

South Australian Year Book



1974

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SOUTH AUSTRALIAN
YEAR BOOK

1974



Malcolm Harrington

His Royal Highness Prince Philip, the Duke of Edinburgh, KG, KT, OM, GBE, PC, delivering a Centenary oration after his admission to the degree of Doctor of Science at a Special Congregation in the Festival Theatre on 2 March 1974, to mark the opening of the Centenary celebrations of The University of Adelaide

*South
Australian
Year Book*

No. 9 : 1974

D. L. J. AITCHISON

*Deputy Commonwealth Statistician
and Government Statist*

AUSTRALIAN BUREAU OF STATISTICS
SOUTH AUSTRALIAN OFFICE

In compliance with the now accepted practice by governments in Australia, this Year Book is printed in the international paper size A5. This change together with the adoption of a different class of paper has resulted in a more compact volume with little change in total content or table format.

With conversion to the metric system of measurement being well-advanced in the community, all such measures in this issue have been converted—a table showing the imperial equivalents is included following the Table of Contents.

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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 ninth issue of the Year Book, includes special articles on the Fossils of the Flinders and Mount Lofty Ranges, and the University of Adelaide 1874-1974. Other items of special interest are Further Education, National Apprenticeship Assistance Scheme, Health Insurance cover of population, Surveys on Assisted and Unassisted Migrants, Labour Mobility, Labour Force experience during 1972 and Child Care, Motor Vehicle Usage 1971, the World Gliding Championships, and the composition of the Australian Government Ministry following the May 1974 election. 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 719.

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 Commonwealth 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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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) or 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, 1967-1973.*

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 Office and for aircraft flight forecasts provided by the Adelaide Airport meteorological office. 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

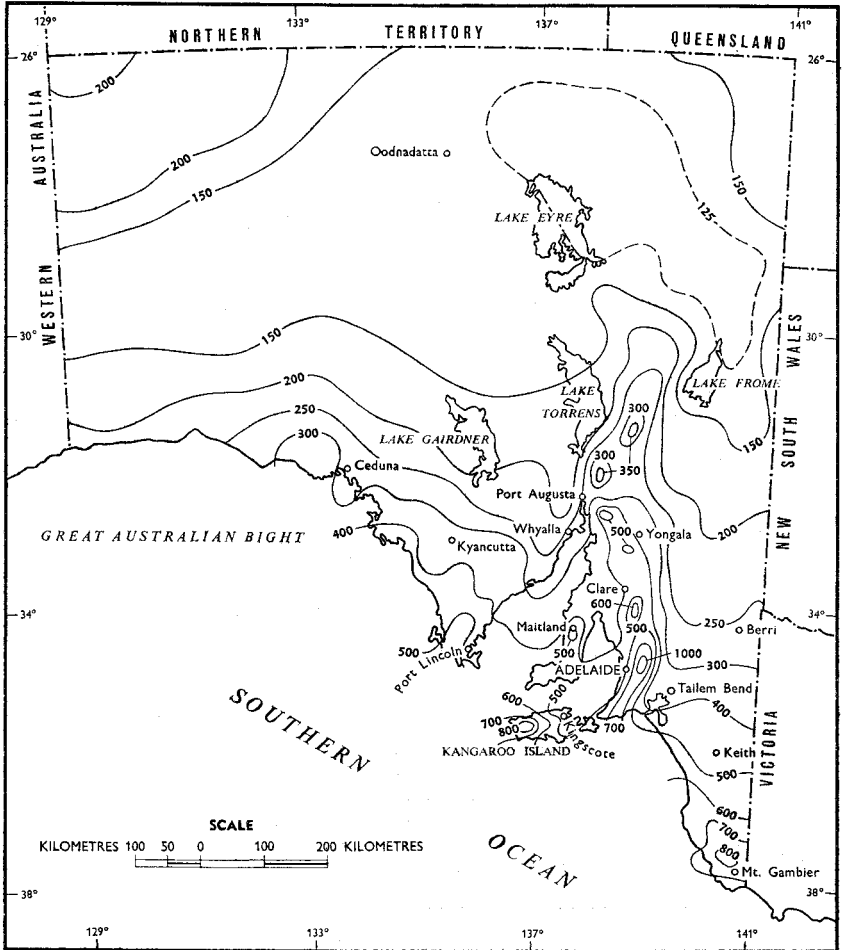
Average Annual Rainfall	Proportion of Total Area	
	South Australia	Australia
	Per cent	Per cent
Under 250 mm	82.6	38.8
250 mm and under 400 mm	9.1	19.8
400 mm and under 500 mm	4.5	11.2
500 mm and under 600 mm	2.6	9.5
600 mm and under 750 mm	0.8	7.5
750 mm and under 1 000 mm	0.4	6.2
1 000 mm and over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

(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	19	20	24	44	69	72	66	62	51	44	31	27	529
Berri	17	22	12	17	28	26	24	27	27	24	20	19	262
Ceduna	12	16	19	22	40	40	41	38	26	25	21	22	319
Clare	25	26	25	48	75	80	81	80	71	54	36	30	628
Keith	18	23	21	35	56	52	54	56	51	42	32	27	466
Kingscote	15	18	18	37	60	74	78	64	46	36	24	19	490
Kyancutta	12	18	14	21	36	40	43	42	31	25	23	20	326
Maitland	18	22	20	44	64	69	66	63	50	42	28	22	507
Mt Gambier	32	29	36	63	85	96	107	100	77	63	46	41	776
Oodnadatta	16	25	15	8	16	12	10	8	9	8	9	12	146
Port Augusta	20	19	12	18	23	20	22	22	27	16	16	17	227
Port Lincoln	14	15	19	37	57	74	78	67	49	35	23	18	486
Port Pirie	18	19	18	29	40	42	32	36	34	30	23	21	338
Stirling	39	38	43	97	144	176	163	156	122	96	62	50	1 186
Tailem Bend	18	23	21	28	43	40	40	41	39	35	29	28	381
Whyalla	19	23	17	18	26	25	22	25	24	23	22	21	264
Yongala	20	21	16	26	36	41	40	46	38	32	27	24	364
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	4	5	10	14	16	19	18	13	11	8	7
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
Mt Gambier	7	8	9	14	17	18	21	20	17	16	13	10	170
Oodnadatta	3	2	2	2	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
Tailem 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 1972. (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 thunder-storm 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 (18 February 1946)	199 mm
Hesso (18 February 1946)	187 mm
Wilmington (1 March 1921)	181 mm
Wynbring (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 127 days of snow experienced over a period of 132 years to the end of 1972. 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. Tornadoes 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.

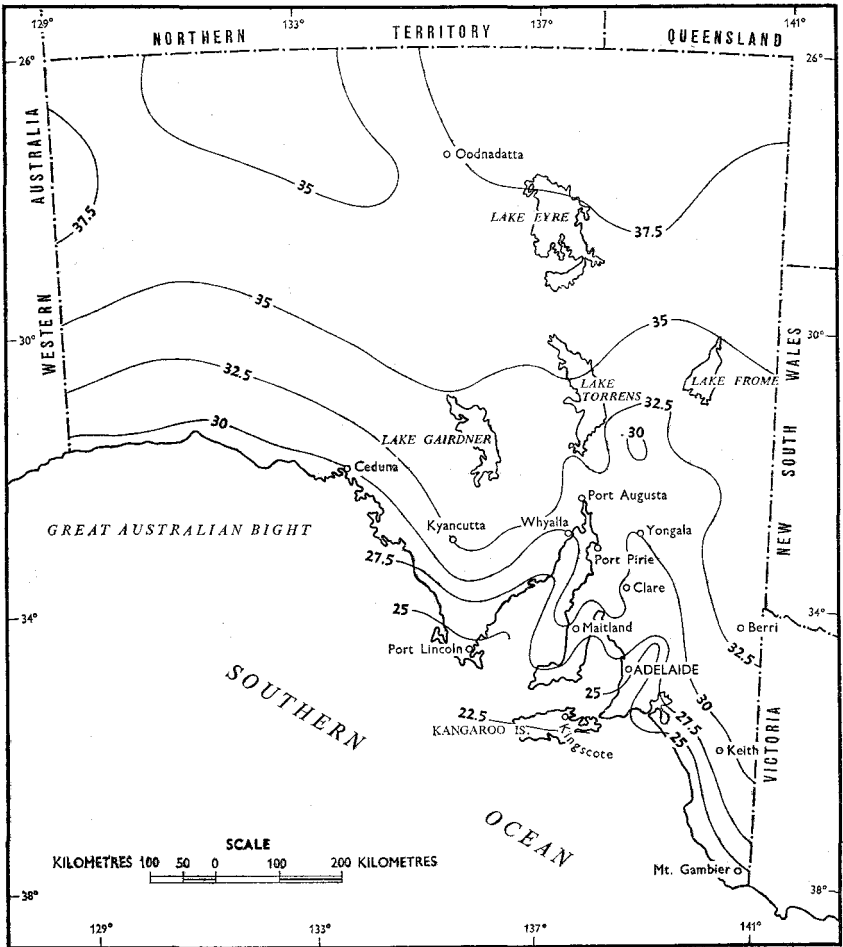
From December to February it is generally warm to hot throughout the State but sea breezes frequently bring some relief to the coastal districts. In locations more than 75 kilometres inland maximum daily temperatures usually exceed

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

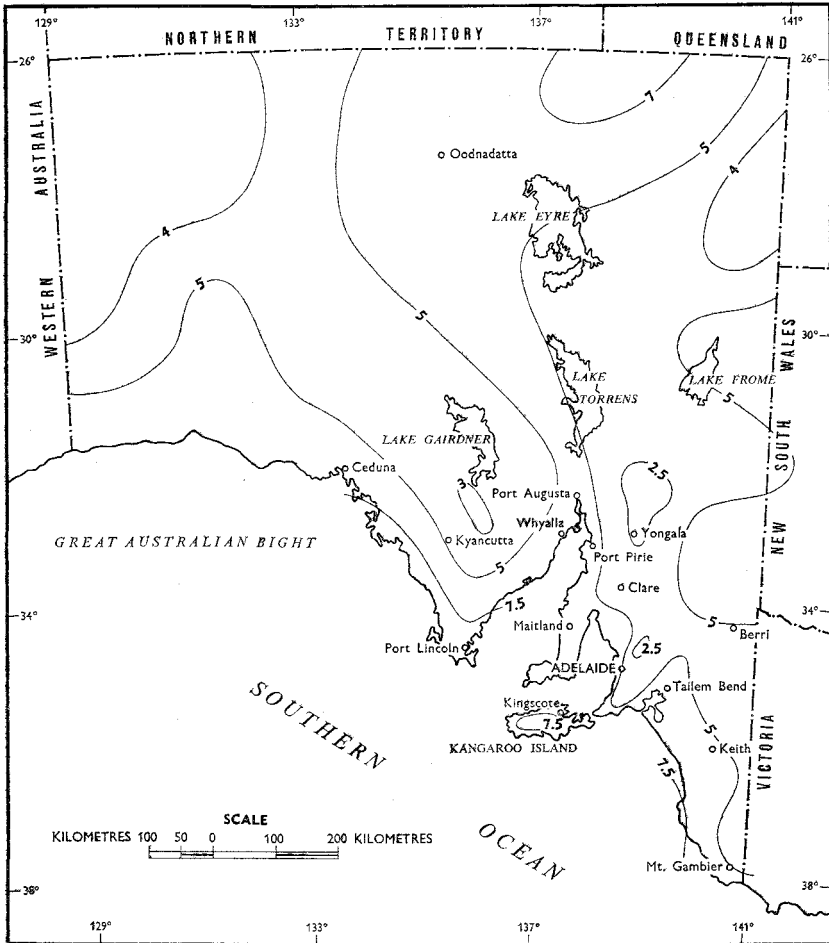
Isotherms in ° Celsius



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 affect 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 for comparison purposes.

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	14.9	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	28.3	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	8.9	10.8	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

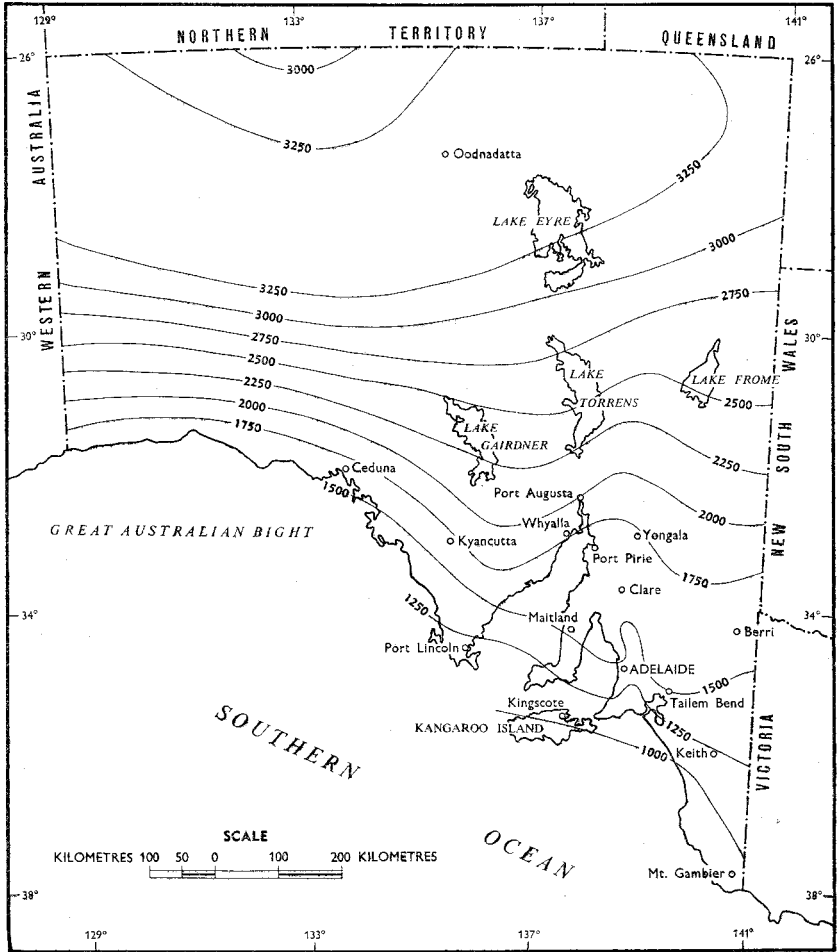
During the summer months winds from the southern quadrants are the most prevalent and a well defined sea breeze is common along the whole of the coastal fringe from October right through to about April and May. During the winter months the north-westerly predominates, but the proportion of west to south-west 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	116	116	116	116	116	105	105	105
	°C	°C	°C	°C	°C	%	%	%
January	29.6	47.6	16.4	7.3	23.0	40	59	29
February . . .	29.4	45.3	16.6	7.5	23.0	43	57	30
March	26.9	43.6	15.0	6.6	20.9	47	62	29
April	22.7	37.0	12.6	4.2	17.7	56	72	37
May	18.7	31.9	10.2	2.7	14.5	67	77	49
June	15.9	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	60	72	44
October . . .	22.1	39.4	10.9	2.7	16.5	51	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	41	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 (a)	Average Speed	Highest Gust	Prevailing Direction	
							9 a.m.	3 p.m.
Years of Record	134	134	134	134	21	56	56	56
	mm	mm	mm	No.	km/h	km/h		
January	19	84	58	4	13	116	SW	SW
February . . .	20	155	141	4	12	106	NE	SW
March	24	117	89	5	11	125	S	SW
April	44	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 . . .	43	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	529	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	91	58	105	73	101	95	105	116
	Hours	No.		No.	No.	mm	mb	mb
January ..	10.0	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 ..	4.2	3.6	5.2	1.3	1.5	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	1.8	81	9.9	1 017.6
October ..	7.2	5.7	4.5	0.0	2.6	128	10.3	1 016.0
November ..	8.5	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	22.7	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: 1972 and 1973

Summer 1971-72

Over the pastoral areas there was a great variation in rainfall aggregates. While all of the north-east and southern half of the Far North Division received above-normal amounts with some stations receiving up to four times normal the North West District and the remainder of the Far North recorded disappointing rains. Some aggregates in the Lake Gairdner and Oodnadatta areas were about one-eighth of normal. District averages were 20 per cent below normal for the North West, 120 per cent above normal for the Far North, and 150 per cent above normal for the North East. Most of the rain fell early in January.

Although rains were generally above normal throughout the settled areas, a large section of the Far West received about half normal summer rainfall. Aggregates over the Upper North, Yorke Peninsula, Kangaroo Island and the Lower South East were almost double normal in a number of instances. District averages ranged from slightly above normal over the Murray Mallee to about 50 per cent above normal throughout the remainder of the settled areas, except the Upper North, West Central and Lower South East, where the surplus was between 75 and 150 per cent. Most of the rain fell during December and January.

Mean maximum temperatures were generally below average. Throughout the area bounded by Ceduna in the West, Oodnadatta in the North and Port Augusta in the East and over most of the Central and Mid-North Districts mean maxima were 1 and 2 degrees (Celsius) below average. The remainder of the State experienced mean maxima 1 to 1.5 degrees below average. Mean minima generally displayed only slight deviation from the average.

Autumn 1972

Rainfall was below average throughout the State. Over the pastoral areas there were a few heavy falls near the northern border early in March and light to moderate falls in the North East early in May, otherwise these districts were virtually rainless. Deficits were fairly general over the whole area with district averages being below normal by 80 to 95 per cent.

In the settled areas rainfall was well below normal. The worst served areas were the northern parts of the Western Agricultural and the Upper and Lower North Districts where there were some deficits of 80 to 90 per cent and district averages were down by 70 to 75 per cent. Most of the remainder of the settled areas experienced deficits of around 50 per cent, with the Lower South East experiencing a deficit of 39 per cent. Most of the rain fell during April with some further showers over the southern settled areas about the middle of May.

Autumn maximum temperatures were 1 to 2 degrees (Celsius) above normal throughout most of the State. Minimum temperatures were mainly below average in the Northern and Western Districts, part of the Mount Lofty Ranges and part of the South East Districts. In the remainder of the State, minimum temperatures were near or slightly above average. Frost became more widespread during the latter half of May.

Winter 1972

Rain totals were light over the pastoral areas with only small areas recording in excess of half their normal amounts. Throughout the settled areas, most stations recorded winter totals within 20 per cent of normal. The rainy season did not commence until late in June.

Day temperatures for most of June were well above average, while during July and August they were near to or slightly below average. On the other hand, overnight temperatures were low throughout June when frequent heavy frosts were recorded; however, July and August night temperatures were near normal.

Spring 1972

After late winter rains which recouped the agricultural situation over much of the State, spring was disappointingly dry. The purely pastoral areas recorded about half normal totals with most of the rain being associated with thunderstorms. Over the agricultural or settled areas, aggregates were also about half normal.

Mean spring maximum temperatures were almost all within 1°C of normal, although there were several brief bursts of hot weather late in spring in the interiors; the settled areas experienced mostly mild conditions. A few frosts were reported, mostly during September. Spring minima were generally within 1°C of normal.

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°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°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 degrees 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 between 1 and 1.5 degrees.

1.3 NATURAL RESOURCES

MINERALS

Iron ore, South Australia's most important mineral, is found in the Middleback Ranges of upper Eyre Peninsula. These ranges lie to the west of the port of Whyalla and extend discontinuously with broad erosion gaps from Iron Knob in the north to Iron Duke in the south, a distance of nearly sixty-five kilometres. They are composed primarily of iron-rich rocks and contain the only known large deposits of high grade ore in the State. Several deposits of low grade ore have been located on lower Eyre Peninsula.

Barite (barytes) occurs throughout the Adelaide System rocks, in the Mount Lofty and Flinders Ranges, in the Olary district and elsewhere. The Oraparinna area in the Flinders Ranges is the largest producer of high grade barite in Australia.

The largest part of Australian reserves of gypsum are located in South Australia. The deposits have in general been formed in coastal basins, the largest of these occurring at Lake MacDonnell and on Kangaroo Island. The gypsum deposits at Stenhouse Bay are now exhausted and mining operations have ceased. Other deposits, mainly of seed gypsum, are found inland at Moonabie, Lake Fowler, Cooke Plains and along the River Murray.

Conditions in South Australia are ideal for the production of salt from sea water by solar evaporation. Large solar salt works are located at Dry Creek (near Adelaide), Port Price (Gulf St Vincent) and Whyalla. Salt is also harvested from several saline lakes, in particular Lake Bumbunga and Lake MacDonnell.

The opal fields at Coober Pedy and Andamooka supply a very large proportion of the precious opal produced in Australia. The estimated value of raw opal production in South Australia exceeded \$20 million in 1972. Most of this is exported to Hong Kong, Japan, the USA and Germany.

Pyrite from the large deposit near Nairne had been used in the manufacture of sulphuric acid for the fertiliser industry since 1955, but the Brukunga mine was closed in May 1972 as it had become uneconomic because of the import of elemental sulphur, mainly from Canada.

South Australia is the major supplier of talc for the Australian home market, the principal occurrences being at Mount Fitton, in the northern Flinders Ranges, and in the Gumeracha district. Other deposits occur at Tumbay Bay and in the Barossa Valley near Lyndoch and Williamstown and at Truro.

Although deficient in bituminous coal resources, South Australia has one deposit of sub-bituminous coal at Leigh Creek. This field supplied 1.6 million tonnes of coal in 1972 for electric power generation at Port Augusta. Lignite deposits at Moorlands and Inkerman-Balaklava are undeveloped.

Limestone and dolomite together form one of the State's most abundant natural resources. The principal deposits being exploited at present are: limestone at Rapid Bay, Penrice, Angaston and Klein Point; limesand at Coffin Bay, and dolomite at Ardrossan. Large reserves of both limestone and dolomite have been established at Brachina in the Flinders Ranges.

South Australia possesses a wide variety of clays including a number of special varieties, the most noteworthy being ball clay at One Tree Hill and Woocalla, china clay at Mount Crawford and fire clay and kaolin at Birdwood, Golden Grove and Tea Tree Gully.

In the past, deposits of other minerals were discovered and exploited until it was not economic to continue with the methods and equipment then available. The most important of these minerals was copper ore, found initially at Kapunda and at Burra in the 1840s and later more extensive deposits were found at Wallaroo in 1859 and Moonta in 1861. These fields played an important part in the development of the colony in the nineteenth century. Uranium deposits were worked extensively at Radium Hill in the 1950s, while less important deposits of gold, silver-lead ores and manganese ore have been exploited over past years.

The intensive mineral exploration activity of the past few years has led to the discovery of economic deposits of natural gas, copper and zinc. Smaller amounts of molybdenite, nickel, tin and lead have also been found.

In 1971 production recommenced at the old mining localities of Burra and Kanmantoo. At Burra an ammonia-leaching plant is being used to treat low grade copper ore from the old Burra mine to produce copper oxide while at Kanmantoo copper sulphide concentrates are being produced by flotation of low grade ore from the open pit mine.

At present extensive mineral exploration is being carried out in South Australia by Australian and overseas companies who have contracted to spend about \$4 million a year on exploration tenements which they hold. Mineral discoveries resulting from this work include sedimentary uranium deposits on the plains east of Mount Painter, a new copper deposit near Mount Gunson and steaming grade coal in the Lake Phillipson area, 90 kilometres south of Coober Pedy. In addition, substantial reserves of low grade copper ore have been reported adjoining the old Kapunda mine.

Following the conditional agreement, signed in June 1971, for the supply of natural gas from the Cooper Basin to Sydney, an extensive programme resulted in the drilling of forty-seven wells, 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. Since that date a further eight wells have been completed in the continuing search for natural gas and petroleum reserves. There are now sixteen significant natural gas and three oil accumulations known in the South Australian portion of the Cooper Basin and a further two gas accumulations have been established in the Queensland part of the Basin.

The Australian Government has announced its intention to build and operate the pipeline required to deliver gas to the Sydney area. Construction of the 1 250 kilometre pipeline has been delayed by an environmental impact study required by the New South Wales Government related to the crossing of the Great Dividing Range.

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. Construction at the site, including harbour installations, is expected to begin in 1974.

Locations of mineral deposits referred to are shown on the map on page 24.

UNDERGROUND WATER

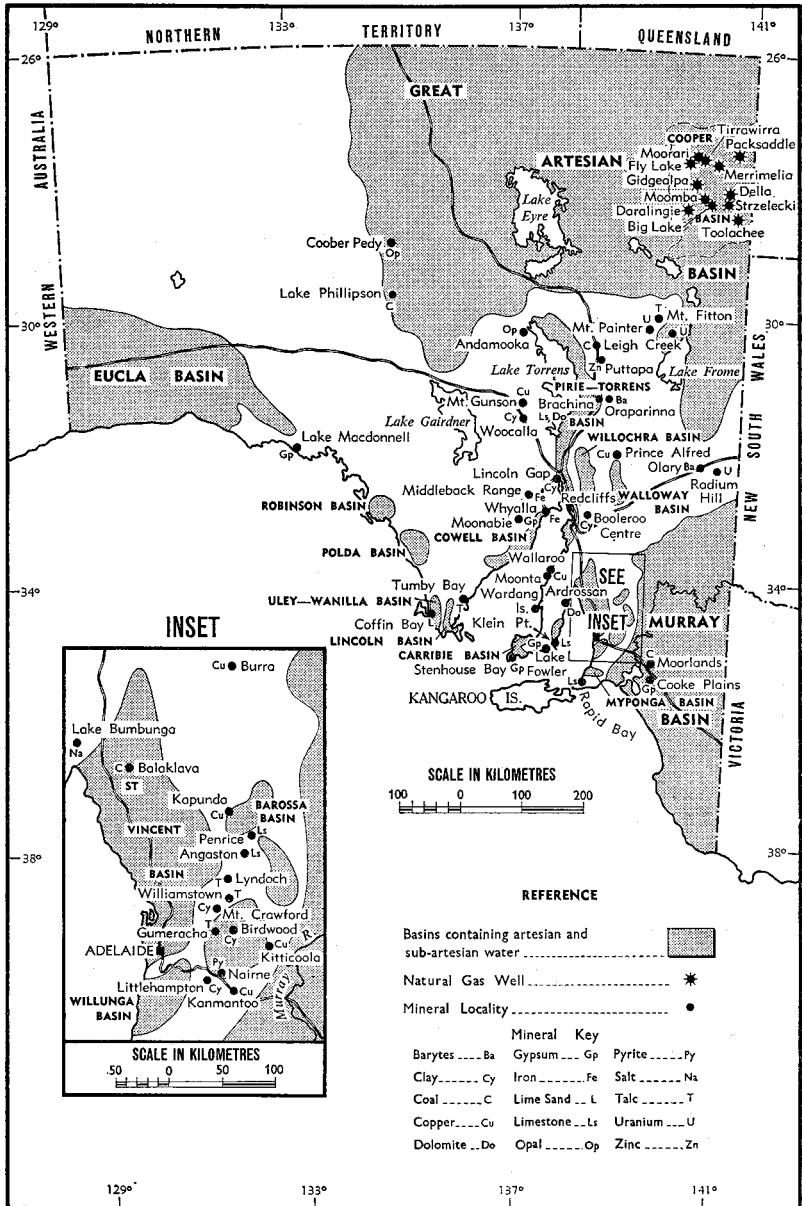
South Australia is not endowed with a generous rainfall. Only the southern portion of the State, approximately that part south of Port Augusta, receives more than 250 millimetres of rain annually and of this only quite small areas of the South East and the Adelaide Hills have an annual rainfall exceeding 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 361). 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

NATURAL ENVIRONMENT

SOUTH AUSTRALIA MINERAL RESOURCES AND ARTESIAN WATER



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.

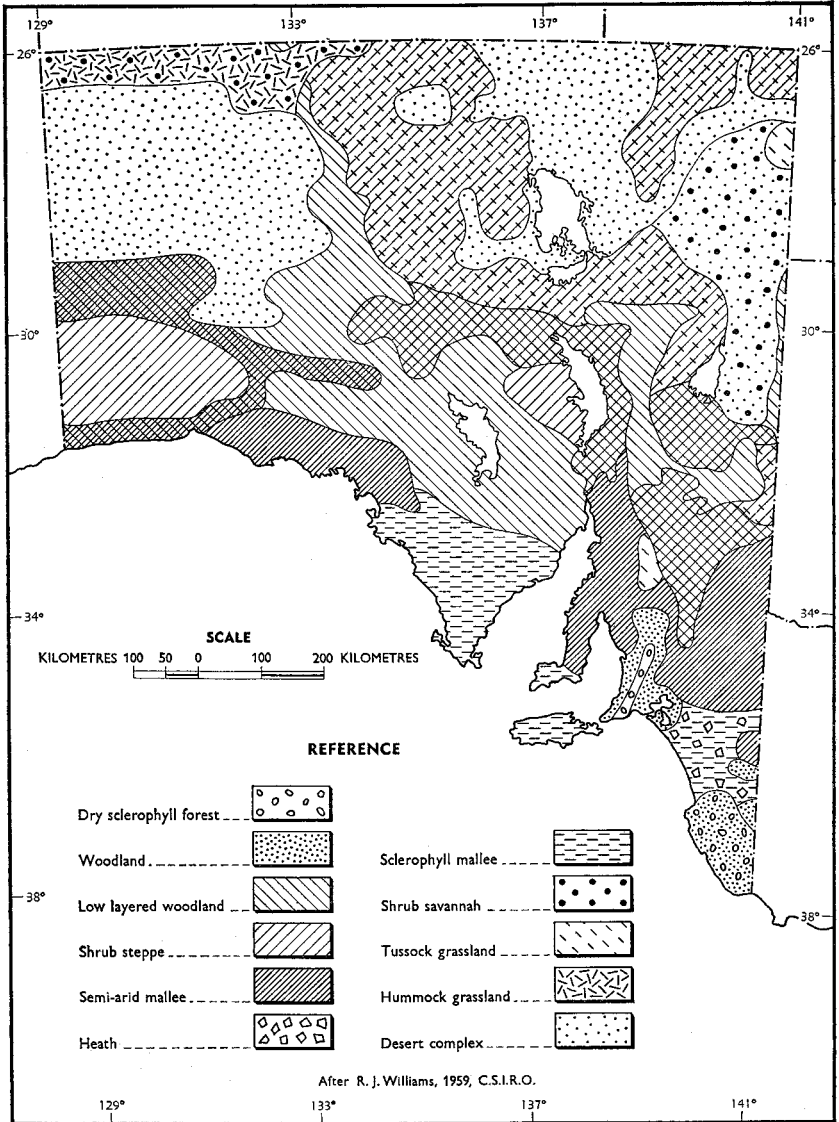
Eremaean Areas

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

SOUTH AUSTRALIA
VEGETATION MAP



(*Eucalyptus leucoxyton*) and peppermint gum (*Eucalyptus odorata*) as pre-dominant 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.

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 28 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.

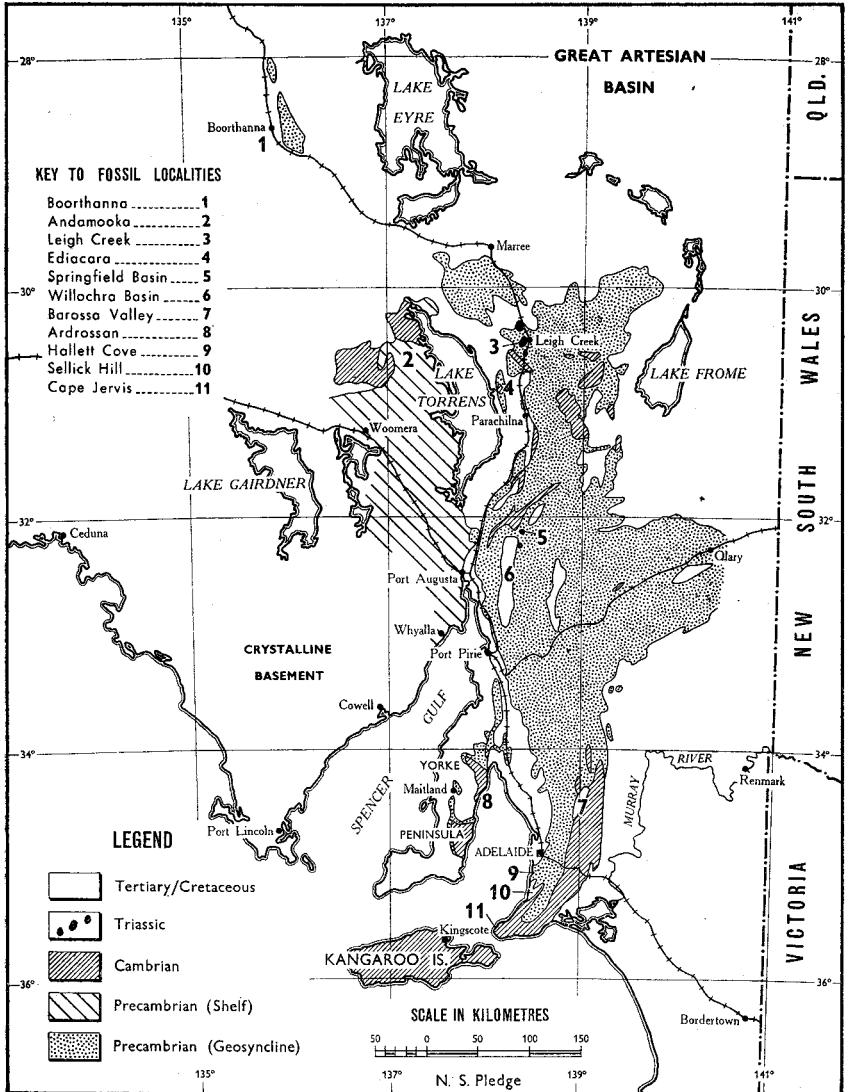
FOSSILS OF THE FLINDERS AND MOUNT LOFTY RANGES*

The Flinders and Mount Lofty Ranges are one of South Australia's dominant geographical features, extending like a backbone from the coast to distant inland regions. They enjoy a favourable climate during most of the year, and their flora and fauna are both rich and varied, as is the scenery. Artists such as the late Sir Hans Heysen have often depicted the beauty of these Ranges. They are also of outstanding interest in the study of the geology of the Australian continent, and contain valuable mineral resources.

The Ranges have been the object of studies by the pioneers of South Australian geological and palaeontological exploration. Ralph Tate, Professor of Natural History at the University of Adelaide and Walter Howchin, Professor of Geology at the University and Honorary Curator of Palaeontology at the South Australian Museum collected and described their rocks and fossils. Sir Douglas Mawson, for many years Professor of Geology and Mineralogy at the University of Adelaide, and more widely known as an Antarctic explorer, also investigated the geology of the Flinders Ranges and had a deep interest in its fossil fauna and flora. The work of these pioneers and their successors has resulted in thorough geological maps and lucid explanations of the eventful geological history of this region, so that the evidence of natural processes which have shaped South Australia through hundreds of millions of years can be seen. The folded and exposed sequence of rock strata in the ranges contains clear and abundant evidence of the history of life during the most interesting and critical periods in its evolution, the Late Precambrian and the Early Cambrian, together with traces of the later history of fauna and flora.

* Contributed by N. S. Pledge, South Australian Museum.

FLINDERS—MOUNT LOFTY RANGES AND ASSOCIATED ROCKS



Modified from published maps

Late Precambrian (Adelaidean).

The Flinders-Mount Lofty Ranges consist of rocks deposited in the area designated the Adelaide Geosyncline, which gives its name to most of the period of time involved. There is some doubt about when sedimentation on to pre-existing crystalline rocks at least 1 600 million years old, began here. It may have started as long as 1 400 million years, or as recently as 900 million years ago, but it continued into the Cambrian Period, ceasing about 540 million years ago.

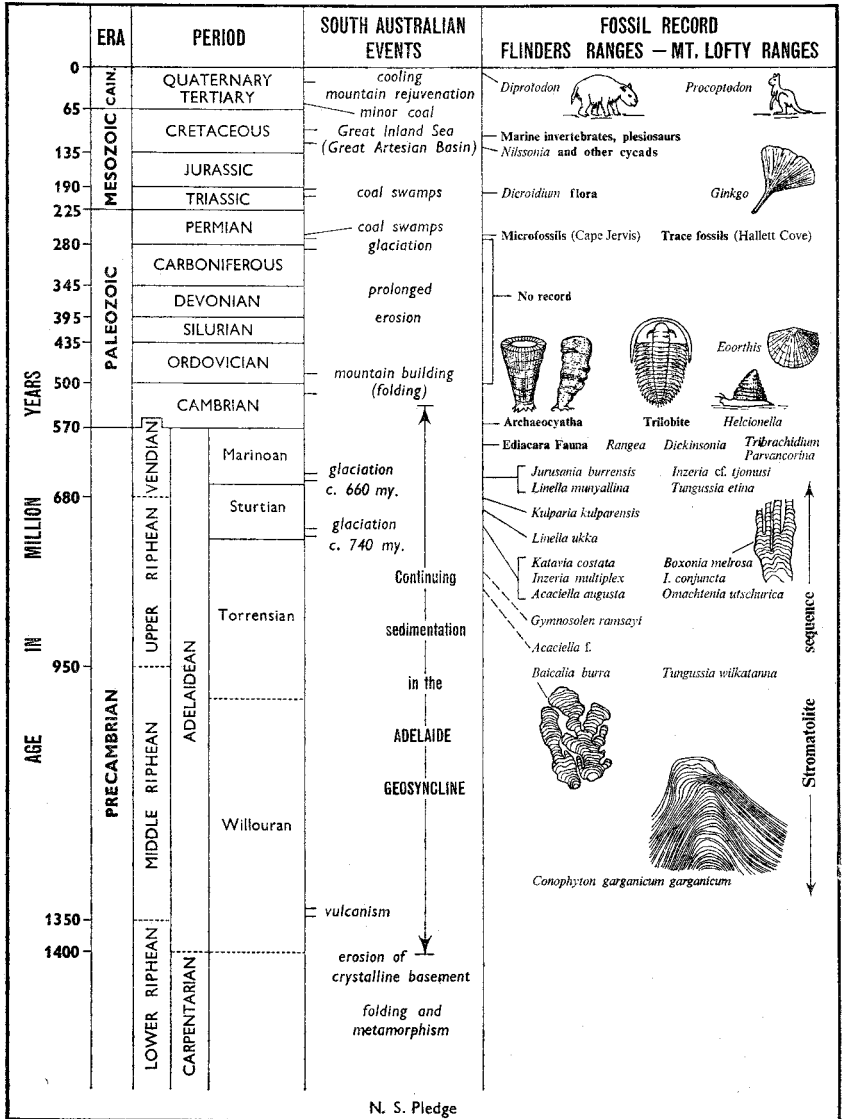
The deposition of sediments occurred, with local intermissions and even short periods of erosion, into an elongate trough that formed as the crust of the Earth subsided between the older and harder basement rocks of Eyre and Yorke Peninsulas in the west, and those of Mount Painter and the Willyama Block, near Broken Hill, in the east. A sequence of rocks up to 24 kilometres thick gradually accumulated. Subsequently, the stresses in the Earth's crust changed and the entire mass of sediment was folded and pushed up to form a predecessor of the present ranges. In a sequence of events, which is typical for all mobile zones of the Earth, uplift and erosion followed the sediment-filling of a coastal trough.

During the long period that the Flinders-Mount Lofty Ranges were gestating in the Adelaide Geosyncline, the Earth saw several important revolutions, and these are reflected in the fossils that are found in the old rocks deposited during that time. Although the cosmic history of the Earth as a planet may be 4 600 million years long, the oldest sediments are not much more than 3 200 million years old, and some of them contain traces of life in the form of microscopic primitive bacteria and blue-green (cyanophyte) algae. These primitive organisms, (procaryotic protistans) which are single-celled and without cell nuclei, were revealed by electron microscopy of black cherts from South Africa. They persisted for a long time with little change, in a world whose atmosphere was almost devoid of oxygen. The cyanophytes were gradually changing their environment, adding oxygen to the air through their life processes, so that by about 2 000 to 1 800 million years ago the oxygen began effectively to screen out the deadly ultraviolet radiation from the sun.

At some stage thereafter (2 000 to 1 000 million years ago) life reached a new grade of evolution as eucaryotic protistans appeared. These micro-organisms are more complicated than the procaryotes; they have distinct nuclei and cell organelles such as mitochondria which produce energy for the cell by utilising oxygen. The first eucaryotes displaying sexuality are most convincingly represented in cherts from the Bitter Springs Formation in central Australia, but some have also been found in siliceous layers in the Skillogalee Dolomite, north-east of Port Augusta, on the western flank of the southern Flinders Ranges. A similar micro-flora of the same age has been found at Boorthanna at the extreme end of the Adelaide Geosyncline, in northern South Australia. Some of the oldest known eucaryotes are thus preserved as microscopic fossils in the rocks of the Flinders Ranges.

The most obvious and common Precambrian fossils found in the ranges are not fossilised parts of distinct organisms but rather are sediment structures formed by mats of filamentous blue-green algae trapping mud or sand grains and causing calcium carbonate or silica to be deposited. These are called stromatolites and their variety of morphology allows them to be classified into distinctive types, which hopefully may become important guides in determining the relative ages of Precambrian sedimentary rocks.

SOUTH AUSTRALIAN GEOLOGICAL TIME CHART



N. S. Pledge

The form of stromatolites varies from flat-laminated beds to complex arrangements of columns built of upwardly convex or conical or branching laminae. They grow sometimes to large size and their morphology appears to depend on the specific composition of the colony as well as on conditions of the environment. More than ten form-species of stromatolites have so far been described from the Adelaide Geosyncline, the most common being *Baicalia burra*. Another form, *Conophyton garganicum*, has a world-wide distribution in rocks 1 600 to 950 million years old and is therefore used as a guide fossil for rocks formed within this interval of time. It has been found in the oldest sedimentary rocks of the Flinders Ranges. In some stromatolitic rocks, algal filaments may be preserved under favourable conditions. Stromatolites became reduced in abundance and importance in Early Palaeozoic time, possibly because marine animals evolved and began to graze on the algal mats which formed stromatolitic sedimentary structures. They are still found in certain restricted environments of the present seas, such as Shark Bay in Western Australia from which most predators of the algal mats are excluded by high salinity.

The second revolution in the history of life witnessed by fossil occurrences in the Flinders Ranges was the appearance of animals, though the evidence preserved here and elsewhere may post-date this historical event by hundreds of millions of years. It is possible that the eucaryotes soon evolved into single-celled plants on one hand and animals (protozoans) on the other; the latter were very small creatures, unsuited to preservation as fossils in the rocks because animals lack the resistant cell walls of plants. In the further course of evolution the Metazoa, animals having many specialised cells, evolved from colonial Protozoa. The earliest fossil traces of primitive, soft-bodied Metozoa in rocks would probably be trails and burrows, but unquestionable specimens of them have yet to be discovered. The unique specimen of *Bunyerichnus* from the Bunyeroo Gorge has been interpreted as the trail of a shell-less mollusc, perhaps like a nudibranch or sea-slug, and is one of the oldest trace fossils known. It is separated from the first true fossils of animal origin (body fossils) in the Flinders Ranges by some 1 800 metres or more of sediment, and therefore is considerably older.

The oldest known assemblage of animals is collectively termed the Ediacaran Fauna, after the old mining area (now a fossil reserve) where they were first found by the South Australian geologist, R. C. Sprigg, in 1947. They are all soft-bodied forms that normally would not be expected to be preserved, especially in a hard sandstone. However, owing to a particular set of conditions of sedimentation, they are in fact present in some abundance as casts or impressions, mainly on the lower surface of beds of sandstone or quartzite.

A relatively large number of different species has now been recognised from the Flinders Ranges, and specimens of similar or identical species have since been found in a number of places around the world. Nearly 70 per cent of the fossils discovered are coelenterates, only half of which are well enough preserved to be identifiable. Most of these are medusoids, or jellyfish in the broad sense of this popular term, and number at least sixteen species, and there are four species of what appear to be pennatulaceans (sea pens). Of the jellyfish, only four species are definitely identified as scyphozoan medusoids—i.e. true jellyfish. One of these, *Kimberella*, may be similar to the box jellies such as the living *Carybdea*. The commonest jellyfish genus, *Cyclomedusa*, with three species, is probably a medusoid hydrozoan. The Hydrozoa are also represented by three quite different surface-floating Chondrophorid jellyfish, distantly related to the

References

TABLE I

LIST OF LATE PRECAMBRIAN EDIACARA FAUNA

COELENTERATA

SCYPHOZOA

- Kimberella quadrata*
- Brachina delicata*
- Rugoconites enigmaticus*
- R. tenuirugosus*

HYDROZOA

CONULATA

- Conomedusites lobatus*

CHONDROPHORIDA

- Eoporpita medusa*
- Ovatoscutum concentricum*
- Chondroplon bilobatum*

INCERTAE SEDIS

- Cyclomedusa davidi*
- C. radiata*
- C. plana*

MEDUSOIDS INCERTAE SEDIS

- Ediacaria flindersi*
- Beltanella gilesi*
- Medusinites asteroides*
- Mawsonites spriggi*
- Lorenzinites rarus*

ANTHOZOA

PENNATULACEA

- Rangea grandis*
- R. longa*
- Arborea arborea*
- Pteridinium cf. simplex*

ANNELIDA

POLYCHAETA

- Spriggina flundersi*
- S. ovata*
- Dickinsonia costata*
- D. elongata*
- D. tenuis*
- D. lissa*
- D. brachina*

ARTHROPODA

CRUSTACEA

- Parvancorina minchami*

TRILOBITOMORPHA or CHELICERATA

- Praecambridium sigillum*

?ECHINODERMATA

- Tribrachidium heraldicum*

living By-the-wind-Sailor *Veleva*, and there is a sessile form *Conomedusites* which apparently behaved rather like an anemone. The relationships and affinities of the other five species of medusoids, most of which are quite rare, are unknown.

Next in number and importance are polychaete worms, which make up 25 per cent of the faunal assemblage. These are of two quite different forms—*Dickinsonia* and *Spriggina*—with a total of at least seven species. Their differences of form and mode of life indicate a long preceding evolution of the annelid worms which is undocumented. *Dickinsonia*, with five species of which *D. costata* is by far the commonest, is a broad, flat, many-segmented worm that reached a length of over 36 cm and a width of 13.5 cm in one of the species (*D. elongata*). *D. lissa* seems to have been benthonic, but the others appear to have been capable of swimming. The only living annelid similar to them is *Spinther*, a parasite on sponges.

Spriggina, less common, is rather like the common marine worms but it has a well-developed head region. It has been suggested that trilobites could have been derived from a similar form. However, by Ediacaran times the ancestor of trilobites seems already to have evolved, and *Spriggina* is probably not directly related to them.

Much less abundant, but important in the history of animal evolution, are three species: *Parvancorina*, which was possibly an ancestral crustacean with many pairs of appendages hidden under its soft, kite-shaped carapace; *Praecambridium*, a minute animal that seems to have been a primitive arthropod that gave rise to trilobites or to horse-shoe crabs, is the smallest species (5 mm) to be found in the fauna; and *Tribrachidium*, a sessile, spirally three-armed lophophorate form that might be an ancestral echinoderm. There are also worm trails and casts, and other still unexplained fossils. All these animals lived in a shallow sea or in its floor at a depth of only a few tens of metres.

Sedimentation continued with some breaks and periods of erosion from Ediacaran times, some 650-600 million years ago, into the Cambrian Period. In some places a thickness of more than 500 metres of sandstone separates the two quite distinct Ediacaran and Lower Cambrian faunas.

Cambrian Period

At the dawn of the Cambrian Period, approximately 570 million years ago, evidence suggests that the fauna was already quite diverse. The new sedimentological environment, formed as the deepening sea re-occupied the area, was chiefly characterised by silts or sands which were home to an abundant burrowing soft-bodied fauna, evidenced by the U-shaped burrows of *Diplocraterion* (probably a worm) and the distinctive infilled tunnels of *Plagiogmus*, which was possibly a shell-less mollusc. The feeding/burrowing activities of such animals churned up the sediment, often to the extent of destroying the layered bedding. Also present in these lowest Cambrian beds (the Uratanna Formation) are the feeding trace fossils called *Rusophycus*, which in later rocks are associated with trilobites. At this time, trilobites apparently had no mineralised skeletons to be preserved. Their body fossils do not occur until some 300 metres higher in the sequence, in limestones, by which time other animal phyla had already acquired mineralised shells or skeletons.

Trilobites are a major group of animals in the Cambrian sequence. They form an extinct subphylum of the Arthropoda, characterised by a threefold division of the body into head shield, segmented thorax, and pygidium (tail). Articulated in life, these parts soon separated after moulting or upon death unless conditions were very calm. Thus most specimens are fragmentary.

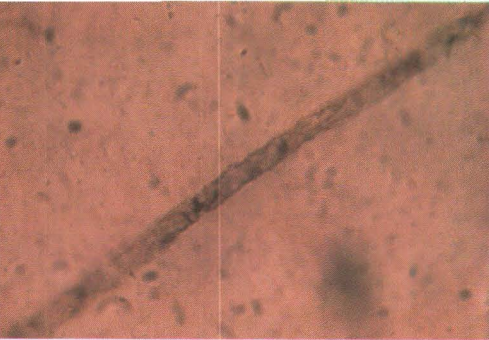
Trilobites with preservable shells did not evolve until after the appearance of archaeocyathids, *Eoredlichia* being the first, and they soon differentiated into many diverse forms. The Cambrian is sometimes called the 'Age of Trilobites', because of the many abundant and bizarre species. In the region of the Adelaide Geosyncline, trilobites have been found on Kangaroo Island, where a giant redlichiid (nearly 25 cm long) and several smaller species representing at least three genera occur, on Yorke Peninsula near Ardrossan, Curramulka and Kulpara, and at various places in the Flinders Ranges. Many small species of Middle Cambrian age have been found in oil well cores in the Gidgealpa gas fields in the Cooper Basin to the north-east of the Flinders Ranges.

The Middle Cambrian Wirrealpa Limestone sometimes contains a mash of jumbled, broken fragments of trilobites, and good specimens are exceedingly rare there. Descriptive work on South Australian Cambrian trilobites is still in progress and this promises to be most valuable for the distinction and correlation of strata of different ages.

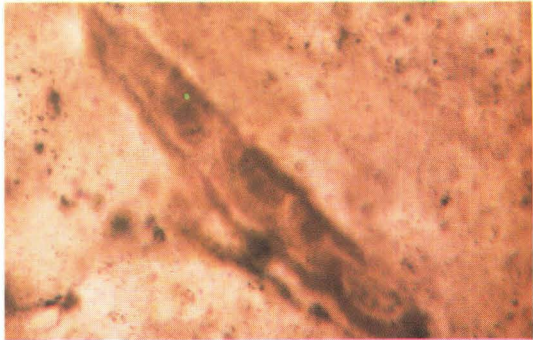
The other major phylum in Early Cambrian times was a group of coral-or sponge-like animals named the Archaeocyatha. They became so abundant that they dominated the fauna in a very short time, with many diverse species in forty-seven genera so far recognised in Australia, and many more overseas. They occurred in such numbers as to make up much of the rock enclosing them (archaeocyathid limestone). This puzzling group, which existed only for a few tens of millions of years in the Early to Middle Cambrian, was world-wide in distribution, forming low reefs or banks in Siberia, China, Morocco, France, Sardinia, Spain, North America (California, Nevada, British Columbia, Labrador), East Antarctica, as well as in the Flinders-Mount Lofty Ranges where they made a sudden appearance in the Ajax Limestone and its equivalents.

These animals built cyliandroconical cups, mostly with double walls separated by complex systems of bars or partitions, and all intricately perforated, presumably to allow passage of water currents for feeding on suspended matter. If this interpretation is correct, there is close analogy in mode of life with sponges. True sponges, which were also present, are distinguished by their spicular (needle like) skeletons. Remains of sponges are sometimes common in some rocks and numerous isolated spicules of *Chancelloria* have been found in the Cambrian limestones.

The less obvious elements of the Cambrian faunas are brachiopods, hyolithids, gastropods, the distinctive but problematical '*Micromitra (Paterina) etheridgei*', and many other tiny problematica. The oldest shelly fossils in South Australia come from deep bores on Yorke Peninsula, where the early Cambrian sea lapped on to the stable western continent. These are about the same age as the *Rusophycus* trace fossils, and include the slender cyliandroconical shells of hyolithids. These occur also in beds of the same age (Mount Terrible Formation) on Sellick Hill, and again in somewhat younger rocks in the same area (Sellick Hill Limestone): in these younger occurrences they are associated with a variety of other shelly fossils including primitive gastropods (*Helcionella*) and, elsewhere, trilobites (*Eoredlichia*).



