 414	606	4 330	49	331
1970-71 .....	4 760	54 124	2 841	25 229	647	4 757	60	523
1971-72 .....	4 927	60 659	3 272	30 619	806	6 004	56	554
1972-73 .....	5 064	68 956	3 060	34 345	756	6 180	97	876
1973-74 .....	4 747	77 858	3 145	43 542	915	8 859	145	1 579

(a) Before 1973-74 included semi-detached houses and cottage flats, and alterations and additions valued at \$10 000 and over.

In 1973-74 brick veneer houses constituted 38 per cent of commencements. Although the larger proportion of brick veneer houses are built by the South Australian Housing Trust a wider acceptance of this type of construction is indicated by the increasing number being erected by private contractors.

### Location of New Dwellings

In recent years the greatest development has occurred in the local government areas of Noarlunga, Salisbury and Tea Tree Gully; during the five years 1969-70 to 1973-74, new dwellings in these areas accounted for 30 per cent of the total State completions. Of the country local government areas Whyalla has recorded the greatest number of completions each year from 1959.

### Location of Dwellings Completed, South Australia<sup>(a)</sup>

Local Government Area	1969-70	1970-71	1971-72	1972-73	1973-74
Brighton (C) . . . . .	101	150	185	204	161
Burnside (C) . . . . .	273	272	302	365	404
Campbelltown (C) . . . . .	321	364	452	546	366
Elizabeth (C) . . . . .	14	186	276	181	257
Enfield (C) . . . . .	282	388	615	614	559
Glenelg (C) . . . . .	232	377	312	284	132
Henley and Grange (C) . . . . .	200	190	253	279	140
Marion (C) . . . . .	410	481	488	552	491
Meadows (DC) . . . . .	203	287	356	391	537
Millicent (DC) . . . . .	57	58	63	47	47
Mitcham (C) . . . . .	578	719	732	650	599
Mount Gambier (C) . . . . .	86	96	120	186	223
Munno Para (DC) . . . . .	68	142	98	103	130
Murray Bridge (M) . . . . .	24	61	92	93	70
Noarlunga (DC) . . . . .	912	1 203	1 142	1 103	1 201
Payneham (C) . . . . .	119	235	214	170	264
Port Adelaide (C) . . . . .	174	161	191	243	222
Port Augusta (C) . . . . .	131	152	186	121	108
Port Lincoln (C) . . . . .	87	89	91	63	94
Salisbury (C) . . . . .	1 224	1 288	1 478	1 597	1 374
Stirling (DC) . . . . .	87	92	140	156	170
Tea Tree Gully (C) . . . . .	942	1 162	1 305	1 354	1 369
Unley (C) . . . . .	207	340	251	207	177
West Torrens (C) . . . . .	544	635	505	515	239
Whyalla (C) . . . . .	470	384	391	363	246
Woodville (C) . . . . .	473	658	763	661	654
Other (b) . . . . .	1 951	2 151	2 260	2 162	2 795
<b>Total State . . . . .</b>	<b>10 170</b>	<b>12 321</b>	<b>13 261</b>	<b>13 210</b>	<b>13 029</b>

(a) Dwelling units—houses and other dwellings plus dwellings attached to other buildings.

(b) Includes Unincorporated Areas.

(C) Municipality with city status (M) Municipality (DC) District Council



**Building Employment**

Details of building employment in South Australia are given in the next table. The figures are an average of the number of persons employed on four days in the year, namely at the end of March, June and September and in mid-December. They include all contractors and sub-contractors, and employees of contractors, sub-contractors and government instrumentalities, who on these four days were engaged on the construction, alteration, repair and maintenance of buildings, but exclude persons working on owner-built houses or for contractors or sub-contractors who undertake only alterations, additions, repairs and maintenance. Persons 'actually engaged' include those temporarily laid off because of weather. Some duplications may occur as a result of frequent movement between jobs or because some persons (such as electricians) may work on several buildings which are under construction simultaneously.

The average employment figure of 16 239 for 1973-74 was made up of 8 469 persons working on new dwellings, 5 240 working on other new buildings and 2 230 employed on additions, alterations, repairs and maintenance.

**Building Employment, South Australia**

Classification	1969-70	1970-71	1971-72	1972-73	1973-74
PERSONS ENGAGED					
Occupational status:					
Contractors . . . . .	581	582	575	664	767
Sub-contractors . . . . .	3 277	3 767	3 823	4 226	4 447
Wage-earners . . . . .	9 011	9 494	9 996	10 411	11 026
Trade:					
Carpenters . . . . .	3 139	3 339	3 364	3 592	3 843
Bricklayers . . . . .	2 118	2 240	2 249	2 449	2 620
Painters . . . . .	1 147	1 260	1 258	1 322	1 365
Electricians . . . . .	826	904	942	1 003	1 106
Plumbers . . . . .	1 187	1 265	1 261	1 382	1 523
Builders labourers . . . . .	1 629	1 661	1 856	2 096	2 202
Other . . . . .	2 822	3 173	3 464	3 458	3 581
Total . . . . .	12 868	13 842	14 394	15 302	16 239

**THE SOUTH AUSTRALIAN HOUSING TRUST**

The South Australian Housing Trust which was constituted by Act of Parliament in 1936 provides houses and flats for rental and houses for sale.

**Rental Dwellings**

When the South Australian Housing Trust commenced operations in 1937 it undertook, in the words of its first Annual Report, 'the provision of accommodation necessary for decent living at low rentals for persons coming within the lower income group.' The enabling legislation confined the Trust's activities for many years to the building and letting of double-unit attached houses. Subsequent legislation provided for the construction of single unit houses for

rental and an eventual removal of statutory limitations on the capital cost of houses permitted the construction of larger single-unit houses. At 30 June 1974 the Trust had completed 35 592 dwellings for rental.

In 1952 Trust rental accommodation was expanded with the construction of the first flats for single persons and for married couples without young children. Originally only two-storey flat developments were built; since 1953, however, three-storey flats and single-storey villa flats have also been constructed. At 30 June 1974 the Trust had built 2 150 flat units, of which 2 091 were for rental. In 1954 construction of small groups of cottage flats for elderly persons began on five sites in the metropolitan area. At 30 June 1974, 2 403 of these units had been built; 854 for charitable organisations and 1 549 for rental by the Trust.

### Dwellings for Sale

Since the inception of its program of building houses for sale in 1946, the Trust has greatly expanded its operations in this area. Under the original scheme, purchasers were required to provide their own finance, either from a lending institution or from their own resources. Since 1952, however, the Trust has been able to advance money on second mortgage. During the year ended 30 June 1974, 758 houses were completed and sold throughout the State under the bank finance sales scheme.

In addition, under the rental-purchase scheme established in 1962, houses are made available for a minimum deposit of \$100 under an agreement to purchase. At the end of June 1974, 6 347 houses had been sold under these agreements.

The Trust provides a variety of sizes and designs for sale houses, depending on cost, location, and availability of building materials. Houses are provided for primary producers on their own land and for employees of State Government departments at the request of the departments concerned.

Details of dwellings completed by the Trust since its inception, both for rent and for sale, are given in the following table.

South Australian Housing Trust, Number of Dwellings Completed<sup>(a)</sup>

Period	Dwellings				Rural Dwellings including Soldier Settlers	Total
	Single Units	Double Units (b)	Cottage Flats	Other		
1937-1969 .. ..	35 400	(c)24 062	1 660	1 476	1 234	63 832
1969-70 .. . . .	1 299	303	65	45	—	1 712
1970-71 .. . . .	1 371	420	177	245	—	2 213
1971-72 .. . . .	1 396	498	239	68	—	2 201
1972-73 .. . . .	869	417	158	174	—	1 618
1973-74 .. . . .	812	281	104	142	—	1 339
<b>Total .. . . .</b>	<b>41 147</b>	<b>25 981</b>	<b>2 403</b>	<b>2 150</b>	<b>1 234</b>	<b>72 915</b>

(a) Excludes emergency and temporary dwellings.

(b) Number of individual dwelling units.

(c) Includes a small number of triple-units.

The Trust's early activities concentrated on the provision of rental and sales dwellings in small groups. The expansion of its activities has led the Trust into the more complex areas of town planning and urban development. At Elizabeth, 27 kilometres north of Adelaide, a comprehensive development including a wide range of houses for sale and houses and flats for rent has grown into a city, complete with commercial and industrial areas. There are also several other areas throughout the State where the Trust is helping to provide housing in close proximity to employment.

Most of the funds used to finance the building operations of the Trust are borrowed either from the State Government under the Housing Agreement or from semi-government borrowings arranged in conjunction with the State Treasury. Details of funds employed, and of the revenue and expenditure of the the Trust in recent years are given in Part 11.4 Public Finance.

### Special Rental Houses

Under the terms of the *Housing Agreement Act 1973*, advances may be used to purchase and renovate older houses in order that they can be let to needy families. This scheme has enabled the Trust to increase its stock of rental houses especially in the City of Adelaide, and inner urban and industrialised areas where it cannot build new houses because of the lack of vacant land. To 30 June 1974 the Trust had purchased a total of 422 of these dwellings.

## HOUSING AGREEMENTS

In July 1953 the South Australian Government became party to an agreement already existing between Australian and certain other State Governments under which the Australian Government made substantial loans to the States for the provision of housing. The initial agreement was renewed in 1956, 1961 and again in 1966 for a further five years.

Under the Housing Agreement the Australian Government made advances to the State for the erection of dwellings by the South Australian Housing Trust and for the provision of finance for home builders by means of loans, through the Home Builders Fund, to the State Bank and certain building societies. At least 30 per cent of the funds provided had to be channelled through the Home Builders Fund.

The Housing Agreement was terminated on 30 June 1971 and new legislation, the *States Grants (Housing) Act 1971*, operated from 1 July 1971. Advances made pursuant to the terminated Agreements are repayable with interest by the States over fifty-three years.

From 1 July 1971, the States were responsible for financing their housing programs from Loan allocations but, under the new legislation, received Australian Government assistance by way of grants towards the debt charges involved. In terms of the *States Grants (Housing) Act 1971* which prescribed the arrangements and conditions, South Australia was to receive grants of \$14 107 500 in respect of each of the five years from 1971-72 to 1975-76, payable over a period of thirty years. However, because of new arrangements (*Housing*



Persons currently eligible for assistance include ex-servicemen and women of the Australian Forces and Nursing Services who were enlisted or appointed for or employed on active service outside Australia in the 1914-18 War, the 1939-45 War, in Korea, Malaya or Vietnam, or in any other areas as specified from time to time by the Australian Government. In addition, National Servicemen and Permanent Members of the Force may be eligible if their period of service did not cease before 7 December 1972.

Also eligible are certain other ex-service personnel who served in British Forces and who were resident in Australia before enlistment, and certain members of the Mercantile Marine Services. Assistance may also be granted to the widow or in some cases to the widowed mother of an eligible person, and to a representative of an approved welfare organisation who, subject to certain conditions, served outside Australia on or after 3 September 1939 with a body, contingent or detachment of the Australian Forces.

Assistance is given for building a home, in purchasing a new or existing home, or in discharging a mortgage which has been arranged with the prior approval of the Branch. In certain circumstances a person who has not received the maximum loan may receive a further loan to undertake certain additions. The maximum loan available at 30 June 1975 was \$15 000 and the interest rate is 3½ per cent for the first \$12 000 lent and 7¼ per cent on the balance of loan above \$12 000.

Funds used by the Defence Service Homes Branch are made available from Australian Government Consolidated Revenue.

#### Defence Service Homes Branch, South Australia

Year	Activities During Year		Advances Outstanding at End of Year	
	Homes Provided	Capital Advanced	Number	Amount
		\$'000		\$'000
1968-69 . . . . .	450	3 470	16 700	75 916
1969-70 . . . . .	509	4 100	16 693	76 405
1970-71 . . . . .	537	4 380	16 719	77 248
1971-72 . . . . .	669	6 060	16 801	79 389
1972-73 . . . . .	685	6 208	16 618	80 504
1973-74 . . . . .	804	10 580	16 747	84 354

#### Home Savings Grant

Under the Australian Government's Home Savings Grant Scheme introduced in 1964, married, widowed and divorced persons under 36 years of age, who have lived and saved in Australia for at least three years, may become eligible for a grant of \$750 to assist them in obtaining a home. To be eligible for the maximum grant a couple must have saved \$2 250 or more in an acceptable form before entering into a contract for the purchase or construction of a dwelling or, if an owner/builder, before commencing construction. Persons who have saved less than \$2 250 may qualify for a reduced grant. Money

already expended on the purchase of land or on the purchase or construction of a dwelling may be included in acceptable savings. An application for a grant must be lodged not longer than twelve months after signing a contract (or commencing to build if an owner/builder) although, in special circumstances, an application lodged after twelve months may be considered.

A total of 35 093 Home Savings Grants had been approved in South Australia at 30 June 1974, representing a total payment of \$16 216 938.

#### **Migrant Flats**

The Department has fifty fully furnished self-contained flats in the southern suburbs of Adelaide to provide transitory accommodation of up to six months for selected newly arrived migrant families who have been sponsored under the Australian Government Immigration Scheme.

#### **OTHER HOME FINANCE SOURCES**

The State Bank of South Australia advances funds provided by the State Government under the Advances for Homes Act, 1928-1970, funds provided from the Home Builders Fund, and its own funds. The Savings Bank of South Australia advances its own funds either as Homes Act loans guaranteed by the State Treasurer or on its own terms. Homes Act loans are also arranged by the South Australian Superannuation Department, in addition to loans on its own terms. The Commonwealth Savings Bank and the private savings banks make long-term housing advances.

At 1 April 1973 maximum loans available from the above institutions varied with differing rates for new and existing houses and for solid and timber frame construction. Interest rates charged ranged from 6½ per cent to 8 per cent and periods of repayment from fifteen to forty years.

Life assurance companies make housing loans which are normally collaterally secured by a life assurance policy. Maximum loan limits vary considerably between companies but in general are higher than those offered by the banks. Maximum repayment terms are for up to thirty years and interest rates at 1 April 1973 varied between 7½ and 10 per cent. Another source of housing finance is the building societies, details of which are given in Part 12.3 Other Private Finance.

#### **Housing Loans Insurance Scheme**

The Housing Loans Insurance Corporation is constituted under the *Housing Loans Insurance Act 1965* to insure approved lenders against losses arising from the making of housing loans. The main purpose of the activities of the Housing Loans Insurance Corporation is to assist people to obtain, as a single loan and at a reasonable rate of interest, the money they need and can afford to borrow to obtain a home suited to their requirements.

The Housing Loans Insurance Corporation insures loans that are made for a wide range of purposes in addition to the purchase or construction of a dwelling. The other purposes include alterations, extensions or improvements

to a dwelling, and the provision or improvement of roads, kerbing and footpaths. An insured loan may be made only by an approved lender. The approved classes of lenders include banks, building societies, co-operative housing societies, friendly societies, life insurance companies and trustee companies.

During 1973-74, 2 741 housing loans aggregating \$38 619 000 were insured in South Australia.

## **PRODUCTION**

### **9.1 RURAL INDUSTRIES**

Two-thirds of the area of the State, from the northern boundary down to latitude 32°S, is mainly desert and unsuitable for agriculture. The rainfall is low and erratic, coming mainly from thunderstorms, and averages less than 200 millimetres a year. High day temperatures during a large part of the year cause a very high rate of evaporation.

South of latitude 32°S is an area where the rainfall is more regular and higher; this land, mostly semi-arid, is transitional between the desert and the agricultural regions. Small areas are planted to cereals and extensive areas, adjacent to the River Murray and irrigated from the waters of the river, are devoted to horticulture and viticulture.

A third region extending as far as latitude 36°S enjoys an average annual rainfall varying according to locality between 250 and 1 250 millimetres a year and has a reliable growing season of five months or more. This is the main agricultural region of the State and is devoted to ley farming, producing wheat, barley, oats, fruit and vegetables and carrying sheep and cattle.

The south-eastern part of the State has a rainfall in excess of 1 000 millimetres a year but the physiography is not congenial to agriculture, most of the usable area being devoted to grazing and afforestation.

Cereal crops (of which wheat is the most important) are sown following opening rains, which are normally expected in April or May. The growing



season varies between districts, but generally can be considered as the eight months April to November, and good rains during this period are vital to the success of the season's harvest.

### Rural Statistics

Rural statistics are prepared from annual returns collected from every holding of one hectare or more, used for the production of agricultural products or the raising of livestock (including poultry) and the production of livestock products.

Returns are collected from some 29 000 holdings in South Australia each year. Particulars relate to rural operations for one complete year ended 31 March but where harvesting of some crops (mainly fruit) has not been completed by that date, returns are collected shortly afterwards.

An owner or occupier who works more than one holding is normally required to report details for each holding. However, where the holdings are near to one another and are in effect worked as one farm, a composite return is obtained, and is treated as covering a single holding in the district in which the main farm is situated.

The number and area of holdings in each statistical division for the past two years are shown in the following table.

**Rural Holdings, Statistical Divisions, South Australia**

Statistical Division	Holdings		Area of Holdings	
	1972-73	1973-74	1972-73	1973-74
	Number		'000 hectares	
Adelaide.. . . . .	4 386	4 250	102	97
Central . . . . .	3 127	3 098	1 284	1 282
Kangaroo Island . . . . .	467	456	312	315
Mount Lofty Ranges . . . . .	5 531	5 660	770	770
Murray . . . . .	6 033	5 914	2 992	2 981
South East . . . . .	4 461	4 445	2 286	2 278
Eyre . . . . .	2 335	2 312	3 919	3 875
Northern . . . . .	2 346	2 293	2 958	2 963
Far North . . . . .	315	310	50 749	50 282
<b>Total . . . . .</b>	<b>29 001</b>	<b>28 738</b>	<b>65 372</b>	<b>64 843</b>

A classification of holdings by type of main activity was undertaken for the year ended 31 March 1969 based on estimates of gross receipts of each activity. Values were allocated to areas of crops and livestock numbers reported on the returns submitted for the year.

The following table gives a summary of the type of activity of rural holdings in each statistical division.

## Rural Holdings: Classified by Type of Activity, South Australia, 1968-69

Type of Activity	Statistical Division						Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	
Number of Holdings							
Commercial holdings:							
Sheep—cereal grain . . . .	70	1 239	517	1 505	512	1 471	6 303
Sheep . . . . .	77	18	554	1 60	1 725	100	3 442
Cereal grain . . . . .	20	1 177	106	434	27	490	2 720
Cattle (meat production) . .	26	3	121	22	329	5	562
Cattle (milk production) . .	223	80	1 318	371	676	12	2 715
Vineyards . . . . .	116	1	329	1 049	4	—	1 499
Fruit (other than vine) . . .	341	1	269	997	3	1	1 621
Vegetables:							
Potatoes . . . . .	45	12	145	5	24	—	234
Other and mixed . . . . .	805	72	45	188	15	—	1 194
Poultry . . . . .	92	38	61	70	7	1	279
Pigs . . . . .	42	39	61	58	21	17	263
Other . . . . .	55	3	16	8	11	—	104
Multi-purpose . . . . .	59	92	412	294	286	39	1 326
Total classified . . . . .	1 971	2 775	3 954	5 161	3 640	2 136	22 262
Unclassified:							
Sub-commercial . . . . .	1 064	286	1 196	625	525	109	4 134
Unused, special, etc. . . . .	1 163	148	403	383	306	113	2 741
Total holdings . . . . .	4 198	3 209	5 553	6 169	4 471	2 358	29 137

(a) Includes Kangaroo Island, Northern and Far North Divisions.

## Rural Employment

In the following table particulars are given of permanent and temporary rural employment during the last five years. The figures include male and female workers. Females engaged mainly in domestic duties are excluded from the table.

Rural Employment, South Australia  
At 31 March

Particulars	1970	1971	1972	1973	1974
Permanent workers:					
Owners, lessees, etc. . . . .	21 526	21 436	21 405	21 454	21 124
Relatives (not paid wages) . . . .	449	316	141	103	109
Employees . . . . .	7 535	6 992	6 161	5 983	5 772
Total . . . . .	29 510	28 744	27 707	27 540	27 005
Temporary workers . . . . .	13 720	13 926	12 637	13 271	12 260
Total workers . . . . .	43 230	42 670	40 344	40 811	39 265

## Farm Machinery

Particulars of farm machinery on rural holdings in South Australia for each of the last five years, and in each statistical division at 31 March 1974 are given in the next two tables.

**Farm Machinery on Rural Holdings, South Australia  
At 31 March**

Type of Machine	1970	1971	1972	1973	1974
<b>Shearing machines:</b>					
Machines . . . . .	15 746	15 852	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Stands . . . . .	30 080	30 205	29 586	<i>n.a.</i>	<i>n.a.</i>
<b>Milking machines:</b>					
Machines . . . . .	5 947	5 571	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Units . . . . .	17 642	17 082	16 261	15 834	<i>n.a.</i>
Rotary hoes and rotary tillers . . . .	5 612	5 442	6 005	6 239	6 484
<b>Tractors:</b>					
Wheeled . . . . .	34 121	33 971	34 223	34 370	34 749
Crawler . . . . .	3 143	3 052	2 974	2 888	2 839
<b>Grain drills:</b>					
Combine . . . . .	15 481	15 100	15 355	15 408	15 232
Other . . . . .	4 953	4 804	4 485	4 148	4 084
Fertiliser distributors . .	9 736	9 667	9 816	9 863	10 007
Harvesters, headers and strippers . . . .	11 218	11 208	11 385	11 090	11 013
Forage harvesters . . . .	914	814	856	877	892
Pick-up balers . . . . .	5 367	5 404	5 582	5 624	5 829

**Farm Machinery on Rural Holdings: Statistical Divisions, South Australia  
At 31 March 1974**

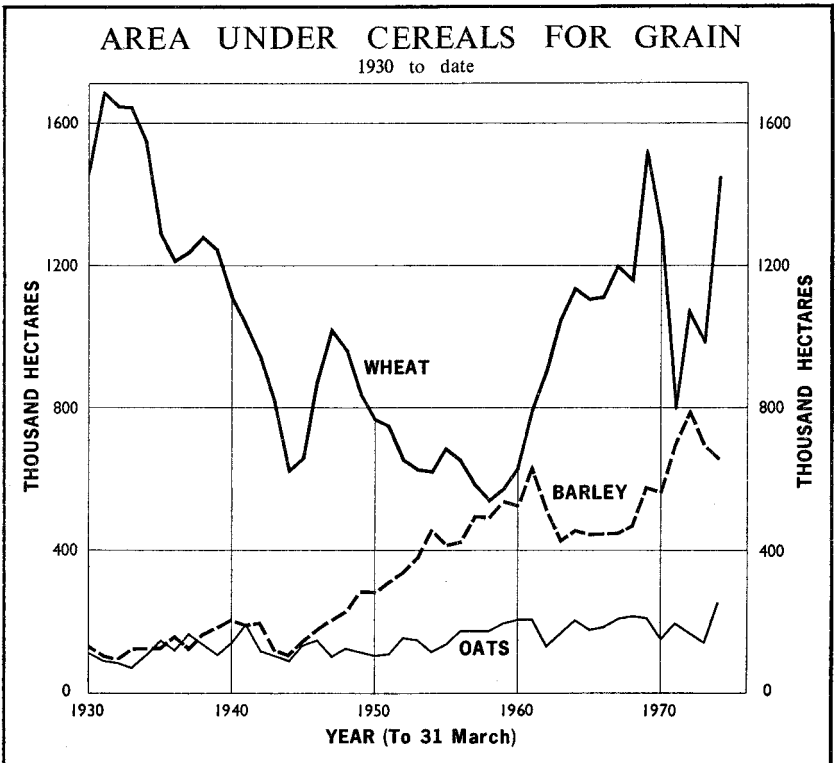
Type of Machine	Statistical Division							Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	
Rotary hoes and rotary tillers . . . . .	1 490	554	1 273	1 728	634	373	358	6 484
<b>Tractors:</b>								
Wheeled . . . . .	2 404	4 600	5 840	8 103	5 155	4 853	2 805	34 749
Crawler . . . . .	313	180	427	383	511	582	209	2 839
<b>Grain drills:</b>								
Combine . . . . .	291	2 955	1 894	3 130	1 698	3 114	1 858	15 232
Other . . . . .	100	425	690	865	815	888	150	4 084
Fertiliser distributors . .	828	842	2 557	1 861	2 021	1 100	407	10 007
Harvesters, headers and strippers . . . . .	135	2 343	1 159	2 331	1 066	2 340	1 363	11 013
Forage harvesters . . . .	54	81	243	185	220	67	28	892
Pick-up balers . . . . .	143	962	1 162	977	1 306	570	559	5 829

(a) Includes Kangaroo Island and Far North Divisions.

## AGRICULTURE

Most of the land area of South Australia is arid or semi-arid and cannot be used for agricultural production. This severe natural limitation means that even with modern farming methods only 5 million or more than 65 million hectares in rural holdings are devoted to cropping or permanent improved pasture. The area under crop in recent years has varied between 2 and 2.5 million hectares most of which is planted to cereals for the production of grain, hay and forage. About 57 000 hectares are used for the production of fruit and vegetables.

The cereals—wheat, barley and oats—sown for grain account for about 90 per cent of the total area cropped in South Australia. In addition to hay and green forage the remainder of the area is devoted mainly to orchards, vineyards and vegetable production. Climatic conditions, particularly the relatively low winter rainfall and the dry hot summer, favour cereal growing; one advantage being the low incidence of stem rust, a serious disease in the moister areas of the Australian wheat belt.



The area sown to the more important crops during the last five seasons is given in the following table.

#### Area Sown to Principal Crops, South Australia

Crop	1969-70	1970-71	1971-72	1972-73	1973-74
'000 hectares					
Cereals for grain:					
Wheat. . . . .	1 298.9	802.3	1 068.6	986.1	1 431.9
Barley . . . . .	559.9	693.5	783.7	692.1	627.3
Oats . . . . .	150.4	194.9	168.9	141.5	152.2
Rye . . . . .	19.4	19.7	19.6	15.2	17.2
Crops for hay:					
Oaten . . . . .	41.0	51.8	52.7	52.6	56.4
Other . . . . .	32.4	32.6	25.0	36.5	23.9
Crops for green forage	116.3	128.3	84.8	88.2	71.1
Vegetables:					
Potatoes . . . . .	3.2	2.9	2.8	2.7	2.5
Tomatoes . . . . .	0.5	0.5	0.5	0.5	0.5
Other . . . . .	5.0	5.9	7.1	7.9	6.4
Fruit:					
Orchards . . . . .	18.1	18.3	17.2	16.7	16.9
Vineyards. . . . .	26.2	27.7	28.8	29.5	29.6
Other Crops . . . . .	15.1	15.5	18.3	14.9	15.3
Total area of crops..	2 286.4	1 993.9	2 278.0	2 084.4	2 451.2

The extent of fluctuations since 1930 in the area under the three main cereal crops is illustrated by the graph on page 418.

#### IRRIGATED CULTURE

The following table shows the approximate area of all irrigated culture in South Australia for the seasons 1969-70 to 1973-74. Of the areas shown below, about 70 per cent of orchards, 80 per cent of vineyards and about 15 per cent of green forage and pastures are in the River Murray irrigation areas listed in the table on page 420. The area cut for green forage and silage is shown as green forage.

#### Area Under Irrigated Culture, South Australia<sup>(a)</sup>

Season	Orchards	Vineyards	Vegetables	Green Forage	Other Crops	Pasture	Total
Hectares							
1969-70 .. . . .	13 643	14 163	6 164	2 051	11 508	27 725	75 254
1970-71 .. . . .	13 793	15 374	6 454	1 677	12 197	27 720	77 215
1971-72 .. . . .	12 969	15 843	6 375	(b)	(c) 977	(c) 39 914	76 078
1972-73 .. . . .	13 126	17 160	6 248	(b)	(c) 2 028	(c) 44 586	83 148
1973-74 .. . . .	13 211	16 973	5 599	(b)	(c) 1 434	(c) 42 960	80 177

(a) Approximations only. (b) Not collected separately. (c) Before 1972 lucerne, clovers and grasses cut for hay or harvested for seed were shown in 'other crops'.

The most important irrigation areas are those located in the Murray Valley. A description of the development and types of irrigation schemes along the River Murray is given in Part 8.2. The remainder of the areas under irrigation are located mainly in the Mount Lofty Ranges and South East Divisions.

The main crops in the Upper Murray irrigation areas are grapes, citrus fruit and stone fruit while the reclaimed swamp areas of the lower Murray irrigation areas are used mainly for green forage and pastures.

**River Murray Irrigation Areas: Area of Pasture and Area and Production of Vineyards and Orchards 1973-74<sup>(a)</sup>**

Irrigation Area	Area				Production			
	Pasture (b)	Vineyards		Orchards	Vineyards		Orchards	
		Bearing	Not Bearing		Total Grapes Produced	Grapes Used for Wine	Oranges	Peaches
		Hectares			Tonnes			
<b>Upper Murray:</b>								
Berri . . . . .	74	1 914	156	1 209	20 982	18 021	8 619	1 876
Cadell . . . . .	5	168	6	165	1 663	1 426	1 266	90
Cobdogla . . . . .	77	475	32	12	7 158	6 716	90	—
Cooltong . . . . .	56	209	12	304	4 015	3 960	5 220	97
Holder . . . . .	1	111	10	135	2 038	2 007	1 396	178
Loveday . . . . .	109	860	50	142	13 407	11 830	1 458	56
Loxton . . . . .	24	1 549	54	1 156	19 446	18 194	22 578	863
Moorook . . . . .	3	166	8	222	1 891	1 714	2 595	108
Nookamka . . . . .	15	658	27	60	9 191	8 009	714	13
Ral Ral . . . . .	118	269	20	122	1 245	958	87	496
Renmark . . . . .	447	1 994	209	1 313	15 794	12 918	8 204	4 919
Sunlands . . . . .	—	57	1	597	765	765	15 130	258
Waikerie . . . . .	4	620	79	900	9 444	9 214	11 205	2 382
Other . . . . .	21	386	49	921	4 987	4 002	9 828	2 955
<b>Total . . . . .</b>	<b>954</b>	<b>9 436</b>	<b>713</b>	<b>7 258</b>	<b>112 026</b>	<b>99 734</b>	<b>88 390</b>	<b>14 291</b>
<b>Lower Murray:</b>								
Cowirra . . . . .	211	—	—	—	—	—	—	—
Jervois . . . . .	2 256	—	—	4	—	—	8	—
Monteith . . . . .	556	—	—	—	—	—	—	—
Mypolonga . . . . .	740	2	—	355	4	1	3 792	394
Neeta . . . . .	332	—	—	—	—	—	—	—
Pompoota . . . . .	475	—	—	—	—	—	—	—
Other . . . . .	939	—	—	2	—	—	—	—
<b>Total . . . . .</b>	<b>5 509</b>	<b>2</b>	<b>—</b>	<b>361</b>	<b>4</b>	<b>1</b>	<b>3 800</b>	<b>394</b>

(a) Excludes areas and yields of crops grown by irrigation on the River Murray and elsewhere not in the above irrigation areas.

(b) Includes non-irrigated pastures.

### FERTILISERS

Nearly all soils in the agricultural areas of South Australia are deficient in phosphoric acid, and superphosphate is used on both crops and pastures in large quantities to overcome this deficiency. In some areas trace elements

(manganese, copper, zinc and molybdenum) are added to the superphosphate to rectify the chronic shortage of these elements.

A summary of the area of crops and pastures treated and the quantities of fertiliser used in 1973 is shown in the following table.

**Principal Crops and Pasture Fertilised, South Australia  
1973**

Type of Crop	Area Fertilised	Super-phosphate	Other	Total	Per Hectare
	'000 hectares		Tonnes		kg
Wheat . . . . .	1 295	160 029	8 201	168 230	129.90
Barley, oats and rye . . . . .	804	105 838	5 224	111 062	138.20
Vegetables . . . . .	7	3 711	5 435	9 146	1 282.39
Fruit trees and vines . . . . .	29	11 087	8 549	19 636	674.36
Other and unspecified crops . . . . .	11	1 738	198	1 936	181.92
<b>Total crops . . . . .</b>	<b>2 146</b>	<b>282 403</b>	<b>27 607</b>	<b>310 010</b>	<b>144.49</b>
Pasture . . . . .	2 425	369 101	13 744	382 845	157.87
<b>Total . . . . .</b>	<b>4 571</b>	<b>651 504</b>	<b>41 351</b>	<b>692 855</b>	<b>151.59</b>

The following table shows the area of crops and pastures treated and the quantity of fertiliser used in each division in 1973.

**Use of Artificial Fertilisers: Statistical Divisions, South Australia  
1973**

Statistical Division	Crops				Pastures		
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Fertiliser Used per Hectare	Area Fertilised	Fertiliser Used	Fertiliser Used per Hectare
	'000 ha	Per cent	Tonnes	kg	'000 ha	Tonnes	kg
Adelaide . . . . .	13	67.62	7 511	561.61	21	3 621	172.29
Central . . . . .	454	90.91	67 456	148.47	131	15 748	120.12
Kangaroo Island . . . . .	11	84.17	1 938	172.82	146	22 395	153.49
Mount Lofty Ranges . . . . .	99	83.60	18 017	181.53	296	48 117	162.83
Murray . . . . .	504	87.84	69 364	137.76	205	31 459	153.43
South East . . . . .	77	80.13	13 070	169.89	1 268	215 171	169.64
Eyre . . . . .	736	87.27	103 759	140.92	255	33 300	130.65
Northern . . . . .	224	88.60	26 079	116.25	102	12 937	126.26
Far North . . . . .	26	78.61	2 816	106.91	1	97	145.43
<b>Total . . . . .</b>	<b>2 146</b>	<b>87.53</b>	<b>310 010</b>	<b>144.49</b>	<b>2 425</b>	<b>382 845</b>	<b>157.87</b>

The next table gives the area of crops and pastures treated in the State for the years 1964 to 1973.

## Use of Artificial Fertilisers, South Australia

Year	Crops				Pastures		
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Fertiliser Used per Hectare	Area Fertilised	Fertiliser Used	Fertiliser Used per Hectare
1964	1 932	90.25	258 349	134	1 908	278 965	146
1965	1 970	91.99	269 387	137	2 061	301 594	146
1966	2 073	89.30	291 501	141	2 119	316 123	149
1967	2 037	89.73	297 093	146	2 076	312 412	150
1968	2 431	87.37	340 037	140	1 728	250 041	145
1969	2 138	88.84	312 313	146	2 008	287 427	143
1970	1 883	87.96	270 908	144	1 938	276 249	143
1971	2 113	(a) 85.30	284 448	135	1 822	254 403	140
1972	1 864	89.44	258 209	139	2 033	296 192	146
1973	2 146	87.53	310 010	144	2 425	382 845	158

(a) Not comparable with previous years.

## WHEAT

Wheat has always been a crop of major importance to the economy of this State. South Australia as a wheat producing State ranks fourth in order of importance, and for the ten harvests ending 1972-73 averaged 14 per cent of Australian wheat production.

In the past twenty years a feature of the industry has been that average yields have fluctuated about a higher level of average yield mainly because of improved farming practices, including the adoption of nitrogen-building clovers in the rotation. The average yield per hectare for the ten seasons ended 1972-73 was 1.13 tonnes, a record of 1.58 tonnes being attained in 1960-61. The record wheat crop was 2 263 000 tonnes in 1968-69. Production in 1973-74 was 1 795 000 tonnes.

## Varieties of Wheat

In each of the Australian States a committee has been set up to examine and recommend the wheat varieties which should be grown by farmers for marketing through the Australian Wheat Board. In South Australia the Advisory Committee on Wheat Quality was established in 1962 to consider advice from the South Australian Department of Agriculture, which carries out tests of wheat varieties being developed and recommends which wheat varieties should be sown by farmers in the various districts. The Department of Agriculture and the Australian Wheat Board require the growers to produce wheat with uniform characteristics in both the Hard class and FAQ class and this can be done more successfully if only a few of the best varieties are grown by the farmers.

The Advisory Committee has divided the State into seven wheat growing zones and recommends to farmers only those wheat varieties which are likely to give the best results as far as the protein content of the wheat is concerned, while maintaining a high rate of yield, at the same time. Halberd is the main variety recommended for fair average quality standard wheat and at present Gabo is the most widely grown of the recommended varieties for quality wheat.



The leading varieties of wheat sown for all purposes for the years 1971-72 to 1973-74 are shown in the following table.

**Principal Varieties of Wheat Sown, South Australia**

Variety	Area			Proportion of Total Area		
	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74
	'000 hectares			Per cent		
Dirk . . . . .	45	40	42	4.1	3.9	2.9
Gabo . . . . .	104	85	125	9.6	8.5	8.6
Gamenya . . . . .	76	30	29	7.0	3.0	2.0
Halberd . . . . .	139	455	821	12.8	45.2	56.7
Heron . . . . .	351	152	119	32.3	15.1	8.2
Insignia . . . . .	151	65	66	14.0	6.5	4.5
Raven . . . . .	50	42	47	4.6	4.1	3.2
Sabre . . . . .	38	19	28	3.5	1.9	2.0
Other . . . . .	131	120	173	12.1	11.9	11.9
Total area . . . . .	1 085	1 007	1 449	100.0	100.0	100.0

**Wheatgrowing Districts**

Wheatgrowing in South Australia is virtually restricted to the belt between the 200 millimetre and 450 millimetre rainfall isohyets for the period April-November inclusive. The principal wheat producing districts are in the Eyre, Central, Murray and Northern Divisions. These districts accounted for over 90 per cent of the area sown in 1973-74.

**Wheat Sown for Grain: Area and Production, Statistical Divisions  
South Australia**

Statistical Division	Area		Production	
	1972-73	1973-74	1972-73	1973-74
	'000 hectares		Tonnes	
Adelaide . . . . .	1	2	1 178	1 902
Central . . . . .	185	244	220 299	332 676
Kangaroo Island . . . . .	(a)	1	519	370
Mount Lofty Ranges . . . . .	35	45	49 641	48 299
Murray . . . . .	164	307	48 053	316 817
South East . . . . .	28	29	40 582	20 944
Eyre . . . . .	435	603	324 474	819 198
Northern . . . . .	129	177	126 528	225 180
Far North . . . . .	9	24	3 710	29 606
Total . . . . .	986	1 432	814 984	1 794 992

(a) Less than 500 hectares.

### Research

Under the *Wheat Tax Act 1957-1973* a tax not exceeding fifteen cents a tonne, after consultation between the Australian Minister for Agriculture and the Australian Wheatgrowers Federation, may be levied on all wheat delivered to the Australian Wheat Board and credited to the Wheat Research Trust Account for use by the respective State Wheat Industry Research Committees. Each committee allocates the amounts available for research and reports the expenditure approved to the Wheat Industry Research Council. The Australian Government also makes contributions for wheat research, the amount being equal to the wheat tax levied from the growers. The Wheat Industry Research Council recommends the avenues of research on which this Government grant should be spent.

Organisations such as the Commonwealth Scientific and Industrial Research Organization and the South Australian Department of Agriculture, by using wheat research funds made available to them, are constantly conducting research into the problems of wheat diseases, of producing better wheat varieties and of improving soil structure.

### Marketing

#### *Australian Wheat Board*

The Board consists of fourteen members; four appointed by the Australian Minister for Agriculture and ten representing wheatgrowers (two from each mainland State). The Board has legislative powers over the receipt and disposal of all wheat and wheat products and issues licences to bulk handling authorities in each State to act as receivers, which gives them the responsibility for the storage, care and protection of the Board's wheat and its movement from country silos to buyers in Australia and to terminal silos for export. Under the stabilisation plan the Board is the sole authority for marketing wheat in Australia and for marketing wheat and flour for export.

In its first full season, 1939-40, the Wheat Board received 5.3 million tonnes. A record delivery of 14 million tonnes of wheat was made during 1968-69. Deliveries to the Board in 1973-74 totalled 11.1 million tonnes.

#### Deliveries to the Australian Wheat Board<sup>(a)</sup>

Season	South Australia	Australia	Season	South Australia	Australia
	'000 tonnes			'000 tonnes	
1964-65 .. . . .	1 361	9 430	1969-70 .. ..	1 517	9 755
1965-66 .. . . .	984	6 379	1970-71 .. ..	681	6 936
1966-67 .. . . .	1 361	11 954	1971-72 .. ..	1 306	7 665
1967-68 .. . . .	601	6 732	1972-73 .. ..	711	5 438
1968-69 .. . . .	2 162	14 033	1973-74 .. ..	1 672	11 199

(a) Mostly in bulk, but includes weight of bags where used.

During the year ended 30 November 1974 total exports of wheat (including wheat equivalent of flour and wheat products) were 7.4 million tonnes. The

value of the Wheat Board's sales on both the local and export market is shown in the following table.

#### Australian Wheat Board Sales of Wheat and Wheat Flour

Crop Year	Sales		Value	
	Local	Export	Local	Export
	'000 tonnes		\$'000	
1964-65 . . . . .	2 034	7 268	108 924	362 337
1965-66 . . . . .	1 820	4 755	101 480	240 654
1966-67 . . . . .	1 666	8 526	94 424	545 928
1967-68 . . . . .	1 906	5 642	114 671	290 101
1968-69 . . . . .	1 524	6 585	95 171	331 530
1969-70 . . . . .	1 602	8 185	91 624	371 720
1970-71 . . . . .	1 703	9 050	97 138	444 674
1971-72 . . . . .	1 857	7 760	108 255	366 273
1972-73 . . . . .	2 242	4 137	134 369	214 961
1973-74 . . . . .	2 319	7 418	163 499	881 427

#### Wheat Delivery Quotas Plan

In March 1969 the Australian Wheatgrowers Federation put forward proposals to the Australian Agricultural Council for the allotment of quotas on deliveries of wheat to the Australian Wheat Board. The Federation's proposals were mainly designed to bring marketable supplies of wheat more into line with available outlets, following the record 1968-69 harvest. The proposals were approved by the Council and later by the Australian Government and became effective for the 1969-70 harvest with total Australian quotas of 9.7 million tonnes and the retention of \$1.10 as the rate per tonne for first payment. State Governments, in 1969 (except Queensland where the legislation was introduced in 1970), enacted the necessary legislation to implement the system of wheat delivery quotas within the States. The quota plan operated for each season from 1969-70 to 1974-75.

The Australian Wheatgrowers Federation successfully recommended in February 1971 that the total wheat quotas for Australia in the 1971-72 season should be 9.2 million tonnes. The 1972-73 quotas were approved at 11.1 million tonnes and the 1973-74 quotas 14 million tonnes. The 1973-74 quotas included allowances for short-falls in production in 1972-73 attributable to poor seasonal conditions. The quotas for South Australia were 2 million tonnes in both the 1973-74 and 1974-75 seasons.

The States were responsible for determining the method of allocation of individual quotas within their respective boundaries. In South Australia the Wheat Delivery Quotas Act, 1969 instituted a Wheat Delivery Quota Advisory Committee consisting of eight members representing wheatgrowers and one representative each from the Wheat Board, the South Australian Co-operative Bulk Handling Limited and the South Australian Department of Agriculture. A Review Committee of three members was also provided to deal with the appeals by growers against the quota quantities allotted to them.

The basis on which quotas were allocated in South Australia for the 1969-70 season was the average quantity of wheat obtained after listing deliveries from the various farm properties to the Australian Wheat Board during the five-year period from 1964-65 Season to 1968-69 Season, less 10 per cent.

The Act permitted the Quota Advisory Committee, in certain hardship and other cases, to make special allowances when determining nominal quotas and provides for quotas to be allotted only to growers who are owners of the wheat-farming properties and to lessees, but not to people who are simply share-farmers.

At the instigation of the Australian Wheatgrowers Federation, the Australian and State Governments have agreed to the suspension of wheat delivery quotas for an indefinite period from the 1975-76 season. The action of the Federation was motivated by a barely adequate world supply and a serious depletion of carry-over stocks of wheat in recent years, the need to establish carry-over stock reserves within Australia, and because the establishment of the Wool Reserve Price Scheme has made it unlikely that woolgrowers will have to change over to wheat as a major alternative source of income.

### *Bulk Handling*

The South Australian Co-operative Bulk Handling Ltd, which was incorporated on 7 December 1954, is the sole bulk grain handling authority in this State, and is owned, financed and controlled by the growers. At 31 December 1974 the Co-operative had a total storage capacity, including current contracts let, of 3.3 million tonnes (3 million tonnes permanent storage and 0.3 million tonnes temporary storage).

The bulk handling operations of the State have been divided into seven divisions—Ardrossan, Port Giles, Wallaroo, Thevenard, Port Lincoln, Port Pirie and Port Adelaide—each of which provides a terminal port as a shipping outlet for the country silos within the division. The bulk capacity of the respective divisions for each of the three major cereals is shown in the following table.

**Bulk Handling Capacity, South Australia**  
31 December 1974<sup>(a)</sup>

Division	Wheat		Barley		Oats	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
	'000 tonnes					
Ardrossan .. ..	148.3	—	79.4	—	—	—
Port Giles .. ..	24.5	—	81.6	—	—	—
Port Adelaide ..	637.3	51.7	188.7	1.0	9.0	2.1
Port Pirie .. ..	315.6	76.0	52.6	—	—	—
Port Lincoln ..	615.7	95.4	147.8	—	1.8	—
Thevenard .. ..	252.1	64.0	31.9	—	1.8	7.4
Wallaroo .. ..	345.5	—	76.5	—	—	—
<b>Total .. ..</b>	<b>2 339.0</b>	<b>287.1</b>	<b>658.5</b>	<b>1.0</b>	<b>12.6</b>	<b>9.5</b>

(a) Includes current contracts let.

A certified claim showing particulars of the wheat received from a grower is forwarded by the bulk handling authority to the Australian Wheat Board, which then makes payment to the grower.

Under the system of pooling wheat, the cost of handling wheat by the Co-operative is reimbursed by the Wheat Board.

### Grading of Wheat and Determination of Standards

To aid the Wheat Board in the marketing of wheat each season, a separate standard sample is determined for the various classes of exportable wheat produced in each State. Samples of the various classes of wheat are then packed in sealed bags and forwarded by the Wheat Board to the potential purchasers of Australian wheat.

In each of the five mainland States, the function of establishing wheat standards each season is performed by the respective Wheat Standards Committees, which have been appointed for this purpose. The Committees comprise representatives of the Wheat Board, the bulk handling authorities, State Departments of Agriculture, the wheatgrowers and the flour millers.

The method by which each standard is determined is by collecting a proportionate amount of wheat, for the class concerned, from every delivery point in the State from which the wheat is to be exported. These wheat quantities are then blended to form a State composite sample for that class. After the various bulk wheat samples have been thoroughly mixed, the test weight of each is ascertained in kilograms per hectolitre. The relevant particulars of season, test weight, class of wheat, and State concerned are designated on the bags into which the official sample wheat is packed. The bags are then sealed for dispatch to buyers.

In South Australia, the classes of wheat for which official standards are declared each season are South Australian Hard and Australian Standard White (SA). An official standard sample will also be determined for the class known as General Purpose in seasons when sufficient is available for export.

The segregation of South Australian wheat into two classes was first introduced in the 1957-58 season when wheat was separated into a Semi-hard wheat class (after 1966 called Hard wheat) and into what, up to that time, was the long established FAQ (Fair Average Quality) class. This has been done in each season since 1973-74 (except 1960-61 and 1966-67 when three classes of wheat were segregated).

From the 1974-75 season, the name of FAQ wheat was changed to the ASW (Australian Standard White) class. In addition, in that season State standard samples were determined for the three main classes of wheat delivered to the Board and the test weights of the respective samples were declared as follows:

Class of Wheat	Kilograms per Hectolitre
ASW .. .. .	77
Hard .. .. .	78
General Purpose . . . . .	71

### Wheat Stabilisation Plan

Wheat grown in Australia is marketed under a stabilisation scheme approved by the Australian and State Governments which provides for:

- (i) the fixing of a home consumption price for each season which may be varied annually by changes in the cost of production;
- (ii) the pooling of the proceeds from local (Australian) and overseas sales of wheat;
- (iii) the operation of a stabilisation fund into which is paid the proceeds of a tax, which is imposed on wheat exported when the average of the export prices exceeds certain specified amounts;
- (iv) the establishing of a stabilisation price each season which may involve Australian Government financial contributions to the stabilisation fund, when the average export price falls below specific levels.

The first post-war Wheat Stabilisation Plan operated between 1948 and 1953. Subsequent stabilisation plans were introduced in 1954 (for seasons 1953-54 to 1957-58), 1958 (for seasons 1958-59 to 1962-63), 1963 (for seasons 1963-64 to 1967-68) and 1968 (for seasons 1968-69 to 1972-73). The 1968 plan was extended to cover 1973-74. The current stabilisation plan will operate for five years from 1974-75 to the 1978-79 season, and contains provisions in relation to the stabilisation price which are based on different principles to those applying to the guaranteed price in previous stabilisation plans.

Under the *Wheat Export Charge Act* 1974, wheat exported is subject to a tax which is paid into the Wheat Prices Stabilisation Fund. The balance in the Stabilisation Fund may not exceed \$80 million and any surplus must be returned to the growers.

The Stabilisation Fund is used to make up deficiencies in respect of all wheat exported from each crop where the average export realisation falls below the stabilisation price. In the event of the fund being unable to meet any deficiency the Australian Government is required to meet its obligations under its guarantee, as provided in the stabilisation legislation.

### International Grains Agreements

The history of these agreements goes back to 1947 when negotiations commenced, between the principal exporters and importers of wheat throughout the world, for an agreement which would stabilise international trading in wheat and influence equitable and stable prices. Eventually, after hard bargaining, the first agreement, which was of four years duration, came into force on 1 August 1949 and brought to fruition earlier efforts extending back over the previous twenty years to stabilise world wheat marketing through international co-operation. Along with thirty-seven importing nations and five exporting nations, Australia, as an exporter, participated in that agreement because it assured the nation's wheatgrowers of overseas markets at payable prices.

The initial International Wheat Agreement of 1949 has been reviewed and extended by subsequent agreements through to 30 June 1975. The last agreement which contained pricing provisions was the International Grains Arrangement 1967 described on page 383 of the *South Australian Year Book* 1970. The

current agreement is the International Wheat Agreement 1971 which was due to expire on 30 June 1974 but has been extended by member nations by Protocol (a form of diplomatic document) until 30 June 1975. The current 1971 Agreement comprises two separate legal instruments known as the Wheat Trade Convention and the Food Aid Convention which are linked by a common preamble. An explanation of the terms of the current 1971 Agreement was included on page 421 of the *South Australian Year Book 1974*.

The Protocol for the extension of the Food Aid Convention to 30 June 1975 sets up a Food Aid Committee to administer arrangements for the contribution of international food aid of grains, grain products and cash by certain nations who are parties to that Protocol.

### Prices

The table below shows the trend in export and domestic prices of Australian wheat for the years 1964-65 to 1973-74.

Export and Domestic Prices of Australian Wheat

Year	Export Price per Tonne (a)	Home Price per Tonne
	\$	\$
1964-65 . . . . .	52.54	54.01
1965-66 . . . . .	52.54	56.22
1966-67 . . . . .	56.59	57.69
1967-68 . . . . .	52.54	60.69
1968-69 . . . . .	49.24	62.83
1969-70 . . . . .	48.13	63.57
1970-71 . . . . .	51.44	63.94
1971-72 . . . . .	56.59	65.40
1972-73 . . . . .	97.37	67.63
1973-74 . . . . .	135.18	71.10

(a) Based on the average of each of the twelve monthly prices, year ended November.

The export prices shown in the table are the basic selling prices for FAQ bulk wheat f.o.b., terminal ports. The home prices shown for the seasons 1964-65 to 1968-69 inclusive, are those set by the Wheat Board for bulk wheat (free-on-rail, terminal port basis) sold to millers for grinding into flour for consumption in Australia. In those seasons the prices charged by the Board for wheat for stock feed in Australia were the same as those charged for wheat for human consumption. However, from 1 December 1969 the Board introduced concessional prices for wheat used for stock feed and industrial purposes. The result of these altered pricing arrangements was that different prices were established from 1969-70 season onwards for the various categories of local sales and these prices were amended annually. From 1 December 1969 until 30 November 1973 the following f.o.r. terminal ports prices applied for FAQ bulk wheat.

## f.o.r. Port Terminal Prices for FAQ Bulk Wheat

Particulars	Year ended 30 November			
	1970	1971	1972	1973
	Price per tonne (dollars)			
Basic home consumption price . . . . .	63.38	63.93	65.40	67.63
Milling (for home consumption flour) ..	60.44	60.99	62.46	64.65
Stockfeed/industrial purposes .. . . .	52.73	53.28	54.75	56.98
Stockfeeders (not acceptors of Wheat Board contract arrangements) .. . . .	55.12	56.95	58.79	67.63

From 1 December 1973 concessional prices for wheat no longer applied. For the year 1973-74 the price for all purposes was \$71.10 per tonne (f.o.r. terminal ports for FAQ). For the year 1974-75 the price was \$83.40 per tonne, as a result of a change in nomenclature, the FAQ class of wheat is now known as ASW (Australian Standard White).

## BARLEY

## Production

In 1972-73 the area sown to barley for grain in South Australia represented 32 per cent of the Australian total and yielded 29 per cent of the grain produced. Of the area sown for grain in South Australia, 95 per cent was 2-row barley, reflecting the suitability of certain areas of the State for the production of high quality malting barley. For malting purposes a plump mellow grain with fine skin coverings is required, and this can best be obtained when the ripening period is somewhat prolonged by cool conditions, without high temperature or drying winds.

## Area and Production of Barley for Grain: Statistical Divisions, South Australia

Statistical Division	Area		Production	
	1972-73	1973-74	1972-73	1973-74
	'000 hectares		'000 tonnes	
Adelaide . . . . .	4	4	6	6
Central. . . . .	240	216	231	332
Kangaroo Island . . . . .	4	2	4	2
Mount Lofty Ranges. . . . .	30	25	35	34
Murray . . . . .	154	162	40	148
South East . . . . .	24	23	22	23
Eyre . . . . .	179	149	127	187
Northern . . . . .	52	40	42	53
Far North . . . . .	5	7	2	7
Total . . . . .	692	627	509	793



Total area sown to barley in 1973-74 was 655 000 hectares, 627 000 hectares being sown for grain. A record production of barley of over 1 million tonnes was achieved in 1971-72. Production in 1973-74 was 793 000 tonnes.

Unlike wheat, barley growing has nearly always been confined to very suitable districts resulting in high and remarkably stable yields, the record yield being 1.58 tonnes per hectare in 1958-59. The average yield in 1973-74 was 1.26 tonnes per hectare.

Yorke Peninsula is the major barley-producing district in South Australia. In the 1973-74 season this area contributed approximately 33 per cent of the total crop. It has an ideal climate for barley growing as the moisture-laden breezes off the gulfs on either side retard ripening.

### Varieties

The most widely grown barley variety before 1970-71 was Prior, which for the three seasons ended 1969-70 averaged about 60 per cent of the total area sown. Another variety, known as Noyep, is similar to Prior but is earlier maturing and is suitable to areas where a sudden cut-off in spring rainfall is experienced.

A new malting variety, Clipper, was released in South Australia to replace Prior in 1968. Reported area sown to Clipper in the 1970-71 season was 330 000 hectares, in the 1971-72 season 512 000 hectares and in the 1973-74 season 408 000 hectares. The variety has greater straw strength, much less subject to wind damage, is adapted to conditions of high soil fertility and in tests produced substantially higher yields than Prior. These features together with improved malting quality represent considerable advantages for the grower and the industry as a whole. In 1973-74 Clipper was the most widely grown variety, accounting for 62 per cent of total area sown to barley. The percentage sown to Prior and Noyep dropped to 10 and 7 per cent respectively.

Another variety, Ketch, was released in 1970. The proportion sown to Ketch in 1973-74 was approximately 8 per cent.

### Research

The barley research program is conducted by the Department of Agriculture and the Waite Agricultural Research Institute for which the Australian Barley Board provides financial support. Because of the inherent similarities, the barley industry has in many instances benefited from the technological advances achieved by the wheat industry, namely the use of superphosphate and the inclusion of pastures in rotation, but certain problems peculiar to barley have necessitated the undertaking of extensive research.

### Marketing

The marketing of barley is under the control of the Australian Barley Board which operates in South Australia and Victoria and provides an orderly marketing system for barley grown in these States.

In the 1971-72 season the Board received a record total of 1 135 000 tonnes. Since 1966-67 receivals of bulk barley have been greater than receivals of bagged barley.

For marketing purposes all barley is classified on sample before delivery. Classification is firstly by row variety and secondly by quality—Malting (No. 1 and No. 2), Milling (No. 3) and Feed (No. 4 and No. 5) for 2-row and Malting and Feed (No. 4 and No. 5) for 6-row.

**Australian Barley Board Receipts, South Australia**

Season	2-Row			6-Row		
	Malting	Milling	Feed	Malting	Feed	Total
	'000 tonnes					
1965-66 . . . . .	26	66	207	—	2	302
1966-67 . . . . .	116	204	100	1	4	425
1967-68 . . . . .	3	20	138	—	1	162
1968-69 . . . . .	126	182	167	1	9	485
1969-70 . . . . .	80	147	312	—	5	544
1970-71 . . . . .	109	150	343	—	3	605
1971-72 . . . . .	98	287	475	—	2	862
1972-73 . . . . .	5	29	315	—	1	350

The price of malting barley is determined on the basis of an agreed formula and subsequently the prices of barley for distilling and pearling are calculated—the prices for feed purposes are determined monthly. The home consumption prices determined by the Board for barley for season 1972-73 and the four preceding years are shown below.

**Price per Tonne of Barley for Home Consumption**

Season	Malting No. 1	Distilling and Pearling No. 3 Grade	Feed No. 4 Grade	Feed No. 5 Grade
<b>Bagged Barley</b>				
1968-69 . . . . .	66.13	62.61	52.03	49.82
1969-70 . . . . .	66.13	62.61	41.00	38.80
1970-71 . . . . .	67.46	63.93	54.23	52.03
1971-72 . . . . .	70.54	67.02	47.18	44.97
<b>1972-73:</b>				
3 year Contract . . . .	70.25	66.75	..	..
Other . . . . .	72.50	69.00	58.00	56.00
From 17/1/73 . . . . .	..	..	69.00	67.00
From 21/11/73 . . . . .	..	..	75.00	73.00
<b>Bulk Barley</b>				
1968-69 . . . . .	62.61	59.08	48.50	46.29
1969-70 . . . . .	62.61	59.08	37.48	35.27
1970-71 . . . . .	63.93	60.40	50.70	48.50
1971-72 . . . . .	65.25	61.73	41.89	39.68
<b>1972-73:</b>				
3 year Contract . . . .	65.25	61.75	..	..
Other . . . . .	67.50	64.00	53.00	51.00
From 17/1/73 . . . . .	..	..	64.00	62.00
From 21/11/73 . . . . .	..	..	70.00	68.00

## OATS

The following table shows the area of oats sown for grain, for hay and for forage and the production of grain and hay in recent years.

## Oats, South Australia

Season	Area Sown for			Total Area	Production	
	Grain	Hay	Forage		Grain	Hay
					'000 tonnes	
					'000 hectares	
1969-70 .. .. .	151	41	84	275	121	156
1970-71 .. .. .	195	52	88	335	153	180
1971-72 .. .. .	169	53	56	278	166	204
1972-73 .. .. .	142	53	60	254	74	120
1973-74 .. .. .	152	56	44	252	142	192

The milling qualities of most oats grown in South Australia do not meet the requirements of overseas markets and only a small proportion of the harvest is exported; most of the crop is used as animal fodder. As is the case with barley, some of the area sown for grain and hay is grazed until June or July then closed to sheep to allow re-growth to a crop. Part of the area sown for forage is left to stand until it is used as dry grazing in autumn, when other fodder is not plentiful. In 1973-74, 81 per cent of the total area of oats was sown in four varieties—Swan, 115 000 hectares; Avon 43 000 hectares; Irwin, 31 000 hectares; and Kherson, 17 000 hectares.

## RYE

Rye is a minor crop, but it has been used to control sand drift and to help stabilise the light soils of the Murray Mallee. Because the sands are deficient in two main nutrients (nitrogen and phosphorus), a mixed superphosphate-ammonia fertiliser is sown with the rye seed early in the season. The rapid early growth of the rye while the ground is still warm and before the strong winds of winter cause sandblast is at present the most effective form of controlling drifting sand. Rye provides early greenfeed and a few bushels of grain per acre is produced on some farms. Although most grain is used for stock feed, varying quantities are exported in different years for milling. Rye hay is poor quality material and only a few hundred tonnes are produced each year. In 1973-74, 17 200 hectares of rye for grain yielded 2 285 tonnes. Record production was 12 000 tonnes from 23 000 hectares in 1958-59.

## HAY

The quantity of hay produced varies considerably from year to year according to seasonal conditions and the need to replace stocks used during the previous season. The main crops cut for hay in recent years have been oats, lucerne, and clover and grass hay which together account for more than half of all hay produced.

## PRODUCTION

## Hay: Area and Production, South Australia

Season	Oaten	Wheaten	Lucerne	Barley and Rye	Clover and Grass	Total
AREA ('000 hectares)						
1966-67 . . . . .	55	19	27	8	86	195
1967-68 . . . . .	64	33	20	17	40	174
1968-69 . . . . .	61	21	32	15	120	249
1969-70 . . . . .	41	22	27	10	55	155
1970-71 . . . . .	52	19	33	14	79	196
1971-72 . . . . .	53	15	37	10	131	245
1972-73 . . . . .	53	20	37	16	84	210
1973-74 . . . . .	56	14	45	10	143	268
PRODUCTION ('000 tonnes)						
1966-67 . . . . .	186	66	124	21	344	741
1967-68 . . . . .	116	69	99	30	112	425
1968-69 . . . . .	242	87	155	48	468	1 001
1969-70 . . . . .	156	87	136	31	207	618
1970-71 . . . . .	180	66	163	39	308	755
1971-72 . . . . .	204	61	176	31	509	982
1972-73 . . . . .	120	53	154	30	265	623
1973-74 . . . . .	192	46	167	25	449	879

Between 50 000 and 100 000 tonnes of silage are produced in most years and in certain areas this is an important supplementary stock food; in 1973-74 production was 47 000 tonnes.

## VEGETABLES

The market garden industry in South Australia is characterised by a large number of growers, most of whom cultivate only a few hectares. Many of the gardens form part of a larger holding. Much of the production of the industry comes from properties within easy reach of the Adelaide market.

Of the total area of approximately 10 000 hectares devoted to market gardens, districts adjacent to Adelaide account for 4 000 hectares producing all types of vegetables, including large quantities of celery and early tomatoes for export. An area of some 400 hectares in Northern Division (mainly on the coastal plains near Port Pirie) is used for the production of peas and early tomatoes for Adelaide and for export to the Melbourne market. Nearly 1 350 hectares along the River Murray are devoted to production of peas, pumpkins and melons for the Adelaide market, tomatoes for local markets and small areas of most other vegetables.

The bulk of the potato production comes from the central and southern Adelaide hills and from the Mount Gambier area. The average yield has risen progressively to a record of 26 tonnes per hectare in 1972-73. This improvement is largely because of better quality seed, improved fertilisers and advances in pest and disease control. In 1973-74 the average yield was 24 tonnes per hectare.

The South Australia Potato Board was constituted under authority of the Potato Marketing Act, 1948 to control the sale and delivery of potatoes by growers. It fixes the maximum and minimum prices and the conditions under which potatoes may be sold. Members of the Board are representatives of retail sellers, merchants and growers of potatoes.

In 1973-74, 3 130 hectares were sown to green peas in the South East Division for factory processing. Production of green peas from this area accounted for about 96 per cent of the total crop. The Port Pirie-Mambray Creek area, the hills to the south of Adelaide and Upper Murray irrigation areas are other important areas for pea production.

The Adelaide plains produce most of the South Australian tomatoes which are grown in glass houses. Significant quantities, mostly for canning and juice production in local factories, are now grown in the Upper Murray irrigation areas. In recent years high yields have resulted from the introduction of new varieties.

The following table shows the area and production of the principal vegetables for human consumption in South Australia in 1972-73 and 1973-74.

#### Vegetables for Human Consumption, South Australia

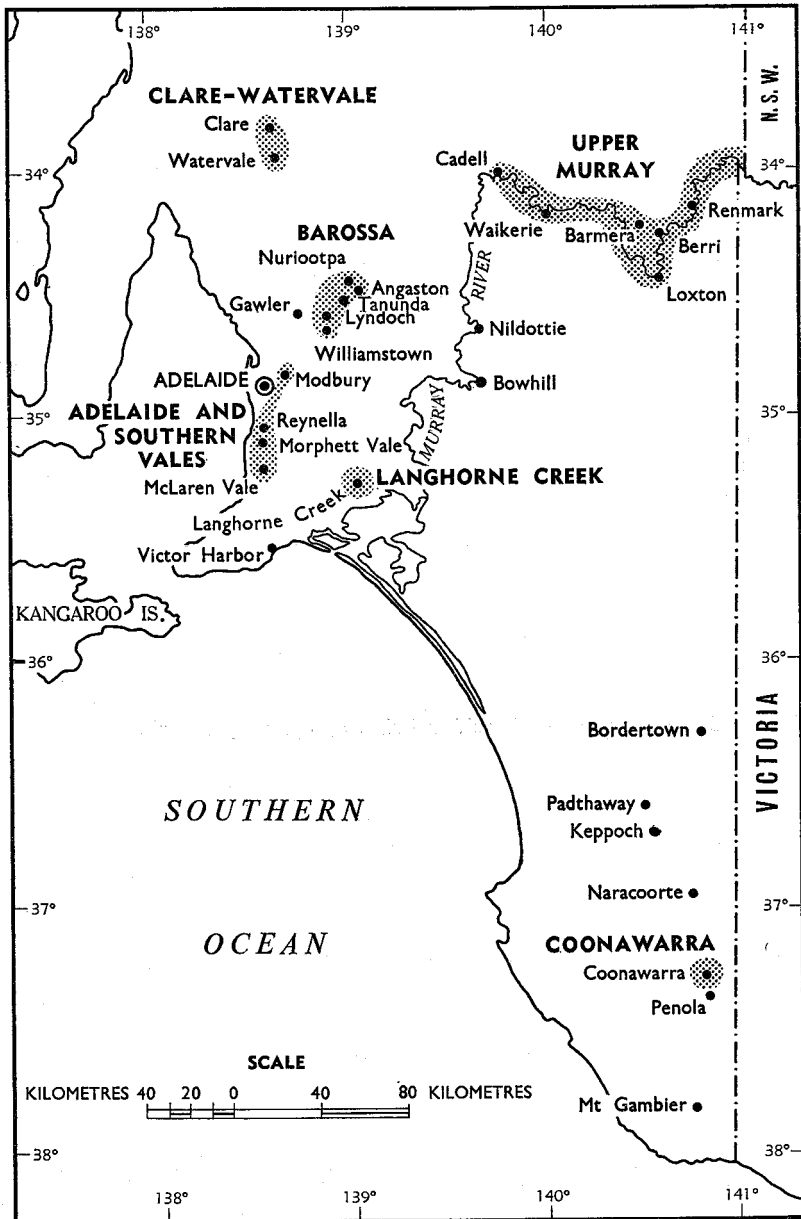
Vegetable	Area		Production	
	1972-73	1973-74	1972-73	1973-74
	Hectares		Tonnes	
Beans . . . . .	118	73	408	310
Cabbages . . . . .	200	227	11 109	9 525
Carrots . . . . .	271	252	7 020	6 529
Cauliflowers . . . . .	244	226	12 313	9 810
Celery . . . . .	103	82	6 800	5 325
Lettuce . . . . .	223	204	3 797	3 121
Melons . . . . .	134	99	1 576	1 276
Onions . . . . .	900	831	23 014	21 497
Peas . . . . .	4 838	3 387	20 817	17 826
Potatoes . . . . .	2 673	2 477	69 483	60 491
Pumpkins . . . . .	326	372	4 965	4 943
Tomatoes . . . . .	503	509	20 682	19 299
Turnips . . . . .	70	73	926	939
Other . . . . .	482	578	..	..
Total . . . . .	11 085	9 390	..	..

#### GRAPES

Approximately 44 per cent of Australia's vineyard area is located in South Australia where the bulk of the grapes grown are used for winemaking. In 1972-73 South Australia produced 180 million litres of wine and 5 738 tonnes of dried vine fruit representing 64 per cent and 10 per cent respectively of total Australian production. The following table shows the area, production and utilisation of grapes for the seasons 1964-65 to 1973-74.



# PORTION OF SOUTH AUSTRALIA GRAPE GROWING DISTRICTS



Supplementary irrigation is to be found in some portions of the so-called non-irrigated grape growing districts especially Langhorne Creek and Coonawarra where approximately 50 to 60 per cent of all grapes are under irrigation. The other areas are mainly dependent on winter rainfall stored in the sub-soil by careful dry-farming methods to be used during the summer growing season of the vine—the non-irrigated districts are less uniform than the Upper Murray irrigation areas.

#### Area of Vineyards, South Australia

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
	Hectares				
Vines:					
Bearing age . . . . .	21 678	22 396	23 924	25 200	26 178
Not yet bearing . . . . .	4 560	5 263	4 845	4 328	3 424

District average yields in the irrigated areas are 18 to 20 tonnes per hectare although individual vineyard yields of 38, and even 50 tonnes per hectare are not uncommon. In the non-irrigated districts the average is 4 to 8 tonnes per hectare with individual vineyards producing 20 to 25 tonnes per hectare in favourable years. About half of the State's wine-grapes are sold by private treaty to proprietary wine-makers. Minimum prices, according to variety, are determined by the South Australian Commissioner for Prices and Consumer Affairs.

About one-third of the State's wine-grape crop is received by the co-operative wineries. Nearly all of this is grown by members who receive a down payment on each tonne, followed by further payments over a period of up to five years according to realisation made on the product. Most of the wine, brandy and spirits made by co-operatives is sold in bulk to proprietary wineries.

#### Production of Grapes, South Australia<sup>(a)</sup>

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
	Tonnes				
Grapes:					
For wine . . . . .	244 251	208 523	224 718	220 576	206 022
For table . . . . .	1 315	1 058	1 849	1 213	900
For drying . . . . .	26 756	15 038	44 517	22 106	12 230

(a) Classified according to purpose for which grapes are used.

#### Grape Varieties

The most common grape varieties in South Australia include sultana and currant which can be used for dried fruit as well as wine or spirit production. Production of sultanas in 1973-74 from 2 863 hectares of bearing sultanas was



approximately 31 000 tonnes. The main wine-grape variety, Grenache, produced 39 000 tonnes from 4 922 hectares of bearing vines.

Another leading variety is Muscat Gordo Blanco, or more commonly Gordo in the River districts and often called Muscatel when sold as a table grape. Although known as a drying variety, more than 90 per cent of it is crushed for wine or spirit production.

Riesling and Cabernet Sauvignon, while not leading in area under vines (2 698 and 1 907 hectares respectively in 1974), are most important in white and red table wine production because of their superior quality.

#### Principal Varieties of Vines, South Australia

Variety	March 1971	March 1972	March 1973	March 1974
	Hectares			
Sultana . . . . .	3 344	3 252	3 084	2 871
Muscat Gordo Blanco . . . . .	2 130	2 094	2 036	1 903
Currants . . . . .	1 252	1 216	1 157	1 028
Grenache . . . . .	5 168	5 273	5 366	5 321
Shiraz . . . . .	3 961	4 422	4 772	4 937
Doradillo . . . . .	1 894	1 904	1 882	1 822
Palomino ( Paulo, Listan) . . . . .	2 687	2 671	2 646	2 525
Common Palomino (a) . . . . .				
Pedro Ximinez . . . . .	2 558	2 858	3 101	3 298
Semillon (b) . . . . .				
Rhine Riesling . . . . .				
Clare Riesling . . . . .	1 432	1 505	1 575	1 571
Mataro . . . . .				
Other . . . . .	3 227	3 571	3 909	4 326
<b>Total . . . . .</b>	<b>27 653</b>	<b>28 769</b>	<b>29 528</b>	<b>29 602</b>

(a) Includes False Pedro.

(b) Includes Madeira.

Less than one per cent of the total crop is sold each year as table grapes, because the majority of table grapes are grown in home gardens.

A special article on the wine industry in South Australia was included on pages 375-96 of the *South Australian Year Book* 1968.

#### ORCHARD FRUIT

A large variety of fruit crops is grown in South Australia. The main types are oranges, peaches and apricots (predominantly grown in the irrigation settlements of the Upper Murray) and apples (nearly all grown in the Adelaide Hills). The following table relating to 1973-74 production shows the concentration of fruitgrowing in the Adelaide, Mount Lofty Ranges and Murray Divisions.

**Production of Principal Fruit Crops: Statistical Divisions, South Australia  
1973-74**

Fruit	Statistical Division				Total
	Adelaide	Mount Lofty Ranges	Murray	Other	
Tonnes					
<b>Citrus fruit:</b>					
Oranges;					
Navel .. . . .	36	51	45 347	316	45 750
Other .. . . .	44	42	67 093	437	67 616
Other citrus fruit ..	229	11	15 630	102	15 972
<b>Non-citrus fruit:</b>					
Apples .. . . .	5 915	12 420	209	7	18 551
Apricots .. . . .	179	951	19 826	90	21 046
Peaches .. . . .	144	266	18 897	135	19 442
Pears.. . . .	1 961	2 977	5 136	17	10 091
Plums and prunes ..	511	709	439	19	1 678

The following table of citrus trees of bearing age and production during the past five seasons shows the predominance of navel and valencia oranges. Other types of oranges, lemons and limes, mandarins, grapefruit, etc., together represent only 10 per cent of total citrus production.

**Citrus Fruit: Trees and Production, South Australia**

Season	Oranges		Lemons and			Grape-fruit	Total Citrus
	Navel	Valencia	Other	Limes	Mandarins		
<b>TREES OF BEARING AGE ('000)</b>							
1969-70 ..	479	628	6	35	48	37	1 234
1970-71 ..	544	750	6	50	59	41	1 450
1971-72 ..	546	783	9	59	67	44	1 507
1972-73 ..	544	797	7	70	67	43	1 528
1973-74 ..	540	802	8	72	66	45	1 533
<b>PRODUCTION (Tonnes)</b>							
1969-70 ..	28 622	35 674	458	1 667	1 807	4 072	72 300
1970-71 ..	45 429	71 147	493	3 181	2 748	4 447	127 445
1971-72 ..	44 784	56 281	856	3 570	3 055	5 699	114 245
1972-73 ..	47 396	77 717	591	4 603	2 755	5 657	138 719
1973-74 ..	45 750	66 985	631	6 108	3 847	6 017	129 338

Citrus growing is concentrated in the irrigation settlements of the Upper Murray where approximately 80 per cent of the total crop is produced. The industry has shown great expansion in the last decade; in 1972-73 a record level of 138 719 tonnes was achieved; production in 1973-74 was 129 338 tonnes.

Apple growing is the principal non-citrus fruit industry. The yield per bearing hectare which averaged 9 tonnes for the ten seasons ended 1961-62, rose to a record 16 tonnes per bearing hectare in 1968-69. A record production of 33 000 tonnes was achieved in 1940-41, while production in 1973-74 was 18 551 tonnes.

Pears are grown in the Adelaide Hills, in the Barossa Valley and on the Murray irrigation settlements. The yield from the 1970-71 harvest was a record 13 000 tonnes from 636 hectares. Production in 1973-74 was 10 091 tonnes.

The stone fruits industry became important following development of the irrigation schemes. Production of peaches has shown the greatest increase: the 1951-52 yield of 3 000 tonnes from 835 hectares was typical for the crop until that time, but by 1966-67 the yield was a record 29 000 tonnes from 1 924 hectares. In the same period production of apricots rose from 11 000 to 28 000 tonnes. South Australia is the major apricot-producing State, with the greater part of the crop being dried and much of the remainder being canned.

Cherries, plums and prunes, and almonds are the most important of the remaining crops.

#### Non-Citrus Orchard Fruit: Trees and Production, South Australia

Season	Apples	Apricots	Cherries	Peaches	Pears	Plums and Prunes
<b>TREES OF BEARING AGE ('000)</b>						
1969-70 . . . . .	528	350	47	363	161	66
1970-71 . . . . .	538	361	47	384	166	66
1971-72 . . . . .	538	371	49	379	170	65
1972-73 . . . . .	523	376	45	359	163	62
1973-74 . . . . .	509	369	45	334	157	57
<b>PRODUCTION (Tonnes)</b>						
1969-70 . . . . .	29 738	20 382	1 205	22 285	13 139	1 822
1970-71 . . . . .	30 262	27 736	1 097	26 194	13 246	2 240
1971-72 . . . . .	22 423	23 805	881	26 075	11 790	1 950
1972-73 . . . . .	27 940	22 928	1 059	25 457	13 076	2 057
1973-74 . . . . .	18 551	21 046	814	19 442	10 091	1 678

South Australia accounts for almost the entire Australian production of dried apricots, peaches, pears and nectarines—mostly in the Upper Murray irrigation areas and the Barossa Valley. A small proportion of the Australian production of dried prunes is produced in the Barossa Valley and in the Noarlunga district.

Production in 1973-74 included 2 371 tonnes of dried apricots, 240 tonnes of dried peaches, 247 tonnes of plums and prunes and 184 tonnes of dried pears.

The Dried Fruits Board, constituted under the Dried Fruits Act, 1934-1972, regulates marketing in South Australia by determining a quota for home sale of dried fruits in each year and encourages the consumption of dried fruits by advertising.

## OTHER CROPS

Other crops cultivated in South Australia include field peas, nursery products, cut flowers, pasture seeds, vegetable seeds, chicory and linseed.

In 1973-74, 10 232 hectares of field peas were grown for grain yielding 11 335 tonnes; virtually all of this area is located in the cereal growing districts north of Adelaide. Field peas are grown mainly as a livestock fodder, or for processing into split peas.

Most of the lucerne and other pasture seeds are grown in the cooler, moist regions, particularly in the south-east of the State. During the 1973-74 season approximately 50 per cent of the 1 282 618 kg of lucerne seed produced in the State was grown in the South East Division.

A considerable portion of the area devoted to nurseries is found in the vicinity of Adelaide. In addition there are several fruit tree nurseries in the horticultural districts of the River Murray.

## PLANTING AND HARVESTING OF CROPS

The main crops of South Australia are normally planted and harvested during the periods listed below.

## Usual Months of Planting and Harvesting, South Australia

	Crop	Planting	Harvesting
<b>Cereals:</b>			
	Wheat . . . . .	April-June	November-January
	Barley . . . . .	May-July	November-January
	Oats . . . . .	April-June	November-January
<b>Fruit:</b>			
	Grapes . . . . .	..	February-May
	Citrus . . . . .	..	May-February
	Apples . . . . .	..	January-April
	Apricots . . . . .	..	December-January
	Peaches . . . . .	..	December-March
	Pears . . . . .	..	January-April
<b>Vegetables:</b>			
	Potatoes . . . . .	July-January	November-June
	Tomatoes;		
	Field . . . . .	September-February	January-June
	Glasshouse . . . . .	March-June	July-January

## VALUE AND PRICES OF CROPS

The gross value of crops (including pastures) for South Australia in the 1973-74 season was \$374 638 000. Gross value is defined as the value placed on recorded production at wholesale prices realised in principal markets. Where products are absorbed at a local point or become raw material for a secondary industry the value in each case is presumed to be the value at the principal market. In the following table gross values of principal crops for the seasons 1969-70 to 1973-74 are shown.

## Gross Value of Principal Crops, South Australia

Commodity	1969-70	1970-71	1971-72	1972-73	1973-74 <sub>p</sub>
	\$'000				
Cereals:					
Wheat . . . . .	82 332	40 562	76 381	44 588	184 339
Barley . . . . .	23 724	34 902	40 295	27 506	65 549
Oats . . . . .	3 303	5 053	5 496	3 974	8 184
Rye . . . . .	165	357	306	240	131
Canary seed . . . . .	21	16	20	13	11
Crops for hay . . . . .	4 417	4 558	4 752	6 709	9 276
Crops for greenfeed or silage . .	1 396	1 427	907	1 221	1 351
Field peas . . . . .	909	829	1 159	705	1 602
Orchard and berry fruit:					
Citrus . . . . .	8 395	12 635	12 885	12 995	12 400
Apples . . . . .	4 372	4 343	4 007	5 003	4 388
Apricots . . . . .	3 850	5 370	4 300	5 263	4 705
Peaches . . . . .	2 914	2 918	2 999	4 385	2 698
Other . . . . .	4 961	4 665	4 571	5 720	5 225
Vine fruit:					
Wine grapes . . . . .	15 904	14 122	15 988	18 167	16 968
Table grapes . . . . .	342	289	506	384	340
Dried currants, raisins, etc. . .	2 592	1 650	4 496	2 498	2 126
Vegetables:					
Potatoes . . . . .	2 610	6 059	4 393	5 796	11 172
Green peas . . . . .	924	1 138	1 658	1 643	827
Other . . . . .	13 607	15 438	16 963	17 903	23 699
Other crops . . . . .	2 249	2 352	2 994	2 911	3 414
Total crops (excluding pastures) .	178 987	158 680	205 077	167 623	358 404
Pastures:					
Pasture seed . . . . .	2 280	2 101	2 232	3 023	4 929
Pastures cut for hay . . . . .	2 950	4 055	5 897	7 122	11 242
Pastures cut for green feed or silage . . . . .	67	58	<i>n.a.</i>	<i>n.a.</i>	63
Total Pastures . . . . .	5 297	6 215	8 129	10 145	16 234
Gross value of Crops . . . . .	184 284	164 895	213 206	177 768	374 638

Market prices of principal crops grown in South Australia for the years 1969-70 to 1973-74 are set out in the following table. Wheat prices which had shown little fluctuation in recent years rose markedly in the 1973-74 season to \$103.20 per tonne. The lowest average price recorded in the past 25 years was \$45.64 per tonne in 1948-49.

Prices of other cereals are subject to marked variation from year to year. For example, since 1947-48 average barley prices per tonne have been as low as \$36.60 per tonne and in the 1973-74 season reached a new high of \$87.59 per tonne. In the same period oats prices have been as low as \$23.15 per tonne and as high as \$64.48 per tonne.

## Prices of Principal Crops, South Australia

Commodity	1969-70	1970-71	1971-72	1972-73	1973-74 <sup>p</sup>
Cereals:	Dollars per tonne				
Wheat (a) . . . . .	51.88	52.98	55.26	56.09	103.20
Barley (a) . . . . .	36.82	49.21	40.96	59.30	87.59
Oats . . . . .	33.01	38.08	37.20	62.70	63.49
Rye . . . . .	46.37	59.12	41.98	94.35	61.92
Fruit:					
Apples . . . . .	175.84	180.04	205.76	246.18	256.29
Apricots . . . . .	283.39	306.82	316.92	331.71	266.40
Peaches . . . . .	420.34	373.31	385.56	393.10	441.90
Pears . . . . .	225.85	194.98	209.68	232.31	243.11
Oranges;					
Navel (a) . . . . .	112.53	97.37	101.05	78.08	78.08
Other (a) . . . . .	112.99	94.16	116.66	92.32	92.31
Grapes;					
Table . . . . .	259.83	273.06	273.53	311.89	377.88
Wine (b) . . . . .	65.11	67.72	71.15	82.36	82.36
Vegetables:					
Potatoes (a) . . . . .	32.92	83.80	60.55	85.05	185.10
Onions . . . . .	98.20	87.77	122.99	105.21	265.00
Tomatoes;					
Glasshouse . . . . .	320.60	320.60	346.32	296.66	399.60
Other . . . . .	238.84	306.82	227.82	335.57	323.35

(a) Average price realised.

(b) Weighted average price at winery.

## PASTORAL AND DAIRYING

Pastoral activities, with sheep grazing predominant, are widespread in South Australia under widely varying climatic conditions from the arid saltbush plains in the Far North through to the lush, well-watered pastures of the South East.

Livestock numbers have increased markedly since 1960 (although sheep numbers fell in 1967-68, in 1971-72, and quite markedly in 1972-73). The bulk of the expansion of the industry has been confined to the heavier rainfall districts. Carrying capacity has been boosted particularly by the introduction and adoption of new and improved pastures.

## The Dog Fence

This fence is an unbroken barrier of wire netting about 2 metres high extending for more than 8 000 kilometres through South Australia, along the South Australia-New South Wales and the New South Wales-Queensland borders and through part of Queensland. It has been erected to protect the sheep lands of these States from the ravages of dingoes (native dogs). The part of the fence within South Australia extends in a tortuous line from the head of the Great Australian Bight to the New South Wales border for a distance of nearly 2 400 kilometres. The whole of the sheep population of South Australia is now confined within the area enclosed by the dog fence which effectively excludes the dingoes.

## PASTURES

There has been a significant increase in the area of sown pastures over the past twenty years. Area under pasture for the years 1969 to 1974 is shown for statistical divisions in the following table.

**Area Under Pasture: Statistical Divisions, South Australia<sup>(a)</sup>**

Statistical Division	October		March		
	1969	1970	1972	1973	1974
	'000 hectares				
Adelaide . . . . .	25	24	23	26	26
Central . . . . .	177	190	168	165	196
Kangaroo Island . . . . .	141	141	149	155	166
Mount Lofty Ranges . . . . .	257	260	244	285	302
Murray . . . . .	422	438	470	500	544
South East . . . . .	1 227	1 267	1 342	1 461	1 502
Eyre . . . . .	466	466	482	506	616
Northern . . . . .	96	110	106	119	131
Far North . . . . .	11	13	10	12	17
Total . . . . .	2 822	2 910	2 994	3 230	3 500

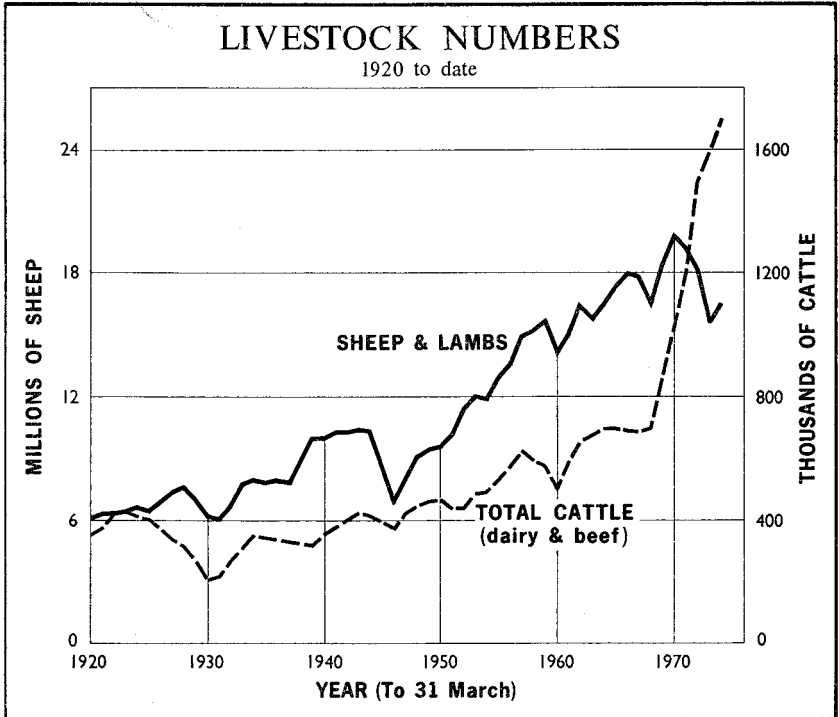
(a) Lucerne, clovers (all kinds), rye grasses (all kinds), cocksfoot, paspalum, phalaris, primrose, sudan and veldt.

To a very large extent the discovery of the relationship between clovers and soil fertility has been responsible for this rapid development of pastures. The nitrogen-building clovers have, in the cereal districts, raised both fertility and crop yields while at the same time providing ready grazing of high nutritional value for livestock.

The Murray Mallee and Eyre Peninsula have been transformed from unstable farming districts to highly productive areas through the sowing of more and improved pastures. In earlier years most pasture plants available flourished only in the higher rainfall zones of the State. At that time Mount Barker subterranean clover was the predominant pasture. New varieties have been introduced, including Clare, Geraldton, Dwalganup and Yarloop subterranean clovers. These are suited to the hard setting soils of the important wheatgrowing area extending northward from Adelaide to Jamestown.

Another type of legume, known as medics, has been found to be suitable for the drier cereal country, especially the mallee soils. Five medics are grown: Hannaford, Jemalong Barrel, Harbinger Strand, Gama Paragosa and Snail. Lucerne is also extensively grown; it thrives under irrigation yet still grows in areas with as little as 250 millimetres of rainfall a year. It is both salt-resistant and drought-resistant and is grown in most areas of the State. Strawberry clover is the important legume on the black soils of the South East.

The most important perennial grasses in the better rainfall areas are phalaris tuberosa, perennial rye grass and cocksfoot while most widely used in the medium to low rainfall areas is the annual, wimmera rye grass. The naturalised annual grasses which occur over the whole of the State contribute substantially to total pasture production. Details of fertilisers used on pasture are given on pages 420-2.



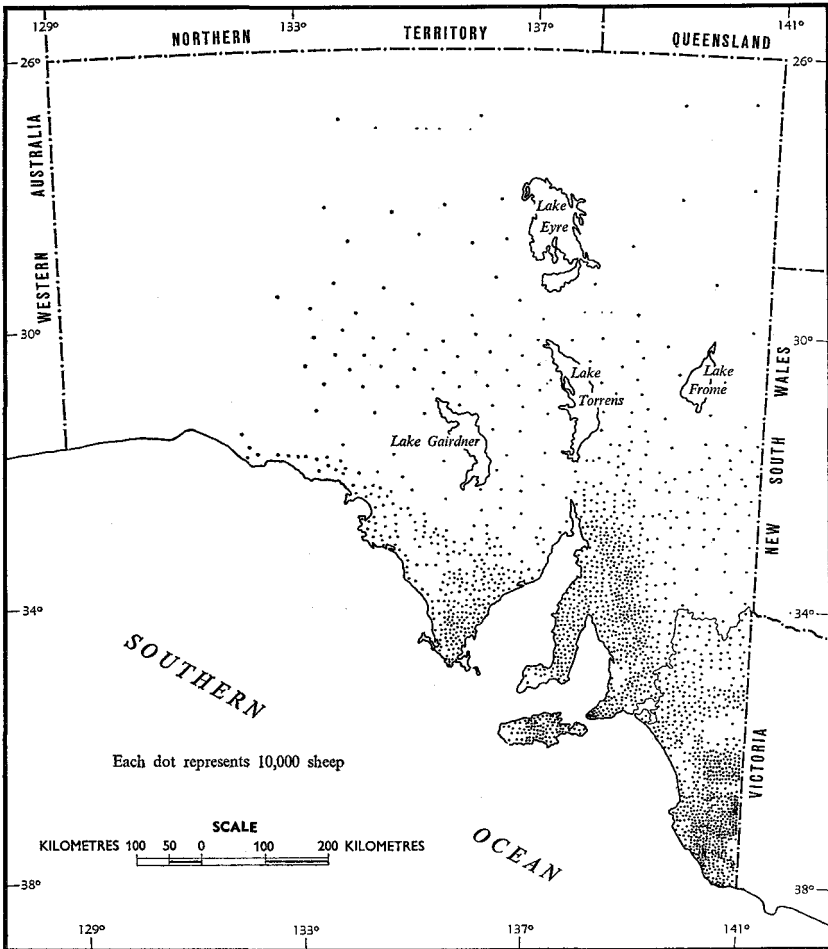
## SHEEP

### Numbers and Distribution

At 31 March 1970 a record number of 19 747 000 sheep were being maintained in South Australia but drought conditions had reduced the number to 15 651 000 at 31 March 1973. The number of sheep at 31 March 1974 was 16 431 000.



SOUTH AUSTRALIA  
**SHEEP DISTRIBUTION**  
 At 31 March 1970.



By far the greatest concentration of sheep is in the South East Division which carried 4.4 million sheep at 31 March 1974. In the Upper South East sub-division large scale land development schemes have, in the last ten to fifteen years, doubled the sheep carrying capacity in many areas by the application of trace elements to deficient soils. The next largest concentration of sheep at 31 March 1974 was in the Eyre Division (2 363 000) and sheep numbers of over 1.9 million were reported in Murray and Northern Divisions.

## PRODUCTION

**Sheep Numbers: Statistical Divisions, South Australia  
At 31 March**

Statistical Division	1970	1971	1972	1973	1974
			'000		
Adelaide.. . . . .	186	164	133	103	112
Central .. . . . .	1 975	1 916	1 816	1 503	1 654
Kangaroo Island .. . . . .	875	896	814	700	705
Mount Lofty Ranges .. . . . .	1 756	1 740	1 583	1 387	1 424
Murray .. . . . .	2 351	2 223	2 178	1 705	1 952
South East .. . . . .	5 775	5 719	4 986	4 376	4 409
Eyre .. . . . .	2 758	2 723	2 625	2 227	2 363
Northern .. . . . .	2 128	2 003	2 007	1 816	1 977
Far North .. . . . .	1 942	1 782	1 827	1 834	1 836
<b>Total .. . . . .</b>	<b>19 747</b>	<b>19 166</b>	<b>17 970</b>	<b>15 651</b>	<b>16 431</b>

The distribution in statistical divisions of sheep flocks classified by size of flock at 31 March 1973 is given in the following table.

**Sheep Flocks Classified by Size of Flock: Statistical Divisions, South Australia  
At 31 March 1973**

Number of Sheep in Flock	Statistical Division							Total (a)	
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern		
			Number of Flocks						
1- 99 .. . . .	301	197	729	281	428	88	119	2 154	
100- 499 .. . . .	128	876	774	792	458	292	489	3 862	
500- 999 .. . . .	41	790	473	806	502	715	511	3 931	
1 000- 1 499 .. . . .	13	272	225	291	415	485	279	2 058	
1 500- 1 999 .. . . .	5	95	101	101	331	212	138	1 080	
2 000- 2 999 .. . . .	3	39	60	72	377	165	96	923	
3 000- 4 999 .. . . .	1	19	47	28	223	55	58	507	
5 000- 9 999 .. . . .	—	4	7	7	109	11	30	239	
10 000-19 999 .. . . .	—	—	1	3	22	—	5	73	
20 000 and over .. . . .	—	—	—	—	1	—	1	18	
<b>Total flocks.. . . .</b>	<b>492</b>	<b>2 292</b>	<b>2 417</b>	<b>2 381</b>	<b>2 866</b>	<b>2 023</b>	<b>1 726</b>	<b>14 845</b>	

(a) Includes Kangaroo Island and Far North Divisions.

At 31 March 1974, 23 per cent of the total sheep population consisted of lambs and hoggets under one year. The proportion of lambs to sheep has remained fairly constant for a number of years although it is subject to some fluctuations.

**Age and Sex of Sheep, South Australia  
At 31 March**

Year	Rams	Breeding Ewes	Other Ewes	Wethers	Lambs and Hoggets (under one year)	Total Sheep
				'000		
1965 . . . .	208	7 938	813	4 515	3 815	17 289
1966 . . . .	218	8 165	831	4 694	4 085	17 993
1967 . . . .	220	8 331	804	4 729	3 780	17 864
1968 . . . .	215	7 751	788	4 118	3 534	16 405
1969 . . . .	228	8 874	706	4 646	3 938	18 392
1970 . . . .	234	9 183	857	4 789	4 684	19 747
1971 . . . .	240	9 223	1 021	4 657	4 025	19 166
1972 . . . .	230	8 944	786	3 989	4 021	17 970
1973 . . . .	212	8 004	641	3 187	3 607	15 651
1974 . . . .	215	8 417	536	3 430	3 832	16 431

**Breeds of Sheep**

The predominant breed in South Australia is the Merino which accounts for more than 86 per cent of the total sheep numbers. The South Australian Merino having a robust constitution and a capacity to travel long distances to water has adapted well to the hot, dry conditions of the interior. Because of the particularly arid nature of the South Australian climate, pioneer breeders developed a large-framed type of Merino, yielding an exceptionally high clip of medium to broad quality wool.

**Breeds of Sheep, South Australia  
At 31 March**

Breed	1968	1969	1970	1971	1974
			'000		
Merino . . . . .	13 418·1	15 275·1	16 749·3	16 304·1	14 212·0
Corriedale . . . . .	1 113·0	1 085·3	973·1	940·6	646·2
Dorset Horn . . . . .	} 58·9	62·0	67·4	77·9	} 46·5
Poill Dorset . . . . .					
Border Leicester . . . . .	37·5	32·3	29·6	27·7	25·8
Polwarth . . . . .	113·9	114·1	139·6	147·6	137·3
Romney Marsh . . . . .	25·7	26·6	21·1	17·6	11·4
Ryeland . . . . .	5·7	7·1	6·7	5·7	4·0
Southdown . . . . .	7·8	5·3	4·9	4·7	3·1
Suffolk . . . . .	17·0	16·9	14·9	18·4	19·0
Other . . . . .	3·1	4·3	3·8	4·3	7·7
Merino-Comeback . . . . .	213·6	198·8	168·4	214·7	133·6
Crossbred . . . . .	1 391·0	1 564·3	1 568·3	1 402·6	1 149·3
<b>Total . . . . .</b>	<b>16 405·3</b>	<b>18 392·1</b>	<b>19 747·1</b>	<b>19 165·8</b>	<b>16 430·9</b>



areas (Far North Division) there are two main seasons, March-April and July-August. The next table gives details of sheep and lambs shorn, wool-clip and average fleeceweight in South Australia for the years 1969-70 to 1973-74.

**Sheep and Lambs Shorn: Wool-clip and Average Fleeceweight, South Australia**

Classification	1969-70	1970-71	1971-72	1972-73	1973-74
NUMBER SHORN ('000)					
Sheep . . . . .	16 924	17 556	16 613	15 009	13 965
Lambs . . . . .	4 990	4 409	4 210	3 973	3 919
Total . . . . .	21 914	21 965	20 823	18 982	17 885
WOOL-CLIP ('000 kg)					
Sheep . . . . .	100 982	95 035	94 792	85 353	82 314
Lambs . . . . .	9 293	7 695	7 792	6 844	7 320
Crutchings . . . . .	5 180	4 912	4 904	4 419	4 249
Total . . . . .	115 455	107 641	107 487	96 616	93 883
AVERAGE FLEECEWEIGHT (a) (kg)					
Sheep . . . . .	5.97	5.41	6.00	5.98	6.20
Sheep and lambs . . . . .	5.27	4.90	5.16	5.09	5.25

(a) Includes crutchings.

The total wool-clip, including crutchings, exceeded 100 million kg for the first time in 1966-67. More than 90 per cent of the total wool is obtained from adult sheep.

The average fleeceweight in South Australia is well over 5 kg a head for adult sheep, with a record 6.20 kg a head being achieved in 1973-74. This is significantly higher than the yield obtained in other States, and is primarily because of the larger size of the South Australian Merino, its broader wool quality and longer thicker-stapled fleece.

A breakdown of the State figures for 1973-74 by statistical divisions is given in the next table. This shows the high average fleeceweight obtained in the northern pastoral areas. The relatively light average fleece obtained in the South East Division is explained partly by the lower proportion of Merino sheep in the area (at 31 March 1974 only 73 per cent of total sheep in the South East Division were Merinos, compared with a total State figure of over 86 per cent), but more importantly by the lighter wool quality of the smaller framed sheep in this area.

**Sheep and Lambs Shorn, Wool-clip and Average Fleeceweight  
Statistical Divisions, South Australia  
1973-74**

Statistical Division	Number Shorn			Wool-clip			Average Fleeceweight (a)	
	Sheep	Lambs	Total	Sheep	Lambs	Total (a)	Sheep	Sheep and Lambs
	'000			'000 kg			kg	
Adelaide . . . . .	170	18	187	748	32	803	4.55	4.29
Central . . . . .	1 362	305	1 667	8 036	537	9 011	6.22	5.41
Kangaroo Island . . . .	630	165	795	3 296	279	3 737	5.49	4.70
Mount Lofty Ranges . .	1 252	335	1 587	7 288	601	8 271	6.13	5.21
Murray . . . . .	1 534	490	2 024	9 479	867	10 876	6.52	5.37
South East . . . . .	3 909	1 186	5 095	22 590	2 248	25 925	6.06	5.09
Eyre . . . . .	2 030	521	2 552	11 381	810	12 785	5.90	5.01
Northern . . . . .	1 616	506	2 121	10 216	968	11 710	6.65	5.52
Far North . . . . .	1 463	394	1 857	9 280	979	10 765	6.69	5.80
Total . . . . .	13 965	3 919	17 885	82 314	7 320	93 883	6.20	5.25

(a) Includes crutchings.

## WOOL INDUSTRY

### Organisation of the Australian Wool Industry

The *Wool Industry Act* 1962 made provision for the replacement of three separate instrumentalities (the Australian Wool Bureau, the Wool Research Committee and the Australian Wool Testing Authority) by a single body, the Australian Wool Board. The Board comprised a chairman, six woolgrower representatives, three members with special qualifications and a representative of the Australian Government.

The Australian Woolgrowers and Graziers Council and the Australian Wool and Meat Producers Federation formed the Australian Wool Industry Conference in October 1962. Principal functions of the Conference are to nominate woolgrower representatives for appointment to the Australian Wool Board; to recommend what rates of levy should be paid by woolgrowers for promotion and research, and to review the activities of the Board at least once a year. Levies had been imposed on shorn wool produced in Australia since 1936 for research and promotion purposes.

The Australian Wool Commission, a statutory authority set up by the Australian Government following proposals from the Australian Wool Industry Conference and the subsequent report of a special Advisory Committee of the Australian Wool Board, commenced operations in November 1970 and in that month began bidding and operating its flexible reserve price at wool auctions.

The *Wool Industry Act* 1972 repealed the *Wool Industry Act* 1962-1971 and the *Australian Wool Commission Act* 1970 and under this Act the Australian Wool Corporation commenced operations on 1 January 1973 with the combined functions of the Australian Wool Commission and the Australian Wool Board. The Wool Corporation has continued to operate the Flexible Reserve Price Scheme at auctions and to implement the policies established by the Australian Wool Commission.

### Production of Wool

Total wool production consists of shorn wool (including crutchings) plus fellmongered wool, dead wool and wool exported on skins. Fellmongering is the process of removing wool from the pelt by bacterial action (sweating) or by treatment with chemicals. Dead wool is picked from the carcasses of dead sheep.

In 1944 the weight of wool produced exceeded 50 million kg for the first time. Production dropped significantly in 1945-46 following the reduction in flocks caused by the 1944 drought. The industry recovered quickly and in 1947-48 a record 53 million kg of wool was produced, achieved by an increase in the numbers shorn and an exceptionally high average fleece of 4.93 kg. The rising trend has since continued with current production over 100 million kg.

Before 1946-47 the annual wool value had not exceeded \$14 million and was relatively stable. The marked changes in the value of wool produced since then have been mostly because of frequent and substantial price fluctuations rather than variations in the quantity produced. On the resumption of the auction system in 1946-47 wool prices increased sharply, reaching a peak in the record 1950-51 season. Gross value of production in that year exceeded \$132 million.

Demand eased in the following years causing values to fall, although a recovery in prices combined with a significant increase in production in 1956-57 raised gross value of production to \$114 million. In 1963-64 increased wool production and somewhat higher prices than in the past few years resulted in gross value of production of \$113 million. Since 1965-66 wool production has exceeded 100 million kg each year, however wool prices have fallen and the gross value of production was as low as \$65 million in 1970-71. Higher prices in 1973-74 resulted in a gross value of production of \$183 million.

### Wool Production and Value, South Australia

Season	Production			Value of Wool Production
	Shorn Wool	Other (a)	Total	
	'000 kg	'000 kg	'000 kg	\$'000
1964-65 .. . . .	90 747	7 111	97 858	94 328
1965-66 .. . . .	96 501	7 660	104 161	103 635
1966-67 .. . . .	99 961	7 766	107 727	104 588
1967-68 .. . . .	93 252	7 749	101 002	79 925
1968-69 .. . . .	98 661	7 055	105 716	95 054
1969-70 .. . . .	115 455	9 076	124 531	91 224
1970-71 .. . . .	107 641	9 618	117 260	65 086
1971-72 .. . . .	107 487	10 435	117 922	70 093
1972-73 .. . . .	96 616	9 391	106 006	141 713
1973-74 .. . . .	93 883	6 272	100 155	183 227

(a) Includes fellmongered wool, dead wool and wool exported on skins.

### Quality of Wool

In general terms, quality refers to the diameter of wool fibre, which is usually indicated by the evenness and number of crimps or waves. Crimp is the main determinant of quality; the smaller and more even the crimp, the finer the wool.

Fineness is generally specified in terms of spinning ability, and before 1971-72 was expressed generally in terms of Bradford Counts which signified the number of hanks of yarn, each measuring 512 metres, obtainable from one-half of a kilogram of tops if spun to its fullest capacity. These quality counts are estimates based on the experience of the wool expert. Quality counts range from as high as 90s to 100s for superfine Merino down to 32s for some English longwool breeds. Other factors influencing grading are soundness (tensile strength), length of staple, condition, colour and style.

#### Quality Analysis of Greasy Wool Sold at Auction in South Australia

Predominating Quality of Bale	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
	Per cent					
64/70s and finer . . . .	0.1	0.1	0.1	0.1	0.1	0.2
64s . . . . .	0.7	0.5	0.6	0.3	0.4	0.6
64/60s . . . . .	4.9	3.5	4.1	2.1	2.0	4.0
60/64s . . . . .	16.2	13.5	16.7	10.7	10.5	13.9
60s . . . . .	43.3	41.0	41.7	37.4	37.3	39.0
58s . . . . .	23.9	28.8	24.9	33.0	33.5	27.8
56s . . . . .	7.4	8.8	8.1	11.5	11.6	9.4
50s . . . . .	1.9	2.1	2.1	2.7	2.7	2.9
Below 50s . . . . .	0.3	0.4	0.4	0.5	0.5	1.0
Oddments . . . . .	1.3	1.3	1.3	1.7	1.4	1.2
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0

The South Australian Merino generally produces wool of a much broader quality than the Merino of the eastern States. The following table shows that only 0.2 per cent of wool sold in the 1970-71 season was 64/70s and finer; the corresponding New South Wales figure was 11.6 per cent.

The quality distribution of wool has remained relatively constant with over 80 per cent classified between 58s and 60/64s quality.

#### Incidence of Vegetable Fault in Wool Sold at Auction in South Australia

Season	Free or Near Free	Light Burr and/or Seed	Medium Burr and/or Seed	Heavy Burr and/or Seed	Carbon- ising Wool	Combing Oddments	Total
1963-64 . . . .	32.9	44.7	10.5	2.3	7.7	1.9	100.0
1964-65 . . . .	27.8	45.1	12.5	3.2	9.8	1.6	100.0
1965-66 . . . .	26.8	43.3	14.2	3.8	10.6	1.3	100.0
1966-67 . . . .	31.5	44.8	11.0	2.4	9.0	1.3	100.0
1967-68 . . . .	28.9	45.9	12.0	2.8	9.1	1.3	100.0
1968-69 . . . .	35.8	46.2	8.3	1.3	6.8	1.6	100.0
1969-70 . . . .	28.6	45.3	11.8	2.6	10.3	1.4	100.0
1970-71 . . . .	24.5	44.3	12.6	3.9	13.5	1.2	100.0
1971-72 . . . .	37.6	36.2	9.6	3.3	12.0	1.3	100.0
1972-73 . . . .	36.2	33.9	10.9	4.6	13.1	1.3	100.0



The incidence of vegetable matter reduces the yield of all wool types. If the extent of vegetable fault is greater than 14 per cent of the wool's greasy weight the wool has to be treated by the carbonising process. In most seasons approximately 70 per cent of South Australian wool is free of, or contains only light burr and seed; almost 15 per cent contains medium or heavy burr and seed and some 10 per cent is carbonising wool.

### Wool Marketing

For many years approximately 9 per cent of the wool grown in South Australia has been sold outside the auction system. This percentage rose to 13 per cent in the 1971-72 season and to 19 per cent in 1972-73, but fell to approximately 14 per cent in 1973-74. Of the South Australian wool passing through the auction system approximately 85 per cent is received by the Adelaide selling centre with the remainder, predominantly of South Eastern origin, going to Victorian selling centres. A similar inflow of wool occurs from western New South Wales, and to a lesser extent from western Victoria.

Because of the development of a system of Objective Measurement for wool the traditional method of displaying wool for sale, whereby sample bales are opened for inspection by buyers, is declining in importance and much wool is now sold by sample. A high standard of clip preparation is required for sale by sample as there must be very little variation between the bales of wool of each grade.

When a suitable lot is received into store a core sample is taken and this is then tested to give measures of average fibre diameter, degree of vegetable fault, and yield of wool (by three methods) and this information is entered on a certificate. As various other factors (*e.g.* length of wool, type of vegetable fault) must be assessed a grab sample of 8 kg is taken from each lot and this is displayed on a show floor, together with the Objective Measurement certificate, for examination by buyers.

An advantage of this type of clip preparation is that the sample may be inspected at a site remote from the location of the bulk of the clip. This has enabled wool held in Adelaide stores to be inspected, and sold, in Melbourne sales, which is of particular value to growers who deliver wool in late autumn and winter when there may be six to eight weeks between sales in Adelaide.

During the main spring shearing season sales are held every two or three weeks, lengthening to monthly or longer intervals over the remainder of the year. Pastoral wools provide the bulk of the offerings in the early spring months with agricultural wools becoming more prominent as the season progresses. Wools from the South East and other high rainfall areas make up a considerable proportion of the offerings in the summer months. Towards the end of the season wools are drawn from various parts of the State.

At the Wool Exchange, the sales are conducted with great rapidity taking on average for a normal market only eight seconds to dispose of an individual lot or line of wool. On completion of the sale the bales are returned to the stacks to await instructions from the buyers. When required for shipment the bales are usually dumped, *i.e.* pressed to less than half their original size and banded, to economise on shipping space.

Details relating to Adelaide wool sales during the past eight seasons compared with 1950-51, the year of boom prices, are shown in the following table.

### Adelaide Wool Sales

Season	Wool Sold (Scoured and Greasy)		Amount Realised	Average Price Per Kg (Greasy)	In Store at End of Season
	Bales	Weight			
	Number	'000 kg	\$'000	Cents	Bales
1950-51 ..	383 630	53 086	125 956	237-28	6 304
1966-67 ..	571 337	82 472	82 220	99-69	56 076
1967-68 ..	573 490	82 642	68 486	82-87	39 517
1968-69 ..	575 532	84 432	77 478	91-76	73 998
1969-70 ..	742 575	107 731	80 823	75-02	27 042
1970-71 ..	613 305	88 882	53 106	59-74	24 670
1971-72 ..	672 056	99 133	71 585	72-21	24 675
1972-73 ..	521 187	75 862	135 087	178-07	12 693
1973-74 ..	487 336	74 249	131 078	176-54	30 582

### Wool Prices

Prices paid for wool sold in South Australia tend to be on average less than prices realised in other States, this being partly attributable to the large proportion of medium to broad quality wools grown in South Australia and in western New South Wales. In 1972-73 the average price for wool sold at auctions in Australia was 183-77 cents per kg greasy, compared with 178-07 cents per kg in South Australia.

Details of average prices of greasy Merino and Crossbred wool of various grades over the last few seasons are given below.

### Average Wool Prices, Adelaide Sales

Description	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
<b>Greasy Merino:</b>						
	Cents per kg					
Superior .. . . . .	159	159	130	101	<i>n.a.</i>	240
Good .. . . . .	130	130	117	93	102	230
Average .. . . . .	110	110	97	75	90	210
Wasty and inferior .. . . .	86	90	75	64	79	180
Super lambs .. . . . .	123	128	112	82	<i>n.a.</i>	266
Good lambs .. . . . .	93	99	82	62	86	157
Average lambs .. . . . .	55	66	53	31	42	145
Inferior lambs .. . . . .	42	51	40	18	31	130
<b>Greasy Crossbred:</b>						
Super Comebacks .. . . .	132	126	117	93	<i>n.a.</i>	192
Fine Crossbred .. . . .	121	117	106	88	86	205
Medium Crossbred .. . . .	95	95	82	79	76	215

Average prices realised for greasy wool at Adelaide sales between 1945-46 and 1949-50 rose to 106 cents and more than doubled to nearly 239 cents in 1950-51. There was an immediate drop to half this level in the following year and then prices remained more stable until 1967-68. In 1970-71 the average price fell to 60 cents per kg, but in 1971-72 prices began to rise, reaching a monthly average of 253 cents per kg in July 1973. The price of wool has declined somewhat since then.

## CATTLE

In comparison with other States, cattle grazing is not a major industry in South Australia. Of the cattle in Australia at 31 March 1973 just over 5 per cent of those used mainly for meat production and about the same percentage of those for milk production were in South Australia. At 31 March 1974 the total number of cattle in South Australia was 1 692 000.

### Cattle Numbers: Statistical Divisions, South Australia 31 March 1974

Classification	Statistical Division							Total (a)
	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	Far North	
Associated with milk production:	'000							
Bulls (b) . . . . .	0.3	1.5	0.6	1.1	0.1	0.2	—	4.0
Cows . . . . .	4.7	60.2	25.2	31.2	1.0	3.0	—	131.6
Heifers . . . . .	1.4	17.2	5.9	8.4	0.2	0.9	—	36.0
Calves under one year . . . . .	1.5	14.4	5.4	7.9	0.3	0.9	—	32.0
House cows . . . . .	0.7	0.9	0.9	1.4	1.2	0.7	0.1	6.5
<b>Total . . . . .</b>	<b>8.7</b>	<b>94.2</b>	<b>37.9</b>	<b>50.0</b>	<b>2.8</b>	<b>5.7</b>	<b>0.2</b>	<b>210.0</b>
Associated with meat production:								
Bulls (b) . . . . .	1.8	3.4	2.1	14.9	2.0	1.4	3.4	30.3
Cows and heifers . . . . .	43.5	74.1	50.5	394.9	59.0	32.8	101.2	791.8
Calves under one year . . . . .	26.7	43.9	35.4	216.2	36.2	19.8	46.1	443.9
Other cattle . . . . .	11.2	18.5	11.0	121.4	7.7	7.1	32.3	215.6
<b>Total . . . . .</b>	<b>83.3</b>	<b>139.9</b>	<b>99.0</b>	<b>747.4</b>	<b>104.9</b>	<b>61.2</b>	<b>183.0</b>	<b>1 481.5</b>
<b>Total cattle . . . . .</b>	<b>92.0</b>	<b>234.1</b>	<b>136.9</b>	<b>797.4</b>	<b>107.7</b>	<b>66.9</b>	<b>183.2</b>	<b>1 691.6</b>

(a) Includes Adelaide and Kangaroo Island Divisions.

(b) Used or intended for service.

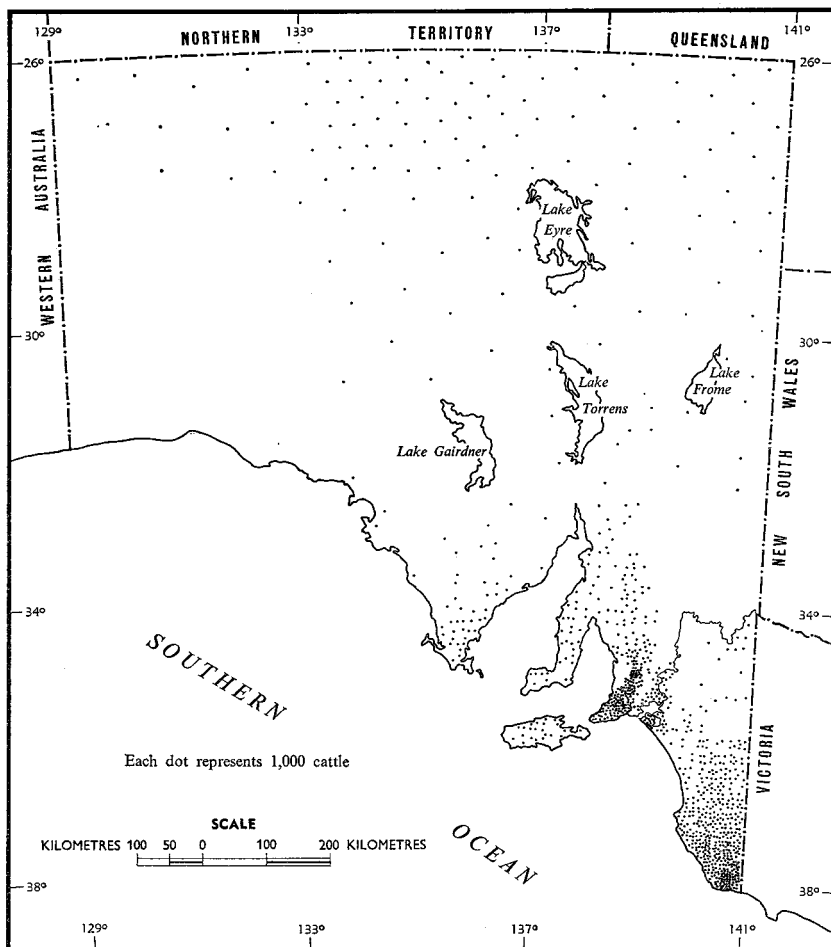
### Cattle for Meat Production

Numbers of cattle associated with meat production have increased in the last twenty years in South Australia. At 31 March 1964, 424 000 cattle associated with meat production were recorded (this figure is not strictly comparable with earlier figures because of a change of classification adopted in 1964); by 31 March 1968 this number had risen to 464 000 and at 31 March 1974 there were 1 482 000 cattle for meat production.

In 1974 about 50 per cent of these cattle were in South East Division, 12 per cent in Far North Division, 10 per cent in Mount Lofty Ranges Division, and smaller numbers in other parts of the State. In the northern pastoral areas, Shorthorns are the predominant breed and there are lesser numbers of Herefords; in the South East, Herefords and Shorthorns are the main breeds and there are substantial numbers of Aberdeen Angus, while near Adelaide, where a number of studs are located, several breeds are well represented.

## SOUTH AUSTRALIA CATTLE DISTRIBUTION

At 31 March 1970.



The northern pastoral region is traditionally the breeding area for cattle for meat production (carrying 50 per cent or more of these cattle before 1957) but there has been a trend towards moving cattle which were bred in this drier country to the better rainfall areas for fattening. The continued increase in the area of sown pastures has contributed to the increase of cattle in southern parts of the State.

### **Cattle for Milk Production**

From March 1964 to March 1968 the total number of cattle associated with milk production declined by 39 000 to 231 115 and the total number in subsequent years has been of the same order. Distribution within the State is little changed although there has been some tendency for concentration in the principal dairying areas.

Properties in South Australia on which dairying is the main activity are situated mainly in the areas where high rainfall or irrigation permits the growing of sown pastures, but many of the mixed farms in the better cereal growing areas carry herds used mainly for milk production. Dairy production on these farms is almost entirely in the form of cream for butter making, whereas the properties in the sown pasture areas mainly market whole milk, either for consumption in the Adelaide area or for cheese making.

Commercial dairying activities are located mainly within a 130 kilometre radius of Adelaide. Of greatest importance is the Adelaide Hills district, comprising the Mount Lofty Ranges and areas as far south as Cape Jervis and Encounter Bay. This district embraces some of the best dairy land in the State and includes most of the properties devoted specifically to dairy farming. Although some herds are grazed on natural pastures improved only by top dressing with superphosphate, the most common type is sown pasture consisting of subterranean clover in combination with perennial grasses such as perennial rye grass or phalaris.

Dairy production is mainly in the form of whole milk for consumption in Adelaide but the surplus from the flush period of the year is converted into cheese at factories situated at several centres throughout the Adelaide Hills.

Most of the breeds used mainly for milk production are represented; Friesians and Jerseys predominate, with Guernseys, Australian Illawarra Shorthorn, Ayrshires and their crosses in use to a lesser extent.

Other areas inside the 130 kilometre radius are the Lower Murray swamps and the Lakes District. The Lower Murray swamps extending from Mannum to Wellington are reclaimed areas ideally suited to dairying pursuits, combining the attributes of suitable climate, good soil, and an abundant water supply. The farms are flood irrigated through sluice gates in the levees and distributing channels and surplus water is led into a drainage system and pumped back into the river. The area has a very high carrying capacity of predominantly Friesian cattle. A significant proportion of the produce is sold as whole milk in the Adelaide market while the remainder is used for cheese, butter and casein production.

The Lakes District owes much to the barrages across the mouth of the Murray which have helped to maintain the waters of Lake Alexandrina and Lake Albert in a reasonably fresh state. These have greatly contributed to the improvement of the productivity of this area and also have had the effect of maintaining a greater control over the level of the water in the river, thereby greatly facilitating irrigation of the reclaimed swamps upstream. The outlet for dairy products is generally towards the processing plants situated on the Murray. On the eastern side both cream and milk are produced while on the western side most of the produce is sold as whole milk. Where cream is produced, pig-raising is complementary to dairying. The cattle for milk production are principally Jersey breed and enjoy a high reputation for productive ability.

Outside the 130 kilometre radius, the most important dairying area is the Lower South East, where the high rainfall and low evaporation rate combine to allow a fairly long growth period after the autumn and winter rains and spring flush of feed. The intensity of dairying varies with the different areas, being greatest on the richer peat and peat-type soils close to the coast and the rich volcanic soils around Mount Gambier. Most breeds are well represented in the district, the Jersey and Friesian being slightly more popular than other breeds.

The annual average yields per cow shown in the table below are obtained by dividing the total production of whole milk for the year ended 31 March by the mean of the number of cows in milk and dry and the house cows at 31 March of that year and of the preceding year. They are, in effect, based on the approximate number of cows which were in milk during any part of the year. The average shown is therefore less than that for cows which were yielding during the greater part of the year but it may be accepted as sufficiently reliable to show the general trend.

**Average Milk Production Per Cow, South Australia and Australia  
Year Ended 31 March**

Area	1970	1971	1972	1973	1974 <i>p</i>
			Litres		
South Australia . . . . .	3 280	3 262	3 117	2 806	3 127
Australia . . . . .	2 619	2 657	2 590	2 611	2 763

In the past there has been a steady increase in average milk production per cow but from the early 1960s the average has increased rapidly. This increased production has been achieved through a more scientific approach to management of herds for milk production including the keeping of detailed herd records, selective breeding and culling, supplementary pasture, hay and silage diet with highly nutritious prepared feedstuff and the use of modern veterinary supplies and services. The continuing trend towards fewer but larger

dairy farms reflects the pressures on the industry to achieve greater efficiency. At March 1966 there were 10 046 holdings with cattle used or intended to be used for milk production, but by March 1972 the number had fallen to 5 547.

## DAIRY PRODUCE

**Milk**

Total milk production in any one year is not known precisely. However, as details are known of two major components of total milk utilisation in South Australia, namely the amount consumed by factories in the production of milk, cheese and other milk products and home consumption in the Metropolitan Milk Board area, a carefully considered estimate can be made.

The following table shows the estimated production of whole milk and the quantity of this milk used for various purposes in 1964-65 and later seasons.

**Production and Utilisation of Milk, South Australia**

Year	Total Milk Produced	Milk Used for					
		Butter		Factory Cheese (a)	Home Consumption		Other Purposes
		On Farm	In Factory		Milk Board Area	Outside Milk Board Area	
'000 litres							
1964-65 .. ..	465 201	2 082	151 999	172 101	86 335	44 574	8 110
1965-66 .. ..	447 326	1 964	140 570	162 109	88 912	45 129	8 633
1966-67 .. ..	448 822	1 800	133 919	171 433	88 476	44 461	8 733
1967-68 .. ..	403 793	1 637	107 715	149 785	90 131	46 097	8 428
1968-69 .. ..	467 374	1 473	128 795	192 959	90 154	45 625	8 374
1969-70 .. ..	482 958	1 309	153 303	180 234	94 118	45 161	8 838
1970-71 .. ..	469 775	1 146	129 509	190 490	95 486	43 802	9 342
1971-72 .. ..	457 732	982	125 113	185 835	94 722	41 674	9 406
1972-73 .. ..	424 265	818	101 047	174 500	96 222	41 708	9 969
1973-74 p ..	434 107	655	100 994	185 865	95 303	41 318	9 972

(a) Factory production accounts for virtually all cheese produced.

The Metropolitan Milk Board is constituted to regulate the treatment and marketing of milk within the Metropolitan Milk Board area. The duties of the Board include the fixing of the metropolitan producing district and the granting of milk producers and treatment licences. The Board may fix the prices of milk and sweet cream and may make recommendations on the quotas of milk and cream for sale.

**Butter and Cheese**

The quantities of butter and cheese produced during the last ten years are shown in the following table.

**Butter and Cheese Production, South Australia**

Year	Butter (a)	Cheese (b)	Year	Butter (a)	Cheese (b)
	'000 kg			'000 kg	
1964-65 .. . . .	7 889	17 616	1969-70 .. . . .	7 883	17 888
1965-66 .. . . .	7 405	16 457	1970-71 .. . . .	6 661	18 906
1966-67 .. . . .	6 915	17 508	1971-72 .. . . .	6 430	18 444
1967-68 .. . . .	5 566	14 866	1972-73 .. . . .	5 194	17 319
1968-69 .. . . .	6 637	19 151	1973-74 <i>p</i> .. . .	5 194	18 904

(a) Includes factory and farm production.

(b) Factory production only.

**PIGS**

In South Australia pigs are normally kept as a sideline on mixed farms or in conjunction with dairy cattle and there are relatively few holdings specialising in pigs.

Although there have been substantial fluctuations in the pig population from year to year induced by the exceptional variability of prices, in the long-term the numbers have remained stable. The total number exceeded 200 000 for the first time in 1966 and has continued to exceed that number in subsequent years. Of the 385 000 pigs at 31 March 1974, approximately 50 per cent were in Central and Murray Divisions. The principal breeds in South Australia are Large White, Berkshire, Landrace and Tamworth. The following table shows the number of pigs on rural holdings at 31 March for the last five years.

**Pig Numbers, South Australia**

At 31 March	Boars	Breeding Sows	All other	Total
1970 .. . . .	5 137	45 174	300 437	350 748
1971 .. . . .	5 521	49 560	334 336	389 417
1972 .. . . .	6 526	62 881	409 467	478 874
1973 .. . . .	6 113	57 711	435 637	499 461
1974 .. . . .	4 996	46 000	334 162	385 158

In the following table, pig herds at 31 March 1969, in size groups, are classified according to the size of the herd of cattle for milk production on the holding. Of the 29 137 holdings of all types 5 596 carried pigs, while of the 7 159 holdings with milk cattle, 2 562 carried pigs.



**Rural Holdings Classified According to Size of Milk Cattle Herd and Size of Pig Herd: South Australia, 1968-69<sup>(a)</sup>**

Size of Milk Cattle (a) Herd (numbers)	Size of Pig Herd (numbers)					Holdings with Pigs	Holdings with Dairy Cattle
	1-9	10-19	20-49	50-99	100 and Over		
1-4 .. . . .	215	109	171	103	66	664	1 767
5-9 .. . . .	156	104	172	77	38	547	1 094
10-19 .. . . .	122	115	198	126	75	636	1 166
20-49 .. . . .	53	66	135	119	68	441	1 486
50-99 .. . . .	43	18	43	47	53	204	1 164
100 and over ..	18	3	11	14	24	70	482
Total .. . . .	607	415	730	486	324	2 562	7 159

(a) Herds comprising dairy-breed bulls used (or intended) for service, dairy-breed bull calves intended for service and/or cows, heifers, and heifer calves used (or intended) for the production of milk or cream for sale.

### MEAT PRODUCTION AND MARKETING

South Australia is a relatively small meat producer, providing only about 8 per cent of total Australian production. The South Australian Meat Corporation has the sole right within the Metropolitan Abattoirs area to slaughter stock for export as fresh meat in a frozen condition. It controls the handling and distribution of meat within this area and may fix the maximum number of stock sold in any one day in a Corporation controlled market. The following table shows the number of livestock slaughtered for human consumption (including exports) and the production of meat during the last five years. Slaughtering and meat production on rural holdings are included in these figures.

#### Livestock Slaughtered and Meat Produced, South Australia

Season	Livestock Slaughtered for Human Consumption			Meat Production (Bone-in-Weight)			
	Cattle and Calves	Sheep and Lambs	Pigs	Beef and Veal	Mutton and Lamb	Pigmeat	Total
		'000					Tonnes
1969-70 .. . . .	249	4 232	386	40 702	79 427	20 082	140 211
1970-71 .. . . .	264	5 101	435	43 494	91 923	22 537	157 954
1971-72 .. . . .	291	5 144	436	50 068	91 503	23 094	164 665
1972-73 .. . . .	392	4 538	527	64 254	76 262	27 483	167 999
1973-74 .. . . .	359	2 595	448	63 211	50 116	24 195	137 522

Average market prices of some of the principal classes of livestock are set out in the next table. Generally prices fluctuate considerably from year to year, but a comparison of prices for 1972 and 1973 shows exceptional increases.

**Livestock, Average Prices at Adelaide Market**

Class of Stock	1969	1970	1971	1972	1973
Fat cattle:					
				Dollars	
Bullocks and steers;					
Prime, medium ..	150.77	156.26	155.00	153.63	191.63
Good . . . . .	135.67	140.44	135.80	131.80	161.89
Cows;					
Prime, medium ..	125.29	123.24	131.10	128.14	162.92
Good . . . . .	109.51	108.75	113.21	108.73	140.11
Calves;					
Prime vealers . . .	56.83	57.57	56.75	49.29	60.44
Good . . . . .	44.64	40.95	40.55	34.92	48.51
Fat sheep:					
Merino wether;					
Prime . . . . .	8.00	6.20	4.28	6.35	18.15
Medium . . . . .	6.93	5.18	3.15	4.42	13.05
Lambs;					
Prime, medium ..	7.12	6.71	5.66	6.56	14.16
Good . . . . .	6.24	5.84	4.31	5.07	11.85
Figs:					
Choppers . . . . .	63.38	58.16	69.68	61.26	72.10
Baconers . . . . .	38.07	34.24	39.76	34.63	42.69
Porkers . . . . .	21.00	20.42	23.67	20.68	25.45

The Australian Meat Board, which was reconstituted under the *Meat Industry Act, 1964* controls the export of meat, its sale and distribution overseas, and advises on matters relating to quality and grading of meat for export. The trading powers of the Board enable it to purchase and sell meat in its own right for the purpose of developing existing markets or creating new markets where there are special problems or circumstances which preclude the effective participation of private traders.

Finance for the Board's operations is derived from a levy imposed under the *Livestock Slaughter Levy Act 1964-1974*. The levy is payable on the slaughter of all cattle (over 90 kg dressed weight), sheep and lambs for human consumption. The Act provides three elements in the levy for each class of livestock—an amount to finance meat research, an amount to finance the operations of the Australian Meat Board and, from 1 January 1972 until 31 December 1974, an amount to finance service and investigation activities relating to meat processing. The first two elements are paid by producers while the third element is paid by meat processors.

In February 1964 the Governments of Australia and the United States concluded an agreement for the regulation of beef, veal and mutton exports from Australia to the United States with the object of promoting the orderly development of the trade in these classes of meat between the two countries. From year to year quotas on imports of meat may be imposed depending on the estimated level of imports into the United States.

## OTHER RURAL INDUSTRIES

## Poultry Farming

Poultry farming is a specialised and distinct industry and it is from this source that the bulk of commercial production is obtained. The industry can be divided into two categories; the production of eggs, and the raising of poultry for meat. Chickens raised for meat, known as 'broilers', account for over 90 per cent of total poultry slaughtered.

The main production centres for both categories of this industry are located within an 80 kilometre radius of Adelaide, near the processing works and main consumption outlets. Special concentrations of growers are at Murray Bridge and Gawler, with some broiler growers established in the Adelaide Hills.

**Poultry Industry, South Australia<sup>(a)</sup>**  
**At 31 March**

Particulars	1970	1971	1972	1973	1974
			'000		
Hens and pullets . . . . .	1 680	1 848	1 899	1 558	1 671
Other fowls and chickens ..	1 690	1 885	1 993	2 332	2 728
Ducks . . . . .	83	75	47	26	23
Turkeys . . . . .	69	73	40	33	17
Egg production (b) . . . . .	199 833	229 848	249 618	225 220	216 409

(a) Excludes poultry kept in backyards.

(b) Recorded by the South Australian Egg Board. Year ended 30 June.

## Egg Industry

The South Australian Egg Board, operating under the Marketing of Eggs Act, 1941-1973, controls the marketing of eggs in this State. The Board determines the price at which it purchases eggs from producers, fixes the wholesale selling price in South Australia, makes available supplies to the local market through its grading agents and arranges with the Australian Egg Board for the export of eggs surplus to local requirements.

A stabilisation scheme, embodying three Acts has been in operation since 1 July 1965. The *Poultry Industry Levy Act 1965-1966* provides for the imposition of a levy, the maximum being \$1.00 annually per hen, on hens not less than six months old kept for commercial purposes. Exemptions from payment are granted on the first twenty hens in each flock and on 'broiler breed hens'. In determining the rate of the hen levy, the Australian Minister for Agriculture is required to take into consideration any recommendations by the Council of Egg Marketing Authorities of Australia (CEMAA) which consists of all members of State egg marketing boards and is precluded from prescribing a rate in excess of such recommendations. The money obtained from the levy is used to meet trading losses on surplus eggs and sales to overseas markets.

Under the *Poultry Industry Levy Collection Act 1965-1966* the South Australian Egg Board is responsible for the collection of the levy on behalf of the Australian Government. The *Poultry Industry Assistance Act 1965-1966*

established a Poultry Industry Trust Fund for the receipt of the amount of the levy and other moneys. The Act provides for the payment from the Fund to this State, by way of financial assistance of such amounts as the Minister of Agriculture may determine upon the recommendation of the CEMAA.

The trend in the egg industry in South Australia is towards a reduction in the total number of poultry farms, but an increase in average flock size. Housing of birds for commercial purposes is largely planned on the intensive principle, with deep litter pens or single and multiple bird cage units. Laying stock consists mainly of a specially produced crossbred between the White Leghorn and Australorp breeds.

Feed is the single most important cost to this industry, and its correct use is vital for efficient production. Feeding is based on cereal grains and the by-products bran and pollard. Meat and bone meats are a major source of protein supplement coupled with other essential vitamins, proteins and minerals.

The annual average egg production controlled by the South Australian Egg Board was 10.6 million dozen in the five years ended 1960-61, 10.1 million dozen over the next five years and 15.4 million dozen in the five years ended 1970-71. However, these figures do not take into account movement of eggs interstate independently of the Egg Board, which may represent a significant proportion of total egg production.

#### *Broiler Industry*

The broiler industry in South Australia has grown rapidly during the past fifteen years, annual production increasing from about half of a million birds in 1959 to over 13 million birds at the present time. Broilers are specially bred meat strain birds of either sex, that are slaughtered between eight and ten weeks of age at a live weight of approximately 1.5 kg. This rapid growth and efficient conversion of feed to meat has been achieved by extensive breeding programs; the use of specially prepared high protein and energy value poultry feeds; growth promotion and disease control drugs; and by the development of enclosed, factory-like broiler houses, with controlled temperature, ventilation and light, conducive to fast growth.

The broiler industry is a complex organisation requiring close co-operation between all links in the chain of production. Breeders, multipliers, hatcheries, growers, and poultry processors must combine to ensure efficient and streamlined production. This co-operation has produced a stable and efficient industry, bringing chicken meat to the consumer at a price comparing favourably with other meats. Growers are usually under contract to large broiler processing organisations receiving a price per bird at marketing or a price per kg live weight. Price per kg live weight is the most popular method; under this method the grower provides the shed, equipment and labour and the processor provides the chicken, cost of brooding and feed. Usually the processor has a field serviceman who looks after his interests and ensures that growers are correctly rearing and caring for the stock. Nearly all South Australia's production is consumed locally, with some broilers being imported from Victoria and New South Wales.

A monthly collection of statistics on chicken hatchings and poultry slaughterings commenced in South Australia in July 1966; the following tables show the number of eggs set, chicks hatched and poultry slaughtered for the last five years.



**Beekeeping**

Beekeeping in South Australia is a small industry—in 1973-74 there were 894 'keepers with five or more hives. Most commercial apiarists operate on a migratory basis, following the flowering of the various species of honey flora. The production of honey and beeswax fluctuates considerably from year to year, depending upon seasonal conditions.

**Beekeeping, South Australia<sup>(a)</sup>**

Season	Beekeepers	Hives		Honey Produced	Yield of Honey per Productive Hive	Beeswax Produced
		Productive	Un-productive			
	No.	No.	No.	'000 kg	kg	'000 kg
1969-70 ..	798	67 677	11 284	4 825	71	71
1970-71 ..	805	67 267	13 583	3 190	47	46
1971-72 ..	821	73 412	14 055	4 277	58	60
1972-73 ..	867	77 852	17 142	3 357	43	57
1973-74 ..	894	84 944	16 730	4 650	55	76

(a) Excludes particulars for producers having less than five hives.

**VALUE OF AGRICULTURAL PRODUCTION**

The value of agricultural production may be expressed in terms of gross value, local value and net value. Gross value is the value placed on recorded production at the wholesale prices realised in principal markets. Local value equals the gross value of production less marketing costs, and net value of production equals local value less the value of materials used in the process of production.

Details for the last five years of gross value of agricultural production are given in the following table.

**Gross Value of Agricultural Production, South Australia**

Class of Production	1969-70	1970-71	1971-72	1972-73	1973-74 <i>p</i>
	\$'000				
Crops (including pastures) ..	184 284	164 895	213 206	177 768	374 638
Livestock Slaughtering... ..	77 602	81 421	93 057	126 633	164 074
Livestock Products .. . . .	124 155	100 722	124 440	198 914	214 443
Total agriculture .. . . .	386 041	347 038	430 704	503 315	753 155

## 9.2 MINING, FORESTRY AND FISHERIES

### MINING

South Australia has a well developed and growing mineral industry and, although iron ore is the major product, the State also has very large resources of industrial minerals which make up a significant proportion of the total annual value of mineral production which exceeded \$134 million in 1972-73.

#### MINING ADMINISTRATION

The Mining Act, 1971-1973 reserves all minerals to the Crown and regulates and controls all mining operations in South Australia.

The state and conditions of the mine, machinery, ventilation, and all other matters relating to the safety, health and well-being of the employees and general public are regulated by the Mines and Works Inspection Act, 1920-1970.

The Petroleum Act, 1940-1971 and the Petroleum (Submerged Lands) Act, 1967-1969 provide for the control of petroleum exploration and the production, conservation and distribution of petroleum by pipeline.

The Underground Waters Preservation Act, 1959-1973 provides for the control of water boring and of groundwater usage in 'defined areas', and for the licensing of drillers.

The administration of these Acts is the responsibility of the Minister of Mines and the Director of Mines. The principal functions of the Department of Mines are:

- (i) the administration of mining and petroleum legislation including the granting of mineral leases and collection of royalties and fees;
- (ii) geological and geophysical investigations to ascertain the extent and nature of the State's mineral resources;
- (iii) drilling to test mineral deposits, petroleum reserves and underground water supplies;
- (iv) development of sub-surface water supplies for farming, pastoral, irrigation and mining purposes;
- (v) control of development of underground water in certain defined areas;
- (vi) the testing and treatment of minerals, generally in arrangement with the Australian Mineral Development Laboratories;
- (vii) control of mining and rehabilitation.

#### MINERAL INDUSTRY STATISTICS

Mining industry data (such as employment, costs, value of output, etc.) have been obtained annually since 1952 from the Mining and Quarrying Census carried out in association with the Department of Mines. The details have been collected from establishments employing, on the average, four or more persons during the period worked by the mine. For smaller mines employing less than four persons particulars were compiled from data made available by the Department of Mines. Statistics compiled from these Censuses have been published by the Australian Statistician in *Non-rural Primary Industries* bulletins and other publications of the Australian Bureau of Statistics.

In 1968 and earlier years, the annual Mining and Quarrying Census related to years ended 31 December. However, commencing with 1968-69, the Mining Census was changed to a year ended 30 June to conform with the period covered by other economic censuses in Australia.

Because the 1968-69 Census differed from previous censuses, the statistics obtained from it and subsequent censuses are not strictly comparable with statistics of the mining industry which have been published for previous years. Statistics for 1968-69 to 1972-73 have been published by the Australian Statistician in the bulletins *Mining Establishments, Details of Operations* (Reference No. 10.60).

### Number of Establishments

The following table shows the number of establishments which operated during the year 1972-73. These relate to mining establishments as such and do not include the numbers of separately located administrative offices and ancillary units.

### Mining Establishments: Number Operating, Persons Employed, Wages and Salaries, by Industry Subdivision, South Australia, 1972-73

Industry Subdivision	ASIC Code (a)	Number of Establishments Operating at 30 June 1973	Persons Employed (b)			Wages and Salaries  \$ million
			Males	Females	Total	
Metallic minerals . . . . .	11	4	} 1 503	160	1 663	9.0
Coal . . . . .	12	1				
Crude petroleum including natural gas	13	1				
Construction materials . . . . .	14	60	526	24	550	2.6
Other non-metallic minerals . . . . .	15	28	325	12	337	1.8
<b>Total mining, excluding services to mining . . . . .</b>	<b>..</b>	<b>94</b>	<b>2 354</b>	<b>196</b>	<b>2 550</b>	<b>13.4</b>

(a) Australian Standard Industrial Classification.

(b) At 30 June 1973; includes working proprietors.

### Employment

The statistics of the number of persons employed relate to working proprietors at the end of June 1973 and employees on the payroll of the last pay period in June 1973, including those working at separately located administrative offices and ancillary units in the State. Note that persons employed in South Australia (and their wages and salaries) relate to those employed at establishments, administrative offices or ancillary units located in this State, even though the administrative offices or ancillary units may have served establishments located in another State.

### Wages and Salaries

The wages and salaries of all employees of the establishment include those working at separately located administrative offices and ancillary units in the State. Drawings of working proprietors are not included.



**Turnover**

The following table shows sales of minerals and other goods, whether produced by the establishment or not, plus transfers out of minerals and other goods to other establishments of the same enterprise, plus bounties and subsidies on production, plus all other operating revenue from outside the enterprise (such as commission, repair and service revenue) plus capital work for own use, or for rental or lease. Receipts from rents, leasing, interest (other than hire-purchase), royalties and the sale of fixed tangible assets are excluded.

**Mining Establishments: Turnover and Value Added by Industry  
Subdivision, South Australia, 1972-73**

Industry Subdivision	ASIC Code (a)	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses	Value Added
			1972	1973		
			\$ million			
Metallic minerals .. . . .	11	} 83.2				
Coal .. . . .	12		5.5	6.9	25.6	59.1
Crude petroleum including natural gas .. . . .	13					
Construction materials .. . . .	14	13.1	0.8	0.7	4.0	9.1
Other non-metallic minerals .. . . .	15	12.3	1.7	1.5	6.5	5.7
Total mining, excluding services to mining .. . . .	..	108.6	7.9	9.2	36.0	73.8

(a) Australian Standard Industrial Classification.

**Purchases, Transfers In and Selected Expenses**

These figures include purchases of electricity, fuels, stores and other materials, plus transfers in of goods from other establishments of the same enterprise, plus charges for processing and other commission work and payments to mining contractors, repair and maintenance expenses, outward freight and cartage, motor vehicle running expenses and sales commission payments.

**Stocks**

Figures include all the stocks of materials, fuels, etc., and mine products and work-in-progress of the establishment whether located at the establishment or elsewhere.

**Value Added**

Value added as shown in the preceding table is calculated as turnover plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

**MINERAL COMMODITY STATISTICS**

Mineral commodity statistics published in the *South Australian Year Book* are those recorded by the Director of Mines. The quantity and value of production of the major minerals for the years ended 30 June 1972 and 1973 are listed in the following table.

Mining and Quarrying Production, South Australia<sup>(a)</sup>

Mineral	Unit of Quantity	Quantity		Value	
		1971-72	1972-73	1971-72	1972-73
				\$'000	
<b>Metallic:</b>					
Copper .....	..	..	..	2 219	6 975
Iron ore .....	'000 tonnes	6 301	6 874	54 934	60 527
Other .....	..	..	..	30	341
<b>Non-metallic:</b>					
Barite .....	'000 tonnes	23	18	201	157
Clays .....	'000 tonnes	763	754	1 043	1 057
Coal .....	'000 tonnes	1 536	1 571	3 245	3 244
Dolomite .....	'000 tonnes	376	385	671	690
Gypsum .....	'000 tonnes	751	744	1 832	1 935
Limestone .....	'000 tonnes	1 677	1 636	2 506	2 503
Opal (b) .....	..	..	..	15 500	25 000
Salt .....	'000 tonnes	617	591	2 433	2 363
Talc, soapstone .....	'000 tonnes	12	12	214	240
Other .....	..	..	..	1 124	539
Construction material quarrying ..	'000 tonnes	16 716	15 463	16 420	17 952
Natural gas .....	millions of m <sup>3</sup>	964	1 095	(c)9 250	(e)10 750
<b>Total .....</b>	..	..	..	111 623	134 274

(a) Quantities disposed of as recorded by the Director of Mines.

(b) Estimated.

(c) Value at city gate.

Details of mining of individual minerals are given below. Reference should also be made to Part 1.3 which contains particulars of the location of mineral resources.

### Iron Ore

The only proven high grade iron ores of South Australia lie in the Middleback Ranges to the west of Whyalla. The ranges are composed primarily of iron-rich rocks in which occur local concentrations of high grade ore.

The Iron Monarch deposit near Iron Knob has provided the bulk of the iron ore for Australia's steel industry for many years. Production from this and the smaller deposits of Iron Prince and Iron Baron is maintained by the Broken Hill Proprietary Company Limited—in 1972-73 production was 6.9 million tonnes. The bulk of the ore is shipped to Newcastle and Port Kembla, but a proportion is exported in pellet form and some is used for the production of iron in the Whyalla blast furnaces. The molten iron is transferred from the blast furnaces to the basic oxygen steel plant, where ingot steel is produced for use in the Whyalla rolling mills.

Reserves of high grade iron ore are estimated at about 170 million tonnes. The grade of ore at more than 60 per cent iron is high by world standards. In view of the known limitation of high grade ore, the Broken Hill Proprietary Company

Limited has carried out an active exploration program, and is also planning future use of the very large reserve of low grade siliceous ores known to exist in the Middleback Ranges.

### **Barite**

There are widespread occurrences of barite (barytes) throughout the Adelaide System rocks of South Australia. Deposits are located in a number of areas including the Mount Lofty and Flinders Ranges and the Olary district. Barite is still used in the paint and other industries, but the main use is in drilling mud for oil exploration where the grade does not have to be so high. Production of barite totalled 18 000 tonnes in 1972-73.

The company operating the Oraparinna Mine in the Flinders Ranges has been the major Australian producer of barite for some years.

### **Gypsum**

South Australian deposits contain by far the largest part of Australian reserves of gypsum. The deposits in general have been formed in coastal basins cut off from the ocean, giving rise to extensive deposits of rock gypsum. The most important coastal deposits are found at Lake MacDonnell and on Kangaroo Island. Inland deposits mainly of seed gypsum occur at Moonabie, Lake Fowler, Cooke Plains and along the Murray River. The gypsum deposits have been worked extensively over the past fifty years to provide the bulk of Australasian requirements for the plaster industry and for portland cement manufacture. Production reached 744 000 tonnes in 1972-73.

Reserves of high grade gypsum at Lake MacDonnell have been proven by the Department of Mines to exceed 500 million tonnes, sufficient to meet Australia's requirements for many generations. Because of its remote location on the west coast of South Australia, development of the deposit has been slow. The new rail link, constructed between the deposit and the bulk loading installations at the port of Thevenard, has reduced the rail distance from 101 to 55 kilometres, and the port has been deepened to accommodate larger ships of up to 20 000 tonnes capacity. The value of overseas exports of gypsum from South Australia during 1973-74 amounted to \$1.4 million.

### **Salt**

The semi-arid climate and high evaporation rate along much of South Australia's coastline, together with the high salinity of the gulf waters, create very favourable conditions for the production of salt by solar evaporation. In the early days the availability of sites close to cheap transport led to the establishment of solar salt works at the head of Spencer Gulf near Port Augusta and at Whyalla, at Price on the eastern shore of Yorke Peninsula, and in 1940 at Dry Creek near Adelaide. In addition several operators recover salt from shallow salt-lakes on Yorke Peninsula and elsewhere.

At present South Australia produces over 500 000 tonnes of salt annually, and provides approximately two-thirds of Australia's salt requirements. The industry in South Australia is capable of expansion, but the future export market appears to have been largely captured by salt development in Western Australia, where ports for very large ships are available for the export of salt.

The value of overseas exports of salt from South Australia amounted to \$245 000 in 1973-74.

**Opal**

The estimated value of raw opal production exceeded \$25 million in 1972-73. In terms of value it ranked second only to iron ore as the most important mineral produced in South Australia during 1972-73. Overseas exports of opal from South Australia during 1973-74 were reported at \$5.5 million but much greater quantities were exported through other States.

In spite of the value of opal being won at present, opal mining remains a small scale operation at Andamooka and Coober Pedy. The distances from Port Augusta to Andamooka and from Port Augusta to Coober Pedy are 290 and 630 kilometres respectively.

Mining at both centres is relatively shallow, rarely exceeding 30 metres. The extent of the opal fields is not known as there has been little systematic exploration, but it is probable that the fields will continue to yield the gem for many years.

**Talc**

The principal occurrences of talc are to be found at Mount Fitton in the Northern Flinders Ranges and in the Gumeracha district. From these sources 11 871 tonnes were mined in 1972-73. The Mount Fitton talc is particularly high grade, and is in demand for use by the cosmetic industry. Lower grade material is used in the rubber, paint, and ceramics industries.

**Coal**

South Australia is deficient in bituminous coal resources and the only mining is of sub-bituminous coal at Leigh Creek. The present development of the field commenced with Department of Mines drilling operations in 1941. The Electricity Trust of South Australia assumed control of the field in 1948 and developed it as a source of fuel for the Port Augusta power station. Meanwhile testing by the Department of Mines continued for some years, proving a total of 52 million tonnes of coal available by open cut methods and a further 370 million tonnes of underground reserves.

Coal production in 1972-73 was approximately 1.6 million tonnes. Almost the entire production is railed to Port Augusta for use in power generation.

**Natural Gas**

The natural gas production in 1972-73 was 1 095 million cubic metres valued at the city gate, Adelaide, at \$10.8 million.

**Limestone and Dolomite**

The combined quantity of limestone and dolomite extracted each year is approximately two million tonnes. The principal deposits mined are limestone at Rapid Bay and dolomite at Ardrossan for the steel industry, limestone at Penrice, near Angaston, for the chemical and cement industries, lime sand from Coffin Bay for the metallurgical industry, and limestone at Klein Point for the cement industry. Approximately half a million tonnes of lime sand is produced each year from the very large deposits at Coffin Bay, and railed to Port Lincoln for trans-shipment to the Whyalla blast furnaces, the smelters at Port Pirie, and interstate.



A variety of building stones is quarried, including, Mount Lofty sandstone, a white stone which hardens in the atmosphere; Basket Range sandstone, a light coloured stone of pleasing appearance; and Mount Gambier limestone, a bryozoal limestone of the South East. Limestone deposits have also been worked at Overland Corner, Cadell and Waikerie. A quantity of granite is extracted each year and marble occurrences are worked at Angaston, Kapunda, Macclesfield and Paris Creek. The main sources of slate in South Australia are at Mintaro and Willunga. Both areas supply paving slate and a large quantity of Mintaro slate is dressed and polished as there has been a strong demand for this type of slate for use in billiard tables.

#### Building Stone, South Australia

Type of Stone	1969-70	1970-71	1971-72	1972-73
	'000 tonnes			
Granite . . . . .	5.4	4.6	5.0	6.0
Gravel . . . . .	0.1	0.1	0.2	0.3
Limestone . . . . .	28.4	25.4	23.6	24.2
Marble . . . . .	3.3	3.3	6.4	4.7
Quartz . . . . .	0.3	1.6	0.4	0.2
Sandstone . . . . .	11.4	11.0	11.1	7.0
Slate . . . . .	3.2	2.5	2.0	2.2
Total . . . . .	52.1	48.6	48.8	44.6

Production of other construction materials is shown in the following table. The importance of limestone (predominately for construction of roads) and quartzite (mainly in the form of screenings) can be seen.

#### Road and Other Construction Materials, South Australia

Type of Material	1969-70	1970-71	1971-72	1972-73
	'000 tonnes			
Limestone . . . . .	5 248	4 933	4 503	4 983
Quartzite . . . . .	3 593	3 412	3 917	3 749
Sand . . . . .	2 871	2 570	2 513	2 447
Other materials . . . . .	5 465	5 720	5 735	4 240
Total . . . . .	17 177	16 636	16 667	15 419

#### MINERAL DEVELOPMENTS

In 1974 no exploratory holes were drilled in the Cooper Basin but some exploratory seismic survey work was carried out. Three development holes were drilled to facilitate the delivery of gas from the Basin. In the south-east of the State an exploratory well was drilled off-shore, but no new accumulation of petroleum was discovered. Construction of the pipeline to supply natural gas to Sydney from the Cooper Basin is proceeding and it is expected to be completed by the end of 1975.

All household gas appliances in reticulated parts of the Adelaide area use natural gas from the Gidgealpa area. In 1974 an average of about 3.5 million cubic metres of gas a day was supplied to the Adelaide area compared with an average of 3.2 million in 1973. Natural gas was also supplied to Peterborough, mainly for power generation, and to the Barossa Valley, mainly for cement manufacture, and is now being supplied to Burra for use at a copper mine for roasting low grade ore to free more of the copper for recovery by the ammonia-leaching process.

Considerable exploration is continuing for copper, uranium and other minerals, but at a reducing rate. Little interest was shown in 1973-74 in regional exploration for base metals, but there was an overall intensification of activity on fewer tenements. Eighty-two Exploration Licences were current in 1974 compared with sixty-seven in June 1973. Interest in sedimentary uranium was maintained and a number of companies have been engaged in testing the extent of South Australia's coal and lignite resources. The amount of \$5.3 million expended on exploration areas in 1972-73 by companies holding Exploration Licences (or the old Special Mining Leases).

The Department of Mines spends about \$2.25 million each year in geological and other investigations, drilling and mineral research work to assist the growth of the State's mineral industry.

The value of South Australian mineral products sold or used by the producers in 1972-73 was \$134 million, an increase of \$22.6 million on the 1971-72 figure. The value of iron ore sales increased by \$5.6 million to \$60.5 million; the estimated value of raw opal sales increased by \$9 million to \$25 million; the value of copper concentrates and other copper products sold increased by \$4.8 million to \$7.0 million; and natural gas sales increased by \$1.5 million to \$10.8 million.

The gain in opal production was mainly attributable to greatly increased activity in the Coober Pedy area. The increased South Australian copper output, from 2 819 tonnes of copper content in the copper products sold in 1971-72 to 9 662 tonnes in 1972-73 was mostly attributable to sales from the Kanmantoo mine. Copper production should continue to increase with the installation of the second stage of the process plant by Samin Ltd at the Burra copper mine and the expected re-opening of the Mount Gunson mine, north-west of Port Augusta.

At Kanmantoo, 55 kilometres east of Adelaide, copper sulphide concentrates of about 24 per cent copper grade are being produced by the flotation process from an open-cut mine. Production commenced in October 1971 after \$9.3 million had been spent in proving and opening the mine and establishing the treatment plant. The company is now treating over 800 000 tonnes of one per cent copper ore each year.

At Burra, 160 kilometres north of Adelaide, Samin Ltd commissioned the second stage of the ammonia-leaching treatment plant at the old Burra mine in September 1973. The stage I plant had only been treating the coarser portion of the ore from the open cut operations while the fines had been stockpiled for later treatment. The stage II plant, which cost a further \$3.7 million,

involved the installation of a large ore roaster, a new ball mill and agitation leaching equipment. This should give a four-fold increase in the rate of production, better copper recoveries, and will allow the fine as well as the coarse fractions of the ore to be treated. Considerable difficulty has been experienced in the filter section of the stage II plant, but when fully operational it is expected that 350 000 tonnes of ore will be treated each year. The known reserves were estimated in June 1973 to be over 3 million tonnes of over 1.5 per cent copper ore.

At Mount Gunson, 130 kilometres north-west of Port Augusta, Pacminex Pty Ltd has re-opened its treatment plant to handle 1 500 tonnes of 2 per cent copper ore each day from a newly discovered ore body only 3 kilometres from the treatment plant. Testing has shown that there will be over 4 million tonnes of this ore to treat. A high grade copper sulphide concentrate will be produced. Direct employment is provided for about 110 people on the open-cut mine and plant, and a small township is located nearby.

At the old Kapunda copper mine, 80 kilometres north of Adelaide, Northlands Minerals Ltd has announced the establishment of nearly 3 million tonnes of proved ore reserves of 0.94 per cent average grade of copper and the indication of a further 5.5 million tonnes of low grade material averaging between 0.5 and 0.9 per cent copper. Tests conducted on samples of their proved reserves have indicated that 78 per cent recoveries of the contained copper can be achieved with a sulphide flotation process. Approval has been obtained from the Australian Government for the Utah Development Company to join Northlands Minerals in this venture. Because of the low copper prices, no production is planned at present.

The main work carried out on coal resources has been the drilling by Utah Development Company of the Lake Phillipson deposits and the investigation by ETSA on the reserves of coal remaining at Leigh Creek.

Utah Development has reported that the testing of the Lake Phillipson coal deposits (found originally in 1905) has indicated that the total recoverable quantity could exceed 2 000 million tonnes. These deposits of medium to low grade steam coals, which have a marginally higher calorific value than the Leigh Creek coal, are located about 90 kilometres south of Coober Pedy and will be near the proposed Tarcoola-Alice Springs railway.

The Australian Mineral Foundation Inc. has been established at Frewville 4 kilometres to the east of the centre of Adelaide to provide short-term specialist training at professional and sub-professional levels for the mining and petroleum exploration and production industries.

The Australian Mineral Development Laboratories (AMDEL), also at Frewville, continue to carry out valuable research, development and laboratory service work for the mineral industry of Australia and neighbouring countries.

The following table shows details of private mineral exploration, other than petroleum, in South Australia for 1971-72 and 1972-73.



Private Mineral Exploration (Other than Petroleum), South Australia<sup>(a)</sup>

Particulars	Unit	On Current Producing Leases		On Other Areas		Total Private Exploration	
		1971-72	1972-73	1971-72	1972-73	1971-72	1972-73
<b>Total Depth:</b>							
Drilled . . . . .	'000 m	<i>n.a.</i>	8	<i>n.a.</i>	335	122.8	343
Sunk or driven . . . . .	'000 m	<i>n.a.</i>	—	<i>n.a.</i>	—	<i>n.a.</i>	—
Man weeks worked (b)	'000	0.1	0.4	8.9	7.2	9.0	7.6
<b>Expenditure:</b>							
Drilling . . . . .	\$'000	<i>n.a.</i>	116	<i>n.a.</i>	1 632	75	1 748
Other . . . . .	\$'000	<i>n.a.</i>	31	<i>n.a.</i>	3 484	3 981	3 515
<b>Total expenditure</b>	<b>\$'000</b>	<b>1 073</b>	<b>146</b>	<b>2 984</b>	<b>5 116</b>	<b>4 057</b>	<b>5 263</b>

(a) Excludes exploration for water and all developmental work.

(b) Excludes work carried out by contractors.

Details of private petroleum exploration and development for South Australia are shown in the following table for the years 1969 to 1972.

## Private Petroleum Exploration and Development, South Australia

Particulars	Unit	1969	1970	1971	1972
Wells drilled (a) . . . . .	No.	14	23	20	17
Depth drilled . . . . .	'000 m	19.6	41.0	52.5	44.7
<b>Expenditure:</b>					
Private sources . . . . .	\$'000	4 311	6 431	7 084	9 804
Government subsidy (b)	\$'000	609	923	537	611
<b>Total expenditure . . . . .</b>	<b>\$'000</b>	<b>4 920</b>	<b>7 354</b>	<b>7 621</b>	<b>10 415</b>

(a) Number of wells reaching total depth during year.

(b) Payments under the *Petroleum Search Subsidy Act* 1959-1969.

## FORESTRY

There are an estimated 6 million hectares of land classified as wooded in South Australia, but much of this is too small or scattered to be of current economic value for wood production or is better retained in its present form for environment protection reasons. Some 780 000 hectares carries forest or forest woodland, a decreasing part of which is still exploited for minor quantities of timber and fencing or firewood materials. Many of the forested or wooded areas are of considerable value for soil conservation, watershed protection, shelter, shade, conservation of indigenous plants and animals, and natural scenery.

Certain areas have been set aside as State forest reserves, the total area thus reserved at 30 June 1974 being 127 001 hectares. In addition the Woods and Forests Department is responsible for 2 176 hectares of reservoir lands, of which 1 079 are planted with pines.

Over the last ten years the total area reserved has increased steadily through purchases of previous farmland at an average of 1 384 hectares each year. In the same time the area under plantation on Forest Reserves has increased by 20 930 hectares.

A more detailed history of forestry development in South Australia was included on pages 432-4 of the *South Australian Year Book 1970*.

### Indigenous Forests

The natural forests of South Australia consist of eucalypt hardwoods restricted principally to the Mount Lofty Ranges, the lower Flinders Ranges, the southern portion of Eyre Peninsula, and the South East. A few species are of commercial value and these are used to a limited extent for the production of poles, posts, rails and sleepers.

Some areas of forest reserves not planted with conifers are maintained under native hardwoods but it is unlikely that further hardwood plantations will be established for timber purposes.

### Plantations

Seedlings raised in nurseries are planted out in the forest at densities of 1 700-2 200 trees to the hectare. A series of thinnings, starting when the trees are about 20 metres high, reduces density to about 150 trees to the hectare by about age forty. These thinnings are carried out on a commercial basis and make the major contribution to present timber and pulpwood output. The final felling age is aimed at forty to fifty years although for management purposes some earlier felling has been made in the past. Trees of the same age may vary in height; on some sites trees reach 20 metres after ten years of growth, but on other sites this height may not be reached until after twenty years of growth.

Exotic softwoods accounted for approximately 98 per cent of the planted forest area at 30 June 1974. As can be seen from the accompanying tables the majority of the planted forest is in the lower South East. The 625 mm rainfall line roughly divides the South East in two; the lower South East, with an annual rainfall in excess of 625 mm, is quite suitable for commercial forestry, but the upper South East is not.

The following table clearly illustrates the predominant importance of one species, *Pinus radiata*, in the composition of South Australian forests. The 71 hectares of 'Other' softwoods planted in State forests during 1973 were mostly *Pinus pinaster* which is used on sites unsuitable for commercial growth of *Pinus radiata*. Areas of other species are minor, although over a hundred species have been tried in earlier years.

**Forests, South Australia**  
**Area Planted during 1973 and Net Area of Plantations at 31 March 1974**

Location	Planted during 1973			Plantations at 31 March 1974		
	Softwoods		Hard-woods	Softwoods		Hard-woods
	<i>Pinus Radiata</i>	Other Pinus		<i>Pinus Radiata</i>	Other Pinus	
State forests: Hectares						
Northern Region;						
Bundaleer . . . . .	33.3	—	—	1 308.4	35.7	196.5
Wirrabara . . . . .	100.5	1.4	—	1 722.6	68.6	53.8
Other forests . . . . .	—	—	—	—	—	146.6
Total Northern . . . . .	133.8	1.4	—	3 031.0	104.3	396.9
Central Region;						
Mount Crawford . . . . .	316.9	2.8	—	5 039.4	371.6	39.4
Kuitpo . . . . .	32.9	—	—	2 118.5	395.8	113.9
Blackwood . . . . .	—	—	—	7.4	—	—
Second Valley . . . . .	90.9	—	—	1 375.4	191.7	10.8
Other forests . . . . .	—	—	—	—	—	—
Total Central . . . . .	440.7	2.8	—	8 540.7	959.1	164.1
Riverland Region;						
Parilla . . . . .	—	—	—	—	6.1	48.6
Other forests . . . . .	—	—	—	—	—	—
Total Riverland . . . . .	—	—	—	—	6.1	48.6
South Eastern Region;						
Penola . . . . .	92.8	—	—	1 2143.0	1 930.2	0.2
Comaun . . . . .	61.4	—	—	2 779.3	304.0	6.7
Mount Burr . . . . .	54.7	28.7	—	9 195.6	591.9	77.3
Noolook . . . . .	399.8	—	—	2 147.0	4.0	—
Mount Gambier . . . . .	145.0	—	—	6 644.8	749.6	7.5
Kongorong . . . . .	80.4	—	—	1 157.5	6.3	—
Tantanoola . . . . .	186.0	—	—	7 534.8	994.9	6.2
Caroline . . . . .	214.0	36.8	—	6 010.6	670.8	—
Myora . . . . .	74.0	—	—	5 526.1	226.6	—
Cave Range . . . . .	—	—	—	207.3	105.3	—
Total South Eastern . . . . .	1 308.1	65.5	—	53 346.0	5 583.6	97.9
Western Region;						
Vanilla . . . . .	—	0.9	0.7	46.6	21.8	344.9
Waterworks reserves . . . . .	9.8	—	—	992.3	126.0	1.5
Total State forests . . . . .	1 892.4	70.6	0.7	65 956.6	6 800.9	1 053.9
Total private forests . . . . .	241		—	16 761		115
Total forests . . . . .	2 204.0		—	89 518.5		1 168.9

**Forests, South Australia**  
**Net Area of Plantations at 31 March**

Location	1970	1971	1972	1973	1974
<b>State forests:</b>					
	Hectares				
<b>Northern Region;</b>					
Bundaleer . . . . .	1 378	1 386	1 470	1 507	1 541
Wirrabara . . . . .	1 544	1 598	1 596	1 703	1 845
Other forests . . . . .	146	146	146	146	146
Total Northern ..	3 068	3 130	3 212	3 356	3 532
<b>Central Region;</b>					
Mount Crawford . . . .	4 424	4 642	4 937	5 131	5 451
Kuitpo . . . . .	2 604	2 604	2 617	2 614	2 628
Blackwood . . . . .	1	1	1	7	7
Second Valley . . . . .	1 323	1 388	1 462	1492	1 578
Other forests . . . . .	—	—	—	—	—
Total Central . . . .	8 352	8 635	9 017	9 244	9 664
<b>Riverland Region;</b>					
Parilla . . . . .	55	55	55	55	55
Other forests . . . . .	—	—	—	—	—
Total Riverland ..	55	55	55	55	55
<b>South Eastern Region;</b>					
Penola . . . . .	13 528	13 891	14 037	13 989	14 073
Comaun . . . . .	2 927	2 986	3 006	3 027	3 090
Mount Burr . . . . .	9 762	10 057	10 050	10 082	9 865
Noolook . . . . .	1 072	1 296	1 581	1 823	2 151
Mount Gambier . . . . .	7 881	8 117	7 715	7 807	7 402
Kongorong . . . . .	—	—	648	814	1 164
Tantanoola . . . . .	7 663	7 825	8 180	8 374	8 536
Caroline . . . . .	5 398	5 852	6 076	6 434	6 681
Myora . . . . .	5 374	5 537	5 725	5 725	5 753
Cave Range . . . . .	314	314	314	314	312
Total South Eastern	53 919	55 875	57 332	58 389	59 027
<b>Western Region;</b>					
Vanilla . . . . .	397	402	408	412	413
Waterworks reserves . . . .	972	1 024	1 085	1 116	1120
Total State forests	66 763	69 121	71 109	72 572	73 811
Total private forests	16 172	15 964	16 445	16 691	16 876
Total forests . . . .	82 935	85 085	87 554	89 263	90 687

## FOREST ADMINISTRATION

## State Forests

State forests are administered by the Woods and Forests Department headed by the Conservator of Forests. The Forest Reserves are organised into Districts and are under the charge of professionally trained foresters. The Department is also the major timber producer in South Australia, and operates three sawmills and two wood preservation plants through its Commercial Division.

In earlier years when large areas of plantations were being established expenditure by the Department exceeded revenue, but since 1942-43 the revenue has exceeded expenditure including depreciation and interest on loans. By 1954-55 accumulated surpluses had matched expenditure on establishment and maintenance of plantations, and annual surpluses of the Department are now paid to Consolidated Revenue.

Funds employed by the Woods and Forests Department, including its milling operations, amounted to \$34 258 000 at 30 June 1974 of which \$21 159 000 was timber and land at net cost. The present value of the State pine forests is approximately \$102 million.

## Private Forests

Private forests accounted for approximately 18 per cent of the planted area at 31 March 1974. Three private companies operating pine plantations in the South East control the bulk of private forest land, with the balance representing a large number of holdings of a few hectares on farming properties throughout the State.

## PRODUCTION

The following table gives the quantity of forest logs used during the years from 1968-69 to 1972-73.

Forest Log Usage, South Australia

Year	Softwoods	Hardwoods
Cubic Metres		
1968-69 .. .. .	774 649	12 786
1969-70 .. .. .	816 612	13 131
1970-71 .. .. .	874 569	10 424
1971-72 .. .. .	900 800	8 791
1972-73 .. .. .	923 603	10 681

Log production is met from final fellings and thinning operations, and planned forest management ensures that the amount of timber cut each year does not exceed new growth. As planting during the ten years before 1925 was relatively small, final fellings in recent years have been limited, and thinning operations currently provide nearly 90 per cent of log production. With the increasing area of forest reaching the stage of regular and repeated thinning at intervals of about seven years, log production is rising steadily towards the full annual yield which can be cut indefinitely.

Other forest products include firewood, yacca gum, honey and wattle bark.

## EMPLOYMENT

The number of persons directly employed by the Woods and Forests Department in forestry activity in recent years is given below. The Department also employs 679 persons in milling activities.

**State Forestry Employees, South Australia**  
**At 30 June**

Classification	1970	1971	1972	1973	1974
<b>Professional Staff:</b>					
Foresters . . . . .	37	44	49	53	56
Other . . . . .	40	41	36	31	35
Non-professional field staff . . . . .	28	30	27	31	30
Clerical staff . . . . .	112	115	119	122	124
Labour (silvicultural forest works, etc.)	258	285	246	275	281
Total . . . . .	475	515	477	512	526

The extraction of timber from State forests is carried out by contractors.

## RESEARCH AND ADVISORY SERVICES

The virtual dependence of the South Australian forestry industry on a single species necessitates continued research into the maintenance and improvement of *Pinus radiata* resources, as well as into forestry in general.

The Woods and Forests Department maintains its own research facilities and in addition combines with the Australian Forest Research Institute in operating a regional branch of the Institute at Mount Gambier. Certain aspects of forestry research are also undertaken by the Soils Division of the Commonwealth Scientific and Industrial Research Organization, the Waite Agricultural Research Institute, the University of Adelaide and the Department of Forestry of the Australian National University.

Research activities aimed at an expansion of forestry production include the development of fertiliser use, both to stimulate growth and to bring into production land previously considered unsuitable, and the improvement of planting stock through selective breeding. Silvicultural research is concerned with the maintenance of soil fertility and with combating various diseases and pests. Permanent sample plots are maintained in departmental forests for research into various aspects of forest yield and management.

The Woods and Forests Department provides an advisory service in arboriculture and distributes, through its nurseries at Belair and Berri, a wide variety of trees suitable for planting in various climatic and soil conditions.

## FOREST PROTECTION

The hot dry summer conditions normal to the State require forest management to take considerable precautions and to maintain constant vigilance against forest fire. The clearing of undergrowth, the maintenance of fire-breaks, the manning of observation towers and the constant readiness of fire fighting units are all an integral part of forestry practice.

Other protective measures include spraying to prevent disorders, measures to control insect pests in the forest, and the eradication of the various weeds and pests which threaten young plants.

Since the discovery of the Sirex wood wasp in Victorian forests in 1961 constant watch has been maintained for any sign of this pest in South Australian pine forests, and the State has contributed to development of biological control measures.

### FISHERIES

The entire coastline of South Australia, except for the unpopulated area west of Fowlers Bay, is fished commercially. In the sheltered waters of the gulfs, Kangaroo Island, the Coorong and the West Coast bays, there are prawn, net and handline fisheries; in the open off-shore waters tuna, lobster, abalone and shark are sought; and inland in the River Murray a small quantity of fresh water fish is caught each year.

### ADMINISTRATION

Exploitation of the State's fish resources is controlled by two Acts, the South Australian Fisheries Act, 1971 and the Australian *Fisheries Act* 1952-1973.

Under the State Act, which is administered by the Fisheries Department, provision is made for the licensing of fishermen, the registration of boats and gear, and the construction or provision of harbour and boat facilities for fishing vessels. Control of fishing activity is maintained by licence limitations, the establishment of size limits, closed areas and closed seasons, the regulation of amount and type of gear, and the prohibition of the use of explosives or noxious substances in any waters.

The South Australian Fisheries Act, 1971 provides for two classes of fishing licences. A person is granted a class A fishing licence if he satisfies the Director that he intends to carry on the business of fishing for profit as his principal business while a class B fishing licence is granted if the Director is satisfied that he intends to carry on the business of fishing for profit regularly as a seasonal or part-time business. In addition in both cases the licensee has to satisfy the Director that he has the equipment, experience and resources sufficient to enable him to carry on the business of fishing efficiently and profitably. An applicant who fulfils the above requirements may still be refused a licence if the refusal is necessary for the purpose of giving effect to any administrative policy approved by the Minister for the conservation of any species of fish or the proper management of any fishery.

### FISHING BOATS

Vessels exceeding 20 metres are engaged primarily in tuna fishing and prawn trawling while the majority of vessels in the 8 metres to 20 metres range are used for rock lobster fishing. Abalone divers generally operate from small aluminium or fibreglass boats between 5 metres and 8 metres in length. The remainder are engaged mainly in handline and net fisheries. Boats and equipment were valued at \$20 326 000 in 1973-74. Details of the number of boats engaged in commercial fishing activities are shown in the following table.

## Fishing: Boats Engaged, South Australia

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
<b>Boats engaged:</b>					
Under 6 metres . . . . .	1 171	1 488	<i>n.a.</i>	1 596	1 771
6 metres and under 9 . . . . .	345	388	<i>n.a.</i>	376	410
9 metres and under 12 . . . . .	138	153	<i>n.a.</i>	175	181
12 metres and under 15 . . . . .	82	81	<i>n.a.</i>	104	114
15 metres and under 18 . . . . .	29	31	<i>n.a.</i>	34	42
18 metres and under 21 . . . . .	12	10	<i>n.a.</i>	17	21
21 metres and over . . . . .	7	11	<i>n.a.</i>	12	19
<b>Total.. . . . .</b>	<b>1 784</b>	<b>2 162</b>	<b>1 652</b>	<b>2 314</b>	<b>2 558</b>

## PRODUCTION

## Fish

The main commercial fish species, together with their production in recent years, are listed in the following table.

**Fish: Production by Species, South Australia**  
**Estimated Live Weight**

Species	1969-70	1970-71	1971-72	1972-73	1973-74
<b>Marine:</b>					
					'000 kg
Australian salmon . . . . .	1 404	1 039	1 881	799	1 897
Bream (black) . . . . .	17	4	15	25	14
Garfish . . . . .	435	259	459	552	539
Mullet . . . . .	165	61	229	353	408
Mullocky . . . . .	42	40	40	56	55
Ruff . . . . .	224	80	277	241	209
Shark . . . . .	2 132	2 109	1 480	618	1 161
Short finned pike . . . . .	158	91	115	134	160
Snapper . . . . .	483	356	528	541	445
Tuna . . . . .	1 773	2 459	4 348	6 696	7 403
Whiting . . . . .	964	834	714	959	823
Other marine species . . . . .	345	760	182	130	129
<b>Total.. . . . .</b>	<b>8 142</b>	<b>8 092</b>	<b>10 268</b>	<b>11 104</b>	<b>13 243</b>
<b>Freshwater:</b>					
Golden perch (callop) . . . . .	82	90	22	24	80
Murray cod . . . . .	48	20	19	12	9
Bony bream . . . . .	156	301	362	339	315
Tench . . . . .	49	129	156	248	224
Catfish . . . . .	18	24	23	15	14
Other freshwater species . . . . .	39	59	47	47	103
<b>Total.. . . . .</b>	<b>391</b>	<b>621</b>	<b>631</b>	<b>686</b>	<b>745</b>
<b>Total fish production</b>	<b>8 534</b>	<b>8 713</b>	<b>10 898</b>	<b>11 790</b>	<b>13 988</b>





**Crustaceans**

Southern rock lobster are taken by pots from the shore to the edge of the continental shelf. The south-east coast between Kingston and the Victorian border is the main fishing area. Good catches are also taken from grounds around Kangaroo Island, near the Althorpe Islands and Port Lincoln, and along the west coast. Rock lobster is South Australia's most important single fishery. However, with 80 per cent of the catch exported annually, mainly to the United States of America, its profitability is dependent on overseas markets.

**Rock Lobster Production, South Australia**

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Estimated gross weight ( <sup>'000</sup> kg) . . . . .	2 077	2 232	2 252	2 958	2 637
Value (\$ <sup>'000</sup> ) . . . . .	3 204	4 478	5 362	6 325	6 223

The prawn fishing industry operates in Spencer and St Vincent Gulfs and in the waters of the Great Australian Bight. In the 1973-74 season approximately 2 921 tonnes of prawns valued at \$3 797 000 were landed.

In 1973 a prawn mariculture project was commenced by private interests near Port Broughton on Spencer Gulf. This venture is sponsored by an interstate fish dealer and, although still at the assessment stage, it is hoped that it will become a viable economic enterprise.

**Molluscs**

Abalone are found in greatest numbers at depths of 12 to 30 metres on the extensive limestone bottom off the shores of western Eyre Peninsula. Smaller numbers are taken in Spencer Gulf, around Kangaroo Island and on the south-east coast. As yet there is no domestic market for this mollusc. Overseas exports of abalone from South Australia during 1973-74 were valued at \$748 506.

All abalone divers must hold a commercial fisherman's licence as well as a special abalone permit issued by the Department of Fisheries.

**Abalone Production, South Australia**

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
Gross (in shell) weight ( <sup>'000</sup> kg) . . . . .	1 081	1 100	1 141	900	757
Value (\$ <sup>'000</sup> ) . . . . .	405	653	796	655	752

Squid and cuttlefish are taken in the general net fisheries and mainly sold for bait, although the domestic squid market for human consumption is increasing.

In September 1969 with the encouragement of the Department of Fisheries several private consortiums introduced the Pacific oyster from Tasmania into three South Australian estuaries, Coffin Bay, American River inlet and at Coobowie. The introduction was experimental and designed to discover whether the species may become acclimatised to the South Australian marine environment. Coffin Bay has proved to be an exceptionally good growing area and oyster spat are now imported annually for growing and sale to the Adelaide market.

## MARKETING AND PROCESSING

Marketing and processing arrangements vary according to the species. Tuna are landed at Port Lincoln and then canned for local consumption or frozen for export. Large catches of salmon are generally landed and canned at Port Lincoln, a deep sea port. Southern rock lobster are tailed and frozen for export at most of the main ports, but some are cooked for local consumption. Some prawns are cooked and sold locally but most are frozen and exported. Abalone is either canned or frozen for export. Shark are gutted and headed at sea and are frozen at the port of landing for interstate markets. Other fish are generally iced for dispatch to the Adelaide market or are scaled, filleted and frozen for general distribution.

All of the main landing ports have chilling or freezing facilities and many have processing plants. Several of these are operated by individual buyers or co-operatives but most are depots of the South Australian Fishermen's Co-operative Limited (SAFCOL). In addition to collecting, processing and distributing fish from the outports, SAFCOL also operates the Adelaide fish market. This is an auction market which handles fish for both members and non-members.

## RESEARCH

The realisation that research is essential for effective fisheries management has promoted several research programs. Scallop, rock lobster, shark and abalone resources are being investigated by a joint Australian Government and States Research groups consisting of the Division of Fisheries and Oceanography of the Commonwealth Scientific and Industrial Research Organization (CSIRO), the Fisheries Division of the Australian Department of Agriculture, and the Fisheries departments of New South Wales, Victoria, Tasmania and South Australia. In addition, the State Fisheries Department is conducting rock lobster, prawn, cockle and abalone research programs and began measuring commercial fish species in 1975 to determine frequency and distribution of various sizes throughout the commercial fish catch. A co-operative research program on the Australian salmon by the CSIRO Fisheries and Oceanography Division and the Western Australian Department of Fisheries and Fauna commenced also in 1975. The State Department of Fisheries is giving logistic support.

During 1974 a senior freshwater biologist commenced duties with the Department to study ecological effects on freshwater fish species. All programs are directed towards providing a scientific basis for the management of the fisheries concerned.

The decision in 1966 of the Australian Government and the States to establish a joint Fisheries Research and Development Fund gave impetus to already expanding research programs. The Fishing Industry Research Trust Account was established under the *Fishing Industry Research Act* 1969 which authorises an appropriation from Australian Government revenue equal to amounts collected from the fishing industry by the State Fisheries Authorities and expended by the States for the development and management of fisheries.

### Conservation

The importance of protecting the marine and freshwater environment against pollution and other man-caused degradation was recognised by Section 56 of the Fisheries Act, 1971 which enables the Governor to make regulations 'for regulating or prohibiting the discharge, placing or flow into waters of any matter (whether solid, liquid or gaseous) declared by the regulations to be poisonous or injurious to fish or their spawn thereof, and generally for protecting fish and the spawn thereof against destruction or injury by the discharge, placing or flow of any such matter into waters.'

The State Department of Fisheries has pioneered, in Australia, the concept of marine national parks and has created a number of aquatic reserves to protect seal colonies, mangrove communities and areas of scientific and educational interest. Mangrove communities and allied samphire flats have received particular attention because of their recently recognised contribution to the productivity of the near-shore marine environment. All mangroves in South Australia are fully protected.

## 9.3 MANUFACTURING

### DEVELOPMENT

Early factory production was orientated to local needs: thus brick kilns, flour mills, tanneries, distilleries and a candle and soap works were among factories recorded in the 1840s. Also in operation were the smaller establishments of saddlers and coachbuilders, while various food and clothing industries were being established. Heavy industry can probably be traced to the production of agricultural machinery, beginning with the stripper of 1843 and including the stump-jump plough of 1876.

The discovery of copper in 1843 provided an impetus to certain industrial activities but the finding of gold in Victoria in 1851 encouraged many skilled persons to leave South Australia and the Colony's infant industries were not fully to recover for some two decades.

A highlight in the industrial progress of the State was the establishment at Port Pirie in 1889 of smelters for the processing of silver-lead ore from Broken Hill. This was primarily responsible for building up Port Pirie's population from about 900 at the 1881 Census to some 8 000 twenty years later, making the town at that time the largest country centre in South Australia.

Despite some industrial growth, South Australia in the 1930s was still basically a primary producing State, but since then a rapid growth in the relative contribution of secondary industry to total production has taken place. Development in the 1930s coincided with Government action which reduced company taxation and wharfage charges, and provided for a program of low-cost housing. The needs of war provided a further stimulus to the industrialisation process during the 1940s but it is since the 1939-45 War that the most impressive development has taken place.

Extensive development has occurred particularly in the consumer durable industries (e.g. motor vehicles, electrical and household appliances) and these industries now employ a significant proportion of the State's labour force. Major improvements also have been made in the State's energy sources with the development of the Torrens Island Power Station and the Port Stanvac Oil Refinery, and the introduction of natural gas as a fuel.

### MANUFACTURING INDUSTRY STATISTICS

For the year ended June 1969, the Censuses of Manufacturing and Electricity and Gas Establishments were conducted for the first time on an integrated basis with Censuses of Mining, Retail Trade and Selected Services, and Wholesale Trade. The electricity and gas industries, which were previously included in the Annual Factory Census, were the subject of separate censuses in 1968-69. As well as this change in the method of obtaining information on economic activities, different criteria have been used to define factories and this has resulted in a significant fall in the number of establishments. In particular, service establishments such as dry cleaners and motor repair workshops are no longer classified as factories. In addition to the changes in industry classification information is now collected for all activities (including such things as installation work or wholesaling) undertaken by establishments which are defined as factories.

Thus, manufacturing industry statistics collected for the 1968-69 Census and subsequent censuses are not comparable with figures obtained from previous factory censuses. A more detailed explanation of these changes was included on pages 440-4 of the *South Australian Year Book 1972*.

### LEGISLATION

Industrial legislation is dealt with in Part 7, Labour. Other legislation is concerned with the location of factory premises and with the processes carried out therein.

Under the Local Government Act, 1934-1974 local government authorities may make by-laws restricting the erection of factory premises to certain sections of the area under their jurisdiction. The Manufacturing Industries Protection Act, 1937 provides for the proclamation of certain areas wherein proprietors and occupiers of factories are protected against civil action for noise and vibration problems. This Act, which takes precedence over zoning by-laws, currently applies to four relatively small zones. Regulations made under the Noxious Trade Act, 1943-1965 have defined certain processes as noxious trades for which a licence must be obtained. In addition an area between Wingfield and Dry Creek in the outer northern suburbs has been declared a noxious trade area with persons operating therein being protected from civil action.

Similarly the licensing of noisy trades may be required under a section of the Local Government Act. Protection against health hazards is provided under the Health Act, 1935-1973.

## CLASSIFICATION OF MANUFACTURING ESTABLISHMENTS

The Australian Standard Industrial Classification (ASIC) described in the publication *The Australian Standard Industrial Classification (Preliminary Edition)*, 1969 Volume 1, defines the industries in the economy for statistical purposes, thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them.

The classes relevant to the Manufacturing sector of the economy are listed in the following table.

Sub-division	Group	Class	Title
21-22			<b>FOOD, BEVERAGES AND TOBACCO:</b>
	211		Meat Products;
		2111	Fresh, preserved and canned meat (including tallow, meals and fertilisers of animal origin)
		2112	Fresh and frozen poultry
		2113	Bacon, ham and smallgoods
		2114	Casings of animal origin
	212		Milk Products;
		2121	Liquid milk and cream
		2122	Butter
		2123	Cheese
		2124	Ice cream and other frozen confections
		2125	Milk products n.e.c.
	213		Canned and Preserved Fruit and Vegetable Products;
		2131	Canned and preserved fruit products
		2132	Canned and preserved vegetable products
	214		Margarine and Oils and Fats n.e.c.;
		2140	Margarine and oils and fats n.e.c.
	215		Flour Mill and Cereal Food Products;
		2151	Flour mill products
		2152	Starch, gluten and starch sugars
		2153	Cereal foods, prepared flour and baking mixes
	216		Bread, Cakes and Biscuits;
		2161	Bread
		2162	Cakes and pastries
		2163	Biscuits
	217		Sugar;
		2171	Raw sugar
		2172	Refined sugar
	218		Other Food Products;
		2181	Confectionery, chocolate and cocoa products
		2182	Preserved and canned fish and other seafoods
		2183	Prepared animal and bird foods
		2184	Food products n.e.c.
	219		Beverages and Malt;
		2191	Soft drinks, cordials and syrups
		2192	Beer
		2193	Malt
		2194	Wine and brandy
		2195	Alcoholic beverages n.e.c.
	221		Tobacco Products;
		2210	Tobacco products

Sub-division	Group	Class	Title
23	231-232		<b>TEXTILES:</b> Textile Fibres, Yarns and Woven Fabrics and Household Textiles;
		2311	Cotton ginning
		2312	Scoured and carbonised wool
		2313	Wool and man-made fibre tops
		2314	Man-made fibres and yarns
		2315	Man-made fibre broadwoven fabrics
		2316	Cotton, silk and flax yarns and broadwoven fabrics
		2317	Worsted yarns and broadwoven fabrics
		2318	Woollen yarns and broadwoven fabrics
		2319	Narrow woven fabrics (including broadwoven elastic or elastomeric fabrics)
		2321	Textile finishing
		2322	Household textiles (except floor coverings)
	233		Other Textile Products (except Knitted Goods and Clothing);
		2331	Textile floor coverings
		2332	Felt and felt products
		2333	Canvas products and associated textile products n.e.c.
		2334	Rope, cordage and twine
		2335	Textile products n.e.c.
24			<b>CLOTHING AND FOOTWEAR (INCLUDING KNITTING MILLS):</b>
	241		Knitting Mills;
		2411	Hosiery
		2412	Cardigans and pullovers
		2413	Knitted goods n.e.c.
	242		Clothing;
		2421	Womens and girls blouses and frocks
		2422	Womens and girls outerwear n.e.c.
		2423	Mens and boys trousers and shorts; work clothing
		2424	Mens and boys suits and coats; waterproof clothing
		2425	Underwear, nightwear, mens and boys shirts and infants and babies clothing n.e.c.
		2426	Foundation garments
		2427	Headwear
		2428	Clothing n.e.c. and clothing trade services
	243		Footwear;
		2431	Rubber footwear
		2432	Footwear n.e.c.
25			<b>WOOD, WOOD PRODUCTS AND FURNITURE (EXCEPT SHEET METAL):</b>
	251		Wood and Wood Products (except Furniture);
		2511	Log sawmilling
		2512	Resawn and dressed timber
		2513	Plywood, veneers and manufactured boards of wood
		2514	Joinery and wooden structural fittings
		2515	Wooden containers
		2516	Wood, cork, bamboo and cane products n.e.c.
	252		Furniture (except Sheet Metal) and Mattresses;
		2521	Furniture (except sheet metal)
		2522	Mattresses (except rubber or wire)

Sub-division	Group	Class	Title
26			<b>PAPER AND PAPER PRODUCTS, PRINTING AND PUBLISHING:</b>
	261		Paper and Paper Products;
		2611	Pulp, paper and paperboard
		2612	Paper bags (including textile bags)
		2613	Solid fibreboard containers
		2614	Corrugated fibreboard containers
		2615	Paper products n.e.c.
	262		Printing and Publishing;
		2621	Publishing (including printing and publishing)
		2622	Commercial and job printing (including stationery and bookbinding)
		2623	Printing trade services n.e.c.
27			<b>CHEMICAL, PETROLEUM AND COAL PRODUCTS:</b>
	271		Basic Chemicals;
		2711	Chemical fertilisers
		2712	Industrial gases
		2713	Plastics materials, synthetic resins and synthetic rubber
		2714	Organic industrial chemicals n.e.c.
		2715	Inorganic industrial chemicals n.e.c.
	272		Other Chemical and Related Products;
		2721	Ammunition, explosives and fireworks
		2722	Paints, varnishes and lacquers
		2723	Pharmaceutical and veterinary products
		2724	Pest control and agricultural chemical products n.e.c.
		2725	Soap and other detergents
		2726	Cosmetics and toilet preparations
		2727	Inks
		2728	Chemical products n.e.c.
	273		Petroleum Refining;
		2730	Petroleum refining
	274		Petroleum and Coal Products n.e.c.;
		2740	Petroleum and coal products n.e.c.
28			<b>GLASS, CLAY AND OTHER NON-METALLIC MINERAL PRODUCTS:</b>
	281		Glass and Glass Products;
		2811	Plate and sheet glass
		2812	Glass bottles and jars
		2813	Glass products n.e.c.
	282		Clay Products and Refractories;
		2821	Clay bricks and clay refractories
		2822	Ceramic construction goods (except vitreous china or porcelain)
		2823	China and other ceramic goods n.e.c.
	283		Cement and Concrete Products;
		2831	Cement
		2832	Ready mixed concrete
		2833	Concrete pipes
		2834	Concrete products (except pipes)
		2835	Asbestos-cement products
	284		Other Non-Metallic Mineral Products;
		2841	Plaster products
		2842	Stone products
		2843	Non-Metallic mineral products n.e.c.