S. Awramik
Archaeonema longicellularis. A multicellular filament of a blue-green alga. Thickness 3-4 um



S. Awramik
 'An ascus-like microfossil of uncertain systematic position'—possibly a fungus. Length 290 um



N. S. Pledge
Baicalia burra. A polished section of a branching columnar stromatolite. Scale: 5 cm



Weathered surface

Acaciella australica. This stromatolite occurs in the Adelaide Geosyncline and in Central Australia. Column diameters: 2-3 cm

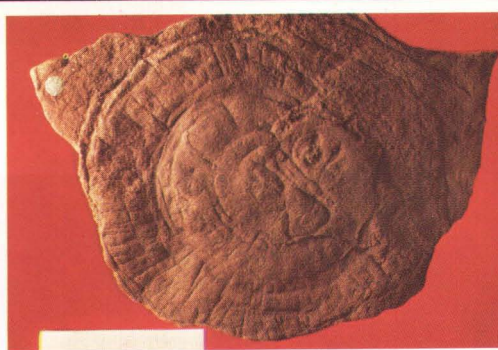


N. S. Pledge

Polished section



N. S. Pledge
The Medusoid jellyfish *Mawsonites spriggi*. Diameter: about 10 cm



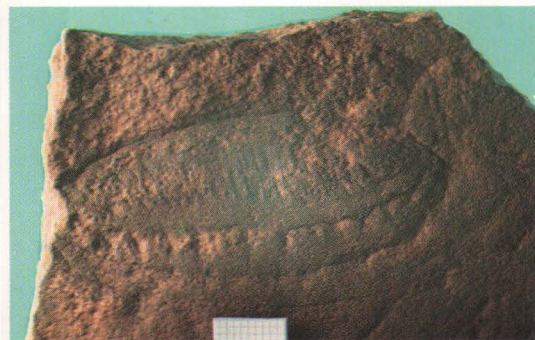
N. S. Pledge
The Medusoid jellyfish. *Ediacara flindersi*.
Scale: 5 cm



N. S. Pledge
Conomedusites lobatus. A sessile form.
Diameter: 5 cm



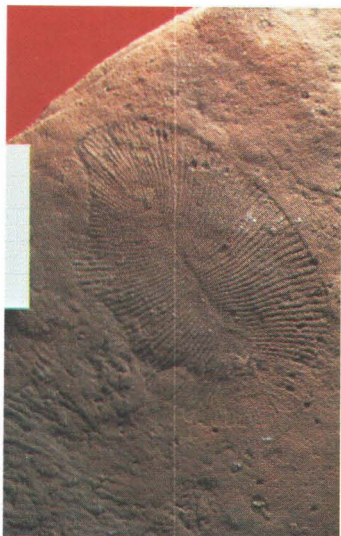
N. S. Pledge
Chondroplon bilobatum. The float of a large chondrophore jellyfish. Scale: 5 cm



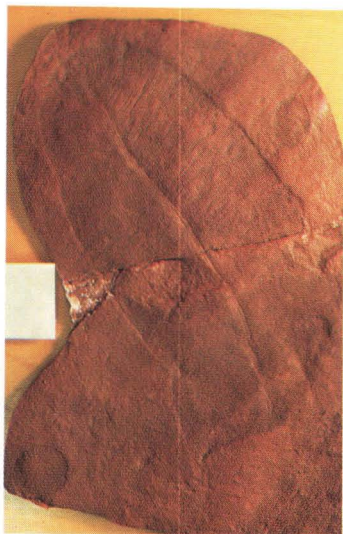
N. S. Pledge
Kimberella quadrata. Possibly a 'boxjelly'.
Scale: 1 cm



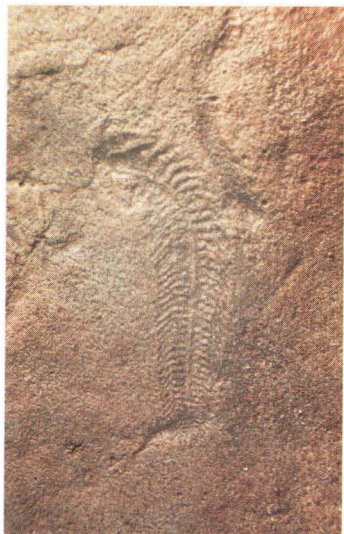
N. S. Pledge
Rangea longa. A probable pennatulacean (sea-pen). Scale: 1 cm



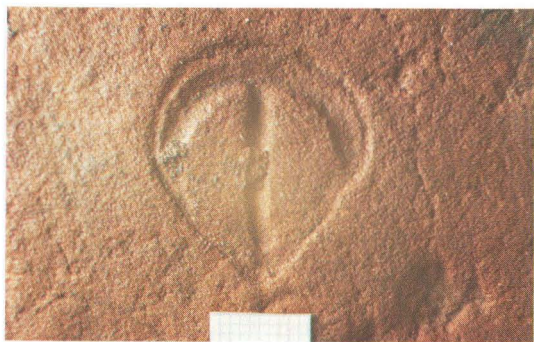
N. S. Pledge
Dickinsonia costata. A common,
 many-segmented annelid worm.
 Scale: 5 cm



N. S. Pledge
Dickinsonia elongata. A giant
 annelid worm. Width: 13.5 cm.
 Length: over 30 cm. Note also
 impression of small *D. costata*



N. S. Pledge
Spriggina floundersi. An annelid
 worm. Length: about 4 cm



N. S. Pledge
Parvancorina minchami. An early crustacean.
 Scale: 1 cm



N. S. Pledge
Tribrachidium heraldicum. A sessile organism of
 uncertain affinities. Scale: 1 cm



N. S. Pledge
Archaeocyatha limestone. Scale: inches and cm



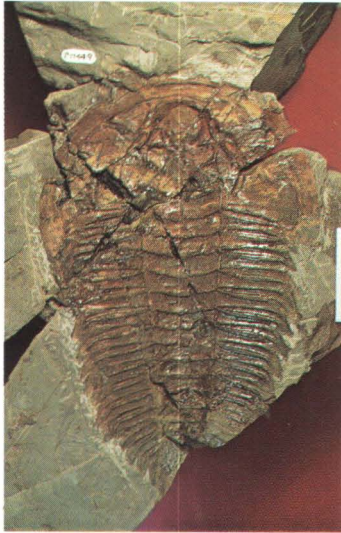
N. S. Pledge
Various archaeocyatha. Lengths: about 6 cm



N. S. Pledge
Hyolithes planoconvexa. A large hyolithid.
Length: 2 cm



N. S. Pledge
Obolella wirrialpensis. A primitive brachiopod.
Scale in mm



N. S. Pledge
Redlichia sp. A large trilobite
 from Kangaroo Island. Scale:
 5 cm



N. S. Pledge
 A phyllocarid crustacean, *Isoxys* sp. Scale: 1 cm



N. S. Pledge
 A helcionellid gastropod, *Tanuella*. Diameter:
 2 cm



N. S. Pledge
 A slab of shale with the small
 trilobites *Balcoracania flindersi*.
 Lengths: up to 2 cm



N. S. Pledge
 A brachiopod, *Kutorgina* sp. Diameter: 8 cm



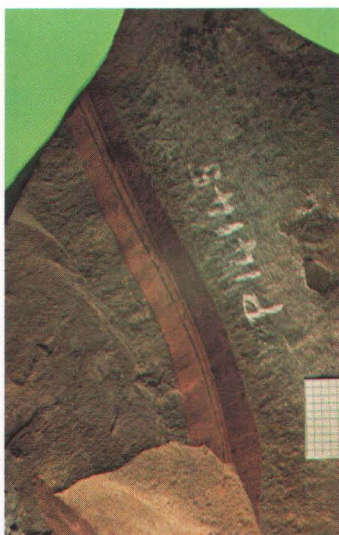
N. S. Pledge
The divided frond of *Dicroidium
odontopteroides*, a seed fern.
Scale: 1 cm



N. S. Pledge
Fragments of a frond of
Xylopteris elongata and of
Dicroidium. Scale: 1 cm



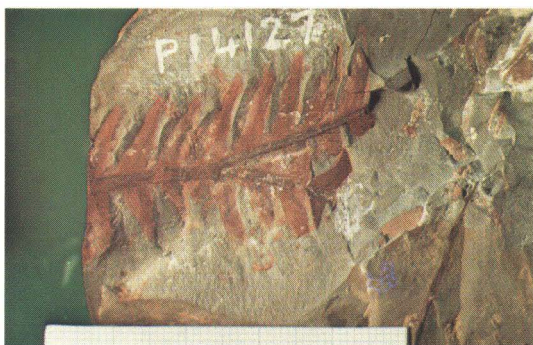
N. S. Pledge
Xylopteris tripinnata. A seed
fern with a divided frond. Scale
in inches and cm



N. S. Pledge
Segment of a *Taeniopteris* leaf.
Scale in mm



N. S. Pledge
 Portion of the divided frond of *Dicroidium feistmanteli*. Scale in cm



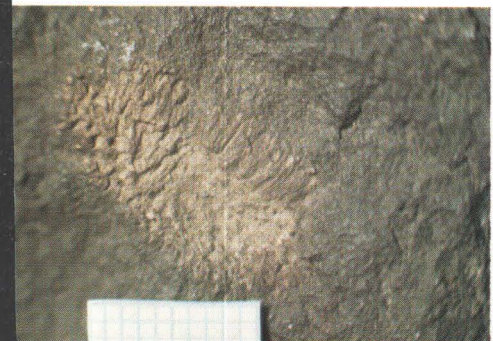
N. S. Pledge
 Frond of *Dicroidium acuta*. Scale: 5 cm



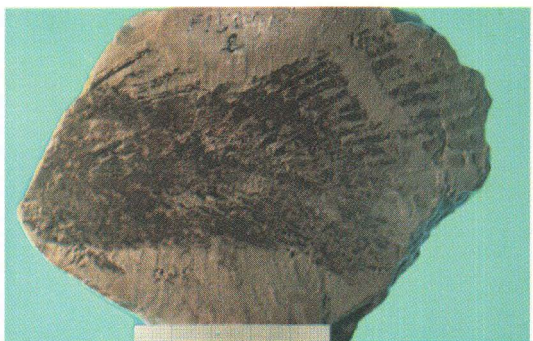
N. S. Pledge
Umkomasia sp. Seed pods from a seed fern of *Dicroidium* type. Scale in mm



N. S. Pledge
 A large seed similar to *Umkomasia*. Scale: 1 cm



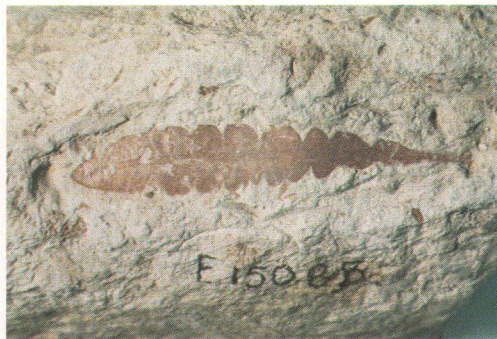
N. S. Pledge
 ?*Pteruchus* sp. A male fruiting organ from a seed fern. Scale: 1 cm



N. S. Pledge
 The fish *Leighiscus hillsi* is known only from this specimen preserving its tail. Scale: 5 cm



N. S. Pledge
 Fragmentary impression of a frond of the cycad
Elatocladus planus. Scale: 1 cm



N. S. Pledge
 A leaf of the cycad *Nilssonia* cf. *schaubergensis*.
 Length: 5 cm



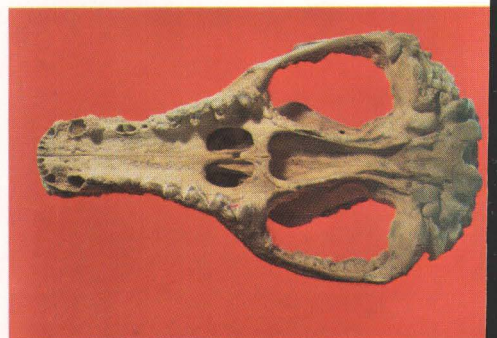
N. S. Pledge
 Fossil trunks of the lepidophyte
Nathorstianella babbagensis.
 Scale: 5 cm



N. S. Pledge
 Skull of the giant marsupial *Diprotodon optatum*.
 Skull length about 1 m



N. S. Pledge
 Jaws of the Pleistocene giant, short-faced
 kangaroo *Procoptodon*. Jaw length: 19 cm



N. S. Pledge
 Palatal view of the skull of *Thylacinus*, from a
 Pleistocene cave deposit. Skull length: 23 cm

TABLE II

EARLY TO MIDDLE CAMBRIAN FAUNA, ADELAIDE GEOSYNCLINE

PORIFERA

Uranosphaera ramosa
Chancelloria sp.

ARCHAEOCYATHA

47 genera including:

<i>Archaeocyathus</i>	<i>Protopharetra</i>
<i>Ajacyathus</i>	<i>Pycnoidocyathus</i>
<i>Coscinocyathus</i>	<i>Syringocnema</i>
<i>Flindersicyathus</i>	

MOLLUSCA

Helcionella rugosa chinensis
H. tatei
Pelagiella subangulata
Tanuella sp.
Ginella sp.

HYOLITHIDA

Hyalithes communis
H. conularoides
H. planoconvexa
Biconulites aff. *hardmani*

BRACHIOPODA

Lingulella spp.
 'Obolella' *wirrialpensis*
Kutorgina peculiaris
Eoorthis tatei
 'Huenella' *etheridgei*
 'Nisusia' *compta*

ARTHROPODA

TRILOBITA

<i>Eoredlichia</i> sp.	<i>Balcoracania dailyi</i>
<i>Yorkella australis</i>	<i>B. flindersi</i>
<i>Redlichia</i> spp., incl. <i>R. aff. nobilis</i>	<i>Emuella dalgarnoi</i>
<i>Pararaia tatei</i>	<i>E. polymera</i>
<i>Estaingia bilobata</i>	cf. <i>Leiopyge</i> sp.

CRUSTACEA

Isoxys sp.
Leperditia?

PROBLEMATICA (Species of uncertain systematic position)

Lapworthella sp.
Stenotheceopsis sp.
Hyalithellus sp.
 'Micromitra (Paterina)' *etheridgei*
 'Ambonychia' *macroptera*

The hyolithids range in size from 10 mm to longer than 30 mm, and are mostly slender cones. They often occur in large numbers, frequently tightly packed together one inside another. They were once believed to be molluscs related to the planktonic pteropods of today's oceans, but this view is no longer held.

In South Australia, the Early Cambrian molluscs all seem to be gastropods, of which only one (*Pelagiella*) has a coiled snail-like shell. The others (e.g. *Helcionella*) are more or less conical or cap-shaped, rather like the modern limpets, but unlike the limpets they are primitive gastropods.

Many of the early brachiopods are inarticulate (i.e. there are no articulating devices joining the two valves), and are rather plain oval forms (*Lingulella*, *Obelella*). Others have a hinge and are described as articulate: they are generally more complex in form and ornamentation (*Eoorthis*, *Nisusia*, *Huenella*). *Kutorgina* is a butterfly-shaped shell with a wide hinge and is somewhat intermediate between inarticulate and articulate grades. The species *Micromitra (Paterina) etheridgei* was once believed to be a brachiopod shell, but this now appears not to be the case, and its true relationships are unknown.

During the Early Cambrian, the sea covering the area was generally fairly shallow, with occasional shoals and possibly islands formed by diapiric processes in which more plastic older rocks were forced upwards by the weight of, and through, the hard brittle over-lying rocks. During the Middle Cambrian, the sea shallowed further, and in some places non-marine sedimentation occurred. Towards the end of the period uplift and erosion replaced sedimentation as the Late Precambrian and Cambrian rocks of the Adelaide Geosyncline were raised out of the sea, in the broad folds of the ancestral Flinders-Mount Lofty Ranges.

Post-Cambrian Palaeozoic

Thereafter followed a long period of geological quiescence, for which we have no record except granites along the eastern edge of the Mount Lofty Ranges emplaced during the early Ordovician mountain building episode. By the end of the Palaeozoic Era the mountains were probably worn down to hills with a relative relief of 500 to 1 000 metres, much as we see them today.

The Adelaide Geosyncline had witnessed major glaciations before. Twice in the late Precambrian, before the Ediacaran fauna had evolved, it had experienced the erosive and depositional power of a major ice cap (e.g. the Sturt Tillite in Sturt Gorge, and the equivalent Bolla Bollana Formation near Arkaroola). Now, towards the end of the Palaeozoic Era, in the early Permian about 280 million years ago, the area was again affected by a major glaciation, together with much of Gondwanaland, the vast continent of which Australia then formed a part. The ice eroded the land surface in the course of millions of years and in its last retreating stages it gouged out valleys (which generally trend in a northwesterly direction) such as those which are partly filled with glacial debris and are now being exhumed at Hallett Cove and Inman Valley. Because most of the area was being eroded during the period between the start of mountain building in the late Cambrian, and the Permian, there is no record of life during that period. Fossils are present but extremely rare in Permian sediments which were deposited during the time when the ice retreated. Some microfossils (foraminifers) have been found at Cape Jervis, and some trace fossils, possibly arthropod trails, at Hallett Cove, in an area now subdivided for housing. In the Flinders Ranges, however, no Permian fossils have been found.

Mesozoic

On the post-Permian landscape, drainage was sometimes poor and swamps developed in depressions. The swamps were particularly well-developed in several small intramontane basins in the northern part of the ranges during the late Triassic, around 200 million years ago, and in them accumulated vast thicknesses of vegetable matter that turned to peat, then lignite and finally to low-rank bituminous coal. We see remnants of these swamps in the coal measures at Leigh Creek, in the northern Flinders Ranges, where the beds have been protected from subsequent erosion by being gently folded down into basins.

Most of the plants occurring in the Triassic coal formation are seedferns of the *Dicroidium* group (Corystospermaceae). This group of seedferns was characterised by a Y-shaped frond to which the pinnae or leaflets were attached. *D. odontopteroides* was a small plant, with singly pinnate fronds (*i.e.* there were no additional branches coming off the main rib). *D. feistmanteli* in contrast, was bipinnate, with many pinnate branches arising regularly from the large main rhachis. The pinnae are ovate in form with a broad base and much-divided venation. In contrast, the leaflets of the bipinnate *Xylopteris* which is also common, are narrow with an unbranched vein.

The flora also included the fern *Cladophlebis*, the problematic *Taeniopteris* and several ginkgos such as the giant *Psymphyllum*. *Taeniopteris* is the name given to long, narrow, strap-like leaves in which the venation is almost at right angles to the mid-rib. The nature of the plant growing these leaves is unknown. *Psymphyllum* had a large leaf up to 30 cm long, with parallel venation spreading to give a fish-tail shape, much as in the smaller, fan-shaped *Ginkgoites*. The ginkgo *Baiera* had leaves deeply and dichotomously divided into narrow lobes, so that fragments look rather like *Xylopteris*. Scouring rushes such as *Equisettes* have been reported from both the Leigh Creek and Springfield Basins; the presence of this group of plants is interesting because, although, they still occur in the northern hemisphere, they are now extinct in Australia. Some of the most interesting fossils are the impressions of the fruiting bodies of the seedferns, some of the form *Umkomasia* and others still uncertain. This flora is also found in the small Springfield Basin, north of Quorn.

Animal fossils are not common in the deposits: freshwater mussels (*Unio eyrensis* and *Protovirgus jaenschi*) are found abundantly in only a few horizons, and beds of worm casts abound in one locality near Leigh Creek. Of the higher animals, there is no representative save the solitary fossil of a fish, *Leighiscus hillsi*, of which only the tail has been found. The apparent absence of other fish and amphibians, which have been found in the Triassic coal measures in eastern Australia, is possibly because of the small area exposed and the absence of the right type of sediments for the preservation of bone. Many microscopic plant spores described from the Leigh Creek coals have helped in determining their exact age.

Rejuvenation of the ranges by uplift along old faults, and by minor folding, occurred presumably during the Jurassic Period, and by early Cretaceous times the northern Flinders Ranges formed a low peninsula extending into a great inland sea. From Neocomian to Albian times (early to middle Cretaceous) this sea covered much of Australia, and its sediments contain rich and varied molluscan faunas. Fossils of some of these species (*e.g.* *Maccoyella*, *Peratobelus*, *Nuculana*) have been found around the northern flanks of the ranges where the

marine sediments crop out. Sediments of this age (Aptian) form the opal bearing horizon of Andamooka just to the west, and some fossils including bones of marine reptiles (plesiosaurs) have been found there. Along the shores of the ancient sea grew a variety of plants, and remains of some of them have been preserved at the far north-eastern margin of the Flinders Ranges. Common were *Nathorstianella babbagensis*, and cycad-like forms such as *Cycadites*, *Elatocladus*, *Otozamites* and *Nilssonia*. *Taeniopteris* is still present, and the fern *Cladophlebis*. An early Cretaceous (Neocomian) age has been given to this floral assemblage.

TABLE III

TRIASSIC FLORA AND FAUNA, LEIGH CREEK AND SPRINGFIELD
BASINS

EQUISETALES

Equisetites rotiferum
Neocalamites hoerensis
Schizoneura sp.

FILICALES

Cladophlebis albertsi

PTERIDOSPERMALES

Dicroidium odontopteroides
D. feistmanteli
D. coriacium
D. acuta
Hoegia papillata
H. antevsiana
Xylopteris tripinnata
X. spinifolia
X. elongata
Umkomasia spp.
?Pteruchus sp.

INCERTAE SEDIS

Taeniopteris fluctuans
T. wianamattiae
Yabeiella mareysiaca

CYCADALES ?

Podozamites sweetii
Doratophyllum tenisonwoodsii

GINKGOALES

Ginkgoites cf. *digitata*
Psygmophyllum etheridgei
Baiera tenuifolia

MOLLUSCA-BIVALVIA

Unio eyrensis
U. springfieldensis
Protovirgus jaenschii

CHORDATA-PISCES

Leighiscus hillsi

Cainozoic

Following the retreat of the great inland sea in the middle Cretaceous, the centre of Australia was covered by an expanse of lakes, swamps and savannahs that persisted well into Cainozoic times. In this setting, the Flinders and Mount Lofty Ranges assumed their role of a mid-continental mountain chain. Again rejuvenated in the middle to late Cainozoic, the ranges were subjected to erosion in the then existing more humid conditions, supplying sediment for the Lake Eyre Basin, Frome Embayment, and Pirie-Torrens trough, and the smaller, intermontane basins such as the Willochra Plains and the Barossa Valley. In the south, marine sedimentation began in the late Middle Eocene in basins on both sides of the Mount Lofty Ranges. Considerable thicknesses of marine sediments rich in invertebrate shelly fossils were accumulated, and the younger beds (Early-Middle Miocene) lapped on to the ranges around Fleurieu Peninsula. These basins probably owe their origin to the separation of Australia from the Antarctic remnant of Gondwanaland in Middle Eocene times. Australia was now approaching its present form and position. The northern basins record the first known occurrence of marsupials on the Australian mainland in mid-Tertiary time, and, although the record is very incomplete, it is in some places well documented by fossils which show later stages of the gradual evolution of marsupials into the modern Australian fauna. Vertebrate fossils are not at all common until Pleistocene times, mainly because of the paucity of good outcrops. In the ranges proper, fossils are found only in the uppermost levels of the basin deposits, where post-Pleistocene erosion has cut deep channels and gullies into the silt.

Diprotodon is probably the fossil most often found. In fact, one of the first good specimens from South Australia was found in 1889 in the banks of Baldina Creek, east of Burra. Other specimens have since been found northwest of Hawker, east of Ororoo, and near Port Pirie, together with kangaroo bones. The jaw of *Nototherium* (?) was found in a creek at the northern end of the Willochra Plains, while jaw-bones of the giant short-faced kangaroo *Procoptodon* have been found in the Nackara area. A worn fragmentary jaw of a giant wombat was recently turned up by a plough in a field near Kapunda. Pleistocene marsupial fossils have also been found in certain caves in the Precambrian and Cambrian limestones of the Flinders Ranges. One cave in particular has yielded bones of the Tasmanian wolf, *Thylacinus* and the marsupial lion, *Thylacoleo*, and may have served as a lair for these animals. Water bores put down in some of the basins have occasionally uncovered important Cainozoic plant or vertebrate fossils. For instance, a bore near Tanunda in the Barossa Valley recovered a number of fossil fruits of Late Tertiary age from a depth of 97 metres; and the southernmost occurrences of a fossil crocodile in South Australia (a fragment of skull) was revealed in a well near Balaklava; another one was found in a bore at Port Augusta.

Admittedly the Flinders and Mount Lofty Ranges are less impressive in size, height and in fossil content than the Great Dividing Ranges in eastern Australia. There, fossiliferous sequences of rocks representing most of the Palaeozoic, from Ordovician times, may be found, with younger fossiliferous rocks occurring in later basins within the fold belt. In South Australia, most of the sedimentation in the Adelaide Geosyncline occurred before shelly animals appeared, but the sequences of sediments here cover the critical periods of the earth's history when

major biological revolutions were taking place. They have richly rewarded the efforts of palaeontologists and have yielded important specimens which are represented in many major research collections and museums, not only in Australia but throughout the world.

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- (NOTE: Many descriptions of South Australian fossils are found in the *Transactions* and the *Memoirs* published by the Royal Society of South Australia.)

PART 2

EXPLORATION AND COLONISATION

In the story of the discovery and exploration of South Australia there are many paradoxes which can be explained mainly in terms of the nature of the State. In 1833 Charles Sturt was able to write that 'a spot has been found on the South Coast of New Holland to which the colonist might venture with every prospect of success. All who have ever landed on the eastern shores of Gulf St Vincent agree as to the richness of its soil and the abundance of its pasture.' However, in 1792 the French admiral D'Entrecasteaux was so far from being in agreement with this as to describe the coast of South Australia as 'so uniform that the most fruitful imagination could find nothing to say of it'.

It is against a background of such contradictions that the picture of South Australian exploration unfolds: the Dutch reached South Australian waters in 1627, but it was not until after 1801 that British explorers discovered the valuable central southern coastline; Sydney was settled in 1788, but again it was much later, not until after 1836, that British settlers came to grips with the South Australian environment. The geographical characteristics of the country had a lot to do with this slow development and were also to hinder subsequent exploration.

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 in about 1801. 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 in 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 Lacedpede 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 there was 'a sufficient, indeed a superabundance, of fertile soil for the purpose of the 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 kilometers of navigable inland waterway and gave to Gulf St Vincent, which lay so near the mouth of the Murray, an importance and significance previously undreamt of. 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: 'The whole produce of eastern Australia will eventually be shipped from this place'. 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 programme. 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 sailed for Kangaroo Island to establish a settlement.

May 1836 saw the first official departure of the Surveyor-General, Colonel William Light, whose task included choosing a site for the first settlement. Details of Light's early movements are given on page 49. 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 18 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. 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 programme. 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 programme 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 11 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 18 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 is no country . . . as far as the meridian 141° (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 including 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 programme 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. In certain circumstances an ultimate appeal in matters of State jurisdiction may be made to the Privy Council.

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 as from 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 30 April 1969 His Excellency the Rt Hon. Sir Paul Meernaa Caedwalla Hasluck, GCMG, was sworn in as the eighteenth 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-third Ministry (the third Whitlam Ministry) are listed below.

Whitlam Ministry from 13 June 1974

Prime Minister

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

Deputy Prime Minister and Minister for Overseas Trade

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

Minister for Minerals and Energy

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

Minister for Social Security

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

Attorney-General, Minister for Customs and Excise and Leader of the Government in the Senate

Senator the Hon. L. K. Murphy, QC (NSW)

Minister for Foreign Affairs

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

Treasurer

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

Minister for Services and Property and Leader of the Government in the House of Representatives

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

Minister for the Media

Senator the Hon. D. McClelland (NSW)

Minister for Defence

The Hon. L. H. Barnard, MP (Tas.)

Minister for Agriculture

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

Minister for Northern Development and Minister for the Northern Territory

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

Minister for Labor and Immigration

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

Minister for Education

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

Special Minister of State and Minister Assisting the Prime Minister in matters relating to the Public Service

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

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

Senator the Hon. R. Bishop (SA)

Minister for Housing and Construction

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)

Minister for Manufacturing Industry

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

Minister for the Capital Territory

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

Minister for Environment and Conservation

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

Minister for Aboriginal Affairs

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

Minister for Science, Assistant to the Minister for Foreign Affairs in Papua and New Guinea matters and Assistant to the Minister for Defence

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

Minister for Tourism and Recreation and Vice-President of the Executive Council

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

Salaries and Allowances

From 1 April 1973 the annual salary for each member has been \$14 500 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;

Chairman of Committees (Senate)—\$4 000;

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 Country Party (House of Representatives)—\$5 000 plus expense allowance of \$1 500;

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.

The former ministerial retiring allowances scheme has been abolished.

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 of his 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 1974 representation in the Senate was as follows:

State	ALP	CP	LP	Others
New South Wales	5	—	5	—
Victoria	5	2	3	—
Queensland	4	3	3	—
South Australia	5	—	4	1 (a)
Western Australia	5	1	4	—
Tasmania	5	—	4	1 (b)

(a) Liberal Movement (LM).

(b) Independent.

ALP Australian Labor Party CP Country Party (includes National Party in Queensland and National Alliance in WA) LP Liberal Party of Australia (including Liberal and Country League of South Australia and Liberal Country Party of Victoria).

The members representing South Australia in the Senate are:

Bishop, the Hon. Reginald (ALP)	Cameron, Donald Newton (ALP)
Laucke, Condor Louis (LCL)	Davidson, Gordon Sinclair (LCL)
Hall, Raymond Steele (LM)	Drury, Arnold Joseph (ALP)
Cavanagh, the Hon. James Luke (ALP)	McLaren, Geoffrey Thomas (ALP)
Young, Harold William (LCL)	Jessop, Donald Scott (LCL)

Elections for the Senate: Voting, South Australia

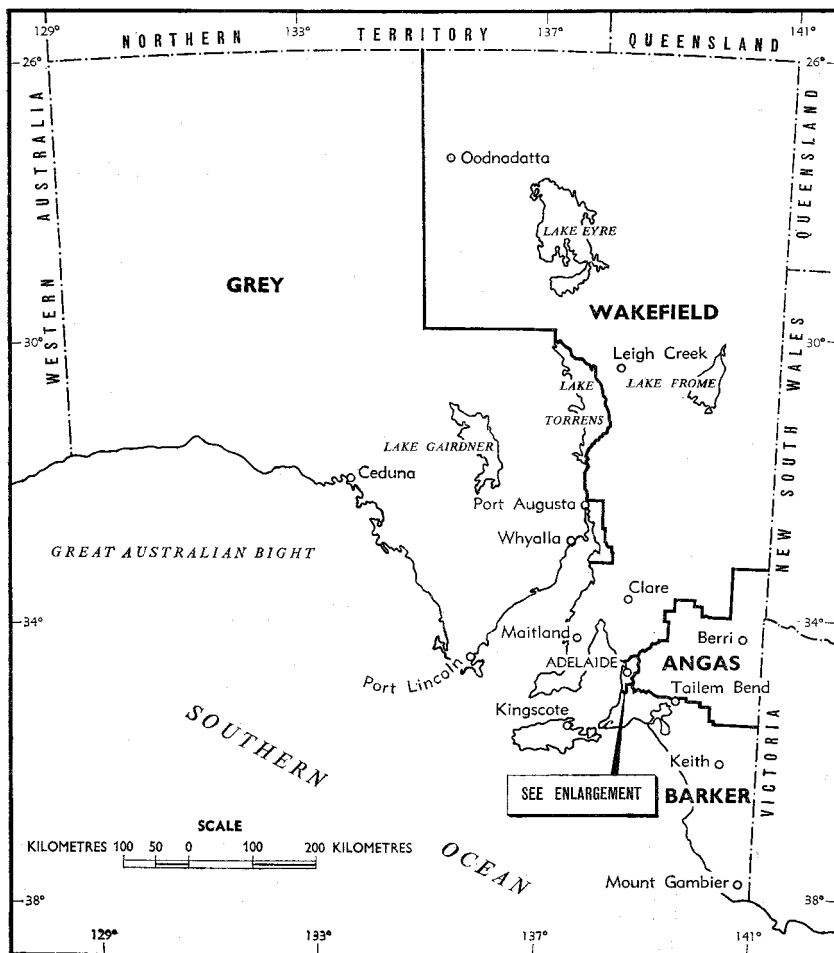
Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949	434 224	420 437	96.82	48 838	11.62
28 April 1951	440 454	427 593	97.08	24 792	5.80
9 May 1953	453 496	437 583	96.49	21 297	4.87
10 December 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.

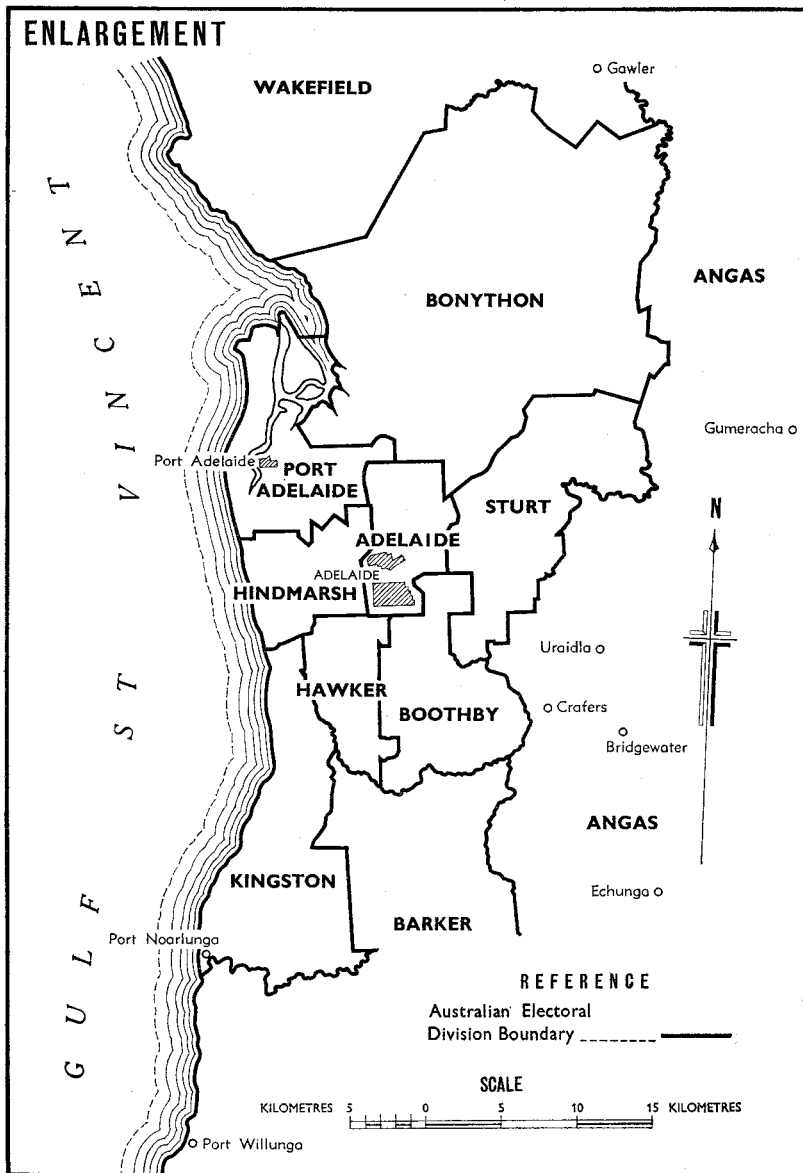
SOUTH AUSTRALIA AUSTRALIAN ELECTORAL DIVISIONS

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 has been as follows:

Party	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
ALP	26	15	6	7	5	5	—	2	66
CP	8	6	5	—	—	—	1	—	20
LP	11	13	7	5	5	—	—	—	41

ALP Australian Labor Party CP Country Party (includes National Party in Queensland)
 LP Liberal Party of Australia (including Liberal and Country League of South Australia and Liberal Country Party of Victoria)

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	Gun, 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	670 440	644 211	96.09	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

As has been described in Part 2 the Foundation Act for South Australia provided for the powers of government to be shared by a Governor and a Board of Colonisation Commissioners. Many problems were created by this division of authority and during the early years the Colony experienced considerable administrative and financial difficulties.

Following agitation by the colonists over a number of years, for popularly elected representation, 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 table on the next page, 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

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 1973-74 estimate for salaries and allowances for eleven Ministers is \$248 360 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

Ministry

The Ministry is the sixty-third to hold office. The members from 20 September 1973 are:

Premier and Treasurer

Hon. Donald Allan Dunstan, QC, MP

Deputy Premier, Minister of Works and Minister of Marine

Hon. James Desmond Corcoran, MP

Chief Secretary, Minister of Lands, Minister of Repatriation and Minister of Irrigation

Hon. Alfred Francis Kneebone, MLC

Minister of Education

Hon. Hugh Richard Hudson, MP

Attorney-General and Minister of Community Welfare

Hon. Leonard James King, QC, MP

Minister of Transport and Minister of Local Government

Hon. Geoffrey Thomas Virgo, MP

Minister of Agriculture and Minister of Forests

Hon. Thomas Mannix Casey, MLC

Minister of Environment and Conservation, Minister of Recreation and Sport and Minister of Fisheries

Hon. Glen Raymond Broomhill, MP

Minister of Labour and Industry

Hon. David Hugh McKee, MP

Minister of Health

Hon. Donald Hubert Louis Banfield, MLC

Minister of Development and Mines and Minister Assisting the Premier

Hon. Donald Jack Hopgood, MP

PARLIAMENT

Parliament is summoned, prorogued, or dissolved, by proclamation issued by the Governor. The two Houses of Parliament are the Legislative Council (Upper House) and the House of Assembly (Lower House).

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 will 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.

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 79 and 83.

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 80. 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 July 1973 is \$12 000 per member with allowances of between \$1 800 and \$3 900 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—\$12 000, plus expense allowance of \$2 050.

Deputy Premier—\$7 600, plus expense allowance of \$1 650.

Leader of the Government in the Legislative Council—\$7 300, plus expense allowance of \$1 600.

Other Ministers—\$6 500, plus expense allowance of \$1 370.

President of Legislative Council and Speaker of House of Assembly—each \$3 900, plus expense allowance of \$510.

Chairman of Committees, House of Assembly—\$1 950, plus expense allowance of \$230.

Leader of the Opposition, House of Assembly—\$4 875, plus expense allowance of \$1 025.

Leader of the Opposition, Legislative Council—\$1 950, plus expense allowance of \$450.

Deputy Leader of the Opposition, House of Assembly—\$1 430.

Government Whip—\$1 300.

Opposition Whip—\$1 300.

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, 1948-1973 which provides for the payment of superannuation pensions to persons or widows or widowers of persons who have served as members of the State Parliament. No member can qualify for a pension until he is over fifty years of age and has served a minimum of eight years either in one term or as an aggregate of terms. The standard contribution to this fund is \$1 080 a year. According to the annual contribution and the length of service the pension payable varies between \$3 600 and \$8 136 a year.

At 30 June 1973 there were sixty-seven contributors to the fund; twenty-three 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 76, 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. Before the passing of the Constitution Act Amendment Act, 1973 an elector also must have qualified by being:

- (i) the owner of a freehold estate of the value of \$100;
- (ii) the leaseholder in possession of a leasehold estate;
- (iii) the inhabitant occupier of a dwelling house;
- (iv) the husband or wife of a qualified elector; or
- (v) entitled to vote because of war or active service.

However the abovementioned Act now qualifies all House of Assembly electors 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

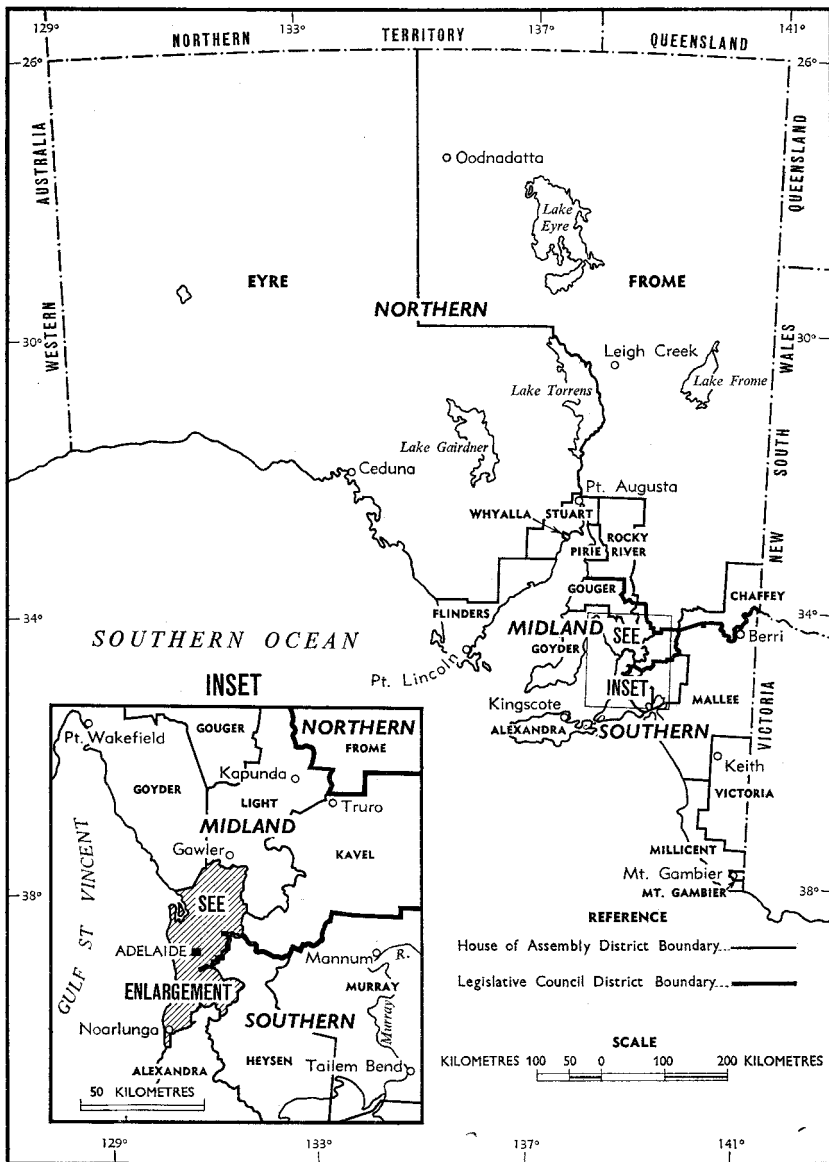
A British subject at least eighteen years of age who:

- (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;

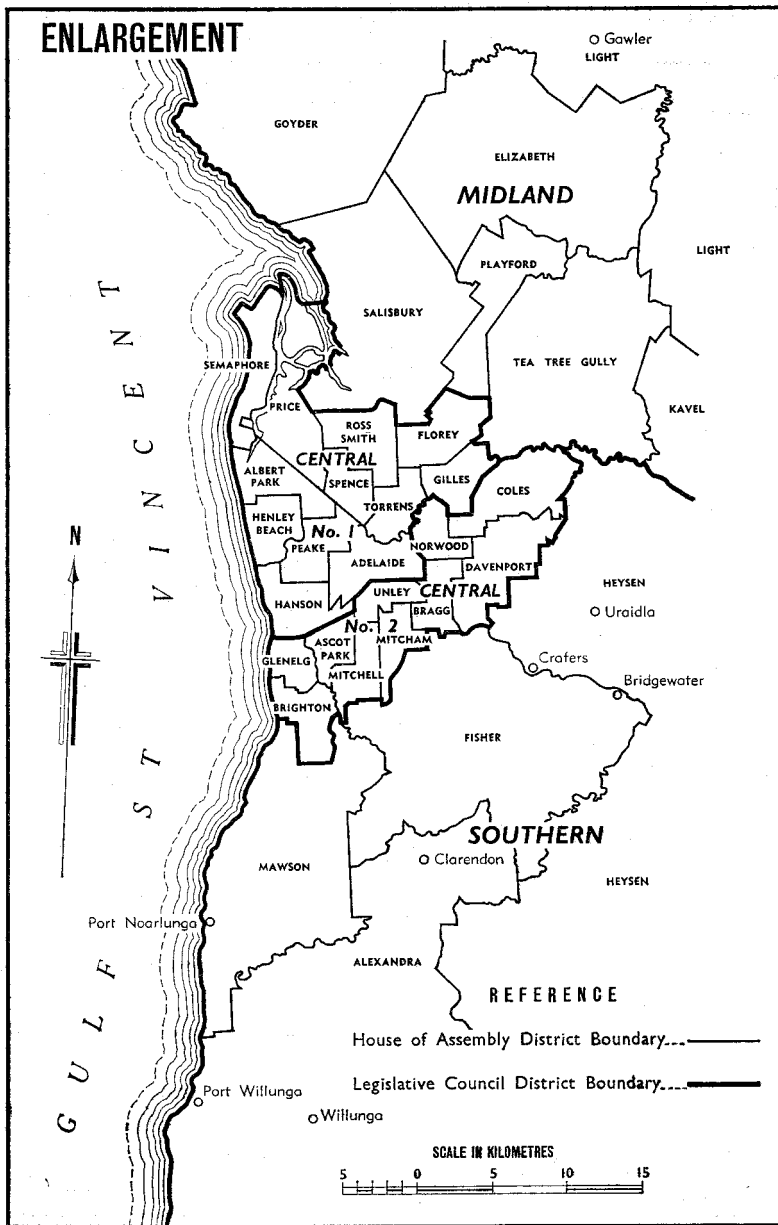
is entitled to vote at an election for a Member of the House of Assembly if, at the time of the election, he or she is enrolled on the Electoral Roll for a Subdivision of the Assembly District in which the election is held.

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.

SOUTH AUSTRALIA
SOUTH AUSTRALIAN ELECTORAL DISTRICTS
As proclaimed 12 March 1970



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



Membership

Subject to the exclusions mentioned on page 76 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.

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	LCL	Other	ALP	LCL	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 LCL Liberal and Country League

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
Metropolitan:					
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.	LCL	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.	LCL	11 082
Elizabeth	17 348	15 866	Duncan, P.	ALP	9 904
Fisher	18 209	17 129	Evans, S. G.	LCL	9 876
Florey	19 774	18 704	Wells, C. J.	ALP	12 517
Gilles	17 318	16 415	Slater, J. W.	ALP	8 846
Glenelg	17 422	16 428	Mathwin, J.	LCL	8 465
Hanson	18 868	17 676	Becker, H. T.	LCL	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.	ALP	9 033
			QC		

House of Assembly: Party Representation, 1973 (continued)

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
Metropolitan: (continued)					
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.	LCL	8 202
Unley	15 920	14 798	Langley, G. R. A.	ALP	8 357
Country:					
Alexandra	11 447	10 930	Chapham, W. E.	LCL	5 229
Chaffey	11 164	10 624	Arnold, P. B.	LCL	5 561
Eyre	9 441	8 377	Gunn, G. M.	LCL	5 848
Flinders	10 725	10 190	Blacker, P. D.	CP	5 221
Frome	8 286	7 747	Allen, E. C.	LCL	4 584
Gouger	9 993	9 526	Russack, E. K.	LCL	4 502
Goyder	9 940	9 562	Hall, R. S. (b)	LM	4 678
Heysen	11 383	10 729	McAnaney, W. P.	LCL	7 327
Kavel	10 062	9 657	Goldsworthy, E. R.	LCL	5 267
Light	10 480	10 020	Eastick, B. C.	LCL	6 031
Mallee	10 187	9 744	Nankivell, W. F.	LCL	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.	LCL	5 929
Pirie	10 208	9 736	McKee, Hon. D. H.	ALP	6 749
Rocky River	9 928	9 518	Venning, H. M.	LCL	4 454
Stuart	12 755	11 536	Keneally, G. F.	ALP	8 702
Victoria	10 133	9 598	Rodda, W. A.	LCL	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. LCL Liberal and Country League. LM Liberal Movement.

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.	(LCL)	Central No. 2
Rymill, Hon. Sir Arthur	(LCL)	Central No. 2
Cameron, Hon. M. B.	(LM)	Southern
Springett, Hon. V. G.	(LCL)	Southern
Dawkins, Hon. M. B.	(LCL)	Midland
Story, Hon. C. R.	(LCL)	Midland
Gilfillan, Hon. G. J.	(LCL)	Northern
McEwin, Hon. Sir A. Lyell	(LCL)	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.	(LCL)	Central No. 2
Potter, Hon. F. J.	(LCL)	Central No. 2
DeGaris, Hon. R. C.	(LCL)	Southern
Burdett, Hon. J. C.	(LCL)	Southern
Chatterton, Hon. B. A.	(ALP)	Midland
Creedon, Hon. C. W.	(ALP)	Midland
Geddes, Hon. R. A.	(LCL)	Northern
Whyte, Hon. A. M.	(LCL)	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-seven 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
 Treasury Department
 Superannuation Department

State Taxes Department
 Valuation Department
 Department of the Public Service Board

CONSTITUTION AND GOVERNMENT

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
Art Gallery Department

ATTORNEY-GENERAL AND MINISTER OF COMMUNITY WELFARE

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 the Minister of Transport and Minister of Local Government

Highways Department
Motor Vehicles Department

MINISTER OF AGRICULTURE AND MINISTER OF FORESTS

Hon. Thomas Mannix Casey, MLC

Minister of Agriculture Department
Agriculture Department
Chemistry Department

Woods and Forests Department
Produce Department

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

Hon. Glen Raymond Broomhill, MP

Department of Environment and Conservation
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

Department of Public Health

MINISTER OF DEVELOPMENT AND MINES AND MINISTER ASSISTING
THE PREMIER

Hon. Donald Jack Hopgood, MP

Mines Department

LEGISLATION

During 1973, ninety-five Public Acts were passed by the South Australian Parliament; twenty-two new Acts and seventy-three amendments of existing Acts. Details of some of the more important legislation passed during this period are given below.

Community Welfare Act Amendment Act, 1973 (No. 68) amended the Community Welfare Act, 1972 to provide for the transfer of the responsibility for Aboriginal Affairs from the South Australian Government to the Australian Government.

Constitution Act Amendment Act, 1973 (No. 51) amended the Constitution Act, 1934-1972 to provide for full adult franchise in Legislative Council elections.

Constitution Act Amendment Act (No. 2), 1973 (No. 31) amended the Constitution Act, 1934-1972 to increase the number of Ministers of the Crown from ten to eleven.

Constitution and Electoral Acts Amendment Act, 1973 (No. 52) amended the Constitution Act, 1934-1972 and the Electoral Act, 1939-1972 to introduce a system of proportional representation for the Legislative Council.

Housing Agreement Act, 1973 (No. 24). An Act to authorise the execution of an agreement by or on behalf of the State between the Australian Government and the States in relation to housing.

Land and Business Agents Act, 1973 (No. 88). An Act to consolidate and amend the law relating to certain kinds of agent; to provide for the licensing and control of land brokers; and to repeal the Land Agents Act, 1955-1964 and the Business Agents Act, 1938-1963.

Land Commission Act, 1973 (No. 42). An Act to establish the South Australian Land Commission, the function of which is to acquire and release land on a large scale to overcome spiralling prices.

Monarto Development Commission Act, 1973 (No. 50). An Act to establish a Commission for the development of the city of Monarto.

Motor Fuel Distribution Act, 1973 (No. 90). An Act to regulate and control the distribution of motor fuel and to control the number and location of motor fuel retail outlets.

Murray New Town (Land Acquisition) Act Amendment Act, 1973 (No. 56) amended the Murray New Town (Land Acquisition) Act, 1972 to change the description of Murray New Town to Monarto and to set out the functions of the Monarto Development Commission.

Pyramid Selling Act, 1973 (No. 61). An Act to forbid pyramid and referral selling and other undesirable practices, and to regulate the operation of certain trading schemes and trading practices.

Red Cliff Land Vesting Act, 1973 (No. 75). An Act to vest certain land, in the vicinity of Red Cliff Point, in the State Planning Authority to facilitate the construction of a large petro-chemical complex in the area.

Road Traffic Act Amendment Act, 1973 (No. 93) amended the Road Traffic Act, 1961-1972 to change the law relating to speed limits for heavy vehicles and to introduce gross vehicle weight limits and gross combination weight limits which will be applicable to heavy vehicles.

Urban Land (Price Control) Act, 1973 (No. 64). An Act to provide for price control upon certain land.

Workmen's Compensation Act Amendment Act, 1973 (No. 94) amended the Workmen's Compensation Act, 1971 to raise the maximum amount of compensation payable to a workman, who is incapacitated because of an injury arising from his employment, to his average weekly earnings, and to widen the definition of a workman.

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, N.S.W., 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, consul-generals or deputy high commissioners.

- Austria*: John A. Nelson, Consular-General^(a)
Belgium: Robert E. Porter, Consul
Britain: Henry O'Brien, Consul General^(b)
 Derek Reed, Vice-Consul (Commercial)^(b)
Denmark: Trevor R. Taylor, Consul
Dominican Republic: Peter H. D. Lathlean, Consul
Finland: Robert N. Irwin, Consul
Germany: Bruce R. Macklin, Consul
Greece: Vasilis P. Apostol, Consul
Guatemala: Robert M. Napier, QC, Consul
Italy: Dr Antonino Provenzano, Vice-Consul^(b)
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 (*Lasiorchinus 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 1973 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, 1934-1972. 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 1973, 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, 1934-1972 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.

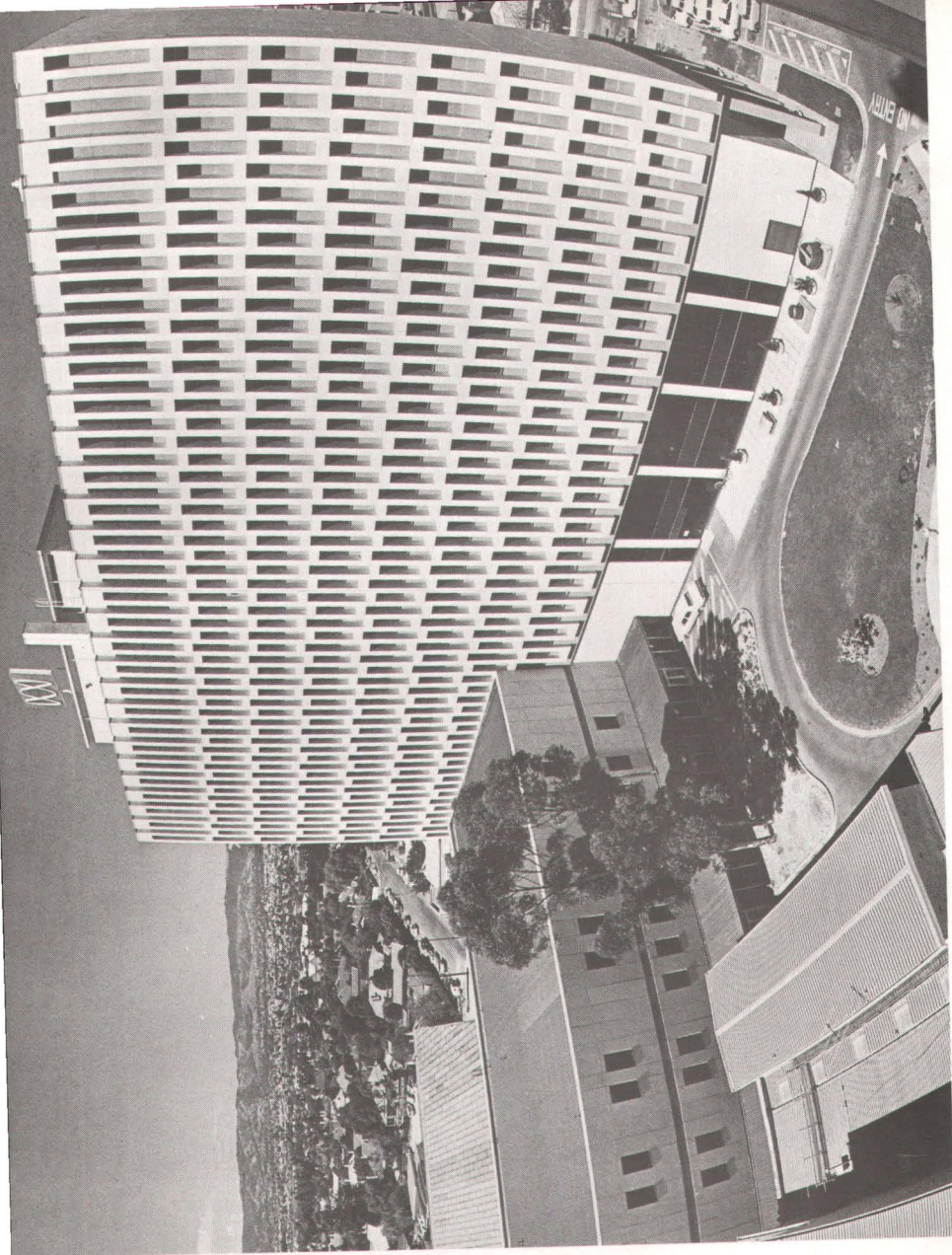
The auditor for each council is appointed for a term of two years. He is not eligible for appointment unless he holds a Local Government Auditor's Certificate of competence issued by the Local Government Auditors Examining Committee.

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



Monarto Development Commission

At a special ceremony held at the site of the proposed new town of Monarto on 9 May 1974, five Australian trees were planted by the Governor of South Australia, Sir Mark Oliphant; the Premier of South Australia, Mr D. A. Dunstan; the Australian Minister for Urban and Regional Development, Mr T. Uren; the South Australian Minister of Development and Mines, Mr D. J. Hopgood; and local identity Mr A. B. Schubert. Here Sir Mark plants his tree, the first of 5 million trees planned for the area.



Australian Broadcasting Commission

On 29 March 1974 the Prime Minister, Mr E. G. Whitlam opened the new \$4.8 million, ten-storey Australian Broadcasting Commission Radio/Administration Centre at Collinswood. Pictured above is the television mast through a fish-eye lens.



Adelaide Festival Centre Trust

The eighth Adelaide Festival of Arts, held from 9 to 30 March 1974, featured many diverse programmes including children's attractions. The photograph above displays a view from one of the children's programmes performed around the rotunda at Elder Park.