Sub-division	Group	Class	Title
29			<b>BASIC METAL PRODUCTS:</b>
	291		Basic Iron and Steel;
		2911	Iron ore pelletising and metallising
		2912	Iron and steel basic products
		2913	Iron and steel castings and forgings
		2914	Steel pipes and tubes
	292-293		<b>Non-Ferrous Metal Basic Products;</b>
		2921	Smelting and refining of copper
		2922	Smelting and refining of silver, lead and zinc
		2923	Alumina
		2924	Smelting of aluminium
		2925	Smelting and refining of nickel
		2926	Smelting and refining of non-ferrous metals n.e.c.
		2927	Rolling, drawing and extruding of aluminium
		2928	Rolling, drawing and extruding of non-ferrous metals n.e.c.
		2929	Non-ferrous metal castings
		2931	Secondary recovery and alloying of non-ferrous metals n.e.c.
31			<b>FABRICATED METAL PRODUCTS:</b>
	311		Fabricated Structural Metal Products;
		3111	Fabricated structural steel
		3112	Architectural aluminium products
		3113	Architectural metal products n.e.c.
		3114	Boiler and plate work
	312		Sheet Metal Products (including Metal Cans);
		3121	Metal cans, canisters and containers
		3122	Sheet metal furniture and storage equipment
		3123	Sheet metal products n.e.c.
	313		<b>Other Fabricated Metal Products (except Machinery and Equipment);</b>
		3131	Cutlery, industrial knives and hand tools (except power operated)
		3132	Springs and wire products
		3133	Nuts, bolts, screws and rivets
		3134	Metal coating and finishing
		3135	Steam, gas and water fittings (non-ferrous metal)
		3136	Blinds and awnings (except textile, bamboo or cane)
		3137	Fabricated metal products n.e.c.
32			<b>TRANSPORT EQUIPMENT:</b>
	321		Motor Vehicles and Parts;
		3211	Motor vehicles
		3212	Truck and bus bodies, trailers and caravans
		3213	Motor vehicle instruments, heaters and electrical equipment (except batteries)
		3214	Motor vehicle parts and accessories n.e.c.
	322		<b>Other Transport Equipment;</b>
		3221	Ship building and repair
		3222	Boat building and repair
		3223	Railway locomotives and rolling stock manufacture and repair
		3224	Aircraft building and repair
		3225	Transport equipment n.e.c.

Sub-division	Group	Class	Title
33			<b>OTHER INDUSTRIAL MACHINERY AND EQUIPMENT AND HOUSEHOLD APPLIANCES:</b>
	331		Photographic, Professional and Scientific Equipment;
		3311	Photographic equipment and supplies, optical instruments and film processing
		3312	Measuring apparatus and professional and scientific equipment and supplies n.e.c.
	332		Household Appliances and Electrical Equipment;
		3321	Television sets, radios, communication and other electronic equipment
		3322	Refrigerators and household appliances
		3323	Water heating systems
		3324	Electric and telephone cable, wire and strip
		3325	Batteries
		3326	Electrical machinery, equipment and supplies n.e.c.
	333		Other Machinery and Equipment;
		3331	Agricultural machinery and equipment
		3332	Construction and earthmoving machinery and equipment
		3333	Materials handling equipment
		3334	Woodworking and metal-working machinery and equipment
		3335	Pumps, pumping equipment and air and gas compressors
		3336	Commercial and industrial space heating and air conditioning equipment
		3337	Dies, saw blades and machine tool accessories
		3338	Food processing machinery
		3339	Industrial machinery and equipment n.e.c.
34			<b>LEATHER, RUBBER AND PLASTIC PRODUCTS AND MANUFACTURING N.E.C.:</b>
	341		Leather and Leather Products;
		3411	Leather tanning and finishing, fur dressing and dyeing
		3412	Leather and leather substitute products n.e.c.
	342		Rubber Products;
		3421	Rubber tyres, tubes, belting, hose and sheeting
		3422	Rubber products n.e.c.
	343		Plastic and Related Products;
		3431	Flexible packaging and packaging materials (except paper), adhesive tapes and abrasive coated papers
		3432	Rigid plastic sheeting
		3433	Hard surface floor coverings n.e.c.
		3434	Plastic products n.e.c.
	344		Other Manufacturing Industries;
		3441	Ophthalmic articles
		3442	Jewellery and silverware
		3443	Brooms and brushes
		3444	Signs and advertising displays
		3445	Sporting equipment
		3446	Writing and marking equipment
		3447	Manufacturing n.e.c.

## STRUCTURE AND LOCATION OF SECONDARY INDUSTRY

Industrialisation since the 1939-45 War to a considerable extent has evolved around three major industrial groups. The motor vehicle, the electrical goods and the household appliance industries, together with their peripheral suppliers of components and services, have accounted for much of the post-war expansion. These industries are located in, or near Adelaide. In fact the tendency for manufacturing industries, particularly those supplying consumer goods, to congregate near their market has resulted in a heavy concentration of South Australian secondary industries in or near Adelaide.

In the next table some details are given for the Adelaide Statistical Division. The concentration of manufacturing industry in this Division can be seen by comparing the figures with those appearing in the subsequent two tables which summarise manufacturing operations for the whole State.

**Manufacturing Establishments: Summary of Operations by Industry Subdivision  
Adelaide Statistical Division, 1972-73**

Industry Subdivision	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Food, beverages and tobacco . . . . .	221	11 809	48 101	246 186	93 348
Textiles . . . . .	44	2 164	8 421	52 014	15 977
Clothing and footwear . . . . .	103	4 295	12 151	41 714	22 085
Wood, wood products and furniture . . . . .	399	6 039	20 897	91 658	36 358
Paper and paper products, printing . . . . .	197	5 713	24 753	83 695	45 927
Chemical, petroleum and coal products . . . . .	70	2 714	13 953	73 955	33 735
Non-metallic mineral products . . . . .	115	3 715	18 158	79 263	40 582
Basic metal products . . . . .	53	4 000	20 541	92 973	36 079
Fabricated metal products . . . . .	382	10 553	43 264	165 232	71 668
Transport equipment . . . . .	148	23 986	115 088	376 055	139 744
Other machinery and equipment . . . . .	349	19 220	80 774	270 735	129 310
Miscellaneous manufacturing . . . . .	239	5 658	22 515	77 110	39 525
<b>Total manufacturing . . . . .</b>	<b>2 320</b>	<b>99 866</b>	<b>428 616</b>	<b>1 650 588</b>	<b>704 338</b>

**Manufacturing Establishments: Summary of Manufacturing Operations by  
Statistical Division, 1972-73**

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Adelaide . . . . .	2 320	99 866	428 616	1 650 588	704 338
Central . . . . .	38	353	1 201	7 603	2 847
Kangaroo Island . . . . .	4	17	28	161	80
Mount Lofty Ranges . . . . .	161	3 649	12 588	87 606	31 314
Murray . . . . .	121	2 847	10 711	84 355	29 092
South East . . . . .	119	4 034	17 819	95 774	41 176
Eyre . . . . .	37	672	2 305	12 682	4 754
Northern . . . . .	106	9 933	49 821	232 979	82 934
Far North . . . . .	8	25	85	271	155
<b>Total State . . . . .</b>	<b>2 914</b>	<b>121 396</b>	<b>523 173</b>	<b>2 172 019</b>	<b>896 691</b>

Generally industrial plants outside the Adelaide Statistical Division are orientated to sources of supply, exceptions being the production of agricultural machinery at Mannum and the presence of woollen mills at Lobethal and Mount Gambier. Wallaroo and Port Lincoln, being central to their markets, are the sites of chemical fertiliser production.

The two most important undertakings beyond the vicinity of Adelaide are the iron and steel complex at Whyalla and the lead smelters at Port Pirie. These undertakings together with the power station at Port Augusta are sited for important mineral sources. Other factories are located near sources of primary products—these include the sawmills and paper pulp industries of the South East, the fruit processing plants of the Upper Murray, the wineries and distilleries of the Barossa Valley and the Murray, and various dairy produce factories and fish processing plants.

In the following table details of factories for 1972-73 are classified according to industry class. The importance of the metal processing industries, e.g. transport equipment, fabricated metal products, machinery and equipment industries, to the State can be seen readily from this table.

**Manufacturing Establishments: Summary of Operations by Industry Subdivision  
South Australia, 1972-73**

Industry Subdivision	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Food, beverages and tobacco . . . . .	446	18 010	70 719	424 374	152 832
Textiles . . . . .	48	2 562	9 620	56 291	17 741
Clothing and footwear . . . . .	106	4 423	12 480	42 483	22 548
Wood, wood products and furniture . . . . .	496	8 337	29 800	133 673	53 008
Paper and paper products, printing . . . . .	244	7 154	32 109	123 542	66 223
Chemical, petroleum and coal products . . . . .	78	2 980	15 243	84 540	37 737
Non-metallic mineral products . . . . .	166	4 116	19 818	88 789	45 241
Basic metal products . . . . .	59	9 889	51 766	264 047	93 519
Fabricated metal products . . . . .	441	11 203	45 891	178 097	77 812
Transport equipment . . . . .	177	26 726	128 189	413 338	155 072
Other machinery and equipment . . . . .	393	20 090	84 168	281 453	133 986
Miscellaneous manufacturing . . . . .	260	5 906	23 369	81 390	40 972
<b>Total manufacturing . . . . .</b>	<b>2 914</b>	<b>121 396</b>	<b>523 173</b>	<b>2 172 019</b>	<b>896 691</b>

Transport equipment accounted for 17 per cent of value added while fabricated metal products, machinery and equipment etc., accounted for 24 per cent. Employment in these industries was 22 per cent and 26 per cent respectively of the total factory employment. Also of considerable importance to South Australia are the food and drink industries, particularly milk processing and winemaking.

The importance of South Australia relative to manufacturing industry in Australia as a whole can be gauged from the following comparison.

**Manufacturing Establishments: Summary of Operations, South Australia and Australia**

Item	Unit	1971-72		1972-73	
		South Australia	Australia	South Australia	Australia
Number of establishments at 30 June . . .	number	2 979	36 206	2 914	36 433
Average employment:					
Male . . . . .	number	96 194	953 967	95 581	952 219
Female . . . . .	number	25 382	347 672	25 815	345 574
Wages and salaries . . . . .	\$'000	469 339	5 249 947	523 173	5 811 792
Turnover . . . . .	\$'000	1 941 500	23 620 424	2 172 019	26 375 613
Stocks, closing . . . . .	\$'000	398 721	4 182 549	409 640	4 306 990
Value added . . . . .	\$'000	802 975	9 696 613	896 691	10 743 071
Fixed capital expenditure . . . . .	\$'000	87 787	1 297 764	96 402	1 242 595

Although there were 2 994 establishments operating at 30 June 1969 only 195 or 6.5 per cent had an employment in excess of 100 persons while 1 799 establishments, or 60 per cent of the total, employed less than 10 persons. The thirty largest factories employed 44 610 persons or 39 per cent of the total.

In the following table factories are grouped according to the number of persons employed.

**Manufacturing Establishments: Selected Variables by Size of Establishment  
South Australia, 30 June 1969**

Size of Establishment (average employment)	Number of Establishments	Persons Employed (a)	Turnover	Value Added
				\$'000
Less than 5 . . . . .	1 198	2 957	32 028	12 836
5 but less than 10	601	4 283	46 520	19 467
10 but less than 20	450	6 540	79 983	31 309
20 but less than 50	386	12 378	162 949	62 299
50 but less than 100	164	11 348	168 341	64 639
100 but less than 200	116	16 637	252 278	97 700
200 but less than 500	49	15 719	224 688	96 199
500 and over . . . .	30	44 610	607 935	256 445

(a) Excludes persons employed at administrative offices and other separately located ancillary units, e.g. storage and transport depots.

Details of persons employed in manufacturing establishments for 1971-72 and 1972-73 are given in the following tables. In these years, females constituted 20.1 and 20.9 per cent respectively of the total employment, but industries traditionally associated with female employment had a much higher component; textiles, clothing and footwear industries, in particular, employ a large number of females.

A relatively greater number of working proprietors are found in classes which embrace the smaller manufacturing unit. For example, of the 1918 working proprietors shown for 1972-73, more than half operated engineering workshops, bakeries, joineries and cabinet-making businesses; others were associated with printing, upholstery, jewellery manufacturing and winemaking.

**Manufacturing Establishments: Average Number of Persons Employed  
South Australia**

Industry Subdivision	1971-72			1972-73		
	Males	Females	Total	Males	Females	Total
Food, beverages and tobacco . . . . .	12 661	5 149	17 810	12 688	5 322	18 010
Textiles . . . . .	1 470	1 194	2 664	1 425	1 137	2 562
Clothing and footwear . . . . .	1 033	3 242	4 275	1 099	3 324	4 423
Wood, wood products and furniture . . . . .	6 947	1 124	8 071	7 159	1 178	8 337
Paper and paper products, printing . . . . .	5 224	1 832	7 056	5 294	1 860	7 154
Chemical, petroleum and coal products . . . . .	2 488	541	3 029	2 458	522	2 980
Non-metallic mineral products . . . . .	3 762	383	4 145	3 694	422	4 116
Basic metal products . . . . .	9 326	674	10 000	9 197	692	9 889
Fabricated metal products . . . . .	9 530	2 394	11 924	9 074	2 129	11 203
Transport equipment . . . . .	25 107	1 715	26 822	24 706	2 020	26 726
Other machinery and equipment . . . . .	14 858	5 296	20 154	14 762	5 328	20 090
Miscellaneous manufacturing . . . . .	3 788	1 838	5 626	4 025	1 881	5 906
Total manufacturing . . . . .	96 194	25 382	121 576	95 581	25 815	121 396

**Manufacturing Establishments: Average Number of Persons Employed by Type  
of Employment, South Australia**

Industry Subdivision	1971-72			1972-73		
	Working Proprietors	Employees	Total	Working Proprietors	Employees	Total
Food, beverages and tobacco . . . . .	277	17 533	17 810	269	17 741	18 010
Textiles . . . . .	26	2 638	2 664	31	2 531	2 562
Clothing and footwear . . . . .	69	4 206	4 275	64	4 359	4 423
Wood, wood products and furniture . . . . .	484	7 587	8 071	456	7 881	8 337
Paper and paper products, printing . . . . .	169	6 887	7 056	157	6 997	7 154
Chemical, petroleum and coal products . . . . .	22	3 007	3 029	25	2 955	2 980
Non-metallic mineral products . . . . .	73	4 072	4 145	67	4 049	4 116
Basic metal products . . . . .	24	9 976	10 000	26	9 863	9 889
Fabricated metal products . . . . .	298	11 626	11 924	283	10 920	11 203
Transport equipment . . . . .	99	26 723	26 822	111	26 615	26 726
Other machinery and equipment . . . . .	192	19 962	20 154	194	19 896	20 090
Miscellaneous manufacturing . . . . .	240	5 386	5 626	235	5 671	5 906
Total manufacturing . . . . .	1 973	119 603	121 576	1 918	119 478	121 396

**WAGES, SALARIES AND OTHER COSTS**

The following table shows costs associated with the usage of labour and materials by manufacturers. A comparison of salaries and wages paid against other costs reveals those industries that are relatively labour intensive; for example, wages and salaries constitute 40 per cent of the total cost for firms making clothing or footwear while in the food, beverages and tobacco group, only 23 per cent of the total costs are those associated with labour.

**Manufacturing Establishments: Wages and Salaries and Other Selected Costs  
South Australia, 1972-73**

Industry Subdivision	Salaries and Wages Paid to			Total Usage of Materials, Elec- tricity and Fuels, Containers, Etc.
	Administrative, Office, Sales and Distribution Employees	Production and All Other Workers	All Employees	
			\$'000	
Food, beverages and tobacco . . . .	23 091	47 628	70 719	240 440
Textiles . . . . .	2 109	7 511	9 620	37 959
Clothing and footwear . . . . .	1 944	10 537	12 480	18 438
Wood, wood products and furniture	5 943	23 857	29 800	64 118
Paper and paper products, printing .	11 420	20 689	32 109	44 224
Chemical, petroleum and coal products . . . . .	6 085	9 159	15 243	32 953
Non-metallic mineral products . . . .	5 728	14 090	19 818	32 965
Basic metal products . . . . .	16 048	35 719	51 766	144 771
Fabricated metal products . . . . .	10 970	34 922	45 891	80 189
Transport equipment . . . . .	32 460	95 730	128 189	240 950
Other machinery and equipment . . .	22 290	61 880	84 168	126 611
Miscellaneous manufacturing . . . .	5 743	17 626	23 369	35 362
<b>Total manufacturing . . . . .</b>	<b>143 829</b>	<b>379 345</b>	<b>523 173</b>	<b>1 098 980</b>

**SELECTED FACTORY PRODUCTS**

The factory products listed in this section are not necessarily the principal products produced in this State. Where publication of details of an individual product would enable the output of a particular manufacturer to be determined, these figures are treated as confidential and are not separately available for publication. As a considerable number of products are produced in this State by industries containing one or two dominant firms, the list of publishable items is considerably restricted and the absence of a product from the list does not necessarily imply its non-production.

**Selected Articles Produced, South Australia, 1971-72 and 1972-73(a)**

Item	Units of Quantity	1971-72			1972-73		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
				\$'000			\$'000
Aerated and carbonated waters, bottled and canned . . . . .	'000 l	85 386	75 430	15 111	98 385	95 870	21 120
Bacon and ham . . . . .	'000 kg	5 096	4 987	8 681	5 233	5 333	9 452
Barrels, kegs, vats, drums and tanks . . . . .	..	..	..	3 858	..	..	3 167
Batteries, wet cell (auto- motive), 12 volt, rebuilt	number	9 014	9 009	107	n.a.	n.a.	n.a.
Blinds and awnings:							
Metal venetian . . . . .	..	..	..	421	..	..	508
Outdoor, canvas . . . . .	..	..	..	684	..	..	804
Outdoor, metal . . . . .	..	..	..	835	..	..	924
Brandy . . . . .	'000 l al	3 840	3 603	4 923	3 038	3 847	5 371
Bricks, clay . . . . .	'000	137 532	134 819	7 466	145 497	146 929	8 306
Butter, from cream (excl. that from whey cream)	'000 kg	6 196	5 502	n.a.	4 969	4 303	n.a.
Butter, total value . . . . .	..	..	..	4 527	..	..	5 525

Selected Articles Produced: South Australia, 1971-72 and 1972-73<sup>(a)</sup> (continued)

Item	Units of Quantity	1971-72			1972-73		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
				\$'000			\$'000
Cakes, pastry, pies and puddings (not canned)				13 443			14 982
Cheese, cheddar, green wt.	'000 kg	16 805	17 409	n.a.	16 080	15 525	n.a.
Chickens . . . . .	'000 kg	10 837	10 921	9 917	12 180	12 603	11 352
Fertilisers, manures (of blood, bone and/or offal) . . . . .	tonnes	4 323	4 320	256	n.a.	n.a.	n.a.
Floorboards, Australian timbers . . . . .	m <sup>3</sup>	40 758	40 517	3 181	46 244	47 445	3 930
Flour, white . . . . .	tonnes	98 109	108 332	11 377	89 763	96 669	10 512
Fluorescent light fittings	..	..	..	2 620	..	..	3 199
Fruit, crystallised and glace . . . . .	'000 kg	623	891	931	1 074	1 054	1 201
Fruit juice . . . . .	'000 l	3 611	2 913	924	5 278	5 125	1 528
Furniture:							
Sheet metal . . . . .	..	..	..	3 252	..	..	4 015
Wooden . . . . .	..	..	..	16 386	..	..	19 300
Gloves, work . . . . .	doz. pairs	82 474	96 746	667	71 128	83 232	788
Hot water systems, electric	number	9 379	n.a.	n.a.	n.a.	n.a.	n.a.
Ice . . . . .	tonnes	20 008	18 354	293	19 772	19 770	3 336
Ice cream . . . . .	'000 l	16 669	n.a.	n.a.	17 173	n.a.	n.a.
Machinery:							
Conveyors and appliances . . . . .	..	..	..	4 328	..	..	4 660
Hoists, cranes, lifting machinery . . . . .	..	..	..	2 514	..	..	2 893
Mining and drilling . . . . .	..	..	..	9 001	..	..	2 637
Pumping . . . . .	..	..	..	1 966	..	..	2 509
Mattresses, innerspring..	number	62 310	61 991	1 034	65 121	65 011	1 396
Newspapers and periodicals printed and published . . . . .	..	..	..	8 308	..	..	8 080
Paints:							
Architectural and decorative;							
Primers and under-coats . . . . .	'000 l	712	704	653	748	697	699
Finishing coats . . . . .	'000 l	1 706	1 660	1 862	1 803	1 747	2 074
Industrial;							
Primers and under-coats . . . . .	'000 l	n.a.	1 495	1 212	1 287	1 263	1 071
Finishing coats . . . . .	'000 l	3 469	3 489	3 276	3 762	3 718	3 582
Plaster, fibrous . . . . .	m <sup>3</sup>	216 052	225 859	454	142 782	167 433	369
Ready mixed concrete . . . . .	m <sup>3</sup>	901 655	924 959	15 754	970 642	972 421	19 187
Smallgoods . . . . .	..	..	..	11 713	..	..	12 622
Steam, gas and water fittings . . . . .	..	..	..	2 861	..	..	2 874
Steel, fabricated constructional . . . . .	tonnes	76 950	79 082	22 624	121 984	87 234	25 836
Tallow, inedible . . . . .	'000 kg	27 100	26 996	3 436	21 463	21 325	3 385
Tarpaulins . . . . .	..	..	..	184	..	..	272
Tents, flies and marquees	..	..	..	n.a.	..	..	825
Window frames, aluminium . . . . .	..	..	..	4 967	..	..	5 182
Wine:							
Fortified . . . . .	'000 l	35 640	37 756	16 256	34 559	37 639	15 870
Unfortified . . . . .	'000 l	63 473	51 900	24 202	79 679	69 595	32 811

(a) Includes details for Northern Territory.



## INDIVIDUAL INDUSTRIES

In this section details are given of major South Australian secondary industries. However, statistics relating to a number of important industries are not published in order to maintain confidentiality of details for individual businesses.

**Meat and Abattoir By-Products**

Most of the abattoirs in South Australia are located in country areas but the two largest establishments are within the Adelaide Statistical Division. Buoyant export markets (especially for beef) in 1972-73 resulted in considerable expansion in this industry. The figures for 1972-73 show an increase of 5.66 per cent in average employment and an increase of 21.66 per cent in value added over the previous year. Details of country butchers who slaughter livestock mainly for sale in their own retail shops are not included in the following table.

**Meat and Abattoir By-Products, South Australia**

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
1971-72:						
Adelaide .. . . .	13	2 245	10 124	25 068	40 766	15 737
Other .. . . .	13	919	3 560	10 678	16 204	5 813
Total .. . . .	26	3 164	13 683	35 746	56 971	21 550
1972-73:						
Adelaide .. . . .	13	2 354	11 181	32 312	48 569	17 135
Other .. . . .	14	989	3 899	21 492	29 558	9 083
Total .. . . .	27	3 343	15 080	53 804	78 127	26 217

**Wine and Brandy**

Winemaking has been established in this State for a long period. The industry employs both modern technology and traditional skills. Although relatively small by world standards the wine industry is important to Australia and particularly to this State. In 1972-73 South Australia accounted for 67 per cent of Australia's total wine production and 82 per cent of brandy. The size of the wineries in South Australia vary from small-family concerns to businesses employing about 200 persons.

A limited number of wineries still operate in the Adelaide metropolitan area but the three major areas in this State are the Barossa Valley, the Upper Murray irrigation areas and the Southern Vales area centred around Reynella and McLaren Vale. In recent years considerable development has taken place in the South East particularly at Coonawarra.

In 1972-73 twenty-four wineries employing 46.7 per cent of the total employment of the industry in South Australia operated in the Barossa Valley, fifteen wineries with 18.4 per cent of employment were located in the Upper Murray irrigation areas and twenty locations employing 11.1 per cent were in the Southern Vales area. The other locations are mainly in the metropolitan area, Clare and the South East of South Australia.

## Wine and Brandy, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number	\$'000			
1971-72:						
Adelaide . . . . .	26	646	2 055	10 160	15 489	7 498
Other . . . . .	48	1 638	5 172	28 349	40 419	17 838
Total . . . . .	74	2 284	7 226	38 509	55 908	25 336
1972-73:						
Adelaide . . . . .	30	682	2 159	14 032	19 410	6 623
Other . . . . .	53	1 791	6 390	32 806	50 904	22 422
Total . . . . .	83	2 473	8 548	46 837	70 314	29 045

## Printing and Publishing

There are two large establishments producing newspapers in Adelaide. Newspaper printing offices are also located in most large towns, and a number of these produce newspapers for more than one locality. Particulars of general printing establishments, including the activities of the South Australian Government Printing Department, are also incorporated in the following table.

## Printing and Publishing, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
		Number	\$'000			
1971-72:						
Adelaide . . . . .	176	4 534	17 988	20 866	54 513	34 146
Other . . . . .	43	407	1 265	856	3 139	2 303
Total . . . . .	219	4 941	19 253	21 721	57 652	36 449
1972-73:						
Adelaide . . . . .	172	4 586	20 301	22 420	59 595	37 210
Other . . . . .	44	410	1 434	979	3 633	2 667
Total . . . . .	216	4 996	21 735	23 400	63 229	39 877

## Cement and Concrete Products

One firm produces cement at two locations in South Australia, one at Birkenhead and the other at Angaston. The Angaston cement plant, based on the limestone deposits, is an example of a manufacturing location being established near the source of the raw material. In 1972-73 thirty-eight plants produced ready-mixed concrete, of which eighteen were in the Adelaide Statistical Division and twenty were in country areas. Two firms produce concrete pipes at five separate locations of which two are in the country.

## Cement and Concrete Products, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
1971-72:						
Adelaide .. . . .	56	1 524	6 536	22 563	39 746	16 803
Other .. . . .	28	270	1 176	4 638	9 727	4 624
Total .. . . .	84	1 794	7 712	27 201	49 472	21 426
1972-73:						
Adelaide .. . . .	52	1 518	7 578	23 780	41 089	17 807
Other .. . . .	29	257	1 211	3 999	7 604	3 626
Total .. . . .	81	1 775	8 789	27 779	48 693	21 433

## Basic Iron and Steel

In 1941 a blast furnace was installed at Whyalla to utilise the iron ore from the Middleback Ranges. The ore is transported by rail a distance of 55 kilometres to Whyalla. Before 1965 Whyalla was the major source of Australia's foundry iron but this changed in 1965 when the Basic Oxygen Steelmaking (BOS) plant began producing steel. The *BHP News* of February 1975 reported that the two vessels at the BOS in the first decade of operation produced over 8.7 million tonnes of steel.

There are a number of large pipe and tube making firms located in and near Adelaide. These firms accounted for slightly more than 18 per cent of the Australian output of ferrous pipes, tubes and fittings. Details for these plants, together with details for establishments making basic forgings and castings of iron and steel, are included in the following table.

## Basic Iron and Steel, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
1971-72:						
Adelaide .. . . .	34	x	x	x	x	x
Other .. . . .	5	x	x	x	x	x
Total .. . . .	39	7 732	34 444	103 742	153 706	49 293
1972-73:						
Adelaide .. . . .	28	x	x	x	x	x
Other .. . . .	4	x	x	x	x	x
Total .. . . .	32	7 661	39 932	112 415	170 519	56 428

## Motor Vehicles and Parts

The largest single industry in South Australia and a major contributor to industrial growth since 1945 is the motor vehicle industry. However, as there are only a few firms engaged in motor vehicle production, no detailed figures are published for confidentiality reasons.

Immediately after the 1939-45 War, General-Motors Holden Pty Ltd prepared for the production of an Australian-built car, and volume production commenced in 1948. A number of major increases in productive capacity have been made by this firm involving not only considerable expansion at the Woodville site but also the establishment of a plant at Elizabeth.

Tonsley Park has become the centre of manufacturing operations for Chrysler Australia Ltd and in July 1967 the company expanded its operations to include a large foundry and engine plant at Lonsdale, near Port Stanvac.

These large motor vehicle plants in turn absorb the products of many establishments producing vehicle components. Other manufacturers produce omnibus and commercial vehicle bodies, fork lift trucks, garage equipment, trailers, caravans, and a wide range of vehicle accessories.

In 1972-73 establishments mainly engaged in the manufacture of motor vehicles and parts contributed 17 per cent of South Australia's total employment in manufacturing. It should be noted that this figure understates the importance of the motor vehicle industry to South Australia as some firms involved in the manufacture of components and accessories are classified to other industries. (For example, firms making rubber components for the motor industry are considered to be in the rubber industry.)

In terms of employment South Australia contributed nearly 23 per cent of the total Australian labour force in the motor vehicles and parts industry in 1972-73.

#### Motor Vehicles and Parts, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
<b>1971-72:</b>						
Adelaide . . . . .	94	21 074	92 430	210 152	318 269	112 391
Other . . . . .	6	18	40	115	187	72
<b>Total . . . . .</b>	<b>100</b>	<b>21 092</b>	<b>92 470</b>	<b>210 267</b>	<b>318 457</b>	<b>112 464</b>
<b>1972-73:</b>						
Adelaide . . . . .	101	20 626	100 430	216 052	346 793	124 840
Other . . . . .	5	15	39	107	172	65
<b>Total . . . . .</b>	<b>106</b>	<b>20 641</b>	<b>100 469</b>	<b>216 160</b>	<b>346 965</b>	<b>124 905</b>

#### Transport Equipment other than Motor Vehicles

The most important manufacturing establishments included in the table below are the ship building locations at Whyalla and Birkenhead, and the large railway workshops at Islington and Port Augusta operated by the South Australian Railways and the Commonwealth Railways, respectively. The Birkenhead ship building location ceased production early in 1973-74.

In 1972-73 the transport equipment (other than motor vehicles) industries accounted for 5 per cent of the employment in manufacturing in South Australia. Motor vehicles and parts and other transport equipment together accounted for 22 per cent of total South Australian manufacturing employment.

**Transport Equipment (Other than Motor Vehicles), South Australia**

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		\$'000			
1971-72:						
Adelaide . . . . .	41	3 054	11 985	14 459	26 046	12 597
Other . . . . .	23	2 676	11 302	18 088	31 542	16 214
Total . . . . .	64	5 730	23 287	32 547	57 589	28 810
1972-73:						
Adelaide . . . . .	47	3 360	14 658	14 401	29 262	14 904
Other . . . . .	24	2 725	13 062	21 906	37 111	15 264
Total . . . . .	71	6 085	27 720	36 307	66 373	30 167

**Appliances and Electrical Equipment**

For many years South Australia has been one of the leading States in the production of the larger household appliances, including refrigerators, washing machines and stoves. These items constitute a significant part of the total activity shown in the next table. Also represented are manufacturers of radios, television sets and components, waterheating systems, batteries and other electrical machinery.

This group of industries is the second most important in this State and in 1972-73 employed nearly 11 per cent of the total manufacturing labour force in South Australia. These industries, together with the motor vehicles and parts industry accounted for nearly 28 per cent of South Australia's manufacturing labour force and are susceptible to changes in demand for their products.

**Appliances and Electrical Equipment, South Australia**

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		\$'000			
1971-72:						
Adelaide . . . . .	127	13 622	51 737	100 210	182 814	84 417
Other . . . . .	7	163	419	547	1 081	562
Total . . . . .	134	13 785	52 157	100 757	183 894	84 980
1972-73:						
Adelaide . . . . .	120	13 153	54 949	102 499	191 161	88 231
Other . . . . .	6	144	427	545	1 392	862
Total . . . . .	126	13 297	55 376	103 045	192 553	89 092

**PART 10**

**COMMERCE**

**10.1 INTERNAL TRADE**

Extensive statistics of retail trade have been collected and published over many years but the first full census of wholesale trade was conducted as part of the integrated Economic Censuses of 1968-69 which was discussed in detail on pages 495-8 of the *South Australian Year Book 1974*.

**WHOLESALE TRADE**

The term wholesale trade was used in the Wholesale Census in the broad sense to include the resale (by agents or principals) of new or used goods to retailers or other wholesalers or to institutional (including government), professional or other business users (including farmers and builders). The more important types of business engaged in wholesale trade are wholesale merchants, who take title to the goods they sell; manufacturers sales branches; commission agents, including import and export agents and purchasing agents; petroleum products distributors; and co-operative and marketing boards engaged in marketing farm products.

An indication of the level of wholesale trade in South Australia and Australia is given in the following table which includes details for the 1968-69 Wholesale Census.

## Wholesale Establishments: South Australia and Australia, 1968-69

Particulars	South Australia	Australia
	Number	
Establishments operating at 30 June 1969 . . . .	3 159	33 356
Persons employed (a) . . . . .	32 462	358 811
	\$ million	
Wages and salaries . . . . .	87.0	1 045.3
Sales on own account, transfers out, commissions received and other operating revenue . . . . .	1 226.9	15 899.1
Stocks at 30 June:		
1968 . . . . .	135.8	1 945.5
1969 . . . . .	144.9	2 343.4
Purchases, transfers in and selected expenses . .	1 006.7	13 524.0
Value added (b) . . . . .	229.3	2 773.0

(a) At end of June 1969; includes working proprietors. (b) Sales on own account, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

## RETAIL TRADE

The definition of 'retail trade' adopted in the 1968-69 Retail Census was the same as the definition used in previous Retail Censuses, *i.e.* the resale of new and used goods to final consumers for personal and household consumption. The basis on which previous censuses of retail establishments were conducted was described on pages 453-6 of the *South Australian Year Book 1972*.

Previous censuses of retail establishments included a number of activities that were also covered by the annual manufacturing census: principally motor vehicle repairs, dry cleaning, shoe repairs and tyre retreading. Takings from these activities were reported in the Retail Trade Census but not included in 'retail sales'. The following activities were also included in previous Retail Censuses if they were carried on in establishments which had retail sales of more than \$1 000: custom dressmaking and custom tailoring, clothing repair and alterations, making up and repair of blinds, awnings and curtains, repairs of domestic appliances, panel beating and crash repairs, watch and clock repairs, jewellery repairs, and baking of cakes in cake shops. These activities were also covered by the Annual Manufacturing Census.

With the adoption of the new establishment concept in the 1968-69 Economic Censuses, no establishment was required to supply returns in more than one census and all establishments mainly engaged in the above activities are now included in the Retail Trade Census only.

Censuses of retail trade in Australia have traditionally included certain types of service establishments in their scope, in addition to retail establishments more narrowly defined. Some of the service establishments so included make retail sales in appreciable volume as well as providing important services for which the statistics can be conveniently collected in the framework of the Retail Census.

The following types of service establishments were included in the 1968-69 Retail Census: motion picture theatres; cafes and restaurants; licensed hotels, motels and wine saloons; licensed clubs; laundry and dry cleaning services; and

hairdressing and beauty salons. Of these service industries, cafes and restaurants, licensed hotels, motels and wine saloons and hairdressing and beauty salons had been included in previous censuses as retail establishments, while the remainder were included in the supplementary collections made from establishments not described as retail establishments.

Because of the changes which have occurred in the definition of census units, the scope of the census and the items of data collected, it is not possible to make direct comparisons between the figures obtained from the 1968-69 Retail Census and those obtained from previous retail censuses or from the monthly and quarterly retail surveys based on previous Retail Censuses.

**Retail Establishments and Selected Service Establishments: South Australia and Australia, 1968-69**

Particulars	South Australia	Australia
	Number	
Establishments operating at 30 June 1969 . . . . .	14 247	156 191
Persons employed (a) . . . . .	85 291	923 261
	\$ million	
Wages and salaries . . . . .	128.3	1 514.6
Sales and other operating revenue . . . . .	1 161.0	13 831.0
Stocks at 30 June:		
1968 . . . . .	110.4	1 227.6
1969 . . . . .	120.4	1 337.6
Purchases, transfers in and selected expenses . . . . .	867.3	10 233.1
Value added (b) . . . . .	303.7	3 707.9

(a) At end of June 1969; includes working proprietors and unpaid helpers.

(b) Sales, and other operating revenue *plus* increase (or *less* decrease) in the value of stocks, *less* purchases transfers in and selected expenses.

**Surveys of Retail Establishments**

During periods between Censuses, estimates of the value of retail sales are calculated from returns received from a sample of retail establishments covering businesses which account for approximately 45 per cent of all retail sales in Australia.

The sample of businesses from which the estimates of retail sales of goods are calculated was changed during 1972; the new sample is based on the results of the 1968-69 Retail Census whereas the previous sample was based on the 1961-62 Census results adjusted and updated by a revision of the base values for survey purposes in 1966-67. Estimates for the December quarter 1972 were the first to be published from the new sample and values of sales of goods within commodity groups are not available for the year 1972-73. The main differences in the scope and coverage between the two samples, apart from a certain amount of rationalisation between commodity groups, are the inclusion in the new survey of additional classes of businesses, particularly licensed clubs; the extended coverage of establishments such as newsagents engaged in delivery only, canteens and caterers; and the exclusion of bread and milk vendors (some previously included). Door to door sales are not included in either sample.



The following table shows the value of retail sales of goods in South Australia in broad commodity groups in the 1968-69 census and retail survey estimates for the year 1973-74, which are based on a sample selected from the 1968-69 census. The values of motor vehicles, parts, petrol, etc., and delivered bread and milk are excluded.

**Value of Retail Sales: Commodity Groups, South Australia<sup>(a)</sup>**

Commodity Group	Value of Retail Sales of Goods	
	1968-69	1973-74
	\$ million	
Groceries . . . . .	128.1	189.1
Butchers meat . . . . .	53.0	87.5
Other food . . . . .	85.7	134.1
<b>Total food and groceries . . . . .</b>	<b>266.8</b>	<b>410.7</b>
Beer wine and spirits . . . . .	80.4	132.1
Clothing, drapery etc. . . . .	117.3	204.4
Footwear . . . . .	20.6	33.7
Hardware, china etc. . . . .	27.0	52.4
Electrical goods . . . . .	48.7	103.9
Furniture and floor coverings . . . . .	36.0	77.5
Chemist goods (b) . . . . .	38.8	62.0
Newspapers, books and stationery . . . . .	24.5	38.4
Other goods (c) . . . . .	60.8	111.5
<b>Total . . . . .</b>	<b>721.0</b>	<b>1 226.6</b>

(a) Builders hardware and supplies, basic building materials, farm and business machines, earthmoving equipment and grain, feed and fertilisers are excluded.

(b) Includes toiletries, cosmetics and dispensing.

(c) Includes tobacco, cigarettes, jewellery, sporting goods, etc.

## 10.2 OVERSEAS TRADE

### LEGISLATION AFFECTING OVERSEAS TRADE

The power to make laws with respect to trade and commerce with other countries was conferred on the Australian Parliament by the Commonwealth of Australia Constitution Act, Section 51(i). Under Section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Australian Government on 1 January 1901. Other references to trade and commerce are contained in Sections 87 to 95 of the Constitution.

The legislation affecting overseas trade includes the *Customs Act*, the *Customs Tariff*, and the *Customs Tariff (Dumping and Subsidies) Act*. The *Customs Act* is the administrative Act under which the Department of Police and Customs operates, while the *Customs Tariff* provides the statutory authority for imposing the actual rates of duty operative from time to time and the *Customs Tariff (Dumping and Subsidies) Act* provides protection for Australian industry against various forms of unfair trading.

### **The Customs Tariff**

The first Australian Customs Tariff was introduced by Resolution on 8 October 1901, from which date uniform duties for each State came into effect throughout Australia. The tariff has since been extensively amended—the last major amendment was in 1965 when the tariff was re-issued in Brussels Nomenclature form.

The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to particular imports from certain countries of the British Commonwealth. Duties are also imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are an important source of revenue, but in its protective character the tariff has an influence also on the Australian economy. The present tariff provides for preferential and general rates of duty.

The preferential rates apply to goods which are the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand and Papua New Guinea. The preferential treatment applies also to the products of countries which have been declared to be preference countries. At present the preference countries are comprised mainly of members of the British Commonwealth of Nations and most of the United Kingdom's dependencies. Certain less developed countries are given preferential treatment for selected products.

General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

### **Primage Duties**

In addition to the duties imposed by the *Customs Tariff*, *ad valorem* primage duties at rates of 3.75 or 7.5 per cent are charged on some goods according to the type and origin of the goods. Goods, which are the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos Islands, Christmas Island or the Territory of Papua New Guinea, are exempt from primage duty.

### **Support Duties**

The Customs Tariff provides for the imposition of support duties on certain goods, mainly chemicals, where the landed cost of the goods is less than the support value that has been determined by the Tariff Board. The landed cost of goods consists of the free on board price of the goods, any charges or costs incurred in transporting the goods to Australia, including insurance and any duties of Customs, other than the support duty, payable on the goods. The difference between the support value and the landed cost is known as the Support Value Differential (SVD). Support duty is charged at the rate of 67.5 per cent of the SVD.

### **By-laws**

Under Customs by-laws, goods may be admitted free of duty or at rates of duty lower than those normally applicable. A pre-requisite for by-law admission is that suitably equivalent goods are not reasonably available from Australian production. There are provisions under the by-law system for remitting duty in certain circumstances on imported goods which are to be incorporated in goods for export.

### **Anti-dumping Legislation**

The *Customs Tariff (Dumping and Subsidies) Act* 1961-1973 provides protection for Australian industry against various forms of unfair trading. This Act authorises the imposition of a dumping duty when goods are sold to Australia at a price which is less than the normal value of the goods, or a countervailing duty on subsidised goods, where the dumping or subsidy causes or threatens material injury to an Australian industry. Special duties may be collected also if dumped or subsidised goods are imported to the detriment of the trade of a third country in the Australian market.

### **Import Controls**

A system of import licensing was introduced in 1939 as a war-time measure. In the post-war years these controls were gradually relaxed but were re-imposed in 1952. In 1962 most of these restraints were lifted but some goods remain under control for reasons associated with the protection of certain Australian industries. The Customs (Prohibited Imports) Regulations list those commodities the import of which is prohibited absolutely, or restricted, on social grounds. Other items are prohibited, or restricted, on health grounds (human, animal or plant) by the *Quarantine Act* 1908-1973 and the *Therapeutic Goods Act* 1966-1973.

### **Export Controls**

Under Section 112 of the Customs Act the export of goods from Australia may be prohibited absolutely, prohibited to a specified place, or prohibited unless prescribed conditions or restrictions are observed.

The *Banking Act* 1959-1974 contains provision to ensure that the full proceeds of goods exported from Australia are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia.

## **ADVISORY AUTHORITIES ON OVERSEAS TRADE**

### **Industries Assistance Commission**

The Tariff Board was replaced on 1 January 1974, by the Industries Assistance Commission appointed under the *Industries Assistance Commission Act* 1973. The Commission consists of not less than five and not more than nine members and its function is to hold inquiries and make reports to the Minister for Secondary Industry in respect of matters affecting assistance to industries and any other matters that may be referred to it in accordance with the Act.

The Minister is required to refer to the Commission for inquiry and report on among other matters, the necessity for new, increased or reduced import duties; the necessity for prohibition or restriction of importation of any goods into Australia, or the extension, reduction or removal of any such existing restriction; the necessity to provide financial assistance to an industry by the Australian Government or for increase, reduction or withdrawal of such assistance.

The Minister may refer to the Commission for inquiry and report on the classification of goods in the Customs Tariff or Excise Tariff and matters in connection with the interpretation of these tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff (Dumping and Subsidies) Act 1961-1973*.

#### **Temporary Assistance Authority**

The Minister for Secondary Industry may also request the Temporary Assistance Authority to inquire into cases where urgent action appears necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Industries Assistance Commission. The Temporary Assistance Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by the Temporary Assistance Authority may be imposed only if the matter is under reference to the Industries Assistance Commission and may operate only for a period of up to three months after the date of receipt by the Commission of the final report on the goods concerned.

### **ENCOURAGEMENT OF OVERSEAS TRADE**

#### **Trade Commissioner Service**

The *Trade Commissioners Act 1933-1973* provides for the appointment of Trade Commissioners and Assistant Trade Commissioners for Australia in such places as the Governor-General determines.

In 1957 Australia's official commercial representation was extended by the introduction of a system of Trade Correspondents. These correspondents who are appointed in countries where there is no Trade Commission, are engaged on a part-time basis and operate under the general direction of the Trade Commissioner in whose area they are located.

The Trade Commissioner Service is administered by the Department of Overseas Trade and is responsible for overseas commercial intelligence. Particular facilities offered to Australian exporters and export organisations include market surveys, advice on selling and advertising methods, arranging introductions with buyers and agents, providing reports on the standing of overseas firms, assisting business visitors and organising trade missions, trade displays and other publicity and promotion media.

Trade Commissioners participate in inter-governmental negotiations on economic and commercial matters and where necessary make representation to Government authorities of the countries in which they are located on behalf of the Australian Government and Australian firms. A Trade Commissioner may also be called upon to act as the Australian Government representative in areas where there is no Australian diplomatic or consular mission.

In a number of cities where there is a diplomatic or consular mission but no Trade Commissioner, Marketing Officers are appointed to assist Australian businessmen. They work under the direction of the Trade Commissioner whose territory includes the city in which the Marketing Officer is based.

### **Export Payments Insurance**

The *Export Payments Insurance Corporation Act 1956-1973* established the Export Payments Insurance Corporation with the objective of encouraging trade with overseas countries by protecting exporters against non-payment of their overseas accounts and other risks not normally insurable with commercial insurers. The main risks of loss against which the Corporation insured were 'commercial' risks of the insolvency or protracted default of the buyer, and 'political' risks such as exchange transfer difficulties, import restrictions in the buyer's country and war or revolution.

The Corporation, acting as an agent for the Government, also issued overseas investment insurance policies to cover political risks for Australian firms investing overseas.

In 1971 the scope of the Corporation was widened to enable the financing of individual orders for capital goods where long term credit was necessary to obtain business in the face of overseas competition. The Corporation was able to guarantee the repayment of a loan of up to 80 per cent of the contract price extended by a lending institution in Australia to an overseas buyer.

Under the *Export Finance and Insurance Corporation Act 1974*, the former activities of the Export Payments Insurance Corporation were taken over by the new Export Finance and Insurance Corporation from 1 February 1975.

### **Export Incentives**

New export incentives in the form of Market Development Grants were introduced on 1 July 1974. The aim is to encourage exporters to seek out and develop overseas markets, and to participate in Australian Government sponsored trade promotions, by the provision of taxable grants payable to firms on export promotion expenditure.

### **South Australian Trade Representatives**

One of the functions of the Agent General for South Australia, located in London, is to foster trade with the United Kingdom and other countries. There are also agencies in four Asian cities—Tokyo, Kuala Lumpur, Singapore and Djakarta—to investigate trade opportunities in these areas.

## **TRADE AGREEMENTS**

The General Agreement on Tariffs and Trade (GATT), of which Australia is an original member, is an international trade agreement which has been in operation since 1 January 1948. The objectives of the GATT include the expansion of world trade and the raising of living standards throughout the world. The essential features of the GATT are the schedules of tariff concessions which its members have agreed to apply consequent to tariff negotiations with each other, the application of most-favoured-nation treatment among its members, the avoidance of trade discrimination, and a code of agreed commercial policy rules for fair international trading.

Six series of tariff negotiations have been conducted. As a result of the first five, Australia obtained tariff concessions on almost all the principal products of which it is an actual or potential exporter to the individual countries concerned.

The sixth series of tariff negotiations, the Kennedy Round, was based on a plan for linear tariff cuts by industrial countries on all industrial products, with a minimum of exceptions, and on the reduction of non-tariff barriers to trade and the creation of acceptable conditions of access to world markets for agricultural products. It began in May 1964 and concluded in May 1967. The average reduction in tariffs on industrial goods was approximately one-third, while in agriculture the most important item was the agreement reached on the basis for a world grains agreement (now superseded by later agreements; see International Grains Agreement page 428).

A seventh round of negotiations, to be held under the auspices of GATT, was inaugurated at a meeting of Ministers from over one hundred countries in Tokyo, Japan in September 1973. The new round will be concerned with further reductions in tariffs on industrial goods and aim to lower tariff and non-tariff barriers to trade in manufactures and primary products, with particular emphasis on products important to the trade of developing countries.

Australia is also a party to trade agreements with a number of individual countries. These agreements are of two main types, preferential and other.

Preferential agreements are currently operative with Canada, Malaysia and New Zealand. In general these agreements provide for the exchange of preferential rates of duty on a range of commodities traded between Australia and the countries concerned.

Other agreements currently in force are those concluded with Japan (1964) Philippines (1965), Republic of Korea (1965), USSR (1965, 1973), Bulgaria (1966), Poland (1966), Hungary (1967), Romania (1967), Yugoslavia (1970), Czechoslovakia (1972), Indonesia (1972), the People's Republic of China (1973) and the German Democratic Republic (1974). These agreements relate to the operation of most-favoured-nation treatment and the development of trade in accordance with this principle between Australia and the country concerned.

There is also an agreement establishing a free trade area between Australia and New Zealand (NAFTA).

Details of these agreements are contained in various issues of the *Official Year Book of Australia*.

#### METHOD OF RECORDING IMPORTS AND EXPORTS

Overseas trade statistics are compiled from documents obtained under the *Customs Act 1901-1974*. Statistics for South Australia apply to the imports into and exports from Australia which are documented (entered or cleared) at Customs recording points in South Australia.

Imports do not provide a record of the overseas goods used or consumed in South Australia, as some of the goods pass subsequently to other Australian States and some goods imported through other States pass into South Australia. Similarly, exports include some products of other States documented in South Australia, but exclude products of South Australia documented in other States. Commodities transported by sea, air or parcels post are included.

Since the introduction of container shipping early in 1969 containerised goods may be documented as South Australian exports or imports even though loaded or unloaded at ports in other States, particularly Melbourne. The interstate movement of the goods is predominantly by rail.

All values in overseas trade statistics are determined on a 'free on board (f.o.b.) port of shipment' basis. This means that all charges, in particular the cost of freight and insurance, incurred after the goods have been exported from the port of shipment are excluded. Only transport and service charges incurred before export are included in the determination of trade values.

The procedure adopted to value exports and imports is as follows:

*Exports:*

- (a) Goods sold to overseas buyers before export are valued at the Australian f.o.b. port of shipment equivalent of the actual price at which the goods were sold;
- (b) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent of the price paid for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale.

*Imports:*

The recorded value of goods imported is the amount on which duty is payable or would be payable if the duty were *ad valorem*. Value for duty is the f.o.b. port of shipment equivalent of either:

- (a) the actual price paid or to be paid by the Australian importer plus any special deduction (transactions value); or
- (b) the 'current domestic value' of the goods, whichever is the higher.

'Current domestic value' is defined as 'the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of export of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country'.

### **Inclusions and Exclusions**

Export tabulations do not include the value of stores loaded on aircraft and ships (e.g. aircraft fuel, bunker oil, food and drink for passengers and crew, and ships' fittings installed on overseas-owned ships in Australian ports). Outside packages (containers, crates) are included as a separate item in imports. For exports, however, the value recorded for each item includes the value of the outside package. Particulars of direct transit trade through Australia are not recorded.

### **Countries**

'Country of origin' appearing in import tables should be taken to mean the country of production. 'Country of consignment' appearing in export tables means the country to which goods were consigned so far as this can be determined at the time of export. Where the country of consignment is not determined at the time of export, goods are shown as exported 'For Orders'.

## OVERSEAS TRADE OF SOUTH AUSTRALIA

## IMPORTS

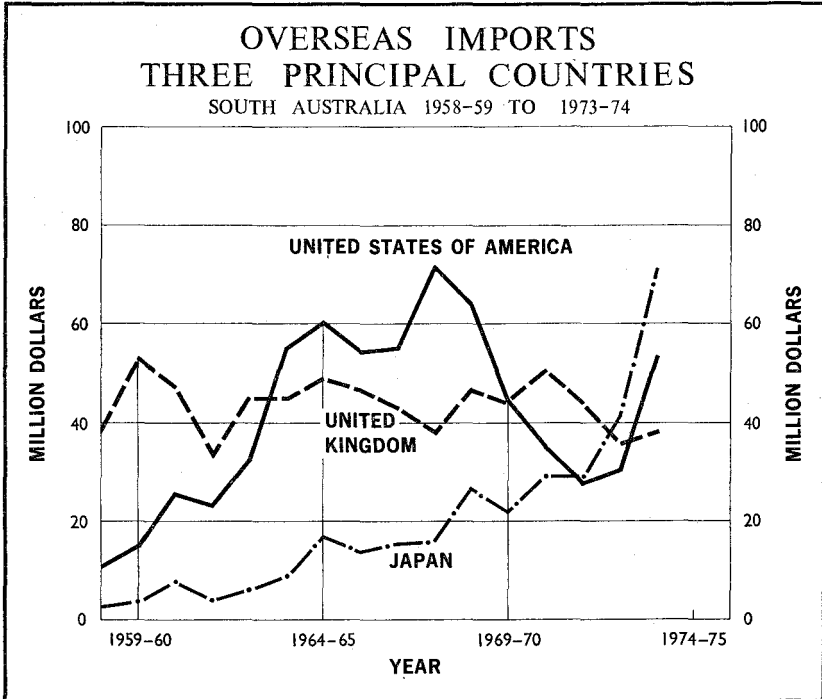
The total value of overseas imports into South Australia during 1973-74, \$313.9 million was \$113.9 million above the level of 1972-73. Increases occurred in every commodity group, in particular, iron and steel and mineral fuels and lubricants.

## Overseas Imports to South Australia, Principal Commodity Groups

Commodity Group	1970-71	1971-72	1972-73	1973-74
			\$'000	
Food and live animals . . . . .	5 836	6 795	5 851	9 288
Beverages and tobacco . . . . .	1 023	1 432	1 211	1 624
Crude materials, inedible:				
Crude rubber . . . . .	1 341	1 382	1 480	2 563
Wood, timber and cork . . . . .	7 053	6 795	9 715	16 615
Textile fibres and waste . . . . .	603	748	843	2 053
Crude fertilisers, crude minerals . . . . .	5 257	5 152	4 986	9 025
Other . . . . .	2 167	2 270	2 698	2 071
Mineral fuels, lubricants . . . . .	20 956	22 147	22 337	40 283
Animal and vegetable oils and fats	313	358	253	635
Chemicals:				
Chemical elements and compounds . . . . .	3 293	2 725	2 510	4 153
Plastics and artificial resins . . . . .	2 849	3 385	3 578	5 018
Other . . . . .	4 794	5 072	4 108	5 613
Manufactured goods:				
Paper and paperboard manufactures . . . . .	5 223	5 372	5 801	8 899
Textile yarn, fabrics and made-up articles . . . . .	9 508	11 082	11 284	16 347
Non-metallic mineral manufactures, n.e.s. . . . .	6 946	5 865	6 428	7 276
Iron and steel . . . . .	6 742	9 142	7 701	30 222
Non-ferrous metals . . . . .	1 855	1 433	1 576	2 768
Manufactures of metal, n.e.s. . . . .	7 908	3 970	4 084	5 703
Other . . . . .	4 308	5 130	6 189	10 191
Machinery and transport equipment:				
Machinery, other than electric . . . . .	36 742	28 229	34 321	38 850
Electrical machinery and appliances . . . . .	15 604	14 835	15 251	22 318
Transport equipment . . . . .	29 507	25 474	25 337	42 326
Miscellaneous manufactured articles	13 117	15 455	16 391	23 692
Commodities and transactions not classified to kind . . . . .	5 413	5 499	6 045	6 380
<b>Total . . . . .</b>	<b>198 358</b>	<b>189 748</b>	<b>199 978</b>	<b>313 915</b>



During 1973-74, Japan supplied \$70.9 million of imports, \$29.9 million more than in 1972-73. The main increases were in imports of road motor vehicles and parts in the 'transport equipment' commodity group. Although there was an increase in imports from the United Kingdom (\$35 million in 1972-73 and \$37.8 million in 1973-74), it was replaced by the USA (\$53.1 million) as the second most important source of imports.



The proportions of imports obtained from the major sources have changed considerably in the years since the 1939-45 War *e.g.* in 1953-54 Japan supplied only 0.46 per cent of the total value of imports into South Australia but in 1973-74 accounted for 22.6 per cent; United Kingdom which supplied over half of imports in 1953-54 accounted for only 12.0 per cent in 1973-74; and imports from the United States of America which accounted for 8.9 per cent of total imports into South Australia in 1953-54, and 32.7 per cent in 1967-68, have gradually declined to 16.9 per cent in 1973-74.

## Overseas Imports to South Australia, Principal Countries

Country of Origin	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Belgium-Luxembourg . . . .	884	1 291	1 494	2 164	4 101
Canada . . . . .	14 818	11 737	10 265	9 253	11 047
France . . . . .	2 208	2 560	2 150	2 910	5 389
Germany, Federal Republic of	10 047	9 229	10 534	11 855	19 005
Italy . . . . .	3 576	3 747	3 698	3 765	6 273
Japan . . . . .	21 667	28 643	28 612	40 955	70 852
Korea, Republic of . . . . .	64	58	275	186	4 317
Kuwait . . . . .	68	1 015	2 645	2 045	5 776
Malaysia . . . . .	2 749	1 977	1 944	3 169	5 215
Netherlands . . . . .	5 396	5 707	7 420	4 199	6 836
New Zealand . . . . .	3 683	3 194	3 502	3 795	5 638
Saudi Arabia . . . . .	19 032	17 886	17 022	15 490	30 245
United Kingdom . . . . .	43 252	49 789	43 330	34 981	37 781
United States of America . .	43 266	34 348	27 473	30 152	53 087
Other . . . . .	30 513	27 177	29 384	35 059	48 353
<b>Total . . . . .</b>	<b>201 223</b>	<b>198 358</b>	<b>189 748</b>	<b>199 978</b>	<b>313 915</b>

The following table shows, by commodity groups the imports from principal countries during the year 1973-74. In comparison with 1972-73, imports of transport equipment (mainly road motor vehicles and parts) from Japan increased by \$11.4 million to \$26.7 million. Imports from the United Kingdom and the United States of America of chemicals increased by \$2.4 million to \$4.4 million and \$2.1 million to \$7.4 million respectively. Imports from the United States of America of wood and timber increased by \$2.5 million to \$4.8 million. Imports of iron and steel from Japan rose by \$11.1 million to \$16.8 million while imports of other chemicals from the United States of America fell by \$1.2 million to \$0.7 million.

Overseas Imports to South Australia from Principal Countries  
Commodity Groups, 1973-74

Commodity Group	Germany, Federal Republic of	Japan	Saudi Arabia	United Kingdom	USA	Total (a)
	\$'000					
<b>Food and live animals:</b>						
Fish and fish preparations . . . . .	49	938	—	339	314	3 247
Coffee, tea, cocoa, spices . . . . .	9	124	—	50	6	1 157
Other . . . . .	48	141	—	1 481	835	4 884
<b>Beverages and tobacco . . . . .</b>	<b>71</b>	<b>—</b>	<b>—</b>	<b>735</b>	<b>2</b>	<b>1 624</b>
<b>Crude materials, inedible:</b>						
Crude rubber . . . . .	41	54	—	29	584	2 563
Wood, timber and cork . . . . .	—	2	—	—	4 841	16 615
Textile fibres and waste . . . . .	—	181	—	—	1 215	2 053
Crude fertilisers and crude minerals . . .	3	155	—	10	1 301	9 025
Other . . . . .	18	10	—	798	8 217	2 071



## Overseas Exports from South Australia, Principal Commodities (continued)

Commodity	1969-70	1970-71	1971-72	1972-73	1973-74
	VALUE (\$'000)				
Beef, lamb and mutton . . . . .	14 743	17 013	18 550	30 554	25 495
Wheat . . . . .	55 944	79 445	61 363	46 251	98 674
Barley . . . . .	16 133	23 670	35 652	17 250	40 790
Wool:					
Greasy . . . . .	73 121	55 520	61 111	137 329	138 895
Other . . . . .	8 675	7 308	7 077	12 627	14 307
Ores and concentrates:					
Iron . . . . .	16 397	14 629	11 677	10 606	10 394
Lead and lead alloys, unworked . . . . .	44 965	32 403	28 718	37 374	46 556
Iron and Steel; blooms billets etc. . . . .	18 805	7 394	6 123	27 910	32 176
Passenger motor cars:					
Unassembled . . . . .	8 895	9 155	7 434	19 045	31 247
Assembled . . . . .	3 969	3 461	2 735	3 680	4 499

## Overseas Exports from South Australia, Principal Commodity Groups

Commodity Group	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Food and live animals:					
Meat and meat preparations . . . . .	16 538	18 746	20 389	34 942	28 311
Dairy products and eggs . . . . .	6 275	5 642	5 508	8 238	6 099
Cereal grains and cereal preparations . . . . .	76 551	108 605	102 253	66 900	147 027
Fruit and vegetables . . . . .	8 498	7 752	9 581	9 870	11 863
Other . . . . .	7 552	8 008	10 612	14 548	16 353
Beverages and tobacco . . . . .	2 318	2 539	2 907	2 593	3 575
Crude materials, inedible (except fuels):					
Hides and skins . . . . .	8 337	6 638	6 461	14 532	11 679
Textile fibres and their waste . . . . .	81 826	62 863	68 278	149 997	153 133
Metalliferous ores and metal scrap . . . . .	69 804	57 499	52 112	48 460	74 009
Other . . . . .	3 592	4 302	4 578	4 371	3 664
Mineral fuels, lubricants . . . . .	1 453	1 276	1 257	1 227	1 529
Animal and vegetable oils and fats . . . . .	2 080	2 664	3 545	2 617	3 941
Chemicals . . . . .	588	800	533	1 275	2 402
Manufactured goods:					
Iron and steel . . . . .	24 819	12 005	10 375	33 240	39 624
Non-ferrous metals . . . . .	58 342	43 593	39 446	47 962	59 124
Manufactures of metals, n.e.s. . . . .	3 691	2 439	4 438	4 554	3 990
Other . . . . .	4 535	4 254	4 644	7 717	8 569
Machinery and transport equipment . . . . .	34 748	38 628	41 291	62 819	80 759
Miscellaneous manufactured articles . . . . .	2 307	2 466	4 804	4 922	6 020
Commodities and transactions not classified to kind . . . . .	3 176	3 017	1 052	935	1 207
Total . . . . .	417 030	393 737	394 064	521 720	662 881

Exports of manufactured goods have been increasing but the bulk of exports is still of goods usually classified as primary products. In 1973-74 the 'Crude materials, inedible' group accounted for \$242.5 million, or 36.6 per cent of exports (including wool \$153.2 million, 23.1 per cent), and the 'Food and live animals' group accounted for \$209.7 million or 31.6 per cent (including wheat \$98.7 million, 14.9 per cent and beef \$17.8 million, 2.7 per cent).

Exports to principal countries during the year 1973-74 classified by commodity groups are shown below.

**Overseas Exports from South Australia to Principal Countries  
Commodity Groups, 1973-74**

Commodity Group	Germany, Federal Republic of	Japan	New Zealand	South Africa, Republic of	United Kingdom	USA	Total (a)
	\$'000						
<b>Food and live animals:</b>							
Meat and meat preparations ..	29	2 357	3	—	3 275	14 6	28 311
Dairy products and eggs .. .	—	4 010	—	1	—	515	6 099
Fish and fish preparations .. .	3	1 467	—	514	649	4 661	8 890
Cereal grains and cereal preparations .. . . . .	—	21 958	5 239	1 469	3 431	—	(b)147 027
Fruit and vegetables .. . . .	594	1 638	2 572	5	2 302	866	11 863
Other .. . . . . . . . . .	23	984	17	17	251	68	7 462
Beverages and tobacco .. . . .	2	147	261	1	588	256	3 575
<b>Crude materials, inedible:</b>							
Hides, skins and fur skins .. .	463	120	54	10	256	1	11 679
Textile fibres and their waste ..	5 264	37 002	924	—	6 080	433(c)	153 133
Metalliferous ores and metal scrap .. . . . . . . . . .	3 838	42 542	—	23	12 005	262	74 009
Other .. . . . . . . . . . .	162	792	1 226	139	132	115	3 664
Mineral fuels and lubricants .. .	—	—	549	—	—	—	1 529
Animal and vegetable oils and fats	31	268	20	1 422	250	15	3 941
Chemicals .. . . . . . . . . .	15	54	213	300	447	46	2 402
<b>Manufactured goods classified chiefly by material:</b>							
Iron and steel .. . . . . . . .	12 261	2 943	5 340	300	1	62	39 624
Non-ferrous metal manu- factures .. . . . . . . . . .	—	11 296	7 513	69	12 668	2 688	59 124
Other .. . . . . . . . . . .	422	444	1 475	469	444	1 811	12 559
<b>Machinery and transport equip- ment:</b>							
Machinery, other than electric	19	65	768	1 644	152	412	7 486
Electrical machinery and appliances .. . . . . . . . . .	21	105	700	111	1 064	259	3 199
Transport equipment .. . . . .	3	298	33 328	20 936	2 885	185	70 074
Miscellaneous manufactured articles .. . . . . . . . . . .	162	539	560	383	1 701	596	6 020
Commodities and transactions not classified to kind .. . . . . .	7	25	61	15	766	130	1 207
<b>Total .. . . . . . . . . . .</b>	<b>23 320</b>	<b>129 074</b>	<b>60 822</b>	<b>27 828</b>	<b>49 346</b>	<b>28 027</b>	<b>662 881</b>

(a) Includes 'other'.

(b) Mainly to Iraq (\$11 265 018); Saudi Arabia (\$10 724 837) and Chile (\$10 784 900).

(c) Mainly to USSR (\$39 083 915); France (\$10 820 788) and Poland (\$7 744 054).

The following table shows the value of exports to principal countries during each of the years 1969-70 to 1973-74. Japan replaced United Kingdom as South Australia's principal export market in 1966-67 and has retained that position. In 1973-74 Japan took goods valued at \$129.1 million, 19.5 per cent of total exports, compared with \$124.6 million (23.9 per cent) in 1972-73. New Zealand (\$60.8 million, 9.2 per cent) replaced the United Kingdom (\$49.3

million, 7.4 per cent) as the second largest market in 1973-74. The USA fell from being the second largest market in 1972-73 with goods valued at \$39.0 million (7.5 per cent) to \$28.0 million (4.2 per cent) in 1973-74. There was a large increase in exports to the Philippines of \$11.7 million (to \$17.2 million, 2.6 per cent) and to Iraq of \$11.7 million (to \$11.7 million, 1.8 per cent) during 1973-74.

### Overseas Exports from South Australia, Principal Countries

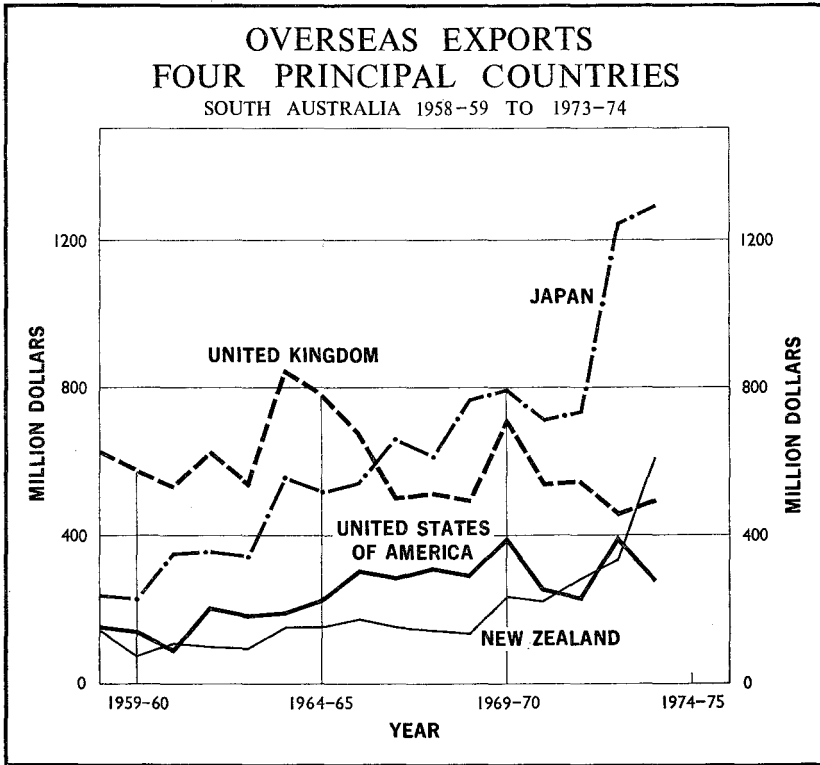
Country of Consignment	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Chile	1	1 821	5 986	5 605	10 785
China, People's Republic of	35 035	14 056	834	1 848	10 633
France	12 522	10 184	12 892	23 363	19 410
Germany, Federal Republic of	11 584	11 112	13 102	32 264	23 320
India	13 340	9 124	7 699	10 692	17 882
Indonesia	1 950	2 091	2 258	7 343	14 419
Iran	4 516	1 795	5 546	6 960	12 019
Iraq	2 790	15 787	8 629	18	11 725
Italy	9 445	4 719	7 086	10 823	15 210
Japan	79 312	71 162	73 462	124 616	129 074
Netherlands	5 261	6 752	5 831	4 710	12 739
New Zealand	23 263	22 272	28 422	33 458	60 822
Philippines	11 337	6 950	4 217	5 523	17 204
Saudi Arabia	3 527	3 993	3 837	2 605	12 063
South Africa, Republic of	12 604	18 420	12 948	21 945	27 828
United Kingdom	71 015	53 955	54 515	46 114	49 346
United States of America	39 253	25 158	23 012	38 952	28 027
USSR	9 831	10 722	10 361	29 449	39 084
Other	70 446	103 665	113 427	115 433	151 288
Total	417 030	393 737	394 064	521 720	662 881

### Exports of Wool

In 1973-74 the USSR replaced Japan as the principal market for wool exported from South Australia with 25.5 per cent of wool exports going to USSR. Japan was the second largest market for wool with 24.2 per cent of the exports.

### Overseas Exports of Wool from South Australia

Country of Consignment	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Belgium-Luxembourg	4 730	3 475	1 973	4 919	4 162
France	6 194	4 807	7 386	12 038	10 821
Germany, Federal Republic of	5 759	4 184	4 796	9 589	5 263
Italy	4 767	3 000	3 463	6 420	6 889
Japan	21 678	19 999	22 344	60 717	37 002
Netherlands	2 226	761	1 987	2 145	5 236
Poland	1 445	732	2 012	5 050	7 744
United Kingdom	6 457	4 101	4 798	7 709	6 080
USSR	9 417	8 324	6 898	13 800	39 084
Yugoslavia	1 561	1 051	681	4 794	7 022
Other	17 564	12 393	11 851	22 773	23 900
Total	81 797	62 828	68 189	149 956	153 202



### Exports of Wheat

The total value of wheat exported from South Australia in 1973-74, \$98.7 million was a record; this was \$19.2 million higher than the previous record of \$79.4 million in 1970-71 and \$52.4 million higher than 1972-73 (\$46.3 million).

The relative importance of countries of consignment fluctuates from year to year. In 1972-73 the USSR was the principal market for wheat from South Australia (33.8 per cent) but in 1973-74 it did not take any wheat from this State. Iraq became the principal market in 1973-74 (\$11.3 million, 11.4 per cent) having taken no wheat exports in 1972-73 and only 3.7 per cent in 1971-72. Chile (\$10.8 million, 10.9 per cent) retained its position as second largest market (\$5.6 million, 12.1 per cent in 1972-73) and Saudi Arabia took 10.4 per cent (\$10.3 million), having taken only 2.4 per cent (\$1.1 million) in 1972-73.

## Overseas Exports of Wheat from South Australia

Country of Consignment	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Arab Republic of Egypt . . . . .	—	12 292	14 214	2 595	8 688
Chile . . . . .	—	1 821	5 986	5 605	10 785
China, People's Republic of . . . . .	35 027	14 056	—	1 456	9 551
India . . . . .	2 684	1 322	—	—	6 007
Indonesia . . . . .	—	—	—	4 709	9 598
Iraq . . . . .	2 762	15 694	8 569	—	11 265
Kuwait . . . . .	—	—	—	—	4 159
New Zealand . . . . .	2	2 252	2 278	—	5 116
Norway . . . . .	—	1 625	—	1 496	—
Saudi Arabia . . . . .	2 747	2 869	3 275	1 132	10 297
Sri Lanka . . . . .	2 233	2 792	3 464	5 114	7 232
USSR . . . . .	—	—	2 648	15 648	—
Yemen, Arab Republic of . . . . .	1 199	2 761	4 516	1 450	5 071
Other . . . . .	9 291	21 962	16 413	7 045	10 905
<b>Total . . . . .</b>	<b>55 944</b>	<b>79 445</b>	<b>61 363</b>	<b>46 251</b>	<b>98 674</b>

## TRADE AT PRINCIPAL PORTS

Over 86 per cent of imports are unloaded at Port Adelaide but the proportion of exports loaded there is much lower—in 1973-74 it was approximately 61 per cent. Exports from Port Pirie principally comprise pig-lead, concentrates and ores (the produce of Broken Hill) and wheat. Shipments of wheat, and to a lesser extent barley, constitute the major part of exports from Port Lincoln, Wallaroo, Ardrossan and Thevenard, while the principal commodity exported from Port Augusta is copper concentrate from the Northern Territory.

The following table shows the value of imports and exports at the principal ports during each of the years 1969-70 to 1973-74.

## Value of Overseas Trade: Principal Ports, South Australia

Port	1969-70	1970-71	1971-72	1972-73	1973-74
			IMPORTS (\$'000)		
Port Adelaide (a) . . . . .	175 433	171 192	163 532	171 379	270 252
Port Lincoln . . . . .	1 455	607	1 109	757	1 455
Port Pirie . . . . .	159	991	1 414	2 080	1 037
Port Stanvac . . . . .	19 055	19 113	20 037	18 100	36 871
Thevenard . . . . .	—	—	—	—	1
Wallaroo . . . . .	827	460	618	360	979
Whyalla . . . . .	4 294	5 995	3 039	7 303	3 320
<b>Total . . . . .</b>	<b>201 223</b>	<b>198 358</b>	<b>189 748</b>	<b>199 978</b>	<b>313 915</b>



## Value of Overseas Trade: Principal Ports, South Australia (continued)

Port	1969-70	1970-71	1971-72	1972-73	1973-74
EXPORTS (\$'000)					
Ardrossan . . . . .	(b) 5 710	(b) 10 444	6 332	7 454	14 807
Port Adelaide (a) . . . . .	223 142	215 066	232 015	356 487	405 920
Port Augusta . . . . .	7 444	8 377	1 970	—	1 394
Port Giles . . . . .	(c)	(c)	1 420	3 172	8 571
Port Lincoln . . . . .	23 076	29 096	29 012	19 230	42 103
Port Pirie . . . . .	98 066	76 471	73 299	72 251	98 224
Port Stanvac . . . . .	437	383	520	113	549
Thevenard . . . . .	6 758	8 630	10 948	11 408	24 193
Wallaroo . . . . .	14 313	20 880	18 550	9 297	19 763
Whyalla . . . . .	38 085	24 390	19 998	42 306	47 357
Total . . . . .	417 030	393 737	394 064	521 720	662 881

(a) Includes 'Parcels Post, Adelaide'; 'Adelaide City (including Adelaide Airport)', Stenhouse Bay and Woomera. (b) Includes Edithburgh. (c) Included with Wallaroo.

## CUSTOMS AND EXCISE DUTY

Excise duty is levied on specific goods of Australian manufacture, principally for the purpose of raising revenue. Although these excise goods do not form a part of overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. The following table gives details of the value of customs duty and excise duty collected in South Australia during the years 1971-72, 1972-73 and 1973-74.

## Customs and Excise: Net Revenue, South Australia

Customs Tariff and Excise Tariff Item	1971-72	1972-73	1973-74
CUSTOMS			
		\$'000	
Live animals; animal products . . . . .	61	60	49
Vegetable products . . . . .	47	56	49
Animal and vegetable oils and fats . . . . .	52	30	51
Prepared foodstuffs; beverages, vinegar; tobacco:			
Spirituos and alcoholic preparations . . . . .	2 356	2 937	4 216
Tobacco, cigarettes, etc. . . . .	1 286	1 295	957
Other . . . . .	255	281	370
Automotive spirit and other mineral products . . . . .	375	3 331	1 782
Chemicals and products thereof . . . . .	351	236	243
Plastics, resins, rubber and manufactures thereof . . . . .	1 078	1 397	1 508
Hides, skins, leather and articles thereof . . . . .	126	144	200
Wood and wicker . . . . .	1 100	1 509	1 609
Paper-making material; paper and paper manufactures . . . . .	483	496	615
Textiles . . . . .	1 441	2 273	2 835
Footwear, sunshades, whips, artificial flowers, etc. . . . .	250	228	268
Earthenware, cement, china, etc. . . . .	558	599	642
Pearls, precious stones and metals, imitation jewellery, coin, etc. . . . .	50	56	142

## Customs and Excise: Net Revenue, South Australia (continued)

Customs Tariff and Excise Tariff Item	1971-72	1972-73	1973-74
CUSTOMS			\$'000
Base metals and articles thereof . . . . .	1 037	1 238	1 409
Electrical and mechanical machines and machinery	5 244	5 406	6 704
Transport equipment and parts thereof . . . . .	4 159	5 937	8 096
Optical, surgical and scientific instruments, etc. . . . .	529	613	741
Arms and ammunition and parts thereof . . . . .	9	4	8
Miscellaneous manufactured articles . . . . .	459	664	750
Works of art, antiques, etc. . . . .	-2	1	3
Other customs revenue . . . . .	361	323	149
Primage . . . . .	263	307	150
<b>Total net customs and primage duties . . . . .</b>	<b>21 927</b>	<b>29 419</b>	<b>33 546</b>
EXCISE			
Petroleum products . . . . .	41 523	40 692	59 077
Spirits . . . . .	4 849	5 704	8 550
Tobacco, cigars and cigarettes . . . . .	27 659	30 953	37 145
Grape wine for commercial purposes . . . . .	4 093	1 192	..
Other . . . . .	29 699	31 506	34 433
<b>Total net excise duties . . . . .</b>	<b>107 822</b>	<b>110 047</b>	<b>139 205</b>
<b>Total net customs, primage and excise revenue . . . . .</b>	<b>129 750</b>	<b>139 461</b>	<b>172 751</b>

## 10.3 PRICES

## MEASUREMENTS OF PRICE MOVEMENTS

The prices of a wide range of commodities and services are recorded at regular intervals by the Australian Statistician for the purpose of compiling various price indexes or for publication of series showing actual price levels.

Price indexes aim to measure the degree of change in price levels, or more specifically the proportionate change in the aggregate price, of specified quantities and qualities of a specified list of items. These indexes measure changes through time and it is traditional for presentation purposes to select a certain year, known as the base year, to equate the average aggregate price (of the list of items) in that year to 100 or some other suitable number, and to adjust other years on a proportionate basis.

When index numbers for different places are compared (e.g. Consumer Price Index, Capital Cities) the only legitimate comparison is the relative change *i.e.* that prices increased or decreased more in one place than another; even when a common base year is used the actual levels of prices, equated to 100 in each case, may differ substantially from place to place; in addition, selected items, qualities or weights may differ from place to place.

In constructing a price index it is necessary to limit attention to a selected list of items because it would clearly be impossible to determine at regular intervals the price of all items entering into a given field of expenditure (*e.g.* household expenditure in the case of the Consumer Price Index). The list of items selected must be as representative as possible of the field to be covered and consist of items for which price variations can be ascertained accurately at regular intervals. Each item must be assigned a relative importance (weight) in approximate proportion to actual expenditures on that item within the total field of expenditure being considered. Particular care must be taken to detect, assess, and make allowance for changes in quality of selected items.

Over time it becomes necessary to substitute new grades, qualities or types of articles for those formerly used as indicators of price movements in an effort to keep an index representative of current conditions. These substitutions can normally be achieved without injury to the index. From time to time major changes in the overall pattern of expenditure are noted, and in the past these have prompted the abandonment of an existing index in favour of a different index, the composition and weighting of which were more representative of expenditure at that time.

### RETAIL PRICE INDEXES

A brief historical review of early price indexes was included on page 494 of the *South Australian Year Book 1970*. Details of movements in the 'C' Series Index from 1901 to 1959 are shown in the Statistical Summary Appendix A.

#### Consumer Price Index

The Consumer Price Index is a quarterly measure of variations in the retail prices of certain goods and services which make up a high proportion of the expenditure of wage-earner households. Rather than a single index, it consists of a chain of eight linked indexes each representing a significant variation in composition and/or weighting. The weighting patterns adopted relate to an estimated aggregate expenditure for all wage-earner households, and not to some estimated expenditure of a single household. In this way it is possible to give representation to certain major expenditures which relate to some households and not others.

The Consumer Price Index was compiled for the first time in 1960, and retrospective calculations have been made dating back to 1948. Significant changes in composition or weighting were introduced at the June quarters of 1952 and 1956, March quarter, 1960 and December quarters of 1963, 1968, 1973 and 1974. For the period covered by the table below, the principal changes involved were:

- (a) the introduction of services by dentists, doctors, hospitals and health insurance funds (1968), and of snacks and take away food, wines and spirits, photographic goods and services, and records (1973),
- (b) alterations in the proportions of houses under various modes of occupancy (1968 and 1973), and
- (c) changes in the weights of fuel and fares (1968) and of private motoring generally and health services (1973). In addition, the abolition of radio and television licences from 18 September 1974 resulted in a new series (the eighth) deleting this item from the December quarter 1974.

From the December quarter 1973 the weighting of the index has been broadly based on the estimated pattern of consumption in 1971-72.

The wide range of commodities and services in the Consumer Price Index are arranged in five major groups, with index numbers compiled for each of these groups as well as a total for all items. Index numbers for Adelaide for these individual groups and for 'All Groups' are recorded in the next table.

**Consumer Price Index, Adelaide<sup>(a)</sup>**

Year	Food	Clothing and Drapery	Housing	Household Supplies	Miscel- laneous	All Groups
1964-65	93.9	96.9	92.1	98.0	90.9	93.9
1965-66	97.1	97.8	95.7	99.2	95.7	97.0
1966-67	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	104.7	102.2	102.1	100.3	102.6	102.9
1968-69	106.4	104.5	104.7	101.1	107.0	105.3
1969-70	107.1	108.1	109.3	102.0	112.0	108.2
1970-71	109.5	112.6	115.9	105.4	118.1	112.5
1971-72	113.6	119.5	124.4	109.2	128.3	119.2
1972-73	123.1	127.2	133.3	113.0	133.7	126.5
1973-74	148.3	144.2	150.6	121.9	146.5	143.9

(a) Base year 1966-67 = 100.0.

The 'All Groups' index for Adelaide is shown in the following table with that for each of the other capital cities. It is emphasised that these numbers reflect changes in prices within each individual city, but they do *not* measure differences in the level of prices between cities, and the Consumer Price Index should *not* be regarded as a 'cost of living' index.

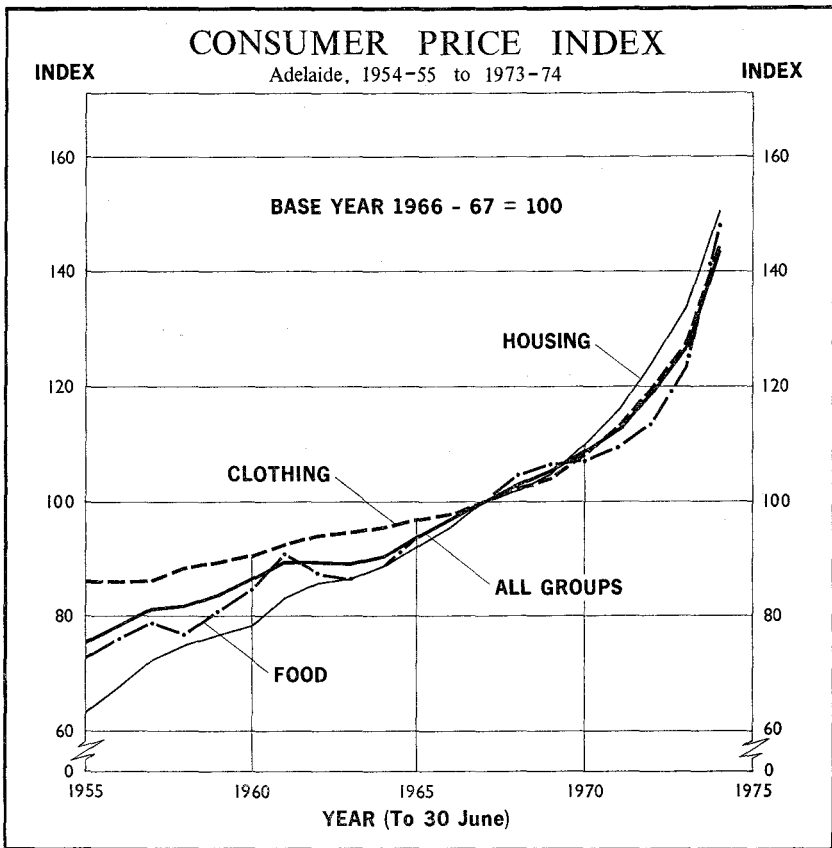
**Consumer Price Index, Adelaide and Other Capital Cities<sup>(a)</sup>**

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six State Capital Cities	Canberra
1964-65	94.5	94.0	93.0	93.9	92.6	94.6	94.0	95.3
1965-66	97.7	97.5	97.5	97.0	96.1	98.0	97.4	98.1
1966-67	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1967-68	103.2	103.7	103.3	102.9	102.9	104.6	103.3	102.6
1968-69	106.2	106.2	105.5	105.3	105.5	106.1	106.0	104.4
1969-70	110.6	108.7	108.4	108.2	109.4	108.5	109.4	107.4
1970-71	116.8	113.1	114.2	112.5	114.1	112.6	114.6	113.0
1971-72	126.3	119.7	121.6	119.2	120.7	119.4	122.4	119.4
1972-73	133.9	127.2	128.6	126.5	127.3	126.7	129.8	126.3
1973-74	151.3	144.0	146.1	143.9	140.6	142.6	146.6	142.8

(a) Base year 1966-67 = 100.0.

The quarterly information discussed above was supplemented in April 1973 by the release of monthly Consumer Price Index numbers for the food group and its component sub-groups for the period March 1972 to March 1973.

Further details and a continuation of the series may be obtained from the bulletin *Consumer Price Index: Monthly Food Group Index Numbers* (Reference No. 9.11) published by the Australian Statistician.



## OTHER PRICE INDEXES

The Australian Statistician prepares and publishes the following indexes on an Australian basis but details are not available for individual States:

Export Price Index,

Farm Production: Indexes of Prices at Principal Markets, Australia,

Wholesale Price Index of Electrical Installation Materials,

Wholesale Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products,

Wholesale Price Index of Copper Materials Used in the Manufacture of Electrical Equipment,

Wholesale Price Index of Materials Used in Manufacturing Industry.

In addition the Reserve Bank of Australia maintains an Import Price Index.

The farm production price indexes consist of separate indexes for three types of commodities, namely, crops, pastoral and dairying, poultry and bee-farming products. For these and for imports and exports, both quantum and price indexes are available. Substantially a quantum index is derived by valuing the relevant components at constant prices, *i.e.* at average prices applicable to the base year or period of years.

For some time there has been increasing demand for price indexes relating to materials used and articles produced by important defined areas or sectors of the economy. At December 1974 five of these had been prepared and issued; they are the Wholesale Price Index of Electrical Installation Materials, the Wholesale Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products, the Wholesale Price Index of Copper Materials Used in the Manufacture of Electrical Equipment, the Price Index of Materials Used in House Building and the Price Index of Materials Used in Building other than House Building. The Wholesale Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products, the Wholesale Price Index of Copper Materials Used in the Manufacture of Electrical Equipment and the Wholesale Price Index of Materials Used in Manufacturing Industry have been designed as a replacement for the materials components of the now obsolete Wholesale Price (Basic Materials and Foodstuffs) Index while the building indexes together replace the building materials group of that Index.

**Price Index of Materials Used in House Building**

This Index measures changes in prices of selected representative materials used in the construction of houses and is complementary to the Wholesale Price Index of Materials Used in Building other than House Building which was introduced in 1969.

It is a fixed weights index, the composition of which is in accordance with the usage of materials in actual houses which were selected as representative for the purpose. The Index does not purport to represent buildings of any kind other than houses.

In the interests of uniformity and ease of use the reference base of the Index is the year 1966-67 = 100·0, the same as that used for the Wholesale Price Index of Materials Used in Building other than House Building. However, because of the later time at which the weighting source data were collected, the weighting base approximates more closely the year 1968-69. Each State capital city has a unique weighting pattern which reflects the difference in the estimated relative importance of given items as between cities. The weighting pattern for each capital city is applied to local price measures in calculating indexes for that city. The weighting pattern used in the Index and applicable to Adelaide is shown in the table below.

**Price Index of Materials Used in House Building: Composition and  
Weighting Pattern, Adelaide  
Base year: 1966-67**

Group	Percentage Contribution of Group to all Groups Index %
Concrete mix, cement and sand . . . . .	8·13
Cement products . . . . .	6·98
Clay bricks, tiles, etc. . . . .	14·85
Timber, board and joinery . . . . .	35·52
Steel products . . . . .	6·67
Other metal products . . . . .	7·24
Plumbing fixtures, etc. . . . .	3·42
Electrical installation materials . . . . .	1·37
Installed appliances . . . . .	4·20
Plaster and plaster products . . . . .	4·19
Miscellaneous materials . . . . .	7·43

The price series used relate to specified standards of each commodity and are obtained from suppliers of materials used in house building. The Index includes 50 items in 11 groups combined in an 'All Groups' index, the selection of materials included being based on local usage. Some items carry the weight of similar items not directly priced and all items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality. Prices are collected at or as near as possible to the mid-point of the month to which the Index refers. Figures are published to one decimal place to avoid distortions which would occur in rounding the index numbers to the nearest whole number.

Shown in the next table, for separate groups of items and all groups combined, are the index numbers for Adelaide and the weighted average index numbers for the six State capital cities.

**Wholesale Price Index of Materials Used in House Building**  
(Base of each Index: 1966-67 = 100·0)

Group	Adelaide			Weighted Average Six State Capital Cities		
	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74
Concrete, etc. . . . .	119·1	127·5	132·9	121·2	127·0	137·5
Cement products . . . . .	127·9	135·0	157·6	132·0	139·9	154·3
Clay bricks, tiles, etc. . . . .	128·6	137·5	143·4	124·5	130·7	146·8
Timber, board, etc. . . . .	127·5	142·3	182·9	124·8	137·0	169·1
Steel products . . . . .	128·9	136·2	152·3	127·9	136·8	153·8
Other metal products . . . . .	122·3	128·8	149·3	118·5	124·9	146·3
Plumbing fixtures, etc. . . . .	127·7	135·4	148·4	122·6	129·6	143·2
Electrical installation materials	118·8	124·4	144·0	120·2	126·2	146·4
Installed appliances . . . . .	110·2	112·3	122·4	107·4	108·3	117·7
Plaster and plaster products . .	115·1	118·9	126·5	116·9	118·7	122·2
Miscellaneous materials . . . .	119·6	129·1	143·9	116·4	124·9	135·0
<b>All Groups . . . .</b>	<b>124·8</b>	<b>134·8</b>	<b>157·2</b>	<b>122·7</b>	<b>131·1</b>	<b>151·3</b>

The 'All Groups' Index for Adelaide is shown in the following table with that for each of the other State capitals. It is emphasised that these numbers reflect price changes within each individual city and that they do not measure differences in the level of prices between cities.

**Wholesale Price Index of Materials Used in House Building**  
**All Groups, State Capital Cities**  
(Base of each Index: 1966-67 = 100·0)<sup>(a)</sup>

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
<b>Year:</b>							
1969-70 . . . .	115·2	107·2	109·4	<b>112·4</b>	110·3	107·7	110·9
1970-71 . . . .	119·8	112·3	115·2	<b>116·7</b>	113·9	114·3	115·7
1971-72 . . . .	126·1	118·9	124·8	<b>124·8</b>	121·1	120·7	122·7
1972-73 . . . .	135·6	126·5	133·8	<b>134·8</b>	126·9	130·8	131·1
1973-74 . . . .	158·0	147·8	152·2	<b>157·2</b>	141·8	145·5	151·3

(a) Movements shown by index numbers before July 1970 include movements of imputed price series.



### Price Index of Materials Used in Building Other than House Building

This Index measures changes in prices of selected materials used in the construction of buildings other than houses and low-rise flats. It is a fixed-weights index, the composition of which is in accordance with the materials usage in building projects selected as representative for the purpose: such usage was derived from reported values of each material used in selected representative buildings constructed in or about 1966-67.

The building types directly represented include high-rise flats (generally those exceeding three storeys), offices, factories, health buildings, education buildings and other commercial premises.

The Index includes 72 items combined in 11 groups in an 'All Groups' index. The weighting pattern used in the index is shown below. In calculating indexes for each State capital city a single weighting pattern for the whole of Australia is applied to price measures obtained, with a few minor exceptions, in each relevant city.

#### Price Index of Materials Used in Building Other than House Building Composition and Weighting Pattern Base Year: 1966-67

Group	Percentage Contribution of Group to All Groups Index %
Concrete mix, cement, sand, etc. . . . .	10.41
Cement products . . . . .	3.64
Bricks, stone, etc. . . . .	5.28
Timber, board and joinery . . . . .	11.90
Steel and iron products . . . . .	30.58
Aluminium products . . . . .	6.01
Other metal products . . . . .	2.59
Plumbing fixtures . . . . .	1.19
Miscellaneous materials . . . . .	7.09
Electrical installation materials . . . . .	8.61
Mechanical services components . . . . .	12.70

The price series used relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building. Prices are collected at or as near as possible to the mid-point of the month to which the index refers. Items are described in terms of fixed specifications with the aim of recording price changes for representative materials of constant quality. Figures are published to one decimal place to avoid distortions which would occur in rounding the index numbers to the nearest whole number.

The next table shows, for separate groups of items and all groups combined, the index numbers for Adelaide and the weighted average index numbers for the six State capital cities.

**Wholesale Price Index of Materials Used in Building Other than House Building**  
(Base of each Index: 1966-67 = 100·0)

Group	Adelaide			Weighted Average Six State Capital Cities (a)		
	1971-72	1972-73	1973-74	1971-72	1972-73	1973-74
Concrete, etc. . . . .	119·3	127·2	131·0	120·6	124·5	136·0
Cement products . . . . .	127·0	137·8	151·8	126·1	135·0	147·7
Bricks, stone, etc. . . . .	130·0	140·3	149·2	124·2	130·1	146·3
Timber, joinery, etc. . . . .	124·3	133·9	165·7	123·4	132·9	160·2
Steel and iron products . . . . .	123·5	130·6	147·6	125·4	130·3	148·8
Aluminium products . . . . .	116·0	121·1	136·5	119·3	125·4	138·4
Other metal products . . . . .	122·5	127·1	156·4	120·6	126·4	158·5
Plumbing fixtures . . . . .	134·5	145·5	161·4	134·3	143·5	159·6
Miscellaneous materials . . . . .	118·8	123·7	134·9	116·9	124·5	134·2
Electrical installation materials	114·7	120·5	138·3	114·7	120·5	138·3
Mechanical services components	127·5	132·3	143·7	127·7	132·4	143·9
Special purpose index (b) . . . . .	122·8	130·4	146·9	123·1	129·3	147·0
<b>All Groups . . . . .</b>	<b>122·7</b>	<b>129·8</b>	<b>145·8</b>	<b>123·0</b>	<b>128·9</b>	<b>145·8</b>

(a) See previous table for weighting pattern.

(b) All groups excluding electrical installation materials and mechanical services components.

The 'All Groups' index for Adelaide is shown in the following table with that for each of the other State capital cities. It is emphasised that these numbers reflect price changes within each individual city, but they do not measure differences in the level of prices between cities.

**Wholesale Price Index of Materials Used in Building Other than House Building**  
**All Groups, State Capital Cities**  
(Base of each Index: 1966-67 = 100·0)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
<b>Year:</b>							
1969-70 . . . . .	111·7	109·8	110·3	109·4	108·9	109·7	110·5
1970-71 . . . . .	116·4	115·1	116·4	113·9	113·3	115·0	115·5
1971-72 . . . . .	122·4	123·9	124·4	122·7	121·3	122·6	123·0
1972-73 . . . . .	127·2	131·2	130·4	129·8	126·3	129·7	128·9
1973-74 . . . . .	144·1	148·0	149·0	145·8	142·9	143·8	145·8

## COMMODITY PRICES

## Retail Prices of Food

The next table shows the average retail prices of selected food items in Adelaide during recent years. Items included are those which are considered identical or sufficiently comparable from place to place to warrant publication of comparative prices.

Average Retail Prices of Selected Food Items  
Adelaide

Item	Unit	1970	1971	1972	1973	1974
Cents						
Bread (a)	900 g	19.0	20.4	22.3	25.0	31.2
Self-raising flour	1 kg	20.7	18.6	20.0	21.8	24.9
Tea	227 g	28.4	30.1	31.9	30.2	31.1
Rice	500 g	15.6	16.3	17.0	18.5	21.1
Jam, apricot	680 g	34.3	36.1	37.6	39.4	41.8
Peaches, canned	822 g	30.1	30.4	30.6	31.7	40.3
Potatoes	3.2 kg	38.1	42.7	41.4	75.8	108.1
Onions	454 g	10.4	12.1	11.6	17.9	17.4
Butter, factory	454 g	52.6	53.6	55.1	54.9	58.0
Cheese, processed	227 g	23.5	24.0	27.7	29.1	31.9
Eggs (b)	doz.	62.0	60.2	55.8	66.6	80.7
Milk; fresh, bottled (a)	600 ml	10.6	10.9	11.6	12.0	14.1
Bacon, rashers	227 g	46.2	48.4	50.0	56.0	72.7
Sausages	454 g	28.2	28.9	28.8	39.5	48.8
Beef:						
Rib (without bone)	454 g	60.6	63.3	64.7	80.0	85.7
Rump steak	454 g	104.4	109.7	114.0	135.9	138.1
Corned silverside	454 g	65.6	68.4	70.7	85.9	89.4
Lamb:						
Leg	454 g	45.0	44.6	47.3	65.2	78.9
Forequarter chops	454 g	41.9	39.4	43.3	66.8	79.2
Loin chops	454 g	51.0	49.5	52.2	76.6	87.2
Pork:						
Leg	454 g	65.3	70.2	70.1	77.3	106.8
Chops	454 g	65.1	70.6	69.7	78.3	109.0

(a) Delivered.

(b) 55 gram eggs.

A comparison of the prices of various food items in Adelaide with the prices of those same items in the other capital cities is given in the following table for December 1974.

**Average Retail Prices of Selected Food Items, Australian Capital Cities  
December 1974**

Item	Unit	Mel-						
		Sydney	bourne	Brisbane	Adelaide	Perth	Hobart	Canberra
Cents								
Bread (a) . . . . .	900 g	39.0	34.8	31.4	37.0	32.0	38.0	37.0
Self-raising flour . . . . .	1 kg	30.8	31.8	26.1	25.7	29.6	33.5	32.8
Breakfast cereal, corn based . . . . .	453 g	46.2	47.8	48.6	47.4	57.5	53.3	50.8
Biscuits, dry . . . . .	227 g	28.6	33.3	27.5	30.2	32.2	36.2	29.5
Tea . . . . .	227 g	39.6	38.1	36.6	35.5	39.8	39.3	41.2
Rice . . . . .	500 g	22.2	23.2	22.5	21.6	22.0	23.7	23.5
Jam, apricot . . . . .	680 g	42.2	47.1	47.8	42.0	49.7	48.3	43.1
Peaches, canned . . . . .	822 g	42.5	44.1	47.3	44.6	49.2	47.6	44.8
Potatoes . . . . .	3.2 kg	69.7	80.1	52.3	82.3	94.9	104.9	71.3
Onions . . . . .	454 g	14.9	18.5	10.8	15.1	14.6	16.7	20.5
Butter, factory . . . . .	454 g	65.0	62.4	65.2	63.3	65.0	67.2	68.1
Cheese, processed . . . . .	227 g	34.2	38.3	36.0	36.6	35.7	38.5	36.2
Margarine, table, poly-unsaturated . . . . .	454 g	69.6	71.2	63.9	67.7	75.7	68.6	66.2
Eggs (b) . . . . .	doz.	84.2	84.7	80.6	84.0	78.7	82.8	82.8
Milk; fresh, bottled (a) . . . . .	600 ml	21.5	16.4	18.5	15.8	15.8	15.8	15.8
Bacon, rashers . . . . .	227 g	76.1	77.6	76.4	76.0	62.0	74.9	77.8
Sausages . . . . .	454 g	43.5	44.4	43.1	43.7	38.9	49.8	44.3
Salmon, imported pink . . . . .	220 g	73.3	75.1	78.0	73.4	74.9	79.9	76.4
Tomato sauce . . . . .	300 ml	30.3	29.6	33.5	31.1	32.9	34.0	31.8
Spaghetti (in tomato sauce) . . . . .	454 g	23.7	27.3	27.3	24.4	26.8	28.3	25.9
Prepared baby food . . . . .	127 g	11.9	12.0	12.6	12.7	14.0	12.8	12.7
<b>Beef:</b>								
Rib (without bone) . . . . .	454 g	74.0	73.8	66.0	75.9	64.6	59.9	63.0
Rump steak . . . . .	454 g	128.9	127.2	104.3	118.2	126.2	125.7	137.1
Corned silverside . . . . .	454 g	82.3	77.7	72.0	79.4	74.7	80.2	72.6
<b>Lamb:</b>								
Leg . . . . .	454 g	71.3	55.2	75.5	66.5	81.7	67.1	68.3
Loin chops . . . . .	454 g	66.0	58.8	75.9	70.3	80.8	67.2	73.7
Forequarter chops . . . . .	454 g	55.0	41.4	75.7	61.2	70.2	54.1	59.4
<b>Pork:</b>								
Leg . . . . .	454 g	113.4	108.6	108.8	119.7	96.9	107.6	115.7
Chops . . . . .	454 g	107.0	107.6	109.3	119.1	96.4	104.2	114.3

(a) Delivered.

(b) 55 gram eggs.

**Other Commodity Prices**

South Australian prices of agricultural products are shown in the table on page 444, and separate details of wheat, barley, wool and livestock are given under the appropriate headings in Part 9.1.

**PRICE CONTROL**

Following the outbreak of the 1939-45 War the Australian Government, acting under the authority of the National Security Act, established price control in Australia. A Commonwealth Prices Commissioner was appointed and given extensive powers in the regulation of prices. The National Security Act expired at the end of 1946 but temporary legislation provided for the continuation of price control until the end of 1948.

During 1948 the Australian Government held a referendum seeking authority for permanent control over prices and rents. However, the proposal was rejected and the States agreed to assume responsibility for price control. In South Australia the necessary administrative structure was established by the Prices Act of 1948. Provision was made for the retention of existing Australian Government price regulation orders altered in accordance with the State Act.

Under the provisions of the Prices Act, 1948-1974 the South Australian Prices and Consumer Affairs Branch determines maximum prices for controlled goods and services and investigates complaints concerning excessive prices for goods and charges for services whether subject to price control or not. Special investigations are carried out on behalf of the Government by the Branch which is responsible also for many aspects of consumer protection which are discussed in more detail on pages 185-6.

The Australian Government held a further referendum in December 1973 seeking power to control the level of prices and incomes, but, as was the case in 1948, the proposal was rejected.

### RENT CONTROL

Extensive rent control was introduced in South Australia at the beginning of the 1939-45 War, with the passing of the Increase in Rent (War Restrictions) Act, 1939, which pegged rents at the level prevailing at 1 September 1939. In 1942 this Act was replaced by the Landlord and Tenant (Control of Rents) Act. Although providing the same benchmark, this Act allowed the South Australian Housing Trust to determine a variation in rent, upon application by either the landlord or tenant, or in certain cases on its own initiative. An appeal against such a determination could be made to a Local Court. From the beginning of 1943 to the end of 1962, 60 180 applications for rent determinations were dealt with by the Trust, of which 29 were varied by a Local Court.

Following an inquiry held in 1951 on the future of rent control, proportionate loadings were introduced to allow for increases in property costs since 1939. The gradual relaxation of rent control was achieved through periodic extensions of these loadings and through the exclusion of long-term leases from the provisions of the Act.

At the end of 1962 the Landlord and Tenant (Control of Rents) Act was replaced by the Excessive Rents Act, which currently provides that the tenant of any premises, except where a lease of two years or more exists, may apply to a Local Court to determine whether the rent is excessive.

### Sub-Standard Housing

To regulate the rents for sub-standard housing the Housing Improvement Act, 1940-1973 vests in the South Australian Housing Trust power to declare a house sub-standard, and fix a maximum rent on it for such time as the declaration remains in force.

Before formally declaring a property to be sub-standard, the Trust first notifies the owner of its intention. Upon notification of the Trust's intention the owner has one month to make representations to the Trust as to why the house should not be declared sub-standard. If there is still disagreement between the Trust and the owner after representations have been made, then the owner has a further month in which to lodge an appeal to the Local Court before the Trust fixes a maximum rent.

In 1973-74 the Trust inspected 1 797 houses, commenced proceedings under the Housing Improvement Act on 640 of these properties, and fixed maximum rents on 346 houses.

## 10.4 TRANSPORT

A network of sea, rail, road and air services has been established between South Australia and the other States of Australia. Transport between the eastern States and Western Australia, and to a lesser extent Northern Territory, is made *via* South Australian services. Distances between Adelaide and other Australian capital cities, and Darwin, are shown in the following table.

**Distances Between Adelaide and Other Capital Cities**

Method of Travel	Canberra	Sydney	Melbourne	Brisbane	Perth	Hobart	Darwin
Kilometres							
Road (a)	1 207	1 434	745	2 140	2 740	..	3 223
Rail . . .	1 619	1 654	777	2 641	2 654	..	..
Air . . .	988	1 196	660	1 967	2 216	1 283	2 766
Nautical Miles							
Sea . . . .	..	965	515	1 480	(b)1 378	772	(c)3 180

(a) In some cases shorter but less popular routes are available.

(b) Fremantle. (c) *Via* Fremantle.

### TRANSPORT CO-ORDINATION

#### TRANSPORT CONTROL BOARD

The Transport Control Board, constituted under the Road and Railway Transport Act, 1930-1971, is mainly concerned with the rationalisation of passenger transport services and in particular the co-ordination of road and railway passenger services.

Subject to the approval of the Parliamentary Standing Committee on Public Works the Board may order the closing of a railway line provided that alternative transport is available. The Board has power to declare roads outside a radius of 16 kilometres from the General Post Office, Adelaide to be controlled routes. A licence must be obtained from the Board before a vehicle can carry passengers for hire on a controlled route and the Board is obliged to grant sufficient licences to ensure an adequate passenger motor service on every controlled route which is within 80 kilometres of the GPO and which is at any point more than 5 kilometres from a railway line.

Licences issued by the Board specify the route or routes over which the licensee is permitted to operate vehicles; licences have a currency of five years but many special permits are issued for periods up to twelve months.

At 30 June 1974 current licences totalled fifty-one. Special annual permits included 108 charter coach, 162 hire car and 115 miscellaneous passenger permits while special permits for short periods issued during the year covered 5 570 passenger vehicles. The Board also registers persons and firms who book passengers on behalf of a licensee; at 30 June 1974 there were 143 such agents.

## STATE TRANSPORT AUTHORITY

The State Transport Authority was constituted under the State Transport Authority Act, 1974 which became operative on 18 April 1974. The Authority consists of seven members including a full-time Chairman appointed by the Governor upon the nomination of the Minister. The prime function of the Authority is to co-ordinate all systems of public transport within South Australia.

## RAILWAYS

In Part 8.4, railways in South Australia were discussed under the headings of ownership and control, and standardisation of railway gauges. It was mentioned that both the South Australian and Australian Governments operate railways in this State and that there are two privately-owned railways, from Iron Knob and Iron Baron to Whyalla, and from Coffin Bay to Port Lincoln; this section deals with the operation of the South Australian Railways as a means of transport within and to and from the State. In the *Official Year Book of Australia* the operations of the Commonwealth Railways in South Australia are included in figures for all Commonwealth Railways in Australia. Details are not available on the operations of the private railways.

## SOUTH AUSTRALIAN RAILWAYS

## Financial Summary

Capital indebtedness (see definition on page 622) of the South Australian Railways at 30 June 1974 totalled \$156 977 000. Operations for 1973-74 resulted in a deficit of \$29 986 000 and after taking into account contributions from Consolidated Revenue totalling \$30 000 000, there was a surplus of \$14 000. The following summary shows details of capital indebtedness, working expenses, and revenue for the four years to 1973-74.

## South Australian Railways: Capital Indebtedness, Working Expenses and Revenue

Particulars	1970-71	1971-72	1972-73	1973-74
	\$'000			
Capital indebtedness . . . . .	152 750	157 474	156 010	156 977
Working expenses . . . . .	43 002	46 801	52 621	61 134
Revenue . . . . .	34 635	35 603	35 332	39 827
Deficit on operating . . . . .	8 367	11 197	17 289	21 307
Debt charges . . . . .	7 757	8 280	8 595	8 679
Total deficit for year . . . . .	16 124	19 477	25 884	29 986
Less contributions from Consol- dated Revenue . . . . .	14 500	19 500	22 500	30 000
Net surplus (+) or deficit (-) . . . . .	-1 624	+23	-3 384	+14

**Working Expenses**

The cost of operating the South Australian Railways during 1973-74 was \$61 134 000 plus debt charges which amounted to \$8 679 000. The working expenses include the cost of administration, maintenance of permanent way, rollingstock maintenance and operation costs, salaries and wages of station staff, guards and conductors. A comparison of working expenses for the four years to 1973-74 is given in the following table.

**South Australian Railways, Working Expenses**

Expenses	1970-71	1971-72	1972-73	1973-74
Administration:				
				\$'000
Salaries, wages, expenses, etc. . . . .	1 495	1 668	1 929	2 308
Pay-roll tax . . . . .	673	93	—	—
Superannuation Act—Pensions . . . . .	1 408	1 596	1 735	1 899
Way and works:				
Maintenance and superintendence of permanent way, etc. . . . .	9 637	11 181	13 068	13 948
Rollingstock:				
General superintendence . . . . .	326	360	367	444
Maintenance of rollingstock . . . . .	6 796	7 309	7 779	8 515
Motive power, lubrication, etc. . . . .	5 815	6 249	6 856	8 696
Transportation and traffic:				
General superintendence, station staff, guards, etc. . . . .	12 334	13 483	15 163	18 807
Miscellaneous:				
Refreshment services, road motors, etc. . .	1 599	1 760	1 975	2 420
Stores:				
Salaries, wages, expenses. . . . .	854	903	1 026	1 230
Depreciation (a) . . . . .	2 063	2 200	2 723	2 867
<b>Total . . . . .</b>	<b>43 002</b>	<b>46 801</b>	<b>52 621</b>	<b>61 134</b>

(a) Additional depreciation is included in 'Maintenance of rollingstock' and other accounts to cover depreciation of workshop machinery. The amount for 1973-74 was \$126 900.

The average number of persons employed in operations and maintenance during 1973-74 was 7 612. In addition an average of 740 persons were employed on special work including standardisation programs.

**Debt Charges**

These charges to the South Australian Railways have increased over the five-year period 1969-70 to 1973-74 because of the additional loan funds made available for capital purposes and higher interest rates. Net funds provided from State Loan Fund were \$140 421 000 at 30 June 1974 as against \$129 666 000 at 30 June 1969.



The net amount on which the State was liable for interest and repayment under Railways Standardisation Agreements at 30 June 1974 was \$15 537 000 compared with \$12 280 000 at 30 June 1969. The total expenditure on standardisation to 30 June 1974 was \$63 851 000, of which \$61 950 000 was provided by the Australian Government (30 per cent repayable by the State), and \$1 901 000 was contributed from the Consolidated Revenue of the State. Outstanding liability of the State to the Australian Government under the Railway Equipment Agreement at 30 June 1974 amounted to \$617 000.

Debt charges for 1973-74 were:	\$
Interest on Loan Funds provided for capital purposes (other than stores) including exchange on overseas debt . . . .	7 454 945
Interest on Loan Funds invested in stores . . . . .	276 476
Interest under Railways Standardisation and Railway Equipment Agreements . . . . .	925 446
Interest on Railways of Australia rollingstock . . . . .	22 408
	8 679 275

### Sources of Revenue

For the five-year period ending 30 June 1974 approximately 77 per cent of railways operational revenue was derived from carriage of freight and about 12 per cent from passenger traffic. Sources of revenue and the amounts received for the years 1969-70 to 1973-74 are shown in the table below.

#### South Australian Railways, Sources of Revenue

Source	1969-70	1970-71	1971-72	1972-73	1973-74
	\$'000				
Country passengers . . . . .	1 688	1 837	1 944	2 026	2 550
Suburban passengers . . . . .	2 002	2 055	2 152	2 285	2 417
Parcels, mails, etc. . . . .	920	912	815	774	836
General merchandise and miscellaneous freight . .	12 931	13 691	13 599	15 074	17 226
Wool . . . . .	172	138	134	137	146
Wheat . . . . .	3 817	4 134	3 365	2 419	3 546
Barley and other grains . .	1 025	909	1 963	584	1 136
Livestock . . . . .	1 122	1 016	951	1 063	1 013
Minerals . . . . .	7 372	7 221	7 537	7 106	6 751
Rents and miscellaneous . .	1 395	1 467	1 765	2 353	2 398
Refreshment services and bookstalls . . . . .	1 122	1 255	1 378	1 510	1 809
Total . . . . .	33 566	34 635	35 603	35 332	39 827

Revenue from road motor services, amounting to \$296 000 in 1973-74, is included in the preceding table with revenue from passengers, parcels, mails, etc. and miscellaneous freight.

### Railway Operations

#### Train Kilometres Run and Track Open

The average length of track open for traffic during 1973-74 was 3 884 kilometres (including 47 kilometres in New South Wales between Cockburn and Broken Hill). The last lines closed were the Eudunda-Morgan (56 kilometres) and the Sandergrove-Milang (13 kilometres) in 1969-70, and the Wanbi-Yinkanie (50 kilometres) in 1970-71, while the last line opened was a 3-kilometre spur line to Tonsley Park in 1966-67. Train kilometres run during 1973-74 totalled 10 313 302.

The following table shows revenue and working expenses for the five years to 1973-74.

#### South Australian Railways, Revenue and Working Expenses

Year	Revenue	Working Expenses	Percentage of Working Expenses to Revenue	Train Kilometres Run	Revenue per Train Kilometre	Working Expenses per Train Kilometre
	\$'000	\$'000	Per cent	'000 km	\$	\$
1969-70 .. . . .	33 566	39 287	117	9 965	3.37	3.94
1970-71 .. . . .	34 635	43 002	124	10 210	3.39	4.21
1971-72 .. . . .	35 603	46 801	131	10 018	3.55	4.67
1972-73 .. . . .	35 332	52 621	149	10 024	3.52	5.25
1973-74 .. . . .	39 827	61 134	153	10 313	3.86	5.93

Train kilometres run was 10.9 million in 1942-43 but fell to 9.7 million in 1946-47. By 1952-53 train kilometres run had risen to 11.6 million but in recent years it has been at a lower level. In general both revenue and working expenses per train kilometre have increased in recent years with working expenses per train kilometre showing the more rapid increase.

#### Locomotives and Rollingstock

Significant steps in the development of traction in the South Australian Railways have been the introduction, particularly in the early 1920s, of more powerful steam locomotives; the introduction of petrol-driven railcars from 1924 and their conversion to diesel operation from 1937; the change from steam to mainline diesel electric locomotives commencing in 1951; and the introduction of improved diesel railcars from 1955. The extent of the change from steam to diesel electric locomotives and from petrol to diesel railcars since 1955 is revealed in the following table.

**South Australian Railways, Locomotives and Rollingstock  
(At 30 June in selected years)**

Particulars	1955	1960	1965	1970	1974
	Number				
<b>Locomotives:</b>					
Steam . . . . .	365	225	151	4	4
Diesel electric;					
Main line . . . . .	} 12	{ 30	41	54	60
Shunting and transfer . . . . .			12	46	46
General purpose . . . . .			10	45	45
<b>Total . . . . .</b>	<b>377</b>	<b>277</b>	<b>248</b>	<b>149</b>	<b>155</b>
<b>Rail cars:</b>					
<b>Power;</b>					
Diesel . . . . .	—	118	134	124	125
Petrol . . . . .	53	4	—	—	—
<b>Non-power;</b>					
Control-equipped . . . . .	—	7	7	7	7
Trailer . . . . .	28	52	58	40	37
Coaches . . . . .	485	353	243	170	95
Interstate coaches . . . . .	54	61	71	65	103
Goods and livestock wagons . . . . .	8 895	8 000	7 962	7 694	7 333
Service wagons and vans . . . . .	478	467	526	622	608

The South Australian Railways use a great variety of specialised rollingstock, most of which is built at its Islington Workshops.

Consumption of locomotive and rail car fuels during the years ended 30 June 1955, 1960, 1965, 1970 and 1974 was as follows.

**South Australian Railways, Locomotive Fuel Consumption  
(At 30 June in selected years)**

Fuel	1955	1960	1965	1970	1974
	Tonnes				
<b>Steam locomotives:</b>					
Coal . . . . .	203 076	80 127	20 739	1 935	202
Heavy oil . . . . .	86 679	29 510	4 356	2 933	45
<b>Diesel locomotives:</b>					
Diesel oil . . . . .	5 028	12 273	20 971	26 546	29 974
<b>Rail cars:</b>					
Petrol . . . . .	640	257	—	—	—
Diesel oil . . . . .	827	8 306	8 665	8 444	8 468

**Passenger Traffic**

The number of passengers carried in 1942-43 was nearly 31 million persons, a substantial increase on the 17.6 million in 1939-40. Following a decline in the immediate post-war period, the number in 1949-50 settled at about the pre-war level, but since 1959-60, has declined to less than 14 million reflecting mainly the trend in suburban passenger traffic. Country passenger traffic has been generally declining since 1944-45.

**South Australian Railways, Passenger Journeys and Passenger Train  
Kilometres Run**

Year	No. of Passengers Carried		Passenger Train Kilometres Run		Average Kilometres Each Passenger Carried		Average Earnings per Passenger Kilometre	
	Country (a)	Suburban	Country (a)	Suburban	Country (a)	Suburban	Country (a)	Suburban
	'000	'000	'000	'000	No.	No.	Cents	Cents
1969-70..	549	13 085	1 928	3 364	253·55	13·02	1·21	1·14
1970-71..	553	12 946	2 039	3 376	266·89	12·75	1·24	1·21
1971-72..	515	12 289	1 967	3 322	254·39	12·54	1·49	1·33
1972-73..	564	12 756	1 981	3 378	247·71	12·78	1·45	1·40
1973-74..	683	12 914	2 017	3 393	253·42	12·70	1·47	1·47

(a) Includes all interstate passengers.

Interstate passenger and freight services are operated in conjunction with interstate railways including the Commonwealth Railways—the Victorian Railways to Melbourne, Commonwealth and Western Australian Railways to Perth, the New South Wales Railways to Sydney and Brisbane, and the Commonwealth Railways to Alice Springs. Sleeping accommodation and first and second class travel are available for interstate journeys.

From 1 March 1974, suburban passenger fares were increased by 10 per cent and from 1 July 1974, inter-system passenger fares were increased by 10 per cent and country passenger fares by 5 per cent.

The table below shows adult single railway fares, in force from 1 December 1974, between Adelaide and selected cities.

**Passenger Railway Fares, Adelaide to Selected Australian Cities**

Adelaide to	Adult, Single Fare (a)	
	Economy Class	First Class
	\$	\$
Brisbane . . . . .	40·00	53·00
Broken Hill . . . . .	8·00	10·00
Canberra . . . . .	25·00	33·00
Melbourne . . . . .	14·00	19·00
Perth . . . . .	(b)68·50	(b)91·50
Sydney . . . . .	25·00	33·00

(a) Includes booking fee.

(b) Includes reserved seats, sleeping berths (where provided) and meals.

**Freight Traffic**

The railways by-law rate structure was determined by the need to develop the country and this led to the practice of charging what the traffic would bear—charges were higher for expensive commodities than for cheap ones. This type of rate helped to subsidise those people who lived in sparsely populated areas which were served by developmental railways. In the past, losses from these services were recouped by charging higher rates on those lines which carried the greater volume of freight. To meet increased competition from road transport



## RATIONALISATION OF RAILWAY SERVICES

In May 1968 the Minister of Transport announced the Government's decision to carry out a program of rationalisation of rail services. A number of existing passenger services were to be cancelled and, in some areas, replaced by either private or Departmentally sponsored road passenger services. Subject to inquiry by the Transport Control Board and the Parliamentary Standing Committee on Public Works, some country rail lines were to be closed.

A Departmentally sponsored bus service is one for which tenders are called by the South Australian Railways Commissioner and contracts are let to private operators who undertake to provide services at times, fares and parcel rates specified by the South Australian Railways. Tickets are purchased at railway stations or from the bus operator at unattended sidings. The operator is paid on a distance travelled basis.

The Port Lincoln-Ceduna rail passenger service was cancelled in September 1968 and a private bus service commenced on this route in August 1968. At present there is no rail passenger service on Eyre Peninsula other than the recently introduced Commonwealth Railways service between Port Augusta and Whyalla.

At 1 March 1970 other rail passenger services cancelled and replaced by privately operated bus services were those between Adelaide and Eudunda, Kapunda, Angaston, Truro and Moonta; and between Moonta and Kadina.

The early morning and late afternoon services between Adelaide, Bowmans and Balaklava have been cancelled, as they were no longer being used north of Long Plains for their original purpose of transporting workers and school children to and from Adelaide. Departmentally sponsored bus services were instituted running from Long Plains and Virginia to Salisbury where they connect with the Adelaide suburban rail car service. Passengers from Bowmans and Balaklava do not now have an early morning service but at other times may travel on the longer distance trains from Port Pirie and Gladstone respectively.

The Moonta-Brinkworth, Port Pirie-Peterborough and Peterborough-Quorn rail passenger services have been cancelled and not replaced by any Departmentally sponsored alternative service. The Departmentally sponsored bus service introduced to replace the Gladstone-Wilmington rail passenger service was extended to Quorn when the Peterborough-Quorn rail passenger service was cancelled. The line between Sandergrove and Milang was closed to all traffic in June 1970 without substitution of any specific alternative service, while the passenger service between Adelaide and Victor Harbor has been retained.

At 1 July 1973, of the freight and livestock traffic lines recommended for closure, the Hallett Cove-Willunga, the Sandergrove-Milang, the Eudunda-Morgan, and the Wanbi-Yinkanie lines had been closed: the Mount Barker Junction-Victor Harbor line had been retained.

## TRAMWAY AND BUS SERVICES

### MUNICIPAL TRAMWAYS TRUST

The Municipal Tramways Trust was incorporated by Act of Parliament in 1906. The Trust's activities are now regulated by the Municipal Tramways Trust Act, 1935-1973. Exclusive powers are given to the Trust to:

- (1) operate electric tramway systems within a radius of approximately 16 kilometres from the GPO;
- (2) carry passengers by motor bus for hire or reward on any route wholly or partially within the prescribed area as defined by the Act;
- (3) grant to any person a licence to carry passengers by motor bus for hire or reward on any route in (2) above.

Private bus operators within the prescribed area must be licensed by the Trust and the licence may stipulate such terms as duration of licence, routes, time-tables and fares. Control is vested in a Board of five members all of whom are appointed by the Governor. Under the Act the State Treasurer is empowered to make grants to the Trust to enable it to meet the expenses incurred in the exercise of its functions. In March 1974, the Trust acquired the assets and liabilities of most of the licensed private bus operators. This is reflected in the details for 1973-74 in the tables which follow.

### Historical Survey

A brief historical summary of tramways and omnibus services was included on pages 512-4 of the *South Australian Year Book* 1970 under the headings 'Historical Survey' and 'Route Miles, Mileage Run and Passengers Carried'.

Main developments during the last twenty years have been the replacement of trams with diesel buses (with the exception of Glenelg tram service which runs mainly on enclosed land), the abandonment of electricity generation in favour of purchasing electric power from the Electricity Trust, the erection of new workshops and new parking and servicing depots and the take-over of most of the licensed private services.

### Income and Expenditure

A table showing capital indebtedness, income and working expenses etc. for the last five years is given in Part 11.4 Public Finance—Public Corporations. Selected details for the five years to 1973-74 are shown in the following table.

#### Municipal Tramways Trust, Income and Expenditure

Year	Traffic Receipts	Sundry Receipts	Government Grants	Working Expenses	Interest on Loans	Net Deficit
\$'000						
1969-70 ..	6 448	249	—	6 293	410	6
1970-71 ..	6 640	241	480	6 986	356	—20
1971-72 ..	6 783	195	630	7 282	340	14
1972-73 ..	7 036	269	1 330	8 269	406	41
1973-74 (a)	9 615	343	2 250	11 735	469	—4

(a) Not comparable with previous years: includes details of licensed private services taken over by the Trust.

At 30 June 1974 loan indebtedness amounted to \$11 920 000; these loans are secured by debentures issued to the Treasurer of South Australia.





In December 1973, the Trust introduced a free bus service, the 'Bee Line' Service, which operates within city limits, and for which separate details are not available.

**Municipal Tramways Trust: Passengers, Traffic Kilometres and Revenue**

Year	Passengers Carried	Traffic Revenue	Traffic Kilometres	Average Fare	Traffic Revenue per Traffic Kilometre
	'000	\$'000	'000	Cents	Cents
1969-70	43 345	6 448	17 153	14.63	37.59
1970-71	41 259	6 640	17 381	15.82	38.20
1971-72	40 842	6 783	17 336	16.33	39.13
1972-73	41 680	7 036	17 470	16.61	41.81
1973-74 (a)	47 533	9 615	22 471	20.11	44.31

(a) Not comparable with previous years: includes details of licensed private services taken over by the Trust.

The table below shows passenger fares, from 1 February 1975, for travel over various distances measured in sections; in most cases a section is a distance of approximately 1.5 kilometres.

**Municipal Tramways Trust, Passenger Fares**

Distance Measured in Sections	Adult Cash Fare	Child Cash Fare	Pensioner Cash Fare	Monthly Concession Tickets	
				School Students	Tertiary Students
				Cents	
1	10	5	5	1.50	
2	10	10	5	3.00	5.00
3	25	10	10	3.00	6.50
4-7	30	15	10	4.50	6.50
8-9	35	15	10	4.50	8.00
10 or more	35	15	15	4.50	8.00

A transfer ticket, costing 40 cents, enables a passenger to transfer on two routes in the same direction at a cheaper rate than paying a separate fare for each route. A periodical ticket is available on a weekly basis at a cost of 10 times the normal cash fare for the number of sections travelled; these tickets entitle the holder to unlimited travel over the route and sections specified on the pass seven days a week.

**Rollingstock**

The change from electric traction to diesel operation is reflected in the following table which shows details of rollingstock in selected years.

**Municipal Tramways Trust, Rollingstock and Seating Capacity**  
**At 30 June**

Particulars	1950 (a)	1955	1960	1965	1970	1974 (b)
<b>Rollingstock:</b>						
Electric trams . . . . .	279	178	30	30	26	26
Motor buses . . . . .	81	140	364	353	344	659
Trolley buses . . . . .	61	91	56	—	—	—
Total vehicles . . . .	421	409	450	383	370	685
<b>Seating capacity:</b>						
Electric trams . . . . .	14 280	10 147	1 908	1 908	1 664	1 664
Motor buses . . . . .	3 998	5 268	14 428	14 112	14 234	29 286
Trolley buses . . . . .	2 984	4 184	2 006	—	—	—
Total seating . . . .	21 262	19 599	18 342	16 020	15 898	30 950

(a) At 31 January.

(b) Not comparable with previous years: includes details of licensed private services taken over by the Trust.

Under a three year program, completed late in 1972 at a cost of \$5.2 million, the Trust replaced its fleet of buses with vehicles designed for one-man operation. These vehicles have rear mounted engines, lower step height and two-way radio contact with the depot.

The vehicles obtained through takeover of the licensed private operators will be gradually replaced with the standard types.

**Accident Casualties**

The following casualties resulted from accidents which occurred during the last five years.

**Municipal Tramways Trust, Accident Casualties**

Year	Passengers		Employees		Total (including other)	
	Killed	Injured	Killed	Injured	Killed	Injured
	1969-70 . . . . .	—	107	—	83	3
1970-71 . . . . .	—	109	—	71	1	200
1971-72 . . . . .	—	119	—	88	3	235
1972-73 . . . . .	—	120	—	71	—	219
1973-74 . . . . .	—	120	—	111	—	265

## PRIVATE MOTOR BUS SERVICES

**Metropolitan Services**

The route length of private motor bus services licensed by the Municipal Tramways Trust increased from 74.70 kilometres in 1941 to 465.02 kilometres in 1972-73, while the number of passengers carried increased from 2.3 million to 16.6 million. A large part of the increase in the number of passengers carried occurred in the ten years from 1941 (2.3 million) to 1951 (10.7 million). The takeover of the majority of the licensed private bus operators by the Municipal Tramways Trust in March 1974 is reflected in the decreased figures for 1973-74.

**Private Motor Buses, Metropolitan Services**

Year	Route Length At End of Year	Kilometres Run	Passengers Carried	Rolling Stock At End of Year	Traffic Receipts (Gross)
	Kilometres	'000 km	'000	No.	\$'000
1969-70 . . . . .	403	10 874	15 171	244	2 355
1970-71 . . . . .	406	10 740	14 856	253	2 523
1971-72 . . . . .	409	10 854	15 329	257	2 716
1972-73 . . . . .	465	11 032	16 600	267	2 992
1973-74 . . . . .	48	7 746	11 257	30	2 291

**Interstate and Country Services**

Regular interstate bus services and special tours operate to all States. There are co-ordinated passenger rail and bus services on a number of additional routes.

**TAXICABS**

The Metropolitan Taxi-Cab Act, 1956-1974, administered by the Metropolitan Taxi-Cab Board, is the governing legislation providing for the control of taxi-cabs within a 16 kilometre radius of the GPO, Adelaide and the District Councils of Stirling and Munno Para, the Cities of Tea Tree Gully, Elizabeth and Salisbury and the Municipality of Gawler. The Board is responsible for the granting of licences or permits to operate taxi-cabs, the allotment of vehicles to stands and the charging of permit fees.

Regulations under the Act provide for the examination of taxi-cabs: the roadworthiness of all taxi-cabs is examined by the Police Department each year and the Board's inspectors check and test all meters. It is compulsory for taxis to be fitted with meters which record progressively the cost of each journey at rates prescribed from time to time. At January 1975 the rates were 35 cents for 'flag fall' and the first 260 metres, then 5 cents each additional 260 metres. The area in which these metered charges apply is determined by the Board and is known as the 'metered area'. Outside of this zone but within an area of 40 kilometres radius from the GPO Adelaide, a 50 per cent loading applies. For journeys which extend beyond the 40-kilometre radius contract rates not to exceed 13 cents per outward and return kilometre are charged.

Licences issued at 30 June 1974 include taxi-cabs, white plates (*i.e.* restricted) 250, green plates 576; hire cars 42; and funeral cars 11. Drivers' licences current totalled 3 603.

Taxi licence fees are \$45 a year and private hire licence fees are \$32. Revenue received during 1973-74 was \$29 997 from taxi licences, \$1 175 from hire car licences and \$13 249 from drivers' licences. Total revenue from all sources was \$96 080, and expenditure was \$81 956.

In areas not under the control of the Metropolitan Taxi-Cab Board, taxi licences are issued by local government authorities under the provisions of the Local Government Act.

## MOTOR VEHICLES

### Control of Road Traffic

Legislation covering the registration of motor vehicles, licensing of drivers and third party insurance in South Australia is contained in the Motor Vehicles Act, 1959-1975.

The present legislation for the control of road traffic in South Australia is set out in the Road Traffic Act, 1961-1975 and the Motor Vehicles Act, 1959-1975.

### Registration of Motor Vehicles

Under the provisions of the Motor Vehicles Act, 1959-1975 all motor vehicles, unless specifically exempted, must be registered with the Registrar of Motor Vehicles before being driven on any public road.

The Motor Vehicles Act defines a motor vehicle as:

- (a) a vehicle, tractor or mobile machine driven or propelled by a steam engine, internal combustion engine, electricity or any other power not being human or animal; or
  - (b) a trailer;
- but does not include a vehicle run upon a railway or tramway.

Permits to use vehicles, without registration, between farm blocks may be granted by the Registrar. A 14-day permit to drive a motor vehicle pending registration may be issued, under certain circumstances, by a member of the police force stationed at a police station more than 40 kilometres from the GPO, Adelaide.

Registration fees vary according to the power-weight (PW) of the vehicle; this is calculated by a formula which takes into account the diameter and number of the cylinders and the vehicle's weight in kilograms. A special formula applies for vehicles fitted with non-piston engines. Fees for trailers are based on unladen weight and vehicles fitted with solid rubber or metal tyres are subject to higher rates.

For motor bicycles the fees vary between \$5 for a vehicle weighing 50 kilograms or less to \$10 for a motor bicycle having a side car attached. For commercial vehicles the range of fees is from \$9 for a vehicle not exceeding 10 PW and with tare weight 1 780 kilograms or less to \$84.50 plus \$9.80 for each 5 PW or portion thereof exceeding 75 PW, for vehicles exceeding 75 PW. For private vehicles a minimum annual fee of \$9 applies for vehicles that do

not exceed 10 PW and for vehicles in excess of 75 PW a maximum fee of \$60.20 plus \$5.90 for each 5 PW or portion thereof the PW of the vehicle exceeds 75. Registration fees for trailers (with pneumatic tyres) range from \$7.50 for trailers of unladen weight up to 260 kilograms to \$22 for trailers of unladen weight exceeding 2 030 kilograms.

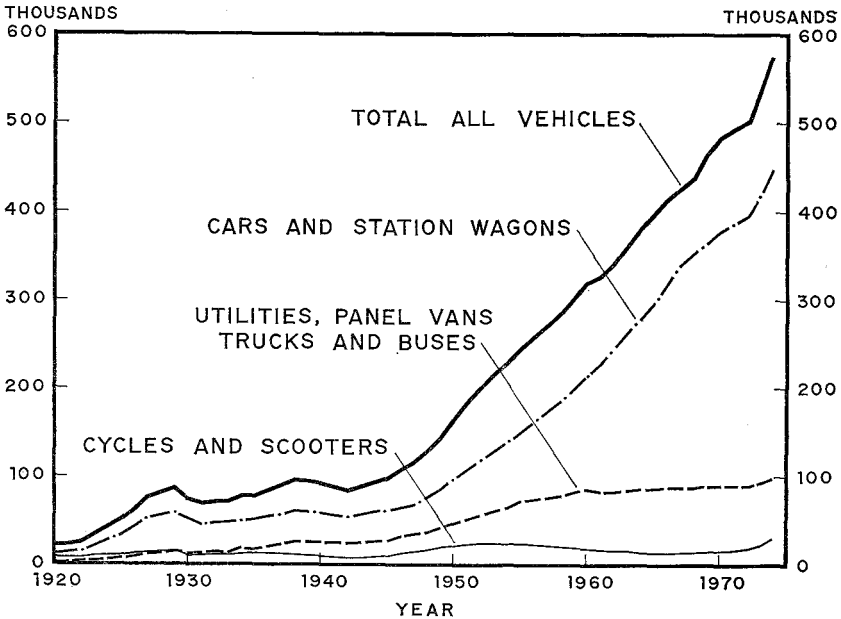
Motor vehicles used for certain purposes are registered without fee, e.g. vehicles owned by the Fire Brigades Board and other firefighting organisations, ambulances (for the use of which no charge is made), council vehicles used solely or mainly for the collection and transport of household refuse, etc. Registration at reduced rates is allowed for primary producers' commercial vehicles and tractors, prospectors' vehicles, and for vehicles used wholly or mainly in outer areas. Reduced rates are available to incapacitated ex-servicemen also, and to some persons in receipt of Australian Government pensions. Vehicles used solely for interstate trade can be registered for \$2 for a period of twelve months.

The Act provides for registered vehicles to carry number plates and for a registration label to be affixed to each registered vehicle. It also provides for the issue of general traders plates and limited traders plates.

Third party bodily injury insurance as a prerequisite to registration of a motor vehicle is discussed on page 559.

## MOTOR VEHICLES ON REGISTER

SOUTH AUSTRALIA 1920 TO 1973



**Motor Vehicles on Register**

The following table shows the number of motor vehicles on the register at 31 December from 1969 to 1973.

**Motor Vehicles on Register, South Australia<sup>(a)</sup>  
At 31 December**

Type of Vehicle	1969	1970	1971	1972	1973
			'000		
Cars . . . . .	308.7	324.8	339.2	356.2	378.8
Station wagons . . . . .	56.0	59.2	61.6	64.2	66.6
Commercial vehicles . . . . .	89.6	90.7	91.4	92.9	97.8
Motor cycles . . . . .	13.9	15.4	18.1	22.7	29.2
<b>Total on register . . . . .</b>	<b>468.2</b>	<b>490.1</b>	<b>510.3</b>	<b>536.0</b>	<b>572.4</b>
			Persons		
Population per vehicle	2.43	2.36	2.30	2.22	2.12
			'000		
Tractors, plant, equipment . . . . .	7.0	7.2	7.2	7.3	7.5
Trailers and caravans . . . . .	89.0	93.1	97.6	106.0	116.2
Traders plates . . . . .	3.0	2.9	2.9	2.8	2.7

(a) Includes Australian Government owned vehicles except defence services vehicles.

**New Motor Vehicle Registrations**

New motor vehicle registrations during the calendar years 1970 to 1974 are shown in the following table.

**New Motor Vehicle Registrations, South Australia<sup>(a)</sup>**

Type of Vehicle	1970	1971	1972	1973	1974
Cars . . . . .	34 311	33 563	32 779	38 333	40 598
Station wagons . . . . .	4 309	4 134	4 193	4 887	5 593
Light commercial type vehicles:					
Open <sup>(b)</sup> . . . . .	(d) 6 547	(d) 5 945	3 141	3 667	4 180
Closed <sup>(c)</sup> . . . . .			1 258	1 693	2 155
Trucks <sup>(e)</sup> . . . . .			2 376	2 949	2 797
Other truck type vehicles <sup>(f)</sup> . . . . .			69	80	19
Buses . . . . .	280	337	326	251	196
Motor cycles . . . . .	2 994	4 474	6 523	10 877	9 586
<b>Total . . . . .</b>	<b>48 441</b>	<b>48 453</b>	<b>50 665</b>	<b>62 737</b>	<b>65 124</b>

(a) Includes Australian Government owned vehicles except defence services vehicles.  
 (b) Includes utilities and trucks with carrying capacity under 1 tonne. (c) Includes panel vans and trucks with carrying capacity under 1 tonne. (d) A new classification was adopted in 1972 and figures for earlier periods are not comparable. (e) Includes utilities, panel vans and trucks with carrying capacity over 1 tonne. (f) Includes truck type vehicles not designed for freight carrying e.g. tow trucks and fire engines.

In the following table new motor vehicle registrations are classified by horsepower (RAC).

**New Motor Vehicle Registrations: Classified by Horsepower (RAC)  
South Australia<sup>(a)</sup>**

Type of Vehicle and Horsepower	1970	1971	1972	1973	1974
<b>Cars:</b>					
Under 10 . . . . .	217	221	190	208	61
10-14 . . . . .	4 375	4 786	5 255	7 063	8 857
15-19 . . . . .	9 609	7 662	6 580	7 855	8 543
20-24 . . . . .	1 745	2 768	3 532	2 300	2 735
25-29 . . . . .	5 230	3 687	3 615	4 495	3 760
30-34 . . . . .	10 354	10 375	8 956	10 187	10 156
35 and over . . . . .	2 657	3 733	4 314	5 547	5 939
Rotary . . . . .	124	331	337	678	547
<b>Total . . . . .</b>	<b>34 311</b>	<b>33 563</b>	<b>32 779</b>	<b>38 333</b>	<b>40 598</b>
<b>Station wagons:</b>					
Under 20 . . . . .	561	504	424	925	1 410
20-29 . . . . .	1 176	941	1 210	1 058	1 125
30-39 . . . . .	2 336	2 376	2 178	2 357	2 495
40 and over . . . . .	236	313	381	547	563
<b>Total . . . . .</b>	<b>4 309</b>	<b>4 134</b>	<b>4 193</b>	<b>4 887</b>	<b>5 593</b>
<b>Light commercial type vehicles:</b>					
<b>Open (b) (c);</b>					
Under 20 . . . . .	261	291	266	454	636
20-29 . . . . .	1 446	923	1 664	1 390	1 435
30-39 . . . . .	1 117	1 111	1 091	1 588	1 692
40 and over . . . . .	88	85	120	235	417
<b>Total . . . . .</b>	<b>2 912</b>	<b>2 410</b>	<b>(c)3 141</b>	<b>3 667</b>	<b>4 180</b>
<b>Closed (c) (d);</b>					
Under 20 . . . . .	585	737	615	713	800
20-29 . . . . .	459	427	290	380	588
30-39 . . . . .	190	233	311	485	491
40 and over . . . . .	14	12	42	115	276
<b>Total . . . . .</b>	<b>1 248</b>	<b>1 409</b>	<b>(c)1 258</b>	<b>1 693</b>	<b>2 155</b>
<b>Trucks (c) (e):</b>					
Under 20 . . . . .	363	289	328	641	623
20-29 . . . . .	391	315	541	434	389
30-39 . . . . .	940	853	955	1 118	1 066
40-49 . . . . .	331	360	315	414	299
50 and over . . . . .	317	257	306	422	439
<b>Total . . . . .</b>	<b>2 342</b>	<b>2 074</b>	<b>(c)2 445</b>	<b>3 029</b>	<b>2 816</b>

(a) Includes Australian Government owned vehicles except defence services vehicles.

(b) Includes utilities; from January 1972 includes utilities and trucks with carrying capacity under 1 tonne. (c) From January 1972 a revised classification of vehicles, based on load carrying capacity was introduced and figures for earlier periods are not comparable. (d) Includes panel vans; from January 1972 includes panel vans and trucks with load carrying capacity under 1 tonne, and ambulances and hearses.

(e) Includes tankers, concrete agitators and truck type vehicles which are not designed for freight carrying e.g. fire engines and tow trucks.

### Drivers' Licences

From 1 April 1973, the following classes of drivers' licences have applied in South Australia:

- Class 1: to drive (a) any motor car or (b) any motor vehicle, the weight of which (excluding the weight of any trailer) does not exceed 1 780 kilograms, except an articulated motor vehicle, a motor cycle or a motor omnibus;
- Class 2: to drive any motor vehicle except an articulated motor vehicle, a motor cycle or a motor omnibus;
- Class 3: to drive any motor vehicle except a motor cycle or a motor omnibus;
- Class 4: to drive a motor cycle;
- Class 5: to drive a motor omnibus.

A licence may be endorsed with more than one class number.

The Motor Vehicles Act provides that an applicant must apply for a permit to learn to drive a motor vehicle and will be issued with a learner's permit once he has passed a written examination on the rules of the road. The permit is for a period not exceeding three months during which time the holder is expected to undergo a practical test conducted by a police officer appointed for the purpose. If he passes the test he will be issued with a certificate stating the type and make of vehicle used and that he was capable of driving this class of motor vehicle. He may then apply to the Registrar for the appropriate licence.

Provision is also made for the testing of drivers suspected of being incompetent or suffering from a disease or disability which may impair their ability to drive, and for the suspension of their licences should they fail the test. Persons who will reach the age of 70 years during the currency of their next licence are tested before that licence is issued. Optical tests also are imposed at age 75 years.

From 1 October 1974 the licence fee has been \$5; the fee for a learner's permit is \$3. Licences and permits are not issued to persons under sixteen years of age.

In 1961 licences for motor driving instructors were introduced and are compulsory where instruction is given for reward. The licence fee is \$20 for a period of three years.

Drivers' and riders' licences current at 31 December 1974 totalled 612 693. The number in force first exceeded 100 000 in 1931, totalled 215 157 by 1951, 315 044 by 1957, and had risen to 447 985 at December 1965.

### Revenue from Registrations and Licences

Revenue from registration fees and drivers' and riders' licence fees totalled \$22 367 000 in 1973-74. These fees are paid into Consolidated Revenue Account; but after deductions have been made for sinking fund and interest on loans raised for roads and bridges, and the administration expenses of the Highways and Motor Vehicles Departments, the balance is paid into the Highways Fund.



### **Third Party Insurance**

Under the Motor Vehicles Act, 1959-1975 every motor vehicle driven on a public road, unless specifically exempted, must be covered by an insurance policy which insures the owner of the motor vehicle to which the policy relates, and any other person who at any time drives the vehicle whether with or without the consent of the owner, in respect of all liability for negligence that may be incurred by the owner or other person in respect of the death of, or bodily injury to, any person caused by, or arising out of the use of the vehicle in any part of Australia.

Insurance must be effected with one of the two insurance companies approved by the Minister of Transport. Liabilities of insurers, set out in the Motor Vehicles Act, include the liability to pay for emergency treatment and hospital treatment to a person injured (including fatally injured) by or arising out of the use of an insured motor vehicle.

Where the driver of a motor vehicle has caused death or bodily injury in the use of that vehicle and the identity of the vehicle cannot be ascertained, then a person who could have obtained a judgment against the driver may give notice to the Minister of Transport and recover by action against a 'nominal defendant' named by the Minister of Transport. Payment by the nominal defendant is out of money contributed by all approved insurers under a scheme administered by the Minister of Transport.

The Minister of Transport appoints a 'nominal defendant' where a claim is made by a person in respect of death or bodily injury caused by negligence in the use of an uninsured motor vehicle on a road. Payments made by the 'nominal defendant' are recoverable from the driver of the motor vehicle or any person liable for the negligence of that driver.

An injured person may claim against his or her spouse where the spouse is an insured person and has caused that person bodily injury by negligence in the use of a motor vehicle.

A committee appointed by the Governor on the recommendation of the Minister of Transport having all the powers of a royal commission periodically inquires into and reports on what are considered to be fair maximum premium rates for third party insurance and the approved rates are generally adopted by the insurance companies.

From 1 December 1974, premiums for private and business cars in the metropolitan and country areas were increased by \$13·00 to \$58·00. Premiums for primary producers' trucks were increased by \$7·00 to \$17·00 while those for goods-carrying vehicles in the metropolitan area remained at \$47·00. Premiums for taxis in country areas were increased by \$50·00 to \$100·00 while those in the metropolitan area were increased by \$80·00 to \$200·00.

During 1973-74, third party insurance premiums received amounted to \$19 670 000 and claims paid were \$25 645 000.

### **Census of Motor Vehicles**

A census of motor vehicles on the register at 30 September 1971 was completed in Australia during 1972. An earlier census was conducted at 31 December 1962.



**Number of Tractors, Plant and Equipment, Caravans and Trailers  
South Australia, 1962 and 1971<sup>(a)</sup>**

Type of Vehicle	31 December 1962	30 September 1971
	'000	
Tractors . . . . . }	4.7	{ 3.3
Plant and equipment . . . . . }		{ 3.9
Caravans . . . . . }	60.6	{ 15.0
Trailers . . . . . }		{ 81.9
<b>Total . . . . .</b>	<b>65.3</b>	<b>104.1</b>

(a) Includes Australian Government owned vehicles except defence services vehicles.

### Motor Vehicle Usage

In September 1971, a sample survey of motor vehicle usage during the year ended 30 September 1971 was conducted throughout Australia.

The survey population (motor vehicles on the register), from which the sample was drawn, was extracted from the registration systems of the Australian Government and State motor vehicle registration authorities; it was then stratified on the basis of vehicle type, trucks being further stratified by carrying capacity. In some States and Territories for which the registration system did not record carrying capacity, it was necessary to impute this information by reference to make, horsepower and tare weight data available from other registry systems.

Of the vehicles selected for the sample, approximately 80 per cent, apart from buses, were trucks and other 'commercial' vehicle types, although this group made up only 20 per cent of the total number of vehicles registered. This emphasis in the sample was considered necessary because of the diversity of the truck sector.

Questionnaires were dispatched in September 1971 to the registered owners of the vehicles selected in the sample survey asking for details of vehicle usage. It should be noted that information about vehicle usage has generally been based on the recollection of respondents rather than reference to precise records.

The following table shows for South Australia the details of average annual distance travelled, average annual distance travelled for business purposes and average annual fuel consumption. Being based on a sample, these statistics may differ from the figures which would have been obtained from a complete census using the same questionnaires and procedures. Measure of such imprecision, standard errors (SE), are shown in the table as a percentage of the associated figure.

## Motor Vehicle Usage: South Australia, 1971

Type of Vehicle	Average Annual Distance Travelled		Average Annual Distance Travelled for Business Purposes		Average Rate of Fuel Consumption			
	'000 km	SE %	'000 km	SE %	Petrol		Diesel	
					litres per 100 km	SE %	litres per 100 km	SE %
Cars and station wagons . . . . .	16.1	(3.0)	3.2	(7.2)	12.3	(1.1)	—	—
Light Commercial type vehicles:								
Open . . . . .	15.0	(3.5)	11.8	(4.3)	14.1	(1.1)	12.3	(6.5)
Closed . . . . .	17.2	(3.5)	12.3	(5.1)	12.8	(1.3)	—	—
Trucks:								
Rigid and articulated, carrying capacity;								
1 and under 4 tonnes . . . . .	13.6	(3.5)	12.1	(4.0)	18.8	(1.9)	18.8	(10.1)
4 and under 8 tonnes . . . . .	14.3	(7.5)	14.1	(7.5)	31.4	(3.5)	31.4	(4.7)
Rigid, carrying capacity;								
8 tonnes and over . . . . .	20.8	(5.3)	20.3	(5.3)	40.3	(2.9)	35.3	(2.5)
Articulated, carrying capacity;								
8 and under 12 tonnes . . . . .	34.0	(10.5)	33.9	(10.6)	47.1	(6.0)	35.3	(5.9)
12 and under 16 tonnes . . . . .	53.4	(2.9)	53.2	(2.9)	56.8	(1.1)	40.3	(1.3)
16 tonnes and over . . . . .	68.2	(2.0)	67.9	(2.0)	56.8	(1.8)	40.3	(0.6)
Other truck type vehicles . . . . .	5.8	(9.7)	4.6	(11.6)	28.2	(6.4)	47.1	(15.1)
Motor cycles . . . . .	6.4	(8.1)	n.a.	..	4.4	(4.2)	—	—

SE Standard error

The results of the survey for Australia as a whole show that since the previous survey of 31 December 1963 the total annual kilometres travelled increased at an average annual rate of 7.9 per cent, against the average annual growth rate of vehicles on register of 5.6 per cent.

For vehicles (except buses) 53 per cent of their usage is shown to be in capital city urban areas in the State of registration, with 35 per cent in non-urban country areas of the State of registration and 4 per cent outside the State of registration. At the same time 46 per cent of annual kilometres travelled is for private purposes, 32 per cent for business purposes and the remaining 22 per cent for travel to and from work at the beginning and end of the day. Of the total kilometres travelled for business purposes 50 per cent is performed by vehicles other than cars, station wagons and motor cycles; these other vehicles being laden for 62 per cent of the distance travelled.

## Road Traffic Board

The Road Traffic Board of South Australia, set up in 1960 under the provisions of the Road Traffic Board Act, 1960, is now constituted under the Road Traffic Act, 1961-1974; its functions are to:

- (1) make recommendations to the Minister on roads and traffic generally, on the use of traffic control devices and other measures in relation to road safety;
- (2) promote uniformity in the design and use of traffic control devices;
- (3) conduct research and collect statistics relating to road traffic accidents and other traffic problems;
- (4) disseminate information and advice on road safety and traffic laws and regulations;
- (5) investigate and report on proposals for alterations of and additions to traffic laws and regulations.

### Road Safety

Some recent moves towards greater road safety were detailed on pages 514-5 of the *South Australian Year Book 1973*. These mainly related to the operations of the new Road Safety Instruction Centre and the points demerit scheme.

The latter scheme has been in operation since 29 April 1971. In 1974 warning notices were sent to 11 517 drivers who had accumulated six or more demerit points and 2 090 drivers with twelve or more demerit points had their driving licences suspended.

A Road Traffic Act Regulation introduced on 1 January 1973 requires that any modification to a motor vehicle should meet certain standards and that permission must be obtained from the Road Traffic Board before certain types of modifications can be made.

Following an amendment to the Road Traffic Act, a different interpretation of 'STOP' signs became operative on 1 March 1975. Under the new legislation, a driver facing a 'STOP' sign must give way to all traffic, whether it is coming from the left or from the right. Previously, drivers had to give way only to the traffic from the right. The new legislation conforms with the National Traffic Code. Similar legislation is in force in Western Australia and Victoria.

### Road Traffic Accidents

Statistics of road traffic accidents are compiled from reports made to members of the South Australian Police Department by persons involved in such accidents. Section 43 of the Road Traffic Act sets out the obligations of the driver of a vehicle involved in an accident—he must stop his vehicle at once, render any assistance of which he is capable to anyone injured in the accident, state his name and address if requested to any person having reasonable grounds for such request, and report the accident to the Police as soon as possible, or at least within twenty-four hours of the accident. However, it is a defence against a charge relating to non-reporting of an accident if a defendant can prove either that he did not know that an accident occurred or that the only damage or injury resulting from the accident was to property and that a fair estimate of the damage did not exceed \$50.

For the purpose of these statistics, a road traffic accident is defined as an accident which occurs because of the presence of a vehicle on a road (or other public thoroughfare, e.g. public car park, beach) and which involves property damage exceeding \$50 or casualty; a casualty occurring if the accident resulted in:

- (1) the death of any person within a period of thirty days of the accident,  
or
- (2) bodily injury to any person to an extent requiring surgical or medical treatment.

With the introduction of a more comprehensive accident report form on 1 October 1967, statistics have become available as a result of a joint effort by the South Australian Police Department, the Road Traffic Board of South Australia and the Australian Bureau of Statistics. Before this date, the South Australian Police Department was the sole authority preparing statistics of road traffic accidents.

The next table shows summary details of road traffic accidents for the years 1969 to 1973. During 1973 the total number of recorded road traffic accidents increased by more than 12 per cent (from 33 952 in 1972 to 38 194 in 1973). The number of accidents which resulted in casualties increased by more than 14 per cent (from 8 116 in 1972 to 9 267 in 1973).

### Road Traffic Accidents, South Australia

Year	Total Accidents Re-corded	Accidents Involving Casualties	Persons Killed	Persons Injured	Rate per 100 000 Motor Vehicles on Register (a)			Rate per 100 000 of Mean Population		
					Total Accidents Re-corded	Persons Killed	Persons Injured	Total Accidents Re-corded	Persons Killed	Persons Injured
1969 . . . . .	27 503	6 895	251	9 961	6 114	56	2 214	2 414	22	874
1970 . . . . .	30 464	7 424	349	10 484	6 457	74	2 222	2 631	30	905
1971 . . . . .	32 400	7 386	292	10 132	6 592	59	2 062	2 757	25	862
1972 . . . . .	33 952	8 116	312	10 997	6 518	60	2 111	2 855	26	925
1973 . . . . .	38 194	9 267	329	12 625	6 939	60	2 294	3 183	27	1 052

(a) 'Motor vehicles on register' is the mean number for each year; includes Australian Government owned vehicles except defence services vehicles; excludes road tractors and trailers.

In the following table, the types of road users killed and injured are shown according to age groups for 1973.

### Road Traffic Accidents: Age Groups of Casualties, South Australia 1973

Age Group of Casualty (years)	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Passengers	Pedestrians	All Other	Total
<b>PERSONS KILLED</b>							
Under 5 . . . . .	—	—	—	6	2	—	8
5—16 . . . . .	—	—	3	14	5	—	22
17—20 . . . . .	31	17	1	34	6	—	89
21—29 . . . . .	25	4	—	12	6	—	47
30—39 . . . . .	21	—	—	5	3	—	29
40—49 . . . . .	21	1	1	5	9	—	37
50—59 . . . . .	9	1	—	12	6	—	28
60 and over . . . . .	28	—	4	11	26	—	69
<b>Total . . . . .</b>	<b>135</b>	<b>23</b>	<b>9</b>	<b>99</b>	<b>63</b>	<b>—</b>	<b>329</b>
<b>PERSONS INJURED</b>							
Under 5 . . . . .	—	—	2	259	97	—	358
5—16 . . . . .	10	3	320	697	233	2	1 265
17—20 . . . . .	1 192	1 087	43	1 125	87	2	3 536
21—29 . . . . .	1 311	377	17	581	69	—	2 355
30—39 . . . . .	666	59	18	203	57	—	1 003
40—49 . . . . .	602	52	30	260	56	1	1 001
50—59 . . . . .	438	21	37	212	65	1	774
60 and over . . . . .	356	11	43	226	125	—	761
Not stated . . . . .	331	126	54	936	125	—	1 572
<b>Total . . . . .</b>	<b>4 906</b>	<b>1 736</b>	<b>564</b>	<b>4 499</b>	<b>914</b>	<b>6</b>	<b>12 625</b>

Drivers (including motor cyclists) under twenty-one years of age, representing only 12 per cent of licence holders at 30 June 1973, accounted for 20 per cent of drivers involved in accidents, 29 per cent of drivers killed and 34 per cent of drivers injured during 1973. For drivers aged twenty-one to twenty-four years involvements were 13 per cent, deaths 14 per cent and injuries 16 per cent while their representation in the driving population was 11 per cent.

Pedestrians sixty years and over accounted for 13 per cent of pedestrians involved, 12 per cent of pedestrians injured and 34 per cent of pedestrians killed.

The likelihood of sustaining serious injury when involved in an accident is more than nine times higher for motor cycle riders than for drivers of motor vehicles: 65 per cent of motor cycle riders involved in accidents received medical or hospital treatment compared with 7 per cent of drivers of other vehicles.

The following table shows casualties by type of road user for each of the last five years. In each of these years more motor vehicle drivers were killed or injured than any other type of road user.

**Road Traffic Accidents: Casualties, South Australia**

Year	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Pass- engers	Pedes- trians	All Other	Total
<b>PERSONS KILLED</b>							
1969 .. .. .	108	6	16	66	55	—	251
1970 .. .. .	144	12	10	128	55	—	349
1971 .. .. .	109	14	9	103	57	—	292
1972 .. .. .	120	28	12	88	64	—	312
1973 .. .. .	135	23	9	99	63	—	329
<b>PERSONS INJURED</b>							
1969 .. .. .	3 990	728	530	3 905	804	4	9 961
1970 .. .. .	4 315	812	513	4 017	827	—	10 484
1971 .. .. .	3 991	930	546	3 862	799	4	10 132
1972 .. .. .	4 267	1 313	524	3 998	885	10	10 997
1973 .. .. .	4 906	1 736	564	4 499	914	6	12 625

Details of road traffic accidents for 1973 according to time and day of occurrence are shown in the next table. More accidents occurred on Fridays (6 950 accidents) and Saturdays (6 579) than on other days of the week and more accidents occurred between 4 p.m. and 6 p.m. than during any other two-hour period. More accidents occurred between 4 p.m. and 6 p.m. on Fridays than on other days in that period and more deaths resulted from accidents occurring on Sundays.

### Road Traffic Accidents: Day of Week and Time of Occurrence, South Australia 1973

Time of Occurrence	Monday	Tuesday	Wednes- day	Thursday	Friday	Saturday	Sunday	Total
<b>TOTAL ACCIDENTS</b>								
After:    Until:								
Midnight 2 a.m.	90	71	78	127	172	454	713	1 705
2 a.m. 4 a.m.	37	29	26	22	47	110	208	479
4 a.m. 6 a.m.	24	16	18	21	15	35	56	185
6 a.m. 8 a.m.	416	436	416	399	430	153	64	2 314
8 a.m. 10 a.m.	661	580	609	636	591	533	153	3 763
10 a.m. 12 noon	503	427	470	458	515	1 019	444	3 836
12 noon 2 p.m.	531	443	476	522	653	629	486	3 740
2 p.m. 4 p.m.	653	579	585	611	786	620	668	4 502
4 p.m. 6 p.m.	1 240	1 146	1 215	1 242	1 628	933	842	8 246
6 p.m. 8 p.m.	475	496	546	595	867	952	508	4 439
8 p.m. 10 p.m.	258	246	300	361	574	501	252	2 492
10 p.m. Midnight	197	208	257	329	672	640	190	2 493
Total . . .	5 085	4 677	4 996	5 323	6 950	6 579	4 584	38 194

<b>PERSONS KILLED</b>								
After:    Until:								
Midnight 2 a.m.	2	1	6	3	6	4	11	33
2 a.m. 4 a.m.	4	—	1	3	1	2	8	19
4 a.m. 6 a.m.	—	—	1	1	—	—	—	2
6 a.m. 8 a.m.	—	2	1	1	—	4	1	11
8 a.m. 10 a.m.	1	3	1	5	1	7	2	20
10 a.m. 12 noon	3	—	2	—	5	7	15	32
12 noon 2 p.m.	1	4	3	2	2	1	1	12
2 p.m. 4 p.m.	3	6	3	2	5	7	9	35
4 p.m. 6 p.m.	2	3	4	6	5	8	17	45
6 p.m. 8 p.m.	7	9	5	3	5	7	9	45
8 p.m. 10 p.m.	3	3	3	4	5	7	8	33
10 p.m. Midnight	1	2	1	3	22	10	3	42
Total . . .	27	33	29	33	59	64	84	329

<b>PERSONS INJURED</b>								
After:    Until:								
Midnight 2 a.m.	50	25	32	61	94	222	362	846
2 a.m. 4 a.m.	22	12	11	9	20	50	90	214
4 a.m. 6 a.m.	13	10	7	7	6	19	32	94
6 a.m. 8 a.m.	124	112	136	104	138	57	22	693
8 a.m. 10 a.m.	131	146	128	175	170	141	55	946
10 a.m. 12 noon	104	94	98	94	141	278	202	1 011
12 noon 2 p.m.	140	119	123	143	190	223	204	1 142
2 p.m. 4 p.m.	181	156	177	167	199	243	250	1 373
4 p.m. 6 p.m.	347	299	299	365	470	372	406	2 558
6 p.m. 8 p.m.	162	179	199	183	298	413	223	1 657
8 p.m. 10 p.m.	85	70	102	139	223	206	136	961
10 p.m. Midnight	93	87	99	142	309	321	79	1 130
Total . . .	1 452	1 309	1 411	1 589	2 258	2 545	2 061	12 625

Although more than two-thirds of all accidents occurred between 6 a.m. and 6 p.m. the severity of accidents, judged on the basis of death and injury rates, was considerably greater during the 'night' hours, as can be seen from the following table. Both deaths and injuries, expressed as a proportion of accidents occurring, were significantly higher during each two-hour 'night' period than for any two-hour period between 6 a.m. and 6 p.m.



**Accidents and Casualties: Time of Day, Fatality and Injury Rates  
South Australia, 1973**

Time of Occurrence	Accidents Occurring	Persons Killed	Persons Injured	Persons Killed Per 100 Accidents Occurring	Persons Injured Per 100 Accidents Occurring
After:            Until:					
Midnight        2 a.m.	1 705	33	846	1.9	50
2 a.m.          4 a.m.	479	19	214	4.0	45
4 a.m.          6 a.m.	185	2	94	1.1	51
6 a.m.          8 a.m.	2 314	11	693	0.5	30
8 a.m.          10 a.m.	3 763	20	946	0.5	25
10 a.m.        12 noon	3 836	32	1 011	0.8	26
12 noon        2 p.m.	3 740	12	1 142	0.3	31
2 p.m.         4 p.m.	4 502	35	1 373	0.8	30
4 p.m.         6 p.m.	8 246	45	2 558	0.5	31
6 p.m.         8 p.m.	4 439	45	1 657	1.0	37
8 p.m.         10 p.m.	2 492	33	961	1.3	39
10 p.m.        Midnight	2 493	42	1 130	1.7	45
Total . . . . .	38 194	329	12 625	0.9	33

The following table shows the nature of accidents which occurred in 1973.

**Road Traffic Accidents: Nature, South Australia, 1973**

Nature of Accidents	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
Collisions between vehicles (a):				
Head on . . . . .	767	375	51	707
Rear end . . . . .	9 578	1 540	11	1 998
Right angles . . . . .	12 607	3 188	53	4 624
Other . . . . .	4 894	688	21	874
Vehicles:				
Overturning or leaving road (b)	1 702	891	44	1 236
Colliding with;				
Fixed object . . . . .	3 636	1 214	69	1 712
Parked vehicle . . . . .	3 559	327	13	413
Pedestrian . . . . .	929	922	62	924
Other . . . . .	392	53	3	65
Passenger accidents . . . . .	49	48	1	50
Other . . . . .	81	21	1	22
Total . . . . .	38 194	9 267	329	12 625

(a) 'Vehicles' includes motor vehicles, motor cycles, pedal cycles, trains, trams, etc.

(b) Vehicles leaving road and then colliding are shown in the four categories below.

The following table shows details of features of the roadways on which the accidents occurred. During 1973 there were 19 872 accidents at intersections (52 per cent of accidents reported) and approximately one-half of the total number of injuries occurred at intersections. However, of the 329 road deaths, 40 per cent were on straight roads compared with 26 per cent at intersections: a further 27 per cent of deaths occurred on bends or curves.

**Road Traffic Accidents: Features of Roadways on which Accidents Occurred  
South Australia, 1973**

Features of Roadway	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
<b>Intersections:</b>				
Controlled . . . . .	5 573	1 127	16	1 636
Uncontrolled . . . . .	14 299	3 643	68	4 996
<b>Other than intersections:</b>				
Straight road . . . . .	13 720	3 224	131	4 177
Bend or curve . . . . .	2 379	897	88	1 313
<b>Railway level crossing:</b>				
Controlled . . . . .	72	19	2	21
Uncontrolled . . . . .	72	30	5	43
Other location . . . . .	2 079	327	19	439
<b>Total . . . . .</b>	<b>38 194</b>	<b>9 267</b>	<b>329</b>	<b>12 625</b>

Collisions between vehicles accounted for 73 per cent of all accidents and 41 per cent of deaths, while vehicles overturning or leaving the road and vehicles colliding with pedestrians accounted for 4 per cent and 2 per cent of all accidents respectively, and 13 per cent and 19 per cent of deaths.

Details concerning use or non-use of seat belts by drivers involved in accidents in 1973, are shown in the following table. Information concerning the use or non-use of seat belts was recorded for 46 passengers killed while occupying the left hand front seat of a vehicle.

**Road Traffic Accidents: Seat Belt Usage of Motor Vehicle Drivers and  
Front Seat Passengers, South Australia, 1973**

Seat Belt Details	Drivers (a)			Front Seat Passengers (b)	
	Killed	Injured	Not Injured	Killed	Injured
<b>Seat belts fitted:</b>					
Reported as worn . . . . .	28	1 668	27 136	11	628
Reported as not worn . . . . .	32	338	2 745	6	178
<b>Seat belts not fitted . . . . .</b>	<b>36</b>	<b>936</b>	<b>8 839</b>	<b>12</b>	<b>406</b>
Information not available . . . . .	38	1 934	21 275	17	1 202
<b>Total . . . . .</b>	<b>134</b>	<b>4 876</b>	<b>59 995</b>	<b>46</b>	<b>2 414</b>

(a) Any person occupying the driver's seat in a parked vehicle is excluded.

(b) Refers to passengers in front seat, left side. Excludes front seat occupants of parked vehicles.

The next table shows the age group and sex of persons holding drivers licences and permits at 30 June 1973 and involvements in accidents during 1973 of drivers and riders within the same classifications. In this table figures for involvements relate to accidents occurring in South Australia whereas licence and permit holders are those licences, etc., issued in South Australia, and the licences on issue at 30 June are only an approximation of the average for the year.

**Road Traffic Accidents: Age and Sex of Licensed Drivers and of Drivers and Riders Involved in Accidents, South Australia<sup>(a)</sup>**  
1973

Age (years)	Licensed Drivers, Riders and Permit Holders at 30 June 1973		Accident Involvement of Drivers and Riders (b)		Accident Involvement Rate per 100 Licensed Drivers and Riders	
	Males	Females	Males	Females	Males	Females
Under 20	35 064	20 046	9 608	1 618	27.4	8.1
20-24	50 061	34 660	10 093	2 108	20.2	6.1
25-29	46 499	33 418	6 300	1 574	13.5	4.7
30-34	36 396	25 884	4 145	1 269	11.4	4.9
35-39	32 603	21 362	3 648	1 077	11.2	5.0
40-44	33 532	20 115	3 493	941	10.4	4.7
45-49	35 325	20 081	3 483	875	9.9	4.4
50-54	30 658	16 878	2 989	701	9.7	4.2
55-59	25 364	12 785	2 168	481	8.5	3.8
60-64	20 328	9 158	1 667	348	8.2	3.8
65-69	13 521	5 220	915	208	6.8	4.0
70-74	7 241	2 269	497	105	6.9	4.6
75-79	3 437	1 020	230	51	6.7	5.0
80 and over	1 654	291	128	17	7.7	5.8
Not stated	—	—	9 064	1 900	..	..
Total	371 683	223 187	58 428	13 273	15.7	5.9

(a) Includes both licensed riders and permit holders.

(b) Drivers and riders involved in more than one accident during the year are included once for each accident.

It should be noted in particular that these figures do not measure exposure to risk: for example they take no account of distances driven, times of day into which driving may be concentrated or traffic conditions during those times.

The following additional limitations should be observed when interpreting the figures:

- (i) All figures include permit holders; the accident involvement of permit holders, who are permitted to drive a vehicle only when accompanied by a fully licensed driver, appears, from an examination of the relevant data, to be significantly lower than that of fully licensed drivers. At 30 June 1973 there were 13 105 permit holders; of these

4 637 or approximately one-third were aged 16 years and 9 172 or just over two-thirds of the total were aged 20 years or less: thus if permit holders and their involvements in accidents were excluded from the table, it could be expected that the involvement rates in the lower age groups would be higher than those shown.

- (ii) The number of involvements with ages not stated is high; and their age distribution, if known, might be different from that of known cases.

## SHIPPING

### Control of Shipping

The Australian Parliament is empowered under the Constitution to make laws in respect of trade and commerce with other countries and among the States.

Navigation and shipping are regulated under the *Navigation Act 1912-1973* and the provisions of the Act apply to ships registered in Australia (except those engaged solely in the domestic trade of any one State) and other British ships whose first port of clearance and whose port of destination are within Australia. Other shipping Acts under the trade and commerce power are the *Sea-Carriage of Goods Act 1924-1973*, the *Seamen's Compensation Act 1911-1974*, the *Seamen's War Pensions and Allowance Act 1940-1974*, the *Australian Coastal Shipping Commission Act 1966-1974*, the *Australian Coastal Shipping Agreement Act 1956* and the *Stevedoring Industry Act 1956-1973*.

Shipping in South Australia is controlled by the *Navigation Act 1912-1973* and, where this does not apply, by the *Harbors Act, 1936-1974* and the *Marine Act, 1936-1973*. Both of the State Acts are administered by the Department of Marine and Harbors.

### Registration of Ships

Registration of ships in Australia is in accordance with the Merchant Shipping Act 1894 of the Imperial Parliament, under sections which apply to the United Kingdom and all British dominions. Registration is not compulsory for vessels of less than 15 net tons engaged in river or coastal trade or for larger vessels not engaged in trade. Yachts and small trading vessels may be registered at the request of the owners as registration facilitates the sale or mortgage of these vessels. An annual review of the register is carried out but some vessels whose present ownership or use cannot be traced, are retained on the register in the absence of any positive justification for their removal. The following table shows the number of vessels on the South Australian Register at 31 December 1974.

Four different measures of tonnage (gross, net, displacement, or deadweight) may be applied to a vessel. Gross tonnage is the total enclosed cubic capacity of the ship on a basis of 2.83 cubic metres a ton; net tonnage is the cubic capacity available for cargo in terms of 2.83 cubic metres a ton; displacement tonnage is the weight of water displaced by a ship; deadweight tonnage is the total weight of fuel, water, stores and cargo that a ship can carry. Passenger

ships are commonly rated by the gross tonnage, cargo ships by their net tonnage, warships by their displacement tonnage, and oil tankers by their deadweight tonnage.

**Shipping, Vessels on South Australian Register  
At 31 December 1974**

Net Tonnage	Steam and Motor			Sailing (including Fitted with Auxiliary Power)			Barges, Hulks, Dredges, etc. not Self-Propelled		
	Vessels	Gross Tonnage	Net Tonnage	Vessels	Gross Tonnage	Net Tonnage	Vessels	Gross Tonnage	Net Tonnage
Under 50 ..	77	4 367	1 571	86	1 483	1 194	—	—	—
50-99 ..	29	2 608	1 707	8	947	833	—	—	—
100-199 ..	6	1 392	943	2	679	309	1	179	179
200-499 ..	1	350	234	—	—	—	—	—	—
500-999 ..	2	4 237	1 543	—	—	—	—	—	—
1 000-2 999	—	—	—	—	—	—	—	—	—
3 000 and over	3	21 961	13 253	—	—	—	—	—	—
Total ..	118	34 915	19 251	96	3 109	2 336	1	179	179

### Registration of Motor Boats

The Boating Act, 1974, proclaimed in January 1975, gives power to the South Australian Minister of Marine to regulate boating and other activities within South Australian waters. The main provisions of the Act refer to the registration of motor boats and the licensing of motor boat operators.

From 1 September 1975, any boat that is propelled by an engine, whether or not that engine is the main means of propulsion, must be registered and have its registration number displayed on the hull. Motor boats that are already registered and bear an identification mark under the provisions of any other Act are exempted from these requirements. The registration number consists of two letters followed by two digits and the letter 'S' denoting South Australia. The fee for the initial registration period is \$5.00. A registration may be renewed annually, but, for a boat that is less than 3.048 metres in length and powered with an engine that develops less than 5 horsepower, a renewal fee is not required.

Only persons, sixteen years of age or older, may be issued with a motor boat operator's licence which remains in force without renewal unless cancelled or suspended under the Act or voluntarily surrendered. A person aged between twelve and sixteen years may be issued a permit to operate a motor boat subject to certain restrictions. The other provisions of the Act deal with unseaworthy boats, wrecks and abandoned boats, speed restrictions, rules for water ski-ing, reckless and dangerous operation, the reporting of accidents, etc.

Details of the minimum safety equipment required to be carried in a motor boat are listed in the Act's Regulations; these vary according to the length of the motor boat and whether it operates in inshore or offshore waters.

### Shipping Search and Rescue

The Shipping Search and Rescue organisation (SAR), administered by the Department of Transport co-ordinates the marine search and rescue operations for which the Australian Government is responsible. The SAR also co-operates with the appropriate authorities in other marine emergencies.

### Shipping Arrivals at South Australian Ports

Shipping figures are based on returns rendered to the Collector of Customs by shipping companies, or their agents, in respect of trading vessels exceeding 200 net tons: each arrival at and departure from a South Australian port is recorded. In the following tables the column headings, coastal and overseas, indicate the classification of vessels regardless of the division of trade on which the vessels were engaged at any particular time.

The next two tables show arrivals of coastal and overseas vessels at individual Customs ports and at all ports in South Australia respectively.

#### Shipping: Vessels Entered at Customs Ports, South Australia, 1973-74

Port	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
Ardrossan . . . . .	36	141	10	38	17	101	63	280
Ballast Head . . . . .	10	21	19	50	2	7	31	77
Edithburgh . . . . .	—	—	—	—	—	—	—	—
Port Adelaide (a) . . . . .	333	281	208	677	576	3 081	1 117	4 039
Port Augusta . . . . .	—	—	1	3	6	23	7	26
Port Lincoln . . . . .	61	112	15	82	72	487	148	681
Port Pirie . . . . .	5	34	60	334	98	542	163	910
Port Stanvac . . . . .	22	223	28	343	30	845	80	1 411
Rapid Bay . . . . .	16	63	11	56	—	—	27	120
Stenhouse Bay . . . . .	—	—	—	—	—	—	—	—
Thevenard . . . . .	3	13	28	122	83	328	114	463
Wallaroo . . . . .	—	—	—	—	29	200	29	200
Whyalla . . . . .	51	235	162	1 520	72	660	285	2 415

(a) Inner and outer harbour.

#### Shipping, Vessels Entered at South Australian Ports

Year	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
1969-70 . . . . .	1 015	1 372	695	3 532	1 322	8 680	3 032	13 585
1970-71 . . . . .	857	1 446	612	3 998	1 198	7 306	2 667	12 749
1971-72 . . . . .	744	1 181	632	3 767	1 069	6 765	2 445	11 714
1972-73 . . . . .	913	1 515	604	3 786	1 006	6 172	2 523	11 472
1973-74 . . . . .	915	1 422	542	3 226	1 005	6 413	2 462	11 061

One of the principal factors underlying the decrease in numbers of ships engaged in trade between ports in South Australia has been the development, at major ports since the early 1950s, of bulk handling facilities for grain. The general trend has been towards the use of fewer ships of greater net tonnage.

The next table shows arrivals of vessels exceeding 200 net tons at selected customs ports only, according to country of registration of the vessels.

**Shipping: Country of Registration, Vessels Entered at Selected Customs Ports  
South Australia**

Customs Port	Country of Registration	Vessels		Net Tonnage	
		1972-73	1973-74	1972-73	1973-74
Ardrossan . . . .	Australia . . . . .	54	46	196 158	179 500
	Other countries . . . . .	14	17	85 172	100 942
	Total . . . . .	68	63	281 330	280 442
Port Adelaide . .	Australia . . . . .	499	493	905 417	902 203
	Greece . . . . .	27	43	211 859	329 301
	India . . . . .	18	19	87 277	95 401
	Japan . . . . .	27	41	123 065	218 601
	Liberia . . . . .	40	34	227 320	203 181
	Netherlands . . . . .	35	31	152 682	161 024
	New Zealand . . . . .	53	60	103 530	114 042
	Norway . . . . .	33	23	207 283	192 947
	Sweden . . . . .	50	43	206 255	171 831
	United Kingdom . . . . .	172	170	848 221	906 420
	Other countries . . . . .	202	160	987 651	743 719
Total . . . . .	1 156	1 117	4 060 560	4 038 670	
Port Lincoln . .	Australia . . . . .	65	75	242 767	189 059
	Greece . . . . .	7	17	49 586	116 871
	Liberia . . . . .	5	7	41 012	49 721
	United Kingdom . . . . .	12	16	87 859	136 470
	Other countries . . . . .	48	33	307 560	188 396
Total . . . . .	137	148	728 784	680 517	
Port Pirie . . . .	Australia . . . . .	64	65	327 175	368 256
	Greece . . . . .	5	7	31 171	47 679
	India . . . . .	14	16	64 729	71 032
	New Zealand . . . . .	13	12	26 054	24 750
	United Kingdom . . . . .	29	34	187 942	244 737
	Other countries . . . . .	50	29	248 039	153 456
Total . . . . .	175	163	885 110	909 910	
Port Stanvac . .	Australia . . . . .	56	50	643 833	565 795
	Norway . . . . .	4	10	113 719	305 787
	United Kingdom . . . . .	9	10	277 241	252 339
	Other countries . . . . .	15	10	493 813	286 695
Total . . . . .	84	80	1 528 606	1 410 616	
Thevenard . . . .	Australia . . . . .	35	32	129 059	138 277
	Liberia . . . . .	3	7	21 720	42 422
	New Zealand . . . . .	28	37	53 154	69 830
	Other countries . . . . .	33	38	157 799	212 185
Total . . . . .	99	114	361 732	462 714	
Whyalla . . . . .	Australia . . . . .	238	191	1 923 599	1 410 029
	Liberia . . . . .	7	12	71 931	130 545
	United Kingdom . . . . .	41	38	529 733	499 496
	Other countries . . . . .	47	44	317 449	375 100
Total . . . . .	333	285	2 842 712	2 415 170	

**Cargo Handled at Major Ports**

The South Australian Department of Marine and Harbors records details of cargo handled at major ports in this State and the following table shows details for each of the last five years.

**Cargo Handled: Major Ports, South Australia**

Port	1969-70	1970-71	1971-72	1972-73	1973-74
	'000 tonnes				
Ardrossan . . . . .	509	620	581	519	522
Ballast Head . . . . .	161	166	177	184	200
Kingscote . . . . .	152	137	144	164	209
Klein Point . . . . .	483	413	576	606	559
Port Adelaide . . . . .	3 858	3 431	3 510	3 574	4 357
Port Augusta . . . . .	47	49	33	42	31
Port Giles . . . . .	—	145	129	73	99
Port Lincoln . . . . .	909	785	748	588	739
Port Pirie . . . . .	1 478	1 458	1 399	1 292	1 324
Port Stanvac . . . . .	2 799	3 039	2 887	2 912	2 964
Proper Bay . . . . .	510	470	353	231	102
Rapid Bay . . . . .	301	307	205	291	243
Stenhouse Bay . . . . .	185	173	159	24	14
Thevenard . . . . .	498	558	721	757	975
Wallaroo . . . . .	366	377	286	221	303
Whyalla . . . . .	8 712	8 584	7 053	7 869	6 930
Other ports . . . . .	43	40	44	46	47
Total . . . . .	21 011	20 752	19 006	19 393	19 618

**Overseas Shipping Cargo**

Overseas shipping cargo statistics are compiled from returns submitted by shipping companies, or their representatives, to Customs Houses at each port in South Australia. A return is required for each movement of a vessel into and out of a port except for naval vessels, yachts and other craft used for pleasure, foreign fishing vessels that neither load nor discharge cargo and vessels not exceeding 200 net tons.

Cargo is recorded in terms of either units of weight or units of volume depending on the basis on which freight is charged. The statistics show separate figures for cargo recorded in tonnes weight and cargo recorded in cubic metres. The aggregates for weight and volume cargo are not added to a figure for total cargo because they are unlike quantities, and comparisons of total cargo between ports, trade routes or periods of time could be affected by variations in the cargo mix and in the basis on which freight is charged.

The following figures show, for the years 1972-73 and 1973-74, particulars of cargo loaded in South Australia for discharge overseas, and of cargo discharged in South Australia from overseas, classified according to major trade areas.



**Shipping: Cargo Loaded in South Australia, Trade Area of Destination**

Cargo Loaded for Ports in—	1972-73		1973-74	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA . . . . .	63 749	759	16 963	2 148
Canada . . . . .	4 906	981	1 252	2 670
Central America . . . . .	—	2	135	6
Bermuda and Caribbean Area . . . . .	1 041	2 279	—	2 593
South America . . . . .	207 385	168	128 544	4
Europe (excluding USSR):				
Northwestern, Central and Baltic;				
United Kingdom . . . . .	117 991	14	160 159	2
Other . . . . .	492 328	2 486	416 515	7 336
Southern Area . . . . .	14 190	2 362	15 537	1 746
USSR (in Europe and Asia) . . . . .	352 766	—	9 966	4
Africa . . . . .	117 594	31 864	211 685	70 898
Asia (excluding USSR) . . . . .	2 342 533	59 548	3 094 910	81 765
Papua and New Guinea, New Zealand and Pacific Islands . . . . .	219 976	115 683	316 361	119 703
Indian Ocean Islands and Antarctica . . . . .	—	—	8	10
<b>Total cargo loaded . . . . .</b>	<b>3 934 460</b>	<b>216 146</b>	<b>4 372 035</b>	<b>288 885</b>

**Shipping: Cargo Discharged in South Australia, Trade Area of Origin**

Cargo Discharged from Ports in—	1972-73		1973-74	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA . . . . .	19 787	34 094	152 196	52 393
Canada . . . . .	105 396	71 736	16 984	73 222
Central America . . . . .	—	—	—	3
Bermuda and Caribbean Area . . . . .	5	78	508	193
South America . . . . .	1 026	256	—	5
Europe (excluding USSR):				
Northwestern, Central and Baltic;				
United Kingdom . . . . .	1 431	5 612	2 635	5 802
Other . . . . .	8 902	11 646	13 274	27 376
Southern Area . . . . .	815	4 594	1 409	7 783
USSR (in Europe and Asia) . . . . .	—	23	73	1 045
Africa . . . . .	52 581	3 122	5 550	4 620
Asia (excluding USSR) . . . . .	1 662 890	111 792	1 763 682	184 471
Papua and New Guinea, New Zealand and Pacific Islands . . . . .	251 496	8 160	310 776	5 114
Indian Ocean Islands and Antarctica . . . . .	87 983	—	160 503	—
<b>Total cargo discharged . . . . .</b>	<b>2 192 310</b>	<b>251 113</b>	<b>2 427 590</b>	<b>362 027</b>

**Distances to Overseas Ports**

Distances in nautical miles from Port Adelaide to principal overseas ports are shown in the following table. Distances by sea from Port Adelaide to the ports of other Australian capital cities are given on page 540.

**Distances from Port Adelaide to Principal Overseas Ports**

Port Adelaide to:	Nautical Miles	Port Adelaide to:	Nautical Miles
<i>Africa;</i>		<i>New Zealand;</i>	
Cape Town . . . . .	5 603	Auckland . . . . .	2 035
		Wellington . . . . .	1 880
<i>Asia;</i>		<i>North America;</i>	
Colombo . . . . .	4 310	Baltimore (b) . . . . .	10 291
Djakarta . . . . .	3 047	Montreal (b) . . . . .	11 538
Hong Kong . . . . .	4 782	New York (b) . . . . .	10 367
Singapore . . . . .	3 515	Panama . . . . .	8 307
Yokohama . . . . .	5 281	San Francisco . . . . .	7 372
		Vancouver . . . . .	7 752
<i>Europe (a);</i>		<i>South America;</i>	
Liverpool . . . . .	11 679	Buenos Aires (c) . . . . .	7 769
London . . . . .	11 720	Rio de Janeiro (c) . . . . .	8 586
Marseilles . . . . .	11 417	Valparaiso . . . . .	6 670
Naples . . . . .	11 697		

(a) Via Cape Town.

(b) Via Panama.

(c) Via Cape Horn.

**Passenger Movement by Sea**

Statistics of passengers disembarking, embarking and passing through Australian ports are compiled according to type of passenger—namely overseas, direct transit, interstate or cruise. 'Overseas' passengers are defined as persons travelling to or from overseas destinations and who embark or disembark in Australia; 'direct transit' as persons on vessels calling at Australian ports and who have embarked at an overseas port for an overseas destination; 'interstate' as persons travelling by sea from one Australian State to another, or travelling from and to the same port or a port in the same State *via* other States; and 'cruise' as persons on an overseas journey which begins and ends in Australia, does not exceed thirty days, is confined to specific ports in the South-West Pacific area and has been classified as a cruise to enable certain documentation requirements to be waived. Information about passengers is obtained from ships' manifests, passenger cards completed by passengers, and the Departments of Transport, and Police and Customs.

The following table shows numbers and types of passengers who disembarked, embarked and passed through South Australian ports during the five years 1969 to 1973.

**Shipping: Passenger Movement by Sea, South Australian Ports<sup>(a)</sup>**

Year	Type of Passenger					
	Overseas			Total (including Other (b))		
	Disem- barked	Embarked	Passed Through	Disem- barked	Embarked	Passed Through
1969	5 799	7 075	45 901	8 047	8 515	54 677
1970	6 232	5 617	42 379	7 875	6 804	49 990
1971	5 127	4 825	32 500	6 547	6 206	40 280
1972	2 939	3 311	24 139	4 102	4 338	30 710
1973	2 126	3 609	22 383	3 126	4 137	29 465

(a) Almost exclusively Port Adelaide.

(b) Interstate, direct transit and cruise passengers.

**CIVIL AVIATION****Control of Civil Aviation**

In Australia, civil aviation is subject to the Australian *Air Navigation Act* 1920-1974 and to regulations made under the Act. The South Australian *Air Navigation Act, 1937* provided for 'the application of Commonwealth *Air Navigation Regulations* to, and in relation to, air navigation within the State of South Australia'. The regulations under the Australian Act were drawn up to give effect to the 1944 Chicago convention on Civil Aviation. Regulations based on the resolutions of the Paris convention in 1919 were no longer adequate in the years after the 1939-45 War because of the immense wartime development of aerial transport.

The present regulations, administered by the Department of Transport, cover the registration of aircraft and the issue of certificates of airworthiness; the licensing of aircraft services, aircraft operating crews, aerodromes, and flying training schools, and the rules of the air. The Department is responsible for the operation of Air Traffic Control and has assumed responsibility for co-ordination of Search and Rescue operations.

Under the *Australian National Airlines Act* 1945-1973 the Australian National Airlines Commission was established and empowered to operate Australian Government owned air services. The Commission trades under the name Trans-Australia Airlines.

The *Civil Aviation Agreement Act* 1952 ratified an agreement between the Australian Government and Australian National Airways Pty Ltd to ensure the efficient and economical operation of air services within Australia by eliminating wasteful competition between that company and Trans-Australia Airlines and to rationalise the services of both airlines. The *Civil Aviation Agreement Act* 1957 was enacted to extend the privileges and obligations of the 1952 Act to the new proprietor of the major private airline after the purchase of Australian National Airways Pty Ltd by Ansett Transport Industries Ltd. The Australian Parliament passed the *Airlines Equipment Act* in 1958 and this provided for further financial assistance to both airlines for the purchase of new aircraft and empowered the Australian Government to limit the aircraft capacity being provided on competitive routes by these two operators.

The Airlines Agreement approved by the *Airlines Agreement Act 1961* consolidated all the arrangements and principles developed by the Government over the past decade for maintaining and securing the competitive airline system and made important arrangements affecting the introduction of new aircraft on Australian domestic routes. The *Civil Aviation Agreement Act 1952-1957*, amended by the 1961 Act, is now cited as the *Airlines Agreement Act 1952-1973*.

For reference to international agreements on civil aviation see the *Official Year Book of Australia* No. 48, and for references to international organisations see Year Book No. 37.

### Gliding

All gliding in Australia is under the control of the Gliding Federation of Australia. The Federation has the responsibility for pilot licensing and airworthiness of the aircraft under authority delegated by the Department of Transport, which maintains liaison and surveillance. The fourteenth World Gliding Championships were held at Waikerie in South Australia in January 1974.

### Aircraft on Register

The total number of aircraft listed at 30 June 1974 on the Australian register, which included aircraft based in Papua New Guinea, was 4 250, an increase from 3 905 registered at June 1973. The following table shows figures for registered aircraft based in the South Australia-Northern Territory Region, classified by type of operation.