The Sunday Mail

Football Park at West Lakes, the new headquarters of the South Australian National Football League, was first used for a league match on 4 May 1974. The playing area is 170 m x 130 m, and ultimate spectator capacity will be 80 000.

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 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 Grants 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.

A revised system of local government accounting was introduced from 1 July 1968 involving, among other things, a change of basis from cash to accrual accounting. More detailed attention is given to local government finance in Part 11.5.

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 a 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.

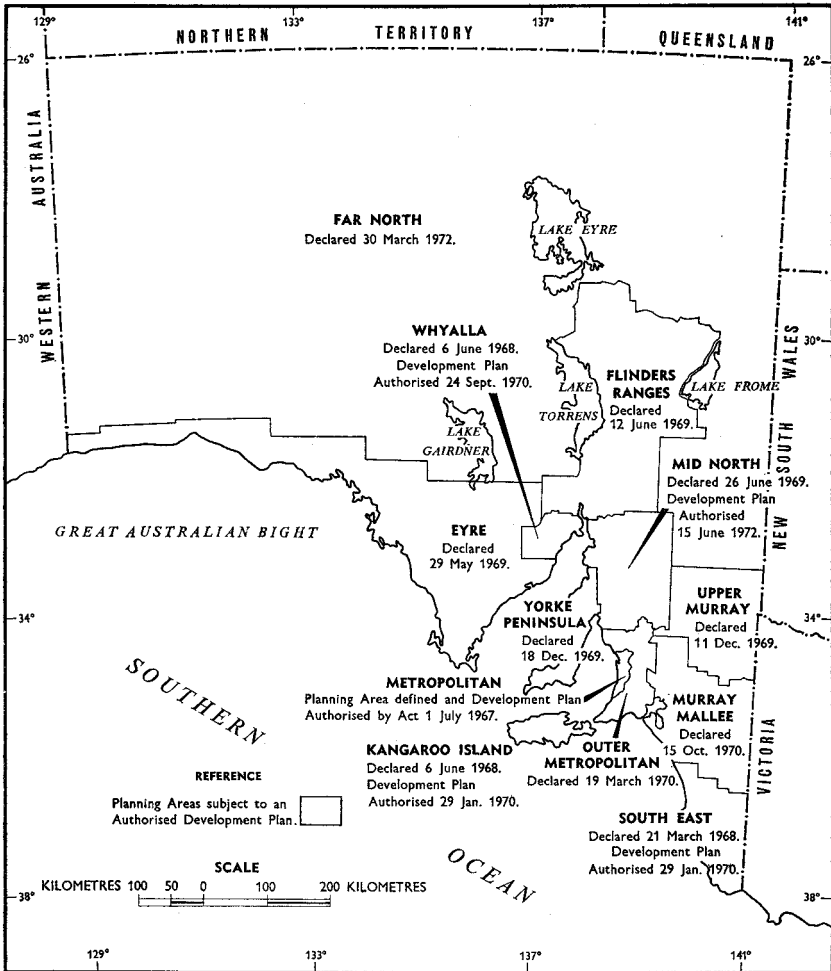
The Planning and Development Act Amendment Act, 1971 reconstituted the State Planning Authority to include a wider representation of experts in the fields of local government, conservation and aesthetics. Further amendments in 1972 permitted the appointment of permanent commissioners to the Planning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

Development Plans

Twelve planning areas have been declared covering the whole of the State. Development plans have been authorised for six 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) and Flinders Ranges (8 February 1973). 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.

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.

SOUTH AUSTRALIA PLANNING AREAS



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 developing of the Willunga area was authorised on 12 July 1973. Work is proceeding on other supplementary development plans for alterations to the arterial road network in the Metropolitan area, to conserve those portions of the Mount Lofty Ranges near Adelaide, for detailed development of the City of Adelaide, and to amend certain proposals shown on the Metropolitan Development Plan in the City of Woodville.

Development Control

Control of development in accordance with a development plan is by regulation and the 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 being submitted 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 on a point of law.

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.

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. It is also in the process of introducing environmental control regulations to protect and conserve the character of Kangaroo Island and other scenic areas of the State.

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 to be 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 duties are broadly to protect and restore the coast, to develop any part of it for enjoyment by the public and to carry out research.

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. The Act also establishes a Coast Protection Fund for the carrying out of coastal works.

Two coast protection districts, Metropolitan and Yorke, were declared in 1973 and the declaration of other districts will follow. It is expected that eventually there will be seven such districts.

The management plan for the Metropolitan Coast Protection District which extends from Sellicks Beach to Port Gawler is expected to be completed in 1974. 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 1972-73 the Coast Protection Board expended \$461 000 on foreshore repairs, improvements and restoration.

PART 4

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.

Counties are generally subdivided into hundreds, although four northern counties remain undivided and a number of others are only partly subdivided. There is considerable variation in the size of hundreds, while the number of hundreds in a completely subdivided county varies from eight in Counties Alfred and Kintore to thirty-four in County Jervois. New hundreds are created from time to time, the present total being 535. Hundreds are further subdivided into sections which in turn may be divided into allotments or occasionally blocks.

Land is therefore, for the purposes of title, identified by the county, hundred, and section, and, where appropriate, block or allotment within which it falls. Land in towns and in proclaimed irrigation areas may further be identified as falling within that town or area.

Torrens System of Land Registration

Land transactions in South Australia are conducted under the Torrens system of land registration as provided by the Real Property Act, 1886-1972. This system, first introduced by the Real Property Act, 1858, was named after its author, Sir Robert Torrens, who was at that time Registrar-General of the Colony.

The Torrens System provides that the matter of title to land shall be a government responsibility. Each piece of land is represented by a certificate of title which, with very few (and in practice unimportant) exceptions, is guaranteed by the State. Retrospective examination which is necessary with general law title is eliminated and the costs and time involved in conveyancing can thus be kept to a minimum.

The Real Property (Registration of Titles) Act, 1945 provides for the small proportion of land then remaining under the general law to be converted to the Torrens System and this transition is still in progress in certain areas.

Details of property transferred are estimated from records available in the Stamp and Succession Duties Office. The following table shows the number and value of transfers of property for each of the five years to 1972-73.

Property Transferred

Year	Number	Value (\$'000)
1968-69	37 547	302 900
1969-70	42 574	342 600
1970-71	42 460	362 400
1971-72	47 712	447 800
1972-73	63 524	694 800

SYSTEMS OF TENURE

LAND ADMINISTRATION

Approximately 90 per cent of the occupied area of South Australia comprises Crown land held under lease and as such is controlled by the Department of Lands. This Department is charged with the general administration of Crown lands, and with making available under appropriate tenure newly developed lands and such lands as come into the hands of the Crown by resumption, expiry, surrender or forfeiture of existing tenure. The consent of the Minister

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 1973 land in South Australia was occupied as follows:

	Area Hectares	Proportion Per Cent
Area sold, dedicated, etc.;		
Sold	6 128 290	6.22
Free grants	370 980	0.38
Dedicated (a)	127 010	0.13
Under agreement to purchase	108 858	0.12
Total	6 735 138	6.84
Area under lease and licence (b);		
Perpetual	8 519 140	8.65
Pastoral	50 790 582	51.59
Other	604 384	0.62
Total	59 914 106	60.86
Area in occupation	66 649 244	67.70
Remainder of State;		
Lakes and lagoons	3 198 962	3.25
Open for allotment or selection	10 120	0.01
Other vacant land (c)	28 579 439	29.04
Total area of State	98 437 765	100.00

(a) Includes State forest reserves.

(b) Includes areas held under Mining Acts.

(c) Includes surveyed roads, railways and other reserves, 9 292 339 hectares; of which 7 632 197 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 66 649 244 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 11 hectares in 1972-73.

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 371 268 hectares thus alienated at 30 June 1973, 311 000 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 1973, 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 1972-73, 115 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 new Act, all leases 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 new Act and its regulations.

Tenements Held Under Mining Acts, South Australia At 30 June

Particulars	1969	1970	1971	1972	1973
Mineral claims	556	1 180	1 498	1 394	1 330
Precious stones claims	562	780	846	1 015	1 810
Leases	894	918	1 009	1 183	1 188
Exploration licences (a)	127	169	167	117	71
Petroleum licences and permits	22	28	24	23	24

(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 1972-73 amounted to \$1 970 345.

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.

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.

Minerals Resumed

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 new 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.

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' (initially bulldozers) 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 1973 a total of 30 033 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 1972-73 amounted to \$28 051.

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 1972-73. The balance of the fund at 30 June 1973 was \$344 372.

CROWN LANDS DEVELOPMENT

The Crown Lands Development Act, 1943, 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 selected years the number of farms allotted and total expenditure under the War Service Land Settlement Scheme.

**War Service Land Settlement, South Australia
Farms Allotted and Total Expenditure to 30 June**

Particulars	1965	1968	1971	1972	1973
Farms allotted:					
Number	1 022	1 032	1 032	1 032	1 032
Area ('000 hectares)	279	285	285	285	285
Expenditure:					
			\$'000		
State	6 612	7 064	7 670	8 250	8 452
Australian Government;					
Acquisition of land	6 836	6 837	6 837	6 837	6 837
Development and improvement of land	29 748	30 336	31 016	31 558	31 684
Provision of credit facilities	27 008	33 218	37 241	37 663	38 765
Other	9 454	10 540	12 052	13 580	14 071
Total expenditure by Australian Government					
	73 046	80 931	87 146	89 638	91 357
Total expenditure					
	79 658	87 995	94 816	97 888	99 809

The Department of Lands administers the War Service Land Settlement Scheme on behalf of the Australian Government. The Australian Government provides the funds and meets the costs of the scheme with the exception of administration costs and two-fifths of any losses, which sums are met by the South Australian Government.

All large scale development operations under the scheme have now been completed. The principal areas settled are in the South East, on Kangaroo Island, Eyre Peninsula, and in irrigation areas along the River Murray.

Loans and Allowances (Agricultural Occupations) Scheme

The Australian Government through the State Bank of South Australia provided financial assistance for the establishment or re-establishment of ex-servicemen in agricultural occupations. Loans were made for a variety of purposes and non-repayable allowances were made where income during the course of re-establishment proved to be inadequate. The payment of allowances and the advancing of new loans ceased in 1956-57 by which date loans totalling \$2 009 096 had been made to 1 288 ex-servicemen, and allowances totalling \$649 218 had been granted to 2 264 ex-servicemen.

An additional Marginal Lands Improvement Fund was established in 1943 from which expenditure of \$416 476 had been made to 30 June 1973 by the Department of Lands.

PRIVATE LAND DEVELOPMENT SCHEMES

The most important private scheme in South Australia has been a project, begun in 1949 by the Australian Mutual Provident Society, to develop a large area of land in the south-east of the State in what was previously known as the Ninety Mile Desert. The development of this area was made possible by the

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 Government 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 1973, \$9 100 000 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 1973^(a)

Debt reconstruction:

Applications received	804
Applications declined	457
Applications approved	311
Total assistance approved	\$6 423 611
Expenditure to 30 June 1973	\$6 041 622
Average assistance approved (including outstanding balance current account)	\$20 655

Farm build-up:

Applications received	271
Applications declined	86
Applications approved	147
Total assistance approved	\$5 219 539
Expenditure to 30 June 1973	\$3 811 701
Average assistance approved	\$35 507

Rehabilitation:

Applications received/approved	11
Total assistance approved	\$17 500
Expenditure to 30 June 1973	\$17 507

Current Account budgets:

Budgets approved	154
Total of approved budget expenditure	\$1 211 797
Actual expenditure to 30 June 1973	\$1 075 316
Less advances recouped	\$136 481

Balance —

(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 1973, 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 1973, \$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 1973.

Advances to Settlers, South Australia

Particulars	Advances made during 1972-73	Total Advance at 30 June 1973	Principal Outstanding at 30 June 1973	
			Persons	Amount
	\$	\$	Number	\$
Department of Lands:				
Advances to soldier settlers	—	10 143 560	167	184 635
Advances under closer settlement Acts	—	5 461 033	152	172 019
Settlement of returned service personnel (1939-45 War) (a)	1 210 137	38 823 188	670	9 398 610
Advances under Crown Lands Development Act	—	985 623	47	610 703
Advances in drought affected areas	15 642	738 249	124	174 133
Advances under Marginal Dairy Farms Reconstruction Scheme (a)	68 900	153 445	7	139 240
Advances under Rural Industry Assistance Scheme (a)	7 259 981	11 068 527	394	8 839 981
Advances under Fruitgrowing Reconstruction Scheme (a)	5 024	5 024	4	5 024
Advances to soldier settlers; Irrigation	—	2 096 348	59	81 171
State Bank of South Australia:				
Advances to settlers for improvements (b)	74 282	4 183 338	393	1 357 612
Advances under vermin and fencing Acts (c)	1 890	2 974 723	56	86 756
Advances under loans to producers Acts	2 261 456	23 907 131	247	9 790 638
Total	10 897 312	100 540 189	2 320	30 840 522

(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 1973 the major trading banks had advances outstanding to residents of South Australia employed in agriculture, dairying and grazing, of \$76.4 million. At June 1973 branches of major pastoral finance companies located in South Australia had \$57.3 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.

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.

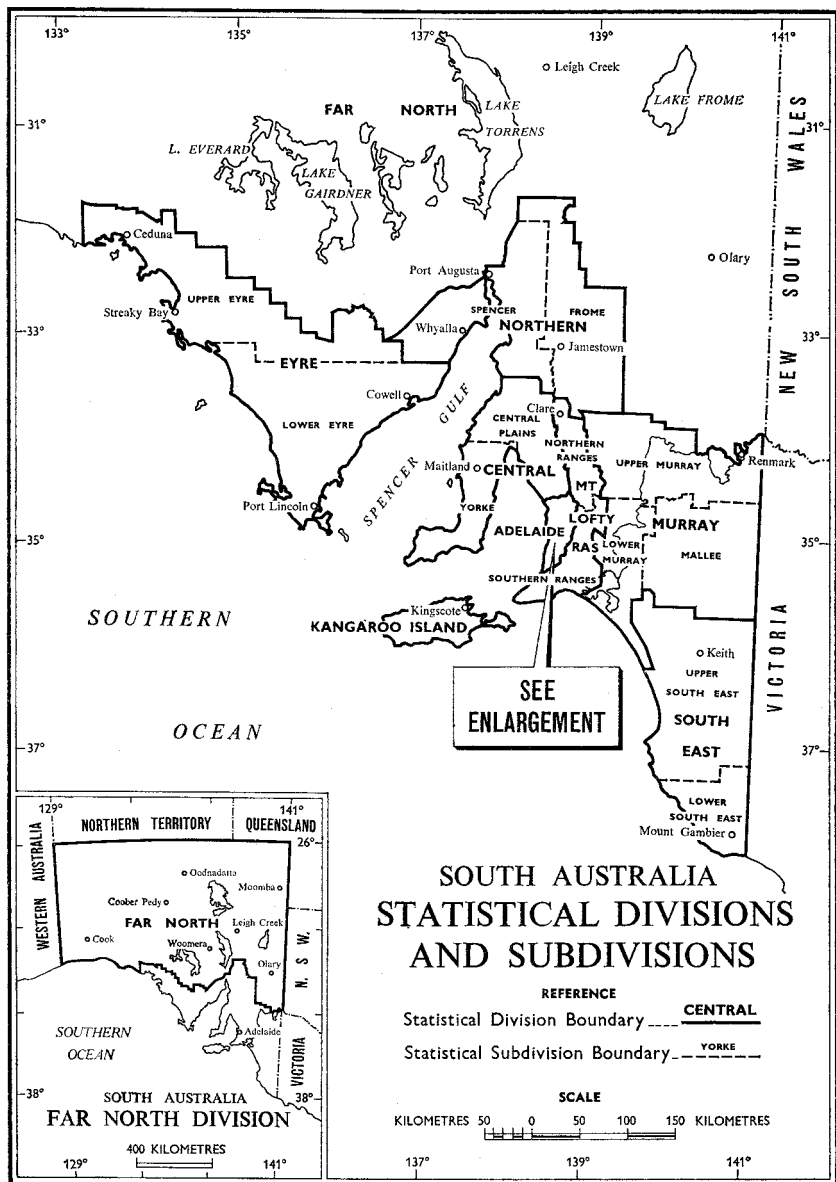
For the 1966 Census an additional division, the Adelaide Statistical Division, was delineated to embrace the area expected to contain the urban development of Adelaide during a period of at least twenty years.

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 113 and 114. 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.

However, 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 Commonwealth 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, 30 June 1966 was 1 094 984 persons and the Census of 30 June 1971 showed it to be 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^(a)

Period	Recorded Natural Increase			Other Increase			Total Increase
	Males	Females	Persons	Males	Females	Persons	Persons
Annual Average:							
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
Year:							
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

(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^(a)

Period	South Australia			Australia		
	Recorded Natural Increase	Other Increase	Total Increase	Recorded Natural Increase	Other Increase	Total Increase
Annual Average						
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^(a)

Year	Males	Females	Persons	Total Increase for Year	Rate of Growth
					Per Cent
1963	513 300	506 500	1 019 800	23 960	2.41
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

(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. These estimates have been revised according to results of the Census 30 June 1971.

The estimates show that an annual increase in population of over 20 000 persons was maintained during the period 1963 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 1928 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 eight of the 11 years since 1961, it has fallen 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^(a)

Year	Year Ended 30 June			Year Ended 31 December		
	Males	Females	Persons	Males	Females	Persons
1964	513 900	506 900	1 020 900	520 700	514 100	1 034 800
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			

(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.

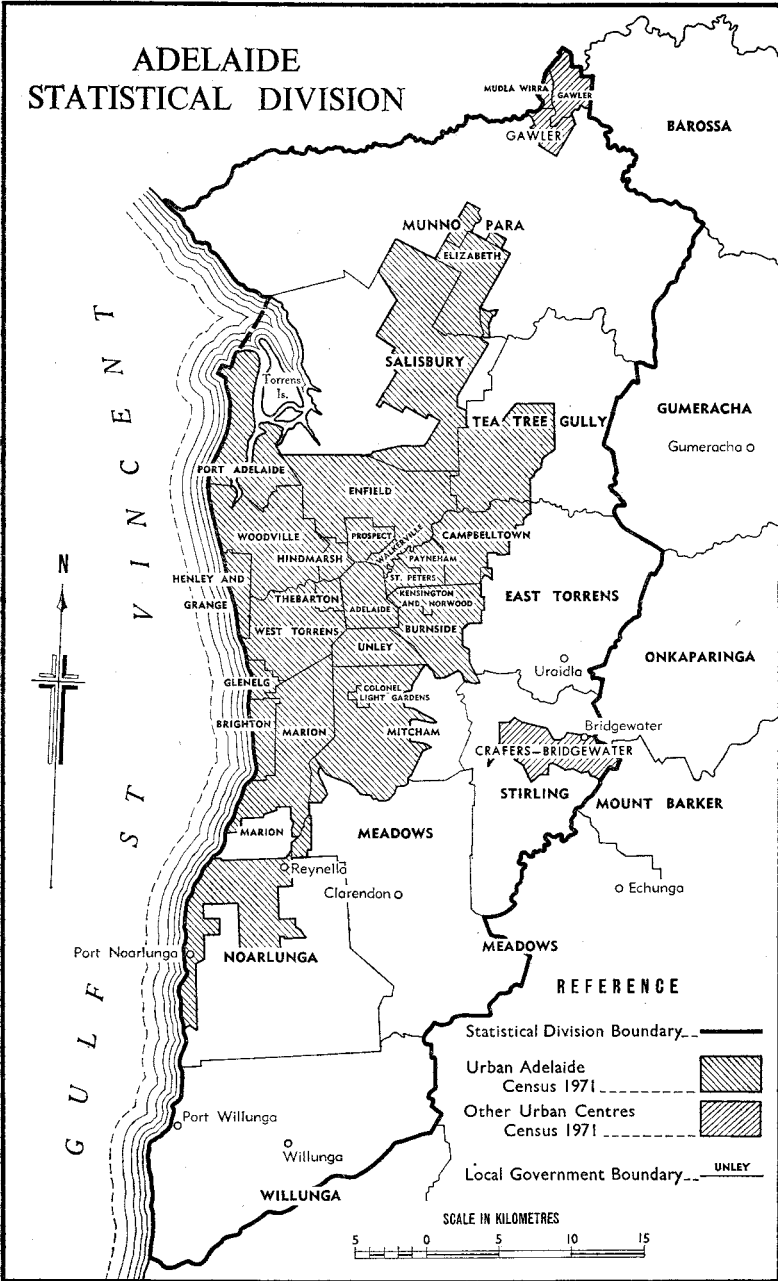
Around Adelaide (and all other urban centres with a population of at least 100 000) two boundaries have been defined. The outer one, which is fixed, circumscribes the area in close economic and social contact with the main city, and which contains the anticipated urban development of the city for a period of at least twenty to thirty years. This boundary defines the Adelaide Statistical Division (see map on page 123). 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 which at the 1966 Census contained nearly all the metropolitan area 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 123). 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).

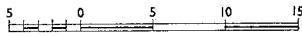
ADELAIDE STATISTICAL DIVISION



REFERENCE

- Statistical Division Boundary ———
- Urban Adelaide Census 1971
- Other Urban Centres Census 1971
- Local Government Boundary ——— UNLEY

SCALE IN KILOMETRES



Urban and Rural Population, South Australia^(a)
Censuses 1921 to 1971

Census	Urban				Rural		Total (including Migratory) Number
	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 included, 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.

For statistical purposes the State is divided into nine statistical divisions, most of which are further divided into subdivisions, as described on page 112. 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
Adelaide:				
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
Total Adelaide	771 595	842 693	855 000	868 000
Central:				
Central Plains	21 569	20 464	20 300	20 200
Yorke	11 728	10 731	10 700	10 600
Total Central	33 297	31 195	31 000	30 800
Kangaroo Island	3 375	3 156	3 150	3 150
Mount Lofty Ranges:				
Northern Ranges	21 852	21 447	21 300	21 350
Southern Ranges	30 561	30 384	31 250	31 250
Total Mount Lofty Ranges	52 413	51 831	52 550	52 600

according to the new density criteria is estimated to have been 580 449 persons or 59.9 per cent of the total State population and this figure had increased to 728 279 (66 per cent) at the Census, 30 June 1966.

After the 1966 Census the gap in development between Urban Adelaide and Urban Reynella-Port Noarlunga so narrowed as to enable these two areas to be regarded as contiguous at the 1971 Census. This amalgamation, together with the inclusion of further peripheral development, has resulted in an increase to 809 482 persons (69 per cent of the State population).

In addition to Urban Adelaide there are two urban centres within the Adelaide Statistical Division, Urban Gawler with a population of 6 959 persons at the 1971 Census and Urban Crafers-Bridgewater with a population of 5 308 persons.

Population at 30 June, Adelaide Statistical Division^(a)

Local Government Area	1961	Census 1966	1971	Estimate 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
Glennelg (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	—
Total	659 146	771 561	842 693	868 000

(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 (approx. 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. In recent years governments have encouraged decentralisation by providing incentives for the establishment of industry and commerce in urban centres away from the capital cities with a view to limiting the growth of the capital cities.

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^(a)

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
Coober 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	Walleroo	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 121.

(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 a new city 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 five municipalities which have been proclaimed as cities (Whyalla, Mount Gambier, Port Pirie, Port Augusta and Port Lincoln). Although there are no other towns of city size there are a number of smaller municipalities with a population of about 3 000 or more. Growth of these towns since the 1947 Census is shown in the next table.

Population of Municipalities at 30 June, South Australia^(a)

Municipality	Census					Estimate 1973
	1947	1954	1961	1966	1971	
Mount Gambier	6 771	10 331	15 388	17 261	17 386	17 350
Murray Bridge	3 690	4 362	5 404	5 958	6 709	7 050
Naracoorte	2 202	3 329	4 410	4 380	4 429	4 400
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	12 850
Port Lincoln	3 972	5 871	7 508	8 912	9 158	9 250
Port Pirie	12 019	14 223	14 003	13 965	13 227	12 750
Renmark	4 832	5 484	6 070	6 275	6 333	6 300
Whyalla	7 845	8 598	13 711	21 281	31 570	33 250

(a) Excludes full-blood Aborigines before 30 June 1966.

PROJECTIONS OF THE POPULATION

This section contains summary results of a series of projections of the population of South Australia using 1970 as the base year. The results have been arbitrarily adjusted to take account of the preliminary results of the 1971 Census of population.

Projections are sometimes distinguished from forecasts on the basis that the former are extrapolations of existing populations assuming the continuance of past trends of births, deaths, and migration, whereas forecasts do not necessarily assume the continuance of these trends. Forecasts may also take into account expectations of trends in other factors such as employment opportunities, government policy or technological advance. Neither projections nor forecasts should be expected to accord consistently with actual future events. Projections are useful for the study of the demographic forces at work and of their likely consequences. Forecasts, often developed from projections, are required for the planning of government services, industrial and economic policy, and many other purposes.

The method chosen for these projections is similar to the method used for the current estimates of the population except that hypothetical figures of births,

deaths and net migration are used instead of recorded births, deaths and net migration. Projections are made of the population in a *base* year, classified by age and sex, by the application of age-specific fertility and mortality rates one year at a time. Separate projections of the population resulting from assumed future annual net migration are made in a similar fashion. To obtain the projected total population the two parts are added together. As migration can vary widely, the tables are presented in such a form that other projections may be made using alternative assumptions as to future annual intake.

The assumptions employed in the latest set of projections are given below. They cover the years 1975 to 2000, taking 1970 as the base year.

Fertility

For the projections of base year populations, the age-specific birth rates and the masculinity of births recorded in South Australia in 1970 were used for all future years. Additional female population resulting from future migration was assumed to experience the age-specific birth rates and masculinity of births recorded in 1970 for *Australia as a whole*.

Mortality

It was assumed that the average age-specific mortality rates recorded in South Australia in the three years 1965 to 1967, related to the 1966 Census population, would remain unchanged. The projected deaths for Australia are the sum of the projected deaths for each State and Territory. Deaths of persons in the migration component are projected on the basis of the *Australian* 1965-67 mortality experience.

Migration

The age-sex composition of all future net interstate and/or overseas migration was assumed to be the average age-sex distribution of the net overseas migration (excess of total arrivals over total departures) recorded for Australia as a whole for the five years ended 30 June 1970.

It has been assumed that the future migration component for South Australia will be subject, for the whole of the projection period, to the same age-specific fertility and mortality rates as experienced by the Australian population as a whole in 1970 (fertility) and 1965-67 (mortality), regardless of the State or Territory to which the people move, or the State, Territory or country whence they came.

Population Projections, South Australia

At 30 June	Population exclusive of overseas or interstate migration after 30 June 1970		Extra population resulting from net migration of 1 000 persons per annum (a)	
	Males	Females	Males	Females
1975	612 600	614 200	2 860	2 480
1980	651 100	655 100	6 050	5 300
1985	691 600	698 400	9 560	8 420
1990	730 500	740 600	13 370	11 860
1995	767 600	781 000	17 500	15 630
2000	806 500	822 600	21 950	19 750

(a) The projected net gain from migration resulting from sustained net migration at any other level may be calculated *pro rata* from figures in this column.

Population Projections, South Australia

At 30 June	Population inclusive of net migration at levels of:				
	2 000 persons a year	4 000 persons a year	6 000 persons a year	8 000 persons a year	10 000 persons a year
1975	1 237 500	1 248 200	1 258 900	1 269 500	1 280 200
1980	1 328 900	1 351 600	1 374 300	1 397 000	1 419 700
1985	1 426 000	1 461 900	1 497 900	1 533 800	1 569 800
1990	1 521 600	1 572 100	1 622 500	1 673 000	1 723 400
1995	1 614 900	1 681 200	1 747 400	1 813 700	1 879 900
2000	1 712 600	1 796 000	1 879 400	1 962 800	2 046 200

The following table showing the levels of annual average net migration since 1951 indicates the magnitude of net migration fluctuations in recent years in South Australia.

Net Migration, South Australia

Period ended 30 June	Males	Females	Persons
Annual Average:			
1951-55	6 258	4 952	11 210
1956-60	6 570	6 414	12 984
1961-65	5 253	5 658	10 911
1966-70	2 768	3 562	6 330
Year:			
1969	2 373	2 984	5 357
1970	2 736	3 488	6 224
1971	551	1 941	2 492
1972	93	—30	63
1973	—35	1 394	1 359

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'. 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 the mean population was above 45 in the late 1850s then declined generally to 23.8 in 1903 before improving gradually to reach nearly 29 in 1914. The subsequent war years brought about a further decline and except for a temporary revival in 1920 and 1921 the rate continued to fall to 14.1 in 1935, the lowest on record. From that time there was a steady upward trend climaxing with a rate of 25.2 in 1947. A reversal in trend followed with the lowest post-war rate of 18.4 being recorded in 1967 and again in 1972. The South Australian rate in 1972 was well below the Australian rate of 20.4 and lower than the rate in any other State.

The following table, shows the live birth rate, the masculinity of live births and the totals and rates of still births and also a comparison between the births which actually occurred and those registered for the ten years to 1972.

Live Births and Still Births, South Australia^(a)

Year	Total Live Births Occurred (b)	Births Registered						
		Live-born					Still-born	
		Total	Rate (c)	Males	Females	Masculinity (d)	Total	Rate (e)
1963 . . .	21 215	21 367	21.20	11 006	10 361	106.23	262	12.11
1964 . . .	20 836	20 866	20.16	10 849	10 017	108.31	252	11.93
1965 . . .	20 793	20 891	19.63	10 778	10 113	106.58	256	12.11
1966 . . .	20 319	20 362	18.61	10 556	9 806	107.65	237	11.51
1967 . . .	20 452	20 386	18.37	10 402	9 984	104.19	211	10.24
1968 . . .	21 217	21 207	18.89	10 949	10 258	106.74	217	10.13
1969 . . .	21 985	21 977	19.28	11 262	10 715	105.10	208	9.38
1970 . . .	22 578	22 617	19.52	11 555	11 062	104.46	200	8.77
1971 . . .	22 728	22 996	19.55	11 797	11 199	105.34	199	8.58
1972 . . .	20 989	21 844	18.37	11 299	10 545	107.15	173	7.86

(a) Where identified in registrations births of full-blood Aborigines have been excluded before 1966. (b) Figures are subject to the addition of a few very late registrations. (c) Per 1 000 of mean population. (d) Number of male births per 100 female births. (e) Per 1 000 of all births (live and still).

Ex-nuptial Births and Legitimations

The ex-nuptial birth rate was about 3 per 100 from the early 1920s until the late 1950s, but has more than doubled since 1959 when the rate was 3.66. Except for falls in 1967 and 1969 the rates for 1963 to 1972 were successively the highest recorded.

The legitimation 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 legitimation 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. Legitimations 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 Live Births		Legitimations
	Number	Rate per 100 Births	
1968	1 558	7.35	240
1969	1 508	6.86	260
1970	1 715	7.58	323
1971	1 782	7.75	337
1972	1 803	8.25	296

Confinements and Live Births

In the table below confinements in each of the years 1969 to 1972 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			
	1969	1970	1971	1972	1969	1970	1971	1972
NUPTIAL CONFINEMENTS								
10-14	—	—	1	1	—	—	0.0	0.0
15-19	1 588	1 681	1 711	1 602	7.8	8.1	8.1	8.1
20-24	7 779	7 815	8 135	7 408	38.4	37.8	38.7	37.3
25-29	6 298	6 695	6 958	7 132	31.1	32.4	33.1	35.9
30-34	2 933	2 944	2 756	2 591	14.5	14.2	13.1	13.0
35-39	1 262	1 179	1 124	877	6.2	5.7	5.4	4.4
40-44	380	344	289	230	1.9	1.7	1.4	1.2
45 and over	29	21	19	19	0.1	0.1	0.1	0.1
Not stated	3	—	—	—	—	—	—	—
Total	20 272	20 679	20 993	19 860	100.0	100.0	100.0	100.0
EX-NUPTIAL CONFINEMENTS								
10-14	8	10	11	9	0.5	0.6	0.6	0.5
15-19	604	647	749	760	40.4	38.1	42.3	42.4
20-24	491	594	598	573	32.9	35.0	33.8	32.0
25-29	188	237	2.2	273	12.6	14.0	13.1	15.2
30-34	116	106	109	110	7.8	6.2	6.2	6.1
35-39	59	76	55	40	3.9	4.5	3.1	2.2
40-44	25	26	15	26	1.7	1.5	0.8	1.4
45 and over	1	1	1	—	0.1	0.1	0.1	—
Not stated	1	—	1	—	0.1	—	0.1	—
Total	1 493	1 697	1 771	1 791	100.0	100.0	100.0	100.0

(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 1971 and 1972 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	1971				1972			
	Confinements (a)	Live Births			Confinements (a)	Live Births		
		Male	Female	Total		Male	Female	Total
Nuptial:								
Single births	20 775	10 682	10 093	20 775	19 680	10 197	9 483	19 680
Twins	214	206	221	427	179	169	189	358
Triplets	4	11	1	12	1	2	1	3
Total nuptial	20 993	10 899	10 315	21 214	19 860	10 368	9 673	20 041
Ex-Nuptial:								
Single births	1 760	887	873	1 760	1 779	915	864	1 779
Twins	11	11	11	22	12	16	8	24
Triplets	—	—	—	—	—	—	—	—
Total ex-nuptial	1 771	898	884	1 782	1 791	931	872	1 803
Total	22 764	11 797	11 199	22 996	21 651	11 299	10 545	21 844

(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 six of the nine years since 1963. There is a marked tendency for multiple births to be of the same sex; in 1972 there were 136 cases of twins of the same sex compared with only 55 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 1972 in the following table.

Confinements: Relative Ages of Parents, South Australia, 1972^(a)

Age Group of Father (Nuptial Births)	Age Group of Mother							Total
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	
Under 20	333	52	—	1	—	—	—	386
20-24	1 065	3 119	326	23	3	—	—	4 536
25-29	172	3 490	3 832	252	12	4	—	7 762
30-34	29	587	2 363	1 210	84	9	1	4 283
35-39	2	120	477	789	359	30	1	1 778
40-44	1	30	101	246	315	105	2	800
45-49	—	8	24	47	88	57	11	235
50 and over	—	2	9	22	15	25	4	78
Not stated	1	—	—	1	1	—	—	2
Married Mothers	1 603	7 408	7 132	2 591	877	230	19	19 860
Unmarried Mothers	769	573	273	110	40	26	—	1 791
Total Mothers	2 372	7 981	7 405	2 701	917	256	19	21 651

(a) Includes only those confinements which resulted in one or more live births.

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, 1972**

Duration of Marriage	Number of Confinements	Previous Issue						
		0	1	2	3	4	5	6 and over
Under 1 year	2 481	2 434	46	1	—	—	—	—
1 year	2 381	1 942	425	10	4	—	—	—
2 years	2 796	1 462	1 273	56	4	1	—	—
3 years	2 703	980	1 481	221	17	3	1	—
4 years	2 182	531	1 243	355	46	4	3	—
5 years	1 713	285	838	491	83	12	2	2
6 years	1 354	177	514	508	133	17	5	—
7 years	1 029	77	319	428	165	32	6	2
8 years	730	41	178	296	151	47	15	2
9 years	541	29	98	214	144	38	18	—
10 years	418	18	57	158	118	46	14	7
11 years	376	14	45	134	120	41	15	7
12 years	271	10	27	83	86	39	12	14
13 years	221	11	19	48	67	37	27	12
14 years	142	4	10	39	45	22	11	11
15 years and over	515	12	34	86	96	100	75	112
Not stated	7	5	—	1	—	1	—	—
Total	19 860	8 032	6 607	3 129	1 279	440	204	169

Between 1964 and 1972 the number of nuptial first live births rose from 6 552 to 8 032 (*i.e.*, from 33·38 to 40·08 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 2 092, a fall from 21·16 to 10·44 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 54·48 per cent in 1972. A corresponding increase is evident in the two to four years duration of marriage groups; from 22·95 per cent to 37·01 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			
	1969	1970	1971	1972	1969	1970	1971	1972
Under 5 months	660	698	703	653	8·36	8·58	8·42	8·13
5 months	517	563	566	513	6·55	6·92	6·78	6·39
6 months	593	537	497	425	7·51	6·60	5·95	5·29
7 months	195	199	175	159	2·47	2·45	2·10	1·98
8 months	146	143	124	135	1·85	1·76	1·49	1·68
9 months	255	269	216	206	3·23	3·30	2·59	2·57
10 months	240	228	212	165	3·04	2·80	2·54	2·05
11 months	197	222	210	178	2·50	2·73	2·52	2·22
Total under 1 year	2 803	2 859	2 703	2 434	35·51	35·14	32·37	30·30
1 year	1 976	1 972	2 110	1 942	25·04	24·24	25·27	24·18
2 years	1 258	1 384	1 515	1 462	15·94	17·01	18·14	18·20
3 years	834	844	896	980	10·57	10·38	10·73	12·20
4 years	455	461	480	531	5·76	5·67	5·75	6·61
5 years	205	231	253	285	2·60	2·84	3·03	3·55
6 years	104	111	139	177	1·32	1·36	1·66	2·20
7 years	70	79	81	77	0·89	0·97	0·97	0·96
8 years and over	182	190	170	139	2·31	2·34	2·04	1·73
Not stated	5	4	3	5	0·06	0·05	0·04	0·06
Total	7 892	8 135	8 350	8 032	100·00	100·00	100·00	100·00

DEATHS

The following two tables show the number of deaths and death rates since 1935, and deaths in age groups in the years 1970, 1971 and 1972, respectively.

Deaths and Death Rates, South Australia^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1935-39 (c)	2 929	2 501	5 430	9.89	8.47	9.19
1940-44 (c)	3 348	2 887	6 235	11.07	9.43	10.25
1945-49 (c)	3 389	2 980	6 369	10.48	9.12	9.80
1950-54	3 832	3 191	7 023	10.06	8.56	9.31
1955-59	4 248	3 430	7 678	9.62	7.97	8.80
1960-64	4 585	3 607	8 192	9.19	7.36	8.29
1965-69	5 172	4 119	9 291	9.32	7.47	8.40
Year:						
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	5 500	4 335	9 835	9.18	7.18	8.18

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Per 1 000 of mean population. (c) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

Deaths in Age Groups, South Australia

Age Group	Males			Females			Persons		
	1970	1971	1972	1970	1971	1972	1970	1971	1972
Under 1 year	226	204	212	141	162	155	367	366	367
1-4	42	41	48	25	26	26	67	67	74
5-9	29	21	25	16	18	19	45	39	44
10-14	23	19	27	23	9	19	46	28	46
15-19	82	85	75	29	42	31	111	127	106
20-24	80	77	71	19	36	16	99	113	87
25-29	44	41	51	20	27	24	64	68	75
30-34	48	54	45	29	35	30	77	89	75
35-39	74	72	59	45	37	32	119	109	91
40-44	130	105	123	74	66	57	204	171	180
45-49	222	188	211	116	98	109	338	286	320
50-54	323	259	309	135	154	142	458	413	451
55-59	483	455	451	208	191	235	691	646	686
60-64	578	517	584	318	266	281	896	783	865
65-69	669	642	707	402	374	350	1 071	1 016	1 057
70-74	728	726	680	544	537	477	1 272	1 263	1 157
75-79	723	674	689	767	674	666	1 490	1 348	1 355
80-84	621	612	594	802	715	744	1 423	1 327	1 338
85 and over	451	518	516	849	909	874	1 300	1 427	1 390
Total deaths	5 576	5 310	5 477	4 562	4 376	4 287	10 138	9 686	9 764

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^(a)

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^(a)

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 1972 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 Deaths: South Australia, 1972

Abbreviated Classification (a)	International Classification Code Number	Number of Deaths	Pro-portion of Total (Per cent)	Rate per 10 000 of Mean Population
3 Bacillary dysentery and amoebiasis	004, 006	2	0.02	0.02
4 Enteritis and other diarrhoeal . . .	008, 009	16	0.16	0.13
5 Tuberculosis of respiratory system	010-012	7	0.07	0.06
6 Other tuberculosis incl. late effects	013-019	2	0.02	0.02
11 Meningococcal infection	036	4	0.04	0.03
14 Measles	055	1	0.01	0.01
17 Syphilis and its sequelae	090-097	2	0.02	0.02
18 Other infective and parasitic diseases	{ 000-136 }	18	0.18	0.15
19 Malignant neoplasms	140-209	1 761	18.04	14.81

Causes of Deaths: South Australia, 1972 (continued)

Abbreviated Classification (a)	International Classification Code Number	Number of Deaths	Pro-portion of Total (Per cent)	Rate per 10 000 of Mean Population
20 Benign and unspecified neoplasms	210-239	10	0.10	0.08
21 Diabetes mellitus	250	188	1.93	1.58
22 Avitaminoses and other nutritional deficiency	260-269	13	0.13	0.11
23 Anaemias	280-285	22	0.23	0.18
24 Meningitis	320	6	0.06	0.05
25 Active rheumatic fever	390-392	2	0.02	0.02
26 Chronic rheumatic heart disease	393-398	68	0.70	0.57
27 Hypertensive disease	400-404	122	1.25	1.03
28 Ischaemic heart disease	410-414	3 038	31.11	25.54
29 Other forms of heart disease	420-429	424	4.34	3.56
30 Cerebrovascular disease	430-438	1 379	14.12	11.59
31 Influenza	470-474	12	0.12	0.10
32 Pneumonia	480-486	252	2.58	2.12
33 Bronchitis, emphysema and asthma	490-493	318	3.26	2.67
34 Peptic ulcer	531-533	44	0.45	0.37
35 Appendicitis	540-543	5	0.05	0.04
36 Intestinal obstruction and hernia	550-553, 560	41	0.42	0.34
37 Cirrhosis of liver	571	58	0.60	0.49
38 Nephritis and nephrosis	580-584	53	0.54	0.45
39 Hyperplasia of prostate	600	28	0.29	0.24
40 Abortion	640-645	1	0.01	0.01
41 Other complications of pregnancy, childbirth and the puerperium	630-639	3	0.03	0.02
42 Congenital anomalies	650-678			
43 Birth injury, difficult labour and other anoxic and hypoxic conditions	740-759			
44 Other causes of perinatal mortality	764-768,	77	0.79	0.65
	772, 776			
	760-763			
	769-771,			
	773-775,			
777-779				
45 Symptoms and ill-defined conditions	780-796	89	0.91	0.75
46 All other diseases	Residual	796	8.15	6.69
47 Motor vehicle accidents	E810-E823	302	3.09	2.54
48 All other accidents	{ E800-E807 E825-E949 }	230	2.36	1.93
49 Suicide and intentional self-inflicted injuries	E950-E959	127	1.30	1.07
50 All other external causes	E960-E999	17	0.18	0.14
Total all causes		9 764	100.00	82.09

(a) No deaths were recorded in 1972 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), 15 Typhus and other rickettsioses (080-083), 16 Malaria (084).

The following table shows for 1972 the main causes of deaths in selected age groups.

Main Causes of Deaths: Age Groups, South Australia, 1972

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
			No.	%	
	0-4 Years				
	Birth injury, difficult labour, etc.	77	17.5		100.0
764-768, 772, 776 760-763, 769-771, 773-775, 777-779 } 740-759 E800-E999 780-796	Other perinatal causes, including maternal conditions, prematurity, etc.	110	24.9		100.0
	Congenital anomalies	93	21.1		80.2
	Accidents, poisonings, violence	48	10.9		7.1
	Symptoms and ill-defined conditions	40	9.1		44.9
	Other causes	73	16.5		—
	5-14 Years				
E800-E999	Accidents, poisonings, violence	42	46.7		6.2
140-209	Malignant neoplasms	19	21.1		1.1
240-279	Endocrine, nutritional and metabolic diseases	6	6.7		2.5
480-493	Pneumonia, bronchitis, emphysema, asthma	4	4.4		0.7
	Other causes	19	21.1		—
	15-24 Years				
E800-E999	Accidents, poisonings, violence	144	74.6		21.3
140-209	Malignant neoplasms	14	7.3		0.8
480-493	Pneumonia, bronchitis, emphysema, asthma	7	3.6		1.2
320-389	Diseases of nervous system and sense organs	6	3.1		5.9
	Other causes	22	11.4		—
	25-34 Years				
E800-E999	Accidents, poisonings, violence	81	54.0		12.0
140-209	Malignant neoplasms	31	20.7		1.8
393-398, 410-429	Heart disease	7	4.7		0.2
480-493	Pneumonia, bronchitis, emphysema, asthma	5	3.3		0.9
	Other causes	26	17.3		—
	35-44 Years				
E800-E999	Accidents, poisonings, violence	71	26.2		10.5
393-398, 410-429	Heart disease	66	24.4		1.9
140-209	Malignant neoplasms	64	23.6		3.6
430-438	Cerebrovascular disease	16	5.9		1.2
	Other causes	54	19.9		—
	45-54 Years				
393-398, 410-429	Heart disease	247	32.1		7.0
140-209	Malignant neoplasms	223	28.9		12.7
E800-E999	Accidents, poisonings, violence	89	11.5		13.2
430-438	Cerebrovascular disease	55	7.1		4.0
480-493	Pneumonia, bronchitis, emphysema, asthma	30	3.9		5.3
571	Cirrhosis of liver	18	2.3		31.0
	Other causes	109	14.2		—
	55-64 Years				
393-398, 410-429	Heart disease	626	40.4		17.7
140-209	Malignant neoplasms	424	27.3		24.1
430-438	Cerebrovascular disease	153	9.9		11.1
480-493	Pneumonia, bronchitis, emphysema, asthma	75	4.8		13.2
E800-E999	Accidents, poisonings, violence	59	3.8		8.7
250	Diabetes mellitus	30	1.9		16.0
440-448	Diseases of arteries, arterioles and capillaries	29	1.9		8.7
	Other causes	155	10.0		—

Main Causes of Deaths: Age Groups, South Australia, 1972 (continued)

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
65-74 Years				
393-398, 410-429	Heart disease	925	41.8	26.2
140-209	Malignant neoplasms	490	22.1	27.8
430-438	Cerebrovascular disease	322	14.5	23.4
480-493	Pneumonia, bronchitis, emphysema, asthma	134	6.1	23.5
440-448	Diseases of arteries, arterioles and capillaries	71	3.2	21.4
250	Diabetes mellitus	63	2.9	33.5
E800-E999	Accidents, poisonings, violence	41	1.8	6.1
	Other causes	168	7.6	—
75 Years and over				
393-398, 410-429	Heart disease	1 653	40.5	46.8
430-438	Cerebrovascular disease	827	20.2	60.0
140-209	Malignant neoplasms	486	11.9	27.6
480-493	Pneumonia, bronchitis, emphysema, asthma	295	7.2	51.8
440-448	Diseases of arteries, arterioles and capillaries	219	5.4	66.0
E800-E999	Accidents, poisonings, violence	101	2.5	14.9
250	Diabetes mellitus	77	1.9	41.0
	Other causes	425	10.4	—

The following sections illustrate the long-term trends in deaths and death rates from some of the main causes.

One of the factors affecting these trends has been the reduction of mortality in early childhood. This improvement has increased the number of persons reaching higher ages where the risk from degenerative diseases is greatest; consequently deaths from degenerative diseases now constitute a higher proportion of deaths than formerly.

Infectious Diseases

Deaths from certain infectious diseases over the period 1915 to 1972 are shown in the following table.

Deaths from Certain Infectious Diseases, South Australia^(a)

Period	Respiratory Tuberculosis (010-012)	Typhoid Fever (001)	Scarlet Fever (034.1)	Diphtheria (032)	Whooping Cough (033)	Acute Poliomyelitis (040-043)	Measles (055)
Annual Average:							
1915-19	339	311	4	94	21	(b)	14
1920-24	330	28	9	70	28	9	7
1925-29	313	12	2	25	13	3	12
1930-34	261	7	2	12	13	3	6
1935-39	211	4	1	27	11	6	2
1940-44	190	3	2	30	10	2	9
1945-49	161	1	1	7	8	9	6
1950-54	81	—	—	1	2	23	3
1955-59	43	—	—	1	1	2	3
1960-64	32	—	—	—	1	1	2
1965-69	20	—	—	—	—	—	2
1970-72	11	—	—	—	—	—	1

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Not separately recorded.

In 1956 a poliomyelitis immunisation programme began and since then the incidence of and deaths from this disease have declined (see Part 6.5).

There has been a long-term downward trend in deaths from respiratory tuberculosis. This has been assisted by the introduction in March 1952 of compulsory chest X-ray surveys of the population, enabling early detection and therefore more effective treatment of the disease. Of those diseases shown in the preceding table, in 1972 there were seven deaths from respiratory tuberculosis.

The decline in the incidence of deaths from infectious diseases can be attributed to several factors, the more important being advances in medical science, improved hygiene and the general acceptance of immunisation of infants and young children against such diseases as diphtheria and whooping cough.

Malignant Neoplasms

For 1950 and subsequent years, deaths from malignant neoplasms (generally known as 'cancer') have included those deaths classified to neoplasms of lymphatic and haematopoietic tissues (ICD 200-209). This latter group, which accounted for 182 of the 1 761 deaths attributed to malignant neoplasms in 1972, includes such diseases as lymphosarcoma, Hodgkin's disease, leukaemia and aleukaemia.

The following table shows deaths from malignant neoplasms according to site of the disease for selected years.

Malignant Neoplasms: Deaths, Site of Disease, South Australia^(a)

Site of Disease	1955	1960	1965	1970	1972
	NUMBER				
Malignant neoplasm of:					
Buccal cavity and pharynx (140-9)	26	21	20	35	31
Digestive organs and periton- eum (150-9)	391	425	479	546	561
Respiratory system (160-3)	105	130	201	291	314
Skin (172, 173)	16	28	34	44	44
Breast (174)	103	120	107	146	153
Uterus (180-2)	60	66	61	52	64
Other female genital organs (183, 184)	31	39	47	63	74
Male genital organs (185-7)	79	74	84	110	104
Urinary organs (188, 189) .	62	67	88	79	80
Brain and nervous system (191, 192)	26	32	50	43	57
Other and unspecified sites (170, 171, 190, 193-9) . .	70	48	84	83	97
Neoplasms of lymphatic and haematopoietic tissue (200- 9)	81	97	128	160	182
Total deaths (140-209) . .	1 050	1 147	1 383	1 652	1 761

Malignant Neoplasms: Deaths, Site of Disease, South Australia^(a) (continued)

Site of Disease	1955	1960	1965	1970	1972
	RATE (b)				
Buccal cavity and pharynx (140-9)	0.32	0.22	0.19	0.30	0.26
Digestive organs and periton- eum (150-9)	4.77	4.50	4.50	4.72	4.72
Respiratory system (160-3)	1.28	1.38	1.89	2.51	2.64
Skin (172, 173)	0.20	0.30	0.32	0.38	0.37
Breast (174)	1.25	1.27	1.01	1.26	1.29
Uterus (180-2)	0.73	0.70	0.57	0.45	0.54
Other female genital organs (183, 184)	0.38	0.41	0.44	0.54	0.62
Male genital organs (185-7)	0.96	0.78	0.79	0.95	0.87
Urinary organs (188, 189) .	0.76	0.71	0.83	0.68	0.67
Brain and nervous system (191, 192)	0.32	0.34	0.47	0.37	0.48
Other and unspecified sites (170, 171, 190, 193-9) ..	0.85	0.51	0.79	0.72	0.82
Neoplasms of lymphatic and haematopoietic tissue (200- 9)	0.99	1.03	1.20	1.38	1.53
Total rate (140-209) ..	12.80	12.14	13.00	14.26	14.81

(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^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
1935-39	348	362	710	11.77	12.26	12.02
1940-44	363	409	772	12.02	13.35	12.69
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
Year:						
1968	858	726	1 584	15.25	12.96	14.11
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

(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^(a)

Age Group	Death Rate (b)					
	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72
MALES						
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
FEMALES						
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 20.2 per cent of deaths of persons aged seventy-five years and over in 1972. 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^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
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
Year:						
1968	605	792	1 397	10.75	14.14	12.44
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

(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.

Deaths from Diseases of the Heart (393-398, 410-429), South Australia^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
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
Year:						
1968	2 202	1 490	3 692	39.14	26.60	32.88
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

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(b) Number of deaths per 10 000 of mean population.

The percentage of total deaths classified to heart disease has 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 has increased from 10.7 to 31.4. However, 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.

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 Cause, South Australia

Year	Motor Vehicle Traffic Accidents	Accidental Drownings	Accidental Poisonings	Accidental Falls	Suicide and Self- inflicted Injury	Other External	Total
MALES							
1968	205	35	9	43	90	83	465
1969	181	30	7	53	92	81	444
1970	262	27	5	57	97	92	540
1971	213	35	5	35	87	75	450
1972	212	41	4	39	94	85	475
FEMALES							
1968	66	5	4	72	39	38	224
1969	70	8	2	68	48	32	228
1970	92	5	5	68	41	43	254
1971	88	4	3	63	35	43	236
1972	81	6	2	60	33	19	201

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 15.79 in 1969 was the lowest ever recorded in this State.

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 Deaths, South Australia

Year	Number of Deaths			Death Rate (a)		
	Males	Females	Persons	Males	Females	Persons
1968	198	147	345	18.08	14.33	16.27
1969	205	142	347	18.20	13.25	15.79
1970	226	141	367	19.56	12.75	16.23
1971	204	162	366	17.29	14.47	15.92
1972	212	155	367	18.76	14.70	16.80

(a) Number of infant deaths per 1 000 live births.

The decrease in mortality has been much greater for infants a week or more old than for those under one week. However, to a large extent the factors influencing mortality in these two groups are different. Deaths of infants under one week can be related mainly to pre-natal causes which also have a bearing on still births.

The table which follows shows infant mortality rates in age groups since 1910.

Infant Mortality Rates: Age Groups, South Australia (a)

Period	Number of Deaths per 1 000 Live Births at Ages:					Total Under 12 Months
	Under 1 Week	1 Week and Under 1 Month	1 Month and Under 3 Months	3 Months and Under 6 Months	6 Months and Under 12 Months	
Annual						
Average:						
1910-14 ..		28.55	10.81	12.50	15.96	67.82
1915-19 ..		29.88	8.80	9.41	13.76	61.85
1920-24 ..	19.82	8.86	8.26	8.94	12.57	58.45
1925-29 ..	20.35	6.73	5.66	5.93	7.87	46.54
1930-34 ..	18.69	4.89	4.12	4.23	6.12	38.05
1935-39 ..	17.81	3.98	3.65	2.88	4.54	32.86
1940-44 ..	15.75	5.37	4.60	3.83	5.02	34.57
1945-49 ..	15.50	3.52	2.88	2.44	3.01	27.35
1950-54 ..	13.08	2.53	2.25	2.08	2.75	22.69
1955-59 ..	11.79	2.06	2.45	2.42	2.65	21.37
1960-64 ..	11.25	1.93	1.93	1.99	2.07	19.17
1965-69 ..	10.35	1.50	1.70	1.74	1.77	17.05
Year:						
1968	10.66	1.41	1.18	1.32	1.70	16.27
1969	9.78	1.50	1.73	1.46	1.32	15.79
1970	11.19	1.02	1.55	1.50	0.97	16.23
1971	10.57	1.13	1.48	1.70	1.04	15.92
1972	10.48	1.33	1.46	2.20	1.33	16.80

(a) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

Combinations of still birth rates and rates of infant mortality to various ages have been shown in the following table which commences at the first five-yearly period after the introduction of compulsory registration of still births in South Australia. These figures give a clearer indication of the improvement which has been effected in the saving of life.