**Aircraft Based in South Australia-Northern Territory Region**  
**Type of Operation**

Type of Operation	At 30 June				
	1970	1971	1972	1973	1974
Regular public transport (a) . . . . .	14	14	14	13	11
Private . . . . .	151	163	178	185	227
Charter . . . . .	119	124	125	117	121
Other (b) . . . . .	92	93	99	103	107
<b>Total . . . . .</b>	<b>376</b>	<b>394</b>	<b>416</b>	<b>418</b>	<b>466</b>

(a) Excludes major airlines servicing interstate routes.

(b) Includes agricultural work, ambulance, survey and pilot training functions.

### General Air Services

Adelaide has no direct links by air with overseas: these are provided through Sydney, Melbourne and Perth. However, it is on the scheduled flights of regular interstate services from Sydney, Melbourne, Perth and Darwin. The next table shows adult passenger single air fares, in force at 1 April 1975, between Adelaide and selected Australian cities.

Passenger Air Fares, Adelaide to Selected Australian Cities

Between Adelaide and:	Adult, Single Fare (a)	
	Economy Class	First Class
	\$	\$
Alice Springs . . . . .	62.70	78.40
Brisbane (b) . . . . .	91.10	113.90
Broken Hill . . . . .	—	26.40
Canberra (b) . . . . .	56.80	71.00
Darwin . . . . .	121.90	152.40
Hobart (c) . . . . .	63.10	78.90
Melbourne . . . . .	33.60	42.00
Perth . . . . .	96.90	121.10
Sydney . . . . .	56.10	70.10

(a) Fares at reduced rates are applicable to children under 15 years of age, to students and to groups of fifteen persons or more travelling together.

(b) Via Melbourne or Sydney. (c) Via Melbourne.

Adelaide is also the terminus for intrastate services. Regular connections to Ceduna, Kingscote, Minnipa, Mount Gambier, Port Lincoln and Whyalla are provided by major airlines either as local flights or as scheduled stops on interstate flights. Bus ('air coach') services, provided by the airlines, connect many of these places with nearby towns.

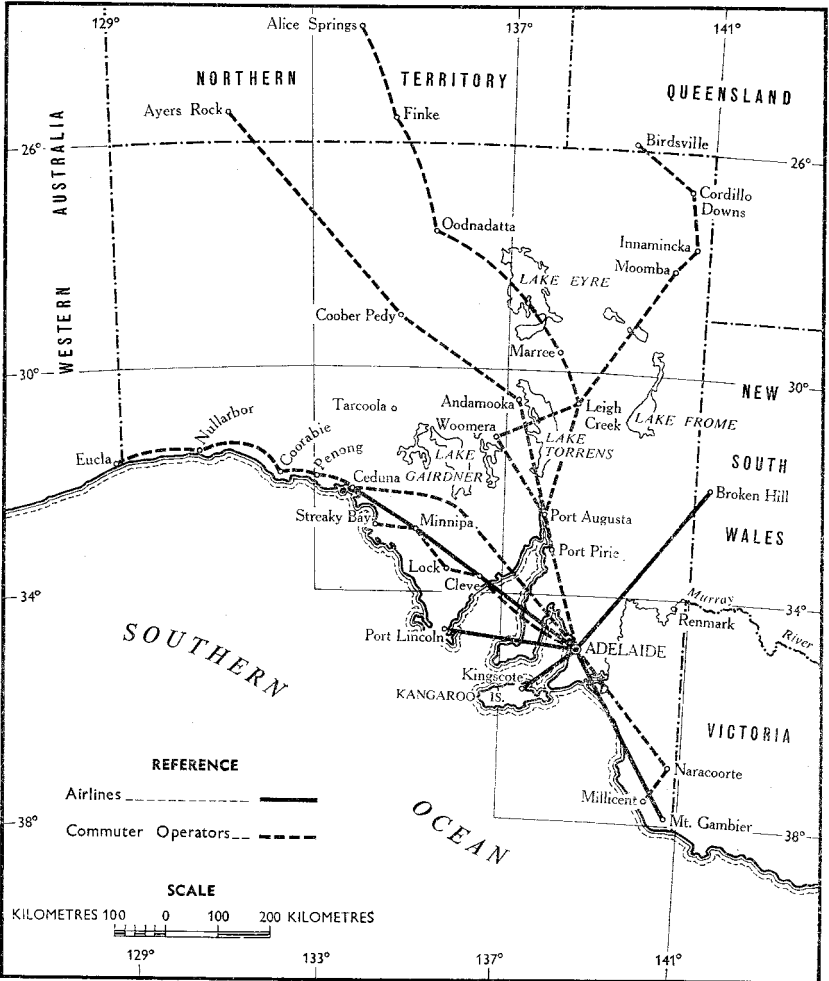
Since 1966-67, when the Australian Government approved introduction of commuter services in country areas, there has been a significant increase in regular air services between country towns and areas which were either not served by the major airlines or had no direct air service with Adelaide or the nearest major provincial city. Such services usually utilise single or twin engined aircraft and operate to fixed and published time-tables.

The first commuter service in Australia, between Adelaide and opal fields at Andamooka and Coober Pedy, commenced during 1966-67. This service was later extended to Ayers Rock, and now also services a number of remote localities *en route*. The extent to which commuter services have grown in recent years can be seen from the map on page 580, which also shows intrastate airline services.

**Passengers and Freight Carried**

The number of passengers and the tonnage of freight carried on civil airlines in South Australia has more than doubled on both interstate and intrastate services during the last ten years. Details of movements at principal airports for the last five years are shown in the following table. A full list of Government and licensed aerodromes in South Australia appears on page 387.

# SOUTH AUSTRALIA AIR SERVICES



**Principal Airports, South Australia  
Passengers, Freight and Aircraft Movements**

Airport	1969-70	1970-71	1971-72	1972-73	1973-74
Passengers (a)					
Adelaide (b) (c) . . . . .	1 022 085	1 023 536	1 050 104	1 156 808	1 376 891
Kingscote . . . . .	50 878	51 135	47 993	48 609	59 107
Port Lincoln . . . . .	43 816	42 429	43 648	49 758	60 956
Woomera . . . . .	25 701	21 476	17 719	15 564	14 209
Whyalla . . . . .	28 392	30 204	31 063	32 662	39 454
Mount Gambier . . . . .	20 479	22 086	21 890	24 958	29 464
Freight—Tonnes (d)					
Adelaide (b) (c) . . . . .	15 125	14 408	14 617	14 469	18 549
Kingscote . . . . .	168	145	129	136	151
Port Lincoln . . . . .	163	133	123	119	124
Woomera . . . . .	288	233	210	168	99
Whyalla . . . . .	114	120	112	122	129
Mount Gambier . . . . .	93	95	112	109	101
Aircraft Movements (e)					
Adelaide (c) . . . . .	22 081	21 918	21 780	22 659	24 351
Kingscote . . . . .	1 495	1 584	1 455	1 745	1 992
Port Lincoln . . . . .	1 493	1 432	1 382	1 742	2 234
Woomera . . . . .	907	726	608	536	474
Whyalla . . . . .	1 133	1 139	1 106	1 188	1 378
Mount Gambier . . . . .	1 243	1 247	1 251	1 257	1 398

(a) Total of embarkations and disembarkations. (b) Figures of passengers and freight movements are overstated to the extent of through traffic transferring between flights. (c) Includes Edinburgh Airfield. (d) Total of freight loaded and unloaded. (e) Total of arrivals and departures.

**Aerial Medical Services**

Aerial medical services are carried out in the outback areas of Australia. The Royal Flying Doctor Service of Australia (SA Section) Inc. operates control stations at Alice Springs and Port Augusta. Early in 1968 the Flying Doctor Service took over the aerial services of the Bush Church Aid Society (SA Branch). These services, previously operated from Ceduna, are now maintained from Port Augusta. The St John Ambulance Service—Upper Eyre Peninsula Inc., operates two aircraft which are based at Whyalla.

**Civil Aviation Accidents**

In South Australia, during the ten-year period from 1964-65 to 1973-74, there were thirty-five civil aviation accidents involving casualties and these resulted in the death of fifty-nine persons and injury to seventeen. These figures exclude parachutists killed in contact with earth after an uninterrupted fall.

Eight of the accidents occurred in gliding, eighteen in private flying, three in training and six in charter operations. Thirty-nine of the deaths occurred in private flying, sixteen in charter work, three in gliding and one in training operations. There was no accident involving casualties in regular public transport operations.

## 10.5 COMMUNICATION

The Postmaster-General's Department works in close co-operation with three important agencies: the Overseas Telecommunications Commission, which is responsible for establishing, maintaining, and operating public cable and radio telegraph services with overseas countries and ships at sea; the Australian Broadcasting Control Board, which ensures the provision of services by broadcasting stations and television stations in accordance with plans prepared by the Board; and the Australian Broadcasting Commission, which controls the activities of the National Broadcasting Service and the National Television Service.

A Commission was established in February 1973 to conduct an inquiry into what changes, if any, should be made in the organisation, administration and operations of postal and telecommunication services.

On 19 April 1974 the Commissioners presented their Report which included a recommendation for the establishment of separate postal and telecommunication corporations independent of the jurisdiction of the Public Service Board.

### POSTAL, TELEGRAPH AND TELEPHONE SERVICES

The postal, telegraph and telephone services in Australia are under the control of the Postmaster-General pursuant to the provisions of the *Post and Telegraph Act* 1901-1974. A detailed history of Posts, Telegraphs and Telephones was included on pages 469-70 of the *South Australian Year Book* 1967.

As a result of Federation all the former colonial post and telegraph services were taken over by the Australian Government on 1 March 1901. In 1901 there were 713 post offices operating in South Australia and the Northern Territory, with 1 831 telephone services connected. At 30 June 1974 there were 786 post offices and 298 300 telephone services in operation.

Details of post offices and the number of persons employed in postal services in South Australia for the years 1970 to 1974 are given in the following tables. All tables in this section include details for the Northern Territory as separate figures are not available.

**Post Offices: South Australia and Northern Territory  
Number at 30 June**

Particulars	1970	1971	1972	1973	1974
Post Offices:					
Official . . . . .	177	175	175	171	171
Non-official . . . . .	711	685	651	650	615
Telephone Offices . . . . .	84	83	83	70	64
<b>Total . . . . .</b>	<b>972</b>	<b>943</b>	<b>909</b>	<b>891</b>	<b>850</b>

Non-official post offices are conducted by persons who are not members of the Australian Public Service and who receive an allowance based on business transacted—in many instances this type of business is conducted in conjunction with some other business activity. Telephone offices provide facilities for making trunk line and local telephone calls and for lodging telegrams but do not transact any other postal services.



**Post Offices: Employment, South Australia and Northern Territory<sup>(a)</sup>**  
**At 30 June**

Persons Employed	1970	1971	1972	1973	1974
<b>Direct employees:</b>					
Permanent officers . . . .	8 326	8 582	8 831	9 178	9 622
Temporary and exempt employees . . . . .	2 159	2 013	2 007	2 099	2 299
<b>Total . . . . .</b>	<b>10 485</b>	<b>10 595</b>	<b>10 838</b>	<b>11 277</b>	<b>11 921</b>
<b>Other:</b>					
Non-official and semi-official postmasters and postmistresses . . . . .	709	688	654	626	624
Persons exclusive of postmasters employed at non-official offices . . . . .	205	214	202	192	190
Telephone office keepers . .	83	83	71	68	64
Mail contractors . . . . .	309	257	256	308	295
<b>Total . . . . .</b>	<b>1 306</b>	<b>1 242</b>	<b>1 183</b>	<b>1 194</b>	<b>1 173</b>
<b>Total all employees</b>	<b>11 791</b>	<b>11 837</b>	<b>12 021</b>	<b>12 471</b>	<b>13 094</b>

(a) 'Direct Employees' are full-time or part-time staff directly under the control of the Postmaster-General's Department while 'Other' employees include staff engaged, either full-time, or part-time, under contract or in return for payment appropriate to work performed.

### Receipts and Payments

The Post Office maintains a system of financial and management accounts, known as its commercial accounts, which are quite distinct from the cash accounts maintained to meet Treasury requirements. The cash accounts record actual cash receipts paid into, and cash payments made from, the Post Office Trust Account and take no note of outstanding liabilities or of amounts due but not received at the end of the financial year.

**Post Office Trust Account: Cash Receipts**  
**South Australia and Northern Territory**

Year	Postal	Telephone	Telegraph	Proceeds of sales	Recoverable Works	International Services	Total
				\$'000			
1969-70 . . . . .	13 885	38 465	1 918	560	3 922	143	58 892
1970-71 . . . . .	15 847	43 333	1 988	675	4 815	68	66 727
1971-72 . . . . .	18 309	50 820	2 342	738	4 555	233	76 998
1972-73 . . . . .	19 227	58 306	2 569	773	4 699	230	85 804
1973-74 . . . . .	21 298	68 208	2 963	744	4 874	350	98 436

Capital expenditures are included below with all other cash payments. Separate details of capital expenditures, for either Post Office purposes or other authorities, are not available.

**Post Office Trust Account: Cash Payments**  
**South Australia and Northern Territory**

Year	Salaries and Wages	Material	Carriage of Mail by Contractors	Buildings, Sites and Properties	Accommodation Services	Other Administrative Expenses	Total
							\$'000
1969-70 . . . . .	38 766	15 003	1 261	2 960	2 289	3 515	63 793
1970-71 . . . . .	44 671	18 981	1 340	5 593	2 423	3 766	76 774
1971-72 . . . . .	51 636	19 521	1 293	10 729	2 677	4 308	90 163
1972-73 . . . . .	60 649	24 304	1 238	7 675	2 885	4 922	101 674
1973-74 . . . . .	75 150	26 649	1 297	6 289	3 410	5 710	118 505

**Postal Articles Handled**

Details of articles handled by the Postmaster-General's Department in South Australia and the Northern Territory during the years 1969-70 to 1973-74 are shown in the following table.

**Postal Articles Handled, South Australia and Northern Territory**

Year	Letters and Postcards (a)	Newspapers and Packets (a)	Parcels (b)	Registered Articles	All Articles
<b>Posted for delivery:</b>					
<b>Within Australia;</b>			<b>'000</b>		
1969-70 . . . . .	187 570	17 422	1 540	746	207 278
1970-71 . . . . .	194 852	17 123	1 770	754	214 499
1971-72 . . . . .	200 023	18 897	1 738	660	221 317
1972-73 . . . . .	203 236	18 317	1 888	606	224 048
1973-74 . . . . .	209 303	21 095	1 884	579	232 860
<b>Beyond Australia;</b>					
1969-70 . . . . .	9 408	1 079	64	68	10 619
1970-71 . . . . .	9 675	1 063	84	85	10 908
1971-72 . . . . .	9 129	690	92	74	9 986
1972-73 . . . . .	9 619	787	93	85	10 584
1973-74 . . . . .	4 517	318	85	79	4 999
<b>Received from beyond Australia:</b>					
1969-70 . . . . .	7 165	2 255	126	35	9 581
1970-71 . . . . .	5 871	2 202	104	35	8 211
1971-72 . . . . .	6 692	2 293	94	36	9 114
1972-73 . . . . .	5 745	1 731	85	30	7 590
1973-74 . . . . .	5 405	1 876	98	32	7 411

(a) Includes Certified and Messenger Delivery mail. (b) Includes registered parcels.

**Money Orders and Postal Orders**

The value of money orders and postal orders issued in 1944-45 amounted to \$3 128 000 and \$1 801 000 respectively; in 1973-74 the corresponding values were \$13 863 000 and \$9 660 000. Total commission charged on money orders issued in 1973-74 amounted to \$261 000. The fee on postal orders issued in 1973-74 amounted to \$293 000.

The value of money orders and postal orders paid in 1944-45 amounted to \$2 995 000 and \$1 072 000 respectively; in 1973-74 the corresponding values were \$12 622 000 and \$8 075 000.

**Money Orders Issued and Paid  
South Australia and Northern Territory**

Year	Money Order Offices	Issued For Payment				Paid, Having Been Issued			
		Within Australia		Beyond Australia		Within Australia		Beyond Australia	
		Number	Value	Number	Value	Number	Value	Number	Value
	Number	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000
1969-70 ..	551	857	16 819	60	547	818	16 056	23	413
1970-71 ..	547	665	14 651	57	612	676	16 530	23	453
1971-72 ..	540	410	12 226	61	716	395	11 473	22	550
1972-73 ..	541	386	12 375	59	723	361	11 548	20	510
1973-74 ..	534	337	13 138	57	726	317	12 184	18	438

**Postal Orders Issued and Paid  
South Australia and Northern Territory**

Year	Postal Order Offices	Postal Orders Issued		Postal Orders Paid	
		Number	Value	Number	Value
	Number	'000	\$'000	'000	\$'000
1969-70 .. . . . . .	884	1 971	4 617	1 483	3 682
1970-71 .. . . . . .	877	2 432	7 248	1 808	5 917
1971-72 .. . . . . .	824	2 518	8 948	1 945	7 614
1972-73 .. . . . . .	822	2 364	9 059	1 888	7 755
1973-74 .. . . . . .	814	2 305	9 660	1 869	8 075

**Telegraph System**

Australia's telegraph service, known as TRESS (Teleprinter Reperforator Switching System) was first introduced in South Australia in 1959, before being extended to the other States. This system, using teleprinters and automatic switching apparatus, has eliminated the intermediate handling of telegraph traffic, resulting in greater speed and economy.



\$26.66 respectively. Annual rental charges for continuous exchange and non-continuous exchange business services are \$85 and \$50 respectively. Approximately 97 per cent of exchanges are now continuous.

Private calls between subscribers within a single telephone zone, and between subscribers in adjoining zones, are charged at a 'local call' rate of 6 cents per call. The corresponding charge for calls from public telephones is 10 cents. Trunk call rates, which vary according to duration and distances, are charged for calls between non-adjoining telephone zones: lower rates are charged for calls between 6 p.m. and 8 a.m.

A Post Office objective is the establishment of a nationwide subscriber to subscriber direct trunk calling system known as subscriber trunk dialling (STD). The provision of STD facilities at telephone exchanges in South Australia has increased rapidly since its introduction in January 1967 and at June 1974 STD facilities were available to approximately 196 000 subscribers in the Adelaide Telephone District and about 36 000 country subscribers for two-way contact with selected exchanges in New South Wales, Victoria, Queensland, Western Australia and Tasmania. In addition either one-way or two-way direct dialling between a number of other country exchanges and Adelaide was available to approximately 8 000 country subscribers.

Because approximately 60 per cent of trunk calls originate in country areas, directed either to the capital city or to other country exchanges, great benefit will accrue when all country exchanges are linked with the STD system. However, many years will elapse before the majority of exchanges can be connected because of the amount of work and the complex equipment involved.

### Telephone Services, South Australia and Northern Territory

At 30 June	Telephone Exchanges	Telephone Services						Trunk Line Channels in Service
		Ordinary Exchange	Duplex	Party Line	Private Branch Exchange	Public Telephones	Total	
1970 .. ..	711	211 906	2	1 249	23 350	2 945	239 452	6 293
1971 .. ..	706	218 113	2	1 172	29 075	2 968	251 330	(a) 2 053
1972 .. ..	698	225 325	2	1 097	32 168	3 016	261 608	(a) 2 291
1973 .. ..	690	239 467	2	995	35 178	3 045	278 687	(a) 2 378
1974 .. ..	674	257 146	2	915	37 140	3 097	298 300	(a) 2 726

(a) Excludes trunk junctions.

Metropolitan services are all operated through automatic exchanges, whereas at 30 June 1974, 92 000 country services were automatic and 17 000 services were manually connected. Metropolitan services totalled approximately 190 000 and of these 129 000 were residence services. In the country, business phone services accounted for the large share (about 52 per cent) of services.



**Broadcast Listeners' and Television Viewers' Licences  
South Australia and Northern Territory**

Item	Unit	1970-71	1971-72	1972-73	1973-74
Listeners' licences (a) . . . .	Number (b)	69 101	66 792	69 909	70 669
Viewers' licences (a) . . . .	Number (b)	61 868	69 537	76 520	78 606
Combined licences . . . . .	Number (b)	241 384	248 820	262 502	268 847
Revenue (a) . . . . .	\$'000	5 586	7 057	7 720	7 984

(a) Includes hirers' and short-term hirers' licences. (b) At 30 June.

Further information on radio and television services is contained in Part 6.4 Culture and Recreation.

**OVERSEAS TELECOMMUNICATIONS SERVICES**

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance, operation and development of Australia's overseas public telegraph, phototelegraph, telex and telephone services, and facilities for service with ships at sea. The Commission operates its services through submarine coaxial cable, communication satellites and high frequency radio. Some of these services are provided in conjunction with the Postmaster-General's Department.

Recent developments have included the establishment of earth stations in Australia to operate in conjunction with a communications satellite system. Earth stations at Carnarvon in Western Australia and at Moree in New South Wales operate through communications satellite INTELSAT II which was launched in January 1967.

In February 1970 Australia's third earth station near Ceduna was opened. This station faces westward to INTELSAT III which is located over the Indian Ocean and can carry all types of communications traffic: subject to establishment of earth stations in relevant countries it provides facilities for direct links with Europe, Africa, India, most of South-East Asia, and the western part of Japan. The first direct broadcast *via* this satellite was received in Australia from the United Kingdom on 20 February 1970.

Details of the overseas telecommunications services and traffic are published in various issues of the *Official Year Book of Australia*, e.g. No. 57, 1971, pages 370-2.

**PART 11**

**PUBLIC FINANCE**

**11.1 STRUCTURE OF PUBLIC FINANCE**

The collection of public revenue and the expenditure of public money in South Australia are the responsibility of four groups of authorities: (i) Australian Government; (ii) South Australian Government; (iii) public corporations; and (iv) local government.

The power to raise revenue from taxation is vested in the various governments and authorities by Acts of Parliament. Other revenue comes from the proceeds of the sale of goods and services to the public and to other governments and authorities. A major proportion of the revenue of the State Government, and a smaller proportion of the revenue of local government authorities and some public corporations is derived from grants from other levels of government: grants are made by the Australian to the State Government and by the latter to public corporations and local government bodies. A further source of funds is the loan market: Government securities are issued for loan raisings in Australia and overseas.

Authorisation for expenditure by Australian and State Government departments is given by Appropriation Acts or by Special Acts of their respective Parliaments. Each State public corporation derives its authority for expenditure from the provisions of the specific Act under which it has been established. The Local Government Act, 1934-1974 contains sections relating to local government expenditure. The following sections of this part provide some details of the financial transactions of the government sector in South Australia. Special attention is given to transactions within the State Government budget, transactions



of a number of public corporations, and transactions of all local government authorities. In addition, details of some Australian Government expenditures are included.

### Australian Government Transactions

Reference is made to the revenue and expenditure of the Australian Government only to the extent that it affects the finances of the State Government. As indicated in more detail below, not all of the transactions listed relate directly to the State budget; many of the items are negotiated wholly through State Trust Funds. The transactions which are included represent only a small proportion of total expenditure by the Australian Government within South Australia. A more detailed analysis of Australian Government finance may be obtained from the *Official Year Book of Australia*.

### State Government Accounts

Statistics relating to the State Government Budget are derived from accounts prepared by the Treasurer each year and included in the Report of the Auditor-General of South Australia. These accounts, which are on a cash basis, cover the Consolidated Revenue Account which in general terms is the current account of the Government, and the Loan Fund through which is handled all money raised by public borrowing; the receipt and disbursement of some special purpose Australian Government grants are also handled through these accounts.

State Government budget receipts include (in addition to loan raisings) taxation, proceeds of sale of goods and services by trading undertakings, some of the grants made by the Australian Government, fees, rents, recoups and other sundry items. State Government disbursements are made for capital works, for provision of services (such as health, education and water supply), for general administrative expenses, and for interest and redemption payments.

The State Government Budget excludes many transactions negotiated through State Government Deposit and Suspense Accounts (including working accounts) and Trust Funds. The volume of such transactions is considerable. For example, road works financed through Road Maintenance Act charges and by Commonwealth Aid Roads grants are handled through working accounts, as are the operating costs and revenue of the Woods and Forests Department.

Some idea of the framework of the various funds may be obtained from the following table showing sources and disposal of funds in which the balances of Trust Funds and of Departmental Accounts appear.

### Government of South Australia, Sources and Disposal of Funds at 30 June 1974

Sources and Nature of Funds	\$'000
Public Debt:	
Securities Current at 1 July 1973 . . . .	1 415 129
New Loans Raised during 1973-74 . . . .	252 681
	<hr/>
	1 667 810
Less: Securities Redeemed and Converted	186 473
	<hr/>
Public Debt at 30 June 1974 . . . . .	1 481 337

**Government of South Australia, Sources and Disposal of Funds  
at 30 June 1974 (continued)**

Sources and Nature of Funds (continued)	\$'000	
Other Interest Bearing Indebtedness:		
Trust Fund Balances . . . . .		18 068
Liabilities to Australian Government;		
Housing Agreements . . . . .		289 528
Other . . . . .		55 381
Non-Interest Bearing Indebtedness:		
Trust Fund Balances . . . . .		14 830
Departmental Balances and Other Funds ..		27 825
		<hr/> 1 886 968
Disposal of Funds		
Loan Account:		
Total of Loan Works at 1 July 1973 ..	1 328 606	
Payments during 1973-74 . . . . .	168 526	
		<hr/> 1 497 132
Less: Repayments . . . . .	46 774	
Securities Cancelled . . . . .	14 231	
Other Credits (a) . . . . .	63 625	
		<hr/> 124 630
Loan Works Account Balances at 30 June 1974 . . . . .		1 372 502
Other Loan Expenditure (b) . . . . .		104 000
Consolidated Revenue Account:		
Deficit at 1 July 1973 . . . . .	2 035	
Less: Special grant (c) . . . . .	4 900	
Surplus in respect of period to 30 June 1973 . . . . .	2 865	
		<hr/>
Receipts for Year . . . . .	641 967	
Payments for Year . . . . .	645 368	
		<hr/>
Deficit for Year . . . . .	3 401	
Deficit at 30 June 1974 . . . . .		536
Rural Industry Assistance Agreement:		
Advances to Primary Producers . . . . .		10 050
Housing Agreements:		
Advances to SA Housing Trust . . . . .	159 732	
Advances to Home Builders Accounts ..	129 796	
		<hr/> 289 528
Natural Gas Pipeline Agreement:		
Advances to Natural Gas Pipelines Authority . . . . .		11 250
Railway Standardisation and Equipment:		
Improvements and Advances . . . . .		16 735
Other Agreements . . . . .		17 883
Cash at Bank . . . . .		64 484
		<hr/> 1 886 968

(a) Amount of debt to be taken over by Australian Government (\$26 000 000) and Capital Works Grant, in lieu of loan raising (\$37 625 000). (b) Not represented by Assets: debt to be taken over by Australian Government. (c) Pursuant to Section 96 of Australian Constitution on account of the period to 30 June 1972.

### Public Corporation Accounts

Most of the details included under this classification are based on the Auditor-General's annual reports prepared for a number of public corporation business undertakings, including those engaged in banking. Information is given from both revenue statements and balance sheets.

### Local Government Accounts

Details included for local government authorities to 1967-68 are based on cash statements of receipts and payments: from 1968-69 onwards the details are based on annual statements prepared on an income and expenditure (accrual) basis in accordance with the 'Local Government Accounting Regulations, 1967'. Details of loan raisings are based on returns furnished separately.

### Consolidated State and Local Government and Public Corporations Accounts

Any analysis of financial transactions of the Government sector would be incomplete without a comprehensive consolidation of all levels and funds of Government. No such data had been released until 1970 when the Commonwealth Statistician published the *Public Authority Finance* bulletin showing net receipts and outlays of the Australian Government and each State separately and of the Australian Government combined with all States. The figures are net and consolidated: net figures are those for which expenditures within a given classification have been reduced to the extent of any relevant receipt (and *vice versa*); and consolidated figures are those for which inter-authority, inter-level and inter-fund transactions are eliminated on consolidation of those authorities, levels and funds.

The tables which follow show figures on a consolidated net basis for State and local government and major public corporations in South Australia for the four years to 1972-73. The figures should be regarded as interim only and could be subject to alteration as the analysis is extended and refined.

#### State and Local Government Authorities and Public Corporations South Australia, Receipts and Financing Items

Particulars	1969-70	1970-71	1971-72	1972-73 <i>p</i>
	\$ million			
Receipts:				
Taxes, fees, fines, etc. . . . .	95.4	100.3	138.9	169.5
Income from public enterprises	42.7	43.9	40.5	39.5
Property income:				
Interest . . . . .	13.7	15.4	18.7	<i>n.a.</i>
Land rent, royalties . . . . .	3.0	3.4	3.5	<i>n.a.</i>
Dividends . . . . .	—	—	—	<i>n.a.</i>
Total property income	16.7	18.7	22.1	23.3

**State and Local Government Authorities and Public Corporations  
South Australia, Receipts and Financing Items (continued)**

Particulars	1969-70	1970-71	1971-72	1972-73 <i>p</i>
	\$ million			
Grants from the Australian Government:				
For current purposes . . . . .	140.6	178.2	194.1	239.2
For capital purposes . . . . .	40.5	65.6	69.7	80.9
Total receipts . . . . .	335.9	406.8	465.3	552.4
Financing items:				
Net borrowing;				
Local authority and public corporation securities . .	22.6	24.9	25.0	(a)
Other general government securities . . . . .	—	—	—	(a)
Net advances from the Australian Government;				
For loan works purposes .	68.7	45.1	76.2	83.4
Other . . . . .	22.5	26.8	-0.3	1.9
Net receipts of private trust funds . . . . .	1.7	-0.4	0.8	(a)
Reduction in;				
Cash and bank balances .	-3.1	-0.2	-4.8	(a)
Security holdings . . . . .	-7.4	-6.2	3.2	(a)
Other funds available (including errors and omissions) . . . .	15.7	12.8	17.7	8.0
Total financing items . . .	120.8	102.7	117.8	93.3
Total funds available . . . .	456.7	509.5	583.2	645.7

(a) Included in other funds available.

**State and Local Government Authorities and Public Corporations  
South Australia, Outlay**

Particulars	1969-70	1970-71	1971-72	1972-73 <i>p</i>
	\$ million			
Final consumption expenditure . .	159.2	194.6	235.5	277.5
Gross capital formation:				
Increase in stocks . . . . .	-0.9	5.1	0.7	4.4
Expenditure on new fixed assets	190.6	190.9	213.5	221.8
Expenditure on existing assets (net) . . . . .	5.0	5.3	11.1	6.8
Total gross capital formation. . . . .	194.7	201.3	225.3	233.0

**State and Local Government Authorities and Public Corporations**  
**South Australia, Outlay (continued)**

Particulars	1969-70	1970-71	1971-72	1972-73 <i>p</i>
Transfer payments:			\$ million	
Interest . . . . .	81.3	89.6	97.9	104.0
Transfer to persons . . . . .	3.3	4.3	4.5	7.0
Subsidies . . . . .	0.2	0.2	0.2	0.5
Transfer overseas . . . . .	—	—	—	—
Grants for private capital purposes . . . . .	2.2	2.4	2.5	3.2
Total transfer payments ..	87.1	96.5	105.1	114.7
Net advances:				
To the private sector . . . . .	6.1	5.6	6.1	5.5
To public financial enterprises..	9.6	11.5	11.2	15.0
Total net advances . . . . .	15.7	17.1	17.3	20.5
Total outlay . . . . .	<b>456.7</b>	<b>509.5</b>	<b>583.2</b>	<b>645.7</b>
Current outlay . . . . .	246.3	291.1	340.6	392.2
Capital outlay . . . . .	210.4	218.4	242.6	253.5

## 11.2 AUSTRALIAN-STATE GOVERNMENTS FINANCIAL RELATIONS

The Commonwealth of Australia Constitution Act and the 1927 Financial Agreement represent significant events in financial relations between the Australian and State Governments. Under the former, the States surrendered the right to levy customs and excise duties which passed exclusively to the Australian Government and under the latter, the Australian Government became the borrowing agent for the States. Further details appear on page 537 of the *South Australian Year Book 1972*.

Since Federation the Australian Government has made payments of various descriptions to the States. Before the 1939-45 War, Australian Government payments were mainly of a marginal character and were confined, for the most part, to special grants to assist the financially weaker States and to certain specific purpose grants relating to such matters as Australian Government assistance for roads and contributions under the Financial Agreement.

Since the 1939-45 War there has been a marked increase in the amount and variety of Australian Government assistance to the States. This has reflected, among other things, increases in the range and variety of government activities which have accompanied economic and social developments in this period of

rapid growth of the Australian economy; greater participation by the Australian Government in matters which were previously considered to be the sole responsibility of the States; and the effects of the introduction and continuation of uniform income tax and of other changes on the basic allocation of financial resources between the Australian and State Governments.

There are various ways of classifying Australian Government payments to the States. They may be classified as 'capital' as opposed to 'current' transactions; to general purpose grants compared with payments for purposes specified by the Australian Government; or in accordance with the constitutional authority under which the payments are made. Many of the recently introduced grants have been for specified purposes and instituted under Section 96 of the Constitution.

### SPECIAL GRANTS

The Constitution provides, in Section 96, for the granting of special financial assistance to the States. Before 1933 financial assistance of varying amounts was granted to South Australia, Western Australia and Tasmania.

In 1933 the Australian Government appointed the Grants Commission, of three members, to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto. From 1933 to 30 June 1959 applications were lodged by each of the three States already mentioned. South Australia ceased to be a claimant State from 1 July 1959; and at the Premiers' Conference in June 1968, following a request from Western Australia, it was agreed that (subject to certain considerations) claims by Western Australia would cease after payments in respect of 1967-68 leaving Tasmania as the only claimant State during 1968-69 and 1969-70. Following the Premiers' Conference in June 1970 the Government of South Australia decided to again submit a claim; it did this on 6 July 1970. On 30 September 1971 Queensland also made application for a special grant. In 1974, following the Australian Government's agreement to provide additional financial assistance, Tasmania withdrew from the special grants system. For 1974-75 the Commission recommended a completion grant for South Australia of \$8.5 million in respect of 1972-73 and an advance grant of \$15 million. The grants announced by the Commission are authorised by *States Grants (Special Assistance) Acts*.

### FINANCIAL ASSISTANCE GRANTS

Financial assistance grants, formerly called tax reimbursement grants, make up the bulk of the assistance provided for general revenue purposes and are determined annually on the basis of an agreed formula.

A discussion of grants applicable before 1970-71 appears on pages 538-9 of the *South Australian Year Book 1972*. Financial assistance grants applicable for 1970-71 and later years were discussed at a special Premiers' Conference in February 1970.

At that Conference the Australian Government opposed any resumption by the States of powers to impose income tax but offered in principle to improve the position of the States in four ways by:

- (1) increasing the basic figure used in the formula to determine the level of financial assistance grants;
- (2) increasing the rate of growth in the amounts granted to the States;
- (3) assuming responsibility for some part of State debts; and
- (4) making grants, in lieu of State borrowings, for some part of future works programs to reduce the rate of growth in State indebtedness.

Following the June 1970 Premiers' Conference the Australian Government gave effect to this offer by passing the *States Grants Act 1970*, the *States Grants (Debt Charges Assistance) Act 1970* and the *States Grants (Capital Assistance) Act 1970*. Details of these Acts appear on pages 587-9 of the *South Australian Year Book 1974*.

The *States Grants Act 1971* embodies the receipts duty compensation arrangements decided on at a Premiers' Conference held in October 1970. After the High Court invalidated certain forms of the stamp duty on receipts which the States had been imposing and the Senate refused to pass legislation to provide for continuance of the duty beyond 30 September 1970 it was agreed that the States would not impose any part of the duty beyond that date. In return the Australian Government undertook to make good the whole of the resultant loss of revenue to the States for the remainder of 1970-71 and to add into the base for the calculation of the formula grants in 1971-72 and subsequent years an estimate of the receipts duty that would have been collected in 1970-71 had it been a normal year. Additional financial assistance of \$59.7 million was paid in 1970-71 and \$88.4 million was added to the base for 1971-72.

The *States Grants Act (No. 2) 1971* gave effect to an agreement made at the June 1971 Premiers' Conference which provided for the transfer of the power to levy payroll tax from the Australian to the State Governments with an appropriate adjustment to the financial assistance grants. The Premiers later agreed to increase the rate of payroll tax from 2.5 per cent to 3.5 per cent as soon as authority for the tax was transferred to the States.

At the June 1972 Premiers' Conference the Australian Government agreed to provide extra assistance of \$112 million for 1972-73 with this amount to form part of the base for the calculation of formula grants in future years. Special non-recurring assistance of \$3.5 million was approved for Western Australia while the non-formula grants of \$2 per head of population for New South Wales and Victoria agreed to at the June 1970 Conference were increased to \$3.50 per head for 1972-73 and thereafter escalated in accordance with the formula. It was agreed at the June 1973 Premiers' Conference that a special assistance grant would again be made to Western Australia in 1973-74. After discussions between the Australian and Western Australian Governments it was announced that a grant of \$3.5 million would be made in that year. In addition the Australian Government agreed to provide special revenue assistance to the States in 1973-74 totalling \$25 million to be distributed among the States in proportion

to the financial assistance grants payable under the formula. No alterations to the financial assistance grant agreements were made at the June 1974 Premiers' Conference (except for the withdrawal of Tasmania from the Special Grants System).

Capital assistance in the form of a grant, in lieu of loan raisings, was authorised by the *States Grants (Capital Assistance) Act 1970* which provided for a grant to the States of \$200 million in 1970-71. This assistance was continued in 1971-72 and under the 1971 Act South Australia's share was approximately \$28·8 million.

As well as increasing the 1971-72 grants and providing for similar grants in 1972-73, *States Grants (Capital Assistance) Acts* passed in 1972 provided for additional grants by way of capital assistance to the States for government primary and secondary schools during 1971-72 and 1972-73. The *States Grants (Capital Assistance) Act 1973* provided for a grant of \$278·3 million to the States in 1973-74, South Australia's share of the general works grant being \$37·6 million; this excluded specific advances for welfare housing (see comments below) and was after allowing for Australian Government assumption of full responsibility for tertiary education from 1 January 1974.

At the June 1973 Premiers' Conference it was agreed that from 1 January 1974 the Australian Government would take over full financial responsibility for tertiary education. As a result deductions of \$111·8 million in 1973-74 and \$229·7 million in 1974-75 were made from financial assistance grants, otherwise payable to the States, to make allowance for recurrent expenditures no longer required of them: the 1974-75 amounts will be subtracted from the base for calculation of formula grants in 1975-76 and subsequent years. Responsibility in respect of certain Aboriginal affairs functions was transferred to the Australian Government by Tasmania from 31 August 1973, by South Australia from 1 December 1973 and by Western Australia from 29 June 1974. The Australian Government has stated its intention of making offsets to general purpose assistance in respect of this matter, but it has not proceeded to the stage where the details of offset arrangements can be determined.

#### OTHER FINANCIAL ASSISTANCE

In addition to the grants under the Financial Agreement, the special grants recommended by the Grants Commission, and the financial assistance grants, the Australian Government makes payments to the States for many specific purposes, some details of which are given below.

Grants for road works have been made since 1923, and from 1931 to 1958 were based on a percentage of Australian Government petrol taxation. A new scheme of assistance to the States for roads was established by the *Commonwealth Aid Roads Act 1959* in which the Australian Government undertook to provide \$500 million for distribution, according to stated criteria, to the States during the five years to 30 June 1964. The *Commonwealth Aid Roads Act 1964* stipulated a sum of \$750 million for distribution to the States during the five years from 1 July 1964. For the five years commencing 1 July 1969 the relevant



sum is \$1 252 million. The criteria for distribution to the States, and South Australia's share of these grants, are mentioned in references and text in Part 8.3 Roads.

Under successive Australian-State Governments Housing Agreements between 1 July 1956 and 30 June 1971, housing advances were made by the Australian Government to the States at concessional rates of interest. A new arrangement under the *States Grants (Housing) Act* 1971 applicable from 1 July 1971 provides that the interest concession will be replaced by annual grants payable over a period of thirty years. At the June 1973 Premiers' Conference Loan Council meeting, the arrangements for housing finance were again changed. From 1973-74 the Australian Government will provide, at concessional rates of interest, advances for housing outside the programs determined by the Loan Council.

Under the *States Grants (Mental Health Institutions) Act* 1964 the States are entitled to receive assistance amounting to one-third of the total expenditure incurred by them, with Australian Government approval, in building and equipping mental health institutions. The *States Grants (Mental Health Institutions) Act* 1970 extended to 1973 the period for which this assistance would be provided. Final grants under this program were made in 1973-74. Under the *Mental Health and Related Services Assistance Act* 1973, the Australian Government will provide grants to the States and other eligible organisations for capital and maintenance expenditure on community facilities and services for mental health, alcoholism and drug dependency. Grants in 1973-74 were \$6.6 million to the States and \$0.1 million to eligible organisations.

Following the report of the Interim Committee of the Hospitals and Health Service Commission in 1973, the Australian Government decided to make available both capital and recurrent grants for the development of community-based health services, such as community health centres and therapeutic day centres. In 1973-74, grants totalling \$9.2 million were paid to the States and \$0.7 million was paid direct to other organisations.

Agreement was reached in 1973 between the Australian and State Governments on a program to provide an Australia-wide School Dental Service. The capital costs of providing school dental clinics are being borne in full by the Australian Government. Operational costs, however, are being shared between the Australian Government and the State Governments on a \$3 for \$1 basis. In 1973-74, grants totalling \$7.5 million were paid to the States under this scheme.

Payments to the States for recurrent expenditure of universities commenced in 1951-52. Grants for capital works and equipment for universities were introduced in 1958. The *States Grants (Universities) Act (No. 2)* 1972 provided for grants of up to \$343.5 million to the States for universities during the three calendar years 1973 to 1975. This amount was based on matching arrangements under which, for recurrent expenditures, the Australian Government met \$1 for each \$1.85 State grants and university fees combined and for capital expenditures met \$1 for each \$1 of State contribution. The *States Grants (Universities) Act (No. 3)* 1973 altered the grants for the latest triennium with the major consideration being the Australian Government's assumption of full financial responsibility

for tertiary education and its intention to abolish fees from 1 January 1974. The Act provides for grants to the States totalling \$800 867 000 in the triennium 1973 to 1975.

In 1964 the Australian Government authorised payments to assist in the investigation and measurement of river and underground water resources. Further legislation in 1967, 1970 and 1973 extended these arrangements for successive three-year periods. The *States Grants (Water Resources Measurement) Act* 1973 provides for payments to the States totalling \$15 109 000 in the three years commencing 1 July 1973. The *States Grants (Water Resources Measurement) Act* 1974 provides for an additional grant of \$808 000 for a two-year water quality assessment program.

From 1964 the Australian Government has legislated for grants designed to assist education and research in the States. Grants introduced during the first three years related to science laboratories in State and private secondary schools, training of persons for employment in trade and technical occupations, education in non-university tertiary institutions (colleges of advanced education), and approved research projects. The range of institutions eligible for assistance through these grants was extended in 1967 to include teachers colleges, and in 1968 pre-school teachers colleges and secondary school libraries. The *States Grants (Independent Schools) Act* 1969 extended this assistance further by providing for the payment of *per capita* grants (in respect of recurrent expenditure) to independent schools. *Per capita* amounts were increased (to \$50 per primary pupil and \$68 per secondary pupil, a year) by the *States Grants (Independent Schools) Act* 1972.

On 12 December 1972 the Australian Government established the Interim Committee for the Australian Schools Commission which has advised on the financial needs of government and non-government schools. The Commission itself was established by the *Schools Commission Act* 1973, which came into effect in December 1973. Since the beginning of 1974, grants have been made to the States for government schools and for non-government schools on the recommendation of the Interim Committee, under the *States Grants (Schools) Act* 1972-1973. For 1974 and 1975 the Interim Committee recommended total general recurrent grants for primary and secondary schools, both government and non-government, estimated at \$309.3 million. The grants for government schools total \$175.9 million over the two years. Of the grants recommended for non-government schools, \$63.0 million will be made through the States to Catholic authorities in each State in 1974 and 1975 for allocation to what the Committee referred to as 'systemic' schools. For 'non-systemic' non-government schools the Committee recommended specified amounts of assistance per pupil for schools in eight categories; these categories are based on measures of resource use. The 'non-systemic' non-government schools will receive an estimated \$70.3 million in 1974 and 1975.

While the program of grants for science laboratories and equipment in secondary schools will not be extended beyond 30 June 1975 (it will thereafter be part of the general building program) the existing program relating to school libraries will, as recommended by the Interim Committee, be extended beyond December 1974. The Interim Committee has also recommended grants

to provide additional resources to schools catering for pupils from especially disadvantaged neighbourhoods and to increase the number of teachers in, and improve standards of, special schools.

In 1973-74, the Australian Government provided assistance of \$1.2 million to South Australia for capital and recurrent expenditure on pre-schools and child care centres.

In June 1973 the States accepted the Australian Government's offer to assume full financial responsibility for financing tertiary education and abolition of fees from 1 January 1974. As a result, grants in respect of colleges of advanced education (including teachers colleges), pre-school teachers colleges and technical training have increased substantially from 1973-74.

In 1969 the Australian Government introduced additional grants to the States for dwellings for aged pensioners, home care, nursing homes, and paramedical services.

The *States Grants (Aboriginal Advancement) Act* 1970 provided for continuation of grants commenced in 1968-69 relating to the welfare and advancement of Aborigines and included specific provisions for financial assistance for the housing of Aborigines. Grants in 1973-74 were provided under the *States Grants (Aboriginal Advancement) Act (No. 2)* 1973. The *States Grants (Aboriginal Assistance) Act* 1974 provided for grants of \$40 790 000 in 1974-75.

From time to time the Australian Government makes 'Natural Disaster' payments to various States: in 1968 grants to South Australia were authorised to reimburse expenditure on alleviation of the effects of drought and to compensate for loss of revenue resulting from drought.

The *States Grants (Rural Reconstruction) Act* 1971 provides for the payment of \$100 million (\$12 million to South Australia) over a period of approximately four years to provide assistance under three headings, namely debt reconstruction, farm build-up and rehabilitation. The Australian Government subsequently provided an additional \$77 million and payments up to 30 June 1974 totalled \$130.6 million (including \$13 400 000 to South Australia). Some details of the scheme are given on pages 112-4. The *States Grants (Fruit-growing Reconstruction) Act* 1972 provided for the payment of \$4.6 million to the States by way of assistance to growers for removal of apple, pear and peach trees. The *States Grants (Fruit-growing Reconstruction) Act* 1973 extended the scheme to 30 June 1974 and added growers of canning apricots to those already eligible for assistance. The *States Grants (Fruit-growing Reconstruction) Act* 1974 extended the scheme to 30 December 1975.

In December 1971 the Australian Government announced grants, to be spent on activities which create employment in rural areas, totalling approximately \$36 million to be paid to the States at a monthly rate of approximately \$2.25 million for the following eighteen months. The original plan, subject to later review, provided that for the first seven months South Australia would receive \$945 000 but this was increased in February 1972 when the monthly rate of payment to each State was doubled. A further increase was announced in June 1972 when the

monthly rate was raised to \$6 million (South Australia's share being \$360 000 a month). In December 1972 further grants were made for the subsequent six months with South Australia receiving an additional \$120 000 a month. Grants totalling \$30.35 million were also made for the relief of unemployment in metropolitan areas during the same six months. Non-metropolitan unemployment grants totalling \$12 million were paid to the States on a reducing basis during the period July to September 1973 when they were terminated because of an improvement in the overall employment situation.

The *States Grants (Urban Public Transport) Act 1974*, and the *Urban Public Transport (Research and Planning) Act 1974* authorise the payment of grants up to \$72.9 million to the States as part of a five-year program to assist in the upgrading of urban public transport (including railways).

The *Grants Commission Act 1973* lays down procedures for regional organisations of local government to apply for financial assistance from the Australian Government and for such applications to be the subject of inquiry and report by the Grants Commission. The *Local Government Grants Act 1974* provides grants of \$56.3 million to be paid to the States in 1974-75 for distribution between local government authorities in each State as recommended by the Grants Commission.

The *Growth Centres (Financial Assistance) Act 1973* provides that the Minister of Urban and Regional Development may approve programs of financial assistance to the States in respect of the development of eleven specified growth centres. Assistance in 1973-74 totalled \$4 449 000 including \$4 414 000 for the development of Monarto in South Australia.

The *Land Commissions (Financial Assistance) Act 1973* authorised the provision of financial assistance to the States in respect of expenditure by approved State Authorities on programs of land acquisition. South Australia was the first State to accept the principles of the Land Commission program and the South Australian Land Commission began operating in 1973-74. Payments to the States in 1973-74 totalled \$11.5 million including a payment of \$8.0 million to the South Australian Land Commission.

In 1973-74, the Australian Government paid \$1.6 million to South Australia to help overcome the backlog of sewerage works in the principal urban area of the capital city of Adelaide. In addition financial assistance is proposed in 1974-75 to assist with the construction of a new water treatment plant in metropolitan Adelaide.

For more complete historical and current information on Australian Government financial assistance to the States, reference should be made to the most recent issue of the bulletin *Payments to or for the States and Local Government Authorities* presented to the Australian Parliament.

Figures in the following table are those which have been published in the latest issue of that bulletin and show the general pattern of Australian Government payments to or for the State of South Australia for 1973-74 and four earlier years. Some amounts shown are repayable to the Australian Government (e.g. portion of railway project payments) but repayable advances for war service land settlement are not included.

**Australian Government Payments To or For the States, South Australia**

Particulars	1963-64	1970-71	1971-72	1972-73	1973-74
			\$'000		
General revenue assistance:					
Financial assistance grants ..	72 729	151 602	158 491	181 430	204 918
Special grants ..	—	5 000	7 000	21 000	19 900
Special revenue assistance ..	—	4 650	5 929	—	2 764
General purpose capital funds:					
Loan Council programs ..	55 184	60 000	92 260	100 554	79 587
Capital grants ..	—	27 420	30 030	34 074	37 625
Specific Purpose Payments:					
Universities ..	3 651	8 180	8 494	10 595	26 858
Colleges of advanced education ..	—	4 393	4 523	6 277	19 714
Schools ..	—	4 071	4 518	6 344	15 894
Technical education ..	—	—	—	—	889
Pre-schools and child care ..	—	—	—	—	1 204
Community health ..	—	—	—	—	1 792
School dental scheme ..	—	—	—	—	1 961
Assistance for deserted wives ..	—	294	464	776	1 534
Unemployment relief ..	—	—	1 620	9 660	941
Aboriginal advancement ..	—	660	800	1 740	4 699
Housing grants ..	—	—	623	1 093	1 093
Agricultural extension services ..	104	538	651	690	760
Research grants ..	—	759	577	851	955
Tuberculosis hospitals ..	740	653	870	1 003	1 334
Dwellings for aged pensioners ..	—	311	1 002	380	146
Housing advances ..	19 400	25 000	—	500	32 750
Growth centres ..	—	—	—	—	4 414
Land acquisition ..	—	—	—	—	8 000
Roads ..	13 337	23 500	25 500	28 000	31 000
Softwood forestry ..	—	300	93	400	252
Rural reconstruction ..	—	—	3 000	6 100	4 300
Child migrant education ..	—	87	169	326	752
Sewerage ..	—	—	—	—	1 598
Railway projects ..	2 975	2 048	1 024	556	319
Natural gas ..	—	2 250	1 750	—	—
Dartmouth Dam ..	—	—	—	675	950
Other (a) ..	9 264	12 056	12 067	15 167	17 955
<b>Total ..</b>	<b>177 384</b>	<b>333 772</b>	<b>361 455</b>	<b>428 191</b>	<b>526 858</b>

(a) Includes interest and sinking fund on State Debt under the Financial Agreement (\$9 878 000 in 1973-74).

**NATIONAL WELFARE FUND**

The States also receive, from the Australian Government through the National Welfare Fund, payments in respect of hospital and pharmaceutical benefits, nutrition of children and reimbursement of maintenance expenditure on tuberculosis sanatoria.

In South Australia the receipts are paid into the Consolidated Revenue Account (or a suspense account in the case of the payment for free milk for school children). Receipts for the year 1973-74 were hospital benefits \$1 848 000, pharmaceutical benefits \$2 757 000, free milk for school children \$706 000, tuberculosis reimbursement of maintenance expenditure and surveys \$988 000.

The amounts stated above for hospital and pharmaceutical benefits relate to particular classes of patients and a limited range of drugs in government hospitals and are only a small portion of the total hospital and pharmaceutical benefits (see pages 310-3) which are paid from National Welfare Fund to or for residents of this State.

### 11.3 STATE GOVERNMENT FINANCE

State Government accounting in South Australia is on a 'cash' basis. Receipts and payments fall into five main divisions, namely the Consolidated Revenue Account and Loan Fund (which together constitute the budget sector), Special Australian Government Advances, Trust Fund Accounts and Deposit and Suspense Accounts.

#### CONSOLIDATED REVENUE ACCOUNT

This account is credited with receipts from many items of State taxation, fees, licences and charges for services, recoveries of interest and sinking fund, sales of Crown lands, and financial assistance grants (originally entitled Tax Reimbursement Grants) and some other Australian Government grants. The account is debited with the cost of revenue collection, legislative and administrative functions, interest and sinking fund on the public debt, provision of social services, operation of public undertakings and development of State resources. The resultant balance represents the State's surplus or deficit for the year.

The following table shows, for the financial year 1973-74 and four earlier years, Consolidated Revenue receipts and payments, the resulting surplus or deficit for the relevant year, and cumulative surplus or deficit at the end of that year: any cumulative deficit is regarded as an application of borrowed funds as indicated in the table on pages 591-2.

#### Consolidated Revenue Account, South Australia

Particulars	1939-40	1949-50	1959-60	1969-70	1973-74
			\$'000		
Receipts . . . . .	25 511	58 721	160 555	338 498	641 967
Payments . . . . .	25 837	59 100	161 177	335 578	645 368
Surplus (+) or deficit (—):					
Current year . . . . .	—325	—379	—622	+2 920	—3 401
Cumulative . . . . .	+1 999	+3 215	—3 376	—4 579	—536
			Dollars		
Receipts . . . . .	42·72	85·50	171·99	293·06	530·42
Payments . . . . .	43·28	86·05	172·65	290·53	533·23

**Sources of Revenue**

The sources of revenue for the financial years 1970-71 to 1973-74 were as follows:

**Consolidated Revenue Account: Sources of Revenue, South Australia  
Total Revenue**

Source of Revenue	1970-71	1971-72	1972-73	1973-74
	\$'000			
Net taxation (a) . . . . .	62 745	97 476	120 474	156 894
Business undertakings . . . . .	91 282	102 439	109 513	127 307
Territorial: Land sales, rents etc. . . . .	3 072	3 250	3 238	3 532
Other:				
Interest and exchange . . . . .	26 691	29 577	31 335	35 312
Fees, fines, rents, etc. . . . .	38 860	46 636	55 483	88 967
Australian Government grants . . . . .	164 207	175 866	200 824	229 955
<b>Total . . . . .</b>	<b>386 859</b>	<b>455 245</b>	<b>520 866</b>	<b>641 967</b>

**Per Head of Population**

	Dollars			
Net taxation (a) . . . . .	53·71	82·35	100·76	129·63
Business undertakings . . . . .	78·15	86·54	91·60	105·19
Territorial: Land sales, rents etc. . . . .	2·63	2·75	2·71	2·92
Other:				
Interest and exchange . . . . .	22·85	24·99	26·21	29·17
Fees, fines, rents, etc. . . . .	33·27	39·40	46·40	73·51
Australian Government grants . . . . .	140·58	148·57	167·97	190·00
<b>Total . . . . .</b>	<b>331·19</b>	<b>384·60</b>	<b>435·65</b>	<b>530·42</b>

**Proportion of Total Revenue**

	Per cent			
Net taxation (a) . . . . .	16·22	21·41	23·13	24·44
Business undertakings . . . . .	23·60	22·50	21·02	19·83
Territorial: Land sales, rents, etc. . . . .	0·79	0·71	0·62	0·55
Other:				
Interest and exchange . . . . .	6·90	6·50	6·02	5·50
Fees, fines, rents, etc. . . . .	10·04	10·25	10·65	13·86
Australian Government grants . . . . .	42·45	38·63	38·56	35·82
<b>Total . . . . .</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>

(a) Some items and amounts differ slightly from State Treasury classifications.

### Taxation

Until the introduction of the uniform income tax scheme in 1942-43, income tax was the major source of taxation revenue in South Australia. Revenue from this form of taxation for the years 1939-40 to 1941-42 was \$4 718 000, \$4 952 000 and \$5 638 000 respectively or 51·70 per cent, 57·02 per cent, and 59·45 per cent of total revenue from taxation. The following table shows receipts of taxation into Consolidated Revenue Account over the last five years: receipts of taxation into other accounts are shown on page 621, the major forms of taxation now left to the State are payroll tax, motor tax, succession and stamp duties, and land tax.

#### Consolidated Revenue Account: Revenue from Taxation, South Australia<sup>(a)</sup>

Tax	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Land tax . . . . .	7 595	7 550	9 732	10 212	10 796
Succession duty . . . . .	8 312	9 030	10 659	11 699	12 598
Gift duty . . . . .	611	733	834	815	1 184
Racing tax . . . . .	948	1 018	1 295	1 444	1 643
Motor tax . . . . .	14 537	15 671	19 593	20 832	22 427
Stamp duties (b) . . . . .	20 620	20 711	21 980	30 516	41 899
Payroll tax . . . . .	—	—	22 804	34 029	52 780
ETSA levy . . . . .	—	468	2 081	2 242	3 755
Licences:					
Liquor . . . . .	3 083	3 255	3 591	3 650	4 159
Other . . . . .	746	834	1 063	1 303	1 790
Court fees and fines . . . . .	3 259	3 297	3 636	3 531	3 613
Other . . . . .	128	178	209	201	251
<b>Total . . . . .</b>	<b>59 840</b>	<b>62 745</b>	<b>97 476</b>	<b>120 474</b>	<b>156 894</b>

#### Proportion of Total Taxation

	Per cent				
Land tax . . . . .	12·69	12·03	9·98	8·48	6·88
Succession duty . . . . .	13·89	14·39	10·93	9·72	8·03
Gift duty . . . . .	1·02	1·17	0·86	0·67	0·75
Racing tax . . . . .	1·59	1·62	1·33	1·20	1·05
Motor tax . . . . .	24·29	24·98	20·10	17·29	14·30
Stamp duties (b) . . . . .	34·46	33·01	22·55	25·33	26·71
Payroll tax . . . . .	—	—	23·40	28·24	33·64
ETSA levy . . . . .	—	0·75	2·14	1·86	2·39
Licences:					
Liquor . . . . .	5·15	5·19	3·68	3·03	2·65
Other . . . . .	1·25	1·33	1·09	1·08	1·14
Court fees and fines . . . . .	5·45	5·25	3·73	2·93	2·30
Other . . . . .	0·21	0·28	0·21	0·17	0·16
<b>Total . . . . .</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>	<b>100·00</b>

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Excludes stamp duty on third party insurance.



Gift duty is payable under the provisions of the Gift Duty Act, 1968-1973. Stamp duty is payable on a wide range of instalment purchase, leasing and other lending transactions.

In addition to the fields of taxation open to the State Government, there are fields of taxation in which the Australian Government has sole taxing authority, e.g. customs and excise duties and sales tax. Before 1942 the Australian Government levied income tax in addition to that imposed by the States but since the commencement of uniform taxation the Australian Government has been, in practice, the sole levier of income tax although the States may still legally operate in this field. Total taxation collected by the Australian Government in South Australia far exceeds State taxation: this is evident from a comparison of the figures in the preceding table with those which follow.

**Australian Government Taxation Collected, South Australia<sup>(a)</sup>**

Tax	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Income tax . . . . .	288 340	332 936	380 318	417 318	577 882
Sales tax . . . . .	44 380	48 881	52 288	57 732	75 648
Payroll tax . . . . .	20 410	23 339	8 211	2 467	3 675
Customs duties . . . . .	21 006	22 646	21 927	29 419	33 546
Excise duties (b) . . . . .	79 972	93 510	107 822	110 047	139 205
Estate duty . . . . .	6 998	5 214	6 513	7 053	5 235
Gift duty . . . . .	707	702	540	530	767
Wool tax . . . . .	1 706	—	—	—	—
Stevedoring industry charge . . . . .	1 710	1 547	1 649	1 659	1 970
Broadcasting Listeners and Television Viewers Licences . . . . .	5 238	5 657	7 160	7 721	7 984
Other . . . . .	598	1 407	953	2 633	4 496
Total . . . . .	471 065	535 837	587 379	636 579	850 408
			Dollars		
Per head of population	409.94	458.73	496.22	532.43	702.64

(a) These figures represent amounts paid into the Australian Government Sub-Treasury in South Australia and do not purport to reflect accurately the taxes paid by residents of this State. (b) Excludes net diesel fuel tax, non-commercial users.

### Business Undertakings

Business undertakings supply such services as passenger and freight rail carriage, sewerage, water supply, water storage, harbour facilities, etc. Produce stores provide refrigeration for the storage of goods in Adelaide whilst at Port Lincoln lambs, pigs and cattle are treated for export or local consumption. Revenue from business undertakings for the financial year 1973-74 was \$126 120 000. Total revenue from business undertakings during each of the last

five years and the proportion of that revenue to total Consolidated Revenue are shown on page 605. A dissection of revenue from business undertakings is given in the following table.

**Revenue from Business Undertakings, South Australia<sup>(a)</sup>**

Undertaking	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Railways (b) . . . . .	48 737	48 140	55 243	57 910	68 688
Marine and harbors . . . . .	7 244	7 461	7 813	7 324	10 037
Waterworks . . . . .	17 403	20 275	21 682	25 373	28 383
Sewers . . . . .	9 382	11 428	13 077	14 269	15 806
Produce . . . . .	546	809	1 016	999	743
Woods and forests (c) . . . . .	1 440	1 440	1 740	1 800	1 920
State Bank (c) . . . . .	515	556	614	576	542
Total . . . . .	85 266	90 109	101 183	108 251	126 120

(a) Receipts into Consolidated Revenue but excluding recoveries of interest and sinking fund.

(b) Includes grant from Treasury each year—\$30 000 000 in 1973-74.

(c) Contribution to Consolidated Revenue from surplus earned.

**Payments from Consolidated Revenue Account**

The purpose classification used in the following two tables is based on the classification of the purposes of government recommended in the United Nations System of National Accounts. Dissections of the totals shown for education, health and social security and welfare are given in parts 6.2, 6.5 and 6.6 of this publication. For further details of the classification see *Public Authority Finance—State and Local Authorities, 1972-73* (Ref. 5.43) published by the Australian Statistician. The table below shows gross expenditure from Consolidated Revenue Account classified according to purpose.

**Consolidated Revenue Account: Expenditure Classified According to Purpose  
South Australia p**

Purpose	1970-71	1971-72	1972-73	1973-74
			\$'000	
General public services:				
General administration n.e.c. . . . .	16 105	17 137	20 024	25 302
Law, order and public safety . . . . .	20 525	24 718	29 162	36 648
Other general public services . . . . .	19	20	22	14
Education . . . . .	104 758	129 445	148 808	196 613
Health . . . . .	46 408	55 950	67 716	89 721
Social security and welfare . . . . .	7 245	8 864	14 495	16 622

**Consolidated Revenue Account: Expenditure Classified According to Purpose**  
**South Australia p (continued)**

Purpose	1970-71	1971-72	1972-73	1973-74
	\$'000			
Housing and community amenities:				
Housing . . . . .	1 368	1 649	1 706	1 653
Community and regional development	5	609	812	1 282
Protection of the environment (a) . .	3 799	4 699	5 584	7 365
Community amenities n.e.c. . . . .	50	81	79	93
Recreation and related cultural services	3 132	4 470	5 835	8 475
Economic services:				
General administration, regulation and research . . . . .	3 068	3 862	4 066	5 471
Agriculture, forestry, fishing (b) . . . .	6 991	8 504	8 897	10 065
Mining, manufacturing and construction (c) . . . . .	3 110	3 456	5 385	5 187
Electricity, gas and water . . . . .	11 576	11 937	14 214	16 621
Transport and communication;				
Rail (non-urban) (d) . . . . .	44 692	52 074	59 417	71 569
Road . . . . .	13 499	17 109	17 810	18 863
Sea . . . . .	4 563	4 862	4 736	5 795
Urban transit systems (incl. urban rail) (d) . . . . .	11 292	12 985	14 222	18 507
Other transport and communication	51	30	46	61
Other economic services . . . . .	1 151	1 077	1 277	1 790
Other purposes (e) . . . . .	83 434	92 774	100 464	107 651
<b>Total . . . . .</b>	<b>386 838</b>	<b>456 312</b>	<b>524 777</b>	<b>645 368</b>

(a) Includes sewerage. (b) Includes irrigation. (c) Includes Produce Department. (d) Includes contribution towards deficit. (e) Predominantly interest and sinking fund: these expenditures are not allocated to purpose.

Public debt charges (interest and sinking fund) were 23.52 per cent of total expenditure in 1968-69 and 16.60 per cent in 1973-74. The reduction in the rate of public debt charges has been caused by the Australian Government's takeover of \$130 000 000 of the State's public debt over a period of five years commencing 1 July 1970. Expenditure on education was 24.65 per cent of the total in 1968-69 and 30.47 per cent in 1973-74.

A table showing the net cost of each purpose follows: it is prepared by deducting from expenditures all receipts other than those classed as taxation or general purpose Australian Government grants. In considering the net cost of an individual purpose it should be borne in mind that interest and sinking fund have not been so allocated and appear in total under 'other purposes'. Expenditure on education was 41.97 per cent of the net cost in 1972-73 and 40.55 per cent in 1973-74.

**Consolidated Revenue Account: Net Expenditure Classified According to Purpose  
South Australia p**

Purpose	1972-73		1973-74	
	Net Expenditure	Per Head of Population	Net Expenditure	Per Head of Population
	\$'000	\$	\$'000	\$
<b>General public services:</b>				
General administration n.e.c. . . . .	14 375	12.02	18 271	15.10
Law, order and public safety . . . . .	21 314	17.83	27 694	22.88
Other general public services (f) . . . . .	—907	—0.76	—1 199	—1.00
Education . . . . .	134 921	112.84	156 702	129.47
Health . . . . .	48 527	40.59	67 397	55.69
Social security and welfare . . . . .	12 554	10.50	12 435	10.27
<b>Housing and community amenities:</b>				
Housing . . . . .	1 561	1.31	1 465	1.21
Community and regional development . . . . .	774	0.65	1 233	1.02
Protection of the environment (a) . . . . .	—8 687	—7.27	—7 934	—6.56
Community amenities n.e.c. . . . .	63	0.05	76	0.06
Recreation and related cultural services . . . . .	5 450	4.56	7 924	6.58
<b>Economic services:</b>				
General administration, regulation and research . . . . .	1 935	1.62	2 846	2.35
Agriculture, forestry, fishing (b) . . . . .	4 508	3.77	5 810	4.80
Mining, manufacturing and construction (c) . . . . .	1 991	1.67	1 840	1.52
Electricity, gas and water . . . . .	—11 175	—9.35	—10 889	—9.00
<b>Transport and communication;</b>				
Rail (non-urban) (d) . . . . .	9 406	7.87	12 911	10.67
Road . . . . .	17 810	14.90	18 863	15.59
Sea . . . . .	—2 591	—2.17	—4 245	—3.51
Urban transit systems (incl. urban rail) (d) . . . . .	6 323	5.29	8 477	7.00
Other transport and communication . . . . .	44	0.04	61	0.05
Other economic services . . . . .	432	0.36	891	0.74
Other purposes (e) . . . . .	62 840	52.57	65 857	54.38
<b>Total . . . . .</b>	<b>321 468</b>	<b>268.88</b>	<b>386 486</b>	<b>319.33</b>

(a) Includes sewerage. (b) Includes irrigation. (c) Includes Produce Department. (d) Includes contribution towards deficit. (e) Predominantly interest and sinking fund; these expenditures are not allocated to purpose. (f) After deducting Australian Government grants for research expenditure which is included with Education.

### Business Undertakings, Expenditure

Details of the expenditure of business undertakings for the years 1969-70 to 1973-74 are given in the next table. Expenditures in respect of interest and sinking fund have not been taken into account in deriving these figures.

**Business Undertakings: Expenditure, South Australia<sup>(a)</sup>**

Undertaking	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Railways . . . . .	36 974	40 663	44 565	49 446	57 461
Marine and harbors . . . . .	3 659	4 360	4 659	4 736	5 795
Waterworks . . . . .	9 920	11 100	11 429	13 703	16 069
Sewers . . . . .	3 090	3 668	4 414	4 974	6 689
Produce . . . . .	726	976	1 095	1 173	1 190
Total . . . . .	54 369	60 767	66 162	74 032	87 204

(a) Excludes interest and sinking fund.

**TRUST FUNDS ACCOUNTS**

These are principally moneys lodged with the Treasurer by public authorities and other bodies on current account; funds held for specific purposes pursuant to legislation, not necessarily expendable in any one year; contractors' and statutory deposits and unclaimed moneys. At 30 June 1974 they represented approximately 1.8 per cent of the indebtedness of the South Australian Government. Total balances at 30 June 1972, 1973 and 1974, with many of the larger balances itemised, are shown in the following table.

**Trust Funds Accounts, South Australia  
Balances at 30 June**

Particulars	1972	1973	1974
		\$'000	
Adelaide Festival Centre Trust . . . . .	(a)	1 984	102
Electricity Trust of South Australia . . . . .	—	800	2 800
Fire Brigades Board . . . . .	769	1 022	1 278
Flinders University of South Australia . . . . .	954	1 569	397
Natural Gas Pipelines Authority of SA . . . . .	661	198	235
Planning and Development Fund . . . . .	129	1 781	3 146
Royal Adelaide Hospital Endowment Fund . . . . .	993	394	64
South Australian Housing Trust Fund . . . . .	4 618	12 498	1 854
South Australian Institute of Technology . . . . .	1 142	1 831	1 116
South Australian Superannuation Fund . . . . .	185	423	846
State Bank of South Australia . . . . .	—	1 000	1 000
University of Adelaide . . . . .	2 988	2 944	358
Other . . . . .	3 485	5 311	4 872
Balances on which interest is paid . . . . .	15 924	31 755	18 068

**Trust Funds Accounts, South Australia**  
Balances at 30 June (continued)

Particulars	1972	1973	1974
		\$'000	
Agricultural Research and Service Grants . . . . .	350	314	584
Australian Government Grant for Education Purposes . . . . .	908	1 220	4 460
Crown Solicitors Trust Account . . . . .	1 419	877	2 145
Lotteries Fund . . . . .	331	174	394
Public Trustee; Common Fund Reserve . . . . .	183	182	182
Unemployment Relief:			
Metropolitan . . . . .	—	2 400	86
Rural . . . . .	522	1 266	—
Universities and Colleges of Advanced Education:			
State Grants for Capital purposes . . . . .	—	—	1 567
Other . . . . .	1 902	2 409	5 412
Balances on which no interest is paid . . . . .	5 615	8 842	14 830
<b>Total Trust Funds . . . . .</b>	<b>21 540</b>	<b>40 597</b>	<b>32 898</b>

(a) For 1972 there was a balance of \$300 000 on which no interest was paid.

**LOAN FUND ACCOUNTS**

These accounts record the capitalised expenditure on construction or acquisition of assets such as schools, reservoirs, hospitals, forests, plant and stores; advances to public authorities; and for primary production and housing. During recent years some capital grants (e.g. for university, advanced education and non-government hospital buildings) have also been made from loan funds.

State borrowing programs are subject to consideration and agreement at meetings of the Australian Loan Council. Funds are raised by the sale of Australian Government securities on behalf of the State pursuant to the Financial Agreement which also provides for the redemption of such securities over specified periods from sinking funds contributed by the State and Australian Governments to the National Debt Commission. Gross expenditure from these accounts for the years 1969-70 to 1973-74 is shown in the next table.

**Loan Fund Accounts: Gross Expenditure, South Australia**

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Undertakings:					
Railways . . . . .	6 810	7 745	8 121	5 218	7 950
Harbours and jetties . . . . .	4 412	5 307	4 788	6 043	6 006
Metropolitan water supply and sewers . . . . .	18 407	18 228	18 327	18 971	19 078
Country water supply and sewers (a) . . . . .	11 664	12 299	13 449	11 541	11 087
Irrigation works . . . . .	372	649	1 034	792	1 609
Afforestation . . . . .	2 485	3 068	2 741	3 200	3 300
Other undertakings . . . . .	271	130	168	173	666



**Loan Fund Accounts**  
**Gross Expenditure, Credits, and Net Balances**  
**South Australia, 1973-74 (continued)**

Particulars	Expenditure	Credits			Net Aggregate Balance at 30 June
		Repayments, etc.	Other (a)	Total	
Loans and advances:				\$'000	
Advances to primary producers .. . . .	2 925	2 014	—	2 014	9 820
State Bank .. . . .	2 000	—	96	96	21 373
Advances for housing (c) ..	20	2 318	541	2 859	125 379
Tramways Trust .. . . .	4 400	21	55	76	11 920
South Australian Meat Corporation .. . . .	—	6	32	38	1 936
Electricity Trust .. . . .	3 000	427	1 206	1 633	154 223
Natural Gas Pipelines ..	—	—	—	—	5 500
State Planning Authority ..	1 500	—	—	—	3 600
South Australian Land Commission .. . . .	4 125	—	—	—	4 125
Monarto Development Commission .. . . .	2 000	—	—	—	2 000
Other loans and advances	1 401	19	526	545	4 070
Other purposes:					
Road and bridges .. . . .	2 000	1 000	154	1 154	10 564
Buildings;					
Hospitals .. . . .	20 042	3 200	20 559	23 759	68 815
Schools .. . . .	30 741	10 648	31 213	41 861	123 956
Other .. . . .	16 418	1 994	914	2 908	85 103
River Murray, weirs, etc. . .	1 033	928	—	928	12 586
Leigh Creek Coalfield ..	—	—	100	100	4 857
Capital grants (d) .. . . .	20 246	13 066	7 180	20 246	—
Mines Department stores, etc. . . . .	262	150	154	304	1 811
Education Department—purchase buses .. . . .	430	—	340	340	1 641
Metropolitan floodwaters and drainage .. . . .	1 517	287	892	1 180	13 888
Data processing equipment	692	2	374	376	1 747
Renmark Irrigation Trust	241	—	180	180	316
West Lakes .. . . .	—	167	—	167	540
Government Printing ..	590	1	91	91	1 911
Lands Department .. . . .	235	158	182	340	1 275
Parks and reserves .. . . .	580	6	575	580	—
Other .. . . .	2 434	663	1 042	1 706	2 048
<b>Total .. . . .</b>	<b>168 526</b>	<b>46 774</b>	<b>77 856</b>	<b>124 630</b>	<b>1 372 502</b>

(a) Includes securities redeemed and cancelled by the National Debt Commission on account of South Australia (\$14 231 000), Capital Works grants from the Australian Government (\$37 625 000) and amount for which the Australian Government has assumed all interest and principal liability (\$26 000 000).

(b) Includes Morgan-Whyalla water main and water conservation.

(c) Includes amounts previously provided under the Housing Agreement.

(d) For university, college of advanced education and non-government hospital buildings.



## SPECIAL AUSTRALIAN GOVERNMENT ADVANCES

Pursuant to agreements with the States, the Australian Government has made sums available to the State for the erection of houses by State instrumentalities, for loans to home builders, and for railway standardisation purposes. These advances are not subject to sinking fund conditions but are repayable by annual instalments in terms of the respective agreements. Under the current Housing Agreement the Australian Government makes special advances to the States outside the programs determined by Loan Council.

During 1973-74 funds provided by the Australian Government for railway standardisation works totalled \$319 000. The State's liability at 30 June 1974 was \$15 537 000: this is in addition to the State's liability of \$402 000 on account of rolling stock provided for the Indian-Pacific train at a total cost (shared by the Australian Government, New South Wales, South Australia and Western Australia) of \$4 559 000.

Under the *Railway Equipment Agreement (South Australia) Act 1961* the Australian Government agreed to make available to the State, funds up to a maximum of \$2 650 000 for the purpose of providing diesel locomotives and ore wagons for the Port Pirie-Broken Hill railway. Thirty per cent of the total amount advanced is repayable over a fifty-year period, together with interest thereon. The State's liability at 30 June 1974 was \$617 000.

## LOAN RAISINGS AND THE PUBLIC DEBT

**State Debts Taken Over by the Australian Government**

Under the Financial Agreement the Australian Government took over on 1 July 1929 State responsibilities to bond-holders in respect of State debts existing on 30 June 1927; and all debts of each State existing on 1 July 1929 for money borrowed by that State are deemed to be money borrowed by the Australian Government for and on behalf of the State. The Australian Government agreed to contribute one-third of sinking funds required to repay those debts over a period of fifty-eight years.

Also for a period of fifty-eight years from 1 July 1927 the Australian Government agreed to contribute the sum of \$15 169 824 (\$1 407 632 for South Australia) each year towards the interest payable on the State debts. The balance of the interest payable on State debts was to be paid into the National Debt Sinking Fund by the States.

As indicated on page 598 the Australian Government in 1970 passed legislation providing for Australian Government assumption of responsibility for charges on \$200 million of existing State debt at the beginning of each of the five years commencing 1970-71. The amount of South Australian debt taken over at the beginning of 1973-74 was \$104 000 000.

**Australian Loan Council**

One of the main features of the Financial Agreement was the establishment of the Australian Loan Council which was set up to co-ordinate the borrowings of the Australian and State Governments. It consists of the Prime Minister of

Australia, or another Minister nominated by him in writing, as chairman, and the State Premiers, or Ministers nominated by them in writing.

Each year, the Loan Council examines the loan programs of the Australian and the State Governments and determines the total amount to be borrowed during the year. Borrowings by the Australian Government for defence purposes are not subject to decisions of the Loan Council.

Subject to the decisions of the Loan Council the Australian Government arranges for all borrowings for or on behalf of itself or any State, and for all conversions, renewals, redemptions, and consolidations of the securities issued on behalf of the Australian and State Governments. If the Loan Council unanimously decides, however, a State may borrow outside Australia in its own name, and may issue securities for the amount so borrowed. The Australian Government then guarantees that the State will fulfil its obligations to bond-holders in respect of the money so borrowed, and the money is deemed to be borrowed by the Australian Government for and on behalf of the State.

Subject to any maximum limits decided upon by the Loan Council for interest, brokerage, discount, and other charges, the Australian or any State Government may borrow within its own territory, for any purpose, money from any authorities, bodies, funds, or institutions (including savings banks) constituted or established under Australian or State law or practice; borrow from the public by means of counter sales of securities; and use any available public moneys.

However, any securities issued for moneys so borrowed or used must be Australian Government securities on terms approved by the Loan Council.

Since 1936 the Australian Loan Council has, by the consent of its members, exercised substantial control over the limits of borrowing by local government and public corporations.

### **National Debt Commission**

The National Debt Commission and the National Debt Sinking Fund which it administers were created under the *National Debt Sinking Fund Act 1923*. All previously existing sinking funds relating to Australian Government debt were merged in the National Debt Sinking Fund at the time of its establishment; and under the provisions of the Financial Agreement of 1927 all relevant interest and principal contributions by both the Australian and the State Governments, in respect of State debts, are negotiated through the Fund.

These contributions are not accumulated but are applied by the Commission to the redemption of the public debts of the States, and the repurchase of securities issued in respect thereof. Under the provisions of the Financial Agreement, repurchased or redeemed securities must be cancelled, and the debts of the States are reduced accordingly.

Contributions by the Australian Government on behalf of South Australia, and by the State Government to the National Debt Sinking Fund, and redemptions and repurchases of securities by payment from the Fund for the financial

years 1972-73 and 1973-74 are given in the following table. Corresponding figures for all States are also stated.

### National Debt Sinking Fund

Particulars	1972-73		1973-74	
	South Australia	All States	South Australia	All States
Receipts:	\$'000			
Contributions by Australian Government . . . . .	3 689	27 979	3 896	29 509
Contributions by State (a) . . . . .	3 933	29 994	4 138	31 498
4½ per cent contributions by State on cancelled debt . . . . .	9 176	70 226	9 888	75 611
4 per cent contributions on funded deficits . . . . .	50	2 891	50	2 934
Contributions by State on loans for wasting assets . . . . .	275	681	295	692
Interest received from State in respect of repurchased securities to date of can- cellation of securities . . . . .	16	144	9	139
Interest on the temporary investments of State funds during the year . . . . .	19	174	34	308
Special contributions in respect of loans converted at a discount . . . . .	—	107	—	92
Interest accrued on securities purchased as a short-term investment of State funds . . . . .	—	—	—	—
<b>Total receipts . . . . .</b>	<b>17 158</b>	<b>132 195</b>	<b>18 311</b>	<b>140 783</b>
Expenditure:				
Redemptions and repurchases;				
In Australia . . . . .	14 937	94 131	12 561	100 439
In London . . . . .	1 432	25 939	108	17 876
In New York . . . . .	1 975	15 474	686	6 300
In Canada . . . . .	62	459	22	164
In Netherlands . . . . .	73	571	68	532
<b>Total expenditure . . . . .</b>	<b>18 479</b>	<b>136 575</b>	<b>13 444</b>	<b>125 311</b>

(a) Includes \$0.75 per cent contributions on Australian Government debentures issued on behalf of the States.

For further information on the detailed operations of the National Debt Sinking Fund see the *Official Year Book of Australia*.

### The Loan Fund

A summary of loan raisings to finance State Government loan works in South Australia during 1973-74 is given in the following statement. The total face value of new loans raised less redemptions, cancellations, and conversions shows the movement in the public debt.

## The Loan Fund, South Australia

		\$'000
<b>(1) Cash operations:</b>		
Surplus at 30 June 1973	.....	8 523
Receipts:		
New loan raising	.....	80 101
Repayments	.....	46 774
Capital works grant	.....	37 625
		173 023
Payments	.....	168 526
		4 497
<b>(2) Movement in public debt:</b>		
The public debt at 30 June 1973	.....	1 415 129
<i>Add:</i> Face value of new loans raised:		
For cash	.....	80 101
For conversion	.....	148 580
		1 643 810
<i>Less:</i> Face value of securities redeemed and cancelled by		
National Debt Commission	.....	13 893
Loans converted	.....	148 580
		162 473
The public debt at 30 June 1974	.....	1 481 337

## The Public Debt

The following table gives details of the public debt and total indebtedness of South Australia at 30 June 1974 and for the four previous years. A further table shows the annual interest payable on the public debt for these years and the average rate of interest.

**Public Debt and Total Indebtedness, South Australia**  
**At 30 June**

Year	Public Debt—Being Interest Bearing Securities Outstanding		Other Interest Bearing Indebtedness (a)	Non-interest Bearing Indebtedness (a)	Total Indebtedness	
	Total	Per Head			Total	Per Head
	\$'000	\$	\$'000	\$'000	\$'000	\$
1970	1 210 489	1 045.33	281 587	4 657	1 496 732	1 292.51
1971	1 256 337	1 070.40	310 167	3 603	1 570 108	1 337.73
1972	1 333 720	1 124.08	312 274	5 615	1 651 610	1 392.00
1973	1 415 129	1 180.16	330 521	8 842	1 754 492	1 463.17
1974	1 481 337	1 218.20	362 977	14 830	1 859 143	1 528.90

(a) Gross less securities held on these accounts.

## Public Debt: Interest Payable and Average Rate, South Australia

At 30 June	Annual Interest on Debt (a) in				Average Rate Per Cent (a)			
	Aus- tralia	London	Other	Total	Aus- tralia	London	Other	Total
		\$'000				Dollars		
1970 . . . . .	59 280	1 382	940	61 601	5.12	3.88	5.28	5.09
1971 . . . . .	69 607	1 191	858	71 656	5.76	3.86	5.30	5.70
1972 . . . . .	71 472	1 044	753	73 268	5.53	3.97	5.31	5.49
1973 . . . . .	76 461	966	621	78 048	5.54	3.95	5.36	5.52
1974 . . . . .	84 594	953	562	86 109	5.85	3.94	5.35	5.81

(a) Based on the Debt converted at rates current at the time of the several raisings, and nominal rate of interest payable at 30 June taking no account of exchange.

Rates of interest and years of maturity on the public debt of South Australia are shown below.

Public Debt According to Rate of Interest, South Australia  
At 30 June

Nominal Rate Per Cent	1970	1971	1972	1973	1974		
					Total	Redeemable In	
						Australia	Other (a)
					\$'000		
8.5 . . . . .	—	—	—	—	49 838	49 838	—
8.3 . . . . .	—	—	—	—	32 242	32 242	—
8.2 . . . . .	—	—	—	—	7 314	7 314	—
8.1 . . . . .	—	—	—	—	27 477	27 477	—
8.0 . . . . .	—	—	—	—	2 508	2 508	—
7 . . . . .	11 491	58 333	84 025	84 025	106 678	106 678	—
6.8 . . . . .	5 480	34 391	40 593	40 593	40 593	40 593	—
6.7 . . . . .	—	—	8 614	8 614	8 614	8 614	—
6.6 . . . . .	—	15 552	15 552	15 552	25 969	25 969	—
6.5 . . . . .	30 523	61 278	84 828	71 718	31 192	31 192	—
6.4 . . . . .	—	47 902	37 365	37 365	1 361	1 361	—
6.3 . . . . .	—	—	25 746	25 746	—	—	—
6.2 . . . . .	—	—	—	7 803	33 906	33 906	—
6 . . . . .	32 168	32 168	61 179	101 590	101 582	100 318	1 264
5.9 . . . . .	7 258	7 258	7 258	7 258	7 258	7 258	—
5.8 . . . . .	17 447	17 447	33 988	33 988	33 988	33 988	—
5.75 . . . . .	15 548	15 375	15 093	16 323	16 050	12 713	3 337
5.7 . . . . .	—	—	3 306	17 466	17 466	17 466	—
5.6 . . . . .	21 311	21 311	—	17 258	17 258	17 258	—
5.5 . . . . .	25 660	25 027	23 817	11 978	11 373	—	11 373
5.4 . . . . .	88 623	64 604	49 353	49 353	49 353	49 353	—
5.375 . . . . .	35 172	35 172	35 172	35 172	35 172	35 172	—
5.3 . . . . .	5 352	5 352	42 621	42 621	42 621	42 621	—
5.25 . . . . .	247 241	230 944	230 628	230 356	230 107	228 524	1 584
5.2 . . . . .	10 181	10 181	—	—	—	—	—
5 . . . . .	351 052	350 789	336 491	314 769	310 316	309 177	1 138
4.9 . . . . .	21 882	—	—	26 278	26 278	26 278	—
4.8 . . . . .	36 181	—	—	50 139	50 139	50 139	—
4.75 . . . . .	37 576	37 457	13 341	11 994	11 994	11 994	—
4.625 . . . . .	7 458	7 458	7 458	7 458	7 458	7 458	—
4.5 . . . . .	61 817	31 706	29 242	23 054	23 054	21 651	1 402
4.25 . . . . .	41 143	41 143	41 143	17 949	—	—	—
4 . . . . .	4 179	197	197	197	197	197	—

**Public Debt According to Rate of Interest, South Australia**  
**At 30 June (continued)**

Nominal Rate Per Cent	1970	1971	1972	1973	1974		
					Total	Redeemable In	
						Australia	Other (a)
					\$'000		
3-4875 .....	2	2	2	2	2	2	—
3-25 .....	5 760	5 170	5 000	3 940	3 940	—	3 940
3 .....	5 008	5 008	5 005	5 001	5 001	207	4 794
2-75 .....	3 589	3 589	—	—	—	—	—
2-5 .....	5 872	5 872	5 872	5 872	5 872	—	5 872
2-325 .....	607	605	589	546	—	—	—
1-5 .....	4 627	4 439	4 247	4 053	3 855	3 855	—
1 (b) .....	5 159	4 850	4 527	4 190	3 837	3 837	—
Special bonds (c) .....	65 119	75 756	81 467	84 906	98 925	98 925	—
<b>Total</b> .....	<b>1 210 489</b>	<b>1 256 337</b>	<b>1 333 720</b>	<b>1 415 129</b>	<b>1 481 337</b>	<b>1 446 632</b>	<b>34 705</b>

(a) \$24 205 000 redeemable in UK, \$7 338 000 in USA, \$1 206 000 in Canada, \$1 402 000 in Switzerland and \$553 000 in Netherlands. Converted at rates current at the time of the several raisings. Debt redeemable at rates of exchange obtaining at 30 June 1974 totalled \$26 690 000, resulting in a contingent asset of \$8 015 000.

(b) Australian Government Debentures.

(c) Rate of interest varies from 5.2 to 8.0 per cent according to date of maturity.

**Public Debt According to Year of Maturity, South Australia**  
**At 30 June**

Year of Maturity	1970	1971	1972	1973	1974		
					Total	Redeemable In	
						Australia	Other (a)
					\$'000		
1970-71 .....	138 854	—	—	—	—	—	—
1971-72 .....	98 552	125 059	—	—	—	—	—
1972-73 .....	82 966	102 536	102 073	—	—	—	—
1973-74 .....	64 854	93 618	134 097	133 638	—	—	—
1974-75 .....	63 422	66 646	82 082	115 859	117 668	107 856	9 812
1975-76 .....	64 784	74 809	122 659	181 021	206 318	204 318	2 000
1976-77 .....	48 704	45 134	50 474	49 796	81 710	81 710	—
1977-78 .....	56 659	72 451	71 319	70 015	63 638	61 747	1 891
1978-79 .....	43 664	63 334	68 571	67 387	61 683	58 114	3 569
1979-80 .....	31 112	39 043	38 922	38 753	38 645	37 862	783
1980-81 .....	28 401	39 130	45 057	44 958	104 158	102 152	2 007
1981-82 .....	35 668	35 448	51 781	65 734	65 396	60 536	4 859
1982-83 .....	12 512	12 244	23 413	49 232	39 085	36 893	2 192
1983-84 .....	48 842	48 842	48 842	56 645	88 887	88 221	666
1984-85 .....	60 450	60 450	60 450	60 450	60 450	60 450	—
1985-90 .....	214 009	247 138	250 463	250 186	249 872	247 741	2 131
1990-95 .....	28 086	27 970	61 122	99 357	171 728	171 728	—
1995-2000 .....	3 626	3 626	3 626	3 626	3 626	3 626	—
2000-2005 .....	68 917	82 456	82 456	83 777	83 777	83 777	—
2005-2010 .....	10 591	10 591	30 521	38 949	38 949	38 949	—
Optional .....	5 615	5 613	5 594	5 547	5 547	753	4 794
Interminable .....	197	197	197	197	197	197	—
Indefinite .....	2	2	2	2	2	2	—
<b>Total</b> .....	<b>1 210 489</b>	<b>1 256 337</b>	<b>1 333 720</b>	<b>1 415 129</b>	<b>1 481 337</b>	<b>1 446 632</b>	<b>34 705</b>

(a) \$24 205 000 redeemable in UK, \$7 338 000 in USA, \$1 206 000 in Canada, \$1 402 000 in Switzerland and \$553 000 in Netherlands. Converted at rates current at the time of the several raisings. Debt redeemable at rates of exchange obtaining at 30 June 1974 totalled \$26 690 000, resulting in a contingent asset of \$8 015 000.

## DEPOSIT AND SUSPENSE ACCOUNTS

Reference to these accounts was made in Part 11.1. Although the main function of many of them is to facilitate the allocation of charges and recoups to various headings of revenue and expenditure within the Budget sector, some contain, as already noted, substantial transactions which are not reflected in the Budget. Deposit and Suspense accounts showed a credit balance of \$27 999 000 at 30 June 1974.

## STATE TAXATION

In addition to those items received into Consolidated Revenue Account the State Government receives certain items of taxation into other accounts. These, together with similar receipts by public corporations, constitute 'total taxation to other accounts' as recorded in the following table.

State Taxation, South Australia<sup>(a)</sup>

Tax	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
To Consolidated Revenue . . . . .	59 840	62 745	97 476	120 474	156 894
To other accounts:					
Road maintenance charges . . . . .	2 839	2 958	3 287	3 401	3 859
Lottery tax . . . . .	1 817	1 864	1 903	1 967	2 351
Racing taxes . . . . .	1 849	2 378	3 005	3 745	4 613
Stamp duty . . . . .	1 054	1 110	1 122	1 138	1 251
Fire Brigades Board (b) . . . . .	1 056	1 144	1 414	1 780	2 526
Reserves contributions (c) . . . . .	148	199	237	561	1 010
Other . . . . .	390	285	212	329	391
Total to other accounts . . . . .	9 153	9 937	11 180	12 923	16 010
Total taxation . . . . .	68 994	72 682	108 657	133 396	172 904
			Dollars		
Per head of population . . . . .	60.04	62.22	91.79	111.57	142.86

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Levy on Insurance Companies.

(c) Paid to State Planning Authority under Planning and Development Act and Real Property Act.

## 11.4 PUBLIC CORPORATION FINANCE

## REVENUE AND EXPENDITURE

Many public corporations produce annual reports reviewing their activities and most of them publish annual financial statements. In South Australia there is no consolidated tabulation of statistics covering revenue and expenditure of public corporations.

**Business Undertakings**

Some public corporations are classified as business undertakings because they seek to cover a substantial part of their costs by selling goods and services to

the public. The following tables show revenue and expenditure of some of those business undertakings for the financial years 1969-70 to 1973-74. Capital indebtedness refers to the amount outstanding at the end of the relevant period on indebtedness incurred initially for a period exceeding twelve months.

#### Electricity Trust of South Australia

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Income . . . . .	64 832	69 518	74 883	80 290	92 178
Operating expenses (a) . . . . .	49 454	52 997	58 159	62 040	72 594
Surplus on operating . . . . .	15 378	16 521	16 724	18 250	19 584
Debtenture interest . . . . .	14 602	15 853	17 058	17 841	18 650
Net surplus . . . . .	776	668	—334	409	934
Capital indebtedness . . . . .	278 257	291 166	304 660	312 215	318 788

(a) From 1970-71 includes Statutory Contribution to State Revenue.

#### Municipal Tramways Trust

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Income . . . . .	6 696	6 881	6 978	7 304	9 958
Operating expenses . . . . .	6 293	6 986	7 282	8 269	11 735
Surplus on operating . . . . .	403	—104	—304	—965	—1 777
Interest charges . . . . .	410	356	340	406	469
Deficit . . . . .	6	460	644	1 371	2 246
Grant from SA Government . . . . .	—	480	630	1 330	2 250
Net deficit . . . . .	6	—20	14	41	—4
Capital indebtedness . . . . .	6 929	5 781	7 268	7 596	11 920

#### State Bank of South Australia

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Income . . . . .	8 951	10 138	11 266	12 141	14 783
Management expenses, etc. . . . .	1 644	1 784	2 039	2 270	2 733
Interest on customers' deposits . . . . .	1 269	1 438	1 532	1 549	2 074
Interest on advances from the Treasurer of SA . . . . .	4 802	5 552	6 415	7 118	7 952
Net profit . . . . .	1 236	1 364	1 280	1 205	2 024
Capital indebtedness . . . . .	107 640	121 435	133 802	149 700	169 469





## South Australian Meat Corporation

Particulars	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Income . . . . .	6 489	7 713	9 078	11 026	10 633
Operating expenses . . . . .	6 301	7 895	9 441	10 973	10 452
Surplus on operating . . . . .	189	—181	—364	53	181
Interest . . . . .	93	90	110	124	303
Net surplus . . . . .	96	—271	—474	—71	—122
Capital indebtedness . . . . .	1 822	1 772	2 320	2 662	6 080

## GRANTS FROM STATE GOVERNMENT

The following table shows grants to a number of public corporations during each of the five years ended 30 June 1974. Grants from Consolidated Revenue and from Loan Fund have been consolidated and the figures represent actual amounts paid to authorities, free of all duplication. Payments for goods and services supplied by public corporation business undertakings are not included in the table. Repayable advances from Loan Fund are also excluded.