Infant Mortality and Still Births^(a), South Australia^(b)

Period	Still Births Plus Deaths Under 1 Week		Still Births Plus Deaths Under 1 Month		Still Births Plus Deaths Under 1 Year	
	Number	Rate (c)	Number	Rate (c)	Number	Rate (c)
Annual						
Average:						
1945-49	613	38.35	668	41.79	798	49.92
1950-54	533	29.44	578	31.92	704	38.88
1955-59	503	25.46	543	27.49	689	34.88
1960-64	510	23.54	551	25.44	679	31.35
1965-69 (d) . .	443	20.90	474	22.37	584	27.56
Year:						
1968	443	20.68	473	22.08	562	26.23
1969 (d)	423	18.98	456	20.46	555	24.90
1970	453	19.85	476	20.86	567	24.85
1971	442	19.06	468	20.18	565	24.36
1972	402	18.26	431	19.58	540	24.53

(a) A child not born alive, of at least 28 weeks gestation.

(b) Deaths of full-blood Aborigines where identified in registrations were excluded before 1966.

(c) Per 1 000 of all births (live and still).

(d) Figures of still births from 1968 derived from perinatal death certificates.

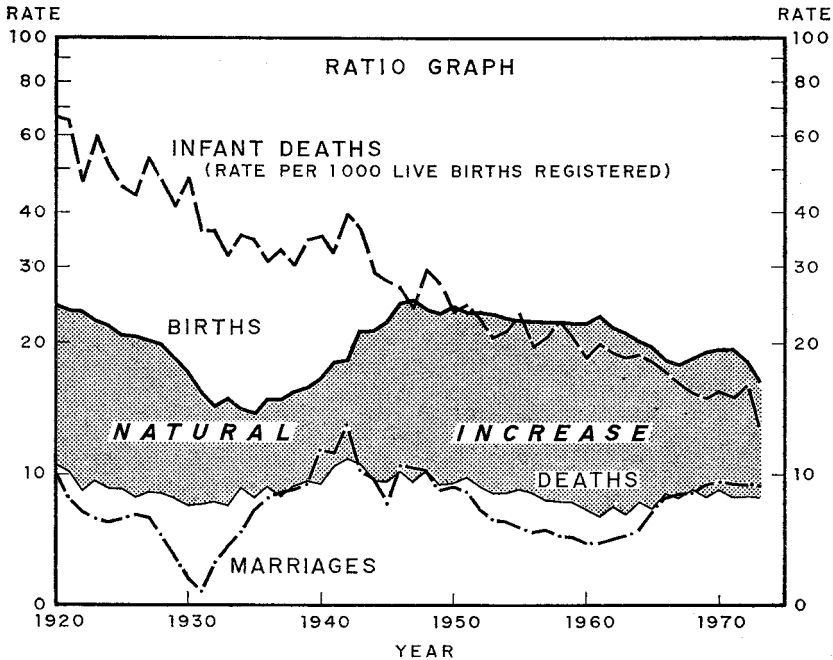
The causes of infant deaths in 1972 classified according to age group are shown in the following table.

Infant Mortality: Causes in Age Groups, South Australia, 1972

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		
Infective and parasitic diseases (000-136)	—	2	1	5	3	11	
Diseases of nervous system and sense organs (320-89)	—	1	—	1	1	3	
Diseases of respiratory system (460-519)	—	2	4	6	2	14	
Congenital anomalies (740-59)	44	16	10	11	6	87	
Perinatal causes:							
Maternal diseases and conditions (760-3)	34	1	—	—	—	35	
Difficult labour (764-8)	16	—	1	—	—	17	
Conditions of placenta and cord (770-1)	22	—	1	—	—	23	
Haemolytic disease (774-5)	6	—	—	—	—	6	
Anoxic and hypoxic conditions n.e.c. (776)	54	1	1	—	—	56	
Immaturity, unqualified (777)	19	—	—	—	—	19	
Other perinatal causes (769, 772, 773, 778)	31	—	—	—	—	31	
Sudden Death (cause unknown) (795)	—	3	8	21	5	37	
All other diseases	2	3	4	3	5	17	
Accidents, poisonings, violence (E800-E999)	1	—	2	1	7	11	
Total all causes	229	29	32	48	29	367	

VITAL STATISTICS RATES

SOUTH AUSTRALIA 1920 TO 1973
(PER 1000 MEAN POPULATION)



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
MALES							
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
FEMALES							
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 Commonwealth

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 Immigration. Under the provisions of the *Citizenship Act 1948-1973* aliens may, upon application, be granted naturalisation; 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 the Commonwealth of Australia*.

Assisted Migration

The resumption of migration after the 1939-45 War was the subject of negotiation between the Australian and British Governments towards the end of 1945, and two agreements were signed in March 1946. These agreements, which came into operation on 31 March 1947, provided for free and assisted passages to be granted to British residents desirous of settling in Australia. The Free Passage Agreement, which applied to British ex-servicemen and their dependants, was terminated in February 1955. The Assisted Passage Agreement continued in operation under renewal from time to time.

Since the commencement of the assisted passage schemes in 1947, the migration of unaccompanied children and youths from Britain has been encouraged under the auspices of approved voluntary organisations.

An agreement to settle displaced persons in Australia was made with the International Refugee Organisation in July 1947; the functions of this organisation were assumed in 1951 by the Intergovernmental Committee for European Migration (ICEM). In addition, ICEM is concerned with the movements of national migrants from Europe.

Migration schemes have been entered into with the governments of other countries including the Netherlands, Italy, Federal Republic of Germany, Austria, Greece and Turkey.

Assisted settler arrivals in Australia during the period January 1947 to March 1973 totalled 1 907 298 of whom 1 061 026 were British migrants under the Free and Assisted Passage Agreements. Included in the Australian total shown above were 214 646 who stated at the time of 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		
			Australian Residents		Visitors				
	Males	Females	Males	Females	Males	Females	Males	Females	Persons
ARRIVALS (a)									
1963	3 275	3 287	671	739	577	296	4 523	4 322	8 845
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
DEPARTURES (a)									
1963	1 677	1 520	913	901	682	338	3 272	2 759	6 031
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

(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.

Revised questions for travellers introduced in 1958 have permitted the separation of permanent from other long term movements, and also the identification of former settlers departing among the permanent departures. This information shows that in 1972-73 there were 31 961 former settlers leaving Australia who stated that they were departing permanently. Of these 16 142 intended to settle in the United Kingdom or Ireland, 3 925 in New Zealand, 2 090 in other Commonwealth countries, 5 775 in European countries and 2 301 in the United States of America. Other residents departing permanently totalled 12 945, of whom 2 831 intended to settle in the United Kingdom or Ireland, 3 925 in New Zealand, 1 040 in Papua and New Guinea and 1 504 in other Commonwealth countries.

Citizenship and Naturalisation

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. All Australian citizens, and the citizens of other countries of the Commonwealth of Nations are declared to be British Subjects. In the table which follows numbers of former aliens naturalised are shown according to previous nationality.

Nationality of Persons Naturalised, South Australia

Nationality	1967	1968	1969	1970	1971	1972
Austrian	44	58	69	51	46	31
Belgian	13	30	23	22	21	25
Czechoslovak	10	22	15	18	19	76
Dutch	619	494	335	311	180	165
Finnish	20	40	28	23	11	12
German	452	372	294	253	161	161
Greek	445	710	498	550	608	626
Hungarian	81	81	59	55	52	25
Italian	1 049	893	647	684	534	453
Latvian	19	25	13	13	9	5
Lebanese	15	12	12	17	19	27
Polish	198	151	154	88	164	120
Russian	43	43	10	11	4	13
Spanish	7	28	21	21	29	7
Ukranian	26	23	20	19	13	3
Yugoslav	219	307	232	253	207	244
Stateless	79	50	49	75	21	25
Other	108	107	136	131	102	157
Total	3 447	3 446	2 615	2 595	2 200	2 175

There were 1 985 naturalisation certificates granted in 1971 and 1 981 in 1972. Each certificate covers the person being naturalised and his/her children under the *Citizenship Act* 1948-1973. At the end of December 1972 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

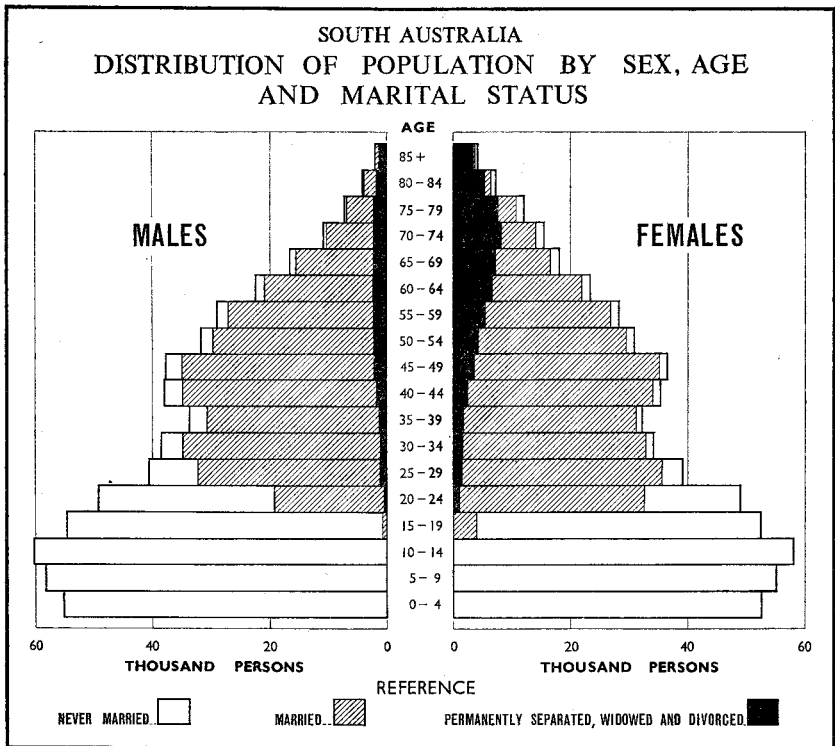
The mean or average age of the population of South Australia (excluding full-blood Aborigines before 1966) at the Census of 1954 was 32.2 years (males 31.5 and females 32.9); in 1961 it was 31.3 years (males 30.6 and females 32.1), but at 1971 it had risen again to 31.6 years (males 30.8 and females 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.

**Proportional Age Distribution of Population, South Australia
Censuses 1901 to 1971**

Census	Males			Females			Persons			
	Under 15 Years	15 Years and Under 65	65 Years and Over	Under 15 Years	15 Years and Under 65	65 Years and Over	Under 15 Years	15 Years and Under 65	65 Years and Over	
				Per cent						
1901	36.0	60.0	4.0	35.9	59.8	4.3	35.9	59.9	4.2	
1911	31.1	64.4	4.5	31.3	63.8	4.9	31.2	64.1	4.7	
1921	32.2	62.8	5.0	31.3	63.5	5.2	31.7	63.2	5.1	
1933	26.8	66.6	6.6	26.0	66.6	7.4	26.4	66.6	7.0	
1947	25.1	67.0	7.9	23.5	67.0	9.5	24.3	67.0	8.7	
1954	29.2	62.9	7.9	28.6	61.3	10.1	28.9	62.1	9.0	
1961	31.4	61.2	7.4	30.7	59.1	10.2	31.1	60.1	8.8	
1966	30.7	62.4	7.0	29.5	60.5	10.0	30.1	61.4	8.5	
1971	29.7	63.3	7.0	28.2	61.8	10.0	29.0	62.5	8.5	

The following diagram shows details of the sex, age and marital status of the population at the 1971 Census.



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
Never married:								
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
Total never married	279 864	50.87	242 772	44.56	287 070	48.99	251 073	42.72
Married	249 571	45.36	249 290	45.76	275 465	47.00	276 232	47.01
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
Total	550 196	100.00	544 788	100.00	586 051	100.00	587 656	100.00

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.

**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	
Christian:					
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	17.0
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
Total Christian	969 379	487 437	514 439	1 001 876	3.4
Non-Christian:					
Hebrew	1 249	552	579	1 131	(—) 9.5
Other	1 208	1 199	853	2 052	69.9
Total Non-Christian	2 457	1 751	1 432	3 183	29.6
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
Total	1 094 984	586 051	587 656	1 173 707	7.2

(a) So described in individual census schedules.
(b) See text on page 158.

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	1 103
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	466
5 years and over	87 919	73 586	161 505	103 438	92 166	195 604	
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	..
Total	550 196	544 788	1 094 984	583 629	586 386	1 170 015	3 692

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
British (a):					
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
Total British	1 042 991	554 326	558 943	1 113 269	70 278
Foreign:					
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
Total foreign	51 993	31 725	28 713	60 438	8 445
Total	1 094 984	586 051	587 656	1 173 707	78 723

(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 1973 there were 482 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 adviser 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, 1935-1972, 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 or to the Privy Council.

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^(a)

Type of Offence	1969	1970(b)	1971	1972	1973
Offences against the person:					
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
Total	207	187	43	29	43
Offences against property:					
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
Total	434	352	71	44	70
Other offences:					
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
Total	71	49	78	32	29
Total (all offences)	712	588	192	105	142

(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 164.

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, 1926-1972. 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 \$8 000 with special provisions to deal with actions for damages arising from the use of a vehicle for up to \$10 000. 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. 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 Full Court, and any party who is dissatisfied with any final judgment, determination or order of a local court, if the claim exceeds \$200, may appeal to the Full Court. Appeals involving claims under \$200 may be made if leave of the Full 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	
	Summons Issued (a)	Amount Sued For	Verdicts by Trial		Judgment by Default		Total		Summons for Service out of Jurisdiction	Certificates
			Number	Amount	Number	Amount	Number	Amount		
		\$'000		\$'000		\$'000		\$'000		
1968 . . .	92 724	8 464	1 413	421	48 994	4 355	50 407	4 776	2 512	1 944
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

(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 Recorder 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
Offences against the person:				
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
Total	29	188	203	182
Offences against property:				
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
Total	69	498	570	552
Other offences	8	53	86	106
Total (all offences)	106	739	859	840

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, 1921-1974. 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 61 per cent of total convictions in 1971-72—this compares with 52 per cent in 1961-62 and 42 per cent in 1951-52.

Of the 11 806 females convicted in 1971-72, 6 807 were convicted of offences under the Road Traffic and Motor Vehicles Acts, 699 under laws relating to local government (largely city parking offences), 1 013 for drunkenness and 857 were convicted of various forms of larceny.

**Courts of Summary Jurisdiction (Magistrates Courts), Persons Convicted
South Australia^(a)**

Offence	1967-68	1968-69	1969-70	1970-71	1971-72
Against the person	413	586	732	694	845
Against property:					
Burglary and housebreaking	767	719	801	949	1 216
Larceny (various)	2 837	3 404	3 330	3 844	4 030
Other	1 569	1 777	2 235	2 349	2 287
Against morality	349	350	517	415	437
Against good order:					
Drunkenness	6 889	7 528	9 650	9 365	10 181
Unlawfully on premises	598	617	645	583	529
Vagrancy	573	514	691	768	671
Other	2 149	2 575	3 030	3 278	3 481
Other, relating to:					
Road Traffic and Motor Vehicles Acts	70 472	70 781	73 242	68 138	75 244
Licensing	1 138	1 361	1 349	1 332	1 109
Social welfare	1 589	1 630	974	1 333	1 338
Police Act	1 509	1 455	1 612	1 866	1 668
Local government	4 691	2 995	3 864	4 963	5 683
Australian Broadcasting Act	2 884	2 903	2 575	2 648	2 883
Income tax assessment	1 004	1 083	1 908	1 653	2 637
Other	5 596	5 688	7 344	6 365	8 824
Total persons convicted:					
Males	96 747	97 111	104 709	100 766	111 257
Females	8 280	8 855	9 790	9 777	11 806
Total	105 027	105 966	114 499	110 543	123 063

(a) Includes 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 301.

Juvenile Offenders, South Australia^(a)

Offences	1967-68	1968-69	1969-70	1970-71	1971-72
Against the person	73	102	137	125	148
Against property:					
Burglary and housebreaking	737	702	696	939	1 168
Larceny (various)	1 297	1 483	1 630	1 932	2 124
Other	422	424	563	611	741
Against morality	130	132	129	142	149
Against good order:					
Unlawfully on premises	180	168	225	163	181
Other	560	558	740	858	908
Other:					
Road Traffic and Motor Vehicles Acts	3 574	4 710	4 337	4 396	3 989
Police Act	314	262	295	348	373
Other	428	563	665	1 014	1 066
Total juveniles convicted:					
Males	7 203	8 538	8 705	9 690	9 934
Females	512	566	712	838	913
Total	7 715	9 104	9 417	10 528	10 847

(a) Under 18 years. Includes both police and private cases. Excludes children found to be neglected, destitute or uncontrolled.

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 on pages 303-4.

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, is done by the Full Bench which consists of the Chairman or Deputy Chairman and two Licensing Magistrates. Other matters may be dealt with by a member of the Court sitting alone.

The types 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 *bona fide* museums or art galleries situated in, or near 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 or restaurant 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.

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 6 per cent of the amount of purchases.

Hotel bar trading hours are, with a few exceptions, from 9 a.m. to 10 p.m. In the case of a full publican's, limited publican's and restaurant licences, liquor may be consumed 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. 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.

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 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.

In 1972 a provision was enacted providing that clubs whose takings for the sale of liquor exceeded \$15 000 in any one year would no longer be eligible for a permit but must apply for a licence.

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
Licence:					
Publicans;					
Full	601	598	599	599	601
Limited	28	36	40	42	48
Storekeepers (a)	169	168	171	172	179
Vignerons'	46	47	46	52	62
Club	55	70	88	121	157
Restaurant	65	90	102	117	134
Other	93	53	65	57	63
Permits:					
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.

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	
		\$	\$		\$	\$	
1968-69 . . .	690	1 500 717	3 033 961	17	777 045	815 156	707
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

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, 1927-1972.

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.

The Law Society also conducts an advisory service for preliminary advice at no cost to pensioners and students, and to others at a nominal charge.

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, 1940-1973; 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, 1935-1969 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 2 167 in 1973. The number of persons per police officer has fallen from 910 in 1943 to 553 in 1973.

The maintenance of law and order and the reduction of opportunities for criminal activity are the main functions of the Uniformed Branch. The Traffic Division of this Branch, while concerned with the general regulation and 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.

Police Personnel, South Australia^(a)

At 30 June

Personnel	1969	1970	1971	1972	1973
Commissioned officers	52	57	58	61	69
Non-commissioned officers	378	399	445	501	522
Constables	1 377	1 387	1 431	1 461	1 531
Women police	38	38	37	40	45
Total active police force	1 845	1 881	1 971	2 063	2 167
Persons per active member	618	616	595	575	553

(a) Active police force strength; excludes trainees, women police auxiliaries, civil staff, etc.

The Criminal Investigation Branch is split into squads each concerned with a particular type of crime. Auxiliary services provided by the modus operandi, fingerprint and photographic, scientific, ballistics and handwriting sections are often essential aids in criminal investigation.

Women police officers have a role in the social welfare of the community which is now well recognised. These officers render assistance to lost and destitute children and endeavour to alleviate domestic suffering and hardship. They are also active in the control of juvenile delinquency. At 30 June 1973 there were forty-five women police officers.

In 1959 a Police Emergency Operations Group consisting of a Cliff Rescue Squad, Underwater Recovery Squad and an Emergency Squad was constituted. The Commissioner of Police is also responsible for the Emergency Fire Services, operations of which are outlined on pages 178-9.

Today, with an increasing number of laws and changing policing techniques, much emphasis is placed on the work of the Training Division. Police cadets (enrolled at sixteen or seventeen years) are given a three year course of academic and practical instruction at the Fort Largs Training Academy before graduating to active police work. At 30 June 1973 there were 373 police cadets.

In 1970 three new Sections instituted within the Department were:

- (1) Automatic Data Processing, with responsibility for systems design and feasibility studies for computerisation of records;
- (2) Legal and In Service Training, with its main objective to provide a legal research, advisory and training service to all sections of the Department; and
- (3) Management Services, concerned with review of policies, practices and methods and to plan for the future to maintain and improve the efficiency of police operations.

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 duty police in the metropolitan area was begun early in 1973. This involved the division of metropolitan Adelaide into three territorial regions commanded by superintendents, the implementation of a sector system in regions and the restructuring of patrol areas with a greater emphasis on 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 being 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 superintendent who co-ordinates the activities of the metropolitan regions. Members of the task force receive special training to deal with extraordinary emergencies and can provide supplementary assistance at special events.

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^(a)

Year	Expenditure			Revenue	Net Cost	
	Wages and Salaries	Other	Total		Total	Per Head
Dollars						
1968-69	7 476 426	2 238 103	9 714 529	146 561	9 567 968	8.46
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	(b) 1 477 843	15 106 844	12.64

(a) As reflected in Consolidated Revenue Account only—capital expenditure is met from Loan Fund.

(b) Includes \$1 145 000 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

Gaols and prisons in South Australia are administered by the Prisons Department, of which there were eight in use in 1972-73. Adelaide Gaol is a holding centre for remand prisoners and sentenced prisoners serving under three months. Yatala Labour Prison (11 kilometres from Adelaide) provides for minimum, medium and maximum security prisoners with sentences from three months to life. Gladstone Prison (mid-north), Port Augusta Gaol (north), Mount Gambier Gaol (south-east), and Port Lincoln Prison (west coast), are all medium security institutions. Cadell Training Centre on the River Murray 160 kilometres from Adelaide is a dual purpose training institution, accommodating 120 selected minimum security trainees and sixty medium security short-term prisoners. The Women's Rehabilitation Centre at Northfield accommodates women prisoners from all parts of the State. It is a holding centre for both sentenced and remand prisoners. In addition there are eight police prisons for short-term prisoners situated throughout the State.

In common with other States and countries the emphasis in South Australia is on rehabilitation, and with this end in view officers are carefully selected and undergo an intensive training course before being appointed to the prison service. Refresher and advanced training courses are held continuously to keep officers informed on penological matters. Training in a variety of trades and industries is available throughout the institutions, enabling prisoners to be prepared for ultimate outside employment. Education courses at all levels are available at no cost; special classes are held for migrants and illiterates; medical, dental, psychological and psychiatric services are also provided. A classification committee ensures that prisoners are correctly assessed for education, employment, and other training purposes, and group counselling is practised in all institutions. 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 and other voluntary organisations. Valuable community services rendered by prisoners at three institutions include the provision of emergency fire service units.

In April 1970 the Parole Board was created to consider applications from prisoners for release on parole. The terms 'parole' and 'probation' are synonymous—prisoners may be released on probation by the courts or released on parole from prison, and both categories come under the supervision of officers of the Adult Probation Service. Officers of this service also supervise prisoners released on licence, such as habitual criminals and those serving life sentences, and also prepare pre-sentence reports for the courts.

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
1968-69	1 314	6 870	571	854	39
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

(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 1973 there were thirty-nine fire brigade stations of which

seventeen were metropolitan and twenty-two were country. During the year 1972-73 these brigades received 5 270 calls of which 596 were false and malicious calls. Some of these brigades are manned by permanent personnel and others by auxiliary firemen, there being at 30 June 1973, 459 officers and firemen and 118 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, 1936-1973 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 1972-73 was \$2 901 023 including contributions of \$2 866 945 made up as follows; insurance companies \$1 779 726; municipalities and district councils \$676 831; and Treasury \$410 388 which included special grants of \$352 344.

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 of the districts covered under the Fire Brigades Act, 1936-1973. 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, 1934-1972.

South Australian Emergency Fire Services

Particulars	1970	1971	1972	1973
Strength of service at 30 June:				
Affiliated organisations	417	431	437	438
Volunteer members	8 800	9 000	9 000	9 000
Fires attended in twelve months ended 30 June:				
Number of fires;				
Urban type	265	261	328	256
Bush	1 044	1 066	1 204	755
Acres destroyed in bush fires .	318 745	110 909	74 795	37 164
Financial losses;				
		Dollars		
Urban type	340 023	628 946	500 141	387 892
Bush	245 328	210 848	50 611	96 080

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 programmes, 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 two main causes of fires attended by the Emergency Fire Service during 1972-73 were children with matches, and incendiarism.

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. Certificates and medallions were issued to 25 536 candidates who passed the various examinations in the 1972-73 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, Seacliff, 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 1973 there were 1 385 members in Association clubs. From 1952 to the end of the 1972-73 season 1 542 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 1972-73, 126 country and 70 metropolitan swimming centres were used, and the total student enrolment was over 42 000. 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 1973, 42 000 and in the third term, 60 000 children were enrolled in these classes.

Although swimming is still a major part of the programme, the Education Department has introduced a number of water safety skills into the swimming programme. 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 programme 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 50 cents derived from each driver's licence fee under the Motor Vehicles Act, 1959-1973.

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 Treasury 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, 1948-1972, 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 1973.

South Australian Commissioner for Prices and Consumer Affairs
Formal Complaints Investigated, 1973

Particulars	Number of Complaints	Percentage of Total
Second-hand Motor Vehicles Act:		Per cent
Used motor vehicles:		
Faulty	335	10.4
Misrepresentation of year of model	50	1.6
Other	45	1.4
Total motor vehicles	430	13.3
Door to door sales:		
Electrical and household appliances	32	1.0
Books and magazines	25	0.8
Other	60	1.9
Total door to door sales	117	3.6
Unfair advertising	226	7.0
Unordered goods and services	59	1.8
Consumer credit	88	2.7
Excessive charges for goods	290	9.0
Excessive charges for services	429	13.3
Faulty goods and services:		
Building work and allied trades	210	6.6
Motor trade	114	3.7
Electrical and household appliances	146	4.6
Furniture, floor coverings, household fittings ..	162	5.0
Other	212	6.6
Total faulty goods and services ..	844	26.2
Unfair dealing:		
Motor trade	161	5.0
Rental bonds	84	2.6
Other	422	13.2
Total unfair dealing	667	20.6
Miscellaneous complaints	81	2.5
Total complaints	3 231	100.0

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.

However, from 1 July 1974, the two-intake system will be 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 will begin 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.

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.

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 trains kindergarten teachers (see page 220) and supervises 163 subsidised and twenty-two unsubsidised kindergartens situated throughout the State together with one mobile unit. In 1973 the subsidised kindergartens had an enrolment of 10 016 children and employed 492 persons, 355 of whom were teaching staff.

While the supervision covers various aspects of organisation it is largely concerned with the educational programme. 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 Kindergarten Union, although a voluntary organisation, receives approximately 80 per cent of its revenue 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 construction, 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 will also receive 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.

The grants will supplement State funds in a joint programme, by the Education Department and the Kindergarten Union, which will provide thirty-six new pre-schools and the rebuilding or extension of a further four. The Education Department will open its first seven pre-schools between July and September 1974; these will be set up within the grounds of primary schools and will involve the conversion of existing buildings. Design work has also begun on ten new pre-schools which will be built in conjunction with existing primary schools. The Kindergarten Union will build nineteen new pre-schools, to be operating before the end of 1975, and rebuild or extend another four.

Although the buildings were not available, the first teachers trained in the pre-school teachers course, which commenced at Torrens College of Advanced Education in October 1973, started working with pre-school children in April 1974 in alternative accommodation. These children will be the first to be admitted to the pre-schools when they open. The second teacher training course commenced in May 1974. Further information on teacher training for pre-schools is included on page 220.

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 committees, 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 1973 there were 692 bus services carrying an average of 25 000 pupils daily to 311 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 1973 additional payments varying from \$22 to \$52 a student were made to 139 schools catering for primary students and from \$25 to \$43 a student to fifty-four schools catering for secondary students where special need had been established.

Schools

Details of schools operating in South Australia in 1973 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 614 State schools in 1973 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 377 by 1973. There has been a similar movement in the average size of private schools.

**Schools by Size, South Australia
At 1 August 1973**

Pupils on Roll	State Schools				Private Schools	
	Primary	Primary-Secondary	Secondary	Special (a)		Total
Under 21	30	—	—	—	30	7
21 to 35	44	—	—	10	54	8
36 to 100	103	5	—	18	126	31
101 to 200	40	10	6	3	59	54
201 to 300	23	14	10	—	47	23
301 to 400	30	12	7	1	50	14
401 to 600	64	7	24	—	95	13
601 to 800	51	2	17	—	70	6
801 to 1 000	29	1	10	—	40	7
1 001 to 1 200	12	—	14	—	26	—
1 201 to 2 000	3	—	14	—	17	—
Total	429	51	102	32	614	163

(a) Occupation centres, schools at institutions, subsidised schools 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
1971	4 126	5 510	75	338	496	984	26	176
1972	4 402	5 851	81	433	522	983	29	188
1973	4 837	6 252	59	458	573	998	30	176
Type of School								
1973								
Primary	1 652	3 793	1	125	54	505	1	48
Prim-Secondary	424	405	1	39	398	374	21	97
Secondary	2 662	1 870	57	292	121	93	8	28
Special (b)	99	184	—	2	—	26	—	4

(a) Equivalent full-time units of part-time teaching. Total part-time teachers at 1 August 1973, State schools, 85 males and 790 females; Private schools, 88 males and 460 females.

(b) Includes occupation centres, schools at institutions, subsidised schools 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			At Private Schools		
	1971	1972	1973	1971	1972	1973
5	16 440	16 323	17 295	2 620	2 439	2 652
6	19 480	19 336	18 904	2 781	2 684	2 465
7	19 929	19 806	19 075	2 822	2 785	2 680
8	20 693	20 173	19 771	2 848	2 770	2 838
9	20 829	20 583	20 237	2 996	3 073	2 918
10	21 306	20 892	20 625	3 225	3 083	3 055
11	20 756	21 233	20 972	3 156	3 182	3 263
12	20 272	20 601	21 109	3 437	3 431	3 573
13	19 758	20 451	20 809	3 381	3 342	3 506
14	19 454	19 692	20 106	3 263	3 382	3 248
15	16 147	16 364	16 115	3 088	3 082	3 071
16	10 578	11 022	10 883	2 417	2 518	2 696
17	4 365	4 428	4 424	1 191	1 347	1 405
18	1 078	1 176	1 093	363	262	303
19	225	273	236	56	54	46
20	65	69	46	21	13	5
21 and over	65	100	86	22	18	11
Total	231 440	(a)232 812	231 786	37 687	37 465	37 735

(a) Includes 290 age not stated.

A division of enrolments in 1973 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 16.7 per cent of enrolments compared with 12.6 per cent at the primary level.

Primary and Secondary Pupils, South Australia
At 1 August 1973

Age	State			Private			Total Pupils
	Primary	Secondary	Total	Primary	Secondary	Total	
5	17 295	—	17 295	2 652	—	2 652	19 947
6	18 904	—	18 904	2 465	—	2 465	21 369
7	19 075	—	19 075	2 680	—	2 680	21 755
8	19 771	—	19 771	2 838	—	2 838	22 609
9	20 237	—	20 237	2 918	—	2 918	23 155
10	20 625	—	20 625	3 055	—	3 055	23 680
11	20 781	191	20 972	3 209	54	3 263	24 235
12	13 315	7 794	21 109	1 884	1 689	3 573	24 682
13	1 945	18 864	20 809	198	3 308	3 506	24 315
14	280	19 826	20 106	14	3 234	3 248	23 354
15	153	15 962	16 115	9	3 062	3 071	19 186
16	99	10 784	10 883	7	2 689	2 696	13 579
17	90	4 334	4 424	—	1 405	1 405	5 829
18	67	1 026	1 093	—	303	303	1 396
19	52	184	236	—	46	46	282
20	4	42	46	—	5	5	51
21 and over	5	81	86	—	11	11	97
Total ..	152 698	79 088	231 786	21 929	15 806	37 735	269 521

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 (see page 183). 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				
	Primary	Area (a)	Primary Schools	Area Schools (a)	Corres- pondence School (b)	Other (c)	Total
1969	476	51	144 352	10 200	656	1 605	156 813
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

(a) Includes also special rural schools. The figures for pupils enrolled include primary pupils only.

(b) Includes Northern Territory pupils, 272 at 1 August 1973.

(c) Includes Aboriginal schools, schools for handicapped children and schools at institutions.

Infant and 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. Time is made available for the churches to provide religious instruction.

Ancillary services and expert advice are provided for primary schools by the Supervisors of School Libraries, Physical Education, Music and Audio-Visual Education and their staffs. There are also consultants in all the basic subjects who visit the schools and conduct in-service courses.

During 1973 there were 183 South Australian primary and infant schools with open space accommodation. Nearly 23 000 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 programme.

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 and the Northern Territory, but there are others who cannot attend school because of invalidity. Connected with the Correspondence School are the 'Schools of the Air' at Port Augusta and Alice Springs which provide two-way

radio communication between teacher and pupil to supplement the correspondence lessons. At 1 August 1973 there were 355 boys and 320 girls receiving primary education through the Correspondence School. Of these, 138 boys and 134 girls were living in the Northern Territory.

PRIVATE SCHOOLS

At 1 August 1973, 21 929 children were receiving primary education at private schools. The majority of these children were attending Catholic schools (see table on page 194).

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, the Baptist and Congregational 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 schools or track 4 classes in secondary schools. There are sixteen special schools in metropolitan and country areas which cater for mentally retarded children between the ages of six and nineteen years. These schools include those conducted at Minda Home and the Strathmont Training Centre.

Other special schools cater for children with visual 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 multi-purpose high schools which, consistent with their size and enrolment, offer the widest range of courses possible to meet all interests. At the same time, some different

types of secondary schools that have evolved to meet differing needs of individual children will continue to exist pending future multi-purpose conversion. Metropolitan pupils may still choose between high schools and technical high schools, but are required to attend schools within the zone in which they reside.

In the country, secondary education is provided by high schools in the larger towns, and by high, area or special rural schools in many of the smaller centres. Only one of these schools is located in any one centre. Certain pupils may use the facilities of the Correspondence School.

State Secondary Schools, South Australia

At or about 1 August	High		Technical High		Area (a)		Correspondence Pupils Enrolled (b)	Other Pupils Enrolled (c)
	Number of Schools	Number of Pupils Enrolled	Number of Schools	Number of Pupils Enrolled	Number of Schools	Number of Pupils Enrolled		
1969	62	44 676	31	19 576	51	4 790	115	121
1970	63	47 216	33	19 545	51	4 915	124	66
1971	67	52 270	30	17 567	51	4 904	141	100
1972	70	56 134	28	16 385	50	5 139	168	100
1973	77	59 990	25	13 629	50	5 116	224	129

(a) Includes also special rural schools.

(b) Full correspondence pupils only. Includes Northern Territory pupils, 45 at 1 August 1973.

(c) Pupils receiving secondary education at primary schools, in Aboriginal schools, and in institutions.

Changes and Developments

Since 1968 the Secondary Division has pursued a policy of combining in each school the roles previously carried out by separate high and technical high schools. All new secondary schools have been designed as multi-purpose high schools and, where appropriate, existing technical high schools are being converted, renamed and zoned as multi-purpose high schools. Frequently this also involves a change from a separate boys or girls school to a co-educational establishment.

All secondary schools now have common aims and a large area of common studies. At the same time each school has become more flexible and offers a variety of syllabuses that allow for differences in the aspirations and abilities of individual students. Track 0, 1, 2, 3 and 4 are employed by many schools to indicate the purpose of the various syllabuses. Track numbers denote the intention of the syllabus and do not necessarily indicate the level of ability of pupils studying a particular syllabus.

Track 0 is intended to prepare pupils for tertiary studies either at a University or for diploma courses at the South Australian Institute of Technology and at present such courses are examined externally by the Public Examinations Board at fourth and fifth year level.

Track 1 indicates that courses generally are internally assessed; there is less degree of abstraction in the syllabuses, and the intention is to prepare pupils for entry to certificate courses at the technical colleges or entrance to some courses at colleges of advanced education that do not require degree study. These courses have a high vocational intention and prepare pupils for commercial employment and exacting apprenticeship studies.

Track 2 courses usually are internally examined, and in general, aim to help pupils take an intelligent interest in the world around them, and prepare them for vocations that require routine activities or for apprenticeship study less exacting than that expected of track 1 students.

Some secondary schools also offer track 3 and track 4 syllabuses to provide consolidation of the essential skills of communication and computation and to prepare pupils for successful entry to the adult world of work, and for intelligent participation in the community.

Schools are not expected to set up whole classes taking all subjects in the same track; but as far as possible to make opportunities for pupils to study individual subjects in accordance with their abilities, interests and needs.

Secondary Schools

Traditionally high schools have emphasised track 0 courses whereas technical high schools have catered for a majority of pupils in other tracks and have offered a wider range of art and craft syllabuses. The nature of each of these types of schools is gradually being changed so that all will eventually become multi-purpose secondary schools. During the transition period, however, the schools still retain some of their former characteristics. All secondary schools now have common aims and offer the same basic courses in general subjects at junior secondary level.

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 (fourth and fifth year).

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. In line with secondary policy these schools offer a track 0 course as well as a track 1 or 2 course that is assessed internally. 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 fourth year in their own district. 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, but no foreign language. 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. Programmes are based on track 0 syllabuses and the instruction does not proceed beyond third year 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 sixteen academic subjects (all to Leaving Certificate 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 Grade VII. Correspondence lessons are supplemented by radio lessons from the 'Schools of the Air'.

At 1 August 1973 there were ninety-four boys and 130 girls receiving secondary education through full correspondence courses; of these fourteen boys and thirty-one girls were living in the Northern Territory.

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 as schools have been able to put the following into practice:

(1) Offering as wide a range of subjects and track syllabuses as possible, which together with suitable and flexible time-table arrangement can provide a wide choice of subjects and syllabuses for pupils. For example;

(a) Hybrid courses: by providing a multiplicity of track syllabuses and by 'setting' rather than 'streaming' classes, schools are able to offer study programmes consistent with the needs, abilities and interests of particular students. Hybrid courses are selections of subjects based on syllabuses drawn from tracks 0, 1, and 2. For example, a pupil may study 0 track syllabuses in English, history, geography, track 1 syllabuses in physical science and commerce, and track 2 mathematics;

(b) Elective subjects: consistent with the size of the school, its accommodation and staff resources, as many elective subjects as possible are offered;

(c) Multiple track instruction: a practice where a composite group of students is taught by one teacher, is used in a number of smaller schools to widen the course offering;

(2) The treatment of subjects in the Junior Curriculum. Many subject syllabuses in the Junior Curriculum consist of a core plus options. The core is studied by all pupils and is generally attainable by all. The options either extend the core into extra work aimed at deepening the knowledge of the core, or provide remedial work aimed at developing skills so that the core can be handled with reasonable competence;

(3) Individual progression. A small number, mostly area schools, have arranged their school programmes and internal school organisation to allow each student to progress at his own rate;

(4) Open-space schools and units are now operating in a number of districts. The design permits flexibility in teaching methods and a grouping of pupils that encourages a greater emphasis on individual learning.

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 examinations, and this determines their academic curricula for fourth and fifth years. 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 Leaving and Matriculation examinations. 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, the Baptist and Congregational Church, the Seventh Day Adventist Church, and two non-denominational bodies conduct secondary schools. Secondary education is provided also at primary/secondary schools (see page 189).

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 186-7.

Private Schools, South Australia^(a)

Year	Number of Schools	Number of Teachers (b)	Pupils on Roll at or about 1 August				
			Primary		Secondary		Total
			Males	Females	Males	Females	
1969	171	1 524	10 835	11 422	7 170	7 033	36 460
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

(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 1973 Catholic schools accounted for 80 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	1969	1970	1971	1972	1973
Primary:					
Catholic	18 051	18 108	18 191	17 815	17 571
Church of England	1 492	1 490	1 517	1 438	1 360
Lutheran	988	1 076	1 078	1 117	1 209
Methodist	524	531	549	538	510
Presbyterian and Baptist/ Congregational	600	624	625	595	624
Seventh Day Adventist	111	132	137	141	146
Udenominational	491	503	572	588	509
Total primary	22 257	22 464	22 669	22 232	21 929
Secondary:					
Catholic	7 208	7 558	7 957	8 265	8 720
Church of England	2 516	2 447	2 435	2 306	2 281
Lutheran	640	727	778	808	880
Methodist	1 680	1 756	1 761	1 683	1 717
Presbyterian and Baptist/ Congregational	1 334	1 308	1 273	1 334	1 336
Seventh Day Adventist	46	36	30	51	79
Udenominational	779	810	784	786	793
Total secondary	14 203	14 642	15 018	15 233	15 806

EXAMINATIONS AND SCHOLARSHIPS

Examinations

In addition to internal examinations conducted by the schools there are a number of external examinations.

After four years secondary study the pupil normally sits for the Leaving examination of the Public Examinations Board (PEB) of South Australia, or for an examination conducted by the Education Department.

The Public Examinations Board conducts a further examination at the completion of the fifth year. 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. The total number of candidates for examination by the Board in one or more subjects in 1973 were Leaving, 15 295 and Matriculation, 9 344.

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 \$22 a year for the first three years, and \$30 and \$32 for the fourth and fifth years 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 196). 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 Allowance.

Fifth Year Scholarships are provided by the South Australian Government to assist pupils to complete a fifth year of secondary study. These scholarships are awarded on the basis of merit and pay an allowance of up to \$200, subject to a means test. The continuation of these scholarships is under review

since the announcement of the Australian Government Secondary Allowance Scheme which provides a means-tested living allowance for the final two years of secondary schooling.

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 new measures of assistance for the education of isolated children were introduced. 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 boarding allowances or 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 allowance of up to a further \$350 per subject to a means test on family income.

In cases of particular hardship additional assistance up to a maximum amount of \$304 a year may be paid to parents receiving the full level of boarding allowance assistance.

Where an eligible pupil does not board away from home to attend school but lives at home and undertakes his 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 new measures to assist families with limited financial resources to maintain their children at school for the final two years of secondary education will be introduced. The benefits under this new scheme, to be known as the Secondary Assistance Scheme, will be subject to a means test on family income. The maximum benefit will be \$304 a year.

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 up to three return journeys to their home each year.

Pupils Receiving Australian Government Benefits, South Australia

At 30 June 1973

Scheme	Number of Students
Australian Government Senior Secondary Scholarship	2 469
Australian Government Secondary Scholarship	951
Assistance for Isolated Children:	
Boarding allowance	570
Correspondence allowance	110
Aboriginal Secondary Grants Scheme	646

The Australian Government, through the Soldiers' Children Education Scheme, offers assistance at the secondary level to children of ex-servicemen whose death, blindness or total and permanent incapacity was the result of war service. Eligible children upon reaching twelve years of age qualify for a fortnightly allowance while attending school. Where appropriate a living-away-from-home allowance is also paid and the payment of allowances is subject to satisfactory attendance and progress.

At 27 September 1973 weekly allowances were \$3.25 at ages twelve and thirteen, \$4.90 at ages fourteen and fifteen and \$10.75 at ages sixteen and over, if living at home; and \$10.75 at ages twelve to fifteen and \$16.65 at ages sixteen and over if living away from home. Each pupil aged sixteen and over, whose father died before he turned sixteen, receives \$14.15 if living at home or \$20 if living away from home. The pupil receives guidance and advice on his course of studies from the Soldiers' Children Education Board.

Tertiary Education Assistance

In 1974 the Australian Government abolished tuition fees at tertiary institutions, colleges of advanced education, and technical colleges. It also provides subject to a means test, living allowances to full-time students who are making satisfactory progress in their courses.

This new scheme, to replace the Commonwealth University, Advanced Education, Canberra Teacher Education and Technical Scholarships schemes, will be non-competitive. It will offer, subject to a means test, a living allowance of up to \$850 for students living at home, up to \$1 400 for those approved for the away from home allowance. Students eligible for a living allowance will also qualify for an extra 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. This scholarship, introduced in 1972, pays the same living allowance as the Tertiary Allowances Scheme but it is not subject to a means test.

Aboriginal Study Grants are available for students of Aboriginal and Torres Island descent who wish to study further after leaving school. Benefits include living allowance and a textbook and equipment allowance.

Students under the Soldiers' Children Education Scheme may receive a basic annual allowance of \$850, plus all fees, travelling expenses and costs of necessary textbooks and equipment while undergoing tertiary education. Additional expenses are paid if the student is living away from home or supporting a family.

Soldiers' Children Education Scheme, South Australia^(a)

Year	Number of Beneficiaries in Training (b)				Expenditure on Benefits	
	Primary and Secondary	Tertiary	Industrial	Total	Allowances	Total (c)
					\$	\$
1968-69	585	158	132	875	221 269	288 098
1969-70	540	157	130	827	218 000	298 978
1970-71	531	158	110	799	226 000	301 262
1971-72	508	134	113	755	260 602	339 558
1972-73	469	149	84	702	256 136	336 086

(a) Includes Northern Territory.

(b) Beneficiaries twelve years and over. Number at end of year.

(c) Includes fees, books, equipment and fares.

Subject to income limits, students undergoing industrial training receive a basic allowance of \$3.50 per week plus the cost of Trade School requisites.

The University of Adelaide and the Flinders University award a number of prizes, grants and scholarships each year, details of which are given in the Calendars of the respective Universities. Many students also receive assistance at the tertiary level through studentships offered by government departments and private firms (for teaching studentships see page 221).

The South Australian Government's Fees Concession Scheme provides financial assistance in the form of a loan only or of a combination of loan and grant to eligible students (at the Universities or undertaking tertiary courses at the South Australian Institute of Technology) whose fees are not met by scholarships, cadetships or similar awards, or by employers. Eligibility for and the amount of assistance are determined in accordance with a prescribed means test. The nature of the course determines the form of assistance.

TERTIARY EDUCATION

THE UNIVERSITY OF ADELAIDE 1874-1974

The University of Adelaide was established in 1874 as the result of what has been called 'a splendid act of self-abnegation'. Mr (afterwards Sir) Walter Watson Hughes had offered in 1872 an endowment of \$40 000 to Union College, an institution being established in Adelaide for the better

education of Presbyterian, Congregational and Baptist clergy. The Council of the College generously suggested to Mr Hughes that his gift should be used to found a university.

It was imaginative as well as disinterested to think in terms of a university for the Adelaide of 1874. The province of South Australia was only thirty-eight years old, with a population of about 200 000. It had been granted representative government in 1850, and Adelaide (with some 30 000 people) had since begun to equip itself with such amenities as a Town Hall, a General Post Office, reticulated water and gas lighting. Copper had been discovered at Burra in 1845, and soon afterwards at Wallaroo and Moonta, but most of the population were pastoralists or farmers. Settlements were small and scattered, and the whole province remote from the centres of Western civilisation. At that time there were four universities in England and four in Scotland: Oxford (13th Century), Cambridge (13th Century), Durham (1832), London (1836); and St Andrews (1410), Glasgow (1451), Aberdeen (1494) and Edinburgh (1583). Sydney University had been established in 1850, and Melbourne University in 1853.

The University of Adelaide was established in 1874 by Act of Parliament passed by the South Australian Legislature. The Act of Incorporation provided *inter alia*, for an annual subsidy of 5 per cent on the capital funds of the University up to a maximum in any one year of \$20 000, an endowment of 20 000 hectares of country land (repurchased in 1915 by the Government for \$80 000), and a grant of 2 hectares in the City of Adelaide as a site for the University buildings (this has been added to until it is now 13 hectares).

The first University Council met on 11 December 1874 and elected Sir Richard Hanson, Chief Justice, as Chancellor, and Dr Augustus Short, Bishop of Adelaide, as Vice-Chancellor. A week later, William Barlow was appointed the first (part-time) Registrar, and the Hon. Sir Henry Ayers was appointed Treasurer. 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.

The opening meeting of the University was on Tuesday, 25 April 1876, in the Adelaide Town Hall. Every available seat in the body of the hall was occupied and the gallery was also well filled. Dr Short was elected Chancellor of the University in succession to Sir Richard Hanson, and the Hon. S. J. Way, Chief Justice, was elected to succeed Dr Short as Vice-Chancellor. Sir Samuel Way (as he later became) was Vice-Chancellor from 1876 to 1883 when he became Chancellor of the University and he remained in this office until his death in 1916. His statue stands in North Terrace just outside the grounds of the University he served for forty years.

The First Commencement, to confer degrees *ad eundem gradum* on graduates of other universities, and so to constitute a Senate, was held in the Adelaide Town Hall on 2 May 1877. After the Chancellor had given an address, the Vice-Chancellor admitted Dr Short to the first degree of the University of Adelaide: Master of Arts.

Three Benefactors

Several men played important roles in the foundation of the University; in particular three Scots, Sir Walter Watson Hughes, the Hon. Sir Thomas Elder and Mr Robert Barr Smith. Hughes and Elder were personal friends and Barr Smith was a brother-in-law and business associate of Elder.

Sir Walter Watson Hughes was born in Scotland in 1803. He was apprenticed to a cooper, but afterwards entered the merchant navy, and it was in his own ship, the *Hero* that he arrived in Adelaide in 1840 or 1841. He became a sheep farmer at Macclesfield and he also grazed sheep on Yorke Peninsula in partnership with his brother-in-law, Captain John Duncan. When copper was discovered at Wallaroo, Hughes was one of the original leaseholders, and he became one of the principal shareholders in the Wallaroo, Moonta and Yorke Peninsula Copper Mining Company.

Sir Thomas Elder was born in England in 1818 and he arrived in Adelaide in 1854 to join the family enterprise which had been started by his brother, A. L. Elder, in 1840. In 1863 the firm became Elder Smith and Company, with Thomas Elder and Robert Barr Smith as sole partners. Thomas Elder made his fortune from mining and from wool. Soon after he arrived in South Australia he took up huge areas of pastoral lease in the arid north-east of the State. His recognition of the importance of transport, not only for exploration but also for station management, resulted in his introduction of camels and their Afghan keepers to Australia.

Thomas Elder made his first gift to the university on 6 November 1874, the day the University Act received the Governor's assent. It was for \$40 000: 'for maintaining the said University and for defraying the several stipends which may be appointed to be paid to the several professors, lecturers, examiners, officers and servants to be appointed by such University, and for defraying the expense of such fellowships, scholarships, prizes and exhibitions as shall be awarded for the encouragement of students in such University, and for providing a library for the same; and for discharging all necessary charges connected with the management thereof, and for no other use or purpose whatsoever.' He made several other gifts to the University: \$20 000 in 1883 for the foundation of a School of Medicine, and a further \$2 000 for Medicine in 1888-89; \$2 000 in 1884 to establish evening classes; and \$600 a year from 1884 to 1889 as a contribution to the salary of the Professor of Music. He died in 1897 and bequeathed to the University \$130 000, \$40 000 for Medicine, \$40 000 for Music and \$50 000 for the general purposes of the University.

Robert Barr Smith, the son of an eminent divine of the Free Church of Scotland, also made his fortune in South Australia from mining and pastoral pursuits. The numerous gifts of Robert Barr Smith and, later, his family, have helped the University to establish a library which today holds 700 000 volumes. Robert Barr Smith made a number of gifts to the University, totalling \$18 000 over the years 1892-1911 for the purchase of books. In 1920, after his death, his family provided an additional \$22 000 to form an endowment for the Library. Then, in 1927-28, Mr T. E. Barr Smith gave \$69 436 to build a new library, and a further gift of \$20 000 in 1941 for the purchase of books. The first stage of this new building was opened on 4 March 1932 by the Governor, Sir Alexander Hore-Ruthven.

Distinctive Features

From its earliest years, the University of Adelaide has possessed several distinctive features. It had, and still has, the smallest university campus in Australia (13 hectares) and it has been repeatedly suggested that the University should move to an outer suburb. An opportunity to do this arose just after the first World War, when the Government offered to remove what was then known as the Mental Hospital from the suburb of Parkside and give the University some 30 hectares within 3 kilometres of the City, with more buildings than the University had by then erected on North Terrace. This proposal was widely supported, especially by those who were anxious to have the University surrounded eventually by a cluster of residential colleges, but the University authorities stubbornly resisted all attempts to have them abandon their city site.

Being situated on the northern edge of the City has undoubtedly brought many advantages to the University of Adelaide. North Terrace is unique in having along its northern side a continuous row of public buildings: Railway Station, Parliament House, Government House, Literary Institute and Public Library, Museum, Art Gallery, University, Institute of Technology, and Royal Adelaide Hospital. The shady trees and well-kept gardens, as well as the buildings, help to make the Terrace one of the most impressive city thoroughfares in Australia. Professional chambers line the southern side of the Terrace, and a short block away is the main business centre. A cross-section of the City's cultural, professional, and commercial activities lies within a few minutes' walking distance of the University. This has proved a boon to students, especially those attending lectures part-time, and has enabled the staff to keep in touch with professional associations and with daily working of such kindred bodies as the Economics Society, the Royal Geographical Society, and the Australian Institute of International Affairs.

However a university needs a vast amount of space for its playing fields and sporting facilities. Here, again, the University is uniquely fortunate in having direct access to the spacious parklands with which the whole city is surrounded. On its southern boundary the University has the City, on its northern the River Torrens, which has its banks grassed and adorned with flowering shrubs and magnificent gum trees. Across a light footbridge, immediately opposite the northern gates of the University, are the extensive playing fields leased from the City Council and maintained by the University.

A second distinctive feature of the University of Adelaide has been its machinery of government. The original Act of Incorporation provided for a Council of twenty members, all of whom were to be elected by a body of graduates, to be called the Senate. This was later varied to allow the election of an additional five Council members from the South Australian Parliament. The University was to be governed by rules and regulations adopted by the Council, approved by the Senate, and allowed by the Governor-in-Council. The Senate, consisting of all graduates of the University with higher degrees or a bachelor's degree of three years' standing was given the power to veto proposals but not the right to initiate or amend them. Informally, of course, it did discuss matters with Councillors, and indeed on more than one occasion it made vigorous representations to the Council on matters of policy.

The membership of the Council has been made even more representative so that today it is made up of the Chancellor; the Vice-Chancellor; five members elected by Parliament; twenty-two members elected by the Convocation of Electors (eight academic members of staff, one full-time employee other than an academic, one post-graduate student, and twelve people not employed by the University); and four members elected by the undergraduate students.

On academic matters the Council was to be advised, not as in other universities by a professorial board, but by an education committee, chaired by the Chancellor and including a number of Council members. This liaison was meant to keep each body informed about what the other was thinking, and it worked reasonably well for many years. After the 1939-45 War the Chancellor gave way to elected academic chairman and more recently the Committee has been expanded to include student members. Recent changes have made it possible for departments and faculties to elect their chairmen and deans.

The University of Adelaide was the first in Australia to open its doors to women on equal terms with men. A Memorandum published in 1913 by the University entitled 'In regard to the steps taken in 1878 for obtaining a Charter for the University' prepared by the Vice-Chancellor, Dr W. Barlow, who had been Registrar at the time, states that: 'When the original Act of the University of Adelaide was enacted in 1874, no University south of the Line had, it is believed, in its Royal Charter power to confer the degree of either Bachelor of Science or Doctor of Science, or to confer degrees on women. The Royal Charters of the senior Universities of Sydney, of Melbourne, and of New Zealand did not comprise these powers. Notwithstanding these omissions, it was determined here to attempt to obtain these coveted powers. The University of London had already obtained power to confer these Science Degrees, and to the Parliament of this State inserted the words 'Bachelor of Science and Doctor of Science' in Section 12 of the original Act.'

Bedford College for Women had been established in London in 1849, but it was not until 1878 that the University of London admitted women to its degrees and then it was the first to do so. Lady Margaret Hall was founded in Oxford in 1878 and Girton was founded near Cambridge in 1869, but Oxford did not admit women to degrees until 1920 and Cambridge until 1948.

Queen Victoria confirmed the Governor's assent to the Act of 1874 but in February 1875 the Colonial Secretary warned the Governor: 'of the fate likely to befall any petition from colonists presumptuous enough to pray for power to confer those two science degrees and to confer degrees on women.' In other words, recognition of the degrees by Royal Letters Patent would be withheld. Nevertheless, the University Council did so presume. In his reply to its petition the Colonial Secretary stated: 'Her Majesty's Government think it preferable that the Constitution of the University of Adelaide should not, in the first instance at all events, contain so considerable a departure from the principles and procedures of the Universities of Oxford and Cambridge, in conformity with which the degrees to be recognised in the Universities of Sydney, Melbourne and New Zealand have been determined'.

Rather than delay indefinitely the issue of Letters Patent, the University struck out the offending phrases from its petition, but by the time the amended version reached London the Queen had been induced to change her mind, and the University was invited to revert to its original request. This it promptly did, and Letters Patent were granted on 22 March 1881 giving the University everything it had sought.

The University's first woman graduate, Miss Edith Emily Dornwell, was also its first graduate in Science. She was admitted to the degree of Bachelor of Science in December 1885 at the age of twenty-one.

Distinguished Staff and Students

Another important feature of the University in its early years was the high quality of its staff. Many former students and members of the staff have had distinguished careers and the following is a representative list. With one exception, His Excellency the Governor, Sir Mark Oliphant, it excludes all those who are living, not because there are no distinguished members of the University still living—but to avoid invidious comparisons.

Professor John Bishop was Elder Professor of Music and Director of the Elder Conservatorium of Music from 1948 to 1964. He was born at Aldinga in 1903 and received his musical training at the Elder Conservatorium and at the Royal College of Music in London. He was the Founder of the Australian Youth Orchestra. He inspired the establishment of the Adelaide Festival of Arts and was the Artistic Director of each Festival during his lifetime.

Sir William Bragg, OM, FRS, was appointed Professor of Mathematics and Physics in The University of Adelaide in 1886 at the age of twenty-three, succeeding Horace Lamb. He held the Chair until 1908, and it was during this time that he began the research which was to make him famous and to lead to a Nobel Prize in Physics (jointly with his son) in 1915, and to the Presidency of the Royal Society.

Sir Lawrence Bragg CH, FRS, was one of the world's most distinguished physicists. He was born in Adelaide in 1890 and was the son of the University's Professor of Physics and Mathematics, W. H. Bragg. He obtained the BA degree in 1908 and went to England with his father soon afterwards. He was awarded a Nobel Prize for Physics (jointly with his father) in 1915; and he later became head of the Cavendish Laboratories, Cambridge, and of the Royal Institution, London.

Sir Hugh Cairns was one of the world's outstanding neuro-surgeons. He was born at Port Pirie in 1896, and educated at Adelaide High School and the University. He graduated in Medicine in 1917 and went to Oxford as a Rhodes Scholar. In 1937, at the age of forty-one, he became the first Nuffield Professor of Surgery at Oxford; according to Lord Nuffield it was Sir Hugh Cairns who inspired him to make his benefactions to Oxford.

Lord Florey, FRS, was the man who, with his colleagues, made penicillin available for medical use. He was born in Adelaide in 1898, and educated at St Peter's College and the University. He graduated in medicine and was elected to the Rhodes Scholarship in 1921. In 1935 he was appointed Professor of Pathology at Oxford. He shared the Nobel Prize for Medicine in 1945, was knighted in 1944 and was created a Life Peer in 1965. He became Chancellor of the Australian National University and was the first Australian to be elected President of the Royal Society.

Sir Claude Gibb, FRS, was one of the University's most distinguished graduates in engineering, becoming chairman and managing director of C. A. Parsons and Co. Ltd, of Newcastle-on-Tyne. He was born in Adelaide, and educated at the Adelaide Technical High School, the South Australian School of Mines and the University, where he graduated BE. He made major contributions to steam turbine development and proved himself to be a great organiser and leader. During the 1939-45 War he became Director-General of Armoured Fighting Vehicles in the United Kingdom.

Professor Frederic Wood Jones, FRS, was a distinguished anatomist and physical anthropologist. He was born in London in 1879 and was appointed to the University's Chair of Anatomy in 1919, a Chair he held until 1926. He later became Professor of Anatomy at Melbourne, Manchester, and at the Royal College of Surgeons in London. He was a prolific writer. He wrote twenty-seven books and 270 articles on anatomy, anthropology, archeology, and many other subjects.

Sir Horace Lamb, FRS, was the University's first Professor of Mathematics. He was born in England in 1849, went to Owens College, Manchester, and Cambridge University, and was appointed to the Chair at Adelaide in 1875 when he was twenty-six. He held the Chair for a little more than nine years, during which time he was elected a Fellow of the Royal Society and published the first edition of his famous book *Hydrodynamics*.

Sir Douglas Mawson, FRS, spent most of his professional life at the University. He was a member of the staff from 1905 until he retired in 1952 and he was Professor of Geology and Mineralogy from 1921. With Edgeworth David and A. F. Mackay, he was the first to reach the South Magnetic Pole; but his subsequent expeditions to the antarctic continent were of even greater scientific importance. His book *The Home of the Blizzard* has become a classic.

Professor Elton Mayo has been described as 'the first person born in Australia to make a real impact on world thinking about management'. He was born in Adelaide in 1880, and first enrolled in the University as a medical student. He withdrew from that course, spent some time overseas, and re-enrolled in the University as an Arts student. He graduated BA and then received university appointments in Queensland, Pennsylvania, and Harvard (School of Business Administration). His books *The Human Problems of an Industrial Civilisation*, *The Social Problems of an Industrial Civilisation*, and *The Political Problems of an Industrial Civilisation* were 'of such outstanding quality as to exercise a most significant influence on the whole philosophy of management'.

Dr Helen Mayo was Elton Mayo's sister and was one of the most distinguished of Australia's professional women. She was born in Adelaide in 1878, and enrolled at the University in 1896. She spent two years in the Faculty of Arts, but then transferred to Medicine in which she graduated in 1902. She was one of the two founders of Mareeba Babies' Hospital; she was a Clinical Lecturer in Medical Diseases of children at the University; and she became Chief Honorary Medical Officer of the Mothers' and Babies' Health Association, of which she was co-founder. She was elected to the University Council in 1914 and was the first woman to be elected to a University Council in Australia. She served continuously for forty-six years.

Sir William Mitchell spent most of his professional life at the University and acquired an enviable reputation both as a philosopher and as a university administrator. He was born in Scotland in 1861, and was appointed to the

Hughes Chair of English Language and Literature and Mental and Moral Philosophy in 1894. He was appointed Vice-Chancellor in 1916 (then a part-time position). He retired from his Chair in 1922, but continued as Vice-Chancellor until 1942 when he became Chancellor. His book *The Structure and Growth of the Mind*, first published in 1907, and his Gifford Lectures on 'The Place of Mind', established his reputation as a philosopher.

Sir Henry Newland was one of the world's greatest plastic surgeons. He was born in Adelaide in 1873, and educated at St Peter's College and the University. He graduated in Medicine in 1896. He lectured in many aspects of surgery from 1920 to 1938, and was at one time President of the BMA of Australia, and President of the Royal Australasian College of Surgeons.

His Excellency Sir Mark Oliphant, FRS, is one of the University's most distinguished graduates in Physics. He was born in Adelaide in 1901, and went to Unley and Adelaide High Schools before entering the University. He was awarded the BSc degree in 1923, and a few years later went to Cambridge as an 1851 Exhibitioner. As Professor of Physics in Birmingham, he built one of the first proton synchrotrons. Later he became Director of the Research School of Physical Sciences at the Australian National University and the first President of the Australian Academy of Science.

Sir John Salmond was Professor of Law in the University around the turn of the Century, and was one of its most eminent legal scholars. He was born in North Shields, and was educated in New Zealand and at University College, London. He resigned the Adelaide Chair in 1906 to return to New Zealand, where he became Solicitor-General and a Judge of the Supreme Court. He wrote several scholarly books; *Jurisprudence*, first published from Adelaide in 1902, and *Law of Torts*, in 1907, both went into many editions.

Sir Edward Stirling, FRS, was the first Professor of Physiology in the University, a member of the South Australian Parliament, and an active campaigner for the rights of women. He was born at Strathalbyn in 1848, but went to England to graduate in Medicine. When he returned, he helped to found the Medical School. He was the first surgeon to perform certain operations in this State.

Waite Institute

Concurrent with the University's Centenary Celebrations, the Waite Institute will hold the golden anniversary of its establishment at Urrbrae in 1924, through the generous benefaction of Mr Peter Waite, which 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. Eight years later Peter Waite who had made a fortune as a pastoralist in South Australia, endowed the University with the means 'to advance the cause of education and more especially to promote the teaching and study of Agriculture and Forestry and allied subjects'. Waite had become wealthy in association with Sir Thomas Elder, and was a pioneer of the pastoral system of fenced paddocks. He executed a Deed of Gift whereby on the death of himself and his wife, the properties of Urrbrae, Claremont, and Netherby (approximately 120 hectares) together with Urrbrae House and ancillary buildings, would become the property of the University of Adelaide. He later added a Trust Fund of \$120 000 to that gift. Urrbrae had been the boyhood home of Professor Stirling. It was a magnificent estate, a timbered park on the rising ground between Mitcham and Glen Osmond near the Adelaide foothills.

The University planned boldly with such an endowment. When accepting the gift in 1913, it assumed 'the obligation to found and equip an Agricultural Investigation Station with the normal range of agriculturalists, chemists, botanists, zoologists, bacteriologists, etc.'. Peter Waite and his wife died in 1922, and by 1924 the Waite Agricultural Research Institute was established.

In 1927, Mr John Melrose gave \$20 000 for a chemistry laboratory, and two years later the family of John Darling gave \$20 000 for a laboratory for soils research. Early in 1929 the Institute's staff was able to transfer its equipment from scattered temporary accommodation such as former stables into the John Melrose Laboratory, the Institute's first permanent building, and by 1932 it was established as the leading agricultural research institution in Australia.

Since its establishment, the Waite Institute has conducted research into a wide range of agricultural problems. The research programme 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 1973 were as follows: central library 616 000 volumes (including medical library 72 000); law library 36 000; music library 2 000 (and 12 000 pieces of music in sheets); and the Waite Agricultural Research Institute 29 000; making total holdings of 696 000 volumes. In addition, the Library held the equivalent of 52 000 volumes in microform.

During 1973 the Library made 271 000 loans to students, staff and graduates; 18 000 to other libraries in South Australia; and 6 000 to libraries in other States and countries. It received 2 000 loans from other libraries. Accessions totalled 33 000 volumes and the equivalent of 1 800 volumes in microform, while withdrawals numbered 500 volumes. Serials titles received exceeded 18 000. Expenditure on staff, books, serials and binding and for other library purposes amounted to \$1 114 000 or 6.2 per cent of total university revenue expenditure.



University of Adelaide

Statue of Sir Walter Watson Hughes, which stands outside the North Terrace entrance to the Mitchell Building of the University of Adelaide. Sir Walter Watson Hughes offered \$40 000 to establish a union college in 1872 and the size of the gift caused the organisers to establish a university instead of a college.

Bonython Hall (left) is the great hall of the University of Adelaide. The foundation stone was laid by Sir Langdon Bonython on 4 December 1923. Napier Building (right) was built in stages between 1958 and 1965. The reflection pool in the centre foreground covers a large two-storey underground car park.

University of Adelaide





University of Adelaide

Original entrance to the Barr Smith Library at the University of Adelaide viewed from down an avenue of poplars.

A portion of Stage II of an \$8 million three-stage building programme to extend the Barr Smith Library and to provide for administration and other facilities.

University of Adelaide





University of Adelaide

Elder Hall, which is the main concert hall of the University of Adelaide and also houses the Conservatorium of Music, was completed in 1900.



University of Adelaide

The University of Adelaide radio station, VL5UV, was established in 1972 and operates under the aegis of the Department of Adult Education. Pictured above is a recording session in progress.

Waite Institute situated at Urrbrae, was established in 1924 and since its inception it has conducted research into agricultural problems as well as providing teaching facilities for agricultural science.

University of Adelaide



Elder Conservatorium of Music

Adelaide was the first University in Australia to establish a Chair of Music (1884) and a Conservatorium of Music (1897). Two men provided the encouragement needed for the establishment of the School of Music. In 1883, Sir Thomas Elder indicated that he would be prepared to give substantial help towards a Chair of Music and in March 1884, the University Council received a letter from the Governor, Sir William Robinson, saying that he had received promises from friends of donations (amounting to \$1 060 a year for five years) to support a School of Music.

The Council resolved to go ahead; and it was reported soon afterwards that the Adelaide City Council would be prepared to appoint the Professor, when selected, as the City Organist. The Adelaide City Council would make a contribution to the salary, and in return the Professor would be required to give two recitals each week on the Town Hall organ.

Joshua Ives, a Cambridge graduate in Music, was appointed Professor of Music in 1884, and he arrived in time to begin work in 1885. He was the first Professor of Music to be appointed in Australia.

Nevertheless, the financial support for the Chair was precarious, and a Faculty was not at first appointed. Musical studies were administered by a Board; but regulations for the degrees of Bachelor of Music and Doctor of Music, and for Public Examinations in Music, were soon in force.

Fourteen years after the establishment of the Chair, a conservatorium, known as the Elder Conservatorium of Music (after Sir Thomas Elder, its benefactor) was set up. Professor Ives became the Director; and this dual responsibility for the theory and practice of music persists to the present day.

In 1973 there were 134 students proceeding to the degree of Bachelor of Music and 205 students taking single subject practical studies.

Research Activities

Like the other Australian universities, the University of Adelaide was predominantly concerned during its first half-century in teaching undergraduates. Some members of the staff, especially the professors, took an active part in the more general educational, cultural, economic and scientific development of the community. Some produced valuable results from their researches and some wrote books of widely-acknowledged scholarship.

The 1939-45 War revealed, amongst many other things, the importance of advanced training in many branches of knowledge and in the years immediately following the War the Australian universities adopted a conscious policy of developing postgraduate studies and encouraging original investigations and research by members of their staffs. It was clear that the universities themselves would expand greatly and would need substantial numbers of highly-qualified staff. It was equally clear that governments, industry and commerce would have an equally substantial need for highly-qualified men and women to meet the increasing demands of a rapidly-changing society.

Since all other countries were in a similar position, the need would be met only by local production. The science-oriented disciplines took the lead, but were soon followed by the others. The PhD degree, which represents education in techniques of advanced study and research with the requisite metriculous accuracy and self-reliance, was established in Adelaide in 1950. In 1973 there were 335 full-time and seventy-six part-time candidates for this degree at the University of Adelaide.

An indispensable pre-requisite for the development of postgraduate studies is that the teachers should themselves be capable of, and should engage in, original research and scholarly studies for two reasons; the effective stimulation and guidance of the students, and the value to society of the products of the research. Indeed it is the extension, as well as the dissemination, of knowledge that is one of the distinguishing characteristics of a university.

Adelaide University Union

The Union is the main social and cultural centre for those University activities not specifically included in the academic syllabus. It endeavours to provide a common meeting ground for staff, graduates and students. The affairs of the Union are conducted by the Union Council, elected from University staff, graduates and students.

The first Union Room was built in 1896. The women students founded a Women's Union, now defunct, and used a cottage, now demolished, in the old Police Barracks.

Grants from Sir Josiah Symon and Sir George Murray in 1926 and 1936 enabled the Lady Symon and George Murray buildings to be built. These are now used to provide offices. The original Union Buildings were provided by gifts through a public appeal in 1927, and the cloisters between the refectory and the Lady Symon and George Murray Buildings are a war memorial to those students, graduates and members of staff who served in the 1914-18 War.

A further public appeal launched in 1955, together with a contribution by the University, enabled the building of the Union Hall (a 499-seat theatre) and considerable extensions to the Union Buildings. These included a second dining hall (Wills Refectory) in addition to the old Helen Mayo Refectory, club rooms and additional staff space.

The Union's largest upheaval so far is its present rebuilding programme. The first of two stages of rebuilding was completed in 1971. This provided enlarged dining facilities, club offices and a games room. At the east of the cloisters a bookshop has been built to serve the University population.

The second stage, a 4-storied building, was commenced in 1973 and will replace the old refectory. Included in the building will be two new refectories, a theatre, a cinema, squash courts, commercial facilities and recreational areas. With the approval of the Licensing Court, bars may be installed.

Modern Development

The modern physical development of the University is governed to a large extent by the decisions of the Australian Universities' Commission (AUC), which allocates funds to the Australian universities on a three-yearly basis. Universities submit plans for their development to the AUC each triennium and the AUC allocates the available funds between the universities.

Allocations to The University of Adelaide for the 1973-75 triennium total \$59.7 million, made up of \$49.72 million for recurrent expenditure, \$3.79 million for equipment, \$0.59 million for special research and \$5.61 million for buildings.

The Waite Agricultural Research Institute occupies 150 hectares at Glen Osmond and has the 275-hectare Mortlock Experiment Station at Mintaro (see page 206). The University has a number of other experimental stations scattered throughout the State.

The University has 18 hectares of playing fields in the parklands north of the River Torrens, a further 6 hectares of playing fields at the Waite Institute and is developing 19 hectares of playing fields adjacent to the Adelaide Airport.

The University does not provide student accommodation, but there are five residential colleges affiliated with the University (see page 212). Some non-collegiate housing is provided in old houses owned by the University in North Adelaide.

The University of Adelaide, Finance^(a)

Particulars	1969	1970	1971	1972
	\$'000			
Income for capital purposes:				
Australian Government	216	1 346	1 305	481
State Government	201	1 346	1 305	481
Income for other purposes:				
Australian Government	4 524	5 322	5 676	6 208
State Government	5 156	5 924	6 612	7 020
Student fees	1 428	1 689	1 837	2 226
Other	1 364	1 730	1 944	1 138
Total income	12 889	17 357	18 679	17 554
Expenditure:				
Teaching and research	9 509	11 506	11 710	12 673
Administration	918	1 098	1 221	1 636
Libraries	720	782	853	1 008
Buildings, premises, grounds	1 479	3 714	3 972	2 558
Other	728	480	539	981
Total expenditure	13 353	17 580	18 296	18 856

(a) Includes Waite Agricultural Research Institute.

In 1974 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 \$66 for full-time students and \$33 for part-time and post-graduate students.

The original full-time academic staff of four in 1876 had grown by June 1973 to 61 professors, 82 readers, 197 senior lecturers, 156 lecturers, and 95 tutors and demonstrators. Teaching by part-time staff amounted in 1973 to 78 000 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.

Details of student enrolments are given in the next two tables.

The University of Adelaide, Enrolments^(a)

Course	1969	1970	1971	1972	1973
Higher degree candidates (b) ..	835	852	966	996	997
Undergraduate, diploma, certificate and miscellaneous students:					
Agricultural science	202	195	202	194	196
Applied science	203	150	100	47	23
Architecture	187	186	180	166	165
Arts	2 629	2 565	2 672	2 787	2 678
Dentistry	209	182	206	235	281
Economics	475	498	545	544	630
Engineering	555	561	610	625	623
Law	352	382	450	477	558
Mathematical sciences	—	—	—	—	234
Medicine	606	571	593	617	725
Music	88	97	103	125	134
Pharmacy (degree)	130	89	47	17	5
Science	1 351	1 382	1 495	1 500	1 296
Technology	505	347	225	111	55
Physical education	101	61	23	6	—
Physiotherapy	90	57	32	11	—
Social studies	10	2	—	—	—
Miscellaneous (SAIT) (c) ..	63	91	81	103	100
Elder Conservatorium (d) ..	283	296	207	210	205
Visiting students (e)	—	—	—	18	31
Total	8 874	8 564	8 737	8 789	8 936

(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.

The University of Adelaide, Enrolments, 1973^(a)

Course	New Students (b)	All Students				Total
		Full-time	Part-time	External	Staff	
Higher degree candidates	204	564	239	74	95	972
Master's qualifying candidates	6	5	20	—	—	25
Undergraduate, diploma and miscellaneous students:						
Agricultural science	66	169	27	—	—	196
Applied science	—	7	16	—	—	23
Architecture	47	146	19	—	—	165
Arts	875	1 426	1 156	96	—	2 678
Dentistry	100	264	17	—	—	281
Economics	213	342	288	—	—	630
Engineering	183	551	72	—	—	623
Law	157	471	87	—	—	558
Mathematical sciences . .	202	176	58	—	—	234
Medicine	217	724	1	—	—	725
Music	46	119	14	1	—	134
Pharmacy	—	3	2	—	—	5
Science	427	1 092	202	2	—	1 296
Technology	—	18	37	—	—	55
Misc. (SAIT) (c)	48	14	86	—	—	100
Elder Conservatorium (d)	70	—	205	—	—	205
Visiting students (e)	25	9	21	1	—	31
Total	2 886	6 100	2 567	174	95	8 936

(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.

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.

From its inception until the end of 1973 the University had conferred 23 045 degrees and 7 506 diplomas by examination. The growth of the University in recent years is indicated by the number of degrees and diplomas awarded in 1973 which totalled 1 771, compared with 838 in 1963.

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 226).

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 post-graduate 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 twenty-seven members: The Chancellor; the Vice-Chancellor; the Director-General of Education; five members of Parliament elected by Parliament; a nominee from each of the Chamber of Commerce and Industry, the Trades and Labor Council, and the Government; two professors and two non-professional academic staff members elected by the academic staff; the President of the Students Representative Council; eight members elected by Convocation; and up to three members co-opted by the Council.

Details of income and expenditure for the period 1969 to 1972 are shown in the following table.

The Flinders University of South Australia, Finance

Particulars	1969	1970	1971	1972
	\$'000			
Income for capital purposes:				
Australian Government	479	842	884	501
State Government	479	842	884	501
Income for other purposes:				
Australian Government	1 120	1 524	1 886	2 271
State Government	1 643	2 156	2 654	3 033
Student fees	227	338	379	508
Other	159	178	218	182
Total income	4 108	5 879	6 904	6 996
Expenditure:				
Teaching and research	2 201	2 869	3 534	3 945
Administration	377	459	553	710
Libraries	339	446	527	644
Buildings, premises, grounds	1 431	1 845	2 305	1 485
Other	41	60	189	154
Total expenditure	4 390	5 679	7 109	6 938

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 1970 to 1973 are shown in the following tables.

The Flinders University of South Australia, Enrolments

Course	1970	1971	1972	1973
Bachelors degrees:				
Arts	796	878	1 035	1 251
Science (a)	591	640	679	548
Economics	165	181	220	233
Education	96	140	168	240
Postgraduate diplomas:				
Social administration	32	43	61	69
Education	58	81	90	120
Higher degree (including master's qualifying)				
Miscellaneous	155	155	227	256
Other	16	27	30	49
	—	—	35	—
Total	1 909	2 145	2 545	2 766

(a) Includes the following numbers of medical students who intended to transfer to the University of Adelaide at the end of their first year: 1970, 127; 1971, 129; 1972, 135; 1973, nil. The Flinders University medical school commenced in 1974.

The Flinders University of South Australia: Enrolments, 1973

Course	Commencing Students	All Students		
		Full-time	Part-time	Total
Arts	605	1 003	248	1 251
Science	203	501	47	548
Economics	104	172	61	233
Education	120	182	58	240
Higher degrees	68	130	96	226
Master's qualifying	18	5	25	30
Postgraduate diplomas	150	178	11	189
Miscellaneous	45	3	46	49
Other	—	—	—	—
Total	1 313	2 174	592	2 766

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 six schools: the Schools of Humanities; Social Sciences; Mathematical Sciences; Physical Sciences; Biological Sciences; and Medicine. 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-one disciplines established within them.

The establishment of full-time staff of the University at 1 January 1974 is shown in the following table.

**The Flinders University of South Australia,
Full-time Staff Establishment, 1974**

Schools:	
Academic (teaching and research)	272
Technical	132
Clerical	68
Library:	
Professional	24
Other	43
Registry:	
Senior administrative	31
Clerical	70
Caretaking, grounds and maintenance	60
Student services:	
Professional	5
Other	4
Total	709

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 1973 the collection totalled 252 000 volumes and approximately 30 000 volumes are being added each year; 6 400 periodicals are currently received. Emphasis is placed on the acquisition of material to support the current teaching and research programmes of the University. Loans to staff and students during 1973 totalled more than 99 000.

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, 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 post-graduate diplomas in Social Administration 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 undertakes a relatively wide range of investigations which, in 1974, includes a significant contribution to an international research programme on the Ross Ice Shelf, Antarctica.

The Institute 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.

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 Australian Commission on Advanced Education, the Australian Council on awards in Advanced Education and other national bodies concerned with tertiary education.

The Colleges are the South Australian Institute of Technology; Roseworthy Agricultural College; Kingston College of Advanced Education (formerly Adelaide Kindergarten Teachers College); Torrens College of Advanced Education (incorporating Western Teachers College and the South Australian School of Art); Adelaide College of Advanced Education (formerly Adelaide Teachers College); Murray Park College of Advanced Education (formerly Wattle Park Teachers College); Salisbury College of Advanced Education (formerly Salisbury Teachers College); and Sturt College of Advanced Education (formerly Bedford Park Teachers College). Details of the activities of some of the colleges are discussed below.

THE 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 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 1969 to 1972 are shown in the following table.

South Australian Institute of Technology, Revenue and Expenditure

Particulars	1969	1970	1971	1972
	\$'000			
Income for capital purposes:				
Australian Government	1 209	1 599	2 131	865
State Government	1 386	1 565	2 085	1 101
Other	26	27	39	64
Income for other purposes:				
Australian Government (a)	993	1 072	1 290	1 253
State Government (a)	1 063	1 678	2 404	2 843
Fees from students	683	787	812	948
Other	33	37	63	54
Total income	5 393	6 765	8 824	7 128
Expenditure:				
Capital (land, buildings, plant, furniture and equipment)	2 485	3 334	3 825	2 452
Revenue	2 838	3 735	4 574	5 315
Total expenditure	5 323	7 069	8 399	7 767

(a) Includes amounts transferred to Capital Account for equipment and furnishings purchased: 1969, (43); 1970, (33); 1971, (49); 1972, (42).

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, thirteen have been accredited, by the Australian Council for Awards in Advanced Education, for the award of Institute degrees; thirteen 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 four 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 by the Institute and other courses are conducted at Woomera.

South Australian Institute of Technology, Students and Staff

Particulars	1969	1970	1971	1972	1973
Students:					
Individual enrolments	8 031	6 755	6 103	5 732	5 714
Subject enrolments	18 509	17 307	17 215	16 631	17 084
Full-time teaching staff	219	228	251	266	278
Part-time teaching staff	460	598	600	643	608

In 1973, the Institute conducted over 600 classes. Of the 5 714 individuals enrolled in 1973, 3 140 were taking professional courses, and 2 510 certificate level courses. The remaining sixty-four students were not enrolled in full courses.

The majority of students attending the Institute do so on a part-time basis. There were 1 738 full-time students in 1973.

ROSEWORTHY AGRICULTURAL COLLEGE

Roseworthy Agricultural College was opened to students in 1883 and is the oldest of Australia's agricultural colleges. It is situated 50 kilometres north of Adelaide in better class mallee country, the average annual rainfall being 437 millimetres. The total area of the College farm is 1 200 hectares, including buildings, grounds, vineyards and orchard; 500 hectares are cropped annually and about 200 hectares fallowed.

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 programme is also conducted.

The College issues diplomas known as the Roseworthy Diploma of Agriculture (RDA), Roseworthy Diploma of Oenology (RDO) and Roseworthy Diploma of Agricultural Technology (RDAT).

Students entering the RDA course must be at least sixteen years of age on 1 January of the year of entry and have passed the Leaving examination in five subjects. Applicants for the RDO course must have completed the first two years of the RDA course or else have passed at Matriculation level in specified subjects, and spent one year gaining practical experience in a winery. RDAT applicants must have passed the RDA at or above a prescribed level.

At 30 June 1973 there were 164 students in residence at the College.

OTHER COLLEGES

All of the former teachers colleges are now operating as colleges of advanced education under separate Acts of Parliament. Basically these colleges have been involved in teacher education, but they are now diversifying into other fields; 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. Further information is included under Teacher Education below.

TEACHER EDUCATION

Kindergarten

Kingston College of Advanced Education (formerly the Kindergarten Teachers College) is under the control of the Kindergarten Union of South Australia (Inc.). Trainees undertake a three-year course which includes lectures in a wide variety of subjects in addition to practical experience at kindergartens. Trainees may be granted living allowances by the Kindergarten Union (subject to a bond) or may enter as private students. Upon completion of the course trainees are awarded a diploma.

Trainees also benefit from the facilities of the Lady Gowrie Child Centre which is equipped for observational and experimental work with pre-school children and is associated with the Kindergarten Union through the Australian Pre-School Association. At the end of 1973, the principal, ten full-time and four part-time lecturers were engaged in the training of 141 students.

Pre-school teachers are also trained at Torrens College of Advanced Education (see page 184).

Primary and Secondary

From 1 January 1973, the five South Australian Education Department Teachers Colleges became autonomous Colleges of Advanced Education, governed by their Councils under the Board of Advanced Education.

Students are admitted to teacher education courses at the Colleges of Advanced Education: the Colleges are Adelaide College of Advanced Education (formerly Adelaide Teachers College); Sturt College of Advanced Education (formerly Bedford Park Teachers College); Salisbury College of Advanced Education (formerly Salisbury Teachers College); Murray Park College of Advanced Education (formerly Wattle Park Teachers College); and Torrens College of Advanced Education (formerly Western Teachers College).

Courses are related to the various levels of education or to specialised fields. Primary teachers are trained at Salisbury, Murray Park, Torrens and Sturt Colleges of Advanced Education. Specialist secondary teachers are trained at Torrens, Sturt and Adelaide Colleges of Advanced Education. General secondary trainees are attached to Salisbury College of Advanced Education, where they undertake only internal tertiary studies, or to the Adelaide College of Advanced Education, Sturt College of Advanced Education, University of Adelaide and the Flinders University of South Australia.

The normal training period for primary teachers is three years. Certain primary teachers, after having completed their normal training, and having had some teaching experience, may attend special courses to equip them for teaching handicapped children. Courses for secondary teachers are usually of four years duration. In addition to the general secondary course there are also specialist courses for teachers of commercial subjects, agriculture, music, physical education, art, home science and crafts.

External facilities, as well as those of the colleges, are used in the education of teachers. Secondary trainees have the opportunity of completing a university degree, and primary training may involve some study at a university or studies leading to the award of a degree for students at Sturt College of Advanced Education attending Flinders University. In addition, the facilities of the South Australian Institute of Technology, Roseworthy Agricultural College, Waite Agricultural Research Institute, and the Elder Conservatorium of Music are used in the training of specialist teachers. Trainees also attend at certain schools where they observe skilled teachers at work and where they gain practical experience through the preparation and presentation of lessons.

Trainees may enter the colleges as private students; the majority, however, receive free tuition and allowances while training in return for a three-year bond with the Education Department. There are a limited number of unbonded scholarships which do not require the student to teach with the Education Department of South Australia.

Teacher Trainees at Colleges of Advanced Education, South Australia^(a)

Classification	1969	1970	1971	1972	1973
Kindergarten	95	98	101	141	182
Infant	420	479	610	603	(b)838
Primary	1 186	1 357	1 635	1 688	1 892
Secondary:					
General (c)	1 405	1 499	1 764	1 923	1 923
Specialist (d)	702	738	883	826	968
Total	3 808	4 171	4 993	5 181	5 803

(a) Number of students attending for whole or part of the year.

(b) Includes 176 Lower Primary/Infant teachers.

(c) Includes agriculture and music teachers.

(d) Includes commercial, physical education, craft and art teachers.

Private Schools

In the Catholic school system only one religious order, the Sisters of Mercy, receives all its training in South Australia. These Sisters attend the Colleges of Advanced Education, the University of Adelaide, and the Flinders University of South Australia. Other teaching members of Catholic orders receive the majority of their training interstate. Generally private schools do not train their teachers but employ persons considered to be suitably qualified.

FURTHER EDUCATION

General

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 in 1973 was directed towards an improvement in vocational education. This included 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, technician and diploma level (see pages 227-8). 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 1973 there were more than 108 000 subject enrolments in 1 500 courses and subjects.

The following table shows the range of educational activities conducted by the Department of Further Education during 1972 and 1973, and student hours involved.

Further Education: Distribution of Educational Activities, South Australia

Courses	Student Hours			
	1972		1973	
	No.	Percentage of Total	No.	Percentage of Total
Degree and diploma	21 399	0.3	17 204	0.2
Technician or certificate or post-trade	1 414 337	18.2	1 584 115	19.8
Basic trade or apprenticeship . .	1 995 361	25.7	2 047 991	25.6
Other skilled trade and vocational	567 847	7.3	675 097	8.4
Preparatory or general education	946 636	12.2	1 006 299	12.6
General interest, enrichment and improvement	2 826 743	36.3	2 677 946	33.4
Total	7 772 323	100.0	8 008 652	100.0

A more precise distribution of the Department's activities in 1973, 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 1973

Field of Study	No. of Courses	Student/Hour Involvement per cent
Applied science	8	1.6
Art and design	60	12.5
Building industry	46	13.4
Business studies	45	6.8
Engineering	89	18.3
Rural and horticultural	27	3.6
Music	15	3.3
Paramedical services	6	1.5
Service industries	86	16.4
General studies	117	22.6
Total	499	100.0

There is a trend towards greater diversification in courses undertaken and also towards an increase in the post-trade certificate or technician level of study. In terms of total student hours, this level has increased from 10 per cent (1970) to 20 per cent (1973).

Enrolments

As the Department of Further Education was first established in 1972, enrolment figures for 1971 are those of the Technical Division of the Education Department. The following table shows the number of Subject and Individual Student Enrolments.

Further Education: Enrolments, South Australia

Course	1971	1972	1973
SUBJECT ENROLMENTS			
Degree and diploma	2 533	317	243
Technician or certificate or post-trade . .	17 809	19 160	21 580
Basic trade or apprenticeship	27 480	25 255	24 363
All other skilled trade and vocational	8 976	8 881	9 848
Preparatory or general education	12 203	10 600	11 136
General interest, enrichment and improvement	51 955	44 268	41 215
Total	120 956	108 481	108 385
INDIVIDUAL ENROLMENTS			
Degree and diploma	932	286	243
Technician or certificate or post-trade	12 133	12 489	14 049
Basic trade or apprenticeship	7 735	7 640	7 984
All other skilled trade and vocational	7 567	7 798	8 664
Preparatory or general education	8 472	7 770	7 980
General interest, enrichment and improvement	48 856	42 557	39 294
Total	85 695	78 540	78 214

Staffing

The following table shows the numbers of staff employed in colleges and centres.

Further Education: Staffing, South Australia

Staff	1971	1972	1973
Full-time teaching	609	708	735
Part-time teaching (a)	2 512	2 521	2 320
Total	3 121	3 229	3 055
Non-teaching (ancillary)	261	296	377
Total	3 382	3 525	3 432

(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 more sophisticated needs of commerce and industry. Trade and vocational courses have increased in number and depth while the enrichment studies have remained relatively steady because of consolidation and fiscal controls. Whilst 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

	1971		1972		1973	
	Courses	Subjects	Courses	Subjects	Courses	Subjects
Degree and diploma . .	3	14	3	14	3	14
Technician or certificate or post-trade	43	342	54	414	72	537
Basic trade or apprentice- ship	44	—	45	—	45	—
All other skilled trade and vocational	128	165	144	186	152	177
Preparatory or general education	62	62	62	62	62	62
General interest, enrich- ment and improvement	167	167	205	205	217	217
Total	447	750	513	881	551	1 007

Teaching

The Department has continued to offer courses on a full-time or part-time basis as well as by attendance or by correspondence. During 1973 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.

Multi-Media Approaches

During 1973 there was an increasing 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.

Multi-Media Centre

This centre, located at 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 programmes for general distribution and educational television service for a number of teachers. In December 1973 an experimental television broadcast of midnight-to-dawn educational programmes was beamed from SAS Channel 10. This project was a joint operation involving the Department of Further Education, the Education Department and the South Australian Film Corporation.

Resource Centres

During 1973 steps were taken to develop 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.

Activities it organises directly, or in which it provides major assistance to other bodies, include a comprehensive day and evening class programme, postal courses for trade unionists, and an international adult and childrens film festival. It possesses an adult education centre in the city.

In 1973 there were 185 classes with a total enrolment of 7 500 students organised by the WEA, and a further nineteen postal courses with an enrolment in excess of 2 400. 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, latterly in association with the Australian Broadcasting Commission; and it organises 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 VLSUV. Established by a private donation of \$100 000, the station is run by the Department of Adult Education and provides structured courses for professional people as well as the general public. It also provides general educational and cultural programmes.

Total enrolments for all departmental activities during 1973 were about 6 000.

TRADE EDUCATION

Legislation governing apprenticeships in South Australia is contained in the Apprentices Act, 1950-1971 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 1969 to 1973 are given for the major industry groups.

Number of New Apprenticeships Commenced: Trade Groups, South Australia

Trade	1969	1970	1971	1972	1973 _p
Metal	1 193	1 099	1 094	951	1 105
Electrical	385	404	375	330	381
Building	278	278	349	347	476
Furniture	109	107	122	128	189
Printing	65	82	70	60	69
Vehicle industry	111	95	128	112	129
Ship and boat-building	13	8	12	8	10
Bootmaking	19	18	21	14	18
Clothing	1	3	3	2	—
Coopering	—	1	—	1	2
Food	143	128	189	146	178
Hairdressing	321	296	267	295	389
Leather and canvas goods	5	5	3	—	4
Miscellaneous	12	9	9	15	18
Total all trades	2 655	2 533	2 642	2 409	2 968

The following table shows the number of new apprenticeships commenced, indentures completed, indentures cancelled, and apprentices employed at 31 December for the years 1969 to 1973.

Apprenticeships, South Australia

Particulars	1969	1970	1971	1972	1973 _p
New apprenticeships commenced	2 655	2 533	2 642	2 409	2 968
Number of indentures completed	2 276	2 215	2 175	2 089	2 229
Number of indentures cancelled	284	282	288	298	386
Number of apprentices employed	10 439	10 467	10 737	10 682	11 186

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	1969	1970	1971	1972	1973
Metropolitan technical colleges .	5 893	6 575	6 603	6 250	7 903
Country technical colleges	871	1 012	1 069	992	1 280
South Australian College of External Studies (a)	705	794	720	865	837
Total	7 469	8 381	8 392	8 107	10 020

(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. Thirty-six of these scholarships were awarded to South Australians for 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 year 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. For metropolitan employers, the subsidy is \$260 a year for each qualifying first year apprentice and \$454 a year for country employers. In addition to these basic payments, subsidies are payable to employers to encourage them to allow apprentices to engage in full-time initial off-the-job training in basic practical skills. If an employer provides full-time training to approved standards in training centres, annexes and 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 \$16 a week for each eligible apprentice is payable for the duration of the approved course, subject to a maximum period of twelve months. 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.

To facilitate regional mobility a living-away-from-home allowance is payable to all formally indentured apprentices. The allowance, which offsets some of the additional costs frequently associated with youths living away from home, is paid at the rate of \$10 a week to first year apprentices and \$5 a week to those in their second and third years. If an employer is paying the apprentice an allowance the amounts are reduced by the amount of the employer's subsidy.

Trainer Training Service

As part of its responsibility of implementing an effective national manpower policy the Department of Labor and Immigration has established a 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 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 1974 it is expected that Group Instructor, Discussion Techniques, 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, Method Improvement, Work Management and Scheduling and Office Supervision. The Training Officer Service is not yet operating in South Australia.

Employment Training Scheme for Aborigines

The objective of this Scheme is to assist the movement of Aborigines from areas of poor employment opportunities to areas where regular employment is available and to train them for a wide range of skilled jobs. The Scheme provides for subsidies to employers as an incentive to provide long-term work training for Aborigines who have had no previous employment or only irregular employment. All private employers and government bodies who employ Aborigines are eligible to receive a subsidy provided that the Aborigines are accepted in industries and occupations which are governed by awards or other recognised wage systems. Direct assistance includes the payment of fares to the place of employment where training is provided, living-away-from-home allowances, return fares for home visits, a weekly fares allowance and a clothing grant upon entering employment.

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 State Government on education. The dissection given is based on a revised classification of the purposes of government: as a consequence figures now appearing for 1971-72 will differ in content from those previously published. For further details see part 11.3 State Government Finance.

State Expenditure on Education, South Australia

Purpose	1971-72p	1972-73p
	\$'000	
Consolidated Revenue Fund expenditure (a):		
General administration, regulation and research ..	2 063	2 205
Transportation of students	2 179	2 265
Primary and secondary education (b)	80 418	92 034
Vocational training (b)	5 255	6 056
University education	16 968	19 632
Other higher education (c)	17 212	19 743
Other education programmes;		
Handicapped children	1 072	1 182
Adult education (b)	1 763	2 524
Other (d)	2 367	2 999
Total	129 297	148 640
Consolidated Revenue Fund receipts:		
General administration, regulation and research ..	187	225
Transportation of students	39	68
Primary and secondary education (b)	1 656	1 754
Vocational training (b)	443	482
University education (e)	7 395	8 458
Other higher education (c) (e)	2 155	3 239
Other education programmes;		
Adult education (b)	267	287
Total	12 142	14 513
Consolidated Revenue Fund net expenditure	117 154	134 127
Loan Fund expenditure:		
Transportation of students	392	448
Primary and secondary education	18 083	24 269
Vocational training	2 821	2 717
University education	3 629	5 399
Other higher education (c)	4 739	6 430
Total	29 663	39 263
Loan Fund receipts (e):		
Primary and secondary education	2 541	3 319
Vocational training	878	842
University education	1 835	2 239
Other higher education (c)	2 257	3 889
Total	7 511	10 289
Loan Fund net expenditure	22 152	28 974

(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.

The laboratories currently employ 2 051 persons with graduate/diploma staff of about seventy. Sophisticated instrumentation and extensive laboratory and pilot scale equipment is used for widely diverse scientific investigation and chemical and metallurgical process development.

Contract research earnings currently are approximately \$2 million annually.

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 Organization has some thirty-six research Divisions, four of which have their headquarters in South Australia: these are the Divisions of Nutritional Biochemistry; Soils; Horticultural Research; and Mathematical Statistics.

Division of Nutritional Biochemistry

This Division's interests extend through the fields of nutritional biochemistry and nutritional physiology. The greater part of its efforts have been concentrated on research associated with sheep nutrition and wool and meat production. The Division's work on the role of trace elements in plant and animal nutrition has been of far-reaching consequence. The animal nutrition work has led to practical means of controlling three diseases of sheep—coast disease, phalaris staggers, and white muscle disease, a selenium deficiency condition. Plant nutrition research has shown how added traces of elements such as copper and zinc enable large tracts of country previously regarded as desert to be farmed profitably.

The Division has its headquarters laboratory in the grounds of the University of Adelaide and a field station at O'Halloran Hill.

Division of Soils

Administrative re-arrangements of research into soils, landscapes and soil and land use management were accomplished during 1973. The Division of Soils is now one of three Divisions comprising the Land Resources Laboratories which also includes the Division of Land Use Research (centred in Canberra) and the Division of Land Resources Management (centred in Perth).

The research programme of the Division of Soils 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 programmes in the Division involved soil 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 programmes, 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 is comprised, 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 programmes 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.

Division of Mathematical Statistics

This Division has its headquarters in Adelaide but most of its officers are stationed in other CSIRO laboratories throughout Australia. These officers conduct research in applied statistics and act as consultants in the design of field and laboratory experiments and in the analysis and interpretation of experimental results. Some of the Divisional headquarters staff carry out these functions and the remainder are engaged on fundamental research in mathematical statistics on a broad front including distribution theory, multivariate analysis, scientific inference and experimental design and applied research in climatology, meteorology, agriculture and large scale agricultural and climatological surveys.

DEFENCE STANDARDS LABORATORIES

A South Australian Branch of the Defence Standards Laboratories (DSL) 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 it has a programme 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 electradiography 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 DSL 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 \$1.3 million each year.

The laboratory is also undertaking research in field ion microscopy. At the end of 1973 the total staff of the laboratory was sixty-two including nineteen research scientists and experimental officers.

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	1968-69	1969-70	1970-71	1971-72	1972-73
Staff at end of year:					
Graduate	72	85	91	99	111
Other	260	305	366	399	448
Tests performed	933 083	1 133 123	1 470 474	1 752 943	2 036 425
Revenue:					
	Dollars				
State Government grant	913 955	1 195 976	1 371 130	1 690 280	2 280 000
Fees for laboratory tests	434 837	484 608	1 120 341	1 207 494	1 145 815
Other	94 841	100 431	153 894	126 315	184 054
Total	1 443 633	1 781 015	2 645 365	3 024 089	3 609 869
Expenditure:					
Salaries and wages	1 077 098	1 314 923	1 764 556	2 201 285	2 691 840
Other	373 409	503 527	682 126	768 613	836 114
Total	1 450 507	1 818 450	2 446 682	2 969 898	3 527 954

The Institute operates a Division of Nuclear Medicine in the Royal Adelaide Hospital which undertakes a variety of diagnostic tests using radio-active isotopes to indicate the anatomical and physiological state of different parts of the human body. To meet the growing needs for blood transfusion and services in rural areas Regional Laboratories, staffed and administered by the Institute, have been established in eight 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 2 036 425 in 1972-73. Sections of the Institute that have recently grown in size and importance are the Amoebic Research Unit, the Salmonella Reference Laboratory, the Tuberculosis Laboratory and a large, centralised, automated chemistry laboratory. 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 system to be the base for a State laboratory computing system 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 on pages 205-6.

WEAPONS RESEARCH ESTABLISHMENT

The Weapons Research Establishment, situated at Salisbury, is the largest of three organisations within the Research and Development Branch of the Department of Defence. The Research and Development Branch, with its headquarters in Canberra, 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 areas related to defence including aerodynamics, propulsion, electronics, computing, systems analysis and operational research.

The headquarters of the Weapons Research Establishment occupies an area of 11.7 square kilometres 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 programmes 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 programmes 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 about 4 200 including dependants and support personnel. The total strength of the Weapons Research Establishment including staff at Salisbury and Woomera was about 4 500 at September 1973.

Edinburgh Airfield which adjoins Weapons Research Establishment at Salisbury is the headquarters of the 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 Library has a representative basic collection of nineteenth and twentieth century materials in all subjects except medicine and law. It has considerable strength in a number of subjects including South Australian publications, librarianship, wine, Australian Aborigines, River Murray shipping, sailing ships, and nineteenth century illustrated works on natural history. In addition there is an extensive collection of tape recordings of Australian authors, folksongs and Aboriginal music. The Library is an official depository for the publications of the United Nations and of the Australian, British, Californian, and Philippine governments.

The oldest section of the Library is the Reference Library which is the central basic collection. Since 1946, except for rare, irreplaceable volumes, the books have been available for loan. Over 3 400 periodicals are taken annually, and the newspaper reading room files 346 foreign and local newspapers; in 1972-73, 47 000 periodicals were lent. Legislation since 1878 provides for the deposit in the Library of copies of all items published in South Australia.

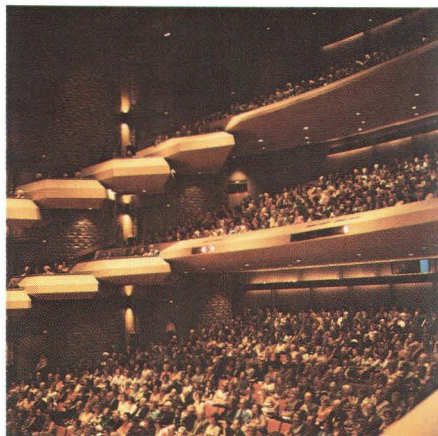
The Research Service, established in 1942 was amalgamated with the Reference Library to form the Reference Service Branch in 1972. In 1972-73 this Branch answered 177 000 inquiries. It supplies lists of references and arranges for the borrowing of books and periodicals selected from those lists as well as books and photocopies from interstate and overseas libraries. *Pinpointer*, a monthly index of popular Australian periodicals and *Index to Australian Book Reviews* are published.

In 1919 the Archives Section was established for the collection of original South Australian historical material. In 1925 legislation was passed forbidding the destruction or disposal of public documents without reference to the Libraries Board. At the end of June 1973 there was 7 700 metres of occupied shelf space in the Archives. In 1972-73, 6 300 inquiries were received for which 19 700 issues (consisting of maps, views, documents or printed sources) were produced. A journal, *South Australian*, is published twice a year.



Malcolm Harrington

A view of the Festival Theatre with, on the left, the old Government Printing Office and behind, the Adelaide Railway Station



Malcolm Harrington

An interior view of the Festival Theatre



Malcolm Harrington

The World Gliding Championships were held at Waikerie during January 1974. One entry is about to be towed into the launching area



Malcolm Harrington

A view of the accommodation provided and of the radio aerials. A notable feature was that each country was allocated its own frequency



Malcolm Harrington

The 1974 World Championship for Fireball class yachts was held at Glenelg during March. His Royal Highness Prince Philip, the Duke of Edinburgh, who opened the Championship is shown with competitors from Mauritius

Some of the competing Fireball yachts, which have a crew of two, are 4928 mm long and have a total sail area of 24.47 m²

Malcolm Harrington





Malcolm Harrington

The Schuetzenfest (Shooting Festival) held each year at Hahndorf, 29 km from Adelaide, includes German folk-dancing

In the shooting competition at the Schuetzenfest, air rifles are used on a 10 metre range

Malcolm Harrington



The Children's Library was established in 1915 and is believed to be the oldest in Australia. The carefully selected stock include some 8 500 books in the Children's Literature Research Collection, a special collection assembled to assist in the study of children's writing. School classes visit the Library, and talks are given to groups of children, both inside the Library and at outside venues, and to groups of parents and various societies. There are 19 000 registered borrowers in the metropolitan area, and books are sent to 3 900 country children, resident in areas that do not have a public library.

Another active section is the Youth Lending Service established in 1957 to cater for the needs of young people between the ages of thirteen and eighteen. Over 22 500 young people in the metropolitan area were enrolled in the Service in 1972-73, and there were 2 200 young people from country places enrolled as members. The collection includes, besides general literature, publications of special interest to young people dealing with hobbies and careers.

In 1938 a Country Lending Section 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 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. The total number of adult borrowers in the metropolitan area is now 54 000, and there are 6 000 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			
1969	259 000	39 000	(a) 195 000		16 000	509 000
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
To 30 June:			VOLUMES LENT			
1969	104 000	231 000	479 000	—	99 000	913 000
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

(a) Separate details not available before 30 June 1973.

Photographic and xerographic copying facilities are available to the public and much work is done for the Library itself. In 1962 the Libraries Board began an extensive programme of publishing facsimile editions and other works of Australian interest. Over 150 works have now been published. Long playing records have also been issued. 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 (\$282 707 in 1972-73) 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 1973. All book stocks are interchangeable with a central pool maintained by the Libraries Board (see page 239).

Local Public Libraries, South Australia

Year	Libraries at End of Year	Registered Readers	Books Lent	Stocks at End of Year
1968-69	29	144 000	2 103 000	256 000
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

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. At 30 June 1973 the Library contained over 71 000 volumes, and subscribers during the year 1972-73 numbered 1 900.

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, 1939-1967.

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	1970	1971	1972	1973
Number of institutes	190	186	182	180
Subscribers	33 815	43 250	46 349	48 063
Number of volumes	762 263	761 560	758 970	763 997
Volumes circulated during year	1 703 295	1 736 245	1 684 113	1 773 869

(a) From 1969 includes also other users of the libraries.

Other Libraries

Particulars relating to the Barr Smith Library at the University of Adelaide (695 900 volumes, including 51 700 microformes, at the end of 1973) and the Flinders University Library (252 000 volumes at the end of 1973) are given on pages 206 and 215 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 sixty-three with seventeen professional research workers responsible for the care of the collections and for carrying out research upon them.

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 pages 244-5).

The Museum has a general Information Service dealing with about 11 000 inquiries annually and approximately 40 000 school children pass through the Education Section each year.

Public entertainment and instruction includes 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 sold to visitors 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 refurbished 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 is administered by a council and is financed by gifts, legacies and subscriptions. There are forty-one branches of the Trust in South Australia.

The Trust encourages the preservation and maintenance of lands and buildings of beauty, or of historic, scientific, artistic or architectural interest and the preservation of natural features in land and the protection of flora and fauna in South Australia.

Many early Adelaide buildings of architectural and historic merit are given one of the four following classifications by the Trust:

- A. buildings having great historic significance or high architectural qualities, the preservation of which is essential to the heritage of the State;
- B. buildings highly significant either architecturally or historically, the preservation of which is strongly recommended;
- C. buildings of considerable interest of which preservation is to be encouraged;
- D. buildings of sufficient interest to be recorded in accordance with the Australia-wide classification common to all Trusts.

This classification criterion is adhered to by all Trusts throughout Australia.

The many beautiful or historic Trust properties include Beaumont House and the Marble Hill ruins and reserve, and examples of the fine natural areas cared for are 'Willibalangaloo' at Berri, 'Watiparinga' at Eden Hills, 'Roachdale' at Kersbrook and 'Engelbrook' at Bridgewater. The Trust also owns the G. S. Sandison Reserve at Hallett Cove, an area of international scientific interest because of its glacial pavements.

Since its inception the National Trust of South Australia has been active in the fields of restoration, preservation and conservation. In 1963 the paddle steamer *Marion*, which now floats in the old graving dock at Mannum, was purchased and refitted; whilst 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 given an 'A' classification 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 1973, the National Trust of South Australia controlled forty-six reserves totalling 1 070 hectares and some twenty-six 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 as the *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 1972 were included in subsequent issues of the *South Australian Year Book*.

Areas declared between 1 November 1972 and 31 October 1973 were as follows:

Roonka Prohibited Area <i>Prohibited Area</i>	Significant Aboriginal archaeological site containing evidence of occupation of the River Murray from an earlier time to post-European settlement.
Dairy Creek Cave Painting Site <i>Historic Reserve</i>	Significant Aboriginal art site containing ochre paintings, probably associated with the now extinct Adelaide tribe.
Fettlers Cottages, Central Australian Railway <i>Historic Reserve</i>	Historic stone cottages associated with the former narrow gauge railway.
Fort Glanville <i>Historic Reserve</i>	Early colonial stone battery and defence works.
Harrison Creek Shelter <i>Historic Reserve</i>	Aboriginal ochre paintings in small rock shelter.

Horner's Bridge, Coromandel Valley <i>Historic Reserve</i>	Historic single arch, stone bridge erected in 1866 across the Sturt River.
Kanmantoo Cave Painting Site <i>Historic Reserve</i>	Large shelter with extensive Aboriginal ochre paintings.
Kapunda Mine Chimney <i>Historic Reserve</i>	Historic stone chimney associated with early copper mining industry.
Mount Schank Volcanic Cone <i>Historic Reserve</i>	Former Aboriginal mythological site with artifactual material in stratified deposits.
Nildottie Well <i>Historic Reserve</i>	Historic well and machinery associated with early settlement of the South Australian Mallee Region.
Wardang Island <i>Historic Reserve</i>	Aboriginal mythological site of historic significance to Aboriginal people of Yorke Peninsula.
Nora Creina Shelter <i>Historic Reserve</i>	Important group of shelters containing archaeological occupational debris.