Public Corporations, Grants From State Government  
South Australia

Name	1969-70	1970-71	1971-72	1972-73	1973-74
			\$'000		
Adelaide Children's Hospital (a) . .	2 576	3 535	3 342	4 622	6 208
Adelaide and Flinders Universities (b) . . . . .	15 308	20 126	20 367	24 851	35 175
Fire Brigades Board . . . . .	277	300	395	410	583
Home for Incurables (a) . . . . .	226	519	1 480	1 910	1 310
Institute of Medical and Veterinary Science . . . . .	1 199	1 374	1 703	2 290	3 342
Municipal Tramways Trust . . . . .	—	480	630	1 330	2 250
Public Examinations Board . . . . .	120	124	140	169	220
Queen Victoria Hospital (c) . . . . .	831	1 217	1 042	1 207	2 066
Renmark Irrigation Trust . . . . .	174	254	298	257	241
SA Institute of Technology (d) . . . .	4 577	7 816	6 632	6 896	9 435
Total . . . . .	25 288	35 745	36 029	43 942	60 830

(a) Amounts subsequently recouped to Consolidated Revenue from Hospitals Funds are included.

(b) Includes State Government disbursement of Australian Government grants except those for residential colleges. Includes Waite Agricultural Research Institute.

(c) Excludes grants for maintenance of X-ray tuberculosis services.

(d) Includes Australian Government grants.

## LOAN RAISINGS AND DEBT OUTSTANDING

Details of public corporation loan raisings and debt outstanding are included in the following tables. These statistics cover loan raisings and debt of subsidised hospitals, abattoirs boards, vermin boards, the Renmark Irrigation Trust, the Enfield General Cemetery Trust, the Fire Brigades Board, the Natural Gas Pipelines Authority, the State Planning Authority and Flinders University, in addition to those business undertakings mentioned above under the heading Revenue and Expenditure.

New loans raised during the year include new loan liabilities incurred during the year, loans raised to repay indebtedness to the Government, and interest capitalised. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion or redemption of existing debts are excluded.

Debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalised, and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more, have also been included. Current liabilities such as interest accrued (but not capitalised), trade creditors, amounts held in trust and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds, less all bank credit balances (including fixed deposits), which do not form part of a sinking fund to repay a loan.

The next two tables show, respectively, new money loan raisings and funds provided for redemption of debt for the year ended 30 June 1973 and debt outstanding at 30 June 1972 and 1973. A further table shows debt outstanding at 30 June 1973 according to rate of interest and year of maturity.

**Public Corporations: New Money Loan Raisings and Funds  
Provided for Redemption of Debt, South Australia, 1972-73**

Authority	New Loan Raisings in Australia			Funds for Redemption of Debt (a)		
	From Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000			\$'000		
Banking . . . . .	18 318	—	18 318	2 420	—	2 420
Coal mining . . . . .	—	—	—	96	—	96
Electricity supply . . . . .	3 000	7 447	10 447	1 548	567	2 115
Hospitals . . . . .	—	40	40	—	84	84
Housing . . . . .	14 894	9 511	24 405	1 746	473	2 220
Natural gas pipeline . . . . .	—	2 000	2 000	1 875	4	1 879
Tramways . . . . .	400	—	400	71	—	71
Other . . . . .	2 068	6 050	8 118	91	77	167
<b>Total . . . . .</b>	<b>38 679</b>	<b>25 048</b>	<b>63 727</b>	<b>7 846</b>	<b>1 205</b>	<b>9 052</b>

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds.

**Public Corporations: Debt Outstanding, South Australia**  
**At 30 June 1972 and 1973**

Authority	Debt in Australia at						
	30 June 1972			30 June 1973			
	To Government Lenders	Other	Total	To Government Lenders	Other	Total	
		\$'000				\$'000	
Banking . . . . .	133 802	—	133 802	149 700	—	149 700	
Coal mining . . . . .	5 052	—	5 052	4 957	—	4 957	
Electricity supply . . . . .	151 404	153 538	304 942	152 056	160 418	312 474	
Hospitals . . . . .	—	369	369	—	260	260	
Housing . . . . .	213 929	57 280	271 209	227 076	67 265	294 341	
Natural gas pipeline . . . . .	20 500	22 850	43 350	18 625	24 846	43 471	
Tramways . . . . .	7 268	—	7 268	7 596	—	7 596	
Other . . . . .	4 097	2 750	6 847	6 074	9 151	15 224	
<b>Total debt . . . . .</b>	<b>536 051</b>	<b>236 787</b>	<b>772 838</b>	<b>566 084</b>	<b>261 939</b>	<b>828 022</b>	
	Annual Interest Payable (\$'000)						
<b>Total interest . . . . .</b>	<b>26 400</b>	<b>14 346</b>	<b>40 746</b>	<b>27 027</b>	<b>15 985</b>	<b>43 012</b>	

**Public Corporations: Debt Outstanding According to**  
**Rate of Interest and Year of Maturity, South Australia**  
**At 30 June 1973**

Rate of Interest	Debt	Year of Maturity	Debt
	\$'000		\$'000
No interest . . . . .	21 117	Fixed dates:	
Under 3 per cent . . . . .	85	1973-74 . . . . .	7 828
3 and under 3½ per cent . . . . .	18 197	1974-75 . . . . .	7 133
3½ and under 4 per cent . . . . .	10 129	1975-76 . . . . .	7 763
4 and under 4½ per cent . . . . .	128 481	1976-77 . . . . .	5 683
4½ and under 5 per cent . . . . .	86 570	1977-78 . . . . .	12 090
5 and under 5½ per cent . . . . .	264 252	1978-79 . . . . .	11 698
5½ and under 6 per cent . . . . .	113 576	1979-80 . . . . .	13 283
6 per cent and over . . . . .	184 071	1980-81 . . . . .	11 170
Not specified . . . . .	1 544	1981-82 . . . . .	7 171
		1982-83 . . . . .	13 103
		1983-84 . . . . .	20 334
		1984-85 . . . . .	10 803
		1985-86 . . . . .	9 235
		1986-87 and onwards . . . . .	65 331
		Not stated . . . . .	41 827
		Instalments:	
		Yearly or less . . . . .	576 766
		Not stated . . . . .	6 373
		Net overdraft . . . . .	432
<b>Total debt . . . . .</b>	<b>828 022</b>	<b>Total debt . . . . .</b>	<b>828 022</b>

## 11.5 LOCAL GOVERNMENT FINANCE

For the purpose of determining the scope of local government finance statistics, a local government authority is defined as:

- (i) An authority set up under a local government Act to carry out the functions of local government in a defined area (known as a municipality, city, corporate town, or district council area) and which is elected by the residents or property owners, or both, in the area;
- (ii) An authority created or acquired by a local government authority (as defined above) or by two or more local government authorities.

### REVENUE AND EXPENDITURE

The expenditure of moneys by local government bodies is authorised by the Local Government Act, 1934-1974. Under the Act each council is required to prepare a balance sheet and statement of its accounts on an accrual basis for each financial year and these statements are the basis of the statistics published on local government finance.

#### Assessments

Assessments for property rating are based upon annual value or land value. Annual value is based on the estimated gross annual rental at which a ratable property would be let from year to year with an allowance, not exceeding one-quarter, to cover all outgoings; whereas land value is an estimate of the value of the land (regardless of structural improvements) included in a property. A council may adopt the 'annual' valuations or the 'land' valuations of the State Valuer-General or may make its own valuation of properties. At 30 June 1973, 43 out of 137 councils based assessments on land value.

#### Rating of Properties

A council may declare a general rate on a property and a differential general rate may be declared, for any portion of a local government area. Special rates may be levied for street watering or other purposes.

#### Government Grants

Government grants for construction and maintenance of roads are covered by Part XVI of the Act; Section 299 (1) and (2) are as follows:

'299 (1) The Governor may direct that in any financial year there shall be payable out of the Highways Fund established under the Highways Act, 1926-1938 [now the Highways Act, 1926-1974], an amount as grants to councils.

(2) Subject to Section 300, the said amount shall be divided among such councils, and in such proportions, as the Governor, on the recommendation of the Commissioner of Highways may think fit.'

Section 300 sets the division of the total grants between metropolitan and non-metropolitan councils at 25 per cent and 75 per cent respectively. ('Metropolitan' here means the 21 local government areas constituting the metropolitan area under the Local Government Act: this was the metropolitan area for population census purposes before the Census of 30 June 1966.) Section 300 (a) makes provision for additional grants for roads to the Corporation of the City of Adelaide.

### Revenue Transactions

The following tables show revenue transactions for local government authorities for 1972-73 prepared on an accrual basis.

#### Local Government Authorities General Fund, Reserve Fund and Government Grants Fund, Income South Australia, 1972-73

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Taxation:</b>			
<b>Rates:</b>			
Declared for year . . . . .	25 399	10 217	35 616
Fines on overdue rates . . . . .	68	33	101
<i>Ex gratia</i> payments in lieu of rates . . . . .	82	75	157
Total rates . . . . .	25 548	10 326	35 874
<b>Licences and permits:</b>			
Building . . . . .	363	66	428
Dog . . . . .	110	66	176
Other . . . . .	82	37	119
Total licences and permits . . . . .	555	168	723
Total taxation . . . . .	26 103	10 494	36 597
<b>Public works:</b>			
<b>Reimbursements for roadworks:</b>			
State Government (b) . . . . .	2 623	2 295	4 918
Ratepayers (moieties) . . . . .	669	249	918
Other . . . . .	577	266	843
Sewerage and effluent drainage fees . . . . .	370	347	717
Total public works . . . . .	4 238	3 157	7 396

**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Income**  
**South Australia, 1972-73 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Public services:</b>			
Ferries . . . . .	—	331	331
Fire protection . . . . .	94	98	192
Hospitals and health (including cemeteries, etc.) . . . . .	111	129	240
Sanitary and garbage . . . . .	212	183	395
Tourism . . . . .	87	110	197
Traffic and parking . . . . .	1 685	8	1 693
Weed control . . . . .	33	170	202
Other . . . . .	579	581	1 161
Total public services . . . . .	2 802	1 609	4 411
<b>Council properties:</b>			
Current;			
Halls and theatres . . . . .	389	257	645
Houses . . . . .	356	101	458
Parks, gardens and other recreational facilities . . . . .	1 436	1 241	2 677
Swimming pools . . . . .	202	105	307
Markets and other . . . . .	574	1 136	1 709
Capital (c);			
Land and buildings . . . . .	139	35	174
Other . . . . .	53	73	126
Total council properties . . . . .	3 149	2 947	6 096
<b>Government grants for roadworks:</b>			
Grants (d) . . . . .	376	3 404	3 780
Reimbursements (e) . . . . .	1 780	2 759	4 539
Total Government grants for roadworks . . . . .	2 156	6 163	8 319
<b>Other income:</b>			
Fines (mainly traffic and parking) . . . . .	525	8	533
Interest . . . . .	637	112	749
Reimbursements for private works . . . . .	333	563	896
Other . . . . .	484	436	920
Total other income . . . . .	1 979	1 119	3 098
<b>Total income . . . . .</b>	<b>40 428</b>	<b>25 490</b>	<b>65 917</b>

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Mainly reinstatements. (c) These values are understated to the extent that some councils report expenditures net of trade-ins and do not show trade-in values as income from the sale of assets. (d) Other grants and subsidies are included under respective functional headings above. (e) For work done on behalf of Highways Department.

**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Expenditure**  
**South Australia, 1972-73**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
General administration . . . . .	3 322	2 171	5 493
Debt services:			
Interest;			
On loans . . . . .	3 297	565	3 862
On overdraft . . . . .	20	57	77
Principal redeemed . . . . .	2 848	1 387	4 235
Total debt services . . . . .	6 166	2 009	8 174
Public works:			
Roads, streets and bridges;			
Construction . . . . .	7 936	8 527	16 463
Maintenance . . . . .	4 647	4 167	8 814
Road, etc. plant—running costs unallocated	1 004	762	1 766
Sewerage and effluent drains;			
Construction . . . . .	29	98	127
Maintenance . . . . .	99	43	143
Contributions to stormwater drainage schemes (b) . . . . .	900	318	1 218
Total public works . . . . .	14 616	13 915	28 530
Public services:			
Building Act . . . . .	521	83	604
Ferries . . . . .	—	331	331
Fire protection . . . . .	831	233	1 064
Hospitals and health (including cemeteries, etc.) (c) . . . . .	1 570	747	2 317
Libraries . . . . .	466	123	589
Sanitary and garbage . . . . .	1 706	395	2 101
Street cleaning . . . . .	373	23	396
Street lighting . . . . .	989	267	1 256
Tourism . . . . .	111	137	248
Town Planning . . . . .	400	12	412
Traffic and parking . . . . .	1 379	37	1 416
Vermin control . . . . .	22	85	108
Weed control . . . . .	89	320	408
Other . . . . .	212	284	495
Total public services . . . . .	8 670	3 076	11 745



**Local Government Authorities**  
**General Fund, Reserve Fund and Government Grants Fund, Expenditure**  
**South Australia, 1972-73 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Council properties:</b>			
<b>Current;</b>			
Halls and theatres . . . . .	478	383	861
Houses . . . . .	202	80	282
Offices . . . . .	25	83	108
Parks, gardens and other recreational facilities . . . . .	3 935	2 001	5 936
Swimming pools . . . . .	257	143	400
Markets and other . . . . .	169	544	714
<b>Capital (d);</b>			
<b>Land and buildings,</b>			
Halls and theatres . . . . .	92	17	108
Offices . . . . .	21	27	48
Parks, gardens and other recreational facilities . . . . .	223	163	386
Other . . . . .	554	390	945
<b>Plant and machinery,</b>			
Roadmaking . . . . .	748	764	1 512
Other . . . . .	127	26	153
Other assets . . . . .	173	63	236
Total council properties . . . . .	7 004	4 685	11 688
<b>Other expenditure:</b>			
Cost of private works . . . . .	357	462	819
Donations to charitable organisations, clubs, etc. . . . .	62	50	112
Other . . . . .	242	429	672
Total other expenditure . . . . .	661	942	1 603
<b>Total expenditure . . . . .</b>	<b>40 438</b>	<b>26 797</b>	<b>67 234</b>

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Expenditures in respect of South-Western Suburbs Drainage Scheme are included under debt services above. (c) Includes hospital subsidy to jointly-owned business undertaking. (d) These values are understated to the extent that some councils report expenditures net of trade-ins.

### Business Undertakings

Some local authorities operate electricity undertakings, water supply services and quarries. In addition several authorities jointly administer a hospital and transactions of that organisation are included under other business undertakings. Expenditures by authorities for goods and services supplied by their business undertakings are included both in expenditures from general, etc. funds and in income of the business undertakings. Loan raisings and subsequent expenditures are included under Loan Fund income and expenditure.

**Local Government Authorities**  
**Business Undertakings Income and Expenditure**  
**South Australia, 1972-73**

		\$'000
Current Account Transactions (a):		
Electricity Undertakings;		
Current income,		
Electricity sales . . . . .	1 267	
Other . . . . .	473	
Total current income . . . . .		1 740
Current expenditure,		
Generation and distribution . . . . .	679	
Purchase of electricity . . . . .	599	
Debt services,		
Interest . . . . .	136	
Principal redeemed . . . . .	130	
Administration and other . . . . .	331	
Total current expenditure . . . . .		1 876
Deficit . . . . .		135
Quarries;		
Current income . . . . .	123	
Current expenditure . . . . .	120	
Surplus . . . . .		4
Other;		
Current income,		
Goods and services . . . . .	1 193	
Maintenance subsidies,		
State Government . . . . .	498	
Local authorities . . . . .	62	
Total current income . . . . .		1 752
Current expenditure,		
Goods and services . . . . .	1 732	
Surplus . . . . .		20
Deficit (all undertakings) . . . . .		111
Capital Account Transactions (b):		
Expenditure on construction or purchase of assets;		
Electricity undertakings,		
Distribution equipment . . . . .	16	
Plant and machinery and other . . . . .	24	
Total electricity undertakings . . . . .		40
Other (c) . . . . .		345
Total Capital Expenditure (b) . . . . .		384

(a) Transactions relating to construction or purchase of capital assets are not taken into account in arriving at deficit. (b) Excludes loan fund transactions. (c) State Government capital subsidy received during the year was \$344 000.

## LOAN FUND INCOME AND EXPENDITURE

The following table shows the major items of loan fund income and expenditure for 1972-73 prepared on an accrual basis.

**Local Government Authorities: Loan Fund Income and Expenditure  
South Australia, 1972-73**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
<b>Income:</b>			
Loans raised . . . . .	7 373	2 463	9 836
Other . . . . .	3 511	28	3 539
Total income . . . . .	10 884	2 491	13 375
<b>Expenditure:</b>			
<b>Public Works;</b>			
Roads, streets and bridges,			
Construction . . . . .	2 165	303	2 468
Maintenance . . . . .	1	68	69
Stormwater drains . . . . .	559	87	647
Sewerage and effluent drains . . . . .	21	434	455
Total public works . . . . .	2 746	892	3 638
<b>Construction or Purchase of Assets;</b>			
<b>Land and buildings,</b>			
Halls and theatres . . . . .	3 206	117	3 323
Offices, etc. . . . .	177	243	420
Recreation reserves . . . . .	263	207	469
Markets and other (including off-street car parks) . . . . .	1 053	166	1 219
<b>Plant and machinery,</b>			
Roadmaking . . . . .	68	481	548
Other assets . . . . .	25	160	185
Other . . . . .	10	13	23
Total construction or purchase of assets . . . . .	4 801	1 386	6 187
Business undertakings (b) . . . . .	—	549	549
Total Expenditure . . . . .	7 547	2 828	10 375

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudia Wirra. (b) Includes land, buildings, plant, etc.

### LOAN RAISINGS AND DEBT OUTSTANDING

Local government authorities loan raisings and debt outstanding are shown in the following tables. The definitions of 'new loans raised' and 'debt', given on page 625 under 'Loan Raisings and Debt Outstanding', apply to the statistics in this section also.

The tables below show new money loan raisings and debt outstanding for the years 1963-64 to 1972-73. A further table shows debt outstanding at 30 June 1973 according to rate of interest.

#### Local Government Authorities: New Money Loan Raisings and Funds Provided for Redemption of Debt, South Australia

Year	New Loan Raisings in Australia			Funds for Redemption of Debt(a)		
	From Govt	Other	Total	To Govt	Other	Total
						\$'000
1963-64 .. ..	1 518	5 118	6 636	917	1 258	2 175
1964-65 .. ..	726	5 391	6 117	1 038	1 219	2 258
1965-66(b) ..	3 263	5 282	8 545	1 144	1 331	2 474
1966-67 .. ..	2 291	6 981	9 272	1 101	1 817	2 917
1967-68 .. ..	1 027	7 365	8 392	1 009	1 853	2 862
1968-69 .. ..	470	7 455	7 925	905	2 068	2 973
1969-70 .. ..	504	9 430	9 934	822	2 481	3 303
1970-71 .. ..	939	10 338	11 277	671	2 851	3 522
1971-72 .. ..	328	10 111	10 439	537	3 409	3 946
1972-73 .. ..	290	9 546	9 836	520	3 809	4 329

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds: both these figures are small in South Australia.

(b) From 1965-66 includes South-Western Suburbs Drainage Scheme.

#### Local Government Authorities: Debt Outstanding and Annual Interest Payable, South Australia

Year	Debt in Australia			Annual Interest Payable		
	To Govt	Other	Total	To Govt	Other	Total
						\$'000
1963-64 .. ..	4 296	23 226	27 522	99	1 234	1 333
1964-65 .. ..	4 069	27 235	31 304	103	1 443	1 546
1965-66(a) ..	6 185	31 160	37 345	256	1 674	1 931
1966-67 .. ..	7 368	36 350	43 718	324	1 980	2 305
1967-68 .. ..	7 380	42 079	49 459	337	2 323	2 660
1968-69 .. ..	6 956	47 479	54 435	316	2 645	2 961
1969-70 .. ..	6 637	54 389	61 025	290	3 106	3 396
1970-71 .. ..	6 914	62 198	69 112	304	3 719	4 023
1971-72 .. ..	6 798	69 007	75 806	300	4 240	4 539
1972-73 .. ..	6 581	74 951	81 535	289	4 627	4 915

(a) From 1965-66 includes South-Western Suburbs Drainage Scheme.

**Local Government Authorities: Debt Outstanding**  
**According to Rate of Interest and Purpose, South Australia**  
**At 30 June 1973**

Rate of Interest	Debt	Purpose	Debt
	\$'000		\$'000
No interest . . . . .	1 023	Light and power . . . . .	2 165
Under 3 per cent . . . . .	—	Water supply, sewerage and drainage (a) . . . . .	15 894
3 and under 3½ per cent . . . . .	23	Roads, streets, bridges and footpaths . . . . .	33 702
3½ and under 4 per cent . . . . .	62	Council properties . . . . .	20 607
4 and under 4½ per cent . . . . .	274	Parks, gardens and recrea- tional reserves . . . . .	6 932
4½ and under 5 per cent . . . . .	1 345	Other (including not stated) . . . . .	2 235
5 and under 5½ per cent (a) . . . . .	13 640		
5½ and under 6 per cent . . . . .	29 660		
6 and under 6½ per cent . . . . .	18 521		
6½ and under 7 per cent . . . . .	302		
7 per cent and over . . . . .	16 663		
Not specified . . . . .	20		
<b>Total debt . . . . .</b>	<b>81 535</b>	<b>Total debt . . . . .</b>	<b>81 535</b>

(a) Includes South-Western Suburbs Drainage Scheme.

From 1965-66 the tables include details relating to the South-Western Suburbs Drainage Scheme. Works connected with the scheme to provide effective floodwater drainage commenced in 1959-60 with all initial payments being made from the State Loan Fund. When actual expenditures reached \$2 000 000 an estimate was formed of the total anticipated costs of the scheme and the relevant local government authorities then became liable for progressive repayment (over fifty-three years) of half the anticipated total expenditure including interest. Indebtedness was allocated to councils in 1965-66 (\$2 159 000) and 1966-67 (\$210 000): liability of councils is subject to review when total costs become known.

The South-Western Suburbs Drainage Act Amendment Act, 1970 authorised the construction of works additional to those authorised by the South-Western Suburbs Drainage Act, 1959 and the South-Western Suburbs (Supplementary) Drainage Act, 1966. This Amendment Act provides for \$4 333 000 plus interest to be repaid in specific proportions by the relevant municipal and district councils within the area of the scheme. The liability of the councils will be adjusted when the final cost of the works is known.

**11.6 AUSTRALIAN NATIONAL ACCOUNTS**

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

**Concepts**

The fundamental concepts of domestic product and national income and expenditure are described below.

*Gross Domestic Product at Market Prices* (usually referred to as Gross Domestic Product) is defined as the total market value of goods and services produced in Australia after deducting the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. It is the sum for all producers of the value of their sales (including any indirect taxes levied thereon), plus increases in their stocks, less their purchases of intermediate goods and services from other producers. For those producers, like general government, who do not generally sell their output, it includes output valued at cost instead of sales.

*Gross Domestic Product at Factor Cost* is that part of the cost of producing the Gross Domestic Product which consists of gross payments to factors of production (labour, land, capital and enterprise). It represents the value added by these factors in the process of production and is equivalent to Gross Domestic Product less indirect taxes plus subsidies. *Gross Farm Product at Factor Cost* is that part of Gross Domestic Product at Factor Cost arising from production in rural industries.

*Domestic Factor Incomes* is that part of the value added within a given period by factors of production which accrues as income to their suppliers after allowing for the depreciation of fixed capital. It is equivalent to Gross Domestic Product at Factor Cost less depreciation allowances.

*National Income* is the net income accruing within a given period to Australian residents from their services in supplying factors of production in Australia or overseas plus indirect taxes less subsidies. It is equivalent to Domestic Factor Incomes plus indirect taxes less subsidies and net income paid overseas. It is also equivalent to Gross Domestic Product less depreciation allowances and net income paid overseas.

*National Disposable Income* is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from re-distributive transfers. It is equivalent to National Income less net transfers overseas.

*National Turnover of Goods and Services* is the total flow within a given period of final goods and services (*i.e.* excluding any goods and services used up during the period in the process of production) entering the Australian economy from production and imports. This value is equivalent to Gross Domestic Product plus imports of goods and services or, alternatively, to Gross National Expenditure plus exports of goods and services.

*Gross National Expenditure* is the total expenditure within a given period on final goods and services (*i.e.* excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to Gross Domestic Product plus imports of goods and services less exports of goods and services.

## Sectors

A brief description of the sectors for which the economy is divided for the purpose of National Accounts follows.

The *Corporate Trading Enterprise Sector* includes companies and public enterprises other than financial enterprises. It thus includes all trading enterprises other than unincorporated enterprises and dwellings owned by persons. This sector comprises only resident enterprises, but the concept of resident enterprises includes Australian subsidiaries and branches of overseas-owned companies and excludes overseas subsidiaries and branches of Australian companies. All public trading enterprises are included in this sector whether they are incorporated bodies or not.

The *Financial Enterprise Sector* includes both private and public financial enterprises. Financial enterprises are enterprises which are primarily engaged in financial transactions in the market consisting of both incurring liabilities and acquiring financial assets. These are organisations which are regarded as providing the mechanism for the functioning of the economy. They include life insurance and general insurance office and superannuation funds as well as other organisations mainly engaged in borrowing and lending in the market.

The *Household Sector* includes all resident persons, their unincorporated enterprises located in Australia and dwellings owned by persons, and non-profit organisations serving households, other than non-profit organisations included in the Financial Enterprises Sector.

The *General Government Sector* excludes public financial and trading enterprises, but otherwise includes the whole of the activities of the Australian Government, State Governments, local authorities and public corporations.

The *Overseas Sector* account records all transactions between Australian persons, businesses and governments and overseas residents. Australian subsidiaries and branches of overseas companies are classified as resident units, while overseas subsidiaries and branches of Australian companies are classified as non-residents.

## Description of the Accounts

The *Domestic Production Account* is shown as receiving the revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes less subsidiaries and, since the account is presented from the point of view of the producing unit, the wages and salaries paid to employees.

The *National Income and Outlay Account* is shown as receiving wages, salaries and supplements, net operating surplus and indirect taxes less subsidies from the Domestic Production Account. From this income are deducted net payments of income and miscellaneous transfers to overseas, and the remainder is the National Disposable Income. The outlay side of the account shows this disposable income is largely used for final consumption expenditure and the balance is the nation's saving. The *National Income and Outlay Account* is a consolidation of the sector income and outlay accounts.

The *National Capital Account* is a consolidation of the sector capital accounts. It shows on the receipts side depreciation allowances transferred from the *Domestic Production Account* and saving transferred from the *National Income and Outlay Account* (or from the sector income and outlay accounts). On the payments side are shown purchases by all sectors of new buildings and capital equipment, the increase in stocks of all sectors and a balance described as net lending to overseas. This concept of net lending to overseas includes the increases (and, negatively, decreases) in Australia's overseas monetary reserves. The net lending to overseas is also the balance on current transactions in the *Overseas Transactions Account*.

The *Overseas Transactions Account* records all transactions of a current nature between Australian and overseas residents. Although this is an account for the Overseas Sector, the items are named from the Australian viewpoint. The account shows that Australia's current receipts from overseas consist of the value of (Australia's) exports of goods and services, property income received from overseas and transfers from overseas. These receipts are used for (Australia's) imports of goods and services and payments of property income and transfers to overseas; and the balance of current receipts represents net lending to overseas. Positive net lending to overseas corresponds to a surplus on current transactions with overseas and negative net lending corresponds to a deficit.

### Domestic Production Account, 1972-73

	\$m		\$m
Wages, salaries and supplements . . . . .	22 518	Final consumption expenditure:	
Gross operating surplus:		Private . . . . .	24 052
Trading enterprises;		Government . . . . .	5 524
Companies . . . . .	5 379	Gross fixed capital expenditure:	
Unincorporated enterprises . . . . .	5 680	Private . . . . .	6 189
Dwellings owned by persons . . . . .	2 146	Public enterprises . . . . .	1 743
Public enterprises . . . . .	1 180	General government . . . . .	1 721
Financial enterprises . . . . .	808	Increase in stocks . . . . .	-250
Less Imputed bank service charge . . . . .	997	Statistical discrepancy . . . . .	422
Gross Domestic Product at Factor Cost . . . . .	36 714	Gross national expenditure . . . . .	39 401
Indirect taxes less subsidies..	4 269	Exports of goods and services..	6 915
		National turnover of goods and services . . . . .	46 316
		Less Imports of goods and services . . . . .	5 333
Gross Domestic Product . . . . .	40 983	Expenditure on Gross Domestic Product . . . . .	40 983



**National Income and Outlay Account, 1972-73**

	\$m		\$m
Final consumption expenditure:		Wages, salaries and supplements	22 518
Private	24 052	Net operating surplus	10 877
Government	5 524	Domestic factor incomes	33 395
Saving	7 446	Less Net income paid overseas	415
		Indirect taxes	4 583
		Less Subsidies	314
		National Income	37 249
		Less Net transfers to overseas	227
<b>Disposal of Income</b>	<b>37 022</b>	<b>National Disposable Income</b>	<b>37 022</b>

**National Capital Account, 1972-73**

	\$m		\$m
Gross fixed capital expenditure:		Depreciation allowances	3 319
Private:		Saving:	
Dwellings	2 078	Increase in income tax provisions	211
Other building and construction	1 361	Undistributed (company) income	819
All other	2 750	Retained income of public financial enterprises	181
Public enterprises	1 743	Household saving	4 138
General government	1 721	General government surplus on current transactions	2 028
Increase in stocks:		General government grants for private capital purposes	69
Farm	-214		
Non-farm	-36		
Statistical discrepancy	422		
Net lending to overseas	940		
<b>Gross accumulation</b>	<b>10 765</b>	<b>Finance of gross accumulation</b>	<b>10 765</b>

**Overseas Transactions Account, 1972-73**

	\$m		\$m
Exports of goods and services	6 915	Imports of goods and services	5 333
Property income from overseas	303	Property income to overseas	718
Personal transfers from overseas	235	Personal transfers overseas	210
		General government transfers overseas	252
		Net lending to overseas	940
<b>Current receipts from overseas</b>	<b>7 453</b>	<b>Use of current receipts</b>	<b>7 453</b>

The next three tables give details for South Australia of household income, private final consumption and farm income expenditure respectively for the years 1968-69 to 1972-73.

### Household Income, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$ million				
Wages, salaries and supplements . . . .	1 253	1 417	1 602	1 807	2 016
Income of farm unincorporated enterprises . . . . .	143	119	91	155	228
Income of other unincorporated enterprises . . . . .	155	175	179	190	215
Income from dwellings . . . . .	23	24	26	28	29
Cash benefits from general government . . . . .	136	155	175	203	250
All other income . . . . .	181	205	222	249	281
<b>Total household income . . . . .</b>	<b>1 891</b>	<b>2 095</b>	<b>2 295</b>	<b>2 632</b>	<b>3 019</b>
<i>Less:</i>					
Income tax payable . . . . .	204	241	257	321	*
Other direct taxes, fees, fines, etc. . . . .	31	33	33	39	*
Consumer debt interest	24	27	31	36	*
Transfers overseas . . . . .					
<b>Household disposable income . . . . .</b>	<b>1 632</b>	<b>1 794</b>	<b>1 974</b>	<b>2 236</b>	<b>*</b>

### Private Final Consumption Expenditure, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$ million				
Food . . . . .	311	329	350	382	435
Cigarettes and tobacco . . . . .	44	46	51	56	60
Alcoholic drinks . . . . .	93	103	116	128	132
Clothing, etc. . . . .	143	152	164	174	199
Health . . . . .	89	99	115	135	153
Rent . . . . .	137	145	157	172	189
Gas, electricity, fuel . . . . .	38	40	42	45	47
Household durables . . . . .	113	125	138	161	187
Newspapers, books, etc. . . . .	20	23	26	29	31
All other goods n.e.i. . . . .	58	66	73	84	94
Travel and communication . . . . .	218	245	270	296	332
All other services . . . . .	153	174	188	216	248
<b>Total . . . . .</b>	<b>1 415</b>	<b>1 546</b>	<b>1 689</b>	<b>1 877</b>	<b>2 106</b>

**Farm Income, South Australia**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$ million				
<b>Gross value of farm production:</b>					
Wool (including skin wool) . . . . .	95	91	66	86	} *
Other pastoral products . . . . .	59	79	80	90	
Wheat . . . . .	113	83	41	76	
Other grain crops . . . . .	32	27	40	47	
Other crops . . . . .	77	76	85	92	
Dairying, poultry, etc. . . . .	52	53	59	65	
<b>Total . . . . .</b>	<b>428</b>	<b>409</b>	<b>371</b>	<b>456</b>	<b>559</b>
<i>Less:</i> Stock valuation adjustment . . . . .	-3	-2	—	7	} 211
<i>Less:</i> Production costs other than wages and depreciation:					
Marketing costs . . . . .	46	44	37	45	
Seed and fodder . . . . .	37	34	31	32	
Other costs . . . . .	95	95	94	100	
<b>Gross farm products at factor cost . . . . .</b>	<b>253</b>	<b>238</b>	<b>209</b>	<b>272</b>	<b>348</b>
<i>Less:</i> Depreciation . . . . .	50	55	56	55	} 117
Wages, net rent and interest paid . . . . .	54	59	62	60	
<b>Farm income . . . . .</b>	<b>149</b>	<b>124</b>	<b>91</b>	<b>157</b>	<b>231</b>
<i>Less:</i> Farm income of companies . . . . .	6	5	—	2	3
<b>Income of farm unincorporated enterprises . . . . .</b>	<b>143</b>	<b>119</b>	<b>91</b>	<b>155</b>	<b>228</b>

The information included in this section has been derived from the publication, *Australian National Accounts, National Income and Expenditure, 1972-73*, published by the Australian Statistician, Canberra.

## PRIVATE FINANCE

### 12.1 BANKING AND CURRENCY

#### BANKING

The banking system in Australia comprises a central bank (the Reserve Bank of Australia); thirteen trading banks (one owned by the Australian Government, three by State Governments, and nine privately owned); the Commonwealth Development Bank and the Australian Resources Development Bank Ltd (specialist banks, owned respectively by the Australian Government and a consortium of the seven major trading banks); and thirteen savings banks of which one is owned by the Australian Government and three by State Governments, two are trustee savings banks, and seven are associated with privately owned trading banks.

#### LEGISLATION

Under Section 51 of the Constitution Act the Australian Parliament has power to legislate with respect to 'Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money'.

The principal Acts at present in force relating to banking are:

- (a) The *Reserve Bank Act* 1959-1973, providing for the constitution and management of the Reserve Bank and the management of the Australian note issue;
- (b) The *Commonwealth Banks Act* 1959-1974, providing for the constitution and management of the Commonwealth Banking Corporation; and
- (c) The *Banking Act* 1959-1974, providing for the regulation of banking and the protection of the currency and public credit of Australia.

The *Banking Act* 1959-1974 applies to all banks operating in Australia or its Territories, except State banks trading in their own State. Following an amendment in 1973 the *Banking Act* ceased to apply to Papua New Guinea. The objects of the Act are: (1) to provide a uniform legal framework for regulating the banking system; (2) to safeguard depositors from loss; (3) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (4) to control bank interest rates and the volume of credit in circulation; (5) to mobilise and to provide machinery for the control of foreign exchange and gold reserves of the Australian economy.

State banking legislation relates to the incorporation of banks and the constitution and management of State Banks. South Australian Acts at present in force relating to banking are the *State Bank Act, 1925-1974* and the *Savings Bank of South Australia Act, 1929-1974*.

### THE RESERVE BANK

The Reserve Bank of Australia functions as a Central Bank, controls the Australian note issue through the Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Australian Government and some of the States. Liabilities and assets of each department of the Reserve Bank are shown in the table below.

#### Reserve Bank of Australia, Liabilities and Assets at 30 June 1974

Particulars	Central Bank Department	Note Issue Department	Rural Credits Department	Total (a)
<b>LIABILITIES (\$'000)</b>				
Capital . . . . .	40 000	—	9 428	49 428
Reserve funds . . . . .	5 568	—	12 121	17 689
Special Reserve:				
International Monetary Fund				
Special Drawing Rights . . . . .	183 359	—	—	183 359
Development fund . . . . .	—	—	960	960
Notes on issue . . . . .	—	2 163 761	—	2 163 761
Deposits, bills payable and other:				
Statutory reserve deposits	912 778	—	—	912 778
Other trading bank deposits	13 871	—	—	13 871
Savings bank deposits . . . . .	1 052 668	—	—	1 052 668
Other . . . . .	2 961 680	24 676	179 653	(a) 2 099 951
<b>Total . . . . .</b>	<b>5 169 925</b>	<b>2 188 437</b>	<b>202 162</b>	<b>(a) 6 494 466</b>
<b>ASSETS (\$'000)</b>				
Gold and balances held abroad (b) . . . . .	2 862 393	141 139	—	3 003 531
Other overseas securities . . . . .	280 746	126 518	—	407 264
Australian Government securities . . . . .	879 987	516 610	—	1 396 597
All other . . . . .	1 146 799	1 404 170	202 162	(a) 1 687 074
<b>Total . . . . .</b>	<b>5 169 925</b>	<b>2 188 437</b>	<b>202 162</b>	<b>(a) 6 494 466</b>

(a) Inter-departmental accounts totalling \$1 066 058 000 have been offset in totals.

(b) Includes IMF Special Drawing Rights.

Further details of the activities of the Reserve Bank are given in the *Official Year Book of Australia*.

### THE COMMONWEALTH BANKING CORPORATION

The Commonwealth Banking Corporation was established under the *Commonwealth Banks Act 1959* and commenced operations on 14 January 1960. It is the controlling body for the Commonwealth Trading Bank, the Commonwealth Savings Bank and the Commonwealth Development Bank.

Particulars relating to the Development Bank are given below, while details of the other two banks are included in later sections relating to trading banks and savings banks.

### COMMONWEALTH DEVELOPMENT BANK

The Development Bank is a supplementary source of finance for primary production and for the establishment or development of industrial undertakings and does not compete with conventional lenders, but provides financial help when such help is thought desirable and finance is not otherwise available on suitable terms. The primary consideration of the bank's operations in deciding whether finance should be made available is the prospect of success and not necessarily the value of security available.

In South Australia all the major private banks and the State Bank of South Australia are agents of the Development Bank for the receipt of loan applications. The averages of weekly figures for loans, advances and bills discounted for the month of June in the years 1971 to 1974 were \$281, \$294, \$295 and \$307 million respectively. Of the last mentioned amount, \$27.7 million was advanced in South Australia.

At 30 June 1974 the capital of the Development Bank was \$61.7 million.

### AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED

This corporation was formed by the major trading banks with the support of the Reserve Bank and was given bank status by an amendment to the Banking Act in 1967. It provides finance for the development of Australia's natural resources mainly in the form of refinanced trading bank loans but also by direct lending and equity participation. Other services offered to intending developers include the organising of consortia financing, assessments of feasibility and independent verification of reserves. The averages of weekly figures for loans and advances outstanding for the month of June in the years 1971 to 1974 were \$261, \$328, \$294 and \$377 million respectively. This finance is provided from the Australian capital market (mainly in the form of public issues of transferable deposits) and from subordinated loans by the shareholding banks and the Reserve Bank of Australia. Overseas borrowing remains a minor source of funds.

Authorised capital of the Bank is \$10 million of which \$3 million has been issued as fully paid capital. The shareholders (the major trading banks) have approximately equal shareholdings. Although not a shareholder, the Reserve Bank of Australia initially subscribed \$2.1 million in loan capital on which interest is paid.

## TRADING BANKS

For statistical purposes trading banks are often divided into two groups, 'major' and 'other'. The 'major trading banks' comprise the six private trading banks and the Commonwealth Trading Bank, all of which have interests throughout Australia: in June 1974 they accounted for approximately 91 per cent of all general trading bank assets in Australia.

The group 'other trading banks' consists of the three State Government banks (including the State Bank of South Australia) which trade mainly in their respective States, and three other banks (two of them overseas institutions) whose business is either specialised (e.g. financing overseas trade), or both specialised and limited to particular areas.

**Banks Originating in South Australia**

With a subscribed capital of \$500 000 in 50 000 shares of \$10 each, the first trading bank promoted in South Australia was The Bank of Adelaide which was opened for business on 11 December 1865 and now has branches in all States and the Australian Capital Territory.

Pursuant to the State Advances Act of 1895 the State Bank of South Australia commenced business in 1896. The original Act directed that advances were to be made on first mortgage to farmers, other primary producers and local government authorities. In 1925 legislation was enacted which enlarged the scope of the activities of the bank by making provision for loans on overdraft and all business of general banking. The State Bank also administers the following Acts on behalf of the State:

Advances for Homes Act, 1928-1972;

Advances to Settlers Act, 1930-1972;

Loans to Producers Act, 1927-1962;

Advances for wire-netting and vermin proof materials under the Vermin Act, 1931-1973;

Loans for Fencing and Water Piping Act, 1938-1973;

Student Hostels (Advances) Act, 1961.

The State Bank of South Australia does not operate branches or agencies outside the State.

**Assets**

Under the provisions of the *Banking Act* 1959-1974 all trading banks (except State banks trading in their own State) have limitations on their portfolio of assets. These banks are required to hold a certain percentage of total deposits in the form of liquid assets or government securities (this minimum LGS ratio has remained at 18 per cent since 1962). They are also required to maintain a fixed percentage of total deposits as a deposit with the Reserve Bank (Statutory Reserve Deposit): this SRD ratio for major trading banks was increased progressively during 1973 from 6.6 per cent to a peak of 9.0 per cent on 28 August. During 1974 the ratio was reduced in eight steps (within the period 13 June to 10 October) to 3.0 per cent.

The following table gives some particulars of assets held by trading banks in Australia. The figures quoted are averages of assets at the close of business on each Wednesday in June 1974.

**Trading Banks: Assets within Australia, June 1974<sup>(a)</sup>**

Assets	Major Trading Banks	Other Trading Banks	All Trading Banks
		\$'000	
Gold, bullion and Australian notes . . . . .	249 333	14 016	263 347
Cash with Reserve Bank . . . . .	6 776	2 878	9 654
Australian public securities:			
Australian Government and State . . . . .	2 002 044	162 023	2 164 067
Local authorities and public corporations	12 429	15 199	27 627
Statutory Reserve Deposit Account with Reserve Bank . . . . .	1 026 939	5 689	1 032 628
Loans to authorised dealers in short-term money market . . . . .	27 404	37 950	65 354
Other loans, advances and bills discounted . .	9 099 174	1 021 142	10 120 316
Bank premises, furniture and sites . . . . .	178 938	40 783	219 721
Other assets . . . . .	1 273 358	97 281	1 370 639
<b>Total assets . . . . .</b>	<b>13 876 393</b>	<b>1 396 958</b>	<b>15 273 351</b>

(a) Excludes inter-branch accounts and contingencies.

**Branches and Agencies**

Of the thirteen trading banks which operate in Australia, the eight banks listed below conduct business in South Australia:

## Government banks;

Commonwealth Trading Bank of Australia  
State Bank of South Australia

## Private banks;

Australia and New Zealand Banking Group Ltd  
The Bank of Adelaide  
Bank of New South Wales  
Commercial Bank of Australia Ltd  
Commercial Banking Co of Sydney Ltd  
National Bank of Australasia Ltd

**Trading Banks: Branches and Agencies at 30 June, South Australia**

Bank	Branches			Agencies		
	1972	1973	1974	1972	1973	1974
Commonwealth Trading Bank . . . . .	49	49	51	41	49	47
State Bank of South Australia . . . . .	35	35	36	16	16	16
Private banks . . . . .	351	342	349	149	149	138
Total—Metropolitan area (a) . . . . .	220	222	228	92	106	92
Country . . . . .	215	204	208	114	108	109
<b>Total State . . . . .</b>	<b>435</b>	<b>426</b>	<b>436</b>	<b>206</b>	<b>214</b>	<b>201</b>

(a) As determined by individual banks for administrative purposes.



In 1973-74 there was an increase in the number of branches of trading banks in both the metropolitan and country areas. However, because of a decline in the number of agencies in the metropolitan area the total number of agencies fell during 1973-74. The number of country agencies rose for the first time since 1967-68.

### Deposits, Advances and Debits to Customers Accounts

Deposits not bearing interest are on current account and may be withdrawn on demand. Deposits bearing interest include some deposits on current account, but most are deposits for fixed terms ranging from three months to four years and for large amounts from thirty days to four years. Until December 1970 the maximum term for fixed deposits was two years.

During the ten-year period from 1964-65 the proportion of deposits bearing interest rose from 44.4 per cent to a peak of 57.1 per cent in 1973-74.

Loans and advances exceeded deposits in two years during the 1930s but because of a reduction in advances made during the 1939-45 War coupled with a rapid increase in deposits, the proportion of loans and advances to total deposits dropped to a low of approximately 30 per cent in the late 1940s. In the ten years 1964-65 to 1973-74, this percentage rose from 64.4 per cent to a peak of 91.7 per cent in 1970-71 and fell to 78.2 per cent in 1973-74.

Debits to customers accounts generally represent the total of all cheques drawn by customers of the banks.

### Trading Banks: Balance of Deposits and Advances and Debits to Customers Accounts, South Australia

Year	Depositors Balances (a)			Loans, Advances, and Bills Discounted (a) (b)	Debits to Customers Accounts (c)	Proportion to Total Deposits (a)	
	Bearing Interest	Not Bearing Interest	Total			Deposits Bearing Interest	Loans, Advances, and Bills Discounted (b)
	S'000					Per Cent	
1969-70 . . . .	216 457	207 561	424 017	374 575	243 378	51.0	88.3
1970-71 . . . .	225 318	206 547	431 863	396 183	269 835	52.2	91.7
1971-72 . . . .	251 057	218 926	469 983	419 682	293 329	53.4	89.3
1972-73 . . . .	298 161	265 511	563 670	470 070	336 581	52.9	83.4
1973-74 . . . .	427 839	321 344	749 182	585 505	414 861	57.1	78.2

(a) Average of balances at close of business on Wednesdays during the period.

(b) Excludes loans to authorised dealers in the short-term money market.

(c) Weekly average, i.e. average of debits during weeks ending on Wednesdays in the period. Includes the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank.

Separate details for 1973-74 for each of the Government banks and for all private banks are as follows.

**Trading Banks: Balance of Deposits and Advances, South Australia 1973-74<sup>(a)</sup>**

Bank	Depositors' Balances			Loans, Advances, and Bills Discounted ( <i>b</i> )
	Bearing Interest	Not Bearing Interest	Total	
	\$'000			
Commonwealth Trading Bank . . .	62 709	49 743	112 452	80 471
State Bank of South Australia . .	33 333	17 046	50 379	172 601
Private trading banks . . . . .	331 796	254 555	586 351	332 433
<b>Total . . . . .</b>	<b>427 839</b>	<b>321 344</b>	<b>749 182</b>	<b>585 505</b>

(*a*) Average of balances at close of business on Wednesdays during the period.

(*b*) Excludes loans to authorised dealers in the short-term money market.

The following table relates to trading bank advances outstanding for all banks in South Australia and the Northern Territory except the State Bank of South Australia. Advances are classified according to type of borrower in July of each year from 1970 to 1974.

**Major Trading Banks, South Australia and Northern Territory  
Advances to Resident Borrowers by Type of Borrower<sup>(a)</sup> (*b*)  
(At Second Wednesday in July)**

Classification	1970	1971	1972	1973	1974
	\$ million				
<b>Business advances:</b>					
Agriculture, grazing and dairying ( <i>c</i> ) .	83.0	78.1	75.3	78.8	86.4
Manufacturing . . . . .	37.7	35.9	47.7	43.2	65.2
Transport, storage and communication	6.8	6.5	5.3	8.4	12.3
Finance . . . . .	16.1	15.1	15.6	15.7	27.4
<b>Commerce;</b>					
Retail trade . . . . .	25.7	29.4	30.3	33.5	37.3
Wholesale trade ( <i>d</i> ) . . . . .	21.1	19.5	14.6	20.8	23.9
<b>Total commerce . . . . .</b>	<b>46.9</b>	<b>49.0</b>	<b>44.9</b>	<b>54.3</b>	<b>61.2</b>
Building and construction . . . . .	8.4	9.7	11.1	18.2	19.8
Other business . . . . .	27.7	32.4	38.8	61.0	78.9
Unclassified . . . . .	3.5	2.6	2.3	2.5	2.9
<b>Total business advances . . . . .</b>	<b>230.1</b>	<b>229.2</b>	<b>241.0</b>	<b>282.0</b>	<b>354.3</b>
<b>Distribution of business advances:</b>					
To companies . . . . .	121.3	120.5	126.6	148.4	195.8
Other . . . . .	108.8	108.7	114.5	133.6	158.4

**Major Trading Banks, South Australia and Northern Territory  
Advances to Resident Borrowers by Type of Borrower<sup>(a) (b)</sup>  
(At Second Wednesday in July) (continued)**

Classification	1970	1971	1972	1973	1974
			\$ million		
Advances to public authorities . . . . .	0.4	0.7	0.7	1.1	1.4
Personal advances:					
Building or purchasing own home ..	16.0	17.4	21.8	30.9	40.4
Other . . . . .	29.3	34.0	43.1	77.6	105.8
Total personal advances . . . . .	45.4	51.3	64.9	108.5	146.1
Advances to non-profit organisations ..	3.2	3.0	2.9	3.3	5.4
Total advances to resident borrowers . . . . .	279.1	284.3	309.6	394.9	507.2

(a) Covers advances by the Commonwealth Trading Bank and all private trading banks, but excludes advances by the State Bank of South Australia.

(b) 'Resident borrowers' comprise all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia.

(c) Includes farm development loan component.

(d) Includes temporary advances to woolbuyers.

### Interest Rates

The following table shows trading banks interest rates current at 30 November 1974, the dates from which they became operative and the rates which were applicable before those dates.

#### Trading Banks, Interest Rates at 30 November 1974

Particulars	Rate per Annum	Date from which Operative	Previous Rate per Annum
	%	LENDING RATES	%
Overdraft:			
Under \$50 000 (a) . . . . .	11.50	9.7.74	9.50
\$50 000 and over . . . . .	(b)	17.9.73	(b)
Unsecured personal loans (a) (c) . . . . .	8.25	9.7.74	7.25
		DEPOSIT RATES	
Fixed deposits (less than \$50 000) (a):			
3 months and less than 12 months . . . . .	9.00	9.7.74	6.75
12 months and less than 2 years . . . . .	9.50	9.7.74	7.50
2 years and less than 4 years . . . . .	9.00	9.7.74	7.50
4 years . . . . .	9.00	9.7.74	7.50
Fixed deposits (\$50 000 and over) (a) (b):			
30 days to 4 years . . . . .	10.00	9.7.74	8.00
Certificates of deposit (\$50 000 and over):			
3 months to 48 months . . . . .	(b)	17.9.73	(d) 6.50

(a) Maximum rate. (b) Actual rates are a matter for negotiation between banks and their customers. (c) Flat rate. (d) Before 17 September 1973 the maximum term was 24 months and the actual rates were a matter for negotiation between banks and their customers, subject to a maximum of 6.50 per cent.

Bank interest rates are not formally determined under the Banking Act. Maximum rates are fixed after discussions between the Reserve Bank and the banks, and with the approval of the Treasurer. State Government banks, although not bound by rulings of the Reserve Bank, tend to conform to them.

Interest rates are one of the implements of monetary and banking policy. Following a general increase in trading bank interest rates on 17 September 1973, the rates offered on some categories of fixed deposits of less than \$50 000 were increased on 14 January 1974. This was followed by a general increase in rates on 9 July 1974.

## SAVINGS BANKS

### Savings Bank of South Australia

The Savings Bank of South Australia commenced operations on 11 March 1848 following the enactment of an ordinance in 1847. At 30 June 1974 there were 140 branches, 899 agencies and 826 school bank agencies within South Australia. The Savings Bank of South Australia does not operate branches in other Australian States but has agent banks to act for it in other States and in the United Kingdom. Since April 1974 a resident officer has been located in London.

The total of depositors' balances first exceeded \$200 million in 1956, reached \$400 million in July 1969 and at 30 June 1974 amounted to more than \$591 million. During the year 1973-74 the Bank made loans amounting to \$50.5 million to depositors for housing, for rural development and for institutional and other purposes and at 30 June 1974 the total of such loans outstanding was almost \$219 million.

### Savings Bank of South Australia, Summary of Business

Year	Operative Accounts (a)	Cash Turnover (b)	Depositors' Balances (a)	Housing, Rural and Other Loans (a)	Government Securities Held (a)
	No.	\$m	\$'000	\$'000	\$'000
1969-70 . . .	919 131	989	416 307	166 587	227 966
1970-71 . . .	944 040	1 147	438 793	173 113	237 561
1971-72 . . .	962 023	1 351	469 607	183 743	247 544
1972-73 . . .	977 345	1 693	537 953	198 271	252 012
1973-74 . . .	1 007 671	2 262	591 822	218 995	280 572

(a) At end of year, as published in the Bank's Annual Report.

(b) Sum of deposits and withdrawals; includes some duplication from amounts transferred by depositors from one type of account to another.

### Development of Savings Banks

The prime object of the foundation of savings banks in Australia was the encouragement of thrift, and deposits as small as 10 cents are still accepted. Generally, depositors cannot operate on their savings accounts by means of cheques, although most savings banks extend this facility to non-profit organisations such as friendly, co-operative and charitable societies. In addition the

Savings Bank of South Australia provides personal cheque account facilities for other depositors. Savings accounts have the advantages that deposits may be withdrawn on demand and that depositors receive interest on their minimum monthly balances. No charge is made by the banks for keeping these accounts or the cheque accounts of some non-profit organisations. However, early in 1970 concessions relating to charges and interest on trading accounts were withdrawn from hospital and medical benefit organisations, building societies, credit unions and investment clubs. Savings Banks may not accept deposits from a profit making body unless it is acting as a Trustee for a non-profit making beneficiary.

Post Offices in South Australia acted as agencies for the Savings Bank of South Australia until 1912 when they became agents of the Commonwealth Bank from the date of its establishment.

Savings bank business was conducted exclusively by these two government banks until 1956, when the first of the private banks entered this field. Savings bank facilities in South Australia are now provided by the eight banks listed below:

**Government;**

Commonwealth Savings Bank of Australia  
Savings Bank of South Australia

**Private;**

Australia and New Zealand Savings Bank Ltd  
The Bank of Adelaide Savings Bank Ltd  
Bank of New South Wales Savings Bank Ltd  
Commercial Savings Bank of Australia Ltd  
CBC Savings Bank Ltd  
National Bank Savings Bank Ltd

**Assets**

Under the provisions of the *Banking Act* 1959-1974 all savings banks (except State banks trading in their own State) are required to maintain in prescribed investments an amount that together with cash on hand in Australia is not less than the amount on deposit in Australia with the savings bank. These prescribed investments include deposits with the Reserve Bank, deposits with or loans to other banks, Australian Government or State securities, loans for housing, loans to authorised dealers in the short-term money market and loans to the Australian Banks Export Refinance Corporation Ltd.

A further limitation on the portfolio of assets held by savings banks is that they are required to hold in cash and other prescribed assets, funds equivalent to 50 per cent of depositors balances. Within this amount, funds equivalent to 7.5 per cent of depositors balances must be held in deposits with the Reserve Bank and in Treasury notes. These ratios were previously 60 and 10 per cent respectively, and were varied by an amendment to the Banking (Savings Banks) Regulations on 12 September 1974.

### Branches and Agencies

The number of branches of savings banks increased in 1973-74 for the first time since 1969-70 mainly because of an increase in the number of branches of private banks in the metropolitan area. However the number of agencies of savings banks decreased in each of the years 1968-69 to 1973-74 mainly because of a reduction in the number of private savings bank agencies.

#### Savings Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1972	1973	1974	1972	1973	1974
Commonwealth Savings Bank . . . .	78	78	78	735	720	688
Savings Bank of South Australia . . . .	137	139	140	904	904	899
Private Banks . . . . .	350	342	349	663	640	560
<b>Total—Metropolitan area (a) . . . .</b>	<b>310</b>	<b>315</b>	<b>322</b>	<b>1 498</b>	<b>1 461</b>	<b>1 406</b>
<b>Country . . . . .</b>	<b>255</b>	<b>244</b>	<b>245</b>	<b>804</b>	<b>803</b>	<b>741</b>
<b>Total State . . . . .</b>	<b>565</b>	<b>559</b>	<b>567</b>	<b>2 302</b>	<b>2 264</b>	<b>2 147</b>

(a) As determined by individual banks for administrative purposes.

### Deposits

Until 1961, the total of depositors' balances in savings banks per head of population was higher in South Australia than in any other State. Although deposits per head are now higher in Victoria than in South Australia, the figure for this State is still well above the Australian average.

#### Savings Banks: Accounts and Deposits, South Australia and Australia

At 30 June	South Australia			Australia		
	Accounts Operative (a)	Depositors Balances	Deposits per Head of Population	Accounts Operative (a)	Depositors Balances	Deposits per Head of Population
	'000	\$m	\$	'000	\$m	\$
1970 . . . .	1 546	733.1	633	15 291	7 104.7	569
1971 . . . .	1 623	787.9	672	16 019	7 634.5	600
1972 . . . .	1 705	874.1	737	16 726	8 391.4	648
1973 . . . .	1 770	1 060.4	884	17 468	10 237.9	780
1974 . . . .	1 861	1 174.8	966	18 369	11 195.6	844

(a) Excludes school bank and inoperative accounts.

The Savings Bank of South Australia has always held a very high proportion of the total of depositors' balances in this State, although its share of total on deposit has dropped from about 75 per cent in 1961 to approximately 50 per cent in 1974. During that time the private banks have increased their share from less than 12 per cent to approximately 26 per cent.

## Savings Bank Deposits, South Australia

At 30 June	Commonwealth Savings Bank	Savings Bank of South Australia	Private Savings Banks	Total
\$ million				
1970 .. ..	165.0	416.3	151.7	733.1
1971 .. ..	180.2	438.8	168.9	787.9
1972 .. ..	203.5	469.6	201.0	874.1
1973 .. ..	248.8	538.0	273.7	1 060.4
1974 .. ..	276.6	591.8	306.4	1 174.8

The next table gives an indication of the amount of business conducted by savings banks during a year. It shows that in each of the last five years, both the amount deposited and the amount withdrawn during the year exceeded the total amount on deposit at the end of the year.

## Movements in Savings Bank Deposits, South Australia

Year	Amount on Deposit at Beginning of Year	Deposits during Year (a)	Withdrawals during Year (a)	Interest Added during Year	Increase in Depositors' Balances during Year	Amount on Deposit at End of Year
\$ million						
1969-70 ..	691.8	1 087.8	1 072.8	26.3	41.3	733.1
1970-71 ..	733.1	1 193.8	1 167.5	28.5	54.8	787.9
1971-72 ..	787.9	1 400.2	1 345.0	31.1	86.2	874.1
1972-73 ..	874.1	1 841.7	1 691.3	35.8	186.3	1 060.4
1973-74 ..	1 060.4	2 392.4	2 325.1	47.2	114.4	1 174.8

(a) Includes inter-branch transfers.

## Interest Rates

On 19 March 1974 the Reserve Bank removed the maximum interest bearing limit of \$20 000 on ordinary savings accounts. On 1 August 1974 the maximum interest rate payable on all ordinary savings accounts was increased from 6.25 per cent to 6.5 per cent. In practice the general rate of interest payable on ordinary savings accounts varies from 3.75 to 4.25 per cent for balances up to and including \$4 000 and is 6 per cent for the amount in excess of \$4 000. Interest is calculated on the lowest balance in an account each month.

On 1 October 1973 the rate of interest on savings banks investment accounts was increased from 5 to 7 per cent and further increased to 9 per cent on 9 July 1974. These accounts are subject to special requirements in respect of notice of withdrawal, minimum balance and minimum amounts for transactions. The maximum interest bearing limit of \$50 000 was removed on 19 March 1974.

The range of interest rates generally charged on housing loans to individuals rose on 9 July 1974 to between 9.25 and 10 per cent. Simultaneously, the maximum interest rate on other loans of less than \$50 000 was increased from 9.50 per cent to 11.50 per cent. Interest rates on loans of \$50 000 and over are a matter for negotiation between banks and their customers.

State Government savings banks are not bound by rulings of the Reserve Bank but are generally guided by them.

### School Banking

Special banking facilities for school children were introduced into South Australia with the inauguration of the School Banking Department of the Savings Bank of South Australia on 28 April 1908. The Commonwealth Savings Bank of Australia and some private banks provide similar services at some private schools. However, the Savings Bank of South Australia has sole access to State schools, and retains a major share of school banking business. With a view to encouraging thrift in school children, deposits as small as one cent are accepted.

Details of school banking in this State are as follows:

	Agencies	Operative Accounts '000	Depositors' Balances \$'000
30 June 1970 . . . . .	875	173	3 452
1971 . . . . .	872	168	3 463
1972 . . . . .	920	166	3 532
1973 . . . . .	908	161	3 618
1974 . . . . .	910	157	3 684

### CURRENCY

Under the Australian Constitution the control of currency, coinage and legal tender in Australia is vested in the Australian Government.

The Australian Treasurer is empowered by legislation to arrange for the making and issuing of coins of specified denominations. Australia's coin requirements are met by the Royal Australian Mint in Canberra. Australian notes are printed by the Note Printing Branch of the Reserve Bank in Melbourne, while their issue is controlled by the Note Issue Department of that bank.

At March 1975 notes in circulation were of the denominations \$1, \$2, \$5, \$10, \$20 and \$50, the last mentioned becoming available to the public on 9 October 1973. Coins in circulation were 1 cent and 2 cent (bronze) and 5, 10, 20 and 50 cents (cupro-nickel).

Minting of the 50 cent coin in its original form of 80 per cent silver and 20 per cent copper, ceased in April 1968. A twelve sided version of the 50 cent coin, in cupro-nickel, was issued in September 1969. A special 50 cent coin was issued in 1970 to commemorate the two-hundredth anniversary of Captain James Cook's discovery of the east coast of Australia.

More complete details of Australian currency, including historical references, were included on pages 552-6 of the *South Australian Year Book* 1968.



**Rates of Exchange**

The following table shows the average telegraphic transfer selling rates of exchange for Sydney, New South Wales, on a selection of overseas countries. The figures appearing in the table, which are averages of daily quotations, are based generally on rates quoted by the Commonwealth Trading Bank of Australia.

**Overseas Exchange Rates: Average Telegraphic Transfer Selling Rates  
Sydney, 1971-72 to 1973-74**

Country	Basis of Quotation	1971-72	1972-73	1973-74
Belgium (Financial) (a)	Francs to \$A1	52.49	53.51	57.17
Belgium (Convertible) (a)	Francs to \$A1	52.58	53.65	56.32
Canada	Dollars to \$A1	1.1700	1.2683	1.4441
China (Mainland) (b)	New Yuan to \$A1	2.71	2.72	2.849
Fiji	Dollars to \$A1	0.962	1.051	1.167
France (Financial) (a)	Francs to \$A1	6.003	6.049	} 6.308
France (Commercial) (a)	Francs to \$A1	6.122	6.123	
Germany (West)	Deutsche Marks to \$A1	3.804	3.853	3.710
Hong Kong	Dollars to \$A1	6.670	6.936	7.397
India	Rupees to \$A1	8.505	9.735	11.477
Italy (Financial) (a)	Lire to \$A1	} 696.00	{ 828.00	} 892.00
Italy (Commercial) (a)	Lire to \$A1		{ 815.00	
Japan	Yen to \$A1	368.29	363.49	404.52
Netherlands	Guilders to \$A1	3.835	3.924	3.929
New Zealand	Dollars to \$A1	0.998	1.030	1.031
Singapore	Dollars to \$A1	3.334	3.375	3.501
South Africa	Rands to \$A1	0.8518	0.9567	0.9765
Sri Lanka (Ceylon)	Rupees to \$A1	6.852	8.115	9.560
Switzerland	Francs to \$A1	4.567	4.502	4.471
Thailand	Bahts to \$A1	24.37	26.24	29.54
United Kingdom	Pounds to \$A1	0.461	0.522	0.614
USA	Dollars to \$A1	1.1680	1.2811	1.4711
USSR (b)	Roubles to \$A1	1.001	1.016	1.056

(a) Where two rates are quoted 'Convertible' and/or 'Commercial' rates are for trade transactions accompanied by documentation and 'Financial' rate is for other transactions.

(b) Rates of exchange used in converting import values to Australian currency for purposes of calculating customs duty.

**12.2 INSURANCE****LIFE INSURANCE**

The activities of life insurance companies operating in South Australia have been regulated by Australian Government legislation since 1945. Under the *Life Insurance Act 1945-1973*, every company transacting life insurance business must be registered and must lodge a deposit of up to \$100 000, as security for policy holders, with the Australian Treasurer. The Act is administered by the Insurance Commissioner who has wide powers of inquiry into the activities of any registered company.

Each company must establish at least one statutory fund and all moneys received in respect of life insurance business must be paid to, and form part of, the assets of these funds. An actuarial investigation must be conducted at least once every five years, with the distribution of shareholders dividends and policy holders bonuses subject to sufficient surplus being revealed by such investigation. All premiums must be actuarially approved and the Commissioner has powers to suppress policies or proposals which he deems misleading. Companies are required to furnish to the Commissioner certain accounting reports and statistical returns and it is from these returns that the statistical details in this section are obtained.

The individual returns cover operations for the accounting year ending in the calendar year shown. For a majority of companies the closing date is 31 December, but a number balance earlier in the year.

During 1972 there were thirty-nine companies operating in South Australia. All conducted ordinary life insurance business; thirty-two also undertook superannuation business, *i.e.*, the issuing of policies to the trustees of funds established for the provision of superannuation or retirement benefits, and nine recorded industrial business whereby premiums are collected at intervals of less than two months.

### Policies in Force

There has been a rapid growth in life insurance business since the end of 1945 when, for policies in force, the sum assured plus bonus additions amounted to \$130 million; by 1956 the \$500 million mark was reached and by 1972 the figure was \$3 358 million.

The next table illustrates the growth in life insurance business over the last ten years. Although total business has been increasing, the number of industrial policies has actually declined and industrial premiums have risen only slowly. The heavy relative decline in this form of business has resulted from the high cost of collecting premiums and the development of superannuation and group schemes.

### Life Insurance: Policies in Force, South Australia

31 Dec.	Ordinary (a)			Superannuation (a)			Industrial (b)		
	Policies	Sum Assured	Annual Premiums	Policies	Sum Assured	Annual Premiums	Policies	Sum Assured	Annual Premiums
	No.	\$'000	'000	No.	'000	'000	No.	'000	'000
1963 ..	412 348	845 322	23 960	42 449	137 586	5 198	312 765	73 482	3 240
1964 ..	424 520	923 929	25 700	42 545	160 011	6 005	299 984	78 046	3 381
1965 ..	442 451	1 029 608	28 173	43 786	182 502	6 760	289 109	82 340	3 525
1966 ..	458 212	1 140 650	30 500	44 789	212 918	7 806	275 966	85 515	3 615
1967 ..	477 753	1 272 160	33 383	45 243	256 144	8 947	269 364	89 808	3 761
1968 ..	497 847	1 413 230	37 087	47 003	298 861	10 301	262 780	94 949	3 936
1969 ..	523 417	1 588 831	41 321	48 453	341 571	11 588	257 049	101 077	4 163
1970 ..	550 226	1 802 721	46 011	49 784	399 458	13 347	253 464	111 065	4 493
1971 ..	580 218	2 073 174	51 801	51 275	470 677	15 882	249 993	123 800	4 894
1972 ..	608 290	2 374 762	58 022	52 875	542 580	17 921	241 651	135 827	5 263

(a) Includes business for the Northern Territory in 1963. ✕

(b) Includes industrial business for the Northern Territory. ✕

In the following table the distinction between endowment insurance and an endowment policy is that endowment insurance provides for the payment of the sum assured upon the insured reaching a specified age or upon his prior death, whereas the sum assured under an endowment policy is paid only upon the insured reaching the specified age.

**Life Insurance: Policies in Force, South Australia, 1972**

Type of Policy	Ordinary		Superannuation		Industrial (a)	
	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums
			\$'000			
Whole life insurances	1 394 276	26 695	47 254	1 276	9 101	358
Endowment insurances . . . .	529 738	25 995	256 132	9 921	124 690	4 808
Other insurances. . . . .	417 020	2 402	228 484	6 171	798	35
Endowment . . . . .	33 727	2 930	10 711	553	1 238	62
<b>Total . . . . .</b>	<b>2 374 762</b>	<b>58 022</b>	<b>542 580</b>	<b>17 921</b>	<b>135 827</b>	<b>5 263</b>

(a) Includes industrial business for the Northern Territory.

Of the thirty-nine companies undertaking ordinary business in 1972, ten accounted for 88 per cent of business registered at the end of the year, with the five largest accounting for 72 per cent. Although thirty-two companies had superannuation policies registered, ten companies accounted for 98 per cent, and three for 82 per cent of all superannuation business.

**New Policies**

During 1972 a total of 84 201 new life insurance policies, with an assured value of \$586 663 000, were issued in South Australia. This number was just below the highest figure of 84 351 policies issued in 1971. The value, *i.e.*, amount assured, of new policies has increased continuously since 1945.

The number and value of new ordinary, superannuation, and industrial policies issued during the five years to 1972 is shown in the next table. The relative importance of industrial policies declined from approximately 25 per cent of total value in 1945 to just over 4 per cent in 1972. The average value of industrial policies is much lower than for ordinary and superannuation policies.

**Life Insurance: New Policies Issued, South Australia**

Policy	1968	1969	1970	1971	1972
	NUMBER ISSUED				
Ordinary . . . . .	49 906	55 265	59 174	63 576	63 668
Superannuation. . . . .	5 984	5 632	6 227	6 494	6 555
Industrial (a) . . . . .	12 921	13 431	13 690	14 281	13 978
<b>Total (a) . . . . .</b>	<b>68 811</b>	<b>74 328</b>	<b>79 091</b>	<b>84 351</b>	<b>84 201</b>

**Life Insurance: New Policies Issued, South Australia (continued)**

Policy	1968	1969	1970	1971	1972
SUM ASSURED (\$'000)					
Ordinary . . . . .	224 015	261 094	319 387	388 117	440 164
Superannuation. . . . .	64 703	71 423	100 230	114 596	121 193
Industrial (a) . . . . .	12 884	14 531	18 081	23 166	25 306
Total (a) . . . . .	301 602	347 048	437 699	525 879	586 663

(a) Includes industrial business for the Northern Territory.

Annual premiums on new policies issued in 1972 amounted to \$14 208 000 and of this amount \$7 027 000 was for endowment insurances and \$5 305 000 for whole of life insurances. Details of sum assured and premiums payable for the various types of policy issued in 1972 are shown in the following table.

**Life Insurance: New Business, South Australia, 1972**

Type of Policy	Ordinary		Superannuation		Industrial (a)	
	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums	Sum Assured	Annual Premiums
\$'000						
Whole life insurances	281 630	5 024	8 035	218	1 801	63
Endowment insurances . . . . .	55 973	3 480	50 159	1 917	23 277	800
Other insurances. . . . .	95 371	434	59 750	1 429	227	12
Endowment . . . . .	7 190	671	3 249	158	—	—
Total . . . . .	440 164	9 610	121 193	3 723	25 306	875

(a) Includes industrial business for the Northern Territory.

**Annuity Business**

Life insurance companies also issue annuity policies but this form of business is at present a relatively minor aspect of life insurance activity. In 1972 there were 226 annuities in force with a total sum assured of \$91 000 a year.

**Policies Discontinued**

The following table gives details of policies discontinued according to reason for discontinuance. The item 'transfer' represents the net balance from the transfer of policies between the South Australian register and those of other States. Alterations to existing policies which result in policies being replaced, sometimes by an increased number of policies, are included in 'other'.

**Life Insurance: Policies Discontinued or Reduced, South Australia, 1972**

Reason for Discontinuance	Ordinary		Superannuation		Industrial (a)	
	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured
	No.	\$'000	No.	\$'000	No.	\$'000
Death . . . . .	2 462	5 389	306	1 412	1 325	330
Maturity . . . . .	9 025	8 332	515	2 116	11 977	1 999
Surrender . . . . .	16 183	59 913	2 400	36 662	5 344	3 977
Forfeiture . . . . .	7 426	49 172	115	1 168	3 852	7 249
Transfer . . . . .	795	1 698	140	398	—177	—290
Other . . . . .	—295	14 074	1 479	7 535	—1	14
<b>Total ..</b>	<b>35 596</b>	<b>138 578</b>	<b>4 955</b>	<b>49 290</b>	<b>22 320</b>	<b>13 279</b>

(a) Includes industrial business for the Northern Territory.

**Premiums and Claims**

Details of premium income and of cash payments made in respect of policies are shown in the following table. This table does not show investment income or management and commission expenses and accordingly is not a revenue and expenditure table.

**Life Insurance: Premiums and Policy Payments, South Australia**

Year	Premiums and Considerations for Annuities	Payments					Total
		Death or Disability (a)	Maturity	Surrenders	Annuities	Cash Bonuses	
				\$ 000			
1968 . . .	51 556	7 284	9 439	6 565	70	122	23 481
1969 . . .	57 139	7 020	10 448	7 611	72	134	25 285
1970 . . .	63 825	8 241	12 354	9 937	88	165	30 785
1971 . . .	72 151	8 461	13 997	10 861	83	158	33 560
1972 . . .	80 523	9 067	16 645	12 922	125	166	38 925

(a) Includes 'Other'.

**Loans Outstanding**

A considerable proportion of the assets of life insurance companies is held as loans, particularly loans on the mortgage of real estate. In the following table details are given of mortgages on South Australian real estate, loans on policies registered in, and 'other' loans to persons resident in, this State. Only those loans which form assets of the statutory funds, are included.

**Life Insurance: Loans Outstanding, South Australia**

Nature of Collateral	1968	1969	1970	1971	1972
Mortgage of real estate . . .	74 623	81 001	\$'000 83 553	80 620	81 054
Policies:					
Advances of premiums . . .	4 118	4 425	4 951	3 800	4 129
Other . . . . .	13 854	15 602	18 118	20 327	21 286
Other collateral . . . . .	326	186	697	2 761	2 868
<b>Total . . . . .</b>	<b>92 922</b>	<b>101 214</b>	<b>107 318</b>	<b>107 507</b>	<b>109 338</b>

**GENERAL INSURANCE**

General insurance in South Australia is conducted by private organisations and the State Government Insurance Commission which commenced business in January 1972. Some government insurance, in particular workmen's compensation, is carried by the State Government's Accident Insurance Office and in addition the State Bank of South Australia insures certain properties on which it has provided mortgage finance.

A number of Australian Government instrumentalities also are engaged in insurance in South Australia, notably in respect of housing loans and export payments, but these activities are not included in South Australian statistics.

Companies, persons or firms of persons carrying on general insurance business are required under the Stamp Duties Act, 1923-1974 to take out an annual licence, such licence being the authority to carry on insurance business in the State. The licence fee varies with premium income. Under the Fire Brigades Act, 1936-1974 insurance companies contribute approximately 75 per cent of the cost of maintaining the services of the Fire Brigades Board.

Insurance for workmen's compensation and motor vehicle third party risks is compulsory under State legislation. Employers, unless specifically exempted, are required under the Workmen's Compensation Act, 1971-1973 to effect an insurance cover providing compensation for workmen suffering injuries in the course of their employment. Details of workmen's compensation provisions are given in Part 7.4 pages 354-5.

Under the Motor Vehicles Act, 1959-1974 all vehicles other than those belonging to the Crown must be covered by a third party policy protecting the owner against any liability for death or injury to others resulting from use of the vehicle. Particulars are given in Part 10.4 page 559.

Legislation affecting all insurance companies operating in Australia is embodied in the *Insurance Act 1973* which seeks to ensure the continued financial stability of these companies. This Act is concerned only with the solvency of all companies engaged in insurance business and not with contractual arrangements between policy holders and insurers or with the rate of premiums charged. It also provides for the continuation of the provisions of the State Acts referred to above. All deposits lodged with the Australian Treasurer under the *Insurance (Deposits) Act 1932-1973* will eventually be returned to insurers.

The statistics in this section are compiled from returns covering transactions of the State Government Insurance Commission, the Government Insurance Office, State Bank and approximately 160 companies licensed to conduct general insurance business. Each return gives details of the organisation's activities during a twelve-month period ending within the year shown. Some re-insurance transactions are excluded from the returns to avoid duplication.

The following tables show some details of revenue and expenses relating to general insurance over the last four years. The tables contain selected items of statistics and should not be combined and construed as profit and loss statements or revenue accounts.

The first table shows premiums and investment income earned by the companies. Premiums represent the full amount receivable in respect of policies issued and renewed in the year less returns, rebates, and bonuses, paid or credited to policy holders in the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts shown differ from 'earned premium income' for the year. Premiums have increased over the period covered by the table and hence have been greater than earned premium income in each year. Investment income relates to interest, dividends, rents, etc. from investments made within the State.

#### General Insurance: Principal Items of Revenue, South Australia

Source of Revenue	1970-71	1971-72	1972-73	1973-74
Premiums:				
			\$'000	
Fire and sprinkler leakage . . . . .	9 125	10 374	10 594	12 398
Householders comprehensive . . . . .	6 308	7 226	8 545	10 420
Loss of profits . . . . .	1 247	1 342	1 487	1 679
Hailstone . . . . .	200	343	181	864
Marine . . . . .	2 574	2 851	3 204	3 552
Motor vehicle;				
Compulsory third party . . . . .	13 209	14 251	15 469	19 670
Other . . . . .	20 460	23 890	27 271	28 693
Employers' liability and workmens' compensation . . . . .	12 721	17 150	18 639	34 246
Personal accident . . . . .	3 664	3 914	4 256	4 908
Public risk, third party . . . . .	1 805	2 244	2 357	2 607
Burglary . . . . .	878	1 010	1 112	1 215
Other . . . . .	2 996	3 448	4 237	5 505
Total premiums . . . . .	75 186	88 043	97 352	125 756
Revenue from investments . . . . .	834	1 129	1 326	1 717
Total . . . . .	76 020	89 173	98 678	127 473

Details of claims and other expenses are given in the next table. Claims include provision for outstanding claims and represent claims incurred during the year. Other expenses mainly represent payments made during the year. Taxation payments are therefore based on income earned in previous years.

**General Insurance: Expenses, South Australia**

Type of Expense	1970-71	1971-72	1972-73	1973-74
<b>Claims:</b>			\$'000	
Fire and sprinkler leakage . . . . .	2 365	3 027	3 177	4 696
Householders comprehensive . . . . .	1 743	2 091	2 982	3 679
Loss of profits . . . . .	581	—22	185	783
Hailstone . . . . .	17	265	33	1 287
Marine . . . . .	1 363	1 603	1 538	2 514
Motor vehicle;				
Compulsory third party . . . . .	8 503	12 799	17 239	25 645
Other . . . . .	14 206	16 328	17 743	21 078
Employers' liability and workmens' compensation . . . . .	7 784	13 442	19 059	28 488
Personal accident . . . . .	1 544	1 600	1 835	2 056
Public risk, third party . . . . .	537	709	931	1 249
Burglary . . . . .	534	642	682	657
Other . . . . .	1 315	1 493	1 764	2 501
<b>Total claims . . . . .</b>	<b>40 491</b>	<b>53 978</b>	<b>67 168</b>	<b>94 635</b>
<b>Other expenses:</b>				
Contributions to fire brigades . . . . .	1 154	1 379	1 752	2 437
Commission and agent charges . . . . .	7 723	8 792	9 776	11 612
Management . . . . .	14 950	17 100	18 685	21 465
Taxation . . . . .	2 434	1 936	1 839	1 355
<b>Total expenses . . . . .</b>	<b>66 751</b>	<b>83 185</b>	<b>99 221</b>	<b>131 503</b>

**12.3 OTHER PRIVATE FINANCE****THE STOCK EXCHANGE OF ADELAIDE LIMITED**

The Stock Exchange of Adelaide was formed in 1887 by the amalgamation of the Adelaide Stock Exchange and the Stock Exchange of South Australia. Basically the Exchange provides facilities for trading in securities, with transactions being conducted by brokers who constitute its membership. Trading was conducted on the call system until the end of 1961 when post trading came into operation.

The Exchange operates under a set of rules and regulations which govern both the behaviour of companies, through the various listing requirements, and the conduct of members. Management is by a chairman, a vice-chairman and a committee of four, elected by the members.

Lists of quotations are issued by the Exchange twice daily and lists of dividends and new issues are produced weekly. The *Australian Stock Exchange Journal* providing enlarged and additional information is published monthly. Transfer marking and noting services are available to members of the Exchange and to the public through solicitors and accountants. A visitors gallery overlooking the trading floor enables the proceedings to be observed.



The figures in the following table have been supplied by the Stock Exchange and show that the total market value and turnover of both industrial and mining shares fell considerably during 1973-74.

It should be noted that several companies with diverse activities, including extensive oil and/or mining interests, are classified by stock exchanges as 'industrial' and are shown in that category in the table. From 1971-72, no distinction between mining and oil companies has been made in recording turnover information.

### Stock Exchange of Adelaide, Recorded Turnover of Securities

Particulars	Year Ended 30 June				
	1970	1971	1972	1973	1974
	Transactions ('000)				
Shares, Australian Government loans, public corporation loans, debentures and unsecured notes	251	116	61	55	43
	Number of Shares ('000)				
Shares:					
Industrial .. . . . . .	19 331	22 756	20 431	19 950	17 379
Mining .. . . . . .	60 266	40 369	} 27 963	} 21 883	} 14 908
Oil.. . . . . .	43 575	6 968			
Total shares .. . . . .	123 172	70 093	48 394	41 833	32 287
	Market Value (\$'000)				
Shares:					
Industrial .. . . . . .	27 070	22 511	25 362	31 123	23 215
Mining .. . . . . .	107 776	43 627	} 14 011	} 10 780	} 7 072
Oil.. . . . . .	11 306	2 240			
Total shares .. . . . .	146 151	68 378	39 373	41 903	30 287
	(\$'000)				
Australian Government loans, public corporation loans, debentures and unsecured notes:					
Face value .. . . . . .	2 443	2 701	3 256	3 698	2 232
Market value .. . . . . .	2 747	2 477	3 165	3 720	1 972

On 2 January 1972, the Member Exchanges of the Australian Associated Stock Exchanges (which includes Adelaide) adopted the policy of 'national listing'. This common listing meant that, at 30 June 1974, The Stock Exchange of Adelaide Limited had 1 385 companies on its Official List with a total equity market capitalisation (*i.e.* total market value of ordinary shares) of \$16 538 million.

## BUILDING SOCIETIES

The operations of building societies in South Australia are regulated by the Building Societies Act, 1881-1968 which is administered by the Registrar of Building Societies with whom all building societies must be registered. The societies fall into two categories—permanent societies and Starr-Bowkett societies.

Permanent societies, which have no fixed arrangement for termination of operations, derive their funds from the issue of shares and by receiving deposits and loans. An additional source of funds for certain permanent societies has been provided by the Australian Government through the Housing Agreement and the *States Grants (Housing Assistance) Act 1971-1974* (see pages 409-10). Advances for the purpose of building or acquiring homes are made to members and other persons by way of mortgage. Two permanent building societies are approved organisations in which the trustee of an estate may legally invest funds.

Starr-Bowkett societies have a limited life and derive their funds from regular subscription from members. These funds are used to make interest-free advances to members, with priority being determined by ballot. When all members have received a loan the process of winding up commences with share capital being returned to members as loans are repaid.

## Building Societies: Societies, Shareholders and Borrowers, South Australia

Year	Societies		Shareholders		Borrowers	
	Permanent	Starr-Bowkett	Permanent	Starr-Bowkett	Permanent	Starr-Bowkett
1969-70 . . .	8	22	28 422	5 441	6 270	2 040
1970-71 . . .	10	21	36 352	5 318	6 783	2 001
1971-72 . . .	10	20	44 925	4 879	7 482	2 075
1972-73 . . .	10	19	62 276	4 577	8 701	1 829
1973-74 . . .	11	18	94 788	4 255	11 608	1 594

Details of financial transactions by building societies during 1973-74 are given in the next table.

## Building Societies: Transactions, South Australia, 1973-74

Particulars	Permanent	Starr-Bowkett	Total
<b>Income:</b>			
Interest on mortgage loans . . . . .	6 861	—	6 861
Other . . . . .	2 078	38	2 116
<b>Total . . . . .</b>	<b>8 939</b>	<b>38</b>	<b>8 977</b>
<b>Expenditure:</b>			
Interest on borrowed funds . . . . .	6 907	—	6 907
Administration and taxation . . . . .	1 764	34	1 797
<b>Total . . . . .</b>	<b>8 670</b>	<b>34</b>	<b>8 704</b>



**CO-OPERATIVE SOCIETIES**

For the purpose of collecting the statistics in this section co-operative societies have been defined as producing, manufacturing, marketing or distributing societies which substantially fulfil the following conditions:

1. the greater part of the business of such a society to be transacted with its own shareholders;
2. any distribution of surplus after payment of dividend on share capital to be amongst suppliers or customers in proportion to the business transacted with the society;
3. limitation of voting power to one vote per person;
4. dividend on share capital not to exceed 10 per cent.

All such societies must be registered under the Industrial and Provident Societies Act, 1923-1974. The Registrar of Industrial and Provident Societies must approve the rules of each society before it may be registered.

Co-operative societies may be classified under three broad headings—those serving producers, those serving consumers, and those fulfilling both functions. In the following table societies and members have been classified under these headings.

**Co-operative Societies: Societies and Membership, South Australia**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
<b>Societies:</b>					
Producers societies . . . . .	39	39	39	39	41
Consumers societies . . . . .	12	12	12	12	12
Producers and consumers societies . . . . .	12	12	12	11	11
Total societies . . . . .	63	63	63	62	64
<b>Members:</b>					
Producers societies . . . . .	18 438	14 178	14 380	14 618	14 157
Consumers societies . . . . .	104 304	105 339	105 887	105 317	103 938
Producers and consumers societies . . . . .	3 787	3 746	3 754	3 820	3 798
Total members . . . . .	126 529	123 263	124 021	123 755	121 893

Of the forty-one producers societies operating in 1972-73, seven were co-operative wineries or distilleries, seven represented dairy producers, and seventeen were associated with fruit and vegetable production. Six of the remaining ten societies were associated with other rural production. Of the twelve co-operative consumers societies, seven were trading as general storekeepers, the remainder offering specialised products or services. Producer-consumer societies were generally associated with the fruitgrowing industry.

Particulars of the aggregate income and expenditure of co-operative societies for the five years to 1972-73 are given in the following table.

**Co-operative Societies: Income, Expenditure and Appropriations  
South Australia**

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
<b>Income:</b>			\$'000		
Sales . . . . .	58 208	61 518	66 228	74 021	77 842
Other . . . . .	4 756	4 571	4 962	5 814	6 328
<b>Total . . . . .</b>	<b>62 963</b>	<b>66 089</b>	<b>71 190</b>	<b>79 835</b>	<b>84 170</b>
<b>Expenditure:</b>					
Purchases . . . . .	43 220	46 260	47 826	52 106	54 889
Working expenses (a) . . . . .	15 412	17 395	20 555	25 630	27 668
Interest on external borrowing . . . . .	752	793	970	1 148	1 231
<b>Total . . . . .</b>	<b>59 384</b>	<b>64 448</b>	<b>69 351</b>	<b>78 883</b>	<b>83 788</b>
<b>Appropriations:</b>					
Rebates and bonuses	2 869	2 442	2 553	2 057	2 971
Interest and dividends to shareholders ..	456	472	514	555	672
Other . . . . .	1 182	1 806	1 615	1 438	1 615
<b>Total . . . . .</b>	<b>4 508</b>	<b>4 720</b>	<b>4 681</b>	<b>4 050</b>	<b>5 258</b>

(a) Includes provision for depreciation and bad debts.

Details of the liabilities and assets of the societies in each category for 1972-73 are given below. The seven co-operative wineries and distilleries accounted for 53 per cent of producer society assets.

**Co-operative Societies: Assets and Liabilities, South Australia, 1972-73**

Particulars	Producers Societies	Consumers Societies	Producers and Consumers Societies	Total
			\$'000	
<b>Assets (a):</b>				
Land and buildings . . . . .	8 849	3 348	2 453	14 651
Fittings, plant and machinery ..	10 333	340	1 293	11 965
Stock . . . . .	20 979	2 468	619	24 066
Sundry debtors . . . . .	8 282	689	2 235	11 206
Cash . . . . .	364	234	344	943
Profit and loss account . . . . .	346	10	—	356
Other (b) . . . . .	3 165	464	4 850	8 480
<b>Total . . . . .</b>	<b>52 319</b>	<b>7 554</b>	<b>11 794</b>	<b>71 666</b>

**Co-operative Societies: Assets and Liabilities, South  
Australia, 1972-73 (continued)**

Particulars	Producers Societies	Consumers Societies	Producers and Consumers Societies	Total
	\$'000			
<b>Liabilities:</b>				
Capital . . . . .	5 443	2 795	964	9 203
Loan capital . . . . .	13 029	1 532	3 560	18 121
Bank overdraft . . . . .	9 111	349	3 053	12 513
Sundry creditors . . . . .	4 244	413	1 957	6 615
Accumulated profits . . . . .	453	386	—	838
Reserves and reserve funds (c) . . . . .	7 448	1 824	994	10 266
Other (d) . . . . .	12 591	255	1 265	14 111
<b>Total . . . . .</b>	<b>52 319</b>	<b>7 554</b>	<b>11 794</b>	<b>71 666</b>

(a) Assets are shown at net value after deduction of provisions.

(b) Includes investments and advances to members.

(c) Excludes provision for depreciation and bad debts.

(d) Includes amounts due to members.

### CO-OPERATIVE CREDIT SOCIETIES

Co-operative Credit Societies are defined as 'financial' organisations, registered under the Industrial and Provident Societies Act, which have more than half of their assets in the form of loans to members and/or derive more than half of their income from such loans.

Societies included in this collection, which began in 1970-71, are mainly Credit Unions or Savings and Loans Societies. The figures below are excluded from the statistics of Co-operative Societies on pages 666-8.

Details of assets and liabilities of these societies, given in the following table, are compiled from individual returns with a variety of balance dates. The figures are aggregates of returns submitted by societies for their relevant accounting periods closing on various dates during the financial years shown.

#### Co-operative Credit Societies, South Australia

Particulars	1970-71	1971-72	1972-73
		Number	
Societies . . . . .	29	33	37
Shareholders (a) . . . . .	21 850	31 711	42 323
Deposit accounts (a) . . . . .	18 451	30 728	43 962
Borrowing members . . . . .	11 072	16 638	20 246

## Co-operative Credit Societies, South Australia (continued)

Particulars	1970-71	1971-72	1972-73
			\$'000
<b>Selected Receipts and Payments:</b>			
Deposits received (b) . . . . .	5 129	10 682	19 531
Deposits repaid (c) . . . . .	2 975	6 571	11 333
Loans paid over . . . . .	5 852	9 607	17 209
Loan repayments (c) . . . . .	4 018	6 600	10 665
Budget savings deposits received . .	327	1 519	2 764
Budget savings payments made . .	293	1 359	2 546
<b>Income:</b>			
Interest on loans to members . . . .	572	932	1 573
Other . . . . .	40	52	108
<b>Total . . . . .</b>	<b>612</b>	<b>984</b>	<b>1 680</b>
<b>Expenditure:</b>			
Interest on deposits . . . . .	223	530	855
Other (d) . . . . .	380	472	804
<b>Total . . . . .</b>	<b>603</b>	<b>1 002</b>	<b>1 659</b>
<b>Assets:</b>			
Loans to members . . . . .	7 784	11 714	19 746
Cash in hand and at bank . . . . .	69	312	439
Investments . . . . .	222	381	1 032
Other . . . . .	86	94	166
<b>Total . . . . .</b>	<b>8 161</b>	<b>12 501</b>	<b>21 383</b>
<b>Liabilities:</b>			
Share capital . . . . .	332	341	447
Reserves and accumulated profits . .	280	262	267
Deposits . . . . .	7 167	11 279	19 537
Budget savings accounts . . . . .	39	202	423
Bank overdraft . . . . .	186	173	124
Other . . . . .	158	243	585
<b>Total . . . . .</b>	<b>8 161</b>	<b>12 501</b>	<b>21 383</b>

(a) Shareholders may or may not have deposit accounts. Deposit account holders are not always shareholders. (b) Includes interest credited of \$142 000 in 1970-71, \$506 000 in 1971-72, and \$836 000 in 1972-73. (c) Includes interest. (d) Includes dividends on shares, salaries and wages, administrative expenses, and provisions for taxation, doubtful debts, and long service leave.

## ESTATES OF DECEASED PERSONS

During recent years more than 80 per cent of the estates of deceased persons subject to the jurisdiction of the Supreme Court have been administered by executors following the grant of probate on wills left by the deceased. Should the executorship of a will fail for any reason, for example by the death or renunciation of a nominated executor, the Court issues 'letters of administration with the will annexed' but the more usual 'letters of administration' relate to

the estates of persons who died intestate. Tables in this section contain details of estates covered by the three types of grant during specified years. The aggregate number of these estates is considerably less than the number of deaths in South Australia in corresponding periods.

Estates generally are those located in South Australia and not necessarily estates of deceased residents of this State. The net value of an estate is the gross value less proved liabilities; these liabilities do not include Australian Government estate duty or State succession duties.

The following table shows the number and value of estates for which probate or administration was granted by the Supreme Court during the five years to 1973.

**Estates of Deceased Persons, South Australia**

Year	Estates	Gross Value of Estates		Net Value of Estates	Average Net Value per Estate
		Real	Personal		
	No.	\$'000	\$'000	\$'000	\$
<b>MALES</b>					
1969 . . . . .	2 948	17 415	43 199	56 775	19 259
1970 . . . . .	2 770	16 320	40 644	51 797	18 699
1971 . . . . .	3 276	18 307	46 584	60 052	18 330
1972 . . . . .	2 995	20 353	44 248	59 237	19 778
1973 . . . . .	2 995	20 932	46 272	62 404	20 836
<b>FEMALES</b>					
1969 . . . . .	2 213	7 264	17 680	23 572	10 652
1970 . . . . .	2 202	9 034	20 111	27 255	12 377
1971 . . . . .	2 588	10 261	24 892	32 980	12 743
1972 . . . . .	2 296	10 849	22 720	31 644	13 782
1973 . . . . .	2 278	12 258	23 951	33 800	14 838
<b>PERSONS</b>					
1969 . . . . .	5 161	24 679	60 878	80 347	15 568
1970 . . . . .	4 972	25 355	60 755	79 052	15 899
1971 . . . . .	5 864	28 568	71 476	93 032	15 864
1972 . . . . .	5 291	31 202	66 968	90 881	17 176
1973 . . . . .	5 273	33 190	70 223	96 203	18 244

The distribution of estates through various size groups and the gross value of real and personal estate respectively in each group are shown in the following table for the years 1972 and 1973.

For each year estates with an individual net value under \$2 000 accounted for approximately 20 per cent of the total number but less than 2 per cent of total net value. In 1973, estates under \$10 000 constituted approximately 55 per cent of total numbers but less than 12 per cent of total net value, while the few estates, about 8 per cent of the total, with an individual net value of \$50 000 or more accounted for approximately 46 per cent of the total net value.

Real estate formed approximately 32 per cent of the total gross value for all estates in 1973.