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, a large collection of prints, drawings, silver, glass and ceramics including an important section devoted to South-East Asia, furniture, arms and armour and an important collection of coins and medals, and 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 programme 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 programme 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 1973, seventy-seven centres were visited and the exhibition was viewed by 38 000 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 1 156 and falls into four categories—Institutional, Family, Ordinary and Junior.

Other Galleries

South Australia's two leading art societies conduct exhibitions in their own galleries, namely, the Royal SA Society of Arts, founded in 1856 and Australia's oldest art society, and the SA Branch of the Contemporary Art Society of Australia, founded in 1942. A continuous changing exhibition is mounted on its own premises by the Adelaide Potters' Club, South Australia's longest established craft society.

The first permanent gallery to mount regular fortnightly shows opened at John Martin's emporium in the mid 1940's under the directorship of Stefan Heysen. The Bonython Art Gallery (now the Llewellyn), 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, Dulwich, which opened in 1967, was the first and only building in Adelaide to be architecturally designed and erected specifically to function as a commercial exhibition gallery. Since then, commercial galleries have mushroomed throughout the State to as far afield as Alice Springs in the Far North.

There are now over forty commercial galleries operating rotating exhibitions throughout the inner and outer metropolitan areas.

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 1675 entrants resulting in sales totalling \$25 000.

MUSIC AND DRAMA

MUSIC

Adelaide has a large number of amateur and semi-professional musical ensembles who give public concerts, as well as the professional groups such as the Symphony Orchestra, the Adelaide String Quartet and the recently re-formed University of Adelaide Wind Quintet, which has several international tours to its credit.

Regular lunch-time and evening concerts are given by staff and senior students at the Elder Conservatorium, as well as occasional performances at Flinders University and the various tertiary colleges.

The opening of the Festival Theatre in June 1973 has provided an excellent new venue for large scale concerts, although the Adelaide Town Hall is still favoured for chamber music, such as that provided by the regular visits sponsored by the Musica Viva Society of Australia.

The 1974 Adelaide Festival of the Arts was particularly strong musically, with both international and local performers contributing programmes of familiar and new works, some specially commissioned for the occasion.

The annual visit by the Australian Opera is now complemented by the adventurous programme of opera and music theatre provided by New Opera (SA) which now has the full status of a regional company.

The jazz scene has received a boost by a series of concerts given in the Art Gallery of SA by local and visiting performers.

Australian Broadcasting Commission

In the metropolitan area the South Australian 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 and a series of three summer concerts as well as a series of four Prom concerts.

During 1973 the Orchestra gave twenty-five free concerts for schoolchildren in the metropolitan area. Broken Hill had its own ABC subscription series of four concerts; one by the South Australian Symphony Orchestra and three by international recital artists. In addition the Symphony Orchestra toured the country areas and during 1973 visited eight other centres giving two free concerts for schoolchildren in each centre in addition to a public concert.

The Orchestra also performed at the opening of the Adelaide Festival Theatre in June 1973.

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 page 207.

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 will move into its permanent quarters, the Playhouse, with the premiere of a new Australian play. The new theatre is the drama theatre of the Adelaide Festival Theatre complex which, together with its new experimental theatre space and outdoor amphitheatre, will complete unrivalled 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.

The other professional company receiving financial support from both the State Government and from the Australian Council for the Arts is the regional theatre company based on Theatre 62 in the inner suburb of Hilton. This company, like the SATC, presents seasons of plays, engages in tours of country areas and performs presentations for schools. The company has pioneered special presentations in factories and other industrial venues.

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 OF ARTS

The idea of an arts festival was conceived late in 1958 by a group of Adelaide citizens, whose objective was a festival on international lines following generally the example of Edinburgh. Early in 1959 an administrative body was established supported by twelve volunteer committees—this reliance on voluntary effort has since remained as a feature of the festival organisation.

Although grants were made initially by the State and Australian Governments and later by the Adelaide City Council, financing the Festival of Arts was established on a community basis with the support of business firms and individuals as guarantors for specified amounts. This has since been augmented by a Friends of the Festival plan under which private individuals donate a small fixed sum in return for benefits such as concessions on admission prices and membership of the Festival Club.

The first festival, held in March 1960 and extending over fourteen days, had total attendances exceeding 300 000. It covered almost every aspect of the arts, with seventy-four performances for adult audiences as well as an element of popular entertainment out-of-doors.

Subsequent festivals held biennially benefited from the longer planning periods available, the establishment of a small permanent secretariat and international promotion and publicity programmes. Programmes expanded and many ancillary activities were stimulated while attendances continued to rise with noticeable increases in the numbers from interstate and overseas.

The eight Festivals to date, have presented a blend of international and Australian performers. The programmes have been prepared with the co-operation and contributions of the Australian Broadcasting Commission, the Australian Elizabethan Theatre Trust, the Arts Council of Australia, the Musica Viva Society, the University of Adelaide, the Art Gallery of South Australia and many similar organisations.

There have been many exhibitions, several from overseas, shown at the Art Gallery of South Australia as part of the Festival's visual arts presentations. Outdoor activities such as National Flower Day and free entertainment in Elder Park have added much to the colour and atmosphere of the Festival.

The 1974 Festival included performances by the Hungarian State Symphony Orchestra, the Stratford National Theatre of Canada, Collegium Musicum Zurich and the Australian Ballet. The Festival was noteworthy for the number of commissions and new works presented; these included a ballet 'Perisynthyon' by Sir Robert Helpmann and a musical theatre piece entitled 'Miss Donnithorne's Maggot' performed by the Fires of London. The Festival also presented a wide range of children's programmes for the first time under the title of 'Come Out'.

The next Festival will commence on 6 March 1976.

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 1942-1973*. An office of the Board is maintained in South Australia to administer the Act and in particular to supervise the programme 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.

All radio and television receivers must be covered by licences issued by the Postmaster-General's Department. Normal annual charges at 31 December 1973 were \$8 for a listener's licence, \$19 for a viewer's licence or \$26.50 for a combined licence. Reduced rates apply to pensioners who satisfy certain conditions and to persons living in remote areas, while licences are granted free of charge to blind persons and to schools. One licence covers all receivers owned by a licensee or his family and normally held at the licensee's address. Special licences are required for radio and television receivers on hire, the responsibility for the licence being borne by the hirer, and not the user, of the receiver.

Radio

There are at present five metropolitan and thirteen country stations operating. The country or regional stations relay programmes from metropolitan stations and in addition provide programmes of local interest. The call signs and locations of stations are given in the following table, all call signs in South Australia being prefixed by the number '5'. Adelaide's three commercial stations broadcast continuously, while all other stations operated between 121 and 128 hours a week at June 1973.

Radio Stations, At 31 December 1973
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 programmes twice yearly to obtain information as to the general availability of programmes in each city. The programme 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 programmes. The distribution of types of programme 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 Programmes by Categories, Australia 1972-73
All Metropolitan Stations

Category	Per cent		All Stations
	Commercial	National	
Entertainment:			
Light and popular music	54.1	22.2	44.1
Incidental matter	6.4	5.4	6.1
Variety	1.4	1.1	1.3
Drama	0.2	3.9	1.4
The arts	0.1	23.3	7.4
Information and services:			
News	9.0	11.6	9.8
Sport	6.4	4.9	5.9
Information	1.6	4.8	2.6
Religious	1.3	1.8	1.5
Social and political	3.1	15.8	7.0
Family	1.4	0.6	1.1
Children	—	1.7	0.6
Educational	—	2.9	0.9
Advertisements	15.0	—	10.3
Total	100.0	100.0	100.0

Details of broadcast listeners' licences current at 30 June in each of the years 1969 to 1973 are given below.

Broadcast Listeners Licences, South Australia^(a)
(Current at 30 June)

Type of Licence	1969	1970	1971	1972	1973
Ordinary	254 409	255 993	259 650	262 359	275 387
Hirers' and short-term hirers'	1 169	1 597	3 090	3 342	2 379
Pensioner	39 898	42 246	44 816	46 751	51 071
Other	2 401	2 683	2 929	3 160	3 574
Total	297 877	302 519	310 485	315 612	332 411

(a) Includes Northern Territory (10 813 licences at 30 June 1973). Includes combined (broadcast and television) licences—262 502 at 30 June 1973.

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 1973
South Australia

Call Sign and Channel	Location	Date Service Commenced
NATIONAL STATIONS		
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
COMMERCIAL STATIONS		
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. Early in 1964 there was a substantial reduction in hours of service but since December 1972 the hours of service for the four Adelaide stations varied between 84 and 112 hours each week.

On commercial channels there is a considerable emphasis on drama and light entertainment, whereas the Australian Broadcasting Commission devotes more time to programmes of an informative and educational nature. The Australian

Broadcasting Control Board's analysis of television programmes is derived from data obtained directly from commercial and national stations and is calculated on the actual duration of the programmes and not, as formerly, on the scheduled duration as shown in programme 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 1972-73 this was estimated at 15.8 per cent of the total televising time of commercial stations.

Results of surveys conducted by the Broadcasting Control Board in 1972-73 indicating the proportions of total broadcasting time (other than advertising) for various types of programmes are given in the following table. Details for South Australia are not available separately but closely approximate those for Australia.

Television Programmes: Categories, Australia, 1972-73

Category	Metropolitan and Country Stations	Metropolitan Stations		Country Stations	
	National	Commercial	All Stations	Commercial	All Stations
	Per Cent				
Drama:					
Adventure	4.6	11.7	10.1	9.6	6.8
Domestic and comedy	10.2	15.3	14.1	18.3	13.7
Other	6.9	23.2	19.4	25.3	14.8
Light entertainment:					
Cartoons	3.9	5.9	5.5	4.4	4.1
Personality programmes	1.1	10.4	8.3	9.5	4.7
Variety	1.1	2.7	2.4	2.3	1.6
Other	2.5	2.9	2.8	3.3	2.8
Sport	12.0	7.0	8.1	7.2	9.9
News	6.8	5.0	5.4	8.9	7.7
Children	19.0	8.6	10.9	4.5	12.7
Family	0.8	1.8	1.6	1.3	1.0
Information	4.1	2.0	2.5	2.2	3.3
Current affairs and political	9.0	1.9	3.5	1.8	5.9
Religious	1.6	1.2	1.3	1.3	1.5
The arts	1.0	—	0.3	—	0.6
Education	15.4	0.4	3.8	0.1	8.9
Total	100.0	100.0	100.0	100.0	100.0

Details of television viewers licences for the five years ending June 1973 are given in the next table.

Television Viewers Licences, South Australia^(a) (Current at 30 June)

Class of Licence	1969	1970	1971	1972	1973
Ordinary	209 709	213 978	218 958	225 015	235 886
Hirers' and short-term hirers'	37 629	41 357	43 904	49 553	54 329
Pensioner	30 580	33 847	37 003	39 784	44 145
Other	2 502	3 177	3 387	4 005	4 662
Total	280 420	292 359	303 252	318 357	339 022

(a) Includes Northern Territory (5 126 licences at 30 June 1973). Includes combined (broadcast and television) licences—262 502 at 30 June 1973.

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 Government Gazette* 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 100 000. 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 mainly of tropical and subtropical origin. Important features are the collections of native plants from dryland regions, cacti and succulents, the glass house displays and the Wisteria arbor. The Museum of Economic Botany, opened in 1879, houses a comprehensive carpological collection and displays of plant products.

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 mid-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 1972-73 a total of 108 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 247 species and varieties of Australian and exotic birds having been exhibited during 1972-73.

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 1972-73 about 353 000 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 new 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 1972-73 included 908 trees and 639 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 programmes, 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.

In 1964 and 1968 the Council conducted surveys of recreational facilities in the Adelaide Planning Area. Summarised results of these surveys are given in the following table. The total of 4 358 hectares in 1968 represented approximately 5.5 hectares per thousand persons.

Recreational Facilities, Adelaide Planning Area^(a)

Facility	1964	1968
	Hectares	
Field sports (b)	1 043	1 144
Children's playgrounds	37	44
Parks and gardens	477	737
Other (c)	2 002	2 434
Total	3 560	4 358

(a) As defined by the State Planning Office. School recreational facilities and regional reserves such as Belair National Park and Waterfall Gully are excluded.

(b) Includes tennis courts and bowling greens.

(c) Includes race courses, golf courses and areas reserved but undeveloped.

SPORTING FACILITIES

In terms of attendance the most popular spectator sport is Australian Rules football; during the 1973 season the average attendance at the 105 minor round matches was 8 988 while the average at the six final matches was 31 241.

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.

In the 1974 Australian Rules football season, 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 Athletics Association which is affiliated with the Australian Amateur Athletic Union. 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.

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 who are likely to attract large audiences. Other basketball stadiums are at Forestville, Bowden, Marion, Hillcrest and the St Clair Youth Centre at Woodville. Basketball is also played in the open at various centres.

The parklands of the City of Adelaide are used extensively for sporting purposes and during 1972-73, 350 sports permits were issued catering for nineteen 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 1973, forty-three registered racing clubs and twenty-eight registered country courses. Picnic race meetings are held at a number of outlying centres.

Trotting Tracks

The headquarters of Metropolitan Trotting in South Australia, is located at Globe Derby Park, Bolivar. There are thirteen other courses in use in the State, and eight of these (Gawler, Kadina, Kapunda, Mount Gambier, Naracoorte, Port Augusta, Port Pirie and Barmera), have facilities for the conduct of night trotting. Trotting is now conducted throughout the year.

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 at least three times a week. Average attendance at Angle Park, the city track, is approximately 3 000.

Golf Courses

At 30 June 1973 there were seven suburban public courses, four 18-hole courses including one at National Park, Belair, and three par-3 links. There were also fourteen private courses operating within suburban Adelaide. The last course completed was a 9-hole course at Bolivar Gardens in 1972. 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 and 1968. At 31 December 1973 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 1973 there were 235 bowling clubs registered with the Royal South Australian Bowling Association—sixty-seven in and near Adelaide and 168 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 228 bowling clubs registered with the South Australian Women's Bowling Association, sixty-three in the metropolitan area (including seven clubs exclusively for women) and 165 in the country.

Swimming Facilities

At 31 December 1973 there were seventy-four 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-four pools, sixty-six had treated water, the remainder were in lakes, dams, rivers or the sea, or utilised sea water.

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 aims of this Division include:

- the planning of new programmes and facilities to meet the sporting and recreational needs of the community;
- the co-ordination of the work of other departments and independent organisations involved in the provision of sporting and recreational facilities;
- the sponsoring and training of recreation workers;
- 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.

LOTTERIES AND BETTING

LOTTERIES

The State Lotteries Act, 1966-1973 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 moneys not claimed for over six months is from time to time, as required by the Treasurer, transferred to a Hospitals Fund.

Up to 31 December 1973, \$39 053 435 was received from the sale of tickets of which \$23 731 119 was distributed in prize money, and approximately \$13.0 million has 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 three weeks. In addition a few special lotteries have been conducted with tickets sold at \$2, \$3, \$5 or \$10 each.

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 1973, 2 294 subscribers availed themselves of this service.

At 31 December 1973 there were 201 Lotteries Commission Agents appointed in South Australia. Of these 121 were in the Adelaide and suburban area; sixty-two in country areas and eighteen were subscriber (non-ticket selling) agents.

BETTING

Legalised betting in South Australia is governed by the provisions of the Lottery and Gaming Act, 1936-1973 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 book-makers at horse race, trotting and dog race meetings. The totalisator cannot be used at coursing meetings but bookmakers may bet at them.

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.

Betting: Amounts Invested with Bookmakers and On-Course Totalisators and Distribution of Commissions, Taxes and Fractions, South Australia

Particulars	1970-71	1971-72	1972-73
Amount invested: \$'000			
Totalisator;			
Horse racing	5 112	5 770	6 375
Trotting	1 782	1 606	1 702
Dogs	44	816	1 556
Total	6 938	8 191	9 633
Bookmakers;			
On-course	58 839	71 377	80 557
Registered premises	1 888	2 167	2 189
Total	60 728	73 544	82 746
Total amount invested	67 665	81 736	92 379
Distribution of commissions, taxes and fractions derived from betting transactions: \$'000			
State Government;			
Totalisator tax and licences	338	401	468
Commission on bets	554	759	841
Stamp duty on betting tickets	125	135	134
Dividends and winning bets unclaimed . .	81	109	122
Total paid to Consolidated Revenue . .	1 099	1 404	1 566
Clubs;			
Commission on bets	575	671	753
Commission on totalisator takings	612	753	877
Total	1 188	1 424	1 629
Charitable institutions;			
Totalisator fractions	67	82	98
Total distribution	2 354	2 909	3 293

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 on page 260 for the years 1970-71 to 1972-73.

In October 1966, provision was made for the setting up of the Totalisator 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 Totalisator 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 1973, 164 agencies were operating of which sixty-two 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 1973 the Board employed eighty-one permanent officers and 898 part-time staff.

For the year ended 30 June 1973 off-course investments totalled \$48 134 574 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	2 415 908
Fractions	439 950
Unclaimed Dividends	148 881
Commission on NSW (Broken Hill) Investments . .	3 415
	3 008 154

In addition, for the year ended 30 June 1973, an amount of \$1 426 734 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 \$5 429 244 to participating clubs while in the same period, the South Australian Government has received \$10 898 877.

The Board now operates an on-course totalisator service for racing, trotting and greyhound clubs and at 30 June 1973 a total of nineteen clubs had availed themselves of these facilities.

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 national health services and 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 School Dental Services and the Deafness Guidance Clinic), 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 programmes 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.

Other State authorities concerned with aspects of public health include the Engineering and Water Supply Department which is responsible for water supply and sewerage services, and the South Australian Meat Corporation which is responsible for the functioning of the metropolitan abattoirs and for the inspection of premises used for merchandising, storing or processing of meat.

Under the Health and Medical Services Act, 1949 the Advisory Council on Health and Medical Services was constituted to investigate and report on matters referred to it by the Minister of Health. The matters may relate to any question concerning health, hospitals, medical services, the training and employment of any class of persons whose work relates to the promotion of health or to the treatment of disease or abnormality of the human body, and any proposals for new legislation relating to any of these matters.

The work of the Australian Department of Health includes the administration of the national health services, including medical, hospital, pharmaceutical and pensioner benefits. Under the *Quarantine Act* 1908-1969 the Department is responsible for the various aspects of human, animal and plant quarantine. Persons ordered into quarantine are accommodated at Torrens Island Quarantine Station.

The South Australian Branch of the Repatriation Department administers the medical services provided for ex-service personnel whose disabilities are accepted as being attributable to war service.

GENERAL HOSPITAL SERVICES

The control of hospitals in South Australia is vested in several authorities including the Hospitals Department, the Repatriation Department, religious and charitable organisations, local community committees and private owners.

PUBLIC HOSPITALS

The Hospitals Department administers three general hospitals in the metropolitan area, Royal Adelaide Hospital, The Queen Elizabeth Hospital and Modbury Hospital. In the country there are government hospitals at Port Pirie, Mount Gambier, Port Lincoln, Port Augusta, Wallaroo and Whyalla.

In addition there are fifty-five other hospitals in country areas, conducted by local boards of management, which receive maintenance subsidies from the State Government and come under the general supervision of the Hospitals Department.

Public General Hospitals, South Australia^(a)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Hospitals	65	66	67	68	69
Staff (at end of year):					
Medical;					
Permanent	358	381	402	446	479
Other (b)	692	734	623	527	597
Nursing	5 251	5 772	5 801	6 351	6 733
Attendants and others	4 258	4 673	4 684	5 139	5 704
Patients:					
Admitted and re-admitted ..	129 328	131 667	135 927	147 058	158 261
Average daily number resident .	3 575	3 685	3 779	3 899	4 081

Public General Hospitals, South Australia^(a) (continued)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Revenue:					
State Government aid	21 364	23 198	32 971	42 373	43 597
Australian Government (c)	3 612	4 066	4 367	4 331	4 042
Fees	9 495	10 829	13 471	20 079	22 258
Other	2 593	3 408	3 132	3 152	4 590
Total	37 064	41 500	53 942	69 935	74 487
Expenditure:					
Salaries	19 323	22 025	29 644	36 308	44 815
Maintenance, etc.	9 783	10 765	11 818	14 196	16 543
Buildings;					
New	6 411	6 025	10 070	16 073	8 687
Repairs	1 229	1 450	1 784	2 122	2 713
Total	36 746	40 264	53 316	68 699	72 758

(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) Hospital, pharmaceutical and tuberculosis benefits.

Public General Hospitals: South Australia, 1972-73^(a)

Particulars	Royal Adelaide Hospital	Queen Elizabeth Hospital	Adelaide Children's Hospital	Other General Hospitals	Total
Staff (at end of year):					
Medical;					
Permanent	219	142	74	44	479
Other (b)	388	68	72	69	597
Nursing	2 243	886	671	2 933	6 733
Attendants and others	2 006	1 026	709	1 963	5 704
In-patients:					
Admitted and re-admitted	31 559	19 994	17 520	89 188	158 261
Average daily number resident	1 091	492	294	2 204	4 081

(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 1973 there were 1304 beds at the hospital including sixty-one 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 1973 there were 666 staffed beds available at the Hospital, including ten rehabilitation beds at the Mareeba Annexe, Woodville Park, about a mile 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 three members with the Director-General of Medical Services as chairman.

The hospital complex has been 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 it is expected that by the end of 1974 all 224 beds will be fully utilised.

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 committee of management the hospital is financially dependent on State Government aid. In 1972-73 State aid constituted 48.4 per cent and fees from patients 46.0 per cent of the revenue received for maintenance purposes. Accommodation at 30 June 1973 was 176 beds.

Adelaide Children's Hospital

The Adelaide Children's Hospital was founded by public subscription in 1876 and the first patient admitted in 1879. It is controlled by a board of management and supported by State Government grants, public subscriptions and fees. In 1972-73 the hospital received 60 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 1973.

REPATRIATION HOSPITALS

The Repatriation Department maintains one hospital in South Australia, the Repatriation General Hospital, at Daw Park. An auxiliary hospital, the Repatriation Hospital 'Birrallee', at Belair was closed in January 1973; the general medical patients were transferred to the Repatriation General Hospital at Daw Park, and the tuberculosis patients were transferred to the Kalyra Sanatorium, Belair under arrangements made with the James Brown Memorial Trust which administers that Institution. The property at 'Birrallee' has been retained by the Department.

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.

The average daily number of patients in the hospital during 1972-73 was 235 and the staff at the end of the year, including those employed in the out-patient department, was 675.

At 30 June 1973 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	1968-69	1969-70	1970-71	1971-72	1972-73
Number of hospitals	62	59	56	53	50
Number of nursing homes ..	128	127	130	127	131
Number of beds at end of year:					
Hospitals	2 271	2 044	2 078	2 137	1 929
Nursing Homes	2 890	3 032	3 236	3 382	4 286

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 programme 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 treatment by Mental Health Services between 1967-68 and 1971-72 follows.

Government Psychiatric Institutions, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
In-patients:					
Admitted and re-admitted	2 733	2 964	3 378	3 527	3 602
Discharged	2 576	2 939	3 243	3 433	3 486
Deaths during year	189	207	149	170	150
Remaining at end of year;					
Certified, males	825	685	541	471	403
females	650	561	454	396	336
Voluntary, males	487	538	674	726	739
females	503	499	600	600	681
Total	2 465	2 283	2 269	2 193	2 159
Out and day-patients:					
Treated during year;					
Males	2 027	2 050	2 134	2 149	2 109
Females	2 466	2 488	2 488	2 356	2 281
Persons	4 493	4 538	4 622	4 505	4 390

The number of in-patients remaining at the end of the year, while showing a steady decrease, indicates also a shift in emphasis from 'certified' to 'voluntary' over the period; certified patients comprised nearly 60 per cent in June 1968 compared with only 34 per cent in June 1972.

Over the same period there has been no marked decline in the number of out- and day-patients treated. Details of diagnosis and of the number of attendances by these patients during 1971-72 are shown in the next table.

**Out-patients and Day-patients Treated in Government Psychiatric Institutions
Diagnosis and Number of Attendances, South Australia, 1971-72**

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	
MALES						
Senile and pre-senile dementia	6	3	—	—	—	9
Alcoholic psychosis	7	1	—	—	1	9
Other organic psychoses	6	3	—	—	—	9
Schizophrenia and paranoid states	172	83	12	6	33	306
Depressive psychosis	35	29	3	1	4	72
Other functional psychoses	29	7	5	3	6	50
Depressive neurosis	146	53	13	2	13	227
Other neuroses and psychosomatic disorders	149	69	17	2	12	249
Alcoholism	30	6	—	1	2	39
Drug addiction	8	—	—	—	—	8
Other personality disorders	239	56	21	14	21	351
Transient situational disturbances and behaviour disorders of childhood	271	100	26	2	—	399
Non-psychotic mental disorders associated with physical condition	52	36	8	—	1	97
Mental retardation	219	4	2	1	19	245
Non-psychiatric diagnosis	29	8	1	1	—	39
Total	1 398	458	108	33	112	2 109
FEMALES						
Senile and pre-senile dementia	8	—	—	—	1	9
Alcoholic psychosis	2	2	—	—	1	5
Other organic psychoses	17	4	—	1	1	23
Schizophrenia and paranoid states	205	90	8	8	19	330
Depressive psychosis	115	50	14	5	12	196
Other functional psychoses	40	21	6	1	12	80
Depressive neurosis	315	95	36	13	45	504
Other neuroses and psychosomatic disorders	175	71	24	15	13	298
Alcoholism	6	3	1	—	1	11
Drug addiction	6	1	1	—	—	8
Other personality disorders	179	64	22	5	21	291
Transient situational disturbances and behaviour disorders of childhood	190	53	16	4	2	265
Non-psychotic mental disorders associated with physical condition	22	11	3	1	—	37
Mental retardation	156	12	4	2	12	186
Non-psychiatric diagnosis	29	5	1	1	2	38
Total	1 465	482	136	56	142	2 281

The next table shows that for females and total persons admitted or re-admitted as in-patients during 1971-72 the most common diagnosis was 'schizophrenia and paranoid states': alcoholism was a slightly more common diagnosis for males who in fact dominated that particular category, constituting 90 per cent of total persons so diagnosed. 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	1969-70		1970-71		1971-72	
	Males	Females	Males	Females	Males	Females
Senile and pre-senile dementia	69	121	94	121	84	126
Alcoholic psychosis	81	23	48	24	39	21
Other organic psychoses	37	46	57	44	31	46
Schizophrenia and paranoid states	453	353	463	344	433	354
Depressive psychosis	103	221	67	130	79	171
Other functional psychoses	75	141	68	108	71	116
Depressive neurosis	108	206	149	303	113	299
Other neuroses and psychosomatic disorders	66	71	35	66	37	69
Alcoholism	359	53	396	34	452	55
Drug addiction	231	247	20	25	9	28
Other personality disorders	—	—	207	210	214	220
Transient situational disturbances and behaviour disorders of childhood	30	29	26	19	21	24
Non-psychotic mental disorders associated with physical condition	13	7	18	12	19	10
Mental retardation	115	98	278	144	195	244
Non-psychiatric diagnosis	7	15	6	11	12	10
Total	1 747	1 631	1 932	1 595	1 809	1 793

In-patients discharged during 1971-72 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, 1971-72

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	
MALES						
Senile and pre-senile dementia	24	17	9	9	4	63
Alcoholic psychosis	10	12	7	7	7	43
Other organic psychoses	11	6	8	4	7	36
Schizophrenia and paranoid states	90	111	108	90	65	464
Depressive psychosis	19	20	22	16	—	77
Other functional psychoses	18	19	18	10	3	68
Depressive neurosis	43	35	21	6	5	110
Other neurosis and psychosomatic disorders	17	6	5	6	1	35
Alcoholism	151	85	102	94	9	441
Drug addiction	2	3	5	3	3	16
Other personality disorders	85	46	41	30	17	219
Transient situational disturbances and behaviour disorders of childhood	6	5	3	6	1	21
Non-psychotic mental disorders associated with physical condition	7	—	4	1	3	15
Mental retardation	33	39	7	13	66	158
Non-psychiatric diagnosis	9	2	2	—	—	13
Total	525	406	362	295	191	1 779

**In-patients Discharged from Government Psychiatric Institutions Diagnosis
and Period Resident, South Australia, 1971-72 (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	
FEMALES						
Senile and pre-senile dementia ..	30	25	15	12	17	99
Alcoholic psychosis	3	5	4	6	5	23
Other organic psychoses	14	9	7	6	4	40
Schizophrenia and paranoid states	66	103	79	81	30	359
Depressive psychosis	33	62	43	24	2	164
Other functional psychoses	26	32	27	14	5	104
Depressive neurosis	115	77	74	38	10	314
Other neuroses and psychosomatic disorders	20	17	17	8	2	64
Alcoholism	14	12	10	11	1	48
Drug addiction	8	7	8	5	—	28
Other personality disorders	98	49	34	33	9	223
Transient situational disturbances and behaviour disorders of childhood	9	2	4	7	2	24
Non-psychotic mental disorders associated with physical condition	5	—	—	2	1	8
Mental retardation	17	32	11	17	122	199
Non-psychiatric diagnosis	5	2	1	1	1	10
Total	463	434	334	265	211	1 707

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 301 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 Grades 1 and 6 in primary schools are medically examined by a doctor and a sister. In addition the vision and hearing only, of children in Grade 4 and in first and third years at secondary schools, are tested by a nursing sister.

During 1973, 80 489 children were examined by medical officers in 358 metropolitan and 226 country schools. Of these 3 874 required treatment for

defective vision, 3 409 for defective hearing and 4 404 for dental disorders. Hearing and vision tests were carried out also by screening sisters on 48 347 children. Of these 1 570 had hearing defects and 2 393 defective vision.

Dentists using seven mobile vans and dentists and therapists working in twenty-seven static clinics examined 34 200 children in 1973. Children offered treatment numbered 28 823, of which 26 958 accepted. During 1973, 3 570 children attending the schools from which the training school for Dental Therapists draws its requirements were offered free dental treatment and 2 340 accepted. Of these 2 338 attended the training school during 1973 for examination and treatment. The research unit investigated the cost and effectiveness of the school dental programme, the clinical skills of therapists, and the required numbers of dentists and therapists and educational aids.

There were 3 261 children examined at the Deafness Guidance Clinic including 1 715 examined for the first time in 1973; 1 011 of those first examined in 1973 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 1973, 679 children were examined.

The staff of the School Health Branch at the beginning of 1974 included fifteen medical officers (two part-time), seventeen nurses (one part-time), twenty-eight dental officers, fifty-six dental therapists, two sessional otologists, three audiometrists and one social worker.

COMMUNICABLE DISEASES

Under the Health Act, 1935-1972, 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	1969	1970	1971	1972	1973
Diarrhoea, infantile	6	37	47	22	13
Dysentery, bacillary	157	190	183	277	126
Encephalitis	28	5	3	1	1
Gonorrhoea	703	652	817	989	1 492
Infective hepatitis	615	485	504	630	319
Malaria	6	5	5	25	15
Meningococcal infection	9	2	10	10	10
Paratyphoid	—	—	2	5	2
Rubella	354	223	59	168	311
Salmonella infection	166	226	286	150	239
Scarlet fever	67	44	44	28	20
Syphilis	38	76	122	205	178
Trachoma	—	—	11	1	1
Tuberculosis	141	172	137	132	124
Typhoid fever	3	1	2	—	2
Other diseases	6	153	18	117	19

The Department of Public Health maintains venereal diseases investigation clinics, both at its Head Office and at the Royal Adelaide Hospital.

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 programmes 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 second year secondary school at most State and certain private schools in the metropolitan area are given a tuberculin test, and where appropriate the children are vaccinated.

Poliomyelitis Services

Following the development of Salk vaccine, a poliomyelitis immunisation programme began in 1956. All injections were given by the Poliomyelitis Services until 1961 when the vaccine became available to other authorities. In 1964 the vaccine was released for use by private medical practitioners.

Oral (Sabin) vaccine was first introduced in July 1967 and has now replaced the use of Salk vaccine. Immunisations with Salk vaccine were discontinued early in 1970, by which time 2 239 092 injections had been given. Up to the end of 1973, 897 318 doses of Sabin vaccine had been given, including 235 670 given in 1973. The figures include second, third and fourth injections and doses. The programme has corresponded with a dramatic decline in the incidence of poliomyelitis, as illustrated by the table.

Poliomyelitis, South Australia

Period	Cases Notified	Deaths
1950-54	3 747	117
1955-59	331	11
1960-64	82	5
1965-69	—	—
1970-73	1	—

The last notification (in 1970) referred to an Aboriginal child from the Northern Territory. There have been no cases of poliomyelitis among the population of the State since 1963.

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, 1935-1973), 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 122.3 in 1972 and 138.8 in 1973.

Abortions Notified: Grounds on Which Granted, South Australia

Grounds	1972		1973	
	Number	Per Cent	Number	Per Cent
Assault	13	0.5	10	0.4
Potential damage to foetus . . .	98	3.6	119	4.2
Specified medical disorders . . .	193	7.2	162	5.7
Specified psychiatric disorders ..	2 368	88.6	2 542	89.7
Total	2 672	100.0	2 833	100.0

Abortions Notified: Age Distribution, South Australia

Age Group	1970	1971	1972	1973
	NUMBER			
Under 16	15	70	76	125
16-19	185	593	670	743
20-24	329	704	665	686
25-29	218	356	459	483
30-34	204	305	329	348
35-39	181	280	269	255
40-44	122	147	160	145
45 and over	22	12	24	17
Not stated	54	52	20	31
Total	1 330	2 519	2 672	2 833

Abortions Notified: Marital Status, South Australia

Marital Status	1972		1973	
	Number	Per Cent	Number	Per Cent
Single	1 259	47·1	1 392	49·1
Married	1 112	41·6	1 158	40·9
Widowed	23	0·7	29	1·0
Divorced/separated	278	10·4	254	9·0
Total	2 672	100·0	2 833	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 1973 over 80 000 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 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 (30 per cent) and the Red Cross Society (10 per cent).

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 1972-73 a total of 229 134 visits were made by seventy-eight 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 (71 per cent of total revenue in 1972-73), branch maintenance, including payments from patients, local government and other sources (23 per cent), and legacies and donations (6 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 1973 these aircraft flew a total of 237 220 miles in transporting 584 patients to hospital and treating 3 336 patients at outback clinics. A further 629 patients received dental treatment from Adelaide dentists on regular monthly visits. Doctors gave 5 726 radio consultations to outback residents and 68 335 telegrams were transmitted from 473 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 1973 St John ambulances travelled 1 125 773 miles and carried 154 973 patients. Two aerial ambulances, based at Whyalla, flew 1 024 hours in 1973. 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 programmes 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 3 402 cremations in South Australia during 1973.

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^(a)

Purpose	1971-72 ^p	1972-73 ^p
	\$'000	
General administration, regulation and research	3 647	4 738
Hospital and clinical services:		
Mental health	8 493	9 784
Dental health	788	882
Other hospital and clinical services	23 052	30 277
Other health services:		
Maternal and infant health	523	625
Other health services (b)	900	1 518
Ambulance services	394	538
Total	37 796	48 362

(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.

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	1969	1970	1971	1972	1973
Medical practitioners (a)	2 474	2 568	2 707	3 054	3 154
Dentists	350	389	414	442	477
Pharmaceutical chemists	917	921	891	903	1 017
Opticians	87	89	90	94	96
Nurses (b)	9 275	9 855	10 506	11 201	11 923
Nurse aides (c)	1 342	1 752	2 255	2 740	3 406
Midwives	3 640	3 837	4 040	4 265	4 470
Psychiatric nurses	646	708	771	830	865
Mental deficiency nurses	447	444	444	464	483
Infant welfare nurses	532	575	603	629	657
Mothercraft nurses	100	116	145	175	198
Infectious diseases nurses	37	37	34	34	33
Dental nurses	100	120	122	142	156
Physiotherapists	452	452	475	498	524

(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 235-6.

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 programme 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 Programme has been established with the aim of providing regular annual donations to support the three-part programme.

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

A population survey is conducted by the Australian Bureau of Statistics in February, May, August and November each year of a sample of households throughout Australia. At each selected household information is collected by means of personal interviews conducted by specially trained interviewers.

As part of the February 1972 survey, this means of obtaining data was 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. Occupants of approximately 3 800 private dwellings throughout the State were asked a pattern of carefully worded pretested questions

and the special procedures adopted in classifying the results of this survey are described, together with relevant definitions and tables derived, 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, are recorded in the following tables.

The next table has been prepared from the answers to the questions:

- (i) Did you use any health services during 1971?
- (ii) What services did you need but not use during 1971?

Reported Use of and Need for Health Services: South Australia, 1971

Particulars	Adelaide Statistical Division Age Group (years)			South Australia Age Group (years)		
	0-14	15-64	65 and Over	0-14	15-64	65 and Over
	'000 persons					
Persons reported as using some services ..	177.3	418.3	64.6	250.8	578.4	84.5
With no need for additional services ..	173.7	399.3	63.4	246.7	555.5	82.6
With need for additional services ..	3.5	18.9	(a)	4.2	22.9	(a)
Persons reported as not using services ..	53.1	123.9	10.8	87.0	175.4	15.7
With no need for additional services ..	52.9	120.4	10.2	86.6	170.9	14.9
With need for additional services ..	(a)	3.5	(a)	(a)	4.4	(a)

(a) Too small to be statistically acceptable or no relevant answer received.

The preceding table indicates that an estimated 77 per cent of the population had cause to avail themselves of existing health services and of these the majority, an estimated 74 per cent, indicated that they had no need for additional services to those already available. The estimated percentages were almost identical for the population within the boundaries of the Adelaide Statistical Division, being 78 per cent and 75 per cent respectively.

The survey made no attempt to account for the total number of individual services received by the representative sample but instead recorded which of the existing health services were utilised or needed for a particular illness, condition or injury. Thus a female who had undergone a series of pre-natal examinations by a general medical practitioner and had then proceeded with a normal birth as a hospital in-patient was recorded as utilising two services—once for a general medical practitioner service and once for a hospital in-patient service.

Each of the following tables shows an estimated 2 142 500 utilisations of such services during 1971. This is approximately 1.8 per head of the population. 'Diseases of the respiratory system' was the predominant category for which services were utilised, accounting for an estimated 19 per cent of total reported utilisations and 27 per cent of reported general medical practitioner utilisations. Conditions in this group were responsible for 30 per cent of reported uses of services for the 0-14 year age group, 16 per cent for the 15-64 year age group and 10 per cent for the 65 years and over age group.

**Reported Use of Type of Health Services and Related Conditions
South Australia, 1971**

Illnesses, Diseases, Etc.	Hospitals		Medical Practitioners		Opticians, Optometrists, Physiotherapists X-ray Units	Total (a)
	In-patients	Out-patients	General	Specialist		
	'000					
Infective and parasitic diseases	3.0	(b)	74.6	(b)	(b)	84.9
Neoplasms	6.8	3.0	11.1	8.6	(b)	31.6
Endocrine, nutritional and metabolic diseases	3.2	(b)	16.6	3.4	(b)	26.2
Diseases of blood and blood-forming organs	(b)	(b)	8.2	(b)	(b)	13.9
Mental disorders	(b)	(b)	11.8	3.6	(b)	21.4
Diseases of nervous system and sense organs	8.5	9.8	80.8	27.7	14.1	145.6
Diseases of circulatory system	10.8	4.8	73.5	11.6	(b)	105.2
Diseases of respiratory system	20.9	8.7	346.4	14.6	5.7	405.1
Diseases of digestive system	19.8	4.2	69.0	15.6	6.1	117.5
Diseases of genito-urinary system	16.5	4.2	41.9	15.4	3.4	82.9
Pregnancy, maternal and child care	29.1	(b)	38.6	9.1	(b)	107.5
Diseases of skin and subcutaneous tissue	4.6	5.5	54.4	11.0	(b)	84.3
Diseases of musculoskeletal system and connective tissue	4.4	3.7	58.0	11.3	21.3	122.8
Congenital anomalies and perinatal conditions	(b)	(b)	5.0	4.6	(b)	15.5
Symptoms and ill-defined conditions	6.4	4.8	76.8	9.5	(b)	108.6
Accidents, poisonings and violence	21.9	37.3	120.3	16.4	31.5	238.2
Examination without reported diagnosis	(b)	11.5	138.2	36.3	105.2	317.7
Preventive measures	3.4	(b)	71.1	(b)	(b)	96.8
All others	(b)	(b)	7.3	3.0	(b)	16.9
Total	171.2	110.7	1 303.6	209.2	200.7	2 142.5

(a) Includes 'other' which includes 41 300 reports of chiropractors and osteopaths.

(b) Too small to be statistically acceptable or no relevant answer received.

**Distribution of Health Conditions Reported, Sex and Age Groups
South Australia, 1971**

Illnesses, Diseases, Etc.	Age Group (Years)					
	0-14		15-64		65 and Over	
	Males	Females	Males	Females	Males	Females
	'000					
Infective and parasitic diseases	26.6	24.7	14.8	16.9	(a)	(a)
Neoplasms	(a)	(a)	7.8	15.5	(a)	4.1
Endocrine, nutritional and metabolic diseases	(a)	(a)	8.8	9.6	(a)	3.1
Diseases of blood and blood-forming organs	(a)	(a)	3.0	5.8	(a)	(a)
Mental disorders	3.5	(a)	4.8	8.3	(a)	(a)
Diseases of nervous systems and sense organs	32.9	26.6	34.4	32.3	6.8	12.5
Diseases of circulatory system	(a)	(a)	28.8	38.5	13.3	23.3
Diseases of respiratory system	90.5	81.3	109.2	103.2	11.2	9.7
Diseases of digestive system	12.6	10.6	38.4	41.6	6.2	8.1
Diseases of genito-urinary system	(a)	3.7	12.5	57.1	4.2	3.5
Pregnancy, maternal and child care	11.4	12.9	(a)	8.3	(a)	(a)
Diseases of skin and subcutaneous tissue	10.0	10.1	30.3	27.1	(a)	4.3

**Distribution of Health Conditions Reported, Sex and Age Groups
South Australia, 1971 (continued)**

Illnesses, Diseases, Etc.	Age Group (Years)					
	0-14		15-64		65 and over	
	Males	Females	Males	Females	Males	Females
	'000					
Diseases of musculoskeletal system and connective tissue	3.1	(a)	50.5	48.6	6.0	12.3
Congenital anomalies and perinatal conditions. . .	6.8	5.0	(a)	(a)	(a)	(a)
Symptoms and ill-defined conditions	12.9	11.5	26.3	45.1	4.7	8.0
Accidents, poisonings and violence	40.9	19.7	117.6	48.3	(a)	9.5
Examination without reported diagnosis	24.4	21.9	92.8	143.2	15.7	19.7
Preventive measures	22.1	24.6	18.1	29.9	(a)	(a)
All others	3.9	(a)	6.4	4.5	(a)	(a)
Total	307.2	260.6	605.7	760.8	82.0	126.2

(a) Too small to be statistically acceptable or no relevant answer received.

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^(a)

Type of Benefit	1968-69	1969-70	1970-71	1971-72	1972-73
Social Services Act:					
	\$'000				
Age and invalid pensions ..	50 828	58 720	64 714	76 545	101 625
Widows pensions	6 815	8 053	8 969	10 458	14 364
Child endowment	18 162	20 287	18 284	19 766	22 780
Maternity allowance	688	698	718	707	661
Unemployment benefits ..	1 286	1 008	1 378	2 930	5 107
Sickness benefits	461	576	840	1 243	2 226
Other	726	866	1 047	1 237	1 467
Total	78 966	90 208	95 950	112 886	148 230

**Australian Government Expenditure on Social Welfare,
South Australia^(a) (continued)**

Type of Benefit	1968-69	1969-70	1970-71	1971-72	1972-73
Delivered Meals Subsidy Act	—	39	43	48	78
Aged Persons Homes Act (b)	2 359	2 350	3 187	2 671	3 608
Aged Persons Hostels Act (c)	—	—	—	—	106
States Grants (Home Care) Act (d)	—	16	35	106	181
States Grants (Deserted Wives) Act	139	210	294	464	776
National Health Service (e)	28 411	33 476	41 773	50 586	57 432
War Pensions (f)	15 355	15 182	15 754	17 307	18 450
Service Pensions (f)	3 710	4 253	4 651	5 186	7 467
Total payments	128 940	145 734	161 687	189 254	236 328

(a) Where applicable the amounts shown include payments for supplementary assistance, allowances and additional pensions for children.

(b) From 1969-70 includes Personal Care Subsidy (\$504 000 in 1972-73).

(c) Commenced September 1972.

(d) Commenced June 1969.

(e) Includes Northern Territory for some items (see page 291).

(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 October 1973, 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 \$23 a week. The married rate for a couple both being pensioners was \$20.25 a week each. A wife's pension is payable to an age pensioner's wife

who does not qualify for an age, invalid or repatriation service pension in her own right. The standard rate, married rate and wife's pensions are all subject to a means test unless the pensioner is over seventy-five years of age.

An additional pension of \$5 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. The wife of a pensioner may be paid up to \$20.25 a week unless she is entitled, in her own right, to the age or invalid pension.

Up to \$4 a week extra may be paid to a single pensioner or to a married couple (\$2 each) who pay rent or lodging. Income must be under \$5 a week (single) or \$10 a week (married couple) or assets must be under \$3 000 (single) or \$6 000 (married couple). These limits are lower for a pensioner with both income and assets.

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
1969	19 483	46 848	66 331	5 692	4 593	10 285
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

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.

Widows Pensions, South Australia
Number of Pensioners At 30 June

Class	1969	1970	1971	1972	1973
A	3 734	4 317	4 623	4 898	5 910
B	3 948	4 291	4 415	4 459	5 111
C	5	8	2	6	2
Total	7 687	8 616	9 040	9 363	11 023

The normal residential qualification is five years continuous residence immediately before claiming a pension; where however, a woman and her husband were living permanently in Australia at the time of the event which qualified her as a 'widow' within the meaning of the Social Services Act no minimum period of residence in Australia 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 October 1973, the rates of pension were: Class A widows, \$23 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 a week for each child under sixteen years or a full-time dependent student; for Class B widows, \$23 a week; for Class C widows, \$23 a week.

An additional payment of up to \$4 a week may be paid to widow pensioners who pay for rent or lodging, whose income is under \$5 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 or a *de facto* wife whose *de facto* husband is in prison. 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 generally the same as for a Class A widows pension.

Portability

Under new legislation pensions may now 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.

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 1973 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		
1969 . . .	162 220	354 777	20 718	59	2 201	177	377 873
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

(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.

At 31 December 1973 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.

Maternity Allowances, South Australia
(Claims granted during year)

Category	1968-69	1969-70	1970-71	1971-72	1972-73
Single births:					
No other children under 16	8 096	8 424	8 890	8 975	8 576
One or two children under 16	10 202	10 368	10 796	10 693	10 266
Three or more children under 16	3 183	3 000	2 740	2 467	1 984
Multiple births:					
Twins	201	237	247	251	175
Triplets	2	2	3	4	1
Total	21 684	22 031	22 676	22 390	21 002

Double Orphans Pension

A new pension of \$10 a week was introduced, in 1973, for a child who has both parents dead or one dead and the other missing. The pension is paid to people, who can satisfy the Department that they have undertaken the care of and responsibility for such children, and to orphanages and similar institutions.

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.

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 the sickness benefit the claimant's wife has a separate allowable income of \$20.25 a week; any income in excess of \$20.25 is a direct deduction from the married rate of benefit. From September 1973 the maximum weekly amount payable on unemployment benefit was \$23.

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)
1968-69 ..	18 153	2 576	5 895	755	(c) 894	(c) 243
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

(a) Excludes special benefits to migrants in accommodation centres.

(b) Average number at the end of each week.

(c) From 1968-69 includes ex-nuptial confinement cases previously granted sickness benefit.

The rate of sickness benefit payable from September 1973 was \$23 a week. In addition a supplementary allowance of \$4 a week was payable after six weeks continuous receipt of sickness benefit. The supplementary allowance was not payable to a person while a patient in a hospital approved for payment of Australian Government hospital benefits unless that person had dependants.

For unemployment benefit and sickness benefit the married couple rate is \$40.50 a week, plus \$5 a week for each child under sixteen years or full-time dependent students over sixteen years.

The supplementary allowance of up to \$4 a week is payable only to persons who are entirely or substantially dependent upon their benefit and pay rent, board and/or lodgings.

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 programme 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.

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 Commonwealth 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.

Rehabilitation, South Australia

Year	Number Accepted for Rehabilitation	Number Placed in Employment	Expenditure (a)
			\$
1968-69	235	176	289 962
1969-70	251	226	298 624
1970-71	280	223	394 448
1971-72	208	188	470 521
1972-73	301	201	542 492

(a) Excludes capital expenditure on sites and buildings, and administrative cost of the Rehabilitation Service.

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

(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 1973 the maximum benefit payable was \$20, or \$40 if the person responsible for payment of the funeral was a pensioner.

During 1972-73, 4 918 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 1973, 569 grants had been approved in South Australia since the inception of the scheme in 1954. The amount granted, \$31 619 791, was associated with the accommodation of 9 330 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 1973 there were fifty-three approved homes with 1 138 qualified residents and the total personal care subsidy paid at that date was \$1 204 860.

Delivered Meals Service

Under the *Delivered Meals Subsidy Act 1970-1973*, 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 for each ten meals supplied with a further 50c for each ten meals where a vitamin C supplement is supplied.

At 30 June 1973 approvals had been given to eighteen metropolitan and twenty-nine country meals services which had served a total of 1 816 412 meals since the scheme's inception and the total amount of subsidy paid was \$208 558.

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 1973, thirty-two grants amounting to \$1 317 804 had been approved for workshop premises in South Australia since the inception of the scheme on 30 June 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 1947-1973* 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 1973, 331 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 will be accepted as approved training. General education for which special facilities are required will also be 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	1969-70	1970-71	1971-72	1972-73
	First Paid				
		\$'000			
Hospital and nursing home benefits (a)	1946	9 840	11 508	15 339	18 267
Medical benefits	1953	7 216	11 956	15 387	17 695
Pensioner medical service	1951	1 971	2 048	2 968	3 257
Domiciliary nursing care (b) . .	1973	—	—	—	101
Pharmaceutical benefits (c) . . .	1948	8 768	10 265	10 098	10 667
Pensioner pharmaceutical benefits (c)	1951	3 991	4 315	4 749	5 377
Anti-tuberculosis campaign . . .	1947	611	597	763	827
Free milk for school children . .	1951	906	892	1 060	990
Other	—	174	191	222	251
Total	—	33 476	41 773	50 586	57 432

(a) Includes Northern Territory for nursing home benefits.

(b) Commenced March 1973.

(c) 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 307-8;

- (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. Australian Government benefit may not be payable where a patient receives a payment by way of compensation or damages.

Hospital Benefits, South Australia

Type of Benefit	1969-70	1970-71	1971-72	1972-73
Hospitals:				
	AMOUNT PAID (\$'000)			
Insured patients	2 173	2 356	2 493	2 747
Uninsured patients	88	56	48	40
Special Account patients (a)	1 439	2 040	3 744	4 038
Subsidised Health Benefit Plan patients	68	499	1 091	1 500
Patients treated without charge	—	(b) 38	23	19
Pensioner patients	1 978	1 999	1 885	1 896
Nursing home patients (c)	4 094	4 520	6 055	8 027
Total	9 840	11 508	15 339	18 267

(a) 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).

(b) Payable from 1 July 1970.

(c) Includes Northern Territory.

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.

Domiciliary Nursing Care

Domiciliary Nursing Care benefit of \$2 a day was introduced in March 1973. The benefit is 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 their own homes. 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 multiple visits each week.

Medical Benefits

Australian Government medical benefits are paid 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. Medical benefits organisations pay a fund benefit and the Australian Government benefit is paid in accordance with the rates in the medical benefit schedule. Australian Government benefits may not be payable where a patient receives a payment by way of compensation or damages.

Under the Health Benefits Plan which came into operation on 1 July 1970, medical benefits are closely related to the most common fees charged by doctors. The amount of the most common fee to be met personally by a patient ranged from 80 cents for a general practitioner surgery consultation to \$5 for services with common fees of \$40 or more. The maximum of \$5 also applies to the most common 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 1972-73 was \$319 000. Australian Government expenditure on medical benefits in South Australia in 1972-73 was \$17 695 000. Further details of medical benefits organisations are given on pages 307-8.

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^(a)

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	
1968-69.. . .	3 798	7 905	1 890	6 015	1 417
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

(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, X-rays, operations or the treatment of fractures.

Doctors participating in the service are remunerated by the Australian Government on a concessional fee basis. From 1 July 1973 fees for pensioner medical services were \$3 for surgery consultations and \$4.30 for domiciliary visits.

In addition to the general practitioner service, a comprehensive range of medicines is available free of cost upon presentation of a doctor's prescription.

Persons eligible for the pensioner medical service are those receiving an age, invalid, widows or service pension, 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^(a)

Year	Number of Pensioners and Dependants (b)	Number of Pharmaceutical Benefit Prescriptions	Australian Government Payments for Services		
			Pharmaceutical	Medical	Total
	'000			\$'000	
1968-69	113	1 874	3 514	1 770	5 284
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

(a) Includes Northern Territory.

(b) Enrolled at end of year.

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).

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.

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 1953-1973*, 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.

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 Commonwealth 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 are subject to a means test on income. At 31 December 1973 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	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Allowances paid to sufferers	61	60	52	33	67
Maintenance expenditure (a)	602	585	582	757	811
Capital expenditure	60	69	108	155	243
Total	723	714	742	945	1 121

(a) Includes administrative expenses not paid from National Welfare Fund.

At 31 December 1973 the allowance for a married person with dependent wife was \$22 a week each plus \$5 allowance for each dependent child under sixteen years. A single person without dependants, if not hospitalised, received \$26.25 a week or, if receiving hospital treatment free of charge, \$20 a week. Widows or widowers with dependent children under sixteen years received \$27 a week plus \$4 for each child over six and \$6 for each child under six years.

Free Milk for School Children

An Australian Government reimbursement to the State Government permits the free distribution of one-third of a pint of milk daily to school children under the age of thirteen years. During 1973 a total of 975 schools, made up of 491 State schools, 140 private schools, and 344 kindergartens, creches and Aboriginal missions were supplied with the free milk.

The State Government administers the scheme and the Australian Government meets the cost of milk supplied and half the cost of capital, administrative and incidental expenditure. At 30 November 1973 the approximate number of children participating in the scheme in South Australia was 137 000 while the cost relating to the milk supplied during 1972-73 was \$990 000.

War Pensions

REPATRIATION BENEFITS

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 (\$55.60 a week from 27 September 1973) is payable to those who are deemed totally and permanently incapacitated.

The intermediate rate (\$38.80 a week from 27 September 1973) 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 27 September 1973 being \$19 a week, but an additional amount could be payable in some circumstances as a special compensation allowance, to a maximum of \$3 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 27 September 1973 the widows rate was \$23 a week and the domestic allowance \$9.50.

War Pensions, South Australia^(a)

Year	Pensions in Force at End of Year			Total	Expenditure \$'000
	Incapacitated Ex-Servicemen	Dependants of Incapacitated Ex-Servicemen	Dependants of Deceased Ex-Servicemen		
		Number			
1968-69 . . .	20 573	30 193	5 101	55 867	15 325
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

(a) Excludes pensions payable under Seaman's War Pensions and Allowance Act and various Cabinet decisions: 1972-73; forty-nine pensions, expenditure \$55 000. 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^(a)

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
1968-69 . . .	5 399	1 245	414	7 058	3 710
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

(a) Includes Northern Territory.