## Estates of Deceased Persons: Size and Structure of Estates, South Australia

Size of Net Estate (\$'000)	1972				1973			
	Estates	Value of Estates			Estates	Value of Estates		
		Gross				Gross		
		Real	Personal	Net		Real	Personal	Net
No.	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000	
Under 2 . . . . .	1 092	340	1 496	1 033	1 047	271	1 609	1 011
2 and under 4 . . . . .	739	434	2 190	2 209	670	282	2 159	1 981
4 and under 6 . . . . .	546	976	2 184	2 733	484	612	2 280	2 407
6 and under 8 . . . . .	416	1 363	1 888	2 904	362	915	1 904	2 522
8 and under 10 . . . . .	387	1 964	1 868	3 481	354	1 562	1 956	3 200
10 and under 20 . . . . .	1 029	7 288	8 190	14 305	1 112	8 543	8 590	15 668
20 and under 30 . . . . .	388	3 298	6 886	9 491	451	4 454	7 186	10 974
30 and under 40 . . . . .	189	1 665	5 246	6 507	214	2 415	5 289	7 324
40 and under 50 . . . . .	129	1 452	4 538	5 738	159	2 483	5 079	7 100
50 and under 100 . . . . .	242	4 229	13 505	16 686	278	5 183	14 761	19 000
100 and under 200 . . . . .	99	4 299	9 811	13 225	108	3 939	11 431	14 838
200 and under 400 . . . . .	27	1 236	6 397	7 301	31	2 113	6 839	8 632
400 and over . . . . .	8	2 661	2 769	5 267	3	419	1 139	1 545
All estates . . . . .	5 291	31 202	66 968	90 881	5 273	33 190	70 223	96 203

The following table provides an analysis of estates on which probate or administration was granted during 1973 according to the age group of persons leaving those estates.

## Estates of Deceased Persons: Age and Sex of Deceased, Value of Estates South Australia, 1973

Age of Deceased	Males				Females			
	Estates	Value of Estates			Estates	Value of Estates		
		Gross				Gross		
		Net	Average Net	Net		Net	Average Net	Net
No.	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000	
Under 21 . . . . .	34	516	493	14.5	3	13	12	3.9
21 to 29 . . . . .	52	828	701	13.5	7	79	59	8.5
30 to 39 . . . . .	51	986	798	15.6	14	117	85	6.1
40 to 49 . . . . .	156	2 388	1 977	12.7	56	841	722	12.9
50 to 59 . . . . .	405	8 362	7 446	18.4	168	2 248	1 985	11.8
60 to 69 . . . . .	738	17 691	16 357	22.2	330	4 663	4 293	13.0
70 to 79 . . . . .	805	18 177	17 116	21.3	669	11 053	10 377	15.5
80 and over . . . . .	723	17 490	16 759	23.2	1 016	16 980	16 053	15.8
Not stated . . . . .	31	769	758	24.5	15	216	214	14.2
All ages . . . . .	2 995	67 205	62 404	20.8	2 278	36 209	33 800	14.8

**REAL ESTATE MORTGAGES**

The Real Property Act, 1886-1972, provides for the registration of mortgages on real estate and details of new loans and discharges are given in the following table. The average value of new loans in 1973-74 was \$11 669 compared with \$9 053 in 1972-73.

**Mortgages: Real Estate, South Australia**

Year	New Loans		Discharges	
	No.	\$'000	No.	\$'000
1964-65	38 631	220 077	30 334	95 425
1965-66	38 779	262 812	30 661	104 547
1966-67	37 937	215 926	30 689	104 808
1967-68	36 513	209 450	30 291	97 343
1968-69	35 409	209 402	30 620	117 409
1969-70	37 942	224 132	34 940	126 941
1970-71	38 920	315 793	35 995	146 011
1971-72	46 099	398 775	41 220	190 008
1972-73	56 801	514 203	52 939	241 141
1973-74	60 390	704 678	58 246	363 310

**INSTALMENT CREDIT FOR RETAIL SALES**

The financing of retail sales by the use of instalment credit schemes is an established practice in the retail merchandising industry. Instalment credit is defined as covering all schemes under which repayment is made by regular predetermined instalments, such as time payment, budget accounts and certain personal loans. Credit schemes which do not involve repayment by regular predetermined instalments, lay-bys and all credit transactions related mainly to the financing of 'producer' type goods such as plant, machinery and motor vehicles normally used for commercial purposes are excluded from the following statistics (before July 1973 the financing of 'producer' type goods was included). Also excluded are the financing of sales of land and buildings, property improvements, services such as repair work and travel facilities, and rental and leasing schemes.

Legislation controlling instalment credit schemes in South Australia is embodied in the Consumer Transactions Act, 1972-1973 and the Consumer Credit Act, 1972-1973, both effective from 1 November 1973. Since that date, it has not been possible to enter into a hire-purchase agreement in South Australia.

The Consumer Transactions Act repealed the Hire-Purchase Agreements Act, 1960-1971 and originated 'consumer contracts', 'consumer credit contracts' and 'consumer mortgages'. Generally consumer contracts and consumer credit contracts refer to the purchase by an individual of goods or services, where their price and the principal amount of credit extended does not exceed \$10 000. The Act specifies certain conditions and warranties to be implied in all consumer contracts and provides that these cannot be excluded, limited or modified by

agreement between the parties to the contract. In contrast with previous legislation, under a consumer mortgage the consumer becomes the owner of the goods when they are delivered to him and the credit provider holds a mortgage over the goods as security for the amount payable. Hence goods may still be repossessed if the consumer breaches certain conditions of the agreement. However, subject to the conditions stipulated in the Act, the consumer may return the goods and rescind the consumer mortgage at any time. The Act also ensures that written contracts meet certain prescribed printing sizes to be enforceable.

The Consumer Credit Act repealed the Money-lenders Act and established a Credit Tribunal to which, in certain circumstances, consumers may apply for relief from the terms of a contract. The Tribunal also acts as licensing authority for those persons and corporations deemed to be credit providers under the Act and controls the conditions of operation of 'revolving charge accounts'. Information to be included in a credit contract, including the credit charge, is specified in detail by the Act.

Details of instalment credit provided during the years 1969-70 to 1973-74 are given in the following tables. In each of these tables the motor vehicle group includes new and used motor cars, motor cycles, caravans, motor parts and accessories. Included in household and personal goods are furniture and furnishings, domestic refrigerators, electrical goods, musical instruments, bicycles, and other household and personal goods. For the definition of finance companies see page 674.

#### Instalment Credit for Retail Sales, South Australia<sup>(a)</sup>

Year	Amount Financed <sup>(b)</sup>						Balances Outstanding at End of Period <sup>(d)</sup>	
	Motor Vehicles, etc. <sup>(c)</sup>		Household and Personal Goods		Total		Finance Companies	Other Businesses
	Finance Companies	Other Businesses	Finance Companies	Other Businesses	Finance Companies	Other Businesses		
	\$ million							
1969-70 .. ..	90.2		30.1		120.3		173.9	
1970-71 .. ..	93.3		32.0		125.3		190.4	
1971-72 .. ..	88.0		34.5		122.5		188.4	
1972-73 .. ..	93.0		37.0		130.0		195.8	
1973-74 .. ..	84.7	1.2	7.6	29.5	92.4	30.7	151.6	26.0

(a) Before 1973-74 the figures covered both South Australia and the Northern Territory and all businesses were included. From 1973-74 they cover only South Australia and relate only to those finance companies or other businesses which (individually or as a group of related finance companies or other businesses respectively) have balances outstanding on an Australia-wide basis of \$500 000 or more on all types of finance agreements.

(b) Excludes hiring charges etc.

(c) From 1973-74 excludes motor vehicles normally used for commercial purposes.

(d) Includes hiring charges etc. Before 1973-74 includes balances for 'producer' type goods.

**Instalment Credit for Retail Sales, Motor Vehicles etc.  
South Australia<sup>(a)</sup>**

Year	Cars and Station Wagons				Other Amount Financed (b)
	Number Financed		Amount Financed (b)		
	New	Used	New	Used	
	'000		\$ million		
1969-70	<i>n.a.</i>		90.2		
1970-71	<i>n.a.</i>		93.3		
1971-72	<i>n.a.</i>		88.0		
1972-73	<i>n.a.</i>		93.0		
1973-74	14.6	31.0	34.1	46.4	5.4

(a) Before 1973-74 the figures covered both South Australia and the Northern Territory and all businesses were included. From 1973-74 they cover only South Australia and relate only to those finance companies or other businesses which (individually or as a group of related finance companies or other businesses respectively) have balances outstanding on an Australia-wide basis of \$500 000 or more on all types of finance agreements. From 1973-74 excludes motor vehicles normally used for commercial purposes.

(b) Excludes hiring charges etc.

### FINANCE COMPANIES

Finance companies are defined as incorporated companies which are mainly engaged in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: instalment credit for retail sales; personal loans; wholesale finance; factoring; other consumer and commercial loans; financial leasing of business plant and equipment; and bills of exchange. Special classes of financial institutions such as banks, insurance, investment and pastoral finance companies, and building and friendly societies are excluded, although merchant banking companies are included if they come within the scope of the collection.

From July 1971 the scope of the monthly collection (from which the following tables are compiled) was altered to exclude all finance companies whose balances outstanding on such finance agreements are less than \$500 000 on an Australia-wide basis. Before July 1971 the limit was \$100 000. From July 1972 the definition of other consumer and commercial loans was amended to exclude factoring of trade debts (now included in wholesale finance), loans to persons for alterations or additions to existing dwelling units estimated to cost less than \$10 000 (now included in personal loans) and liquidity placements (now excluded from these tables). In addition, the category other consumer and commercial loans was divided into finance for housing and other commercial loans. From July 1973 companies mainly engaged in financing the operations of related companies by directly writing agreements with the general public have been

included in the collection. Until that date, companies mainly engaged in the financial leasing of business plant and equipment and/or bill of exchange transactions with the general public were excluded, unless they were related to a finance company. Also from July 1973, statistics of credit transactions related to the financing of 'producer' type goods such as plant, machinery and motor vehicles normally used for commercial purposes were excluded from instalment credit for retail sales and included almost entirely in other commercial loans. The definitions and statistics of finance companies and instalment credit for retail sales given in this and the previous section are directly comparable from July 1973. The following table gives a summary of the transactions of Finance Companies during the last five years.

**Finance Companies: Summary of Transactions**  
**South Australia<sup>(a)</sup>**

Particulars	1969-70	1970-71	1971-72 <sup>(b)</sup>	1972-73	1973-74
	\$ million				
Leasing of business equipment and plant:					
Goods leased during the period	16.1	20.5	23.6	30.7	(e) 46.0
Balances outstanding at end of period . . . . .	27.2	35.7	(c) 51.9	60.8	(e) 88.8
Other transactions:					
Amount financed . . . . .	335.9	368.9	452.3	(d) 379.0	(f) 485.9
Cash collections and other liquidations . . . . .	349.5	392.4	478.8	(d) 414.1	(f) 501.8
Balances outstanding at end of period . . . . .	311.8	354.5	388.5	(d) 388.0	(f) 466.5

(a) Before 1972-73, includes Northern Territory.

(b) From 1971-72 excludes finance companies with balances outstanding of less than \$500 000.

(c) From 1971-72 basis of valuation is 'gross receivables'.

(d) From 1972-73 excludes liquidity placements.

(e) From 1973-74 includes all financial leasing companies.

(f) From 1973-74 includes companies directly financing the sales of related companies to the general public.

The value of goods leased during the period is the capital cost of new goods plus the depreciated value of goods re-leased plus the purchase price of secondhand goods newly leased during the period. Before July 1971 the basis of valuation of leasing agreements at the end of the period was the 'initial capital cost of the goods less depreciation to date'. From July 1971 provision has also been made for finance companies to report on a 'gross receivables' basis, *i.e.* the value of expected future receipts from existing leasing agreements including unearned income plus the agreed residual value of the goods at the end of the leasing period. Although most companies are now reporting on the 'gross receivables' basis, some data is still being reported on the 'capital cost less depreciation' basis and therefore the figures for the 'balances outstanding at end of period' from 1971-72 are partly estimated.

The amount financed, which is the actual amount of cash provided, may be classified according to the purpose of the loan. The comments below are offered to clarify the content of various items in the tables which follow:

1. Instalment credit for retail sales is defined in the same way as in the previous section (see page 672);
2. Personal loans include all loans to persons in their private capacity, other than loans classified as instalment credit or finance for housing and from 1972-73 includes loans to persons for alterations or additions to existing dwelling units estimated to cost less than \$10 000;
3. Wholesale finance relates mainly to the financing of motor vehicle dealers' stocks held under bailment or floor-plan schemes but includes also financing of other trading stock and from 1972-73 the factoring of trade debts;
4. Finance for housing includes finance for houses, flats, home units and other dwelling units (excluding hotels, hostels etc.), loans to persons for alterations or additions to existing dwelling units estimated to cost \$10 000 or more and finance for the purchase of residential blocks of land;
5. Other commercial loans include loans for the purpose of developing a tract of land into residential blocks, construction other than housing and the financing of sales of 'producer' type goods.

**Finance Companies: Amount Financed**  
**South Australia<sup>(a)</sup>**

Purpose of Loan	1969-70	1970-71	1971-72 (b)	1972-73 (a)	1973-74 (e)
			\$ million		
Instalment credit for retail sales..	97.3	100.8	95.4	91.2	(f) 92.4
Personal loans . . . . .	10.4	8.4	11.1	(c) 20.8	24.0
Wholesale finance . . . . .	118.6	124.7	130.5	(c) 134.4	174.4
Other consumer and commercial loans:					
Finance for housing;					
Purchase of existing housing				(c) 49.4	64.9
Construction of housing				(c) 41.9	51.5
Purchase of individual residential blocks of land	109.5	135.1	215.3	(c) 13.4	20.6
Other commercial loans				(c) 28.0	(f) 58.1
<b>Total . . . . .</b>	<b>335.9</b>	<b>368.9</b>	<b>452.3</b>	<b>(d) 379.0</b>	<b>485.9</b>

(a) Before 1972-73, includes Northern Territory.

(b) From 1971-72 excludes finance companies with balances outstanding of less than \$500 000.

(c) From 1972-73 the definition of other consumer and commercial loans has been amended to exclude factoring of trade debts (now included in wholesale finance), loans to persons for alterations or additions to existing dwelling units estimated to cost less than \$10 000 (now included in personal loans), and liquidity placements.

(d) From 1972-73 excludes liquidity placements.

(e) From 1973-74 includes companies directly financing the sales of related companies to the general public.

(f) From 1973-74 the financing of 'producer' type goods was excluded from instalment credit for retail sales and included in other commercial loans.

Although finance for housing is dissected into three components for the amount financed, a similar dissection is not available for collections and other liquidations, or balances outstanding which are detailed in the following tables.

**Finance Companies: Collections and Other Liquidations, South Australia<sup>(a)</sup>**

Purpose of Loan	1969-70	1970-71	1971-72 (b)	1972-73 (a)	1973-74 (f)
	\$ million				
Instalment credit for retail sales ..	108.1	118.4	126.3	118.5	(g) 115.6
Personal loans .. . . . . .	(d)	11.0	11.1	(c) 19.2	24.1
Wholesale finance .. . . . . .	119.0	125.3	130.4	(c) 137.0	176.9
Other consumer and commercial loans:					
Finance for housing .. . . . }	122.3	137.8	211.0	(c) 107.6	137.9
Other commercial loans .. . }				(c) 31.8	(g) 47.6
Total .. . . . . .	349.5	392.4	478.8	(e) 414.1	501.8

For footnotes see following table.

**Finance Companies: Balances Outstanding, South Australia<sup>(a)</sup>**

Purpose of Loan	1969-70	1970-71	1971-72 (b)	1972-73 (a)	1973-74 (f)
	\$ million				
Instalment credit for retail sales ..	143.5	159.2	159.0	150.6	(g) 151.6
Personal loans .. . . . . .	(d)	16.1	18.2	(c) 28.4	34.1
Wholesale finance .. . . . . .	17.4	20.0	23.7	(c) 22.0	23.0
Other consumer and commercial loans:					
Finance for housing .. . . . }	150.9	159.3	187.6	(c) 147.6	193.5
Other commercial loans .. . }				(c) 39.4	(g) 64.3
Total .. . . . . .	311.8	354.5	388.5	(e) 388.0	466.5

(a) Before 1972-73, includes Northern Territory.

(b) From 1971-72 excludes finance companies with balances outstanding of less than \$500 000.

(c) From 1972-73 the definition of other consumer and commercial loans has been amended to exclude factoring of trade debts (now included in wholesale finance), loans to persons for alterations or additions to existing dwelling units estimated to cost less than \$10 000 (now included in personal loans), and liquidity placements.

(d) Before 1970-71 personal loans were included in other consumer and commercial loans.

(e) From 1972-73 excludes liquidity placements.

(f) From 1973-74 includes companies directly financing the sales of related companies to the general public.

(g) From 1973-74 the financing of 'producer' type goods was excluded from instalment credit for retail sales and included in other commercial loans.

## FINANCIAL CORPORATIONS ACT

The *Financial Corporations Act 1974* which was assented to on 7 August 1974, enables the Reserve Bank to examine and regulate the business activities of non-bank financial intermediaries (finance companies, building societies, credit unions etc.) and large retailers which finance their sales by instalment credit schemes.

In order to perform its monitoring and control function, the Reserve Bank is empowered by the Act to collect monthly information from each of the larger financial corporations (assets in excess of \$5 million) and from the larger retailers (balances outstanding in excess of \$5 million on instalment credit for retail sales agreements). Other financial corporations with total assets in excess of \$1 million are also required to submit information at less frequent intervals.

Some types of financial institutions such as banks and insurance companies are specifically excluded from the provisions of the Act.





*Max Farrell*

A view of Whyalla from the south-east. Jetties numbers 1 and 2 and the pelletising plant are in the foreground.

The Whyalla blast furnaces viewed from the south. The coke ovens are at the back and the blast furnace wharf with coke and salt stockpiles is in the foreground.

*Max Farrell*







*Max Farrell*

A view of the Whyalla steelworks from the north showing the rolling mills, coke ovens, blast furnaces and shipyard.



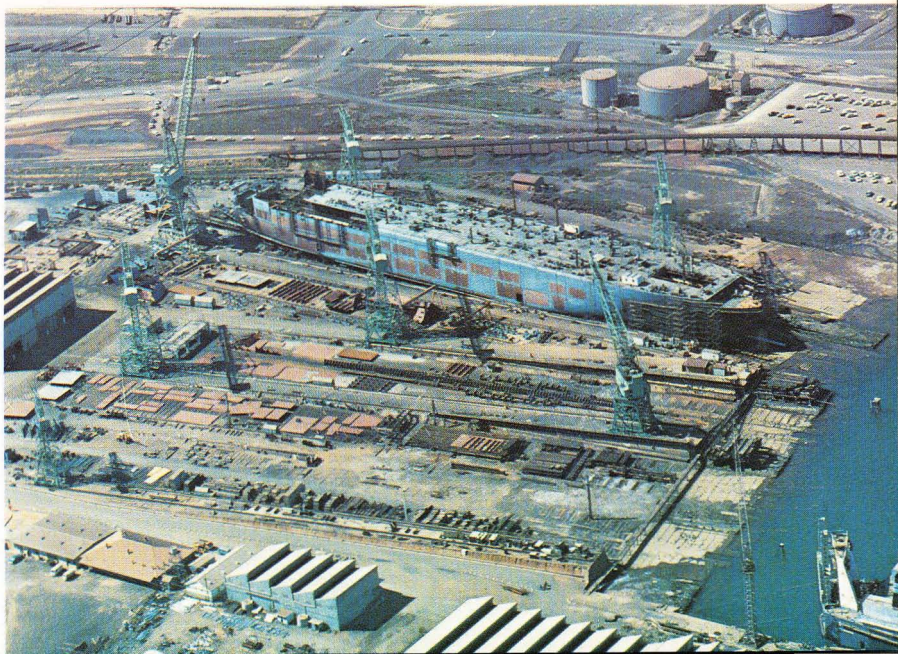


*Max Farrell*

Whyalla viewed from the south-west showing the medical centre and metalurgical laboratories in the foreground, the lime kiln and basic oxygen steelmaking plant in the centre and the structural mill at the back.

The slipways at the Whyalla shipyard with the *Arthur Phillip* of 66 000 tonnes under construction.

*Max Farrell*







*Max Farrell*

The Iron Monarch iron ore deposit viewed from the south. The scree ore plant is in the foreground with the Iron Knob township and Iron Knob ore deposit at the back.

## **REGIONAL STUDIES**

### **WHYALLA\***

Whyalla which is 225 kilometres north-west by west by air from Adelaide was established at the beginning of the twentieth century as a port to ship iron ore extracted from the Middleback Ranges.

#### **Topography, Soils and Vegetation**

Generally the Whyalla area is of low relief with internal drainage or no drainage at all. South of Whyalla along the coastline there is a narrow continuous strip of salt marshes and white sand dunes, often fringed with mangroves on the seaward side. Beyond the marshes the land gradually rises to a flat plain, from 15 to 30 metres above sea-level, which is covered with alluvium. The vegetation is mainly saltbush, bluebush, mallee and some myall trees. This plain which varies in width from 3 to 13 kilometres is covered with sand dunes in the south.

Adjacent to the coastal plain is an area rising to the west by a series of scarps ranging up to 50 metres in height. The upper plain is an undulating tableland, standing at a general level between 100 and 200 metres and extending westwards towards the Middleback Ranges.

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\* The assistance of The Broken Hill Proprietary Company Limited in the preparation of this article is gratefully acknowledged. Data showing the operations of the Company has been supplied by the Company or was extracted from published works and was not collected under the authority of the *Census and Statistics Act 1905-1973*.

The Middleback Ranges consist of a broken line of hills extending north and south for a distance of about 35 kilometres, 40 kilometres from the coast. Twenty-five kilometres further north are the isolated ridges of Iron Monarch and Iron Knob. Throughout their length, the Ranges have been dissected by gullies, and the hill slopes are frequently heavily strewn with rock talus. In these sandstone ranges there are great masses of ironstone.

In the east and north-east of the Whyalla region is a series of flat-topped sandstone hills, the remnants of a tableland which was previously much more extensive.

The most common soils in the area are solonised brown soils or mallee soils grading into desert loams. A characteristic feature of the solonised brown soils is the presence of large quantities of calcium carbonate, usually in the form of rubble or sheet travertine limestone, either exposed at the surface or lying at shallow depths. In the southern and south-western portion of the region, the country is covered by undulating sand dunes. Throughout the region, low outcrops or floors of weathered granite and granite gneiss also are evident.

The principal vegetation of the soil plains to the west and south west of Whyalla comprises a tree-steppe community dominated by myall, sandalwood, and localised patches of black oak and mallee. Saltbush and bluebush are the predominant low shrubs. Mallee is found throughout the undulating sand dune belt with red and kong mallee being the most common varieties.

The vegetation is dependent on the soil type and depth and this causes local variations. For example, spinifex may occur on stony rises where windblown sand or weathered rock has provided sufficient soil, and the growth of broombush frequently indicates the presence of low outcrops or floors of weathered granite.

### **Climate and Meteorology**

With an average annual rainfall of 264 millimetres and a mean maximum daily temperature of 22.9°C, the climate of Whyalla may be described as hot and dry.

The warmest weather occurs from November to March with January recording the highest mean maximum temperature of 28.8°C. Very hot days are experienced in these months and at least twenty days with a maximum in excess of 37.5°C can be expected. Along the coast and to the south, conditions are slightly cooler as the hot days are usually relieved by a sea breeze. Normally humidity causes no discomfort either to stock or people, as it is usually below 25 per cent on the very hot days.

The period from July to August experiences the coolest weather but the mean maximum for July, the coldest month, is above 16°C. Monthly mean minima vary from 6.9°C in July to 18.6°C in January. Very cold days produced by a strong outburst of air from well south of the continent are experienced occasionally; about three to five such days each year cause distress to sheep, but such spells seldom last longer than twenty-four hours.

Rainfall throughout the year is infrequent and erratic. Although the winter season is the most reliable for rainfall, it is still not adequate in a sufficient number of years to support agriculture. In most years summer rain is negligible but the February average of 23 millimetres has been affected by heavy rains

which have been associated with tropical cyclones moving into the region from the north in some years. May has recorded the highest monthly average rainfall of 26 millimetres while March is the lowest at 17 millimetres. On average July has the most days of rain (nine) while January, February and March each have the least (three).

Average annual evaporation in Whyalla is high, being in excess of 1 900 millimetres.

### History

On 9 March 1802 Matthew Flinders, Commander of the *Investigator* discovered and named Hummock Hill which now forms the eastern end of the City of Whyalla. Although he was not favourably impressed by the area's arid sweeping plains, a small settlement, based on sheep grazing, grew up during the latter half of the nineteenth century.

In 1896 Mount Minden Mining Company, which had held Iron Knob and Iron Monarch in the Middleback Ranges under lease and had worked the iron deposits in a small way, forfeited its leases, as it had not paid the rent for three years and had not observed labour conditions. Following this forfeiture, The Broken Hill Proprietary Company Ltd (the Company) pegged out and registered nine claims embracing Iron Knob and Iron Monarch. The Company had secured these deposits so that it would have an assured supply of ironstone to be used as a flux at the Port Pirie smelting plant which had been established to treat the silver-lead-zinc ores mined at Broken Hill.

When the Company's application for the leases was granted, it began to quarry the ironstone which was taken by bullock teams to Port Augusta and from there it was shipped by barge to Port Pirie. In 1900 the Company applied to the South Australian Government for permission to construct a tramway from Iron Knob to Hummock Hill and to build a jetty at False Bay. The proposal was stongly opposed by residents of Port Augusta who wanted the tramway to terminate in Port Augusta but in the end the select committee investigating the project decided in favour of Hummock Hill. On 10 January 1901 the *Cadell* left Port Pirie and arrived at Hummock Hill with about thirty workmen who were to commence the construction of the tramway. Good progress was made and the first train travelled over the tramway on 28 August 1901. The jetty was completed in 1902 and the shipment of iron ore to Port Pirie by barge became a regular branch of the Company's activities.

The country surrounding the Hummock Hill settlement was held under pastoral lease and had been improved by the building of dams. Native dogs (dingoes) were so numerous that the station people could only keep as many sheep as they could shepherd. Other stations nearer Port Augusta and Iron Knob were in vermin districts, fenced to keep the dogs out, and thus were able to carry many sheep. The wool from these properties was brought to Hummock Hill on the tramway and shipped to Port Adelaide by ketch.

From 1902 women and children began to arrive in the settlement. Mr Alf Sandery, who had arrived with the working party for the tramway, was the first to build in the present township. Supplies were generally brought to the settlement by ship or by bullock teams from Port Augusta. Fish were plentiful from the Gulf while kangaroos, emus and wild turkey were a source of fresh meat. Goats were used for milk.

The first hotel was the Jetty Hotel, built of timber and galvanised iron and the first hotelkeeper, Mr G. Burton, received his beer supplies by tug from Port Pirie or by driving his tip dray to Port Augusta. The hotel licence was transferred, thirty years later, to the Hotel Whyalla.

In 1905 a public hall was opened on the Company's lease and was used as a school, for church services, for concerts and as an institute. Dr Brown, the first medical officer was chairman and Mr B. Dunstone, a lay preacher, was secretary and librarian. Miss O'Connell was the first teacher at the school and there was an attendance of eighteen children.

Sufficient water came across from Port Pirie for domestic use and for locomotives, and some water was obtained from soaks near the settlement, but this was inadequate for all requirements. The Government built a large underground storage tank on the outskirts of the town and most of the residents installed their own underground tanks to conserve water.

In 1907 the Company had smelted a quantity of Iron Knob iron ore at Port Pirie and the resultant product was found to be of excellent quality. In 1911, when the population of Hummock Hill was 119 and Iron Kob 125, the Directors sent Mr G. D. Delprat (then general manager) abroad to gather the latest information on the practicability of establishing iron and steel works in Australia. As a result of the Company's investigations it was decided to establish a steel-works at Newcastle in New South Wales to manufacture steel from the iron ore of the Middleback Ranges.

On 16 April 1914 the settlement at the foot of Hummock Hill was officially proclaimed a new town to be known as Whyalla, although the name, Hummock Hill, was commonly used until 1920. From this time the town expanded rapidly. The jetty was not long enough to accommodate ships coming from Newcastle for ore and had to be lengthened. A conveyor belt was installed to permit loading and five secondary crushers and storage bins were erected. More and improved rolling stock was obtained and a small power house was built near the jetty. This construction work was completed in November 1914.

In January 1915 the steamer, *Emerald Wings*, later renamed the *Iron Baron*, loaded 2 800 tonnes of crushed ore and sailed for Newcastle. This new development brought a substantial increase in population, more houses were built and electric light replaced kerosene lamps and candles in the homes. Production at Iron Monarch commenced in 1915 and in 1920 the Company acquired further leases at the northern tip of the Middleback Ranges, and later it secured other leases to the south.

The first sale of land was held on 13 August 1914, the average price of each block was about \$10. Further auctions were held in 1916, 1917, 1918 and 1920. There was very little activity in land sales between 1920 and 1936.

In 1918 the first section of the Whyalla Central Primary School was built and several concrete houses were erected. No bricks were made locally at this time and the stone quarry had not been opened. The beach gravel and cement were mixed with salt water to form the concrete.

Dingoes were still numerous and sheep were shepherded. It was not until 1919 that the area became a vermin district, and it took about three years to drive the dogs out. By the Census of 1921 the population of Whyalla had reached 866 and Iron Knob 528.



In 1922 a new power house was erected and the plant at the jetty was converted from manual to automatic control. The first section of the present post office was opened in 1925, the year in which the Company undertook a project to electrify its operations at Iron Knob. This involved the erection of a transmission line, the installation of electric shovels, electric locomotives and primary crushers. This work was completed in 1928.

In 1928 Mr Shirley of Port Augusta was given a contract to bring the mail from Port Augusta to Whyalla. He used a motor car with trailer and was able to complete the journey in two hours. During this time hundreds of tonnes of sandalwood were being cut and sent to Port Augusta for shipment to China, the Company was forming and sealing roads, and beach improvements were being undertaken. Houses built of sandstone and containing modern conveniences began to appear and the beautifying of the town with shrubs and trees commenced. However, the shortage of water was always a problem.

The population of Whyalla at the 1933 Census was 967. In this year the first section of the Hotel Whyalla was built, and the first stage of the Police Station was completed in the following year. The Methodist and Catholic Churches were erected about the same time. The Company established a dairy with eleven bails for milking, a feed room and a separate building for washing milk cans. Ships were now bringing water in ballast from Newcastle. The present golf club was formed in 1932, the Spencer Gulf Aero Club was formed in 1936, the band hall was built in 1938 and the present rifle range was established in 1939.

The next important development in the growth of Whyalla was the Company decision, in 1938, to build a blast furnace to produce pig iron. The project also involved dredging to create a deep-water harbour, the building of a wharf and the construction of a power station. The work of reclaiming an area of 30 hectares began in August 1938 and the first pile of the wharf was driven in on 20 January 1939. This was a period of unparalleled prosperity and expansion in the town; for example, building blocks that originally cost \$30 were sold for \$2 000. The construction of the wharf was so rapid that the S.S. *Iron Prince* was able to berth on 13 September 1939, thirteen months after dredging had commenced.

With the outbreak of War in September 1939, Whyalla was seen as an ideal location for a major shipyard and the first four orders were for patrol vessels for the Royal Australian Navy. In May 1941 the first of these ships was handed over to the Navy and in the same month the new blast furnace was 'blown in'. During the next three years an electric steel plant and forge shops were constructed and the Company's engineering workshop was expanded.

Whyalla was an outstanding example of war-time growth. At the outbreak of War it had been merely a port for the shipment of ore mined from the Middleback Ranges, but by 1945 it had become the operating centre of one of the largest furnace units in the world and had a large ship-building yard. The population had increased from about 1 400 to 7 500. A heavy machine shop, a marine gear cutting annexe and a solar salt industry were all established shortly after the War.

The growth of Whyalla before the 1939-45 War had been restricted by lack of water, and with the vast plan for expansion during the 1940s it could be seen that the local water supply would be entirely inadequate. Thus, it was decided to

supplement the local supply by means of a pipeline from the River Murray. The Morgan-Whyalla Pipeline was commenced in 1940 and completed in 1944. A duplicate pipeline was completed in 1967 to cater for further expansion.

The South Australian Housing Trust began building in Whyalla in 1940 when it completed 100 double units and, by 30 June 1974, it had completed about 6 500 dwellings.

In 1945 the Whyalla Town Commission was established to carry out the duties of local government. The Commission consisted of a chairman appointed by the South Australian Government, four representatives elected by ratepayers and three appointed by the Company. The name was changed to the Whyalla City Commission when Whyalla was proclaimed a city in 1961 and a fully elected council assumed the Commission's responsibilities in 1970.

The Whyalla Hospital was opened in 1940 and the well-being of the community was increasingly catered for from this time with the building of several new schools, and the construction of new hotels, libraries, shops, banks, police station, courthouse and several other facilities. Several sports clubs and associations were either formed or expanded in this period. At the 1947 Census the population had grown to 7 845.

The next important step in the development of Whyalla was in 1958 when an agreement was reached between the South Australian Government and the Company for the establishment of a steel industry. The site chosen for the Whyalla Steel Plant was just north of the existing blast furnace. The area had to be first cleared and then access roads had to be built before construction could begin. Much of the construction work was carried out by Company employees and the construction labour force reached a peak of 1 600. Later, most of these workers were transferred to production units. The plant was completed in three main sections: on 1 April 1964 the structural mill began rolling; on 2 November 1964 the soaking pits and bloom mill went into operation; and the basic oxygen steelmaking plant produced its first heats of steel early in 1965. The new plant cost \$200 million and now has an annual production capacity of 1.2 million tonnes.

An indication of the growth over this period can be seen by the rapid increase in population. At the 1954 Census it was 8 598, in 1961 it was 13 711, and by the 1966 Census it had reached 22 121.

In the 1950s and 1960s several new industries were established in Whyalla, including Reyrolle-Parsons of Australia Ltd, a subsidiary of the steam turbo-generator manufacturers in Britain, which established a works in the town. This enterprise is the largest employer outside the Company and is completely independent of it. While the steelworks were being constructed more industries were established and many of these companies now sub-contract for the ship-building and engineering works.

Whyalla has continued to expand during the 1970s and at 30 June 1974 the population of Whyalla City had reached 33 450. Community facilities have expanded with the demands of the growing population.

### **Population**

The population of Whyalla has increased rapidly since the 1939-45 War. The following table shows an increase in excess of 300 per cent between the 1947 and 1971 Censuses.

Population: Whyalla, Censuses 1947-1971<sup>(a)</sup>

Census	Males	Females	Persons
30 June 1947 . . . . .	4 101	3 744	7 845
30 June 1954 . . . . .	4 474	4 124	8 598
30 June 1961 . . . . .	7 559	6 152	13 711
30 June 1966 . . . . .	12 183	9 938	22 121
30 June 1971 <sup>(b)</sup> . . . . .	17 010	15 099	32 109

(a) Figures for this and other tables refer to the Local Government Area of Whyalla for 1947-1966. As the urban component of Whyalla had grown outside of the local government boundary by the 1971 Census, figures shown for this Census relate to the urban centre of Whyalla. Although a different geographic area is under consideration for 1971, it is comparing intercensally the same population, i.e. those people living in 'Whyalla'.

(b) Figures before 1971 exclude full-blood Aborigines.

## Percentage Birthplace Distribution, Whyalla

Birthplace	Census 30 June				
	1947	1954	1961	1966	1971
	Per Cent				
Australia . . . . .	94.7	86.6	73.2	61.4	57.4
UK and Ireland . . . . .	4.5	6.7	13.1	24.9	29.2
Europe . . . . .	0.5	6.3	13.0	12.7	11.7
Other . . . . .	0.3	0.4	0.7	1.0	1.7

The preceding table shows a proportional decrease in the Australian born population of Whyalla since 1947. At the 1954 and 1961 Censuses there were approximately equal numbers of United Kingdom and Ireland born, and European born. However, at the 1966 Census the United Kingdom and Ireland born population was almost double that of the European born population. This trend of a proportional increase in the United Kingdom and Ireland born population was still evident at the 1971 Census. The table below shows a similar trend for South Australia, although it is of a much smaller magnitude.

## Percentage Birthplace Distribution, South Australia

Birthplace	Census 30 June				
	1947	1954	1961	1966	1971
	Per Cent				
Australia . . . . .	93.5	86.1	80.8	77.5	76.2
UK and Ireland . . . . .	5.1	6.3	8.1	11.2	12.6
Europe . . . . .	1.0	6.7	10.0	10.1	9.6
Other . . . . .	0.4	0.9	1.1	1.2	1.6

Whyalla has not only a large proportion of overseas-born residents, but also, as shown by the next table, a large proportion of recent arrivals into Australia.

**Overseas-born Population, Resident in Australia less than 5 years  
Percentage of Total Population**

Area	Census 30 June		
	1961	1966	1971
		Per Cent	
Whyalla . . . . .	14.8	23.5	20.2
South Australia . . . . .	6.2	7.4	5.7

Whyalla has a younger age distribution than the State as a whole, with both a greater proportion of males and females under 15 years, and a lesser proportion over 65 years.

**Percentage Age Distribution, 1971 Census**

Age	Whyalla		South Australia	
	Males	Females	Males	Females
		Per Cent		
0-14 . . . . .	36.2	38.9	29.7	28.2
15-24 . . . . .	17.6	17.6	17.7	17.3
25-34 . . . . .	16.8	16.4	12.9	12.6
35-44 . . . . .	13.2	12.0	12.2	11.5
45-54 . . . . .	8.9	7.7	11.8	11.5
55-64 . . . . .	5.2	4.8	8.7	8.9
65 and over . . . . .	2.1	2.6	7.0	10.0

The next table shows a smaller proportion of females 15 years and over who have never married and a smaller proportion of married males for Whyalla than for South Australia. The differences shown in the categories 'Never Married—under 15 years' and 'Widowed' can probably be attributed to the difference in the age distribution of Whyalla and the State as a whole.

**Marital Status, 1971 Census**

Marital Status	Whyalla		South Australia	
	Males	Females	Males	Females
		Per Cent		
Never married:				
Under 15 Years . . . . .	36.2	38.9	29.7	28.2
15 years and over . . . . .	19.0	9.7	19.3	14.6
Now married . . . . .	42.1	47.1	47.0	47.0
Permanently separated . . . . .	1.1	0.9	1.1	1.2
Divorced . . . . .	0.7	0.4	1.0	1.1
Widowed . . . . .	0.9	3.0	1.9	7.9

The labour force is defined to be those persons 15 years of age and over who worked, had a job from which they were temporarily absent, were temporarily laid off without pay for the whole of the reference week or did not work or have a job but were actively looking for work. In Urban Whyalla, 9 620 males and 3 103 females were in the labour force at the time of the 1971 Census.

The following table shows that a relatively small proportion of males 15 years and over in Urban Whyalla were out of the labour force at the 1971 Census. A greater than average percentage of wage earners would be expected in a largely industrial town. Unemployment was less for males but greater for females in Whyalla when compared with South Australia.

#### Occupational Status of the Population 15 years and over, 1971 Census

Occupational Status	Whyalla		South Australia	
	Males	Females	Males	Females
	Per Cent			
Employer . . . . .	2.6	1.0	4.7	1.4
Self-employed . . . . .	2.0	0.7	7.2	2.0
Wage earner . . . . .	83.6	30.3	66.9	32.2
Unpaid helper . . . . .	—	0.3	0.2	0.5
Unemployed . . . . .	0.5	1.3	1.1	0.8
Not in labour force . . . . .	11.3	66.4	19.9	63.1

The next table which classifies the employed population of Whyalla and South Australia by industry shows that 65.4 per cent of employed males in Urban Whyalla are employed in the manufacturing industry, as opposed to 28.6 per cent for South Australia.

#### Industry of Employed Males and Females as a Percentage of Total Employed Males and Females, 1971 Census

Industry	Whyalla		South Australia	
	Males	Females	Males	Females
	Per Cent			
Agriculture, forestry, fishing, etc. . . . .	0.4	0.1	10.0	5.4
Mining . . . . .	0.2	—	1.1	0.2
Manufacturing . . . . .	65.4	17.6	28.6	15.5
Electricity, gas and water . . . . .	1.2	0.2	2.5	0.3
Construction . . . . .	6.9	1.1	10.3	1.2
Wholesale and retail trade . . . . .	8.8	25.1	17.1	25.5
Transport and storage . . . . .	4.2	1.9	6.2	1.9
Communication . . . . .	0.9	0.8	2.1	1.4
Finance, business services etc. . . . .	2.4	5.0	4.9	8.0
Public administration, defence . . . . .	0.9	3.2	4.1	3.8
Community services . . . . .	3.5	25.4	7.4	23.7
Entertainment, recreation, etc. . . . .	1.2	15.9	2.6	9.7
Other and not stated . . . . .	4.0	3.7	3.1	3.4

The following table shows that 65.0 per cent of employed males in Urban Whyalla were in the occupation group 'Tradesmen, production process workers, labourers', as compared to 43.3 per cent for the whole State. The situation is reversed for females, perhaps indicating a lack of female job opportunities in this employment area in Whyalla. This could be because of a preponderance of heavy industry (e.g. ship building) as opposed to light industry (e.g. producing car seat belts).

**Occupations of Employed Males and Females as a Percentage of Total Employed Males and Females, 1971 Census**

Occupations	Whyalla		South Australia	
	Males	Females	Males	Females
	Per Cent			
Professional, technical and related workers . . . . .	8.2	17.4	8.4	14.8
Administrative, executive, managerial workers . . . . .	5.3	2.6	8.4	2.7
Clerical workers . . . . .	5.3	25.4	8.0	28.4
Sales workers . . . . .	2.8	16.2	5.9	13.7
Farmers, fishermen, hunters, timber-getters, etc. . . . .	0.7	1.1	10.8	5.2
Miners, quarrymen, related workers . .	0.8	—	0.6	—
Workers in transport and communication . . . . .	5.0	2.1	6.7	2.3
Tradesmen, production process workers, labourers . . . . .	65.0	5.4	43.3	11.9
Service, sport and recreation workers . .	2.5	25.4	3.6	16.9
Members of armed services . . . . .	0.1	—	0.9	0.1
Occupation inadequately described or not stated . . . . .	4.3	4.4	3.4	4.0

There are proportionately almost twice as many males with trade qualifications in Whyalla as in South Australia. This information, along with the industry and occupation classifications, emphasises the importance of manufacturing to Whyalla.

**Qualifications Obtained for Males and Females 15 years and over as a Percentage of Total Males and Females 15 years and over, 1971 Census**

Qualification Obtained	Whyalla		South Australia	
	Males	Females	Males	Females
	Per Cent			
No qualification . . . . .	59.7	90.1	71.5	89.2
Trade . . . . .	32.2	1.6	18.6	1.8
Technician . . . . .	2.8	2.7	3.2	3.2
Non-degree tertiary . . . . .	2.5	3.1	3.1	2.9
Bachelor degree . . . . .	1.5	0.3	2.3	0.7
Higher degree . . . . .	0.2	—	0.4	0.1
Other . . . . .	1.1	2.2	0.9	2.1

Because of the age structure of Whyalla's population the birth rate has been relatively high and the death rate relatively low when compared with the State as a whole. The following table gives numbers of births and birth rates for Whyalla and for South Australia in the five years to 1973.

#### Live Births and Birth Rates, Whyalla and South Australia

Year	Whyalla		South Australia	
	Number	Rate (a)	Number	Rate (a)
1969	788	27.3	21 977	19.28
1970	819	26.9	22 617	19.52
1971	850	26.9	22 996	19.55
1972	828	25.5	21 844	18.37
1973	747	22.5	20 407	16.97

(a) Number per 1 000 of mean population.

A comparison of death rates for Whyalla and South Australia shows the death rate for Whyalla to be approximately half of that for the State as a whole.

#### Deaths: Numbers Registered and Rates, Whyalla and South Australia

Year	Whyalla		South Australia	
	Number	Rate (a)	Number	Rate (a)
1969	97	3.36	9 337	8.19
1970	113	3.71	10 138	8.75
1971	162	5.13	9 686	8.23
1972	145	4.42	9 764	8.21
1973	121	3.64	9 835	8.18

(a) Number per 1 000 of mean population.

#### Housing

Before 1940 most of the homes in Whyalla were constructed by the Company. In that year the South Australian Housing Trust commenced operations and built about 100 double units in the town.

At 30 June 1974 there were more than 9 000 dwellings in Whyalla, about 6 500 of which had been erected by the South Australian Housing Trust. Most of the Housing Trust dwellings are double units rented by the tenants, although the Trust has completed more than 1 000 single units for sale.

The rapid increase in the number of dwellings since the 1939-45 War is illustrated in the following table which gives the number of occupied and unoccupied private dwellings at each census since the War.

## Intercensal Comparison of Private Dwellings, Whyalla

Census	Occupied	Unoccupied	Total
30 June 1947	1 875	33	1 908
30 June 1954	2 088	42	2 130
30 June 1961	3 125	53	3 178
30 June 1966	5 067	192	5 259
30 June 1971	7 766	329	8 095

There were also fifty-one non-private dwellings at the 1971 Census. Non-private dwellings are those dwellings which provide group accommodation and which were occupied on Census night (*e.g.* hotels, motels, hostels, staff quarters and institutions).

The rapid growth of Whyalla is further illustrated by the fact that 30.6 per cent of the occupied private dwellings of Whyalla enumerated at the 1971 Census were built between 30 June 1966 and 30 June 1971. The comparable figure for South Australia is 14.4 per cent.

## Occupied Dwellings by Class, 1971 Census

Dwelling Class	Whyalla		South Australia	
	Number	Per Cent	Number	Per Cent
Separate house	2 952	37.8	267 979	77.9
Semi-detached house	4 276	54.7	33 116	9.6
Attached house	30	0.4	3 890	1.1
Terrace house	11	0.1	1 643	0.5
Villa unit	107	1.4	13 430	3.9
Self-contained flat	220	2.8	16 569	4.8
Non self-contained flat	57	0.7	2 734	0.8
Improvised home	10	0.1	1 317	0.4
Caravan, etc.	103	1.3	1 386	0.4
Non private	51	0.7	2 048	0.6
Total	7 817	100.0	344 112	100.0

The relatively large number of semi-detached houses in Whyalla (and correspondingly small number of separate houses) is probably because 58.3 per cent of all occupied private dwellings in Whyalla are occupied by tenants of the South Australian Housing Trust. The corresponding figure for South Australia is 9.99 per cent. As is the case for South Australia as a whole, the majority of occupied dwellings are private houses (93.0 per cent for Whyalla, 88.9 per cent for South Australia) and the majority of people live in such dwellings (93.0 per cent for Whyalla and 92.2 per cent for South Australia).





**Occupied Private Dwellings by Gas and Electricity Facilities, 1971 Census**

Facility	Whyalla		South Australia	
	Number	Per Cent	Number	Per Cent
Gas only . . . . .	5	0.1	570	0.2
Electricity only . . . . .	6 475	83.4	168 070	49.1
Gas and electricity . . . . .	1 245	16.0	170 854	49.9
Neither gas nor electricity . . . . .	2	0.0	913	0.3
Not stated . . . . .	39	0.5	1 657	0.5
Total . . . . .	7 766	100.0	342 064	100.0

One-car families are more common in Whyalla than the State as a whole, and relatively fewer families are without cars or have the use of two or more motor vehicles.

**Percentage of Occupied Private Dwellings by Number of Vehicles, 1971 Census**

Vehicles (a)	Whyalla	South Australia
None . . . . .	12.8	16.7
1 . . . . .	60.8	50.7
2 . . . . .	20.1	23.1
3 or more . . . . .	4.9	8.0
Not stated . . . . .	1.4	1.5

(a) Motor vehicles owned or driven by members of the household and garaged or parked at or near the dwelling on Census night. (Excludes motor cycles, scooters and tractors, includes company vehicles kept at home.)

**Water Supply**

Whyalla's average annual rainfall of 264 millimetres has always been insufficient for the area's industrial needs. For some time water was carried across Spencer Gulf in barges, and this means of supply was supplemented by a quantity obtained by distillation of sea-water. In 1911 the South Australian Government constructed a 500 000 litre masonry tank fed by surface catchment and later the Company constructed two excavated reservoirs north of the town with a combined capacity of 50 megalitres. Water in large quantities was also brought to Whyalla as ballast in ore ships.

However, the water available from these various sources was inadequate for the continued industrial development and growth of the town. Port Augusta and the northern farming areas also suffered from a shortage of water. These factors led to the decision to build a pipeline from the River Murray.

A project for the building of a pipeline from the Murray at Morgan to Whyalla was commenced in 1940 and completed in 1944. This first Morgan-Whyalla pipeline is 359 kilometres long and follows a route from Morgan through

Hanson, Spalding, Georgetown, Nelshaby (near Port Pirie) and Port Augusta to Whyalla. The pipeline is laid above ground on concrete supports except at road crossings and other places where it is necessary for it to be laid underground.

Initially the scheme was designed to meet an annual demand of 9 500 megalitres, 5 500 being available for delivery at Whyalla with the balance available for Port Pirie, Port Augusta and the other northern areas.

Water is pumped through pumping stations located at Morgan, Mount Mary, Geranium Plains and Robertstown over a distance of 82 kilometres to an elevation of 474 metres at Hanson. From the Hanson storages the water gravitates the remaining 277 kilometres to Whyalla. Along the route of the pipeline there are several storages and branch lines connected, so that a considerable proportion of the northern and mid-northern area of the State and Yorke Peninsula are supplied wholly or partly with water from the Morgan-Whyalla pipeline.

The rapid development of Whyalla, Port Augusta and other northern areas after the 1939-45 War, and particularly the Broken Hill Proprietary Company decision to manufacture steel at Whyalla, brought demands for water beyond the capacity of the pipeline. At first the capacity was increased by the installation of larger pumps at the four pumping stations and the introduction of booster pumping plants at various points along the pipeline, but by 1962 it became necessary to construct a duplicate pipeline.

The duplicate pipeline is for the most part parallel to the original pipeline, but a section laid under the sea across Spencer Gulf makes the duplicate 76 kilometres shorter than the original. The laying of all pipes in the duplicate main was completed early in 1967.

The greater diameter of the duplicate pipeline, together with additional storages at Hanson, Whyalla and six other points on the line enables the dual line to meet an annual demand of 66 000 megalitres, seven times the capacity of the first completed line in 1944. Thus, a total population in excess of 100 000 could be served with the present capacity.

### **Sewerage**

Until 1959 sewage disposal was by means of a 'night cart' collection. On 31 December 1959 the Whyalla Town Commission determined that all houses should have septic tanks installed. However the disposal of effluent from septic tanks in a concentrated housing area created problems and it was soon realised that a sewerage reticulation system was needed.

In January 1965 construction work on the sewerage scheme commenced and by the end of 1969 the town was completely sewered. Sewage is pumped from a station at the south end of the town to a treatment works approximately 1.5 kilometres south of the City boundary.

The sewage is treated in a series of lagoons. The first two lagoons permit the anaerobic treatment of solids while the following four lagoons rely on microbiological stabilisation of the effluent under aerobic conditions. The existing treatment works has the capacity to serve a population of approximately 40 000 persons.

### **Electricity and Gas Supply**

Until 1964 Whyalla's electricity supply was provided from the Company's power station which was fuelled by gas from the blast furnace. In this year the Electricity Trust of South Australia undertook the supply and distribution of electricity to the City.

Electricity generated at the Thomas Playford Power Station in Port Augusta is transmitted through 132 kV lines to a terminal substation near the steelworks at Whyalla. From this point, 33 kV transmission lines supply the Whyalla City and Whyalla Stuart substations and the townships of Iron Knob and Iron Baron.

The South Australian Gas Company first supplied gas to houses in Whyalla in 1968. The gas is transported in liquid form to a plant at Whyalla by tankers and distributed by underground mains to houses.

### **Local Government**

Until May 1945 the functions of local government in Whyalla were administered by the Company which was responsible also for public utilities such as the supply of water and power.

On 1 May 1945 the civic affairs of Whyalla were vested in the Whyalla Town Commission which consisted of seven members. Three members were nominated by the Company, three were elected by the ratepayers in the three wards and the chairman was appointed by the South Australian Government. The chairman's functions were the same as those normally carried out by both the mayor and town clerk of other local government authorities.

The name of the Commission changed to the City of Whyalla Commission on 1 November 1961 when Whyalla was proclaimed a city. The number of wards increased to four in July 1967 and this meant that the ratepayers elected another member, with the number nominated by the Company remaining at three.

After a petition of ratepayers had been forwarded to the South Australian Parliament, a committee was appointed in September 1968 to investigate a possible change-over of administration from the City of Whyalla Commission to administration under the Local Government Act. This committee recommended that the Local Government Act should apply and on 4 July 1970 Whyalla was placed under the Local Government Act and on that day a Mayor and eight councillors were elected by the ratepayers.

### **Transport**

Whyalla is accessible by road, rail, air and sea and all these modes of transport are used. Internal transport in Whyalla is provided by buses, taxi-cabs and private vehicles.

By road, Whyalla is 381 kilometres from Adelaide and 72 kilometres from Port Augusta. The bituminised Lincoln Highway which runs from Port Augusta to Port Lincoln (269 kilometres south-west of Whyalla) passes through Whyalla. A sealed road from Whyalla meets the Eyre Highway at Iron Knob. A high proportion of people travel to Whyalla by private car, and there are two companies which operate bus services from Adelaide to Whyalla, one of which extends to Port Lincoln.

Whyalla is connected to the Transcontinental Railway by a 76 kilometre standard gauge spur line to Port Augusta. This line which was opened on 6 October 1972 crosses a specially-built 120 metre bridge, 4 kilometres north of Port Augusta, then follows a south-westerly course to a break in the Ranges at Lincoln Gap and then heads southwards to its terminus near the northern boundary of Whyalla adjacent to the Company steelworks. In the future this railway will probably be extended to Whyalla South. There is also a narrow gauge railway, owned by the Company, from Whyalla to Iron Knob with a branch line to Iron Baron which is used mainly for transporting iron ore to the steelworks and to the loading jetty.

There is an air service between Adelaide and Whyalla with at least one return flight every day. Additional flights are provided at times of heavy traffic.

Whyalla is one of South Australia's deep-sea ports. Iron ore and pellets are shipped from Whyalla in bulk carriers to the Newcastle and Port Kembla steelworks in New South Wales. Pellets are also shipped to Japan as a consequence of an agreement between the Company and several Japanese steel millers. Ironstone is transported across Spencer Gulf by ore carrier for use as a flux at the Broken Hill Associated Smelters works in Port Pirie.

General merchandise in and out of Whyalla is shipped mainly by road and rail, but some goods are transported by passenger aircraft where the supply is urgent or where the cost is low enough to warrant transport by this means. Since the completion of the Port Augusta-Whyalla Railway, most of the steel is transported interstate by rail and intrastate by road. However, some steel is carried in Company ships.

### **Education**

Whyalla is the Education Department administration centre for the Western Region of the State and a Regional Education Office is located in the City.

Whyalla has four Kindergarten Union of SA pre-schools and three independent pre-schools. There are nine State and two private primary schools in Whyalla. Four of the largest State schools have separate infant schools associated with them and the remaining five have infant classes as an integral part of the school. Additional schools which cater for children with special needs are the Whyalla Special School and the Whyalla Speech and Hearing Centre.

Secondary education is provided by three State and two private schools. The Whyalla Technical College trains apprentices in twenty-three trades as well as providing several post-trade courses for adult tradesmen. This College also conducts adult education classes and English classes for migrants.

The Whyalla Division of the South Australian Institute of Technology offers a range of professional and technical courses which include accountancy, commerce, mechanical engineering, mining engineering, electrical engineering, chemistry, metallurgy, applied physics and shipbuilding. All the courses are approved for the Australian Government Tertiary Allowances Scheme.

There are primary schools at Iron Knob and Iron Baron, but secondary school students from these localities are transported to Whyalla by bus.



by giant electric shovels. Once loaded, the trucks run down the benches and dump their loads at a crushing plant from which the ore is transported by rail to Whyalla. The ore is then shipped to Newcastle and Port Kembla in New South Wales or used in the Whyalla blast furnaces. The annual output from Iron Monarch is approximately 3.5 million tonnes.

About 30 kilometres south of Iron Monarch is the quarry town of Iron Baron which is next to Iron Prince, another mountain of iron which is also disappearing. The township has a population of 360 of which 180 are employed in the quarrying operations. The combined annual output of Iron Prince and Iron Baron is in excess of 3.5 million tonnes. The ore is transported by rail to a pelletising plant at Whyalla. Most of the pellets are exported to Japan, although some are used at Port Kembla.

### **Other Mining**

Brick making clays are quarried near Whyalla from the Tregalana pit where there are large reserves. There are other deposits of refractory clays which are used in the steelworks. Other deposits may exist in other parts of the region.

Sand for use as fine concrete aggregate is obtained from a number of stream channels but reserves are limited. Civil construction aggregate, concrete aggregate, rail ballast and road base materials are abundant throughout the area and quarries are located near Whyalla. Varieties of freestone for walls and other uses are available from the Tent Hill formation and the underlying sandstone and siltstones.

Gypsum occurs in dunes bordering saline lakes which extend north-west of Kimba Gap for 20 kilometres, and between Lincoln Highway and the Kimba Road over a distance of 10 kilometres. Gypsum has been used mainly in portland cement manufacture.

Low value ornamental stones of chert have been found near Pandurra. A limited quantity of barytes has been mined in the Mount Whyalla region. Reef quartz has been quarried for the manufacture of ferro-silicon by the Company. Traces of copper have been noted in the Middleback Ranges but the only mining operation, the Murninnie Mine ceased operations in 1914.

### **Manufacturing Industry**

Pig-iron is produced from ore at the Company blast furnaces at the rate of 2 500 tonnes a day. By-products from the coke ovens include gas, tar and ammonium sulphate, all of which have important uses. A mix of 1.6 tonnes of iron ore, 0.33 tonnes of limestone, 0.6 tonnes of coke and 3.75 tonnes of air, when heated to 1 650°C, will produce approximately 1 tonne of iron, 5.5 tonnes of gas and 0.4 tonnes of slag.

The iron from the blast furnaces is refined into steel at the Company's basic oxygen steelmaking plant. The steel is first formed into ingots and then reheated before being rolled. The major output of the steelworks is structural steel.

Common salt (sodium chloride) has been produced by the Company by means of solar evaporation since 1951 and approximately 60 000 tonnes are now produced annually.

The largest employer outside the Company is Reyrolle-Parsons of Australia Ltd which manufactures steam condensers and feed heaters for electricity power stations throughout Australia.

Many other industries have grown up with the Broken Hill Proprietary Company expansion; several companies are now involved in sub-contract work for the Company. As well as the enterprises already discussed, in Whyalla there is a ready-mixed concrete works, a large tyre relugging plant, a chemical works, fibrous plaster manufacturers and several light engineering firms.

### *Shipbuilding*

The Company operates the Whyalla Shipbuilding and Engineering Works which employs in excess of 1 800 workers. Since 1940 more than fifty ships have been constructed at the shipyard, several for the Company's own use. The largest ship built at the shipyard is the *Clutha Capricorn*, a bulk ore carrier of 80 500 tonnes.

The following table lists the ships launched at Whyalla since 1940.

**Whyalla Shipbuilding and Engineering Works, Ships Launched**

Ship	Year Launched	Deadweight (tonnes)
HMAS <i>Whyalla</i> . . . . .	1941	..
HMAS <i>Kalgoorlie</i> . . . . .	1941	..
HMAS <i>Gawler</i> . . . . .	1941	..
HMAS <i>Pirie</i> . . . . .	1941	..
<i>Iron Monarch</i> . . . . .	1942	8 300
<i>Iron Duke II</i> . . . . .	1943	8 300
<i>River Glenelg</i> . . . . .	1943	9 400
<i>River Derwent</i> . . . . .	1944	9 400
<i>River Murchison</i> . . . . .	1944	9 400
<i>River Murrumbidgee</i> . . . . .	1945	9 400
<i>River Murray</i> . . . . .	1945	9 500
<i>Delamere</i> . . . . .	1946	3 100
<i>Dandenong</i> . . . . .	1946	3 100
<i>Daylesford</i> . . . . .	1946	3 100
<i>Barrigun</i> . . . . .	1947	6 500
<i>Iron Yampi</i> . . . . .	1947	13 000
<i>Balarr</i> . . . . .	1948	6 400
<i>Iron Kimberley</i> . . . . .	1949	12 900
<i>Balook</i> . . . . .	1949	6 400
<i>Iron Derby</i> . . . . .	1950	12 800
<i>Baroota</i> . . . . .	1951	6 400
<i>Iron Wyndham</i> . . . . .	1952	12 800
<i>Iron Whyalla</i> . . . . .	1953	10 900
<i>Yanderra</i> . . . . .	1954	4 800
<i>Yarrunga</i> . . . . .	1954	4 800
<i>Lake Eyre</i> . . . . .	1955	10 600
<i>Iron Spencer</i> . . . . .	1956	10 900
<i>Lake Torrens</i> . . . . .	1957	10 800





### **Health and Welfare Services**

The Whyalla Hospital was opened on 9 April 1940 and in 1966 it was extended to its present capacity of 250 beds. The Hospital was privately conducted by a Board of Management until 30 June 1969 when it became a government institution administered by the Hospitals Department.

The Hospital caters for medical, surgical, maternity, paediatric and geriatric cases. Para-medical services provided by the Hospital include radiology, physiotherapy, pharmacy, medical social work, speech therapy and occupational therapy. The Hospital contains a branch of the Institute of Medical and Veterinary Science which, in addition to providing a laboratory service, maintains a blood bank, in conjunction with the Australian Red Cross Society, to serve Whyalla and outlying areas.

As well as general practitioners, Whyalla has the services of several specialists, including a general surgeon, an orthopaedic surgeon, an ophthalmologist, an oto-rhino-laryngologist, a gynaecologist, a radiologist and a physician. There are three dentists in the City.

There is a branch of the St John Ambulance in Whyalla which operates an aerial ambulance. The Royal District and Bush Nursing Society, the Mothers and Babies Health Association and the Australian Red Cross Society also are represented.

The Family Planning Association, Meals on Wheels and Alcoholics Anonymous all provide community services in Whyalla. There is also a Child Care Centre, an Association for the Mentally Handicapped, a Counselling Service and a Domiciliary Care Scheme based in Whyalla. A district office of the Department for Community Welfare employs social workers and clerical staff in the City.

The area near Whyalla outside the City Council area comes under the jurisdiction of the Central Board of Health in Adelaide. This includes the township of Iron Knob, the Company Works, the Whyalla Abattoirs, the Hematite Dairy and some other industrial and pastoral activities. There is a resident District Inspector and another Health Inspector employed by the Department of Public Health at Whyalla.

### **Culture and Recreation**

In Whyalla there are two public libraries administered by the City of Whyalla. As well as recreational reading, the libraries provide books and periodicals of an educational nature. Under a scheme administered by the South Australian Libraries Board, which allows free interchange between local public libraries and a central pool, the libraries have access to a much wider range of literature than is present on the shelves at any one time. The libraries also hold recent issues of popular magazines, and picture books for young children.

There are two cinemas in Whyalla, the Civic Theatre in the city centre and the Flinders Drive-in Theatre. The Whyalla branch of the Arts Council of Australia brings various forms of entertainment, including concerts and art exhibitions, to Whyalla each year. The Agricultural, Industrial and Horticultural Show Society holds a show in August of each year. The German Speaking Association staged

their first Oktoberfest in October 1971 and this has become an annual event. Other annual events are the Soapbox Derby and International Day conducted by the Lions Club, a fireworks display organised by the Go-Kart Club, and the Christmas Pageant organised by the Jaycees.

Drinking and dining facilities are provided by a total of ten hotels and motels which are used also for entertainment. Pop groups and other artists are presented, and special functions such as cabarets, wedding receptions and group dinners are often held at these venues.

There is a high migrant population in Whyalla and there are many clubs organised on a national basis. Associations are conducted by the Italian, Danish, German, Irish, Scottish, Spanish, Dutch and Polish groups.

Many clubs and societies have been formed to cater for the specific interests of different persons in the population. These interests include art, music, model railways, model aeroplanes, birds, bridge, dogs, cats, floral art, photography, gardening and wine.

Most sports and similar activities have their followers in Whyalla. Among those represented are cricket, Australian Rules football, tennis, soccer, squash, badminton, bowls, basketball, shooting, car racing, horse racing and trotting, greyhound racing, netball, swimming, sailing, flying, boxing, athletics, cycling and angling.

There are organisations to cater for the needs of youth and senior citizens. Religious communities have their own associations and several lodges also are represented.

### **Tourism**

The chief tourist attractions in the Whyalla area are the steelworks and shipyard, and the iron ore mines at Iron Monarch and Iron Baron, all operated by the Company.

Inspection tours of the steelworks are open to the public each Monday to Friday from 9.30 a.m. At the Company's reception centre visitors are shown a film on the activities at the quarries, loading jetty, blast furnaces, steelmaking plant and rolling mill before being transported to the works by a special bus.

The Company provides guided tours through the shipyard, of approximately 1½ hours duration, from 2 p.m. each Monday to Friday. Special tours may be arranged. The public is invited also on inspection tours of the operations at the Iron Knob quarries. Tours commence at 10 a.m. and 2 p.m. Monday to Friday.

There are several places of interest within driving distance of Whyalla. These include the beaches at Port Lowly and Point Gibbon, the conservation park just north of the City, the picnic areas at 'Red Rocks' and 'Secret Rocks' and various locations in the Flinders Ranges.

Comfortable accommodation for tourists is available at the several hotels and motels in Whyalla.

## APPENDIX A

# STATISTICAL SUMMARY

In the next 22 pages, a historical summary of some of the more important statistics relating to South Australia is shown. This is intended to present a general picture of the development of the State, with details being given (wherever they are available) for every fifth year for the period 1936-1951, and for each single year thereafter. Naturally the range of statistics available for the early years of the colony is very limited, and in addition it is not always possible to achieve perfect comparability in presenting details covering a period in excess of 130 years. Generally, all series on each page relate to either financial or calendar years but some financial year series have been included on pages which contain information shown in calendar years.

The first year shown on each page is the earliest for which any series on that page is available. Blanks at the top of some columns indicate that information relating to these particular series either was not collected or is not available for these early years, or is not available on a basis comparable to more recent statistics.

All major breaks in series are covered by footnotes, but minor changes are not so recorded, and the statistics should be interpreted with this in mind. An example can be quoted from the table on deaths from principal causes (page 705) where comparability is affected somewhat by changes in classification, particularly in 1950, but no footnote to this effect has been included.

The following standard symbols have been used throughout the summary:

*n.a.* not collected, not available for publication

— nil

*p* preliminary information subject to revision

\* not yet available

— break in continuity of figures

## STATISTICAL SUMMARY

## POPULATION(a)

Year	Population Estimate at 31 Dec.			Population Growth			
				Recorded Natural Increase	Rate of Natural Increase	Total Increase	Rate of Population Growth
	Males	Females	Persons	(b)	(c)		%
1836	309	237	546			546	
1841	8 755	6 730	15 485			855	5.84
1846	14 711	11 182	25 893			3 433	15.29
1851	37 321	29 217	66 538	577	22.29	2 838	4.46
1856	56 264	51 622	107 886	1 786	26.85	10 499	10.78
1861	67 409	63 403	130 812	3 341	30.97	5 230	4.17
1866	88 024	80 883	168 907	4 029	24.39	7 430	4.60
1871	97 019	91 625	188 644	4 704	25.21	4 098	2.22
1876	116 894	107 666	224 560	4 674	21.51	14 484	6.89
1881	152 453	133 518	285 971	6 696	23.81	9 578	3.47
1886	160 814	145 896	306 710	6 943	22.54	-2 603	-0.84
1891	168 826	155 895	324 721	6 526	20.23	5 774	1.81
1896	179 024	173 043	352 067	5 974	16.95	99	0.03
1901	(d)180 440	(d)178 890	(d)359 330	(d)5 105	14.29	(d)2 080	0.58
1906	184 803	181 710	366 513	5 049	13.90	3 892	1.07
1911	214 061	205 331	419 392	7 019	17.05	12 530	3.08
1916 (e)	212 585	229 253	441 838	6 780	15.35	-4 147	-0.93
1921	251 170	250 572	501 742	6 992	14.07	10 736	2.19
1926	285 013	275 912	560 925	6 606	11.92	13 877	2.54
1931	289 397	287 682	577 079	4 191	7.28	2 612	0.45
1936	294 835	294 935	589 770	3 447	5.86	3 008	0.51
1941 (e)	301 645	304 721	606 366	4 677	7.78	7 310	1.22
1946 (e)	317 238	323 180	640 418	9 352	14.72	9 536	1.51
1951	375 188	368 597	743 785	10 279	14.03	20 942	2.90
1952	388 433	380 137	768 570	10 834	14.35	24 785	3.33
1953	397 610	388 055	785 665	11 194	14.42	17 095	2.22
1954	409 733	398 517	808 250	11 048	13.87	22 585	2.87
1955	423 042	411 619	834 661	10 958	13.36	26 411	3.27
1956	436 807	425 145	861 952	11 371	13.40	27 291	3.27
1957	448 411	437 841	886 252	11 960	13.68	24 300	2.82
1958	458 401	449 652	908 053	12 304	13.72	21 801	2.46
1959	471 868	462 629	934 497	12 429	13.49	26 444	2.91
1960	483 802	473 220	957 022	13 162	13.93	22 525	2.41
1961	493 356	483 765	977 121	14 584	15.03	20 099	2.10
1962	501 920	493 910	995 830	13 129	13.32	18 709	1.91
1963	513 255	506 535	1 019 790	13 166	13.06	23 960	2.41
1964	527 594	521 557	1 049 151	11 960	11.56	29 361	2.88
1965	542 635	537 312	1 079 947	12 103	11.38	30 796	2.94
1966	554 000	549 800	1 103 700	11 017	10.07	20 684	1.92
1967	559 300	556 700	1 115 900	11 315	10.19	12 186	1.10
1968	566 700	565 400	1 132 100	11 291	10.06	16 211	1.45
1969	574 700	574 700	1 149 400	12 640	11.09	17 238	1.52
1970	584 400	585 900	1 170 200	12 479	10.77	20 855	1.81
1971	591 700	593 800	1 185 500	13 310	11.31	15 265	1.30
1972	596 100	600 400	1 196 500	12 080	10.16	11 046	0.93
1973	603 200	608 000	1 211 100	10 572	8.84	14 593	1.22

(a) Figures before January 1966 exclude full-blood Aborigines. (b) Births and deaths of full-blood Aborigines, where identified in registrations, have been excluded from natural increase figures before 1 January 1966. (c) Excess of births over deaths per 1 000 of mean population. (d) Northern Territory included before 1901, but subsequently excluded. (e) During the 1914-18 War, defence personnel leaving the State were treated as departures, but during the 1939-45 War they were retained in the population and troops of other States and countries were excluded.

DEMOGRAPHY

Year	Live Births		Infant Deaths (a)		Deaths		Rates from Principal Causes (b)		
	Number	Rate (b)	Number	Rate (c)	Number	Rate (b)	Rates from Principal Causes (b)		
							Diseases of the Heart	Cancer	Tuber-culosis
1846 . . . . .	937	36.19			360	14.02			
1851 . . . . .	2 759	41.47	539	195.36	973	14.62			
1856 . . . . .	4 488	41.60	610	135.92	1 147	10.63			
1861 . . . . .	5 551	43.30	1 064	191.68	1 962	15.30			
1866 . . . . .	6 782	41.06	1 385	204.22	2 753	16.67			
1871 . . . . .	7 082	37.95	851	120.16	2 378	12.74			
1876 . . . . .	8 224	37.84	1 228	149.32	3 550	16.34			
1881 . . . . .	10 708	38.08	1 364	127.38	4 012	14.27			
1886 . . . . .	11 177	36.29	1 409	126.06	4 234	13.75		0.34	1.34
1891 . . . . .	10 737	33.36	976	90.77	4 211	13.08		0.49	1.31
1896 . . . . .	10 012	28.44	1 015	101.02	4 038	11.47		0.53	1.17
1901 . . . . .	9 079	25.41	909	100.12	3 974	11.12		0.60	1.06
1906 . . . . .	8 921	24.57	675	75.66	3 872	10.66		0.77	1.08
1911 . . . . .	11 057	28.86	670	60.60	4 038	9.81	1.04	0.74	0.85
1916 . . . . .	11 857	26.85	868	73.21	5 077	11.50	1.29	0.81	0.93
1921 . . . . .	11 974	24.09	784	65.48	4 982	10.02	1.13	0.92	0.80
1926 . . . . .	11 483	20.73	509	44.33	4 877	8.81	1.00	0.96	0.71
1931 . . . . .	9 079	15.77	330	36.35	4 888	8.49	1.39	1.20	0.58
1936 . . . . .	8 911	15.16	277	31.09	5 464	9.29	1.87	1.26	0.40
1941 . . . . .	10 965	18.24	356	32.47	6 288	10.46	2.62	1.26	0.37
1942 . . . . .	11 278	18.51	448	39.72	6 712	11.02	2.73	1.25	0.41
1943 . . . . .	13 145	21.43	482	36.67	6 482	10.57	2.82	1.31	0.35
1944 . . . . .	13 311	21.49	387	29.07	5 984	9.66	2.64	1.27	0.30
1945 . . . . .	14 033	22.38	394	28.08	6 049	9.65	2.87	1.23	0.32
1946 . . . . .	15 813	24.90	428	27.07	6 461	10.17	3.03	1.29	0.29
1947 . . . . .	16 317	25.23	396	24.27	6 215	9.61	2.86	1.28	0.30
1948 . . . . .	15 870	24.00	472	29.74	6 748	10.20	3.08	1.42	0.28
1949 . . . . .	16 042	23.58	444	27.68	6 373	9.37	2.90	1.23	0.21
1950 . . . . .	17 306	24.39	416	24.04	6 740	9.50	3.05	1.24	0.19
1951 . . . . .	17 463	23.84	428	24.51	7 184	9.81	3.24	1.24	0.15
1952 . . . . .	17 884	23.69	413	23.09	7 050	9.34	3.10	1.29	0.12
1953 . . . . .	18 156	23.39	375	20.65	6 962	8.97	3.00	1.27	0.06
1954 . . . . .	18 227	22.89	388	21.29	7 179	9.01	3.11	1.22	0.08
1955 . . . . .	18 494	22.55	431	23.30	7 536	9.19	3.12	1.28	0.06
1956 . . . . .	18 964	22.35	377	19.88	7 593	8.95	3.24	1.16	0.05
1957 . . . . .	19 536	22.35	403	20.63	7 576	8.67	2.91	1.29	0.05
1958 . . . . .	20 047	22.35	449	22.40	7 743	8.63	2.93	1.26	0.07
1959 . . . . .	20 372	22.12	422	20.71	7 943	8.62	2.89	1.22	0.05
1960 . . . . .	20 966	22.19	397	18.94	7 804	8.26	3.06	1.21	0.04
1961 . . . . .	22 399	23.09	448	20.00	7 815	8.06	2.92	1.26	0.06
1962 . . . . .	21 361	21.67	409	19.15	8 232	8.35	3.06	1.37	0.03
1963 . . . . .	21 367	21.20	399	18.67	8 201	8.14	2.99	1.27	0.04
1964 . . . . .	20 866	20.16	397	19.03	8 906	8.61	3.24	1.32	0.01
1965 . . . . .	20 891	19.63	385	18.43	8 788	8.26	3.11	1.30	0.03
1966 (d) . . . . .	20 362	18.61	364	17.88	9 345	8.54	3.22	1.32	0.02
1967 . . . . .	20 386	18.37	346	16.97	9 071	8.17	3.09	1.35	0.02
1968 . . . . .	21 207	18.89	345	16.27	9 916	8.83	3.29	1.41	0.02
1969 . . . . .	21 977	19.28	347	15.79	9 337	8.19	2.96	1.47	0.02
1970 . . . . .	22 617	19.52	367	16.23	10 138	8.75	3.20	1.43	0.01
1971 . . . . .	22 996	19.55	366	15.92	9 686	8.23	2.91	1.41	0.02
1972 . . . . .	21 844	18.37	367	16.80	9 764	8.21	2.97	1.48	0.01
1973 . . . . .	20 407	16.97	276	13.52	9 835	8.18	2.98	1.49	0.01
1974 . . . . .	20 181	16.56	312	8.07	10 236	8.07	*	*	*

(a) Under one year of age from 1871, under two years of age in prior years.  
 (b) Rate per 1 000 of mean population. (c) Rate per 1 000 live births registered.  
 (d) Vital events of full-blood Aborigines, where identified in registrations, were excluded before 1966.

## SOCIAL DEVELOPMENT

## Marriages and Divorces; Law and Order

Year	Marriages		Divorces (b)	Bank- ruptcies	Court Convictions		Police	
	Total	Rate (a)			Supreme Court (c)	Courts of Summary Juris- diction (d)(f)	Active Strength	Net Expendi- ture by State
								\$'000
1841 . . . . .				36	37			
1846 . . . . .	220	8.50		16	40			
1851 . . . . .	189	2.84		106	103		127	
1856 . . . . .	1 171	10.85		88	85	2 919	174	
1861 . . . . .	1 158	9.03		115	62	3 025	151	
1866 . . . . .	1 299	7.86		252	107	4 341	208	90
1871 . . . . .	1 250	6.70		247	91	4 864	187	74
1876 . . . . .	1 852	8.52		200	129	7 905	257	108
1881 . . . . .	2 308	8.21		696	213	13 231	371	164
1886 . . . . .	1 976	6.42	10	535	121	6 808	401	178
1891 . . . . .	2 315	7.21	5	142	85	6 918	388	172
1896 . . . . .	2 183	6.20	6	240	110	5 149	347	150
1901 . . . . .	2 304	6.45	6	165	98	4 968	359	152
1906 . . . . .	2 679	7.38	3	172	92	5 249	373	153
1911 . . . . .	4 036	9.80	20	190	74	7 303	423	183
1916 . . . . .	3 602	8.16	14	324	52	7 145	541	262
1921 . . . . .	4 383	8.82	88	155	97	8 968	566	391
1926 . . . . .	4 503	8.13	71	439	174	21 417	633	499
1931 . . . . .	3 069	5.33	138	996	274	14 760	763	641
1936 . . . . .	5 182	8.81	213	551	171	14 920	701	570
1941 . . . . .	6 855	11.40	273	284	177	21 990	707	689
1946 . . . . .	6 700	10.55	654	23	231	(e) 20 585	(e) 830	(e) 819
1947 . . . . .	6 668	10.31	695	32	246	24 491	833	888
1948 . . . . .	6 704	10.14	630	32	185	24 164	869	1 052
1949 . . . . .	6 247	9.18	590	52	205	22 834	928	1 208
1950 . . . . .	6 585	9.28	661	44	207	25 496	942	1 398
1951 . . . . .	6 646	9.07	637	53	307	28 675	913	1 647
1952 . . . . .	6 241	8.27	581	76	328	27 432	952	2 073
1953 . . . . .	6 149	7.92	628	91	330	30 229	982	2 429
1954 . . . . .	6 190	7.77	594	89	312	25 482	986	2 617
1955 . . . . .	6 226	7.59	624	106	340	29 264	969	2 517
1956 . . . . .	6 277	7.40	567	150	362	28 221	1 018	3 060
1957 . . . . .	6 581	7.53	529	244	459	30 658	1 143	3 303
1958 . . . . .	6 505	7.25	483	278	457	32 621	1 183	3 677
1959 . . . . .	6 614	7.18	503	366	499	34 203	1 243	4 084
1960 . . . . .	6 607	6.99	610	363	580	42 531	1 301	4 499
1961 . . . . .	6 804	7.01	718	561	606	52 155	1 376	5 043
1962 . . . . .	7 021	7.12	685	620	718	53 531	1 466	5 651
1963 . . . . .	7 302	7.24	765	584	745	57 189	1 441	5 825
1964 . . . . .	7 765	7.50	887	675	629	55 408	1 496	6 245
1965 . . . . .	8 680	8.16	852	582	713	62 238	1 558	6 912
1966 . . . . .	9 051	8.27	1 069	648	738	71 694	1 595	7 319
1967 . . . . .	9 434	8.50	929	660	707	87 110	1 660	8 417
1968 . . . . .	9 652	8.60	915	759	692	105 027	1 777	9 137
1969 . . . . .	10 599	9.30	963	659	712	105 966	1 845	9 568
1970 . . . . .	10 864	9.38	939	611	(g) 694	114 499	1 881	10 621
1971 . . . . .	10 833	9.21	1 264	(h) 626	931	110 543	1 971	12 181
1972 . . . . .	10 829	9.10	1 235	643	964	123 063	2 063	12 961
1973 . . . . .	10 806	9.01	1 582	554	982	*	2 167	15 107
1974 . . . . .	10 767	8.83	*		*		2 264	19 334

(a) Rate per 1 000 of mean population. (b) Dissolutions made absolute. (c) Distinct persons only. (d) Each type of offence counted separately when there are multiple charges against an individual. (e) Year ended 30 June from 1943. (f) Excludes juvenile offenders. (g) From late 1970 covers also District Criminal Courts to which some jurisdiction transferred. (h) Year ended 30 June from 1971.

SOCIAL DEVELOPMENT

Education

Year	Primary and Secondary				Tertiary		Further Student Enrolments
	State Schools (a)		Private Schools		Uni- versities Students (g)	Colleges of Advanced Education Students	
	Pupils		Pupils				
	No.	Primary	Secondary	No.	Primary	Secondary	
1851	115	3 031					
1856	147	6 516					
1861	219	10 711					
1866	292	14 690		236			
1871	307	15 791		n.a.			
1876	281	25 889		326		58	
1881	405	36 888		363		74	
1886	504	44 405		n.a.		197	
1891	552	47 094		285		246	
1896	639	59 944		232		320	
1901	706	63 183		230		591	
1906	708	57 270		215	(b) 9 753	626	
1911	743	53 494	1 800	179	(b) 11 121	641	
1916	857	63 935	3 047	(c) 218	(c) 12 785	491	
1921	973	77 111	3 067	171	13 951	1 338	
1926	1 019	79 204	6 527	188	16 139	1 575	
1931	1 075	81 218	10 503	186	14 510	2 092	
1936	1 100	75 411	9 280	174	13 993	2 025	
1941	1 006	63 303	10 761	167	13 915	2 211	
1942	950	61 326	10 173	164	14 220	1 799	
1943	897	59 764	11 196	158	15 328	1 897	
1944	909	59 460	12 265	155	15 868	2 132	
1945	837	60 029	11 583	147	16 312	2 599	
1946	811	61 242	11 870	145	16 310	3 723	
1947	782	63 853	11 723	143	16 468	4 045	
1948	773	66 653	11 550	142	17 169	4 266	
1949	759	71 337	11 922	146	18 426	4 126	
1950	743	76 369	12 732	148	19 655	4 069	
1951	728	81 642	14 106	146	20 677	3 720	
1952	716	89 630	15 121	146	22 393	3 612	
1953	723	97 262	16 933	148	23 631	3 565	
1954	716	105 022	17 972	157	24 949	3 555	
1955	701	111 909	19 485	157	26 840	3 617	
1956	699	118 365	22 134	163	29 050	3 828	
1957	694	123 132	24 734	163	30 504	4 424	
1958	674	125 678	28 189	161	32 425	4 816	
1959	668	129 850	33 042	162	33 896	5 300	
1960	681	132 372	37 901	163	35 703	5 723	
1961	688	135 274	41 889	165	35 652	6 250	
1962	682	136 924	46 499	164	(d)24 962 (d)11 440	6 824	
1963	682	140 520	49 637	166	24 677 12 354	7 416	
1964	685	145 042	54 026	170	24 761 12 890	8 203	
1965	700	150 809	57 811	172	24 605 13 007	8 658	
1966	700	154 253	60 834	172	24 188 12 999	9 364	
1967	674	157 424	65 630	173	23 533 13 469	9 658	
1968	683	157 997	68 814	171	22 814 13 599	9 803	
1969	676	159 682	71 599	171	22 257 14 203	10 128	3 420
1970	681	156 922	71 866	170	22 464 14 642	10 176	3 443
1971	662	156 458	74 982	169	22 669 15 018	10 682	4 242
1972	(e) 615	154 886	77 926	163	22 232 15 233	11 124	(f) 4 291 78 540
1973	614	152 698	79 088	163	21 929 15 806	11 497	6 662 78 214
1974	613	152 901	79 578	157	22 123 16 494	12 264	12 163 88 154

(a) Net enrolment to 1969, thereafter at census date (at or about 1 August). Includes Northern Territory before 1958. (b) On last school day. (c) Private schools compulsorily registered, previous years incomplete. From 1916 to 1961 net enrolment including Northern Territory. (d) From 1962 at census date (at or about 1 August). Excludes Northern Territory. (e) From 1972 includes only primary and secondary, before 1972 included technical institutions. (f) In approved courses at colleges of advanced education. (g) Excludes students at Conservatorium of Music not also enrolled for degree or diploma subject.



## SOCIAL DEVELOPMENT

## Health

Year	Public Hospitals				Mental Hospitals (a)		Medical Practitioners Registered	General Nurses Registered
	Number of Hospitals	Patients Treated	Revenue		Admissions During Year	Patients at end of Year		
			Govt Aid	Total				
			\$'000	\$'000				
1846 .. .. .	1				10	6	22	
1851 .. .. .	1	413			9	11	68	
1856 .. .. .	1	559			69	73	101	
1861 .. .. .	1	795			68	167	111	
1866 .. .. .	1	1 257			88	224	85	
1871 .. .. .	1	1 433			111	324	77	
1876 .. .. .	1	2 282			149	427	94	
1881 .. .. .	1	2 258			199	606	113	
1886 .. .. .	1	2 022			207	744	152	
1891 .. .. .	1	2 301			224	815	177	
1896 .. .. .	1	2 633			195	934	279	
1901 .. .. .	1	3 554			214	988	341	
1906 .. .. .	9	4 476			231	994	242	
1911 .. .. .	21	8 547	96	132	273	1 084	299	
1916 .. .. .	27	12 453	130	186	302	1 158	326	
1921 .. .. .	31	15 642	254	397	272	1 190	360	
1926 .. .. .	45	22 438	467	730	249	1 282	445	1 271
1931 .. .. .	51	26 505	356	574	250	1 395	457	1 601
1936 .. .. .	52	34 014	383	730	272	1 627	477	1 886
1941 .. .. .	55	40 593	607	1 063	247	1 905	814	2 562
1942 .. .. .	55	40 137	625	1 200	219	1 892	839	2 768
1943 .. .. .	57	41 620	642	1 301	197	1 889	846	2 914
1944 .. .. .	58	43 582	762	1 479	276	1 925	866	3 006
1945 .. .. .	(b)	(b)	(b)	(b)	(b)	(b)	883	3 153
1946 .. .. .	58	46 696	836	1 697	302	2 024	947	3 314
1947 .. .. .	59	52 388	1 135	2 133	332	2 107	983	3 380
1948 .. .. .	59	50 480	1 382	2 476	330	2 165	1 012	3 589
1949 .. .. .	60	53 558	1 671	3 065	398	2 213	1 053	3 808
1950 .. .. .	59	54 334	2 109	3 719	379	2 310	1 111	4 018
1951 .. .. .	60	57 401	2 694	4 503	452	2 411	1 172	4 199
1952 .. .. .	61	59 374	3 739	6 110	426	2 425	1 244	4 461
1953 .. .. .	62	61 681	4 673	7 442	498	2 534	1 202	4 585
1954 .. .. .	62	62 138	4 340	7 386	548	2 644	1 265	4 724
1955 .. .. .	63	64 310	5 524	8 819	516	2 612	1 348	4 884
1956 .. .. .	65	69 295	8 214	11 702	553	2 658	1 395	5 026
1957 .. .. .	65	73 249	11 370	15 449	543	2 594	1 469	5 122
1958 .. .. .	64	75 282	10 425	15 372	659	2 667	1 507	5 475
1959 .. .. .	65	79 426	10 260	15 638	712	2 643	1 601	5 583
1960 .. .. .	65	82 948	10 474	16 829	1 637	2 810	1 681	5 817
1961 .. .. .	66	87 386	10 155	17 414	1 846	2 833	1 739	6 123
1962 .. .. .	65	89 409	10 366	18 350	1 925	2 914	1 821	6 523
1963 .. .. .	65	94 144	10 007	19 307	2 604	2 799	1 883	6 879
1964 .. .. .	65	99 491	12 094	21 166	3 132	2 838	2 002	7 255
1965 .. .. .	65	105 098	14 171	24 084	3 061	2 752	2 080	7 699
1966 .. .. .	67	111 313	19 681	30 386	2 810	2 646	2 175	8 065
1967 .. .. .	65	117 693	22 138	34 532	2 866	2 497	2 282	8 467
1968 .. .. .	65	122 835	16 626	31 039	2 733	2 465	2 372	8 832
1969 .. .. .	65	132 864	21 364	37 064	2 964	2 283	2 474	9 275
1970 .. .. .	66	135 433	23 198	41 500	3 378	2 269	2 568	9 855
1971 .. .. .	67	139 842	32 971	53 942	3 527	2 193	2 707	10 506
1972 .. .. .	68	150 964	42 373	69 935	3 602	2 158	3 054	11 201
1973 .. .. .	69	162 237	44 832	75 894	3 225	2 208	3 154	11 923
1974 .. .. .	70	169 476	62 945	99 382	*	*	3 348	12 717

(a) From 1959-60 covers all in-patients (certified and voluntary) in institutions. Before this covered only certified patients in two 'long-term' institutions. (b) Year ended 30 June from 1946.

SOCIAL DEVELOPMENT

Social Welfare

Year	Public Welfare (a)	Children Main-tained or Sub-sidised by SA Govt	Pensions and Benefits Paid in South Australia by Australian Government					Pensioners	
			Age and Invalid Pensions	War and Service Pensions	Child Endow-ment	National Health Services	Total (a) (includes Other)	Age and Invalid	War and Service
1895-96 ..	30.0	28.4		\$'000					Number
1900-01 ..	36.6	35.4							
1905-06 ..	40.0	38.2							
1910-11 ..	29.0	46.4							
1915-16 ..	69.8	67.0	544	20				7 237	
1920-21 ..	101.8	95.0	910	1 028			2 060	10 993	794
1925-26 ..	117.6	100.7	1 404	978			2 496	12 320	14 663
1930-31 ..	154.8	103.7	1 982	994			3 074	14 098	16 144
1931-32 ..	1 922.2	95.2	1 878	908			2 848	20 602	16 653
1932-33 ..	1 500.6	90.9	1 826	844			2 726	21 897	15 801
1933-34 ..	1 359.0	88.8	1 896	854			2 804	21 461	15 517
1934-35 ..	1 277.0	87.8	2 068	892			3 016	22 805	15 352
1935-36 ..	1 163.4	89.4	2 298	942			3 298	24 517	15 248
1936-37 ..	1 086.6	89.4	2 522	1 036			3 622	26 134	15 997
1937-38 ..	995.4	93.7	2 868	1 076			4 010	27 308	16 340
1938-39 ..	989.6	94.0	2 836	1 098			4 008	28 039	16 865
1939-40 ..	1 062.2	99.2	2 908	1 104			4 086	28 857	16 680
1940-41 ..	389.9	101.4	3 032	1 088			4 192	29 521	16 145
1941-42 ..	288.1	106.6	3 274	1 108	1 720		6 162	29 642	15 424
1942-43 ..	232.8	113.3	3 628	1 274	1 810		7 076	28 422	15 296
1943-44 ..	214.8	131.5	3 688	1 654	1 908		8 076	27 423	16 333
1944-45 ..	215.4	143.1	3 624	1 838	1 870		8 276	27 530	18 472
1945-46 ..	238.7	155.2	4 670	2 272	2 854	244	11 262	27 507	22 071
1946-47 ..	250.7	197.8	5 102	2 692	3 196	856	13 212	29 512	30 687
1947-48 ..	261.3	224.4	6 284	3 046	3 212	770	14 708	32 387	35 117
1948-49 ..	279.3	255.6	7 170	3 718	4 024	1 054	17 442	34 229	38 505
1949-50 ..	273.0	287.5	7 888	4 178	4 938	1 220	19 966	35 470	42 931
1950-51 ..	279.0	337.6	8 600	5 214	7 564	2 122	25 216	36 524	47 303
1951-52 ..	336.6	446.7	10 360	6 442	8 298	3 554	30 532	36 582	51 589
1952-53 ..	445.6	466.8	12 616	7 130	9 540	4 154	25 878	37 363	54 758
1953-54 ..	458.6	475.7	14 150	7 686	9 154	4 880	38 202	39 700	58 591
1954-55 ..	487.2	491.2	15 310	8 778	9 428	5 824	41 560	42 216	61 039
1955-56 ..	545.6	553.0	17 718	9 074	10 998	6 140	46 322	45 147	63 767
1956-57 ..	686.4	494.0	19 244	9 572	10 500	6 710	48 926	47 754	66 535
1957-58 ..	865.9	545.6	21 432	10 664	10 860	7 704	54 256	50 209	68 291
1958-59 ..	770.4	674.6	23 150	10 860	12 618	9 868	60 460	52 699	69 852
1959-60 ..	641.9	778.1	26 366	12 697	11 794	11 977	66 157	55 181	71 331
1960-61 ..	691.4	914.8	28 537	13 722	14 092	12 811	73 594	66 460	72 013
1961-62 ..	773.5	1 107.5	32 844	14 241	12 671	14 567	80 283	60 483	72 695
1962-63 ..	693.1	1 129.9	33 951	14 867	12 861	16 066	83 393	64 374	74 454
1963-64 ..	693.3	1 275.5	36 120	16 224	15 916	17 080	91 514	64 156	73 239
1964-65 ..	704.3	1 516.8	38 509	16 006	16 563	18 948	96 362	65 573	72 518
1965-66 ..	841.6	1 716.6	39 691	17 692	16 988	21 254	102 661	66 798	70 678
1966-67 ..	996.3	1 914.4	43 720	16 776	19 063	23 100	111 394	67 999	68 439
1967-68 ..	1 047.5	2 008.2	46 711	17 252	17 835	25 448	116 625	70 521	66 624
1968-69 ..	1 212.0	2 235.9	50 828	19 065	18 162	28 411	126 581	74 016	65 078
1969-70 ..	1 405.2	2 466.6	58 720	19 435	20 287	33 476	143 558	76 616	62 986
1970-71 ..	1 745.7	2 912.8	64 714	20 405	18 284	41 773	158 743	85 076	61 928
1971-72 ..	2 359.1	2 628.5	76 545	22 493	19 766	50 586	186 868	88 936	60 406
1972-73 ..	4 725.4	3 079.3	101 625	25 917	22 780	57 432	232 937	92 771	58 682
1973-74 ..	4 012.7	3 453.9	131 772	31 350	20 098	65 953	287 186	104 350	59 707
								116 117	59 506

(a) Unemployment relief payments paid by State Government and included in Public Welfare to 1939-40. Unemployment benefits from 1945-46 paid by Australian Government and included in Total Pensions and Benefits Paid.