(b) Excludes Act of Grace pensions—thirteen in 1972-73.

(c) Includes payments for Act of Grace pensions.

Medical Services

The Repatriation Department provides in-patient treatment, general practitioner services, certain specialist facilities, pharmaceutical benefits and dental treatment for eligible persons. A comprehensive rehabilitation and social worker service is also available. Medical treatment is provided for all disabilities attributable to war service and for pulmonary tuberculosis. General medical services are also available to service pensioners, war pensioners receiving the special, intermediate or maximum general rates, widows and dependants of ex-servicemen whose deaths were attributable to war service, and nurses who served in the 1914-18 War.

Repatriation: Medical Services, South Australia^(a)

Year	In-Patients: Total Treated			Out-Patients: Number of Visits			Pharma- ceutical Benefits
	Daw Park	Birralee	Other Hospitals	Outpatient Clinic	Other Institutions	Visits to or by Medical Officer	
	Number						\$
1968-69	5 707	146	975	46 123	12 027	204 602	1 170 715
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

(a) Includes Northern Territory.

In-patient and out-patient treatment is provided at the Repatriation General Hospital, Daw Park. Facilities at the Outpatient Department include radiological, pathological and physiotherapy services in addition to medical specialist examinations. The Repatriation Department also maintains an auxiliary hospital, 'Birralee', at Belair, a section of which is set aside for the treatment of tuberculosis patients. The Repatriation Artificial Limb and Appliance Centre, as well as attending to repatriation needs, provides appliances and services for other Government departments and certain philanthropic organisations.

Education and Training

Assistance in education and training is provided, through the Repatriation Department, for children of ex-servicemen whose death, blindness or total and permanent incapacity was the result of war service. The Soldiers' Children Education Board guides and supervises the progress of children receiving such assistance (see page 198).

In certain circumstances vocational training is also provided for disabled ex-servicemen and widows of ex-servicemen.

The Department is responsible under the *Defence (Re-establishment) Act 1965-1973* for the administration of the Vocational Training Scheme which is designed to provide national servicemen with post-discharge training where this is necessary for their effective resettlement.

Assistance is generally through the payment of allowances and fees, and the provision of books and equipment.

Other Services

Other assistance, through the Repatriation Department, 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^(a)

Purpose	1971-72 _p	1972-73 _p
	\$'000	
General administration and other	2 475	2 997
Care of and assistance to:		
Aged persons	1 248	1 325
Incapacitated and handicapped persons . . .	395	474
Unemployed and sick persons	272	2 353
Ex-servicemen	158	159
Widowed and deserted persons	667	1 482
Families and children (b)	1 392	2 326
Services to Aborigines (c)	1 217	1 601
Total	7 823	12 717

(a) From Consolidated Revenue Account only. Includes expenditures on building maintenance etc.; excludes interest and sinking fund.

(b) Excludes reformative institutions.

(c) Includes only programmes 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, Mitcham, Modbury, Mount Gambier, Maitland, Murray Bridge, Norwood, Oodnadatta, Port Adelaide, Port Augusta, Port Lincoln, Port Pirie, Salisbury, Woodville and Whyalla, and branch offices at Leigh Creek, Mansfield Park and Marion.

Care and Supervision of Children

Under the Juvenile Courts Act, 1971-1972 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;
- (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.

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 programme 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. The interests of children who are under the guardianship of the Minister are protected by Juvenile Courts officers when the children appear in Court.

Residential Care

At 30 June 1973 the Department was operating thirty 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.

The large Glandore Boys Home which, in the past, cared for boys of primary school age who were neglected, uncontrolled or had truanted, has been replaced by a system of smaller cottage type homes on the property and in the community.

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 664 children committed during 1972-73, 276 were girls, of whom 94 were neglected or uncontrolled. Of 2 868 children under care and control at 30 June 1973, there were 1 870 boys and 998 girls.

Children under Care and Control, South Australia^(a)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Number of children newly committed during the year:					
Offenders	609	515	386	484	252
Neglected	198	190	164	144	160
Uncontrolled	40	33	42	32	24
Truancy	6	16	14	12	7
Temporary care and control	—	—	—	—	221
Total	853	754	606	672	664
Number of State children at 30 June:					
Children in departmental institutions	636	620	539	455	443
Children not in institutions	2 631	2 710	2 667	2 656	2 425
Total	3 267	3 330	3 206	3 111	2 868

(a) Excludes children on remand, not committed (902 on remand during 1971-72).

In addition, there were 1 021 children placed on bonds requiring supervision by Departmental officers during 1972-73 and the total number of such children at 30 June 1973 was 1 644 (1 391 boys and 253 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.

Where a child is returned to his own home from an alternative placement, support is continued to the whole family through counselling, the motivation of self-help programmes, and 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 314 at 30 June 1973. 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 every foster parent caring for a child under the age of fifteen years must be approved by the Director-General for 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 for 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 649 adoptions (334 males and 315 females) in 1972-73 (127 less than in 1971-72), 467 were placed and 182 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. For orders made during 1972-73 it was 8.3 months for males and 10.4 months for females, indicating the preference for adopting females.

Number of Adoptions, South Australia

Age of Child (a)	1968-69	1969-70	1970-71	1971-72	1972-73
Under one year	590	582	635	510	426
One year and under two	31	44	44	44	46
Two years and under six	68	77	69	89	75
Six years and under thirteen ..	75	86	100	88	71
Thirteen years and under sixteen	19	23	15	19	17
Sixteen years and over	14	22	16	26	14
Total	797	834	879	776	649

(a) At date of adoption order.

For adoption orders relating to children placed in 1972-73, the average age of the natural parents at the date of birth of the children was 20.4 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 30.8 and 33.3. The average age of adoptive parents for all adoptions, *i.e.* placed and other, was 31.3 for the mother and 33.8 for the father.

The following table shows details of the age of the adoptive parents for children placed in 1972-73.

Age of Adoptive parents at Date of Adoption Order: Children Placed, 1972-73

Age of Mother (Children Placed)	Age of Father						Total (a)
	Under 21	21-24	25-28	29-32	33-36	37-40		Over 40
Under 21 ..	—	1	1	—	—	—	2
21-24. . . .	—	4	22	7	1	—	34
25-28. . . .	—	4	65	72	19	5	167
29-32. . . .	—	—	11	55	49	11	130
33-36. . . .	—	—	1	10	31	25	78
37-40. . . .	—	—	—	5	3	12	36
Over 40 . . .	—	—	—	—	—	6	20
Total	—	9	100	149	103	59	467

(a) Includes not stated.

Immigrant Children

The Department for Community Welfare makes inquiries regarding accommodation and supervision of proposed migrants under twenty-one years of age, who will not be living with a parent or near relative. Under the *Immigration (Guardianship of Children) Act 1946-1973* the Minister of Community Welfare becomes guardian of these children. There were twenty-seven at 30 June 1973.

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 1 744 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 1972-73 financial assistance was issued to 14 176 applicants, representing 30 921 persons. Deserted wives accounted for 23 per cent and unemployed people for 55 per cent of the total cases provided with financial assistance.

The Department provides residential care in a home at Magill for necessitous adults most of whom are pensioners. The daily average occupancy of the Magill home was 176 during 1972-73.

To deal with cases of emergency a staff of house-keepers is provided for full-time service in homes where there are children and the mother is temporarily sick or incapacitated. A charge is made for this service, but this can be reduced in cases of financial need.

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 programmes 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 eight 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, Gerard, Indulkana, Koonibba, Point McLeay and Point Pearce, and missions at Ernabella, Nepabunna and Yalata.

From July 1972 the Point Pearce Aboriginal Reserve has been managed and controlled by the Aboriginal Lands Trust in line with the goal that the people should manage and control the Reserve themselves. Similar arrangements are being made on other reserves.

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				
1968-69	99 035	89 900	157 461	99 481	35 220	97 548	69 473	41 668	689 786
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

The Australian Government made \$1 740 000 available for Aboriginal welfare in South Australia in 1972-73 to be used mainly for housing, health, education and employment programmes. The financing of Aboriginal business enterprise is undertaken directly by the Australian Office of Aboriginal Affairs.

Other Welfare Activities

The State Government has an agreement with various transport authorities for the carriage of certain disabled persons, pensioners and ex-servicemen on public transport either free of charge or at a reduced fare. The cost to the Government of this service in 1972-73 was \$870 300 of which \$685 300 represented fare concessions to, and costs of transport to and from hospitals of, pensioners; \$20 000 to blind persons; and \$151 900 to blind and incapacitated ex-servicemen.

The Government also makes annual grants to various charitable agencies and institutions. In 1972-73 these included \$230 000 to the Royal Institution for the Blind; \$213 400 for Aged Citizens Clubs and Home Care; \$105 800 for Aged Persons Homes; \$125 900 for Alcohol and Drug Addicts Treatment Board; \$97 300 for Bedford Industries (sheltered workshops); \$13 500 for Phoenix Society (sheltered workshops); \$21 500 for Mentally Retarded Childrens' Society; and \$33 000 to the Prisoners' Aid Association.

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.

Organizations 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 organizations 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

Australian Government medical benefits and certain hospital benefits operate on the principle of Government support of voluntary insurance towards meeting medical and hospital expenses. For access to these benefits persons must be insured with a registered organisation. These are non-profit organisations and include a number of Friendly Societies. In most cases both medical and hospital benefits are provided by the one organisation.

Registered Hospital Organisations, South Australia

Particulars	Unit	1968-69	1969-70	1970-71	1971-72	1972-73
Registered organisations (a) ..	No.	13	12	10	9	9
Membership (a)	'000	419	430	433	433	444
Estimated persons covered (a) ..	'000	1 021	1 051	1 069	1 076	1 112
Fund benefits paid (b)	\$'000	9 823	12 234	14 198	20 396	(c)25 027

(a) At end of period. (b) Includes Subsidised Health Benefits Plan fund benefit reimbursement (\$1 237 000 in 1972-73). (c) Includes nursing home fund benefit from 1 January 1973.

For hospital benefits the contributions (premiums) depend on the scale of fund benefits required, with separate rates for single persons and for married persons and their dependants. From 1 July 1970 all medical benefits organisations have paid medical benefits at the same rate but contribution rates may vary slightly between funds. Contributions can be made to give either individual or family cover.

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 1973 was 1 091 000.

Registered Medical Organisations, South Australia

Particulars	Unit	1969-70	1970-71	1971-72	1972-73
Registered organisations (a)	No.	7	7	7	7
Membership (a)	'000	403	408	420	432
Estimated persons covered (a) . .	'000	1 010	1 050	1 057	1 091
Cost of medical services:					
Met by fund benefit (b)	\$'000	7 124	7 948	9 374	10 294
Met by Australian Government benefit (c)	\$'000	7 149	10 394	13 509	15 607
Met by insured member	\$'000	5 336	5 566	5 027	5 141
Total	\$'000	19 608	23 908	27 910	31 042
Proportion (d) paid by:					
Fund benefit	Per cent	36.3	33.2	33.6	33.2
Australian Government benefit . .	Per cent	31.6	43.5	48.4	50.3
Insured member	Per cent	32.1	23.3	18.0	16.6
Fund benefits for ancillary services (e)					
Professional services per member:	\$'000	323	280	312	327
General practitioner	No.	6.97	7.08	7.15	6.97
Other	No.	4.04	3.98	4.52	4.61
Total	No.	11.01	11.06	11.67	11.59

(a) At end of period.

(b) Includes Subsidised Health Benefits Plan fund reimbursements (\$259 000 in 1972-73).

(c) Excludes payments to special account deficits.

(d) Based on proportions paid in relation to matched services, *i.e.* those which attract both Australian Government and Fund benefits.

(e) 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.

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.

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
Total revenue	8 682	14 481	12 341	14 947	16 235
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
Total expenditure	7 985	13 314	10 733	13 726	15 554
Total funds	18 188	19 355	20 962	22 184	22 865

(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.

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*) and other officers empowered to perform marriages. Only the Principal Registrar, the Deputy Registrar, District Registrars appointed to the twenty-two registration districts, authorised ministers of religion and other authorised celebrants may celebrate 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 average annual number of marriages and the rates per 1 000 of mean population in selected ten-yearly periods since 1906 and numbers and rates for each of the most recent six years are shown in the following table.

Marriages, South Australia

Ten-Year Period	Average Annual Number of Marriages	Rate per 1 000 of Mean Population	Year	Number of Marriages	Rate per 1 000 of Mean Population
1906-15	3 596	8.86	1968	9 652	8.60
1916-25	3 978	8.16	1969	10 599	9.30
1926-35	4 001	6.97	1970	10 864	9.38
1936-45	6 122	10.14	1971	10 833	9.21
1946-55	6 436	8.92	1972	10 829	9.10
1956-65	7 016	7.35	1973	10 806	9.01

The crude marriage rate generally rose from 7.0 in 1960 to 9.38 in 1970 but has fallen slightly in the last three years. Influences underlying the increase include the upsurge of births immediately following the 1939-45 War period together with the effects of post-War immigration policy.

Particulars relating to first marriages and remarriages annually since 1963 are shown in the following table.

Marital Status of Persons Marrying, South Australia

Year	Bridegrooms			Brides			Percentage of Total Married					
	Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced	Bridegrooms			Brides		
							Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced
1963 . . .	6 611	277	414	6 516	305	481	90.5	3.8	5.7	89.2	4.2	6.6
1964 . . .	7 052	285	428	7 034	282	449	90.8	3.7	5.5	90.6	3.6	5.8
1965 . . .	7 878	286	516	7 838	325	517	90.8	3.3	5.9	90.3	3.7	6.0
1966 . . .	8 168	323	560	8 165	306	580	90.2	3.6	6.2	90.2	3.4	6.4
1967 . . .	8 595	312	527	8 542	332	560	91.1	3.3	5.6	90.5	3.5	6.0
1968 . . .	8 828	309	515	8 821	324	507	91.5	3.2	5.3	91.4	3.3	5.3
1969 . . .	9 687	318	594	9 700	339	560	91.4	3.0	5.6	91.5	3.2	5.3
1970 . . .	9 900	333	631	9 961	339	564	91.2	3.0	5.8	91.7	3.1	5.2
1971 . . .	9 865	310	658	9 822	365	646	91.1	2.9	6.1	90.7	3.4	6.0
1972 . . .	9 779	323	727	9 798	359	672	90.3	3.0	6.7	90.5	3.3	6.2

Before 1951, of the widowed persons remarrying, the number of males usually exceeded the females but since then the number of males has in most years been less than the number of females. However, in the case of divorced persons, the number of males remarrying has outnumbered the number of females remarrying since 1968; this has reversed a tendency which had existed since 1940.

The following statement shows age at marriage of bridegrooms and brides who married during 1972 classified by marital status.

Age at Marriage and Marital Status, South Australia, 1972

Age	Marital Status at Marriage							
	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
Under 21 years ..	1 801	—	—	1 801	5 180	3	3	5 186
21 to 24 years ..	5 365	4	20	5 389	3 587	5	66	3 658
25 to 29 years ..	1 926	4	140	2 070	747	16	186	949
30 to 34 years ..	376	13	142	531	133	17	108	258
35 to 39 years ..	137	10	102	249	46	18	97	161
40 to 44 years ..	69	20	87	176	31	43	71	145
45 years and over.	105	272	236	613	74	257	141	472
All ages . . .	9 779	323	727	10 829	9 798	359	672	10 829

In the following table of percentages of bridegrooms and brides in various age-groups, the earliest available figures in each sector have been shown together with figures for selected later years.

**Age Distribution of Bridegrooms and Brides: Percentages to Total Marriages
South Australia**

Year	Under 21 Years	21 to 24 Years	25 to 29 Years	30 to 44 Years	45 Years and Over	Under 21 Years	21 to 24 Years	25 to 29 Years	30 to 44 Years	45 Years and Over
ALL BRIDEGROOMS						ALL BRIDES				
1903	2.7	27.8	35.8	28.5	5.2	19.2	37.5	26.7	14.7	1.9
1911	3.3	28.7	37.1	25.6	5.3	17.1	37.4	28.3	14.7	2.5
1921	3.2	25.6	36.8	29.0	5.4	16.1	35.9	28.2	17.0	2.9
1931	6.8	30.8	33.7	22.8	5.9	25.8	37.2	21.2	12.9	2.9
1941	4.1	32.5	34.6	22.9	5.9	20.5	38.8	22.4	15.0	3.3
1951	6.2	37.3	28.1	20.6	7.8	27.8	36.6	15.8	14.6	5.2
1961	10.6	40.9	24.2	17.5	6.8	40.8	34.4	9.7	9.6	5.5
1968	14.7	49.8	19.7	10.4	5.4	43.6	38.9	7.5	5.9	4.1
1969	14.7	51.7	18.6	9.7	5.3	44.5	38.5	7.6	5.3	4.1
1970	15.8	51.1	18.8	9.1	5.2	46.3	36.9	7.7	4.9	4.2
1971	16.5	51.5	17.9	9.0	5.1	48.0	34.3	8.4	5.4	3.9
1972	16.6	49.8	19.1	8.8	5.7	47.9	33.8	8.8	5.2	4.4
BACHELORS						SPINSTERS				
1928	5.8	33.4	37.4	21.1	2.3	23.9	40.5	22.5	12.1	1.0
1931	7.4	33.2	35.9	21.0	2.5	27.3	39.2	21.8	10.7	1.0
1941	4.5	35.0	37.0	21.6	1.9	21.9	41.4	23.0	12.7	1.0
1951	7.1	42.5	30.9	16.9	2.6	31.8	41.5	15.8	9.2	1.7
1961	11.9	45.5	26.3	14.9	1.4	46.1	38.2	9.3	5.3	1.1
1968	16.1	54.3	20.5	8.0	1.1	47.7	41.9	6.9	2.9	0.6
1969	16.1	56.4	19.3	7.1	1.1	48.6	41.5	7.0	2.2	0.7
1970	17.4	56.0	19.3	6.4	0.9	50.4	39.6	7.1	2.3	0.6
1971	18.1	56.3	18.2	6.4	0.9	52.9	37.1	7.4	2.1	0.5
1972	18.4	54.9	19.7	6.0	1.1	52.9	36.6	7.6	2.1	0.8

During 1972 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 23.0 years for bachelors and 20.8 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)			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
1968 .	23.2	57.9	39.5	23.6	21.1	51.8	36.3	21.4
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

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.

South Australian legislation operative before this Act, and proclaimed on 1 March 1958, provided that a marriage between persons either of whom was a male under the age of eighteen years or a female under the age of sixteen years should be void, with further provisions, upon application, for the Chief Secretary at his discretion to waive the provisions in relation to males aged fourteen to seventeen years and females aged twelve to fifteen years. Before this it had been the practice to apply the provisions of British common law prohibiting the marriage of either a male under fourteen or a female under twelve.

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.

Figures relating to the marriages of minors for the five years to 1972 are shown in the following table.

Marriage of Minors, South Australia

Year	Age in Years						Total Minors	Percentage of Total Marriages	
	14 or Less	15	16	17	18	19			20
BRIDEGRROOMS									
1968	—	—	1	19	204	501	692	1 417	14·7
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
BRIDES									
1968	—	7	176	391	866	1 293	1 480	4 213	43·6
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

The proportion of minors marrying 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 16·6 per cent in 1972. The corresponding proportions for females were 14·7 and 48·1 per cent recorded in 1919 and 1971 respectively.

RELIGIOUS DENOMINATION OF MARRIAGES

The number of marriages celebrated in South Australia by ministers of religion in 1972 was 9 068, representing 83·7 per cent of the total. Civil marriages numbered 1 761, or 16·3 per cent of the total. The following table shows the number and proportion of civil marriages and of marriages solemnised according to the rites of the principal religious denominations during the three years to 1972.

Marriages: Category of Celebrant, South Australia

Category of Celebrant	Number of Authorised Celebrants January 1972	Number of Marriages			Proportion of Total Marriages		
		1970	1971	1972	1970	1971	1972
Ministers of religion:		Per cent					
Recognised denominations (a);							
Baptist	72	297	285	296	2.7	2.6	2.7
Catholic	264	2 275	2 169	2 193	20.9	20.0	20.3
Church of England	198	2 115	2 135	2 052	19.5	19.7	18.9
Churches of Christ	61	329	350	319	3.0	3.2	2.9
Congregational	58	342	337	290	3.2	3.1	2.7
Lutheran	134	585	651	603	5.4	6.0	5.6
Methodist	215	2 637	2 440	2 460	24.3	22.5	22.7
Orthodox (b)	17	184	159	166	1.7	1.5	1.5
Presbyterian	34	378	379	348	3.5	3.5	3.2
Salvation Army	39	59	71	61	0.5	0.7	0.6
Other	120	215	171	221	2.0	1.6	2.0
Other ministers	31	59	84	59	0.5	0.8	0.5
Civil Officers	26	1 389	1 602	1 761	12.8	14.8	16.3
Total	1 269	10 864	10 833	10 829	100.0	100.0	100.0

(a) Under authority of the *Marriage Act* 1961-1973.

(b) Includes churches grouped under this heading as proclaimed under the *Marriage Act* 1961-1973.

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*. Under the provisions of the current Act, 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		
Annual Average:					
1926-30	48.0	58.6	106.6	0.6	0.4
1931-35	73.0	93.8	166.8	0.6	0.8
1936-40	105.0	137.4	242.4	1.4	1.8
1941-45	216.2	215.2	431.4	1.2	1.4
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
Year:					
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					Other		
	Adultery	Cruelty	Desertion	Drunkenness	Separation			
HUSBAND AS PETITIONER								
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
WIFE AS PETITIONER								
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
ALL DISSOLUTIONS								
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
HUSBANDS									
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	176	900	295	93	51	27	39	1	1 582
WIVES									
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 1972 is contained in the following table.

**Dissolution of Marriage: Decrees Absolute, 1972
Relative Ages at Marriage of Husbands and Wives, South Australia**

Age of Husband at Marriage	Age of Wife at Marriage							Total Husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over	
Under 20	108	23	—	—	1	—	—	132
20-24	306	344	27	1	1	1	—	680
25-29	50	136	46	15	1	2	—	250
30-34	8	33	22	13	6	2	—	84
35-39	1	11	6	8	5	2	1	34
40-44	—	1	3	5	3	6	1	19
45 and over	1	1	2	4	4	4	19	35
Not Stated	1	—	—	—	—	—	—	1
Total wives	475	549	106	46	21	17	21	1 235

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
HUSBANDS									
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
WIVES									
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 1972 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, 1972**

Age of Husband at Dissolution	Age of Wife at Dissolution							Total Husbands	
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and Over		Not Stated
Under 25	51	7	—	—	—	—	—	—	58
25-29	92	151	8	—	1	—	—	—	252
30-34	11	115	87	9	1	1	—	—	224
35-39	2	20	71	72	15	1	—	—	181
40-44	—	8	15	59	63	12	3	—	160
45-49	—	—	5	19	52	48	20	—	144
50 and over	—	1	4	3	15	67	125	—	215
Not stated	1	—	—	—	—	—	—	—	1
Total wives	157	302	190	162	147	129	148	—	1 235

The following table shows the number of children of marriages related to duration of marriage for decrees absolute for dissolution granted in 1972.

Dissolution of Marriage: Decrees Absolute, 1972

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	90	35	10	1	—	1	—	137	63
5-9	130	145	80	20	3	1	1	380	388
10-14	30	29	89	50	22	6	2	228	489
15-19	14	29	42	38	23	8	4	158	386
20-24	8	31	39	43	23	8	7	159	414
25-29	27	23	24	16	7	2	1	100	164
30-34	32	8	8	4	—	—	1	53	42
35-39	12	—	1	—	—	—	—	13	2
40 and over	6	1	—	—	—	—	—	7	1
Total dissolutions of marriage	349	301	293	172	78	26	16	1 235	—
Total children	—	301	586	516	312	130	104	—	1949

(a) At time of petition.

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 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^(a)

Year	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		
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 321 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
In labour force:						
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
Unemployed ..	4 464	3 563	8 027	4 682	3 673	8 355
Total labour force	319 618	130 806	450 424	330 164	155 759	485 923
Not in labour force	228 912	412 539	641 451	255 887	431 897	687 784
Total population ..	548 530	543 345	1 091 875	586 051	587 656	1 173 707

(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
Total employed population	325 482	100.00	152 086	100.00	477 568	100.00

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	
MALES					
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
Total males employed	19 468	29 713	275 292	1 009	325 482
FEMALES					
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
Total females employed	5 832	8 302	135 712	2 240	152 086

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. National labour force estimates are prepared, but information is not available for individual States because of the nature of the sample used.

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.

Civilian Population 15 Years of Age and Over: Employment Status, Australia

August	In Labour Force					Not in Labour Force	Civilian Population Aged 15 years and Over
	Employed		Total	Un-employed			
	Agriculture	Other Industries		Total	Total		
MALES (per cent)							
1969	8.19	74.07	82.26	0.73	82.99	17.01	100.0
1970	7.94	74.33	82.27	0.75	83.02	16.98	100.0
1971	7.40	74.00	81.40	0.87	82.27	17.73	100.0
1972	7.68	73.16	80.84	1.47	82.31	17.69	100.0
1973	6.78	74.32	81.10	0.88	81.98	18.02	100.0
MARRIED WOMEN (per cent)							
1969	1.80	29.44	31.24	0.67	31.91	68.09	100.0
1970	1.86	31.55	33.41	0.58	33.99	66.01	100.0
1971	1.80	32.81	34.61	0.71	35.32	64.68	100.0
1972	1.80	33.77	35.57	0.89	36.46	63.54	100.0
1973	1.86	35.47	37.33	0.68	38.01	61.99	100.0
OTHER FEMALES (a) (per cent)							
1969	0.88	45.72	46.60	1.01	47.61	52.39	100.0
1970	0.81	45.85	46.66	0.96	47.62	52.38	100.0
1971	0.76	43.70	44.46	0.92	45.38	54.62	100.0
1972	0.79	42.83	43.62	1.70	45.32	54.68	100.0
1973	0.66	42.87	43.53	1.20	44.73	55.27	100.0
PERSONS (per cent)							
1969	4.82	54.39	59.21	0.76	59.97	40.03	100.0
1970	4.69	55.25	59.94	0.73	60.67	39.33	100.0
1971	4.41	55.11	59.52	0.83	60.35	39.65	100.0
1972	4.55	54.83	59.38	1.31	60.69	39.31	100.0
1973	4.10	56.00	60.10	0.87	60.97	39.03	100.0

(a) Includes never married, widowed and divorced.

A revised sample of dwellings was introduced during 1972. Before the redesign, a one per cent sample throughout Australia was used. In the revised sample the proportion of the population included varies from State to State, but in aggregate about 0.67 per cent of the population of Australia is included. This has slightly affected comparability between the estimates for February 1972 and those for later periods.

Labour force estimates derived from the population surveys of May and August 1971 are not comparable with the results of the June 1971 Population Census. 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.

At the 1971 Population Census, trainee teachers (enrolled at government teachers colleges and in some cases enrolled also at other institutions) were for the first time classified as 'not in the labour force', and since then have also been excluded from labour force estimates derived from the population survey. Exclusion of these students constitutes a break in the series between May and August 1971, the numbers of males and females excluded from the labour force in August 1971 being approximately 7 000 and 17 000 respectively.

The table on page 323 which shows the employment status of the civilian population at August in each year from 1969 to 1973 incorporates the above-mentioned revisions.

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 separate measures for married and for non-married women with each category further classified into age groups.

Employed Women^(a): Labour Force Participation Rates^(b), 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	
MARRIED WOMEN (per cent)									
1969	33.2	44.4	32.8	39.1	35.4	23.0	11.7	3.0	32.0
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
OTHER FEMALES (c) (per cent)									
1969	59.2	89.4	82.9	71.9	58.3	44.9	21.8	4.4	47.6
1970	59.1	90.0	81.8	70.3	57.9	44.1	23.3	3.8	47.5
1971	54.2	86.1	79.3	76.7	60.3	42.8	24.7	4.4	45.4
1972	55.7	84.7	82.5	77.4	60.7	41.2	21.5	3.6	45.3
1973	53.8	82.0	82.8	73.6	61.4	43.1	21.2	3.7	44.7
ALL FEMALES (per cent)									
1969	57.1	61.7	37.9	42.1	39.0	28.3	15.2	3.9	37.3
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

(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. (c) Includes never married, widowed and divorced.

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 295-6); 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; labour force experience during 1972; 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 Commonwealth Statistician. Because of the nature of the sample used, national estimates are prepared and information is not generally available for individual States.

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						
1969	9.7	10.3	94.0	89.7	95.0	94.4
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
FEMALES						
1969	8.0	9.1	88.1	83.7	93.4	89.6
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
PERSONS						
1969	17.7	19.4	91.2	173.4	188.3	92.1
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

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. This rate for South Australian males in February 1973 was 95.0 compared with the national rate of 95.2, while the equivalent rates for females were 95.1 in this State and 90.5 for Australia. The table on page 325 indicates both numbers and participation rates in February of the years 1969 to 1973.

Journey to Work

A sample survey was conducted in May 1970 in order to obtain information about the principal means of transport by which employed persons travelled to work. The results of the survey also include the times at which employed persons left home to travel to work and the amount of time spent on the journey to work. This survey was discussed in detail on pages 291-3 of the *South Australian Year Book 1973* and further details are included in the *Journey to Work and Journey to School* bulletin (reference 17.4) published by the Commonwealth Statistician.

Multiple Jobholding

The labour force survey was extended in May 1971 to permit derivation of estimates of the extent of multiple jobholding throughout Australia during that month. Similar surveys were conducted in November 1965, and August 1966 and 1967. A summary discussion was included on pages 293-4 of the *South Australian Year Book 1973* and detailed results of each of these surveys have been published in *Multiple Jobholding* bulletins (reference 6.10) published by the Commonwealth 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 Commonwealth Statistician.

Labour Mobility

In November 1972 a survey, based on the quarterly population survey, was conducted throughout Australia in order to obtain information about changes of employment or job location and other aspects of the mobility of the labour force.

The survey indicated that about one person in six (17.2 per cent) in the labour force in November 1972 had changed his employment or the location of his job during the previous twelve months. Young people were more likely to have had two or more jobs in the previous twelve months than older persons were; the proportions who had changed their jobs in this period being about one in four for those aged twenty-four years and under and about one in twenty for those aged sixty years and over.

Of employed persons born in Australia, 39.8 per cent (males, 46.9 per cent; females, 25.9 per cent) had been in the same job for five years or more, and 24.0 per cent (males, 20.2 per cent; females, 31.5 per cent) had been in their current job for less than a year. Only 31.7 per cent of employed persons who were born outside Australia had been in the same job for five years or more, but it should be noted that the estimates for this group are affected by their period of residence in Australia.

There was a wide variation between occupational groups in the proportions of employed persons who had held their current job for five years or more, ranging from 60.8 per cent for the group farmers, fishermen, timber getters, etc. to 26.7 per cent for sales workers. Of female sales workers 39.0 per cent had held their current job for less than a year.

Of the 263 300 employed persons who had been in their current job for less than a year and who had changed their usual place of residence in the twelve months before the survey, nearly one-half (124 100, or 47.1 per cent) claimed that they had changed their usual place of residence in order to take up their new job, and a further 23 600 (9.0 per cent) claimed that they had moved in order to look for work.

Further information is available in the bulletin, *Labour Mobility*, November 1972 (reference 6.34) published by the Commonwealth Statistician.

Labour Force Experience During 1972

In February 1973 a survey, based on the quarterly population survey was conducted throughout Australia in order to obtain information about the labour force experience of civilians aged fifteen years and over during 1972. Information obtained included the length of time (in 1972) during which persons were employed, unemployed or not in the labour force, the number of times they were unemployed and other aspects of labour force experience. The results of a similar survey in February 1969 were published in *Labour Force Experience During 1968* (reference 6.26).

A summary of preliminary results indicates that:

two out of three people in the civilian non-institutional population aged 15 years and over in February 1973 had been in the labour force sometime in 1972, either employed or looking for work (the proportion for males was 86.3 per cent);

of those persons who had been in the labour force, 77 per cent had been in for the whole year;

one in ten (614 600) of those who had been in the labour force had had at least one period of unemployment lasting a week or more, for teenagers the figure was one in four;

almost 200 000 persons had been unemployed for eight weeks or more in 1972 and about 50 000 of these had been out of work for six months or more;

45.5 per cent of married women in the survey had been in the labour force sometime in 1972, in 1968 the percentage was 38.3.

Further information is available in the bulletin, *Labour Force Experience During 1972* (reference 6.38) published by the Commonwealth Statistician.

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* and were published in more detail in the bulletin, *Child Care* (reference 17.2) published by the Commonwealth Statistician.

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.

A summary of preliminary results indicates that:

35 per cent of persons responsible for children under twelve years of age were in the labour force (9 700 males, 528 600 females);

of employed persons responsible for children under six years of age 44.6 per cent were usually absent from home for eight hours or more on the days they worked, and 28.6 per cent worked at home or were usually absent for less than five hours;

of persons in the labour force responsible for school children aged four to eleven years almost one in eight reported that they had made no after-school arrangements for child care; more than one in three worked during school hours or at night;

of 365 600 children under six years of age, who were the responsibility of employed persons, almost one in three remained at home in the care of relatives or friends and about one in ten attended nurseries, creches, home care centres etc.

Further information is available in the bulletin, *Child Care*, May 1973 (reference 17.11) published by the Commonwealth 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.

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 1969 to 1973 classified by industry group, is given in the following table.

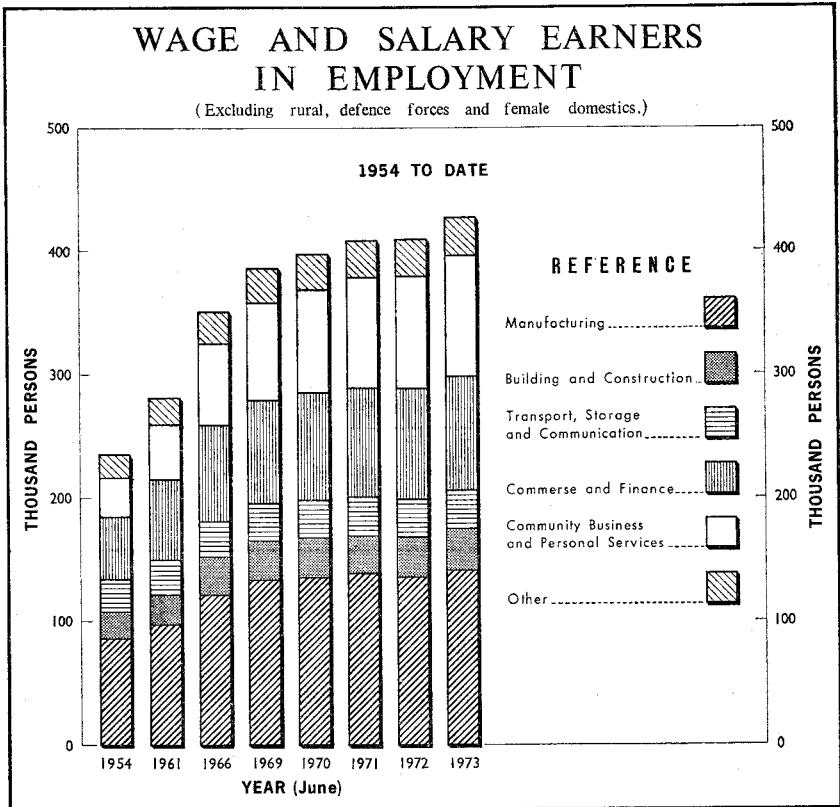
Wage and Salary Earners in Employment, South Australia^(a)

June	Manufacturing	Building and Construction	Transport, Storage and Communication	Commerce and Finance	Community, Business and Personal Services	Other	Total Employment
MALES ('000)							
1969	106.1	30.2	25.9	47.8	28.3	23.2	261.6
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
FEMALES ('000)							
1969	26.2	1.2	4.3	35.6	49.4	4.7	121.4
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
PERSONS ('000)							
1969	132.3	31.4	30.2	83.4	77.7	27.9	383.0
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

(a) Excludes employees in agriculture, private domestics and defence forces.

(b) From July 1971, excludes trainee teachers, some of whom were classified as wage and salary earners for earlier periods.

An industry distribution of wage and salary earners derived from these estimates, and beginning with the census year 1954, 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 domestics.



Government departments and public corporations employ 28 per cent of total civilian wage and salary earners. The following table shows the distribution of wage and salary earners at June 1972 and June 1973 by class of employer.

Wage and Salary Earners in Employment: Class of Employer
South Australia^(a)

Class of Employer	June 1972			June 1973		
	Males	Females	Persons	Males	Females	Persons
	'000					
Private	191.6	106.4	298.0	195.5	113.6	309.1
Government (b):						
Australian	23.0	6.2	29.2	23.5	6.5	30.0
State	50.9	24.1	75.1	53.2	26.7	79.9
Local	5.6	0.9	6.5	6.6	0.9	7.5
Total government .	79.5	31.2	110.7	83.3	34.1	117.4
Total employment	271.1	137.6	408.7	278.8	147.7	426.5

(a) Excludes employees in agriculture, private domestics and defence forces.

(b) Includes employees, within Australia, of government departments and public corporations.

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 1969 to 1973 *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^(a)
(Seasonally Adjusted Series)

Month	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Year:	PERSONS REGISTERED FOR EMPLOYMENT (b) ('000)											
1969	7.8	7.8	7.4	7.3	6.8	6.3	6.2	6.0	5.8	6.4	6.0	6.5
1970	6.5	6.2	6.2	5.7	6.4	6.2	6.5	6.3	7.0	6.6	6.7	7.0
1971	7.3	7.4	7.7	7.7	7.8	8.0	8.0	8.5	9.2	9.6	9.3	9.8
1972	9.7	11.1	11.2	11.1	10.5	12.4	13.3	15.8	14.9	14.6	13.6	13.4
1973	11.6	10.3	9.6	10.0	9.3	9.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	VACANCIES REGISTERED ('000)											
1969	2.4	2.4	2.5	2.8	3.0	3.6	3.4	3.4	3.2	2.9	3.1	3.2
1970	3.3	3.7	4.1	4.0	3.5	3.6	3.3	3.1	3.2	2.8	3.1	2.6
1971	3.4	2.9	3.2	3.0	3.6	3.4	3.8	3.7	3.3	3.0	2.3	2.3
1972	2.7	2.8	2.9	2.9	2.9	2.7	2.7	2.3	2.6	2.8	2.8	2.8
1973	3.3	4.6	5.0	5.3	5.9	6.5	6.3	6.6	6.8	7.3	6.2	4.8
	EXCESS OF PERSONS REGISTERED OVER VACANCIES ('000)											
1969	5.4	5.5	4.9	4.5	3.7	2.7	2.8	2.5	2.6	3.4	3.0	3.3
1970	3.3	2.5	2.1	1.7	2.9	2.6	3.2	3.2	3.8	3.8	3.6	4.4
1971	3.9	4.5	4.5	4.7	4.3	4.5	4.3	4.8	5.9	6.6	6.9	7.5
1972	7.0	8.3	8.3	8.2	7.6	9.7	10.6	13.5	12.3	11.8	10.8	10.6
1973	8.2	5.7	4.6	4.7	3.4	3.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Includes Northern Territory.

(b) Persons who claimed they were unemployed.

One of the primary functions of the Labour Force Survey (see pages 323-4) 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 1969 to 1973.

Unemployed Persons, Australia^(a)

August	Unemployed			Proportion Unemployed for:			Total
	Number	Proportion of Labour Force	Under 2 Weeks	2 and 4 Weeks	4 and 13 Weeks	13 Weeks and Over	
	'000			Per cent			
				MALES			
1969	31.8	0.9	23.9	30.4	31.2	14.5	100.0
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
				FEMALES			
1969	34.3	2.1	23.6	29.0	34.0	13.4	100.0
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
				PERSONS			
1969	66.1	1.3	23.6	29.7	32.9	13.9	100.0
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

(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 a variety of vocational training schemes. These are designed to assist persons in special circumstances, for example, persons made redundant or displaced by technological change, and women who have been precluded from employment through domestic responsibility. 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 programmes 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 district offices at 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 Labor and Industry. At 31 December 1973 there were thirty-eight 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 and maritime industries, the Australian Public Service, and certain national projects. Australian 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, seven Deputy Presidents, and twenty Commissioners.

State Industrial Tribunals

The South Australian legislation governing State intervention in industrial relations is the Industrial Conciliation and Arbitration Act, 1972, which came 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 which is constituted as mentioned above.

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 1973 there were three associations of employers and fifty-five associations of employees registered with the Industrial Registrar. Membership of these employee associations totalled 146 148.

The Industrial Conciliation and Arbitration Act, 1972 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 1972 there were 132 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 1968 to 1972. 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		
1968	133	153.1	32.5	185.6	57	26	47
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

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 Employer's 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, is elected annually, and an executive 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.

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 below should be regarded as giving only a broad measure of the extent of work stoppages.

Industrial Disputes, South Australia^(a)

Period	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
				\$'000
Annual Averages:				
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
Year:				
1968	83	39 400	51 100	514.6
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

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved.

In the following table industrial disputes occurring during 1972 are classified by industry groups. 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: Industry Groups, South Australia^(a) 1972

Industry Group	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
		'000	'000	\$'000
Engineering, metals, vehicles, etc.	37	34.5	24.4	325.0
Food, drink and tobacco	9	3.2	7.2	96.8
Other manufacturing	11	1.6	10.9	164.1
Building and construction	11	1.6	6.2	105.2
Railway and tramway services	3	1.5	3.0	45.0
Road and air transport	8	1.4	2.6	39.7
Stevedoring	16	2.5	2.8	40.9
Other industries	16	3.3	3.7	41.3
Total	111	49.8	60.9	858.0

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved.

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 'fixing the minimum wage for adult males (that is to say, that wage, which is just and reasonable for an adult male, without regard to any circumstance pertaining to the work upon which, or the industry in which, he is employed) or the principles upon which it is computed'. 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*.

On 5 June 1967 the Full Bench of the Arbitration Commission decided to dispense with the separation of wages into basic rates, margins for skill and prosperity loadings and to accept the total wage concept instead. As well as the total wage policy, the Commission had thus indicated a discontinuance of separate wage variations for males and females. Union claims for restoration of the basic wage and margins for skill system of wage fixing were rejected by the Commission in the 1968, 1969 and 1971 National Wage Cases.

On 28 August 1972, the Australian Council of Trade Unions lodged an application for an increase of \$12.10 a week in the national wage. On 15 December the Full Bench handed down a decision stating that it could not justify granting two national wage increases during 1972 (the 1971 decision was handed down in May 1972) and adjourned the hearing until 13 March 1973.

At the adjourned hearing additional argument and material were submitted and fresh claims were made. The metal trades unions applied to increase adult rates by \$11.50 per week, to prescribe a minimum wage for adult males of \$65 a week and to provide for automatic quarterly adjustment of the minimum wage according to changes in the Consumer Price Index. The Australasian Transport Officers Federation sought an increase of 10 per cent plus \$2.90 and the Administrative and Clerical Officers Association of the Australian Public Service applied to increase all rates of pay by 7.5 per cent.

In the total wage decision handed down the Commission stated that it had not adopted any mathematical or conceptual formula of productivity and prices but had exercised broad judgment consistent with its evaluation of the social, industrial and economic consequences of its actions. The Commission handed down a unique decision awarding a combination increase consisting of 2 per cent of current award rates to which was added \$2.50 as a flat amount and it was to apply to

adult male rates and adult female rates. Male and female juniors and apprentices received proportionate increases. The Commission also increased the minimum wage by \$9 a week, which took the new rate in South Australia to \$59.60. The claim for quarterly adjustments of the minimum wage was rejected.

In the 1974 National Wage Case applications were made under the Metal Industry Award to increase the rates for adults by \$10 a week, under the Salaried Staff Award to increase adult male rates by 7 per cent plus \$2 and under the Graphic Arts Award to increase adult rates by \$11.

Each of the applications also asked for the minimum wage to be extended to cover females and the inclusion in the award of a provision for the adjustment of wage rates each quarter according to changes in the Consumer Price Index issued by the Australian Bureau of Statistics.

State Wage Fixation

All awards of both the State Industrial Commission and Conciliation Committees created under the Industrial Conciliation and Arbitration Act, 1972, 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.

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	Adult Males (a)	Adult 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

(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 is 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.

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 registered 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 male employees covered by awards, etc. within Federal and State jurisdictions. The index numbers refer to the total adult male and female wage rates.

Minimum Weekly Wage Rates: South Australia^(a)

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				
	\$	\$	\$	\$				
1939	9.52	(b)	9.18	(b)	33.3	(b)		
1945	11.76		11.25		41.1	(b)		
1948	15.41		14.81		53.9	(b)		
1951	23.72		23.35		83.6	85.5		
1954	28.51		27.42		99.7	100.4		
1957	30.92		30.22		108.7	110.3		
1960	34.54		33.49		121.2	122.0		
1963	36.81		35.48		128.9	128.2		
1966	42.13		40.90		147.8	147.8		
1969	51.65		48.72		179.7	180.5		
1970	52.82		50.54		184.6	188.4		
1971	60.29		57.34		210.3	221.8		
1972	66.60		51.31		62.89	49.94	231.8	253.6

(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 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.

Minimum Weekly Wage Rates: Industrial Groups, South Australia^(a)
At 31 December

Industrial Group	1968	1969	1970	1971	1972
	Dollars				
	ADULT MALES				
All industrial groups	48-23	50-76	52-12	59-38	65-45
Mining and quarrying	46-25	49-31	50-33	56-94	61-98
All manufacturing groups	47-87	49-95	50-73	58-23	63-82
Engineering, metal works, etc.	48-44	50-30	50-33	58-14	63-57
Textiles, clothing and footwear	44-17	46-94	49-84	55-92	61-66
Food, drink and tobacco	44-98	47-35	50-02	55-66	61-85
Sawmilling, furniture, etc.	47-75	50-08	50-08	57-67	60-85
Paper, printing, etc.	52-13	54-43	56-62	65-32	72-49
Other manufacturing	47-68	49-99	51-48	59-11	65-17
Building and construction	50-50	53-11	55-43	62-76	68-56
Railway services	45-26	49-18	49-23	55-19	62-91
Road and air transport	46-50	49-13	50-80	57-53	62-16
Shipping and stevedoring	51-60	55-10	59-54	64-06	71-81
Communication	58-50	64-16	68-88	77-05	86-18
Wholesale and retail trade	47-11	49-40	50-67	58-56	65-79
Public authority (n.e.i.) and community and business services	45-56	49-36	49-59	56-83	62-03
Amusement, hotels, personal services, etc.	43-42	45-54	48-86	54-36	57-93
	ADULT FEMALES				
All industrial groups	33-60	35-94	37-51	44-16	50-49
All manufacturing groups	32-44	34-78	36-66	43-62	49-60
Engineering, metal works, etc.	32-52	34-64	37-84	45-57	53-30
Textiles, clothing and footwear	32-48	35-01	36-71	44-00	47-97
Food, drink and tobacco	31-98	34-21	35-53	40-45	45-98
Other manufacturing	32-64	35-14	35-78	42-75	49-10
Transport and communication	37-16	40-67	43-91	51-48	59-28
Wholesale and retail trade	34-99	36-83	35-01	44-58	51-67
Public authority (n.e.i.) and community and business services	33-59	37-17	37-99	43-06	50-15
Amusement, hotels, personal services, etc.	31-59	33-84	35-01	40-81	45-26

(a) For details of coverage see text above.

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 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 17.5 per cent of salary or Average Weekly Earnings (series produced by the Australian Bureau of Statistics) for the September quarter before the accrual date, whichever is the lesser.

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 dividing 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^(a)

Year	September Quarter	December Quarter	March Quarter	June Quarter	Year
Dollars					
1968-69	63.70	66.60	63.80	66.60	65.20
1969-70	69.30	72.90	68.10	73.50	70.90
1970-71	76.10	78.70	76.20	82.00	78.20
1971-72	(b) 85.00	88.80	83.40	89.70	86.70
1972-73	89.80	96.20	91.10	100.00	94.30
1973-74	105.20	113.00	108.40		

(a) Includes Northern Territory.

(b) Excludes allowances paid to trainee teachers from September 1971.

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 from 1968 to 1972. The surveys were based on a sample selection of private employers subject to payroll tax. Employees in agriculture and domestic service were excluded as were those of religious, benevolent and similar organisations exempt from payroll tax. Summarised results of the last five surveys are given in the following table.

Average Earnings: Private Employment, South Australia

October	Average Weekly Earnings				Average Hourly Earnings			
	Males		Females		Males		Females	
	Adult	Junior	Adult	Junior	Adult	Junior	Adult	Junior
Dollars								
1968	64-60	31-70	37-20	23-90	1-51	0-77	0-93	0-61
1969	68-90	34-40	39-90	27-00	1-58	0-83	1-01	0-68
1970	73-90	36-20	43-50	28-50	1-72	0-88	1-11	0-73
1971	83-70	40-60	50-70	33-30	1-96	0-99	1-28	0-85
1972	89-50	46-00	56-40	37-70	2-10	1-12	1-44	0-97

In the October 1972 survey, details of employees of government, local government authorities and public corporations, as well as those of hospitals, etc., not subject to payroll tax, were collected for the first time. The following table sets out some of the survey results inclusive of these additional sectors.

Average Weekly Earnings: Private and Government Employment, South Australia

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

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 waterside workers were granted a 35-hour week and in the oil industry where a 70-hour fortnight will operate 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 employees in all industries in South Australia, except rural, shipping, and stevedoring, was 39-87 hours at 31 May 1973. 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 May 1973 was 39-67 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 for each of the years 1969 to 1973.

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^(a)

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				
1969	5.3	9.9	5.2	10.3	41.6	12.2	15.5	100.0
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

(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 Years 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 1973 Monday 31 December was proclaimed a holiday.

Annual Leave

Under Federal awards generally three 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.

The largest annual leave credit available to a South Australian worker is the 21 weeks accruing to members of the Australian Merchant Navy. In May 1973, they were granted an additional one week's leave to accrue from May 1974 and a third and fourth additional week will be granted if there is a general introduction of a 35-hour working week and an increase to four weeks annual leave in industry generally.

Although three weeks annual leave is in awards generally, a number of awards were varied during 1973 to provide for four weeks leave. Also during 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 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* also provided 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

services; 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 and 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 52 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. However, only a maximum of twenty-six weeks leave is available and, unless recreation or long service leave credits are available, the leave must be taken without pay. No paternity leave is available to male officers.

At present neither maternity nor paternity leave provisions exist for workers covered by State or Federal awards.

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. Until the new regulations come into force the relevant sections of the Industrial Code, 1967-1972 and the Construction Safety Act, 1967 will still apply.

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. The Construction Safety Act, 1967 regulates the safety, health and welfare of employees on building, demolition and excavation work and the safety of equipment (scaffolding, hoists, etc.) used on building and construction sites.

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 Section 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, 1936-1972 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. Almost all commercial explosives, including fireworks, 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 persons working at home or sub-contracting, 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*.

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	\$
1968-69	54 500	6 078	112
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

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 1969-70 to 1972-73. 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 13 462 non-fatal accidents in 1972-73, 1 781 or 13.2 per cent involved females. The nine reports of fatal accidents received during the year all referred to male workmen. During 1972-73 the number of workmen's compensation claims processed by insurers which involved absences from work of one week or more rose substantially.

Industrial Accidents, South Australia

Particulars	Unit	1969-70	1970-71	1971-72	1972-73
Accidents:					
Fatal	No.	10	8	9	9
Non-fatal	No.	9 859	9 460	11 628	13 462
Time lost (non-fatal accidents):					
Total	weeks	40 919	36 245	44 267	57 590
Average per accident	weeks	4.2	3.8	3.8	4.3
Amount Paid (a):					
Fatal accidents ..	'000	90.5	136.9	116.0	91.9
Non-fatal accidents	'000	3 360.5	3 235.7	4 330.4	6 248.3
Total	'000	3 451.0	3 372.6	4 446.4	6 340.2
Average per non-fatal accident	\$	341	342	372	464

(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	1970-71		1971-72		1972-73	
	Fatal	Non-fatal	Fatal	Non-fatal	Fatal	Non-fatal
Machinery	—	904	1	1 092	—	1 042
Vehicles	3	408	3	486	5	541
Electricity, explosions, flames, hot substances	2	263	2	274	1	314
Falling, slipping, stumbling, etc.	—	2 106	2	2 503	—	2 818
Striking against, stepping on, etc.	1	523	—	610	—	661
Handling	—	2 404	—	3 167	—	4 381
Objects moving or falling	—	1 510	—	1 818	1	1 880
Hand tools	1	743	—	994	—	1 055
Other	1	599	1	684	2	770
Total	8	9 460	9	11 628	9	13 462

Industrial accidents for 1972-73 are classified below 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, 1972-73

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	16.9	912	6.8	4 249	461.9
Mining and quarrying	—	—	117	0.9	479	55.9
Manufacturing	—	—	6 432	47.8	25 728	2 947.8
Electricity, gas, water, and sanitary services	1	17.7	495	3.7	2 348	285.3
Building and construction	4	35.3	2 048	15.2	9 242	1 024.4
Transport and storage	2	13.6	839	6.2	4 000	372.4
Finance and property	—	—	25	0.2	92	20.5
Commerce	1	8.3	1 400	10.4	5 504	567.1
Public authority (n.e.i.) and community and business services	—	—	720	5.3	3 295	290.7
Amusement, hotels, accom- modation, cafes, etc.	—	—	474	3.5	2 653	222.3
Total	9	91.9	13 462	100.0	57 590	6 248.3

(a) Compensation for wages lost, hospital and medical expenses, and lump sum settlements.

Almost half of the accidents reported during 1972-73 resulted in absences from work of one week or more but less than two weeks (47.6 per cent for males and 48.6 per cent for females). A further 27.6 per cent of males and 28.2 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 0.6 per cent males and 1.5 per cent females.

The following table indicates the distribution of non-fatal accidents for 1972-73 by the nature and location of injury.

**Industrial Accidents: Non-fatal Accidents, Nature and Location of Injury
South Australia, 1972-73**

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 . . .	86	25	402	657	939	2 111
Lacerations	163	3	17	2 073	400	2 656
Foreign bodies	169	—	2	—	—	171
Burns and scalds	108	3	17	218	152	498
Fractures	39	14	145	651	542	1 391
Dislocations	—	125	1	59	10	195
Sprains, strains, hernias	—	515	3 251	1 173	1 152	6 092
Traumatic amputations	—	—	—	82	2	84
Concussion	106	—	—	—	—	106
Internal and nerve injury	1	5	19	19	1	45
Other and unspecified	7	5	9	17	19	113
Total	679	695	3 863	4 949	3 217	13 462

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, 1972-73

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	—	24	120	7.6
Diseases of the nervous system and sense organs	—	10	35	2.3
Disease of the circulatory system: Arteriosclerotic and degenerative heart disease	12	20	295	162.6
Other	—	1	4	0.3
Diseases of respiratory system	1	6	7	15.6
Diseases of skin and cellular tissue: Occupational dermatitis	—	156	488	54.1
Other	—	64	294	20.2
Diseases of bone and organs of movement	—	87	731	75.8
Other	—	25	82	8.1
Total	13	393	2 056	346.6

PART 8

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, 1932-1972 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 23-5.