## EMPLOYMENT AND UNEMPLOYMENT

Year	Total Wage and Salary Earners (a)		Factory Employment (b)		Rural Employment (c)		Unemployment Benefits		Unemployed Registered (end June) (d)
	Males	Females	Males	Females	Males	Females	Average No. on Benefit	Amount Paid	
	'000	'000	'000	'000	'000	'000		\$'000	
1911 . . . . .			22.6	5.3					
1916-17 . . . . .			20.8	5.2					
1920-21 . . . . .			24.5	5.9					688
1925-26 . . . . .			33.1	6.9	38.8	3.2			1 391
1930-31 . . . . .			19.3	4.6	38.9	2.6			23 588
1931-32 . . . . .			18.9	4.9	39.2	2.8			23 738
1932-33 . . . . .			20.9	5.4	39.7	3.1			20 516
1933-34 . . . . .			23.7	5.7	40.0	3.4			16 559
1934-35 . . . . .			27.3	6.2	41.4	3.1			13 111
1935-36 . . . . .			31.4	7.1	41.7	2.6			10 970
1936-37 . . . . .			33.4	7.3	42.3	3.0			8 033
1937-38 . . . . .			36.3	7.8	41.4	2.9			7 737
1938-39 . . . . .			35.4	8.0	41.3	2.5			8 574
1939-40 . . . . .			36.3	8.7	38.7	2.8			5 978
1940-41 . . . . .			40.1	10.8	n.a.	n.a.			1 745
1941-42 . . . . .			49.9	15.3	n.a.	n.a.			—
1942-43 . . . . .			52.8	20.0	29.6	5.1			—
1943-44 . . . . .			50.7	18.9	32.9	6.5			—
1944-45 . . . . .			49.1	16.4	33.6	6.2			—
1945-46 . . . . .			49.5	13.7	35.7	5.5	778	146.4	3 147
1946-47 . . . . .			56.7	14.0	38.1	5.0	200	40.2	1 310
1947-48 . . . . .			59.1	14.3	38.1	5.8	51	8.0	778
1948-49 . . . . .			60.9	14.9	38.1	5.5	14	1.2	654
1949-50 . . . . .			63.1	15.3	38.6	7.0	326	66.2	431
1950-51 . . . . .			66.8	16.2	36.9	6.1	6	0.8	406
1951-52 . . . . .			68.0	15.9	37.4	4.7	17	2.0	1 613
1952-53 . . . . .			67.1	13.4	38.3	5.0	841	264.0	2 343
1953-54 . . . . .	178.6	55.7	70.7	14.8	37.8	5.6	270	100.4	964
1954-55 . . . . .	183.9	60.1	73.7	15.9	37.6	5.0	66	24.8	1 207
1955-56 . . . . .	194.0	64.0	76.1	16.4	37.3	4.7	77	22.2	1 948
1956-57 . . . . .	193.3	64.1	75.5	16.4	36.4	3.9	681	227.4	3 363
1957-58 . . . . .	194.4	65.9	75.9	16.6	35.2	2.7	1 534	611.0	5 082
1958-59 . . . . .	201.1	68.4	77.4	16.7	35.0	3.6	1 641	724.8	3 958
1959-60 . . . . .	206.4	72.6	81.3	17.7	33.8	2.6	1 223	498.2	4 547
1960-61 . . . . .	207.5	72.3	81.9	18.1	34.0	2.3	1 610	685.6	9 035
1961-62 . . . . .	211.2	76.7	81.8	17.3	33.7	2.1	3 643	1 785.6	6 886
1962-63 . . . . .	219.6	80.9	86.7	18.6	33.3	1.9	2 244	1 184.7	6 479
1963-64 . . . . .	229.4	86.0	90.9	19.9	33.2	1.4	1 513	751.1	4 339
1964-65 . . . . .	239.9	93.4	94.7	21.5	32.6	1.3	800	390.4	3 533
1965-66 . . . . .	242.8	106.1	96.2	22.1	32.1	1.0	1 306	708.9	7 357
1966-67 . . . . .	245.7	109.8	96.1	22.1	31.3	0.8	3 094	1 653.2	8 484
1967-68 . . . . .	254.0	116.2	98.9	22.5	29.7	0.7	3 299	1 637.4	8 359
1968-69 . . . . .	261.6	121.4	(e) 91.0	(e) 22.1	29.4	0.6	2 576	1 286.1	6 300
1969-70 . . . . .	266.6	129.9	94.6	23.8	28.9	0.6	1 636	1 008.4	6 360
1970-71 . . . . .	271.7	136.3	n.a.	n.a.	28.2	0.5	2 043	1 378.3	7 975
1971-72 . . . . .	(f) 271.1	(f) 137.6	96.2	25.4	27.3	0.5	3 564	2 930.1	12 328
1972-73 . . . . .	278.8	147.7	95.8	26.8	27.1	0.4	4 350	5 106.9	9 339
1973-74 . . . . .	287.2	164.0	*	*	26.6	0.4	3 246	6 142.9	(g) 7 983

- (a) At June; includes all industries except rural, defence forces and private domestic service.  
 (b) Average employment including working proprietors during the year.  
 (c) Permanent employees only. (d) Includes Northern Territory registrations.  
 (e) Direct comparisons with figures for previous years are not possible because of changes in the scope of the census and in the census units. (f) From July 1971 excludes trainee teachers, some of whom were classified as wage earners for earlier periods. (g) From July 1973 the definition of school leavers was changed.

WAGES

Year	State Living Wage (a)		Federal Basic and Minimum Wage Rates (a) (d)		Minimum Weekly Wage Rates (b)	
	Males	Females	Males	Females	Males	Females
	\$	\$	\$	\$	\$	\$
1911			5-10			
1916	5-40		6-15		5-90	2-48
1921	7-95	3-50	7-95		8-94	4-52
1926	8-55	3-95	8-55		9-57	5-00
1927	8-55	3-95	8-80		9-66	4-99
1928	8-55	3-95	8-50		9-62	5-09
1929	8-55	3-95	8-85		9-72	5-13
1930	7-50	3-95	7-80		9-27	5-12
1931	6-30	3-15	5-81		7-50	4-39
1932	6-30	3-15	5-72		7-26	4-09
1933	6-30	3-15	5-96		7-34	4-10
1934	6-30	3-15	6-30		7-55	4-19
1935	6-60	3-15	6-70		7-79	4-24
1936	6-60	3-30	6-90		7-95	4-33
1937	7-40	3-65	7-40		8-58	4-68
1938	7-40	3-65	7-60		8-71	4-78
1939	7-80	3-80	7-70		9-41	4-96
1940	8-40	4-10	8-00		9-85	5-21
1941	8-70	4-35	8-40		10-58	5-54
1942	9-40	4-62	9-30		11-50	6-02
1943	9-40	4-62	9-40		11-61	6-12
1944	9-40	4-62	9-30		11-58	6-53
1945	9-40	4-62	9-30		11-60	6-72
1946	9-85	5-50	10-20		12-41	7-60
1947	10-60	5-90	10-60		13-78	8-80
1948	11-70	6-65	11-60		15-22	9-51
1949	12-50	6-85	12-60		16-44	10-10
1950	15-80	11-85	15-80	11-85	19-79	14-21
1951	19-50	14-60	19-50	14-60	23-60	17-02
1952	22-90	17-15	22-90	17-15	27-08	19-68
1953	23-10	17-30	23-10	17-30	27-35	19-91
1954	23-10	17-30	23-10	17-30	28-16	19-99
1955	23-10	17-30	23-10	17-30	28-50	20-18
1956	24-10	18-05	24-10	18-05	29-63	20-92
1957	25-10	18-80	25-10	18-80	30-69	21-95
1958	25-60	19-20	25-60	19-20	31-24	22-38
1959	27-10	20-30	27-10	20-30	33-99	23-92
1960	27-10	20-30	27-10	20-30	34-22	24-29
1961	28-30	21-20	28-30	21-20	35-46	25-20
1962	28-30	21-20	28-30	21-20	35-65	25-23
1963	28-30	21-20	28-30	21-20	36-40	25-52
1964	30-30	22-70	30-30	22-70	38-69	27-29
1965	30-30	22-70	30-30	22-70	39-48	27-75
1966	32-30	24-20	32-30	24-20	41-75	29-42
1967	33-30	25-20	(c) 37-05		43-79	31-32
1968	34-65	26-55	38-40		48-23	33-60
1969	(d) 34-65	(d) 26-55	41-90		50-76	35-94
1970	(d) 34-65	(d) 26-55	41-90		52-12	37-51
1971	37-85	29-00	45-90		59-38	44-16
1972	39-85	31-00	50-60		65-82	50-50
1973	43-15	34-10	59-60		p 75-20	p 62-11
1974	46-50	37-30	67-60	(e) 57-50	p 101-76	p 90-77

(a) At end of year. (b) Adult rates, at end of year, for all industries excluding rural. (c) Provisions for minimum wages (for adult males only) were inserted in Federal Awards in July 1966 and basic wages were replaced by the total wage concept in July 1967. (d) An economic loading of 3 per cent of the sum of the living wage plus margin was added to all award rates of pay from December 1969 to January 1971. (e) In 1974 the minimum wage for adult males was extended to adult females.

## PRICES

Year	Retail Price Indexes: Adelaide						Agricultural Produce at Principal Markets			
	'C' Series (a)			Consumer (b)			Wheat (per tonne) (c)	Barley (per tonne)	Wool (per kg)	
	Food and Groceries	Rent	All Groups	Food	Housing	All Groups				
							\$	\$	cents	
1901 . . . .	575									
1906 . . . .	549									
1911 . . . .	570						12.71	16.53	15.59	
1916 . . . .	835	573	798				17.45	14.33	19.78	
1921 . . . .	941	819	989				29.39	19.49	24.74	
1926 . . . .	1 045	927	1 026				22.82	17.64	27.45	
1931 . . . .	789	755	837				8.41	9.92	12.52	
1932 . . . .	761	691	802				11.65	13.05	12.63	
1933 . . . .	731	694	789				10.33	9.83	13.45	
1934 . . . .	767	700	806				9.66	10.67	25.07	
1935 . . . .	780	736	820				11.17	11.95	15.04	
1936 . . . .	798	795	839				14.07	9.83	21.89	
1937 . . . .	826	832	859				18.92	17.90	25.09	
1938 . . . .	861	868	888				13.08	15.52	20.72	
1939 . . . .	897	888	906				8.34	11.95	16.71	
1940 . . . .	900	892	936				14.92	15.61	21.94	
1941 . . . .	905	893	988				16.42	21.43	21.76	
1942 . . . .	1 046	893	1 075				16.76	14.64	21.58	
1943 . . . .	1 003	893	1 102				19.51	19.84	25.07	
1944 . . . .	993	892	1 098				22.71	19.05	24.96	
1945 . . . .	1 002	892	1 102				20.69	24.07	24.71	
1946 . . . .	1 006	894	1 120				29.47	27.91	24.78	
1947 . . . .	1 067	897	1 165				36.49	39.33	40.50	
1948 . . . .	1 230	903	1 277				56.70	74.30	65.92	
1949 . . . .	1 351	912	1 393	38.6	38.4	45.0	45.64	36.95	81.09	
1950 . . . .	1 494	929	1 521	41.7	40.0	48.4	52.98	49.69	106.13	
1951 . . . .	1 931	949	1 833	48.2	42.5	54.6	53.76	51.54	237.28	
1952 . . . .	2 380	1 055	2 159	62.5	47.6	66.8	60.63	71.74	118.54	
1953 . . . .	2 444	1 155	2 246	68.7	55.9	73.1	61.77	71.12	137.74	
1954 . . . .	2 525	1 174	2 277	71.2	61.5	74.7	53.35	44.84	138.18	
1955 . . . .	2 657	1 247	2 354	72.9	63.2	75.6	49.05	59.97	120.66	
1956 . . . .	2 871	1 358	2 466	76.2	67.6	78.1	49.60	46.74	103.57	
1957 . . . .	2 710	1 468	2 463	78.9	72.3	81.2	53.28	48.50	135.63	
1958 . . . .	2 768	1 592	2 536	76.9	74.9	81.8	53.50	52.38	103.09	
1959 . . . .	2 998	1 674	2 647	80.7	76.7	83.6	51.51	49.43	83.84	
1960 . . . .				84.6	78.3	86.2	53.83	44.53	98.88	
1961 . . . .				90.9	83.2	89.8	55.37	40.39	88.49	
1962 . . . .				87.7	85.9	89.5	55.70	49.43	91.69	
1963 . . . .				86.6	86.7	89.1	53.94	48.94	98.92	
1964 . . . .				88.8	88.7	90.2	52.65	49.12	119.53	
1965 . . . .				93.9	92.1	93.9	51.88	50.84	97.31	
1966 . . . .		Not calculated			97.1	95.7	97.0	55.15	51.85	102.98
1967 . . . .				100.0	100.0	100.0	54.67	52.56	99.69	
1968 . . . .				104.7	102.1	102.9	58.86	52.47	82.87	
1969 . . . .				106.4	104.7	105.3	50.01	41.09	91.76	
1970 . . . .				107.1	109.3	108.2	51.88	36.82	75.02	
1971 . . . .				109.5	115.9	112.5	52.98	49.21	59.74	
1972 . . . .				113.6	124.4	119.2	55.26	40.96	72.21	
1973 . . . .				123.1	133.3	126.5	56.09	59.30	178.07	
1974 . . . .				148.3	150.6	143.9	103.20	87.59	176.54	

(a) Base: Average all groups six capital cities 1923 to 1927 = 100.0.

(b) Base of each group 1966-67 = 100.0. Index numbers are for year ended 30 June in the year stated.

(c) Bulk wheat from 1962, previously bagged.

*STATISTICAL SUMMARY*  
**METEOROLOGY, ADELAIDE**

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Year	Rainfall		Evapor- ation	Sunshine	Temperature		
	Days of Rain	Total	Total	Total	Extreme Maximum	Extreme Minimum	Mean
	Days	mm	mm	Hours	°C	°C	°C
1841	93	456					
1846	114	683					
1851	128	786					
1856	118	633					
1861	147	611			42.8	1.7	17.4
1866	116	511					
1871	137	591	1 345		43.1	2.9	17.7
1876	110	341	1 548		44.1	3.0	17.8
1881	135	458	1 422		45.7	0.3	16.9
1886	141	366	1 421	2 588.0	41.0	1.8	16.7
					44.7	2.0	17.1
1891	113	356	1 322	2 752.7	39.3	2.3	16.8
1896	121	385	1 337	2 643.9	44.0	1.3	17.4
1901	124	457	1 494	2 522.6	43.3	1.8	17.5
1906	127	674	1 400	2 366.4	45.1	2.3	17.6
1911	127	407	1 223	2 415.0	39.3	1.6	17.2
1916	142	715	1 411	2 511.9	41.9	3.5	16.7
1921	100	575	1 478	2 658.0	43.1	2.8	18.2
1926	116	364	1 473	2 688.6	40.1	3.0	17.3
1931	145	565	1 517	2 534.5	45.9	3.1	16.8
1936	123	491	1 525	2 430.8	39.8	2.8	17.1
1941	126	573	1 604	2 471.8	43.3	3.3	16.9
1942	133	646	1 674	2 422.2	44.7	3.4	17.3
1943	135	453	1 595	2 416.7	44.6	2.7	16.4
1944	114	435	1 633	2 333.7	39.7	0.3	16.8
1945	105	453	1 523	2 431.2	41.7	1.1	16.7
1946	135	574	1 385	2 301.0	41.3	2.0	16.3
1947	145	556	1 573	2 311.3	40.7	3.3	16.9
1948	122	544	1 622	2 401.7	43.4	2.9	16.3
1949	119	463	1 492	2 317.7	38.0	2.6	15.8
1950	91	408	1 657	2 677.5	40.0	3.6	17.0
1951	135	646	1 645	2 338.7	40.5	2.6	16.9
1952	128	508	1 523	2 459.2	40.8	1.6	15.8
1953	121	508	1 712	2 584.7	41.3	3.9	16.6
1954	109	425	1 680	2 502.6	39.4	3.4	16.7
1955	134	624	1 677	2 396.1	42.8	3.6	16.7
1956	154	692	1 638	2 378.6	38.3	4.1	16.4
1957	110	424	1 736	2 672.5	40.9	3.4	16.8
1958	121	446	1 672	2 454.7	39.0	1.2	16.4
1959	88	288	1 750	2 591.9	43.3	3.1	17.3
1960	129	586	1 606	2 355.6	41.8	2.4	16.3
1961	122	379	<i>n.a.</i>	2 586.3	40.8	2.9	17.8
1962	125	456	<i>n.a.</i>	2 559.1	42.7	4.2	17.2
1963	118	621	1 620	2 369.1	39.9	3.3	17.0
1964	135	556	1 507	2 199.5	40.3	2.3	16.3
1965	111	339	1 648	2 439.1	38.8	2.6	17.3
1966	123	495	1 612	2 431.6	40.7	3.3	16.9
1967	89	257	1 939	2 841.3	39.0	3.9	17.3
1968	141	653	1 870	2 409.7	43.1	2.2	17.0
1969	112	525	1 783	2 664.7	41.1	3.9	16.7
1970	149	483	1 866	2 657.8	40.5	2.9	16.6
1971	147	672	1 813	2 624.4	39.6	4.2	17.1
1972	106	446	1 947	2 966.8	39.6	2.3	17.3
1973	129	675	1 740	2 686.4	40.5	3.7	17.7
1974	<i>n.a.</i>	639	1 561	2 584.3	36.9	3.6	17.2

### RURAL PRODUCTION

#### Land Cultivation

Year	Rural Holdings	Area of Rural Holdings	Area under Crop		Area of Pastures Top-dressed	Area Under Irrigation
			Fertilised	Total		
	No.			'000 hectares		
1841-42	.. . . .			3		
1846-47	.. . . .			14		
1851-52	.. . . .			33		
1856-57	.. . . .			82		
1861-62	.. . . .			162		
1866-67	.. . . .			245		
1871-72	.. . . .			339		
1876-77	.. . . .			497		
1881-82	.. . . .			873		
1886-87	.. . . .			925		
1891-92	.. . . .			780		
1896-97	.. . . .			830		
1901-02	.. . . .		335	905		
1906-07	.. . . .		629	873		
1911-12	.. . . .	27 120	47 012	1 010	1 200	
1916-17	.. . . .	29 278	52 475	1 156	1 468	
1921-22	.. . . .	29 693	54 311	1 197	1 367	9.1
1926-27	.. . . .	29 654	54 867	1 430	1 572	66
1931-32	.. . . .	30 648	52 354	1 705	2 112	56
1936-37	.. . . .	31 321	55 433	1 619	1 853	366
1941-42	.. . . .	30 565	58 936	1 409	1 609	427
1942-43	.. . . .	27 934	58 859	1 062	1 391	382
1943-44	.. . . .	27 826	58 488	789	1 117	285
1944-45	.. . . .	27 867	55 639	926	1 287	293
1945-46	.. . . .	27 635	57 670	1 228	1 548	346
1946-47	.. . . .	28 040	59 154	1 366	1 572	450
1947-48	.. . . .	27 597	57 624	1 367	1 559	563
1948-49	.. . . .	28 110	59 377	1 327	1 521	705
1949-50	.. . . .	27 900	59 312	1 263	1 464	725
1950-51	.. . . .	28 248	61 403	1 316	1 488	753
1951-52	.. . . .	28 698	61 425	1 284	1 496	870
1952-53	.. . . .	28 860	61 791	1 270	1 449	940
1953-54	.. . . .	29 220	60 830	1 350	1 529	1 144
1954-55	.. . . .	28 092	60 452	1 404	1 576	1 272
1955-56	.. . . .	28 585	60 689	1 378	1 607	1 416
1956-57	.. . . .	27 936	60 675	1 376	1 610	1 488
1957-58	.. . . .	27 971	61 530	1 401	1 581	1 621
1958-59	.. . . .	28 105	61 639	1 494	1 679	1 504
1959-60	.. . . .	28 527	62 903	1 489	1 643	1 405
1960-61	.. . . .	28 711	63 316	1 751	2 010	1 335
1961-62	.. . . .	28 886	63 494	1 644	1 825	1 450
1962-63	.. . . .	28 922	63 413	1 787	1 996	1 518
1963-64	.. . . .	28 711	64 307	1 938	2 177	1 616
1964-65	.. . . .	28 754	63 517	1 932	2 141	1 908
1965-66	.. . . .	28 759	64 505	1 971	2 142	2 061
1966-67	.. . . .	28 957	65 361	2 073	2 322	2 119
1967-68	.. . . .	29 058	65 059	2 037	2 270	2 076
1968-69	.. . . .	29 137	65 603	2 431	2 783	1 728
1969-70	.. . . .	29 035	65 839	2 138	2 407	2 008
1970-71	.. . . .	29 087	65 795	1 884	2 141	1 938
1971-72	.. . . .	29 095	65 146	2 113	2 478	1 822
1972-73	.. . . .	29 001	63 372	1 864	2 084	2 033
1973-74	.. . . .	28 738	64 843	2 146	2 451	2 425

RURAL PRODUCTION

Crop Areas and Yields

Year	Cereals for Grain						Hay (a)	Orchards (b) (c)	Vineyards (b)
	Wheat		Barley		Oats				
	Area	Yield per Hectare	Area	Yield per Hectare	Area	Yield per Hectare	Area	Area	Area
	'000 hectares	tonnes	'000 hectares	tonnes	'000 hectares	tonnes	'000 hectares		
1841-42 . . .	2	1.40		1.12		1.12			
1846-47 . . .	11	1.34	1	1.68	1	0.90			
1851-52 . . .	22	0.85	2	0.92	1	0.98			0.1
1856-57 . . .	66	1.68	3	1.19	1	0.90	9	0.4	0.3
1861-62 . . .	126	0.74	4	0.89	1	0.91	25	0.7	1.6
1866-67 . . .	186	0.96	5	1.13	2	1.00	45	0.9	2.6
1871-72 . . .	280	0.39	7	0.53	2	0.49	40	1.1	2.2
1876-77 . . .	439	0.36	4	0.60	1	0.48	37	1.3	1.8
1881-82 . . .	716	0.31	5	0.64	1	0.48	135	1.8	1.7
1886-87(d) . .	797	0.37	7	0.73	3	0.56	128	n.a.	2.1
1891-92 . . .	628	0.28	5	0.52	5	0.29	123	3.6	5.0
1896-97 . . .	685	0.11	6	0.42	16	0.21	137	4.8	7.4
1901-02 . . .	706	0.31	6	0.88	14	0.61	150	6.6	8.4
1906-07 . . .	683	0.70	11	0.98	23	0.70	121	7.4	9.1
1911-12 . . .	887	0.62	17	0.97	44	0.56	211	9.4	9.7
1916-17 . . .	1 124	1.11	42	0.94	61	0.54	196	11.7	11.8
1921-22 . . .	965	0.70	69	1.08	51	0.46	226	13.1	16.8
1926-27 . . .	1 120	0.86	104	1.01	62	0.50	201	12.8	20.3
1931-32 . . .	1 648	0.79	98	1.06	84	0.50	218	11.8	21.2
1936-37 . . .	1 238	0.63	123	0.78	168	0.26	218	12.0	22.7
1941-42 . . .	941	0.88	194	1.37	118	0.58	226	12.0	23.5
1946-47 . . .	1 019	0.75	203	0.94	102	0.49	133	11.4	23.6
1947-48 . . .	961	0.92	228	1.53	125	0.78	120	11.5	23.8
1948-49 . . .	835	0.85	282	0.97	116	0.41	95	12.0	24.2
1949-50 . . .	767	1.01	281	1.03	106	0.59	119	10.9	24.4
1950-51 . . .	748	1.13	310	1.23	110	0.58	106	11.6	25.1
1951-52 . . .	653	1.14	337	1.13	157	0.63	104	11.9	24.8
1952-53 . . .	648	1.48	379	1.55	150	0.81	87	11.6	24.5
1953-54 . . .	619	1.34	454	1.42	113	0.69	106	12.0	25.1
1954-55 . . .	687	1.25	413	1.01	138	0.60	104	12.3	24.5
1955-56 . . .	651	1.21	422	1.32	172	0.77	132	13.4	24.2
1956-57 . . .	582	1.47	494	1.56	173	0.87	121	13.8	23.2
1957-58 . . .	539	0.75	490	0.81	173	0.36	118	14.3	23.2
1958-59 . . .	570	1.53	539	1.58	195	1.12	170	15.1	23.0
1959-60 . . .	627	0.52	522	0.52	205	0.22	99	15.1	23.0
1960-61 . . .	797	1.58	630	1.52	207	1.00	159	15.3	23.0
1961-62 . . .	902	1.02	514	0.94	131	0.61	84	15.6	23.4
1962-63 . . .	1 050	0.99	426	0.96	168	0.62	116	16.4	23.6
1963-64 . . .	1 134	1.30	455	1.21	203	0.82	145	16.9	23.7
1964-65 . . .	1 104	1.30	443	1.38	180	0.91	127	17.4	23.8
1965-66 . . .	1 111	0.98	444	0.94	184	0.55	121	17.8	23.8
1966-67 . . .	1 198	1.22	448	1.20	206	0.91	195	17.9	23.1
1967-68 . . .	1 159	0.63	468	0.60	212	0.28	174	18.3	23.5
1968-69 . . .	1 517	1.49	572	1.17	209	1.03	249	18.0	24.5
1969-70 . . .	1 299	1.24	560	1.23	150	0.80	155	18.1	26.2
1970-71 . . .	802	0.98	693	1.07	195	0.78	196	18.3	27.7
1971-72 . . .	1 069	1.32	784	1.34	169	0.98	245	17.2	28.8
1972-73 . . .	986	0.83	692	0.74	142	0.52	210	16.7	29.5
1973-74 . . .	1 432	1.25	627	1.26	152	0.93	268	16.9	29.6

(a) Wheaten only to 1906-07, thence all kinds.

(b) Bearing and non-bearing.

(c) From 1949-50, private orchards and those no longer worked have been omitted.

(d) Statistics not collected and particulars estimated.



### RURAL PRODUCTION

#### Livestock and Associated Produce; Farm Machinery

Year	Livestock Numbers		Wool Production	Milk Production	Slaughtering		Farm Machinery		
	Sheep	Cattle			Sheep and Lambs	Cattle and Calves	Tractors	Shearing Machines	Milking Machines
		Total	Dairy Cows						
			'000	'000 kg	'000l	'000		No.	
1841-42 .. .	250	21							
1846-47 .. .	681	57							
1851-52 .. .	1 250	100							
1856-57 .. .	1 962	273							
1861-62 .. .	3 038	265		5 791					
1866-67 .. .	3 912	124		8 954					
1871-72 .. .	4 412	143		11 752					
1876-77 .. .	6 133	219		19 253					
1881-82 .. .	6 804	294		22 118					
1886-87 .. .	6 542	285		22 934					
1891-92 .. .	7 646	399	80	26 133					
1896-97 .. .	6 324	337	84	23 558					
1901-02 .. .	5 012	225	75	20 209					
1906-07 .. .	6 625	326	98	22 193					
1911-12 .. .	6 172	394	122	27 372	127 077	1 276	87		
1916-17 .. .	5 091	289	114	17 025	136 174	686	62		
1921-22 .. .	6 257	419	166	26 202	188 199	1 208	95		
1926-27 .. .	7 284	340	127	32 824	183 817	1 091	143	1 820	420
1931-32 .. .	6 609	265	128	30 400	227 309	1 379	81	3 992	380
1936-37 .. .	7 905	328	170	34 747	289 581	1 697	166	4 563	409
1941-42 .. .	10 246	399	179	47 683	358 687	2 070	154	<i>n.a.</i>	<i>n.a.</i>
1942-43 .. .	10 371	424	185	49 277	357 323	2 272	171	6 705	2 976
1943-44 .. .	10 360	415	188	52 374	355 504	2 480	189	7 064	3 297
1944-45 .. .	8 474	391	187	48 402	328 228	3 065	175	8 044	3 770
1945-46 .. .	6 787	374	176	33 386	360 732	2 017	148	9 211	3 978
1946-47 .. .	7 959	424	187	42 193	426 878	1 662	146	9 456	4 306
1947-48 .. .	9 055	445	197	52 821	420 513	1 665	148	9 664	4 932
1948-49 .. .	9 366	461	203	52 120	415 058	2 011	189	11 271	5 817
1949-50 .. .	9 477	464	203	54 997	406 420	2 317	201	13 709	6 846
1950-51 .. .	10 167	433	184	56 873	379 826	2 022	218	16 128	8 134
1951-52 .. .	11 470	437	176	61 454	393 237	1 547	216	18 184	9 054
1952-53 .. .	12 037	483	183	71 966	382 781	2 353	187	19 750	9 733
1953-54 .. .	11 838	491	192	66 002	386 418	2 637	220	20 842	10 302
1954-55 .. .	12 817	524	199	70 652	412 330	2 799	233	23 110	11 452
1955-56 .. .	13 585	566	195	78 788	410 739	2 358	227	24 345	12 134
1956-57 .. .	14 984	622	195	85 642	408 694	2 329	252	26 012	12 690
1957-58 .. .	15 237	597	191	84 297	366 415	3 278	283	27 288	13 280
1958-59 .. .	15 634	576	188	84 750	373 234	3 145	287	28 532	13 778
1959-60 .. .	14 025	500	170	89 942	357 323	3 899	238	28 965	13 973
1960-61 .. .	14 952	561	170	80 473	395 510	2 784	174	30 674	14 317
1961-62 .. .	16 415	659	183	93 886	434 152	3 140	201	31 788	14 532
1962-63 .. .	15 737	679	190	94 050	433 697	3 467	254	31 671	14 595
1963-64 .. .	16 402	694	185	95 481	433 244	2 996	279	33 231	14 885
1964-65 .. .	17 289	697	182	97 856	465 065	3 100	275	34 164	15 172
1965-66 .. .	17 993	690	176	104 160	447 325	3 474	277	33 998	15 386
1966-67 .. .	17 864	687	170	107 725	448 699	3 358	265	35 829	15 392
1967-68 .. .	16 405	695	157	101 000	403 693	4 019	245	36 590	15 758
1968-69 .. .	18 392	865	163	105 714	467 377	2 977	220	36 574	15 693
1969-70 .. .	19 747	1 026	149	124 529	482 959	4 232	249	37 264	15 746
1970-71 .. .	19 166	1 196	145	117 258	469 773	5 101	264	37 023	15 852
1971-72 .. .	17 970	1 495	151	117 922	457 732	5 144	290	37 197	<i>n.a.</i>
1972-73 .. .	15 651	1 583	148	106 006	424 265	4 549	384	37 258	<i>n.a.</i>
1973-74 .. .	16 431	1 692	138	100 131	434 107	2 595	359	37 588	<i>n.a.</i>

MINING AND FACTORY PRODUCTION

Year	Mining			Factories (a)		
	Principal Minerals Produced			Value of Production (b)	Number of Establishments	Value Added
	Copper Ore and Concentrate	Coal	Iron Ore			
	Tonnes	'000 tonnes	'000 tonnes	\$'000		\$'000
1846	6 565			285		
1851	7 841			622		
1856	11 980			825		
1861	11 440			920		
1866	23 661			1 657		
1871	26 948			1 347		
1876	28 597			1 205		
1881	25 871			842		
1886	18 713			554		
1891	16 894		7	551		
1896	5 030		—	496		
1901	8 743		—	1 079		
1906	8 340		76	1 652		
1911	6 017		43	900	1 314	9 148
1916	7 396		191	2 504	1266	9 748
1921	1 557		515	2 086	1 438	14 556
1926	235		593	2 924	1 791	25 348
1931	22		293	1 297	1 644	15 510
1936	458		1 918	5 241	1 895	23 339
1941	615		2 276	7 074	2 230	33 832
1942	398	2	2 156	6 342	2 167	49 132
1943	104	—	2 218	6 287	2 134	56 732
1944	137	35	2 062	6 085	2 149	56 823
1945	136	42	1 544	4 917	2 182	54 530
1946	—	138	1 847	6 101	2 395	51 203
1947	—	196	2 180	7 253	2707	62 133
1948	4	243	2 067	7 514	2 865	77 339
1949	3	350	1 471	6 236	2 927	87 443
1950	—	266	2 388	8 857	3 046	104 706
1951	2	395	2 439	9 875	3 141	135 618
1952	5	424	2 727	12 094	3 245	166 493
1953	2	456	2 633	12 406	3 339	178 378
1954	3	503	2 913	17 160	3 577	200 443
1955	—	463	3 093	(c) 41 419	3 750	222 055
1956	12	489	3 645	47 853	3 908	241 872
1957	40	619	3 444	46 352	4 063	253 532
1958	53	767	3 406	47 076	4 168	266 570
1959	67	701	3 478	49 332	4 235	279 620
1960	30	899	3 492	50 870	4 684	325 947
1961	8	1 133	4 055	58 242	5 042	340 123
1962	4	1 414	3 567	53 958	5 519	347 828
1963	16	1 536	4 310	62 431	5 766	379 142
1964	55	1 764	4 437	67 597	5 826	427 356
1965	116	2 048	4 463	67 863	5 887	498 588
1966	143	2 053	4 876	72 342	6 065	527 477
1967	1 470	2 077	4 645	69 345	6 222	563 764
1968	518	2 112	5 566	77 398	6 255	631 104
1969	3 666	2 246	7 042	98 526	(d) 3 085	(d) 643 079
1970 (e)	249 (f)	2 155	7 425	104 195	3 103	714 579
1971	2 287	1 626	7 400	112 276	n.a.	n.a.
1972	2 819	1 536	6 301	111 623	3 035	802 975
1973	9 662	1 571	6 874	131 274	2 977	896 691
1974	8 830	1 494	6 065	134 445	*	*

(a) Year ended 30 June. (b) Value at site of production. Quarries included from 1916. (c) Comparability affected by revaluation of iron ore. (d) For a description of the changes in definitions see page 491. (e) Year ended 30 June from 1970. (f) Metallic content from 1969-70.

## GROSS VALUE OF RURAL PRODUCTION

Year	Agricultural			Total	Pastoral		Dairying	Total Rural Production
	Wheat	Barley	Vine and Orchard Fruit		Wool (a)	Total		
\$'000								
1911-12 .. .	7 717	254	1 599	14 965	3 836	5 789	1 693	23 535
1916-17 .. .	21 729	599	1 653	27 677	4 274	11 200	2 759	42 909
1921-22 .. .	12 577	1 227	3 491	23 221	5 752	8 296	3 678	37 273
1925-26 .. .	17 979	1 656	3 352	28 307	8 591	12 930	4 171	47 629
1926-27 .. .	19 052	1 685	4 082	30 181	8 937	12 140	3 895	48 357
1927-28 .. .	13 247	1 497	3 394	23 257	11 338	14 584	4 125	44 464
1928-29 .. .	12 845	1 737	3 909	23 880	9 308	12 472	3 810	42 375
1929-30 .. .	10 243	1 448	3 819	21 059	5 098	8 183	3 892	35 055
1930-31 .. .	8 091	893	3 241	15 708	3 608	5 801	3 121	26 335
1931-32 .. .	17 163	1 363	3 442	25 291	3 843	5 452	3 140	35 444
1932-33 .. .	13 097	1 371	3 463	20 921	4 619	5 834	3 654	32 030
1933-34 .. .	10 933	1 280	3 618	19 533	9 013	10 608	3 108	34 776
1934-35 .. .	10 318	1 553	3 882	19 965	5 309	7 706	3 091	32 489
1935-36 .. .	13 135	1 457	3 953	22 863	8 116	10 885	3 797	39 126
1936-37 .. .	14 955	1 766	4 191	26 044	8 720	12 315	4 310	44 366
1937-38 .. .	15 665	3 040	4 964	29 453	8 141	11 443	5 291	48 241
1938-39 .. .	8 580	2 046	4 056	20 008	7 802	12 327	5 171	39 613
1939-40 .. .	16 692	3 524	4 637	30 132	10 470	14 792	5 585	52 487
1940-41 .. .	8 379	2 321	4 873	20 167	10 532	14 757	6 079	43 134
1941-42 .. .	13 913	4 490	4 725	30 142	10 294	13 875	6 735	53 016
1942-43 .. .	19 399	2 709	6 481	35 423	12 359	16 917	7 917	63 091
1943-44 .. .	12 765	2 188	9 159	32 088	13 067	18 277	8 807	63 003
1944-45 .. .	6 065	1 931	6 283	23 548	11 963	17 928	8 880	54 810
1945-46 .. .	17 490	4 956	7 729	40 434	8 275	14 535	9 959	69 396
1946-47 .. .	27 685	7 598	8 283	51 209	17 092	22 602	10 950	90 106
1947-48 .. .	50 154	26 228	9 677	99 477	32 606	37 487	12 525	155 615
1948-49 .. .	32 450	10 242	10 887	64 138	40 268	47 636	13 440	131 527
1949-50 .. .	40 834	14 524	10 616	81 707	56 268	63 058	16 148	167 594
1950-51 .. .	45 587	19 803	13 720	97 871	132 494	139 895	15 500	259 627
1951-52 .. .	45 288	27 706	20 382	120 507	72 394	86 034	21 145	234 587
1952-53 .. .	57 302	42 128	19 161	139 160	97 158	109 154	23 527	279 982
1953-54 .. .	43 939	28 804	20 788	115 744	88 868	105 950	24 238	254 537
1954-55 .. .	41 591	23 243	17 426	104 914	83 204	101 059	25 037	239 022
1955-56 .. .	38 514	25 227	20 335	110 570	79 822	100 882	30 826	250 685
1956-57 .. .	44 846	34 022	23 265	129 994	114 578	138 118	29 003	305 365
1957-58 .. .	20 970	19 573	24 435	90 089	84 708	111 027	26 384	235 337
1958-59 .. .	43 791	39 889	23 984	140 858	67 595	99 135	32 103	280 007
1959-60 .. .	16 495	10 999	21 394	71 092	85 382	123 351	29 454	231 751
1960-61 .. .	68 001	37 977	24 525	161 437	70 484	94 451	30 306	294 087
1961-62 .. .	51 515	22 952	27 051	124 022	85 801	111 850	29 848	273 551
1962-63 .. .	56 285	19 152	25 857	128 417	92 514	127 386	31 968	295 043
1963-64 .. .	77 660	26 399	29 567	165 634	113 409	150 466	34 267	358 802
1964-65 .. .	74 550	30 135	36 200	178 132	94 328	135 916	37 533	360 507
1965-66 .. .	59 559	20 234	31 411	144 017	103 635	152 224	39 293	345 015
1966-67 .. .	79 612	26 912	36 779	184 090	104 588	169 226	40 303	404 864
1967-68 .. .	42 183	12 818	32 423	127 288	79 925	129 504	37 163	306 222
1968-69 .. .	112 551	25 657	37 815	221 097	92 932	136 070	39 016	408 842
1969-70 .. .	82 332	23 724	43 330	184 284	91 348	148 939	40 834	386 041
1970-71 .. .	40 562	34 902	45 991	164 895	67 029	123 858	43 918	347 038
1971-72 .. .	76 381	40 295	49 753	213 206	70 093	153 068	47 262	430 704
1972-73 .. .	44 588	27 506	54 415	177 768	141 713	270 233	47 808	511 795
1973-74 .. .	184 339	65 549	48 850	374 638	183 227	<i>n.a.</i>	<i>n.a.</i>	753 155

(a) Shares of profits from sale of wool under war-time disposal schemes excluded.

NET VALUE OF PRODUCTION

Year	Rural				Other Primary (a)	Mining and Quarrying (a)
	Agricultural	Pastoral	Dairying	Total		
				\$'000		
1925-26 . . . . .	19 374	11 497	2 988	34 648	1 537	2 684
1926-27 . . . . .	19 755	10 697	2 955	34 098	1 618	2 924
1927-28 . . . . .	13 661	12 861	3 146	30 858	1 784	3 254
1928-29 . . . . .	12 840	10 912	2 721	27 514	1 639	2 755
1929-30 . . . . .	10 521	6 795	2 988	21 189	1 685	3 270
1930-31 . . . . .	4 368	4 684	2 285	12 051	1 304	2 882
1931-32 . . . . .	16 681	4 450	2 435	24 259	1 357	1 297
1932-33 . . . . .	12 565	4 775	2 839	20 758	1 458	1 885
1933-34 . . . . .	11 820	9 122	2 278	23 768	1 445	2 456
1934-35 . . . . .	12 751	6 363	2 242	22 121	1 460	3 724
1935-36 . . . . .	14 673	9 205	2 786	27 242	1 489	4 739
1936-37 . . . . .	18 115	10 435	3 176	32 270	1 683	4 874
1937-38 . . . . .	18 320	9 713	3 782	32 510	1 758	4 941
1938-39 . . . . .	10 978	10 110	3 886	25 903	1 722	5 909
1939-40 . . . . .	19 482	12 413	4 388	37 412	1 931	6 887
1940-41 . . . . .	12 290	12 427	4 204	29 862	2 062	6 659
1941-42 . . . . .	19 314	11 559	4 276	36 181	2 495	6 595
1942-43 . . . . .	24 495	14 265	6 207	46 688	2 793	5 899
1943-44 . . . . .	22 086	15 577	6 991	47 063	2 961	5 949
1944-45 . . . . .	13 995	15 391	6 912	39 113	2 886	5 870
1945-46 . . . . .	29 935	12 396	7 652	52 640	3 417	4 756
1946-47 . . . . .	39 525	19 170	8 484	70 571	4 124	5 937
1947-48 . . . . .	83 901	33 861	9 970	131 832	4 858	7 037
1948-49 . . . . .	47 901	42 913	10 511	105 545	5 850	7 194
1949-50 . . . . .	65 579	57 116	13 637	140 976	5 814	5 882
1950-51 . . . . .	72 805	131 594	12 629	221 425	6 944	8 375
1951-52 . . . . .	93 807	77 929	17 714	193 792	8 862	9 292
1952-53 . . . . .	102 488	99 837	18 854	225 741	10 363	10 305
1953-54 . . . . .	83 399	94 847	20 514	203 296	11 598	10 075
1954-55 . . . . .	78 361	90 440	21 330	193 795	11 702	14 272
1955-56 . . . . .	82 542	89 249	26 547	202 430	12 151	(b) 37 302
1956-57 . . . . .	99 376	124 187	25 022	252 554	11 966	43 008
1957-58 . . . . .	64 635	89 726	15 651	173 506	10 287	41 249
1958-59 . . . . .	101 141	76 849	18 725	200 694	11 254	42 458
1959-60 . . . . .	48 492	100 135	18 281	170 450	10 694	44 311
1960-61 . . . . .	116 647	72 237	16 926	208 842	11 012	45 773
1961-62 . . . . .	90 933	91 256	19 826	204 484	10 911	52 623
1962-63 . . . . .	93 357	103 991	19 741	218 828	11 574	49 603
1963-64 . . . . .	125 180	125 979	21 195	274 720	12 279	57 836
1964-65 . . . . .	134 239	110 054	25 005	271 350	14 173	62 727
1965-66 . . . . .	105 657	123 757	25 127	256 934	15 817	62 727
1966-67 . . . . .	137 042	134 608	25 238	300 112	14 941	66 909
1967-68 . . . . .	90 903	98 722	22 169	214 300	15 482	63 492
1968-69 . . . . .	161 605	106 329	23 253	293 682	16 120	71 618
1969-70 . . . . .	131 082	117 337	28 188	281 217	18 614	n.a.
1970-71 . . . . .	119 749	94 717	31 097	251 448	19 888	n.a.
1971-72 . . . . .	158 796	123 412	32 163	319 185	22 821	n.a.
1972-73 . . . . .	131 119	227 178	33 822	393 891	24 057	n.a.
1973-74 p . . . . .	313 514	n.a.	n.a.	615 107	28 098	n.a.

(a) To 1934-35, local value, i.e. gross value less marketing costs.

(b) Comparability affected by revaluation of iron ore.



TRADE  
Overseas Imports; Retail Sales

Year	Value of Imports		Proportion of Total Imports Classified by Principal Countries of Origin				Value of Retail Sales of Goods	
	Total	Metals, Metal Manufactures, and Machinery	Japan	UK	USA	Other	Total Excluding Motor Vehicles etc.	Motor Vehicles etc.
	\$'000		Per cent				\$ million	
1861 .. .. .	2 756	310		80.14	0.32	19.54		
1866 .. .. .	4 193	570		89.69	1.80	8.51		
1871 .. .. .	2 891	342		81.85	1.45	16.70		
1876 .. .. .	6 428	1 084		81.30	1.44	17.26		
1881 .. .. .	7 133	1 022		79.06	3.80	17.14		
1886 .. .. .	5 003	770	0.01	78.90	6.82	14.27		
1891 .. .. .	8 063	1 644	0.02	71.36	7.91	20.71		
1896 .. .. .	6 475	1 198	0.18	68.59	7.82	23.41		
1901 .. .. .	7 854	1 432	0.38	56.91	14.17	28.54		
1906 .. .. .	7 965	2 104	0.64	63.10	10.17	26.09		
1911 .. .. .	12 492	4 132	1.31	58.60	12.81	27.28		
1915-16 .. ..	10 304	2 816	3.12	47.68	19.81	29.39		
1920-21 .. ..	24 764	6 558	1.55	42.07	21.25	35.13		
1925-26 .. ..	28 160	10 602	1.13	43.30	27.84	27.73		
1930-31 .. ..	7 833	1 802	1.14	36.96	16.66	45.24		
1935-36 .. ..	10 839	3 616	2.24	38.65	21.16	37.95		
1940-41 .. ..	10 924	3 158	1.56	38.09	12.01	48.34		
1941-42 .. ..	14 924	5 164	0.10	28.11	12.36	59.43		
1942-43 .. ..	11 718	3 580	—	20.56	14.44	65.00		
1943-44 .. ..	9 562	2 128	—	24.97	33.53	41.50		
1944-45 .. ..	9 313	1 388	—	24.49	19.91	55.60		
1945-46 .. ..	17 556	3 622	—	62.28	10.13	27.59		
1946-47 .. ..	23 875	6 788	0.03	35.25	13.79	50.93		
1947-48 .. ..	45 908	12 740	—	37.96	15.45	46.59		
1948-49 .. ..	60 914	21 678	0.12	49.33	9.02	41.53		
1949-50 .. ..	91 509	44 334	1.77	52.15	8.81	37.27		
1950-51 .. ..	112 002	50 446	1.98	48.31	8.42	41.29		
1951-52 .. ..	186 062	80 450	5.16	39.99	9.37	45.48		
1952-53 .. ..	86 549	41 456	1.14	43.53	11.71	43.62	271.7	84.3
1953-54 .. ..	102 945	47 142	0.46	50.63	8.93	39.98	294.4	97.6
1954-55 .. ..	129 607	63 144	1.28	49.18	13.28	36.26	324.4	113.4
1955-56 .. ..	125 504	64 656	3.18	49.17	11.70	35.95	347.8	123.6
1956-57 .. ..	90 813	40 536	1.39	44.01	12.26	42.34	362.3	124.7
1957-58 .. ..	94 205	40 792	1.85	46.37	11.91	39.87	367.2	125.4
1958-59 .. ..	90 693	40 534	2.56	42.08	11.50	43.86	387.2	138.0
1959-60 .. ..	119 493	57 962	2.69	43.89	12.15	41.27	436.6	160.2
1960-61 .. ..	142 764	72 570	5.37	32.66	17.61	44.36	448.9	156.1
1961-62 .. ..	103 386	46 774	3.28	31.95	21.87	42.90	451.6	143.1
1962-63 .. ..	139 826	71 820	4.08	31.83	22.92	41.17	479.9	180.5
1963-64 .. ..	179 651	94 302	4.72	24.75	30.63	39.90	525.3	212.5
1964-65 .. ..	204 856	108 243	8.01	23.72	29.11	39.16	574.5	238.0
1965-66 .. ..	198 156	103 032	6.84	23.32	27.25	42.59	602.0	220.4
1966-67 .. ..	196 771	97 861	7.69	21.64	27.72	42.95	627.1	214.7
1967-68 .. ..	215 619	113 215	7.16	17.29	32.71	42.84	663.6	242.0
1968-69 .. ..	231 956	134 222	11.19	19.82	27.35	41.64	706.9	261.1
1969-70 .. ..	201 223	98 204	10.77	21.49	21.50	46.23	762.3	285.7
1970-71 .. ..	198 358	98 358	14.44	25.10	17.32	43.14	818.8	297.6
1971-72 .. ..	189 748	83 083	15.08	22.83	14.48	47.61	890.9	322.5
1972-73 .. ..	199 978	88 271	20.48	17.49	15.08	46.95	p1 047.4	n.a.
1973-74 .. ..	313 915	99 861	22.57	12.03	16.91	48.49	p1 226.6	p 469.1

## TRANSPORT AND COMMUNICATION

## Public Transport

Year	Railways			Buses and Trams (a)		Shipping (Entering SA) (b)
	Passengers Carried	Goods Carried	Revenue	Passengers Carried	Revenue	
	'000	'000 tonnes	\$'000	'000	\$'000	'000 net tonnes
1841						18
1846						25
1851						75
1856						114
1861	248	32	44			103
1866	310	145	185			169
	425	171	236			
1871						187
1876	394	228	235			347
1880-81	1 400	387	402			641
1885-86	2 902	683	837			771
1890-91	3 962	779	1 098			1 288
	5 296	1 427	2 448			
1895-96						1 661
1900-01	5 436	1 057	1 973			1 967
1905-06	8 864	1 628	2 473			2 785
1910-11	10 715	1 732	2 700			3 625
1915-16	16 620	2 731	4 030	34 013	480	2 566
	20 513	2 397	3 931	43 372	649	
1920-21						2 887
1925-26	23 788	2 682	5 884	55 324	1 111	4 526
1930-31	25 752	3 563	8 524	66 207	1 322	4 166
1935-36	15 453	2 175	5 201	52 756	1 444	5 318
1940-41	17 431	2 482	5 781	50 625	1 347	3 047
	20 360	2 770	7 060	56 518	1 537	
1945-46						1 733
1946-47	23 119	2 997	9 794	90 239	2 469	3 086
1947-48	19 827	3 093	9 243	91 238	2 594	3 651
1948-49	19 067	3 396	10 219	89 661	2 661	4 365
1949-50	18 210	3 544	11 770	82 939	3 084	5 217
	17 385	3 425	(c)13 098	77 999	2 535	
1950-51						5 283
1951-52	17 178	3 519	14 715	78 141	3 238	5 529
1952-53	18 269	4 966	19 022	75 436	3 684	5 900
1953-54	17 565	4 172	24 976	66 571	(d) 4 232	6 108
1954-55	17 605	4 457	25 848	66 972	4 145	6 123
	16 849	4 497	26 522	66 446	4 267	
1955-56						6 282
1956-57	16 434	4 436	26 662	63 515	4 668	6 360
1957-58	17 406	4 518	28 132	62 190	4 578	6 569
1958-59	17 564	4 166	27 033	60 083	4 988	6 744
1959-60	16 805	4 227	26 179	59 613	5 056	6 745
	17 038	4 059	25 652	58 168	5 641	
1960-61						7 613
1961-62	15 574	4 537	27 883	58 912	5 515	7 646
1962-63	15 176	4 638	27 984	57 950	5 430	7 886
1963-64	14 922	4 530	27 826	58 039	5 436	9 486
1964-65	15 227	5 213	29 673	58 571	5 473	9 697
	15 196	5 131	29 960	56 434	5 899	
1965-66						9 517
1966-67	15 511	4 823	29 137	53 112	6 049	10 220
1967-68	15 432	4 909	30 417	49 735	6 270	10 028
1968-69	15 242	4 401	28 244	47 813	6 225	10 345
1969-70	14 423	5 037	30 522	45 393	6 472	12 213
	13 990	5 922	33 566	43 345	6 696	
1970-71						11 303
1971-72	13 946	6 025	34 635	41 259	6 881	10 533
1972-73	13 433	5 948	35 603	40 842	6 978	9 957
1973-74	13 320	5 820	35 332	41 680	7 304	
	13 597	6 655	39 827	47 533	9 958	

(a) Buses and trams operated by Municipal Tramways Trust only. Years ended 31 July from 1912 to 1939. 31 January from 1940 to 1952, and 30 June from 1953.

(b) Years ended 31 December to 1913; thereafter year ended 30 June.

(c) Excludes Treasury grant from 1949-50. (d) Excludes Government grant from 1952-53.

TRANSPORT AND COMMUNICATION

Year	Motor Vehicles on Register			Drivers and Riders Licences in Force	Tele- phone Services in Operation (a)	Radio Licences in Force (b)	Post Office Revenue			
	Cars and Station Wagons	Utilities, Trucks, Buses	Total (incl. Cycles, Scooters)				Postal, Etc. (c)	Tele- graph (c)	Tele- phone	
	'000			Number		'000				
1851	..	..	..	..	..	..	14	..	..	
1856	..	..	..	..	..	..	18	..	..	
1861	..	..	..	..	..	..	33	15	..	
1866	..	..	..	..	..	..	56	24	..	
1871	..	..	..	..	..	..	58	22	..	
1876	..	..	..	..	..	..	114	64	..	
1881	..	..	..	..	..	..	166	123	..	
1886	..	..	..	..	..	..	214	160	..	
1891	..	..	..	..	..	..	227	201	..	
1896	..	..	..	..	..	..	250	242	..	
1901	..	..	..	..	1 831	..	282	263	..	
1906	..	..	..	..	2 510	..	342	182	61	
1911	..	..	..	..	6 086	..	490	233	93	
1916	..	..	..	..	10 184	..	484	277	212	
1921	..	..	..	..	15 984	..	762	420	468	
1926	..	..	..	..	33 547	12 105	867	402	903	
1931	..	(d) 45.1	(d) 12.1	(d) 67.3	106 053	39 552	32 075	879	282	1 168
1936	..	53.7	19.4	84.3	92 227	39 911	93 881	1 017	327	1 197
1941	..	54.5	24.4	86.2	122 280	47 962	136 457	1 252	458	1 522
1946	..	64.4	31.4	107.2	137 979	53 126	164 497	1 921	815	2 170
1947	..	67.4	34.7	115.2	149 304	56 449	180 371	1 989	875	2 345
1948	..	75.7	36.4	127.5	159 814	60 249	196 336	2 190	946	2 507
1949	..	84.3	40.7	143.5	172 063	64 008	211 436	2 345	848	2 761
1950	..	97.5	46.0	163.9	192 469	69 907	226 723	2 546	1 169	3 536
1951	..	108.9	51.2	183.6	215 157	74 457	243 019	2 938	1 550	4 271
1952	..	120.5	55.9	200.4	232 119	80 919(e)	207 527	3 872	1 818	5 588
1953	..	129.7	61.2	214.3	252 216	86 977	210 808	4 086	1 191	6 070
1954	..	139.7	64.6	226.9	265 727	93 104	218 745	4 311	1 112	6 728
1955	..	150.5	70.2	244.4	281 091	100 171	221 118	4 670	1 028	7 266
1956	..	161.4	73.2	257.5	299 158	107 649	228 625	5 033	1 075	8 067
1957	..	171.9	75.7	269.3	315 044	114 390	234 120	5 579	1 358	8 993
1958	..	184.3	77.8	283.0	328 833	122 311	238 916	5 877	1 385	9 950
1959	..	200.3	81.0	301.5	340 973	131 060	247 468	6 247	1 421	10 524
1960	..	214.9	84.1	318.3	369 584	138 019	249 148	7 359	1 487	12 793
1961	..	224.5	82.5	325.2	393 869	144 502	249 475	7 729	1 643	14 544
1962	..	238.9	82.5	338.1	397 803	152 785	249 673	7 761	1 434	15 604
1963	..	258.8	83.9	358.2	414 656	162 012	256 741	8 322	1 592	16 508
1964	..	280.1	86.3	380.5	427 717	173 314	266 027	8 709	1 852	19 181
1965	..	298.1	86.4	397.4	447 985	182 249(f)	269 040	9 312	2 187	23 038
1966	..	314.0	87.3	413.5	464 778	192 922	281 747	9 759	2 398	24 757
1967	..	327.7	87.1	427.6	481 496	203 191	278 069	10 117	2 521	26 990
1968	..	342.9	87.6	443.9	491 765	212 842	290 051	11 378	2 688	30 124
1969	..	364.7	89.6	468.2	513 687	224 174	297 877 (g)	13 211	(g) 1 606	(g) 34 523
1970	..	384.0	90.7	490.1	535 184	239 452	302 519	13 885	1 918	38 465
1971	..	400.8	91.4	510.3	550 745	251 330	310 485	15 847	1 988	43 333
1972	..	420.4	92.9	536.0	570 562	261 608	315 612	18 309	2 342	50 820
1973	..	445.4	97.8	572.4	592 481	278 687	332 411	19 227	2 569	58 306
1974	..	*	*	*	612 693	298 300	339 516	21 298	2 963	68 208

(a) At 30 June from 1916; at 31 December in earlier years. (b) At 31 December from 1931 to 1943; otherwise at 30 June in years shown. (c) Years ended 30 June from 1886; earlier years ended 31 December. Telegraph includes telephone to 1901 and radio to 1948, from which time radio etc., licence fees have been excluded from Post Office revenue. (d) Vehicles in actual use on roads from 1930. (e) All receivers at the one address covered by one licence from 1952. (f) Combined radio and television licences included since 1 April 1965. (g) From 1968-69 content not comparable with previous years.



## PUBLIC FINANCE

Year	State Government					Local Government Revenue			
	Total Revenue	Expenditure		Public Debt		State Taxation (a)	From Rates	Government Grants	Total
		From Revenue	From Loan (Net)	Total	Per Head				
	\$'000	\$'000	\$'000	\$'000	\$	\$'000	\$'000	\$'000	\$'000
1840-41 ..	51	180							
1845-46 ..	95	77							
1850-51 ..	445	367				202			
1855-56 ..	960	1 160		590	5-50	326		54	114
1860-61 ..	1 117	966		1 733	13-30	282	46	40	114
1865-66 ..	1 900	2 130		1 551	9-20	478	60	60	162
1870-71 ..	1 556	1 519		4 335	23-00	498	80	74	194
1875-76 ..	2 640	2 647		7 674	34-20	920	118	80	286
1880-81 ..	4 344	4 108		22 394	78-30	1 168	188	136	488
1885-86 ..	4 558	4 767	2 800	36 680	118-60	1 603	208	108	502
1890-91 ..	5 464	5 207	968	43 315	135-80	1 655	276	254	702
1895-96 ..	5 043	5 019	886	48 433	137-60	1 600	264	194	652
1900-01 ..	5 648	5 693	845	52 129	146-40	1 203	302	222	738
1905-06 ..	5 612	5 437	900	60 165	165-80	735	348	198	740
1910-11 ..	8 363	9 929	3 752	(b)56 065	136-50	1 092	481	336	1 004
1915-16 ..	8 714	9 483	4 371	79 049	179-40	1 403	652	302	1 150
1920-21 ..	14 303	15 087	9 351	104 725	210-70	3 244	986	580	1 936
1925-26 ..	20 948	20 922	12 860	160 521	290-10	5 428	1 640	942	3 441
1930-31 ..	21 452	25 079	6 581	199 055	345-70	6 800	1 672	397	2 612
1935-36 ..	22 819	22 521	2 502	211 397	359-70	6 409	1 665	509	2 824
1940-41 ..	25 849	26 015	2 548	219 599	365-30	8 683	1 851	577	3 170
1945-46 ..	32 687	32 687	3 419	221 498	348-80	(c) 4 036	2 040	451	3 474
1946-47 ..	34 385	34 506	4 423	228 260	353-20	4 286	2 271	697	4 061
1947-48 ..	37 686	38 312	4 963	237 704	359-50	4 573	2 610	923	4 740
1948-49 ..	43 690	44 259	9 281	249 440	367-20	5 740	2 967	1 106	5 513
1949-50 ..	58 721	59 100	17 339	266 349	375-40	6 591	3 248	1 496	6 380
1950-51 ..	67 344	66 885	33 871	296 776	405-20	8 104	3 830	1 963	7 579
1951-52 ..	85 276	85 098	52 875	346 872	459-40	9 586	4 686	2 578	9 548
1952-53 ..	98 203	98 153	40 885	389 706	502-30	9 983	5 761	2 306	10 800
1953-54 ..	104 751	101 132	39 879	429 446	538-80	13 073	6 524	3 867	13 416
1954-55 ..	103 768	108 236	42 912	472 925	577-10	15 092	7 041	3 836	14 213
1955-56 ..	118 805	121 665	42 666	512 179	603-60	16 150	8 162	4 381	16 310
1956-57 ..	131 522	131 619	43 793	552 880	633-20	18 620	9 563	4 733	18 436
1957-58 ..	141 285	142 083	37 153	593 628	662-00	19 541	10 333	4 948	19 721
1958-59 ..	145 360	147 414	41 442	635 404	690-00	20 435	11 060	4 848	21 080
1959-60 ..	160 555	161 177	43 432	678 210	717-50	22 297	11 971	5 478	22 535
1960-61 ..	172 559	170 182	44 739	722 038	743-20	23 425	13 076	(d)3 524	25 034
1961-62 ..	186 405	185 392	43 773	763 399	773-10	25 150	14 887	2 984	27 969
1962-63 ..	195 168	194 589	42 047	807 044	798-50	26 940	15 943	3 215	29 094
1963-64 ..	211 006	207 755	44 218	853 553	822-30	29 825	16 968	4 317	33 725
1964-65 ..	222 181	224 803	53 100	902 823	845-70	34 901	18 625	3 804	33 952
1965-66 ..	236 816	243 650	55 089	955 128	872-30	37 636	20 412	4 106	38 020
1966-67 ..	258 823	258 717	57 016	1 013 060	913-00	44 708	22 875	4 244	42 319
1967-68 ..	274 544	277 404	55 382	1 074 959	958-30	48 255	24 369	4 493	42 813
1968-69 ..	298 355	297 895	61 390	1 143 954	1 004-10	53 351	26 276	4 505	45 263
1969-70 ..	338 498	335 578	67 469	1 210 489	1 045-30	59 840	27 596	4 988	48 556
1970-71 ..	386 859	386 838	71 491	1 256 337	1 070-40	62 745	29 118	4 758	49 589
1971-72 ..	455 245	456 312	111 740	1 333 720	1 124-10	97 476	32 224	*	54 886
1972-73 ..	520 866	524 777	117 411	1 415 129	1 180-20	120 474	35 615	*	65 917
1973-74 ..	641 967	645 368	107 566	1 481 337	1 218-20	156 894	*	*	*

(a) Excludes all taxation paid to Special Funds. From 1966-67 the coverage of this item does not completely coincide with SA Treasury classifications. (b) Debt of Northern Territory and Port Augusta-Oodnadatta railway transferred to Australian Government. (c) Uniform taxation in force from 1941-42. (d) Excludes reimbursement for work done on behalf of Highways Department from 1961.

PRIVATE FINANCE

Year	Banking		Life Insurance		General Insurance Revenue (b)	Co-operative Societies (b)	Friendly Societies	Building Societies (b)	
	Trading Banks		Savings Bank Deposits at 30 June	New Policies Issued Sum Assured					Policies in Existence Sum Assured
	Advances (a)	Deposits (a)							
			\$'000			No. Members			
1846 .. ..		183							
1851 .. ..		426	29						
1856 .. ..		1 419	106						
1861 .. ..	2 864	1 480	243						
1866 .. ..	6 240	2 803	499						
1871 .. ..	5 715	3 043	982						
1876 .. ..	9 449	6 632	1 703						
1881 .. ..	13 483	9 885	2 499						
1886 .. ..	19 226	9 924	3 306						
1891 .. ..	16 297	15 550	4 316						
1896 .. ..	9 470	15 343	5 673						
1901 .. ..	8 546	13 437	7 591						
1906 .. ..	10 612	15 598	9 534						
1911 .. ..	16 970	22 257	14 872			10 248		9 572	
1916 .. ..	20 325	27 264	20 070			13 270	65 540	8 962	
1921 .. ..	27 296	44 199	32 635	6 000	40 272	28 762	70 155	10 621	
1926 .. ..	31 672	51 574	43 558	9 341	60 244	2 045	41 539	17 011	
1931 .. ..	44 119	44 956	42 844	6 266	65 016	1 627	45 791	(c) 14 081	
1936 .. ..	43 760	52 399	50 617	10 791	75 984	1 859	45 592	71 658	
1941 .. ..	39 547	64 182	55 019	11 416	101 825	2 643	n.a.	76 357	
1946 .. ..	31 560	93 397	131 729	22 805	147 230	2 705	70 620	80 419	
1947 .. ..	39 674	99 653	135 800	24 935	165 025	3 372	80 150	79 827	
1948 .. ..	39 585	119 859	147 226	26 555	183 753	4 371	84 470	78 246	
1949 .. ..	41 387	142 558	162 351	29 003	204 289	5 755	87 733	76 761	
1950 .. ..	50 412	159 136	175 390	33 076	227 616	7 312	92 066	75 168	
1951 .. ..	62 109	206 743	195 698	44 899	261 931	9 298	92 424	71 591	
1952 .. ..	89 163	214 630	207 452	48 475	298 494	12 370	96 134	67 563	
1953 .. ..	79 574	247 260	227 750	51 671	335 457	14 593	100 323	63 922	
1954 .. ..	95 968	250 802	245 898	59 540	377 093	16 165	107 069	61 345	
1955 .. ..	106 740	250 795	263 384	70 458	426 881	18 321	109 667	59 149	
1956 .. ..	108 515	241 044	271 512	75 301	477 554	20 590	114 018	57 216	
1957 .. ..	105 618	266 897	284 802	89 470	539 120	23 835	109 636	55 499	
1958 .. ..	125 971	262 700	297 716	94 137	599 723	24 656	(d)	54 181	
1959 .. ..	124 924	272 599	314 304	111 440	676 406	26 223	112 844	53 114	
1960 .. ..	149 172	265 498	331 996	131 951	756 581	27 975	116 645	52 239	
1961 .. ..	147 348	269 848	333 485	143 628	841 563	32 363	111 031	51 551	
1962 .. ..	152 545	277 431	361 980	157 636	955 426	33 740	116 405	51 198	
1963 .. ..	175 535	285 418	416 155	165 183	1 056 390	37 499	108 283	50 765	
1964 .. ..	193 251	311 208	475 803	197 790	1 161 986	41 695	113 224	50 946	
1965 .. ..	223 573	347 045	519 268	215 946	1 294 450	45 433	115 828	51 258	
1966 .. ..	258 447	362 905	558 857	239 250	1 439 083	50 121	(e)116 615	51 109	
1967 .. ..	284 271	372 985	605 167	279 996	1 618 112	56 114	125 638	51 001	
1968 .. ..	321 892	390 110	643 690	301 602	1 807 040	59 981	125 385	51 070	
1969 .. ..	354 782	405 666	691 778	347 048	2 031 479	65 354	126 529	50 880	
1970 .. ..	374 575	424 017	733 100	437 699	2 313 244	70 640	123 263	50 796	
1971 .. ..	396 183	431 863	787 901	525 879	2 667 651	76 020	124 021	50 488	
1972 .. ..	419 682	469 983	874 138	586 663	3 053 169	89 173	123 755	50 077	
1973 .. ..	470 070	563 670	1 060 425	*	*	98 678	121 893	50 664	
1974 .. ..	585 505	749 182	1 174 813	*	*	*	*	50 779	

(a) Until 1961, average of balances at close of business on Wednesdays during the June quarter of the year stated. From 1962, average of balances at close of business on Wednesdays during the year ended 30 June of the year stated. (b) Year ended 30 June. (c) Membership at 30 June from 1932; previously 31 December. (d) Balance dates of societies do not coincide; from this year figures are aggregates of members at balance dates within the year ended 30 June. (e) Figures from 1966 have been revised because of a redefinition of Co-operative Societies, and details for years before 1966 are not comparable.

## APPENDIX B

# PRINCIPAL EVENTS

### CHRONOLOGICAL LIST OF IMPORTANT EVENTS IN SOUTH AUSTRALIA SINCE 1836

- 1836**—First migrants landed at Kangaroo Island on 20 July. First South Australian newspaper published in London. Colony's first school opened on Kangaroo Island. The Surveyor-General, Col Light, arrived in November and commenced survey of Adelaide. Governor Hindmarsh arrived in HMS *Buffalo* and proclaimed South Australia a Province on 28 December.
- 1837**—Col Light completed survey of Adelaide and designed the city's present layout. First Adelaide land allotments made. First newspaper published in South Australia. South Australian Supreme Court established. First hospital opened in North Terrace, Adelaide.
- 1838**—First overland cattle and sheep drives from New South Wales. First export from South Australia, a small clip of wool, dispatched. First German settlers under the leadership of Pastor Kavel arrived in South Australia. Formation of first police force.
- 1839**—Col Light died at Thebarton and buried in Light Square. First road in South Australia built between Adelaide and Port Adelaide. Adelaide Chamber of Commerce founded.
- 1840**—Eyre started overland journey to Western Australia. The Municipality of Adelaide incorporated, the first in Australia. McLaren Wharf, Port Adelaide, opened by Governor Gawler.

- 1841—First South Australian mine (silver-lead) opened near Glen Osmond. Assisted migration suspended because of depression. Following financial crisis Governor Gawler recalled and succeeded by Governor Grey. Eyre arrived at Albany in Western Australia.
- 1842—Registration of births, deaths and marriages commenced. Portions of South Australia divided for first time into counties. Copper discovered at Kapunda. Legislative Council constituted. The South Australian Board of Colonisation Commissioners abolished by the British Government.
- 1843—Stripper invented by Ridley. A flour mill built at Hindmarsh.
- 1844—First Colonial Census held, and showed a population of 17 366.
- 1845—Copper discovered at Burra. Sturt explored the north-eastern part of the State. Gold found in South Australia, near Montacute. Assisted migration resumed.
- 1846—First pastoral leases granted.
- 1847—First winery in the Barossa Valley commenced operation. St Peters College established.
- 1848—Opening of The Savings Bank of South Australia. First ferry across the River Murray commenced operations at Wellington.
- 1849—The Central Board of Main Roads established.
- 1850—An Act granting representative government to South Australia passed by the British Parliament.
- 1851—The Central Board of Education established.
- 1852—First overland gold escort arrived in Adelaide.
- 1853—W. R. Randell's *Mary Ann* and Francis Cadell's *Lady Augusta* initiated the navigation of the Murray.
- 1854—State's first railway (horse-drawn) built from Goolwa to Port Elliot.
- 1855—First South Australian postage stamps issued.
- 1856—First telegraph line opened from Adelaide to Port Adelaide. The new Constitution Act embodying the principle of responsible government proclaimed; it provided for Parliament to consist of two Houses; a Legislative Council and a House of Assembly. First steam railway from Adelaide to Port Adelaide constructed. Population of the State passed 100 000.
- 1857—Railway to Smithfield and Gawler opened.
- 1858—The Real Property Act, which embodied the principles of conveyancing formulated by Torrens, came into operation. First telegraph line to Melbourne opened.
- 1859—A jetty over 350 metres in length constructed at Glenelg. Copper discovered at Wallaroo.

- 1860**—Water supplied to the City of Adelaide by means of a main connected with the reservoir at Thorndon Park.
- 1861**—Copper discovered at Moonta. Water laid on to houses in Adelaide. John McDouall Stuart set out to cross the continent from south to north. The South Australian boundary shifted west to coincide with the boundary of Western Australia.
- 1862**—Stuart reached Chambers Bay on the coast of the Northern Territory.
- 1863**—Administration of the Northern Territory taken over by South Australia. Shops of Adelaide lit for the first time with gas.
- 1865**—Annual leases of pastoral lands sold by auction for first time. The Bank of Adelaide founded.
- 1866**—Camels for the purpose of exploration introduced by Sir Thomas Elder. The Adelaide Town Hall opened.
- 1867**—Visit of Alfred, Duke of Edinburgh, who laid the foundation stone of the General Post Office.
- 1869**—Foundation stone of St Peters Cathedral laid. Prince Alfred College opened. Adelaide Chamber of Manufactures founded.
- 1870**—Construction of the transcontinental telegraph from Port Darwin commenced. John Forrest and party made first of two journeys of exploration from Perth.
- 1872**—Transcontinental telegraph from Port Darwin completed and first direct telegram from London received.
- 1873**—Eight-hour working day adopted. First Health Act, establishing a Central Board of Health, passed.
- 1874**—The University of Adelaide founded.
- 1875**—The State Education Act passed. First Forestry Board established.
- 1876**—Telegraph communication with New Zealand established. The Smith brothers invented the 'stump jump' plough. South Australia became first State to give legal recognition to trade unions.
- 1877**—Overland telegraph line from Port Augusta to Eucla completed and first telegram from Perth transmitted. The Adelaide Bridge completed.
- 1878**—Provisions of the Education Act relating to compulsory school attendance brought into force in the Adelaide school district. First tramway (horse-drawn) in any Australian city commenced carrying passengers to Kensington and North Adelaide. The State's population passed 250 000.
- 1879**—Foundation stone of the Adelaide University laid. First bridge across River Murray in South Australia opened at Murray Bridge.
- 1881**—First reclamation of swamp areas of River Murray. Art Gallery opened by His Royal Highness Prince Albert Victor. Construction of the weir which created the Torrens Lake completed.

- 1882—Fire Brigades Board established.
- 1883—The Telephone Exchange commenced operations. Roseworthy Agricultural College opened to students.
- 1884—Largs Bay Fort opened. Adelaide Trades and Labor Council, the first delegates society, inaugurated.
- 1885—Broken Hill silver mines opened. Column erected on Mount Lofty summit as a prominent landmark for mariners.
- 1887—Act authorising payment to members of Parliament passed. Renmark Irrigation Colony established. First express trains ran between Adelaide and Melbourne. The Jubilee Exhibition opened. Stock Exchange of Adelaide formed by amalgamation of Adelaide Stock Exchange and Stock Exchange of South Australia.
- 1888—Totalisator legally authorised by an Act of Parliament.
- 1889—The School of Mines and Industries opened. Smelting of silver-lead ore from Broken Hill commenced at Port Pirie.
- 1890—First South Australian built locomotive completed.
- 1892—Education made free to the compulsory age, and standard.
- 1894—Act granting the franchise to women passed. Inauguration of industrial arbitration by the establishment of Boards of Conciliation.
- 1896—State Bank of South Australia opened. Women voted for the first time at the general election. Happy Valley Reservoir opened. One of Adelaide's most severe droughts commenced, and continued for several years.
- 1899—Second referendum concerning the establishment of Federation held. In South Australia, 65 990 electors voted for Federation and 17 053 against. First military contingent left South Australia for the Boer War.
- 1900—Adelaide lit for the first time with electric light. The Commonwealth of Australia Constitution Act received Royal Assent and a Proclamation was issued uniting the States as the Commonwealth of Australia as from 1 January 1901. Conservatorium of Music opened. First Workmen's Compensation Act passed.
- 1901—Early closing of shops introduced. First Australian Parliament elected. The Duke and Duchess of York arrived in the *Ophir*. The *Customs Act* came into force. The Electric Light Works was opened. Iron Knob connected to Whyalla by railway.
- 1902—Flinders column, at Mount Lofty, dedicated to the public by the Governor, Lord Tennyson.
- 1905—First kindergarten in South Australia opened.
- 1906—Military cadet system inaugurated.
- 1907—High schools were established in a number of country centres. Municipal Tramways Trust incorporated. First Federal basic wage judgment—the 'Harvester' award—made.

- 1908—Penny savings bank accounts for children established. The Outer Harbor opened. Adelaide High School established.
- 1909—Adelaide electric tramways commenced operations. Payment of age pensions by the Australian Government commenced.
- 1910—Payment of invalid pensions by the Australian Government commenced. First recorded monoplane flight in Australia made by F. C. Custance at Bolivar.
- 1911—'Penny Postage' to all parts of the British Empire introduced. The Federal Defence Act came into operation. Administration of the Northern Territory transferred to the Australian Government.
- 1913—Medical inspection of school children introduced. Commonwealth Bank formally opened. Metropolitan Abattoirs established.
- 1914—First South Australian military expeditionary force embarked at Outer Harbor. South Australia experienced its most severe drought.
- 1915—Prices of commodities fixed by a commission. A referendum approved the closing of liquor bars at 6 p.m. Women appointed as justices of the peace for the first time. First shipment of iron ore made from Whyalla to steelworks in Newcastle. First women police appointed. Opal discovered at Coober Pedy.
- 1916—Referendum proposing compulsory military service abroad defeated. First Public Service Commissioner appointed. First State living wage with general application declared.
- 1917—German private schools in South Australia were closed. East-West trans-continental railway completed and the first train ran to Perth. Mr. R. G. Carey, in a Bleriot 60, made the State's first airmail flight from Enfield to Gawler.
- 1919—Captain Butler flew from Adelaide across Gulf St Vincent carrying air mail to Minlaton. Soldier Settlement Bill passed by the South Australian Parliament. First Lord Mayor of Adelaide elected.
- 1920—Sir Ross Smith and party arrived at Adelaide by non-stop flight from Melbourne. Peace Exhibition held at the Jubilee Exhibition buildings. The Prince of Wales visited South Australia.
- 1921—The State's population passed 500 000.
- 1922—First lock on the River Murray completed and opened at Blanchetown.
- 1923—The Government approved an extensive re-organisation of the railway system.
- 1924—Public Debt Commissioners were appointed. Air mail between Adelaide and Sydney inaugurated. Waite Agricultural Research Institute established. First radio stations commenced broadcasting.
- 1925—Show Grounds at Wayville opened. The first Federal election at which voting was compulsory took place. Foundation stone of Adelaide Teachers Training College laid.

- 1926—The South Australian barley exhibit won all prizes at the Brewers Exhibition in London. The State Bank opened for general banking business. Construction of a narrow gauge railway from Oodnadatta to Alice Springs approved. State petrol tax declared invalid following an Australian Government writ against the State.
- 1927—Extension of the North-South railway commenced. The first train arrived at Renmark following the opening of the Paringa Bridge. The Duke and Duchess of York arrived in South Australia.
- 1929—The first air mail left Adelaide for Perth. The first train to Alice Springs left Adelaide. Compulsory military training abolished and replaced by a voluntary system. Electric tram service to Glenelg commenced.
- 1930—All officers of the South Australian Public Service over the age of sixty-five years were compulsorily retired. The South Australian basic wage was reduced by 18c to \$1.25 a day. Transport Control Board, State Finance Committee and Unemployed Relief Council established.
- 1931—City Bridge opened. Financial Plan formulated at the Premiers' Conference adopted and Financial Emergency Act passed. Federal basic wage reduced by 10 per cent for twelve months but was to be adjusted in accordance with a retail price index. State basic wage reduced from \$1.25 to \$1.05 a day. Basic wage for females reduced, first from \$3.95 to \$3.50 and later to \$3.15 a week.
- 1932—Boundaries and names of a number of local government areas changed and others abolished following the report of a commission.
- 1933—The Farmers Assistance Board, the Betting Control Board and the Metropolitan and Export Abattoirs Board established.
- 1934—Water restrictions in force from May until the following January.
- 1935—The Nomenclature Act of 1935 restored the former German names to a number of towns, the names of which had been changed in 1917.
- 1936—Centenary year of the State's foundation celebrated. Contract signed for the completion of Parliament House and the foundation stone laid by the Governor, Sir Winston Dugan.
- 1937—South Australian Housing Trust established. New Federal basic wage of \$7.40 per week which incorporated a 'prosperity' loading declared. First trolley bus service inaugurated. Mount Bold reservoir with a capacity of 30 000 megalitres filled, almost doubling Adelaide's water storage. Schools closed and other precautions taken as a result of an epidemic of poliomyelitis.
- 1938—First South Australian Housing Trust dwelling completed.
- 1939—State's worst heat wave and disastrous bush fires experienced during the first two months of the year. Record high temperature of 47.6°C recorded in Adelaide. New Parliament House opened by His Excellency the Governor-General, Lord Gowrie.
- 1940—Goolwa Barrage completed at a cost of \$1 400 000. Birkenhead Bridge opened. A rapid development of secondary industry took place as munition annexes were added to existing factories and new factories were opened.



- 1941**—Scriptural instruction in State schools commenced. First naval vessel built in South Australia launched. First blast furnace to be built at Whyalla went into operation. Child endowment payments inaugurated. Pay-roll tax commenced.
- 1942**—Daylight saving of one hour introduced for almost three months. Wages and prices pegged and profits and interest rates restricted. Racing and bookmaking prohibited. Rationing of tea and clothing commenced. Widows pensions instituted. The uniform Income Tax Act came into force. First coal obtained from Leigh Creek.
- 1943**—Price stabilisation legislation came into force. Butter rationing commenced. Wage and price subsidies were introduced and the prices of tea, potatoes and other commodities were reduced in order to bring price indexes and wages to a lower level. Racing resumed but betting shops remained closed.
- 1944**—Rationing of meat began. Morgan-Whyalla pipeline officially opened. The first State election with compulsory voting took place. Severe water restrictions imposed. First output of Leigh Creek coal for electricity generation.
- 1945**—Unemployment and sickness benefits came into operation. Restrictions imposed on the use of gas and electricity for domestic and industrial purposes.
- 1946**—Australian Government munition factories taken over by various private firms. Payment of government subsidies to hospitals commenced. Restrictions on the use of gas and electricity again imposed. The Electricity Trust of South Australia took over the property and functions of the Adelaide Electric Supply Co.
- 1947**—Fruit fly detected in metropolitan orchards and efforts made to eliminate it by stripping gardens and orchards. Sugar rationing abolished. Conciliation commissioners appointed following an amendment to the Federal Conciliation and Arbitration Act. Severe restrictions imposed on imports from North America.
- 1948**—Restrictions on the use of gas and electricity imposed on a number of occasions during the year because of the shortage of coal. Preparation of the Woomera rocket range commenced. Forty hour working week introduced by Arbitration Court award. Serious bush fires occurred in January. Severe storms during April resulted in widespread damage including the destruction of the Glenelg jetty. The free medicine scheme came into operation. Clothing and meat rationing abolished. Full-scale production of the 'Holden' car commenced.
- 1949**—Petrol rationing by the Australian Government declared illegal but resumed later in the year under a State Act. An extended national coal strike occurred. Water pipeline to the Woomera rocket range completed. The Australian and South Australian Governments ratified an agreement for the standardisation of railway gauges.
- 1950**—Petrol, butter and tea rationing discontinued. Federal free drugs scheme came into operation. Water restrictions imposed in December and remained in force until June 1951.

- 1951—Serious bush fires occurred in January. Wool prices reached a record high level. Distribution of free milk to school children introduced.
- 1952—The hospital benefits scheme came into operation. Price control on clothing removed in South Australia. Severe import restrictions gazetted. Installations for the bulk handling of grain opened at Ardrossan. Compulsory chest X-rays introduced.
- 1953—Remaining controls on building removed. Port Pirie became the first country town to be proclaimed a city. The medical benefits scheme came into operation. Automatic quarterly cost-of-living adjustments to the basic wage discontinued. Size of the State Cabinet increased from six to eight Ministers.
- 1954—A severe earthquake occurred in Adelaide on 1 March. Her Majesty Queen Elizabeth II visited South Australia. First unit of Port Augusta power station opened. Construction of dwellings in Elizabeth commenced. Water from the River Murray pumped into metropolitan reservoirs through the Mannum pipeline.
- 1955—Adelaide Airport at West Beach opened. The new satellite town at Elizabeth officially opened.
- 1956—River Murray flooded for several months and caused considerable damage in irrigation and reclaimed areas. Town Planning Committee established. Atomic device exploded at Maralinga. Salk poliomyelitis vaccination program commenced.
- 1957—Centenary of responsible government in South Australia celebrated. Long service leave legislation passed by the South Australian Parliament.
- 1958—Visit of Queen Elizabeth the Queen Mother, to South Australia. Introduction of parking meters to Adelaide. South Para reservoir opened and connected to Adelaide water supply. Final run by a street tram in Adelaide, following conversion to diesel bus transport.
- 1959—South Australia ceased to be a claimant State for special grants from Grants Commission. Full-scale television transmission commenced. Sir Thomas Playford created record term as Premier in a British country (26 years 125 days). Aborigines became eligible for age, invalid and widows pensions.
- 1960—First Adelaide Festival of Arts held (March 12-26). Completion of second unit and formal opening of Thomas Playford power station at Port Augusta.
- 1961—First United Kingdom Trade Commissioner appointed to South Australia. Compulsory driving tests introduced. The trailer ship *Troubridge* made its first run from Port Adelaide to Kingscote and Port Lincoln. Sturt's Desert Pea declared State's official floral emblem.
- 1962—Myponga Reservoir completed and linked to Happy Valley Reservoir. Duplication of Morgan-Whyalla pipeline commenced.

- 1963**—Population of the State passed 1 000 000 mark. Port Stanvac oil refinery 'on stream'. School leaving age increased to fifteen years. Three weeks annual leave for employees governed by State awards and determinations introduced. First direct dialling for an overseas telephone call from South Australia. Major gas flow from Gidgealpa No. 2 well. Royal visit by Her Majesty, Queen Elizabeth II.
- 1964**—Work commenced on conversion of Port Pirie-Broken Hill railway to standard gauge. First gas from Port Stanvac refinery piped for use in Adelaide's gas supply. Record wind gust (148 km/h) and all-time low barometric reading (985 mb) registered at Adelaide on 12 July. New world land speed record set by Donald Campbell on Lake Eyre.
- 1965**—Election of first Labor State Government since 1933. First country television station opened at Port Pirie. Steel works including a basic oxygen steel making plant opened at Whyalla. First tenders let for Torrens Island power structure. First woman judge in Australia appointed to Supreme Court of South Australia. Size of the State Cabinet increased from eight to nine Ministers.
- 1966**—Women sworn in for jury service for the first time. The Flinders University of South Australia at Bedford Park officially opened by Queen Elizabeth, the Queen Mother. Second major natural gas strike in Gidgealpa area. New outlet tunnel 2 700 metres long from Happy Valley Reservoir completed. ELDO rocket Europa-1 launched at Woomera. Industrial Commission of SA replaced the SA Board of Industry.
- 1967**—Totalizator Agency Board operated off-course in South Australia for the first time. First South Australian lottery drawn. Federal Basic Wage superseded by Total Wage concept. Liquor trading hours extended to 10 p.m. WRESAT-1, first Australian orbital satellite launched from Woomera. New record low annual rainfall for Adelaide (257 mm). Torrens Island power station commenced operations. First off-shore drilling rig—*Ocean Digger*—constructed and launched at Whyalla.
- 1968**—State elections held, Labor Government returned but subsequently defeated on the floor of the House at the first meeting of the new Parliament. New Liberal Premier, Mr. R. S. Hall sworn in. Four weeks leave for State Government employees introduced. Construction commenced on State's first satellite communications station at Ceduna. Legal drinking age lowered from twenty-one to twenty. Sealed highway from Broken Hill to Adelaide opened. Sir James Harrison first Australian-born Governor of South Australia sworn in.
- 1969**—Work begun on second major pipeline to bring River Murray water to Adelaide. Forty-first Congress of the Australian and New Zealand Association for the Advancement of Science held in Adelaide. Electricity Trust signed \$120 million contract for supply of natural gas. Natural gas flowed through completed 832 kilometre pipeline from Moomba-Gidgealpa to Adelaide.

- 1970**—Bulk carrier of 57 000 tonnes the *Yarra River*, the fiftieth ship to be built at Whyalla since 1941, launched. Abortion law reformed in South Australia. Standard gauge working on new line between Port Pirie and Broken Hill begun. First direct telecast from England to Australia via satellite. Plans announced for Australian Mineral Foundation at Glenside after a \$1 million gift. Hall LCL Government defeated on vital issue and Dunstan ALP Government elected at subsequent general election. Hairy-nosed wombat adopted as State's faunal emblem. Ministry increased by one to ten members.
- 1971**—Fluoridation of Adelaide Water Supply commenced. Agreement for supply of natural gas to Sydney from South Australian gas fields finalised. Age of majority reduced from twenty-one to eighteen. Ministry of Environment and Conservation created. Daylight saving introduced in South Australia for the first time since the 1939-45 War. Agreement to build Dartmouth Reservoir ratified by SA Parliament. Plans announced for development of Patchawarra oil field estimated cost of \$200 million including pipelines to Adelaide and Sydney. Death of SA Governor Sir James Harrison in office and Sir Mark Oliphant, the first SA born Governor, sworn in. Wearing of seat belts in motor vehicles made compulsory.
- 1972**—Seventh Festival of Arts held in Adelaide. Plans announced for creation of new city of more than 100 000 people near Murray Bridge. Plans announced for the sealing of the Eyre Highway from Penong to the WA border. New laws regulating door-to-door selling and used car dealing introduced. The *Clutha Capricorn* of 80 500 tonnes, the largest ship ever built in Australia, launched at Whyalla. Plans to filter Adelaide's water supply at a cost of \$35 million announced. University of Adelaide's educational radio station VL5UV commenced broadcasting. Weather temperature reports changed to degrees Celsius. Daylight saving re-introduced for 1972-73 and subsequent summers. South Australian Film Corporation commenced operation. South Australia's first ombudsman appointed.
- 1973**—New long service leave provision for three months leave after ten years service came into force. Plans announced for the building of a new \$40 million lubrication oil refinery at Port Stanvac. Work begun on \$62 million Dartmouth dam project. New \$11 million hospital opened at Modbury. New 240 metre, \$3.5 million bridge across the River Murray at Kingston opened. Dunstan ALP Government returned at State election to become the first ALP Government to retain office after a general election in South Australia since 1910. Cross Lotto game introduced by State Lotteries Commission. Lake Eyre filled with water for the first time since 1950 because of floodwaters in the north of the State. Legislation enacted for the creation of a Land Prices Commission with the power to freeze the price of any property. \$6.6 million Adelaide Festival Theatre opened by the Prime Minister. Legislation enacted for adult franchise and proportional representation for the Legislative Council. Australian Government aid to Independent Schools in South Australia increased by 45 per cent to \$9.75 million

- 1973** (*continued*)—for 1974 and 1975. Tenders called for the sealing of the last 90 kilometres of the Eyre Highway. Compulsory blood tests for road accident victims introduced. World record price of \$36 000 paid for Merino stud ram at Royal Adelaide Show. South Australian Ministry increased from ten to eleven and Ministry of Sport and Recreation created. \$50 note issued for first time. Bill passed in State Parliament for extensive improvement in workers' compensation benefits. Australian Government took over responsibility for Aboriginal Affairs from South Australian Government.
- 1974**—World Gliding Championships held at Waikerie. Fire at Berri winery caused \$4 million damage. Prince Philip, the Duke of Edinburgh, visited South Australia. University of Adelaide celebrated its centenary. Eighth Festival of Arts held in Adelaide. Prime Minister opened new \$4·8 million Australian Broadcasting Commission complex at Collinswood. Police dog patrols commenced. Plans announced for building of \$2·8 million boat harbour at Taperoo. Building and conversion program to provide forty new pre-schools commenced. New \$2 million Western Community Hospital opened at Henley Beach. First match held at the new South Australian National Football League headquarters at West Lakes. Tree planting ceremony held at Monarto, at which the Governor, Sir Mark Oliphant, planted the first of 5 million trees to be planted in the area. Australian Government agreed to provide \$22 million for the sealing of a new two-lane highway between Port Augusta and Alice Springs. Conversion of road signs to metric measurements undertaken. New development plan for Adelaide released. Judgment handed down making four weeks annual leave standard for workers under State awards. State primary schools began a new program of continuous admission of children on their fifth birthday. New State taxes on petrol and tobacco announced. Playhouse, Space and Amphitheatre at the Adelaide Festival Centre opened. General Motors-Holden's announced a \$15 million expansion plan for its Elizabeth plant. Report released recommending expenditure of \$11 million on improvements to the Adelaide Metropolitan Area coastline. Legislation allowing hotel trading to 12 midnight on Fridays and Saturdays came into force. Australian Government grants of \$55·1 million for South Australian roads announced for the first six months of 1975.
- 1975**—Phase I of \$54 million Flinders University Medical Centre opened. Transmission of television in colour commenced. Plans announced for a \$3 million rental housing project at West Lakes. Work began on \$140 million Tarcoola-Alice Springs rail link. International Equestrian Exposition 1975 held in Adelaide and attended by Her Royal Highness, Princess Anne. Plans announced for rebuilding of Aboriginal township of Point Pearce on Yorke Peninsula. Construction of \$5·4 million Regency Park Centre for crippled children commenced. Plans announced for the building of a new meteorological centre at Kent Town. A \$15 million tourist resort planned for Second Valley near Normanville. State Election held on 12 July, after the Legislative Council failed to pass the Railways (Transfer Agreement) Bill; the Dunstan ALP Government was returned with a reduced majority and the Bill was subsequently passed. Medibank commenced operations in South Australia.

APPENDIX C

RECENT INFORMATION

In this section details are given of some important developments which have occurred recently. More up-to-date statistics than those shown in this volume are regularly incorporated in various statistical publications as they become available. A List of Publications is included on page 757.

PART 3—CONSTITUTION AND GOVERNMENT

*South Australian Elections and Party Representation* (pages 85-8)—Following the rejection by the Legislative Council of the Railways (Transfer Agreement) Bill which had been passed in the House of Assembly, a general election was held on 12 July 1975. At this election eleven Legislative Council seats and all forty-seven House of Assembly seats were contested. After the election, party representation in each House was as follows:

Legislative Council	
Australian Labor Party . . . . .	10
Liberal Party of Australia . . . . .	9
Liberal Movement . . . . .	2
Total . . . . .	<hr/> 21
House of Assembly	
Australian Labor Party . . . . .	23
Liberal Party of Australia . . . . .	20
Liberal Movement . . . . .	2
Australian Country Party . . . . .	1
Independent . . . . .	1
Total . . . . .	<hr/> 47

The Dunstan Labor Government retained office with a reduced majority.

**PART 7—LABOUR**

*National Wage Case 1975* (pages 342-4)—The Australian Conciliation and Arbitration Commission decided to adjust all ordinary award rates and rates for leading hands by the 3·6 per cent increase which occurred in the Consumer Price Index (CPI) during the March 1975 quarter. The increases operated from the beginning of the first pay period which commenced on or after 15 May 1975 and were to continue to operate for a period of three months therefrom.

This was regarded as the first step towards wage indexation. Although not confident of the success of wage indexation, the Commission outlined principles for its implementation and said they would hear submissions on these principles when they sat again following publication of the June 1975 quarter CPI in July 1975. The basic principle is that the Commission will adjust its award wages and salaries each quarter in relation to the most recent movement of the six-capitals CPI. It was emphasised that the ultimate success or failure of wage indexation would rest heavily on the extent to which unions, employers and the public at large were prepared to accept and support the principles set out by the Commission.

The Commission also approved an increase in the male minimum wage of \$4 a week bringing it to \$79·60. This was inclusive of the increase on account of the March 1975 quarter CPI movement. The female minimum wage was raised accordingly to maintain it at 90 per cent of the male rate.

**PART 10—COMMERCE**

*Communication* (pages 582-9)—From 1 July 1975, the Australian Post Office ceased to exist. Its functions have been taken over by two commissions, the Australian Postal Commission and the Australian Telecommunications Commission. The Postal Commission handles all matters relating to postal services, and the Australian Telecommunications Commission deals with telephones, telegraphs and other telecommunications.

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Flora: T. N. Lothian; 1967, 23-7.

Droughts in South Australia: Director and staff members of Bureau of Meteorology; 1967, 7-10.

Flinders University of South Australia: Vice-Chancellor and staff members of Flinders University; 1967, 163-8.

The Wine Industry of South Australia: J. C. M. Fornachon and E. W. Boehm; 1968, 376-95.

Soils of South Australia: K. C. Northcote and J. A. Beare; 1969, 21-31.

Weapons Research Establishment: Director and staff members of Weapons Research Establishment; 1969, 184-92.

Aboriginal Relics: Robert Edwards; 1969, 201-8.

Geology of South Australia: N. H. Ludbrook and R. K. Johns; 1970, 3-18.

Mammals of South Australia: P. F. Aitken; 1970, 42-9.

Freshwater Fish of South Australia: C. J. M. Glover and W. G. Inglis; 1971, 27-34.

Birds of South Australia: H. T. Condon; 1972, 28-40.

Reptiles of South Australia: T. F. Houston; 1973, 32-42.

Fossils of the Flinders and Mount Lofty Ranges: N. S. Pledge; 1974, 31-44.

The University of Adelaide 1874-1974: Vice-Chancellor and staff members of the University of Adelaide; 1974, 198-212.

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