South Australian Gulf Drainage Division

The eastern boundary of this Division is formed partly by the Mount Lofty Ranges which rise to a maximum of 727 metres east of Adelaide and to over 1 000 metres north of Burra and further north it follows the Flinders Ranges which reach a height of 1 166 metres at St Mary Peak. The boundary then rounds Lake Torrens and, further south, the western boundary is formed by a discontinuous line of hills on Eyre Peninsula. Kangaroo Island is also included.

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 98 000 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 361. The following table shows the capacity, area at full supply level and the catchment area of the nine largest at 30 June 1973.

Major Reservoirs, South Australia^(a)
At 30 June 1973

Reservoir	Capacity	Area at Full Supply Level	Catchment Area
	Megalitres	Hectares	km ²
South Para	51 400	444	228
Mount Bold	47 500	308	388
Myponga	26 800	280	124
Kangaroo Creek	24 400	129	287
Millbrook	16 600	178	233
Happy Valley	12 700	188	451
Tod River	11 300	134	197
Bundaleer	6 370	85	1 567
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 pages 366-7), South Australia is entitled to 1 546 810 megalitres of water annually which is available 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 454 metres to a 136 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 412 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 367-8.

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 this source.

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 28 000 megalitres has been found to be beyond the permanent capability of the area and this is being reduced by rigid control in the hope of reaching a balance. A more complete discussion on underground water together with a map appears on pages 23-5.

Water Consumption

The following table gives details of water used during the year and storage capacity at the end of the year for metropolitan and country districts for the years 1969-70 to 1972-73. The quantity of water pumped from the River Murray through the major pipelines is also shown.

Water Storage and Consumption, South Australia

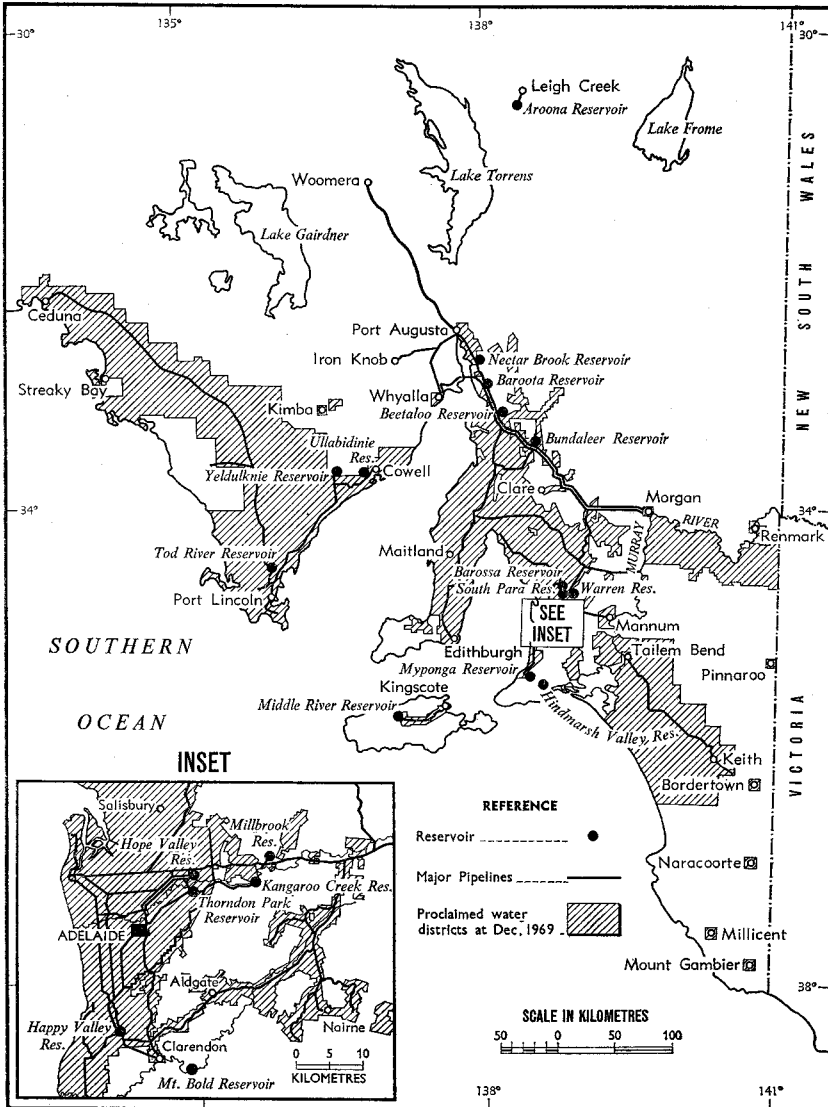
Particulars	1969-70	1970-71	1971-72	1972-73
	Megalitres			
Water storage (capacity at end of year):				
Adelaide metropolitan water supply (a)	190 000	188 300	189 100	189 600
Country water supply	40 300	40 300	39 500	40 300
Water consumption:				
Adelaide metropolitan water supply (b)	136 600	146 000	142 800	155 300
Country water supply (c)	63 900	66 400	66 000	74 100
Pumped from River Murray:				
Mannum-Adelaide pipeline	48 900	24 300	9 600	51 600
Morgan-Whyalla pipeline	21 700	23 200	19 900	29 000
Other supply systems	10 900	11 300	9 300	15 500

(a) Includes Myponga, South Para and Barossa reservoirs.

(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 1968-69 to 1972-73.

Adelaide Metropolitan Waterworks, South Australia

Particulars(a)	1968-69	1969-70	1970-71	1971-72	1972-73
Length of mains (kilometres)	6 171	6 295	6 404	6 559	6 646
Number of services	245 331	251 259	257 614	264 222	272 001
			\$'000		
Revenue:					
Rates and excess water	10 685	12 634	14 412	15 618	18 761
Other	108	88	101	154	154
Total	10 793	12 722	14 513	15 773	18 915
Expenditure:					
Working expenses	5 552	6 237	6 787	7 130	8 516
Interest	4 919	5 399	5 887	6 414	6 738
Total	10 471	11 636	12 674	13 544	15 254
Surplus	322	1 086	1 839	2 229	3 661

(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 for properties specifically exempted from rating or in cases where supply by measure is given to properties outside of proclaimed water districts. Payment of rates permits the use of a quantity of water without further charge. This quantity, termed the rebate allowance, is determined by dividing the rate by the current price of rebate water. Water used in excess of the allowance in any year is charged for by measure at the current price of excess water. Two systems of rating are employed. In both cases scales of rates and prices of rebate and excess water vary in different districts, according to costs of construction and operation, and are subject to review from year to year.

In city and township water districts, rates are calculated on assessed annual property values which may be three-fourths of the gross annual rental value or 5 per cent of the capital value of the fee simple. The present rate at Adelaide is 7½ per cent per annum on the assessed annual value with a minimum annual charge of \$16.00. The current price of rebate water and excess water at Adelaide is 10 cents per kilolitre. Rates in country township water districts range from 7½ per cent to 9½ per cent per annum on the assessed annual value but the prices of rebate and excess water are the same as in the city.

Farmlands within certain proclaimed Country Lands Water Districts are rated on the area of land which is within 1.6 kilometres of a water main at a rate per hectare based on unimproved land values. Current Country Lands rates vary from 12 cents per hectare on land valued at \$5.00 per hectare in the lowest rated district up to 90 cents per hectare on land valued in excess of \$60 per hectare in the highest rated district. A minimum rate of \$16.00 is levied in most districts.

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 \$45.00 for a 15 millimetre service and \$50.00 for a 20 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, 1929-1972. 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, 1934-1972 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	1969-70	1970-71	1971-72	1972-73
Adelaide Drainage Area (km ²)	570	536	544	550
Length of sewers (km)	3 664	3 759	3 888	4 060
Number of connections	244 239	254 495	265 755	276 652
	\$'000			
Revenue:				
Rates	8 551	10 375	11 837	12 798
Other	92	102	139	161
Total	8 643	10 477	11 976	12 959
Expenditure:				
Working expenses	3 716	4 270	4 909	5 463
Interest	3 600	3 910	4 500	4 900
Total	7 316	8 180	9 409	10 363
Surplus	1 327	2 297	2 567	2 596

The proclaimed Adelaide Drainage Area at 30 June 1973 served an estimated population of 840 000 persons and covered 550 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 few common effluent drainage systems have been installed in fringe areas by local government authorities and some 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.

COUNTRY SEWERAGE

At 30 June 1973 the drainage areas of country sewerage schemes constructed and operated by the Engineering and Water Supply Department totalled 102 square kilometres; the length of sewers laid was 573 kilometres and the number of connections totalled 21 360. Capital cost to this date amounted to \$23 487 000.

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 1972-73, 40 kilometres of sewers and 2 138 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 Berri, Bordertown, Cleve, Eudunda, Kapunda, Maitland, Nuriootpa, Pinnaroo, Port Elliot, Renmark and Waikerie and the construction or design of schemes for a number of other towns is in progress.

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 scales of rates in the Adelaide Drainage Area vary from 6½ per cent to 10 per cent of assessed annual property values; the higher rates being charged in Sub Areas where costs of construction or operation are abnormal.

Country charges for sewer connections are the same as for the metropolitan area. Current sewer rates in all country towns are 10 per cent of assessed annual property values, with a minimum annual charge of \$16.

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.

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 1972-73, 453 200 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, pages 413-4.

Highland Areas

With the major exception of the Mypolonga 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	1969-70	1970-71	1971-72	1972-73
	Hectares			
Government controlled:				
War Service schemes (1939-45 War)	3 330	3 330	3 350	3 178
Other	12 664	13 151	12 493	12 712
Non-Government:				
Trusts, boards and association areas	7 875	7 875	7 857	7 875
Private schemes	19 203	18 875	18 834	18 875

Further details of the 15 890 hectares irrigated in Government-controlled schemes in the year 1972-73 are shown in the following table.

Government Controlled Irrigation Areas: South Australia, 1972-73

Area Irrigated	Highland Areas		Reclaimed Areas	Total
	Surface Reticulation	Spray Irrigation		
	Hectares			
War Service schemes (1939-45 War)	1 547	1 631	—	3 178
Other	7 507	1 643	3 563	12 712
Total	9 053	3 275	3 563	15 890

THE RIVER MURRAY AGREEMENT

In early years there were great variations in the flows of the River Murray and its tributaries resulting from extremely variable rainfall in the catchment areas. The resulting droughts and floods were a considerable impediment to the proper functioning of the irrigation areas.

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.

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 programme 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 1973 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, 1931-1972.

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 road works are carried out by the Highways Department.

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 1973.

**Legal Classification of Roads: Type of Surface, South Australia
At 30 June 1973**

Legal Classification	Type of Surface				Total
	Natural Surface	Formed Only	Paved		
			Unsealed	Sealed	
			Kilometres		
Main Roads	338	990	3 578	8 222	13 127
District Roads	36 769	23 504	17 807	8 867	86 948
Total	37 107	24 494	21 385	17 090	100 075

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 programme 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.

Finance received from the first three sources is controlled by the Commissioner of Highways. The Highways Act provides that fees received for vehicle registrations and drivers licences, less cost of collection, should 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 drainage schemes 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; hawkers 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 for maintenance of public roads.

Highways Department, South Australia
Receipts and Payments

Particulars	1969-70	1970-71	1971-72	1972-73
RECEIPTS (\$'000)				
Motor vehicle registrations, licences, fees, fines etc.	13 250	14 212	18 000	18 828
Road Maintenance Charges ..	2 839	2 958	3 287	3 401
Commonwealth Aid Roads Grants	21 000	23 500	25 500	28 000
Loans from State Government	1 000	—	—	800
Repayments of, and interest on, advances to local authorities	1 002	917	629	762
Other	321	147	522	1 168
Total	39 412	41 733	47 938	52 959
PAYMENTS (\$'000)				
Construction and reconstruction of roads, bridges etc.	30 200	27 056	32 049	33 604
Maintenance of roads, bridges etc.	10 271	11 575	13 303	11 197
Interest, debt redemption etc. . .	544	556	580	619
Advance to local authorities ..	402	251	305	262
Net purchases of land, buildings, plant, equipment, materials etc.	451	Cr. 62	1 484	2 032
Other (a)	130	921	2 332	4 572
Total	41 998	40 298	50 053	52 286

(a) This includes provision for leave and plant overhauls which may be a negative figure in some years.

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: 1968-69, \$48 million; 1969-70, \$57 million; 1970-71, \$57 million; 1971-72, \$66 million; and 1972-73, \$68 million. These figures include the cost of land purchased for new roads including future freeways and 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.

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 a certain specification. 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 private contractors or by direct employees of the subdivider and few details are available.

The \$28 million received in Commonwealth Aid Roads Grants for 1972-73 consisted of a principal grant of \$26.60 million, of which \$13.94 million was for urban roads and \$12.66 million for rural roads; a supplementary grant of \$1 million, available for any class of roads; and \$400 000 for planning and research.

History of Australian Government Grants

From 1923 to 1930 Australian Government road grants were conditional upon *pro rata* expenditure by the States and work was subject to Australian Government inspection. From 1931 to 1958 the total amount of Commonwealth Aid Road Grants to the States was determined as a proportion, varied from time to time, of Australian Government petrol taxation. From 1959 these grants have borne no direct relationship to any particular item of revenue.

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 basic sum 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 is to be 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 represents 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 Crafers to Verdun which was completed in May 1972. Ultimately, as part of the progressive improvement of the main route to Melbourne, it is intended to extend the South East Freeway from Verdun 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 1975.

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.

A further Supplementary Development Plan is being prepared to revise the system of arterial roads in the metropolitan area.

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 State and Australian Governments.

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 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 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.

Management of the Commonwealth Railways is vested in a Commonwealth Railways Commissioner.

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.

Historical Summary

Much of the basic work of establishing the railway network which serves South Australia was concentrated in two comparatively brief periods, from about 1877 to 1887 when approximately 1 900 kilometres of lines were constructed, and from 1910 to 1917 when about 2 500 kilometres were added. A number of scattered lines totalling approximately 500 kilometres had been constructed before 1877.

During the eleven years to 1887 rail communication with the eastern States was established; the rich ore deposits at Broken Hill were tapped; a line was built through northern pastoral areas toward the Northern Territory; and railways from outports to their hinterlands (predominantly agricultural but more pastoral in the South East) were extended and linked with arterial services centred on Adelaide. During the following twenty-two years only 300 kilometres of new lines were opened. Then in an eight-year period railways were constructed to facilitate the agricultural development of Eyre Peninsula and the Murray Mallee lands, and the Commonwealth Railways built a line to Western Australia.

Since 1917 route length open has increased by about 1 100 kilometres. The emphasis during recent years has been upon conversion of narrow gauge lines (1 067 mm) either to standard gauge (1 435 mm) directly or to broad gauge

(1 600 mm) as an interim to possible ultimate conversion to the standard gauge. The table which follows shows route length of railways open for traffic for every tenth year from 1856 and for each of the last five years.

**State and Australian Government Railways
Gauges, Route length Open in South Australia**

Date	Broad Gauge	Standard Gauge	Narrow Gauge	Total (a)
31 December:				
Kilometres				
1856	11	—	—	11
1866	90	—	—	90
1876	214	—	220	435
1886	797	—	1 152	1 949
1896	793	—	1 978	2 771
1906	956	—	1 992	2 948
30 June:				
1916	1 572	581	2 717	4 870
1926	1 992	962	2 799	5 753
1936	2 335	962	2 697	5 995
1946	2 382	1 053	2 680	6 114
1956	2 610	1 053	2 478	6 141
1966	2 654	1 402	2 021	6 077
1969	2 623	1 400	2 017	6 040
1970	2 577	(b) 1 749	1 645	5 972
1971	2 527	(b) 1 749	1 645	5 922
1972	2 527	(b) 1 749	1 645	5 922
1973	2 527	(b) 1 825	1 645	5 996

(a) Excluding private railways.

(b) Excludes 47 kilometres of line in New South Wales between Cockburn and Broken Hill owned and operated by South Australian Railways.

The Goolwa-Port Elliot line which was completed in 1854, and its extensions to Victor Harbor (1864) and Strathalbyn (1869), have been excluded from the above table for the years before 1884-85 when the route was converted from horse to locomotive traction.

Current Operations

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; it is expected to be open for passenger traffic in 1975. 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. For many years two railways

linked Adelaide and Glenelg: in 1929 the route *via* North Terrace and Richmond was closed and the King William Street route was converted to its present use as a tramway.

Lines operated by the Australian Government in South Australia at 30 June 1972 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.

The Australian Government is considering the construction of a standard gauge line between Tarcoola in South Australia and Alice Springs in the Northern Territory to replace the existing line to Alice Springs, which is subject to periodic flooding and other damage.

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 Silvertown 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. The scheme provides for the conversion of the existing line from Snowtown to Wallaroo for mixed gauge operation, the construction of a new 193 kilometre standard gauge line linking Adelaide with the east-west standard gauge system through Crystal Brook and the closure of the branch line from Bumbunga to Lochiel. Standard gauge connections would be provided to Mile End, Dry Creek, Port Adelaide, Woodville, Pooraka, Salisbury, General Motors Holden at Elizabeth, and to Islington. The project, estimated to cost about \$50 million, would be financed by the Australian Government on a 70 per cent grant and a 30 per cent loan basis.

A liaison committee comprising both Australian and State Government officers has been working in conjunction with consultants in the preparation of a master plan for connecting Adelaide with the east-west standard gauge system.

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-five 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, 1936-1973, the Marine Act, 1936-1973 and the Fisheries Act, 1971.

In 1972-73 the Department of Marine and Harbors handled 7 155 195 tonnes of cargo (including general cargo at private ports) or approximately 38 per cent of the total tonnage of 18 845 140 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			
1968-69..	47 614	6 653	4 365	1 957	6 322	+331
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

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 increased through growth in trade many wharves and jetties were 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. A recent 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 decrease the delay in turn-around of vessels and 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 \$7.5 million and to be completed early 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 that is 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 1975.

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 has been completed and was officially opened in October 1973.

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 1973

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			

Tides and Water Depths: South Australian Ports, 1 January 1973 (continued)

Port	Maximum Depth below Low Water Datum (a)	Tides		
		At	Mean Rise	
			Higher High Water	Lower High Water
	Metres		Metres	Metres
Port Giles:				
Channel	(b)	Jetty	1·9	1·5
Jetty	11·6			
Port Lincoln:				
Channel	(c)	Jetty	1·5	1·1
Wharf (Bulk Loading)	9·8			
Port Pirie:				
Channel	6·4	Wharf	2·5	1·8
Wharves	8·2			
Port Stanvac:				
Channel	(b)	Wharf	1·9	1·4
Wharf	10·7			
Proper Bay (BHP):				
Channel	9·1	Jetty	1·5	1·1
Wharf	10·4			
Thevenard:				
Channel	8·2	Jetty	1·5	1·1
Wharf	9·7			
Wallaroo:				
Channel	8·7	Jetty	1·5	0·9
Wharf	9·5			
Whyalla (BHP):				
Inner harbour;				
Channel	7·3	Jetty and Wharf	2·7	1·8
Wharf	8·5			
Outer harbour;				
Channel—ore jetty (No. 2) approach .. .	10·7	Jetty and Wharf	2·5	1·8
Ore jetty (No. 2) .. .	11·0			

(a) The depth shown against wharves is the greatest at present available and may be found at one berth only at the wharf or jetty concerned.

(b) No approach channel. (c) Deep water gradually shoaling to depth at wharf.

AERODROMES

There were thirty civil aerodromes in South Australia at 30 June 1973 including nine owned and operated by the Australian Government and twenty-one licensed aerodromes owned and operated by local authorities or private interests. In addition there are several authorised landing grounds which are fields prepared

for the operation of aircraft but not open to public use. These fields meet Australian Government specifications less exacting than those used in the development of government owned or licensed aerodromes.

Government and licensed aerodromes in South Australia are set out below.

<i>Government Owned</i>		
Adelaide	Leigh Creek	Parafield
Ceduna	Mount Gambier	Port Lincoln
Kingscote	Oodnadatta	Whyalla
<i>Licensed</i>		
Amata	Fregon	Mount Dare
Andamooka	Granite Downs	Naracoorte
Cleve	Indulkana	Port Pirie
Cordillo Downs	Innamincka	Renmark
Cowell	Kimba	Tieyon
De Rose Hill	Millicent	Tintinara
Ernabella	Minnipa	Waikerie

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.

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 objects:

- (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 1920-1971*, 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. Generally local fuel supplies have replaced fuel imported from other States. 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 early 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 of these machines was commissioned on 1 November, 1973, and the second on 28 May, 1974.

The following table shows the growth of generating plant in this State.

Electricity Generation, South Australia

Installed Capacity of Generating Plant in Power Stations at 30 June^(a)

Power Stations	1946	1964	1967	1970	1973
Kilowatts					
Electricity Trust:					
Osborne	82 000	264 000	314 025	242 500	242 500
Port Augusta	—	332 700	332 700	332 700	332 700
Torrens Island	—	—	120 200	360 200	480 200
Mount Gambier	—	22 230	22 230	22 230	22 230
Port Lincoln	—	6 890	9 600	9 600	9 600
Total ETSA	82 000	625 820	798 755	967 230	1 087 230
Other government authorities	205	3 372	3 803	<i>n.a.</i>	<i>n.a.</i>
Local authorities	33 401	6 561	4 404	<i>n.a.</i>	<i>n.a.</i>
Private	29 855	33 109	4 818	<i>n.a.</i>	<i>n.a.</i>
Total	145 461	668 862	811 780	<i>n.a.</i>	<i>n.a.</i>

(a) Includes house plants used for emergency generation.

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 is the only major electricity authority in Australia generating electricity from this fuel.

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.

The following table shows the quantities of various fuels consumed by the Electricity Trust in selected years since 1946 and illustrates the considerable movement in their relative importance.

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
1945-46(b)	193 953	15 343	—	—	—	—	
1957-58	333 465	678 851	47 774	62 012	14 497	—	
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	

(a) Mill waste.

(b) Consumed by Adelaide Electric Supply Co.

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	1946	1964	1967	1970	1973
	Route Kilometres				
275 000 volt	—	595	595	716	745
132 000 volt	—	1 679	2 010	2 232	2 581
66 000 volt	169	692	750	832	1 246
33 000 volt	768	2 855	3 410	3 499	3 487
19 000 volt (SWER) (a)	—	8 151	13 591	17 083	18 694
11 000 and 7 600 volt	908	7 446	9 024	10 731	12 076
Total	1 844	21 419	29 380	35 093	38 830

(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.

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.

In recent years extensive use of the single wire earth return system (see table on page 384) has resulted in the supplying of electricity to areas where consumers are so scattered that supply by conventional methods would have been impracticable.

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	1946 (a)	1964	1967	1970	1973
Residential	<i>n.a.</i>	277 399	321 731	353 289	392 314
General purpose	<i>n.a.</i>	35 477	38 950	41 773	43 739
Industrial	<i>n.a.</i>	15 579	19 956	22 776	25 615
Bulk and traction	<i>n.a.</i>	10	7	7	11
Total	118 262	328 465	380 644	417 845	461 679

(a) At 31 August.

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	1973
Capital employed (\$m)	5.4	6.0	19.4	40.0	41.7
Number of consumers(a)	61 207	84 629	121 720	186 670	203 524
Length of mains (km)	1 455	1 677	2 525	3 603	3 961

(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 from the Brompton and Osborne works and mains extend south to Hackham, north-east to Tea Tree Gully and north to Elizabeth. The Elizabeth main was first laid for industrial use but now serves over 6 000 domestic consumers including 2 000 in the Elizabeth area. 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, with the elimination of the manufacturing function.

Great emphasis is now placed on marketing gas to industry, where as a cheap, non-polluting fuel it is now able to compete successfully with other fuels. This has produced the situation where industrial gas sales made up 50 per cent of all gas sold in 1973 compared with 14 per cent in 1969.

At 30 June 1973 the company was maintaining 3 830 kilometres of mains in the metropolitan area serving 171 495 consumers with natural gas. The Port Pirie system involves 85 kilometres of mains serving 4 364 consumers. A distribution system has also been developed in Whyalla over the past five years, and at 30 June 1973 involved 43 kilometres of mains serving 1 385 consumers. An additional 26 280 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 394 '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 121-2. 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 388.

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 388.

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	n.a.	301	2 225	2 672
2..	1 006	n.a.	3 048	2 097	6 151
3..	4 526	n.a.	7 399	1 776	13 701
4..	30 428	n.a.	6 922	909	38 259
5..	131 128	n.a.	2 096	522	133 746
6..	65 446	n.a.	628	236	66 310
7..	24 865	n.a.	233	111	25 209
8 and over	13 626	n.a.	175	84	13 885
Total	271 171	n.a.	20 802	7 960	299 933
Average number of rooms per dwelling..	5.5	n.a.	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 388.

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
Total	306 628	13 430	16 569	5 437	342 064
Total inmates..	1 058 811	23 761	34 262	11 415	1 128 249
Average number of inmates per dwelling	3.45	1.77	2.07	2.10	3.30

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		
PRIVATE HOUSES (a)					
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
Total private houses	271 171	210 921	48 420	47 287	306 628
OTHER SELF-CONTAINED FLATS (a)					
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
Total self-contained flats	20 802	14 834	1 377	358	16 569

(a) See notes on comparability page 388.

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
Total	271 171	20 802	306 628	16 569

(a) See notes on comparability page 388.

The proportions of both private houses and self-contained flats that were stated to have gas and/or electricity remained approximately the same (99 per cent) at both censuses. The percentage of private houses and self-contained flats with television sets rose slightly from 1966 to 1971 (81.3 per cent to 83.3 per cent for houses and from 67.2 per cent to 68.5 per cent for self-contained flats).

**Occupied Private Houses and Self-contained Flats by Facilities
South Australia, Censuses 1966 and 1971**

Facilities	30 June 1966		30 June 1971		
	Total	Urban		Rural	Total
		Adelaide	Other		
PRIVATE HOUSES (a)					
Gas only	533	69	30	182	281
Electricity	136 183	83 038	35 527	35 672	154 237
Gas and electricity	132 592	127 159	12 656	10 859	150 674
Neither gas nor electricity	1 346	65	58	370	493
Not stated	517	590	149	204	943
Total private houses	271 171	210 921	48 420	47 287	306 628
Television set	220 453	179 001	40 007	36 412	255 420
OTHER SELF-CONTAINED FLATS (a)					
Gas only	38	7	1	3	11
Electricity	8 323	6 261	1 132	259	7 652
Gas and electricity	12 365	8 402	228	88	8 718
Neither gas nor electricity	15	1	1	1	3
Not stated	61	163	15	7	185
Total self-contained flats	20 802	14 834	1 377	358	16 569
Television set	13 981	10 312	836	208	11 356

(a) See notes on comparability page 388.

At the 1966 and 1971 Censuses each householder was asked to state the number of motor vehicles (excluding motor cycles, scooters and tractors) used by members of that household that were garaged or parked at or near that dwelling on Census night. Data were obtained only for private dwellings.

**Occupied Private Houses and Self-contained Flats by Number of Motor Vehicles
South Australia, Censuses 1966 and 1971**

Number of Vehicles	30 June 1966		30 June 1971		
	Total	Urban		Rural	Total
		Adelaide	Other		
PRIVATE HOUSES (a)					
No vehicles	47 270	34 225	6 890	3 149	44 264
One vehicle	142 752	111 574	26 664	18 122	156 360
Two vehicles	56 630	50 411	11 194	14 105	75 710
Three vehicles	14 848	9 703	2 328	7 007	19 038
Four or more vehicles	5 657	2 408	780	4 437	7 625
Not stated	4 014	2 600	564	467	3 631
Total private houses	271 171	210 921	48 420	47 287	306 628

**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	Urban		Rural	Total
		Adelaide	Other		
		OTHER SELF-CONTAINED FLATS (a)			
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
Total self-contained flats	20 802	14 834	1 377	358	16 569

(a) See notes on comparability page 388.

Unoccupied Dwellings

Unoccupied dwellings include vacant dwellings available for sale or rentings; 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
Total	26 553	982	2 504	514	30 553

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, 1934-1972 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, 1934-1972. 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, 1967-1971 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. 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 for which approval was given during 1971-72 and 1972-73. 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	1971-72			1972-73		
	Private	Govt	Total	Private	Govt	Total
	\$'000					
New buildings:						
Houses	86 590	8 778	95 368	125 900	12 563	138 462
Flats	29 730	930	30 660	27 069	2 151	29 220
Shops	3 507	—	3 507	8 351	295	8 646
Hotels, hostels, etc.	5 480	—	5 480	3 176	—	3 176
Factories	8 938	5 375	14 313	11 284	1 339	12 623
Office premises	11 361	3 222	14 582	15 217	3 085	18 302
Other business premises	8 614	2 645	11 259	5 489	1 164	6 652
Entertainment and recreation	2 393	167	2 561	3 183	4 202	7 385
Educational	1 590	28 620	30 210	1 249	26 618	27 867
Religious	1 311	—	1 311	660	—	660
Health	1 337	23 273	24 610	3 795	7 453	11 249
Miscellaneous	1 389	3 690	5 079	5 870	10 657	16 527
Total value	162 240	76 700	238 938	211 243	69 527	280 769
Alterations and additions (a)	19 993	510	20 503	25 589	962	26 552
Total value of all buildings	182 232	77 209	259 441	236 832	70 489	307 321

(a) 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.

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 for such houses, yielding figures of \$3.6 million, \$4 million, and \$5.9 million for 1970-71, 1971-72 and 1972-73 respectively.

Buildings: Value of Work Done, South Australia

Type of Building	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Houses (a)	62 251	69 908	87 683	93 636	114 476
Flats (b)	10 393	18 918	26 540	29 813	30 834
Total dwellings (a)	72 644	88 827	114 223	123 449	145 310
Shops	7 396	9 466	8 365	2 772	6 409
Hotels, hostels, etc.	2 537	3 818	4 015	3 577	4 689
Factories	8 204	9 193	10 658	15 365	17 981
Office premises	7 332	10 551	10 551	19 735	17 630
Other business premises	11 484	8 887	13 814	17 827	12 742
Entertainment and recreation	2 401	1 472	2 262	4 247	8 469
Educational	14 650	14 064	20 637	20 447	23 968
Religious	723	685	977	1 078	1 008
Health	10 072	9 970	14 483	12 719	12 372
Miscellaneous	3 565	4 773	7 153	3 870	5 561
Total new buildings (a)	141 008	161 706	208 124	225 083	256 402

(a) Excludes owner-built houses.

(b) Includes home units.

Buildings Under Construction

At the end of 1972-73 new buildings with an anticipated value when completed of \$210 844 000 were in the process of construction, with work done on these buildings valued at \$96 580 000. There were 5 258 houses and 2 334 flats in the course of construction, having an anticipated value when completed of \$88 869 000.

New Buildings Commenced

A building is recorded as commenced when work on the foundation has begun. In the table below commencements during 1971-72 and 1972-73 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^(a)

Type of Building	1971-72			1972-73		
	Private	Govt	Total	Private	Govt	Total
						\$'000 (b)
Houses	86 396	13 750	100 146	120 172	12 973	133 145
Flats (c)	28 752	1 858	30 610	30 797	1 964	32 761
Shops	3 560	—	3 560	9 250	123	9 374
Hotels, hostels, etc.	4 537	—	4 537	5 542	—	5 542
Factories	6 600	11 371	17 970	14 246	2 791	17 036
Office premises	14 150	3 349	17 499	16 976	2 395	19 387
Other business premises	5 240	3 230	8 470	5 796	2 827	8 623
Entertainment and recreation	1 447	4 381	5 828	6 366	309	6 676
Educational	2 334	20 961	23 295	1 876	16 191	18 068
Religious	944	—	944	1 067	—	1 067
Health	4 658	4 926	9 583	2 770	9 603	12 372
Miscellaneous	2 057	1 634	3 691	3 680	4 568	8 250
Total value of new buildings commenced	160 674	65 460	226 132	218 557	53 742	272 299

(a) Alterations and additions of \$10 000 or more are included with new buildings.

(b) Anticipated completion value. (c) Includes home units.

New Buildings Completed

Details of new buildings completed for the years 1963-64 to 1972-73 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	Flats (a)	Houses	Flats (a)	Other	Total
	\$'000					
1963-64 ..	10 488	989	73 174	4 844	40 284	118 302
1964-65 ..	11 050	1 820	80 940	9 318	64 242	154 500
1965-66 ..	10 353	1 856	79 176	10 215	70 910	160 301
1966-67 ..	9 354	1 482	75 082	6 998	53 141	135 221
1967-68 ..	7 444	1 373	63 915	6 827	67 789	138 531
1968-69 ..	6 054	1 741	63 260	9 450	84 002	156 712
1969-70 ..	7 504	2 657	72 898	16 007	58 733	147 638
1970-71 ..	8 308	4 000	84 639	26 009	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

(a) Includes home units.

The following table gives further details of dwellings completed over the five years to 1972-73. A noticeable feature of the table is the relative importance of flats which accounted for 32 per cent of dwelling completions in 1972-73.

Number of New Dwellings Completed, South Australia

Type of Dwelling	1968-69	1969-70	1970-71	1971-72	1972-73
Private:					
Contract-built houses	<i>n.a.</i>	<i>n.a.</i>	311	321	413
Owner-built houses (a)	<i>n.a.</i>	<i>n.a.</i>	6 042	6 635	7 117
Total houses	5 110	5 902	6 353	6 956	7 530
Flats (b)	1 711	2 612	3 755	4 114	4 039
Total private dwellings ..	6 821	8 514	10 108	11 070	11 569
Government:					
Houses	1 844	1 602	1 955	2 105	1 447
Flats	30	45	245	70	178
Total government dwellings	1 874	1 647	2 200	2 175	1 625
Total all dwellings	8 695	10 161	12 308	13 245	13 194

(a) Owner-built are houses erected without services of contractor for whole job.

(b) Includes home units.

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^(a)

Type of Building	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Shops	7 624	6 176	14 118	2 334	4 633
Hotels, hostels, etc.	3 087	2 974	4 093	3 246	3 779
Factories	8 149	7 945	10 734	17 889	12 529
Office premises	13 515	6 870	13 178	16 800	14 118
Other business premises	12 299	9 966	9 699	8 772	25 996
Entertainment and recreation	2 271	1 337	1 532	2 178	8 767
Educational	13 056	11 535	19 477	22 144	23 570
Religious	661	807	895	1 153	897
Health	19 923	8 067	8 164	11 663	16 808
Miscellaneous	3 417	3 057	8 365	3 618	3 605
Total	84 002	58 733	90 256	89 795	114 702

(a) Includes alterations and additions of \$10 000 and over to existing buildings.

New Houses—Material of Outer Walls

A plentiful supply of clay and building stone together with a paucity of suitable timbers in South Australia resulted in most houses being built of solid construction rather than brick veneer or other construction.

In 1972-73 brick veneer houses constituted 35 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. 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

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								
1968-69	4 679	48 004	1 909	14 796	571	3 841	53	372
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
COMPLETED								
1968-69	4 376	44 338	1 977	14 794	548	3 747	53	381
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

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 1968-69 to 1972-73, new dwellings in these areas accounted for 29 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 New Houses and Flats Completed, South Australia

Local Government Area	1968-69	1969-70	1970-71	1971-72	1972-73
Brighton	133	101	150	185	204
Burnside	251	273	272	302	365
Campbelltown	353	321	364	452	546
Elizabeth	54	14	186	276	181
Enfield	300	282	388	615	614
Glenelg	127	232	377	312	284
Henley and Grange	145	200	190	253	279
Marion	440	410	481	488	552
Meadows	143	203	287	356	391
Millicent	53	57	58	63	47
Mitcham	434	578	719	732	650
Mount Gambier Municipality . .	122	86	96	120	186
Munno Para	183	68	142	98	103
Murray Bridge	63	24	61	92	93
Noarlunga	805	912	1 203	1 142	1 103
Payneham	97	119	235	214	170
Port Adelaide	118	174	161	191	243
Port Augusta	140	131	152	186	121
Port Lincoln Municipality	71	87	89	91	63
Salisbury	700	1 224	1 288	1 478	1 597
Stirling	93	87	92	140	156
Tea Tree Gully	592	942	1 162	1 305	1 354
Unley	177	207	340	251	211
West Torrens	632	544	635	505	515
Whyalla	584	470	384	391	363
Woodville	322	473	658	763	662
Other	1 575	1 951	2 151	2 259	2 158
Total State	8 707	10 170	12 321	13 260	13 211

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 jobs which are under construction simultaneously.

The average employment figure of 15 302 for 1972-73 was made up of 7 995 persons working on new dwellings, 4 954 working on other new buildings and 2 354 employed on additions, alterations, repairs and maintenance.

Building Employment, South Australia

Classification	1968-69	1969-70	1970-71	1971-72	1972-73
PERSONS ENGAGED					
Occupational status:					
Contractors	623	581	582	575	664
Sub-contractors ..	3 075	3 277	3 767	3 823	4 226
Wage-earners	8 277	9 011	9 494	9 996	10 411
Trade:					
Carpenters	3 117	3 139	3 339	3 364	3 592
Bricklayers	2 017	2 118	2 240	2 249	2 449
Painters	1 079	1 147	1 260	1 258	1 322
Electricians	697	826	904	942	1 003
Plumbers	1 088	1 187	1 265	1 261	1 382
Builders labourers	1 524	1 629	1 661	1 856	2 096
Other	2 454	2 822	3 173	3 464	3 458
Total	11 976	12 868	13 842	14 394	15 302

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 1973 the Trust had completed 35 187 dwellings for rental; of these 734 were completed during 1972-73.

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 1973 the Trust had built 2 008 flat units, of which 1 949 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 1973, 2 299 of these units had been built; 807 for charitable organisations and 1 492 for rental by the Trust.

Dwellings for Sale

Since the inception of its programme 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 1973, 383 houses for sale were completed under this 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 1973, 6 034 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^(a)

Period	Houses		Flats		Rural Dwellings including Soldier Settlers	Total
	Single Units	Double Units (b)	Cottage Flats	Other		
1937-1968	34 168	(c)23 530	1 556	1 446	1 234	61 934
1968-69	1 232	532	104	30	—	1 898
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
Total	40 335	25 700	2 299	2 008	1 234	71 576

(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.

\$14 107 500 in respect of each of the five years from 1971-72 to 1975-76, repayable over a period of thirty years. Accordingly, this State received \$470 250 in 1971-72 and \$940 500 in 1972-73.

Under arrangements discussed and agreed to at the June 1973 Premiers' Conference the Australian Government entered into an agreement with each State, under which the States will receive advances for welfare housing purposes, during the five years, 1973-74 to 1977-78; these advances are to be outside, and in addition to the State Loan Council programmes. The *Housing Agreements Act* 1973 was passed by Parliament in the autumn session of 1974. Advances made under the Agreement will be repaid, with interest, over fifty-three years. Because of the re-introduction of a direct interest concession, the *States Grants (Housing) Act* 1971 was amended by the *States Grants (Housing) Act* 1973.

DEPARTMENT OF HOUSING AND CONSTRUCTION

The Australian Department of Housing was established in January 1964. On 30 November 1973 the Departments of Housing and Works were amalgamated and a new Australian Department of Housing and Construction was formed. Among other activities of the Department in South Australia are the administration of the Defence Service Homes Act, the Home Savings Grant Scheme and the Migrant Flat Scheme.

Defence Service Homes

The Defence Service Homes Branch of the Department of Housing and Construction originated in the War Service Homes Commission which was set up in 1919 to help provide homes for ex-servicemen and their dependants.

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 to 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 1973 was \$12 000 and the interest rate 3½ per cent.

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

Homes Savings Grant

Under the Australian Government's Homes 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 29 982 Home Savings Grants had been approved in South Australia at 30 June 1973, representing a total payment of \$13 130 035.

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 $7\frac{1}{2}$ and 10 per cent. Another source of housing finance is the building societies, details of which are given on pages 656-7.

Housing Loans Insurance Scheme

The Housing Loans Insurance Corporation was established by 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 1972-73, 3 070 housing loans aggregating \$35 370 000 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	
	1971-72	1972-73	1971-72	1972-73
	Number		'000 hectares	
Adelaide	4 344	4 386	103	102
Central	3 143	3 127	1 285	1 284
Kangaroo Island	458	467	312	312
Mount Lofty Ranges	5 523	5 531	766	770
Murray	6 107	6 033	3 007	2 992
South East	4 465	4 461	2 292	2 286
Eyre	2 365	2 335	3 944	3 919
Northern	2 370	2 346	2 963	2 958
Far North	320	315	50 474	50 749
Total	29 095	29 001	65 146	65 372

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 have been 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	
Commercial holdings:	Number of Holdings						
Sheep—cereal grain	70	1 239	517	1 505	512	1 471	6 303
Sheep	77	18	554	160	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	1969	1970	1971	1972	1973
	Persons				
Permanent workers:					
Owners, lessees, etc.	22 102	21 526	21 436	21 405	21 454
Relatives (not paid wages) . .	319	449	316	141	103
Employees	7 650	7 535	6 992	6 161	5 983
Total	30 071	29 510	28 744	27 707	27 540
Temporary workers	16 214	13 720	13 926	12 637	13 271
Total workers	46 285	43 230	42 670	40 344	40 811

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 1973 are given in the next two tables.

Farm Machinery on Rural Holdings, South Australia
At 31 March

Type of Machine	1969	1970	1971	1972	1973
Shearing machines:					
Machines	15 693	15 746	15 852	<i>n.a.</i>	<i>n.a.</i>
Stands	29 868	30 080	30 205	29 586	<i>n.a.</i>
Milking machines:					
Machines	6 263	5 947	5 571	<i>n.a.</i>	<i>n.a.</i>
Units	17 908	17 642	17 082	16 261	15 834
Rotary hoes and rotary tillers					
	5 787	5 612	5 442	6 005	6 239
Tractors:					
Wheeled	33 534	34 121	33 971	34 223	34 370
Crawler	3 040	3 143	3 052	2 974	2 888
Grain drills:					
Combine	15 763	15 481	15 100	15 355	15 408
Other	5 074	4 953	4 804	4 485	4 148
Fertiliser distributors . .					
	9 772	9 736	9 667	9 816	9 863
Harvesters, headers and strippers					
	12 042	11 218	11 208	11 385	11 090
Forage harvesters					
	896	914	814	856	877
Pick-up balers					
	5 305	5 367	5 404	5 582	5 624

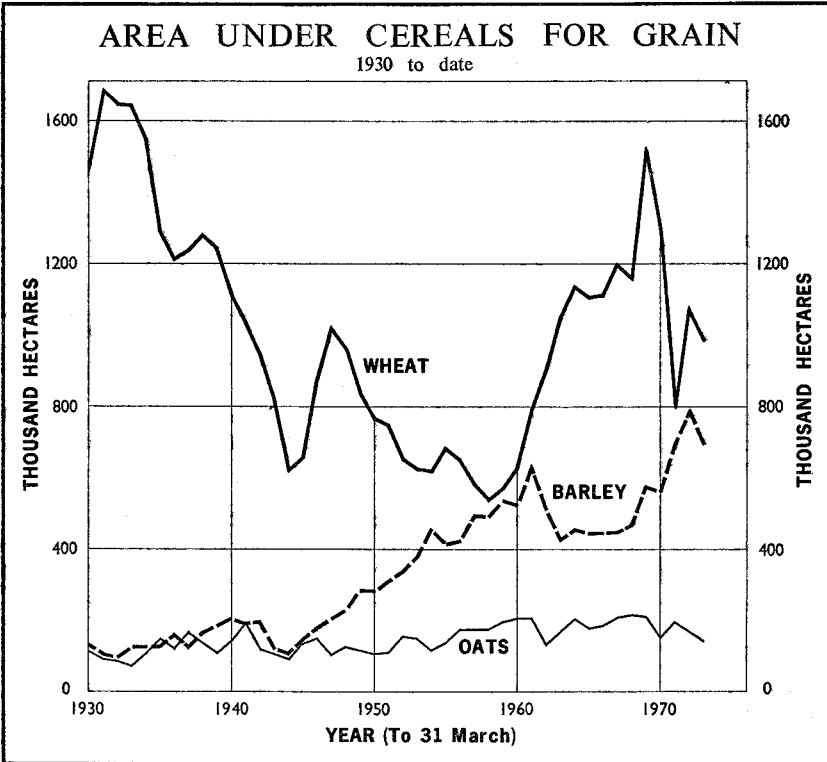
Farm Machinery on Rural Holdings: Statistical Divisions, South Australia
At 31 March 1973

Type of Machine	Statistical Division							Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	
Milking units	733	1 230	6 213	2 605	3 890	348	694	15 834
Rotary hoes and rotary tillers	1 536	546	1 151	1 640	569	369	354	6 239
Tractors:								
Wheeled	2 394	4 560	5 817	8 055	5 045	4 743	2 780	34 370
Crawler	347	183	425	395	501	584	212	2 888
Grain drills:								
Combine	310	2 994	1 936	3 177	1 724	3 118	1 868	15 408
Other	109	411	731	896	796	901	148	4 148
Fertiliser distributors . .								
	834	784	2 538	1 804	2 062	1 061	387	9 863
Harvesters, headers and strippers								
	139	2 362	1 186	2 356	1 087	2 298	1 371	11 090
Forage harvesters								
	54	72	238	187	215	68	29	877
Pick-up balers								
	136	938	1 154	930	1 274	510	541	5 624

(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 of 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	1968-69	1969-70	1970-71	1971-72	1972-73
'000 hectares					
Cereals for grain:					
Wheat	1 516.9	1 298.9	802.3	1 068.6	986.1
Barley	571.5	559.9	693.5	783.7	692.1
Oats	208.7	150.4	194.9	168.9	141.5
Rye	27.3	19.4	19.7	19.6	15.2
Crops for hay:					
Oaten	60.8	41.0	51.8	52.7	52.6
Other	36.7	32.4	32.6	25.0	36.5
Crops for green forage	109.7	116.3	128.3	84.8	88.2
Vegetables:					
Potatoes	3.1	3.2	2.9	2.8	2.7
Tomatoes	0.5	0.5	0.5	0.5	0.5
Other	4.3	5.0	5.9	7.1	7.9
Fruit:					
Orchards	18.0	18.1	18.3	17.2	16.7
Vineyards	24.5	26.2	27.7	28.8	29.5
Other Crops	10.2	15.1	15.5	18.3	14.9
Total area of crops	2 592.2	2 286.4	1 993.9	2 278.0	2 084.4

The numbers of holdings growing 8 or more hectares of the principal cereals or one-half of a hectare or more of the principal fruits and vegetables are shown in the following table.

Rural Holdings Growing Principal Crops, South Australia

Holdings (a)	1968-69	1969-70	1970-71	1971-72	1972-73
Number					
With 8 hectares or more					
of:					
Wheat	9 884	9 529	8 548	8 997	8 578
Barley	7 916	7 685	8 254	8 750	8 226
Oats	5 682	4 326	5 105	4 919	4 039
With $\frac{1}{2}$ hectare or more					
of:					
Grapes	3 082	3 173	3 239	3 258	3 286
Citrus fruits	1 574	1 650	1 598	1 449	1 420
Other orchard fruits	3 073	3 360	3 320	3 207	3 114
Potatoes	722	752	569	503	462

(a) Holdings growing more than one of the crops shown are counted for each crop.

The extent of fluctuations since 1930 in the area under the three main cereal crops is illustrated by the graph on page 411.

IRRIGATED CULTURE

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 pages 365-6. 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 1972-73^(a)

Irrigation Area	Area				Production			
	Pasture (b)	Vineyards		Orchards	Vineyards		Orchards	
		Bearing	Not Bearing		Total Grapes Produced	Grapes Used for Wine	Oranges	Peaches
	Hectares	Hectares	Hectares	Hectares	Tonnes	Tonnes	Tonnes	Tonnes
Upper Murray:								
Berri	121	1 933	165	1 201	27 494	22 460	10 561	3 023
Cadell	4	167	9	146	1 371	992	1 139	107
Cobdogla	72	476	34	15	7 686	7 125	146	6
Cooltong	50	208	11	312	3 938	3 681	6 951	160
Holder	1	106	11	138	1 835	1 790	1 585	265
Loveday	124	850	53	147	13 979	12 186	1 783	56
Loxton	23	1 573	62	1 119	24 446	21 372	25 526	1 568
Moorook	3	165	21	219	2 347	2 187	2 815	294
Nookamka	16	662	34	66	10 297	9 229	734	51
Ral Ral	135	284	30	109	2 837	1 653	104	771
Renmark	490	2 089	203	1 331	22 935	15 804	10 395	6 080
Sunlands	—	67	2	608	1 057	1 057	16 368	325
Waikerie	9	654	57	932	9 400	8 951	11 476	2 926
Other	18	382	59	929	4 768	3 755	9 104	3 743
Total	1 066	9 617	750	7 274	134 390	112 242	98 688	19 377
Lower Murray:								
Cowirra	206	—	—	—	—	—	—	—
Jervois	2 571	—	—	4	—	—	10	—
Monteith	554	—	—	—	—	—	—	—
Mypolonga	649	2	—	346	6	2	4 216	454
Neeta	352	—	—	—	—	—	—	—
Pompoota	384	—	—	—	—	—	—	—
Other	912	—	—	2	—	—	—	—
Total	5 630	2	—	352	6	2	4 226	454

(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.

The following table shows the approximate area of all irrigated culture in South Australia for the seasons 1968-69 to 1972-73. 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 413. The area cut for green forage and silage is shown as green forage.

Area Under Irrigated Culture, South Australia^(a)

Season	Orchards	Vineyards	Vegetables	Green Forage	Other Crops	Pasture	Total
Hectares							
1968-69	13 181	12 589	5 833	2 595	11 327	24 855	70 380
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

(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'.

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 1972 is shown in the following table.

Principal Crops and Pasture Fertilised, South Australia 1972

Type of Crop	Area Fertilised	Super-phosphate	Other	Total	Per Hectare
	'000 hectares	Tonnes	Tonnes	Tonnes	kg
Wheat	932	114 428	4 293	118 721	127.38
Barley, oats and rye	883	105 931	3 473	109 404	123.91
Vegetables	8	3 550	6 136	9 686	1 152.96
Fruit trees and vines	29	9 556	8 851	18 407	638.36
Other and unspecified crops	12	1 798	193	1 991	163.85
Total crops	1 864	235 263	22 946	258 209	138.50
Pasture	2 033	287 921	8 271	296 192	145.68
Total	3 897	523 184	31 217	554 401	142.25

The following table shows the area of crops and pastures treated and the quantity of fertiliser used in each division in 1972.

Use of Artificial Fertilisers: Statistical Divisions, South Australia 1972

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	67.15	8 127	629.32	22	3 682	170.08
Central	435	91.88	58 156	133.70	114	12 486	109.52
Kangaroo Island	11	76.56	1 778	163.93	114	15 980	140.19
Mount Lofty Ranges	97	85.36	15 908	163.45	253	40 181	158.59
Murray	367	88.27	53 017	144.27	157	22 811	145.21
South East	81	81.91	12 349	153.00	1 105	168 098	152.08
Eyre	648	90.71	85 406	131.85	203	25 381	124.85
Northern	198	91.21	22 014	111.43	63	7 462	117.63
Far North	15	82.09	1 454	98.55	1	111	112.69
Total	1 864	89.44	258 209	138.50	2 033	296 192	145.68

The next table gives the area of crops and pastures treated in the State for the years 1963 to 1972.

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
	'000 ha	Per cent	Tonnes	kg	'000 ha	Tonnes	kg
1963	1 938	89.01	242 739	125	1 616	230 316	143
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

(a) Not comparable with previous years.

WHEAT

Wheat has always been a crop of major importance to the economy of South Australia although in recent years this importance has declined in relation to the total value of agricultural and pastoral production. South Australia as a wheat producing State ranks fourth in order of importance, and for the ten harvests ending 1971-72 averaged 13 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

1.15 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 1972-73 was 815 000 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 want 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 1970-71 to 1972-73 are shown in the following table.

Principal Varieties of Wheat Sown, South Australia

Variety	Area			Proportion of Total Area		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
	'000 hectares			Per cent		
Dirk	41	45	40	5.0	4.1	3.9
Gabo	65	104	85	7.9	9.6	8.5
Gamenya	83	76	30	10.1	7.0	3.0
Halberd	11	139	455	1.3	12.8	45.2
Heron	310	351	152	37.6	32.3	15.1
Insignia	136	151	65	16.5	14.0	6.5
Raven	45	50	42	5.4	4.6	4.1
Sabre	34	38	19	4.1	3.5	1.9
Other	90	131	120	10.9	12.1	11.9
Total area	824	1 085	1 007	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 1972-73.

**Wheat Sown for Grain: Area and Production, Statistical Divisions
South Australia**

Statistical Division	Area		Production	
	1971-72	1972-73	1971-72	1972-73
	'000 hectares		Tonnes	
Adelaide	1	1	2 232	1 178
Central	176	185	329 667	220 299
Kangaroo Island	(a)	(a)	626	519
Mount Lofty Ranges	33	35	63 304	49 641
Murray	217	164	227 390	48 053
South East	28	28	47 628	40 582
Eyre	461	435	495 494	324 474
Northern	133	129	222 300	126 528
Far North	19	9	18 289	3 710
Total	1 068	986	1 406 958	814 984

(a) Less than 500 hectares.

Research

Under the *Wheat Tax Act* 1957-1966 a tax is 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, up to an amount equal to the wheat tax levied from the growers. The Wheat Industry Research Council recommends the avenue of research on which this grant should be spent, and has currently recommended a broad field of research in wheat production, wheat storage and wheat quality.

Organisations such as the Commonwealth Scientific and Industrial Research Organization and the South Australian Department of Agriculture 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 control over the receipt and disposal of all wheat and wheat products including the handling, storage and shipment of wheat. Under the stabilisation plan, the Board is the sole authority for marketing wheat within 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 1972-73 totalled 5.4 million tonnes.

Deliveries to the Australian Wheat Board^(a)

Season	South	Australia	Season	South	Australia
	Australia			Australia	
	'000 tonnes			'000 tonnes	
1963-64	1 406	8 378	1968-69	2 162	14 033
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

(a) Mostly in bulk, but includes weight of bags where used.

During the year ended 30 November 1972 total exports of wheat (including wheat equivalent of flour and wheat products) were 7.8 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	
1962-63	1 393	6 222	81 042	317 292
1963-64	1 541	6 894	82 282	357 660
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

Wheat Delivery Quotas Plan

In March 1969 the Australian Wheat Growers' 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. State Governments had the responsibility of implementing the quota plan within the States. Each State (except Queensland where the legislation operated from 1970) enacted the necessary legislation in 1969. The period of operation of the legislation varies among the States.

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 quota for South Australia in 1973-74 was 2 million tonnes.

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 wheat growers and one representative each from the Wheat Board, the South Australian Co-operative Bulk Handling Limited and the 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 permits the Quota Advisory Committee to grant special quotas in certain cases 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.

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 1973 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 six divisions—Ardrossan, 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 1973^(a)

Division	Wheat		Barley		Oats	
	Permanent	Temporary	Permanent	Temporary	Permanent	Temporary
	'000 tonnes					
Port Adelaide	634.1	51.7	186.3	1.0	9.0	2.1
Ardrossan	172.8	—	161.0	—	—	—
Wallaroo	339.0	—	76.5	—	—	—
Port Pirie	308.8	76.0	35.6	—	—	—
Port Lincoln	613.6	95.4	142.7	—	1.8	—
Thevenard	239.1	64.0	31.9	—	1.8	7.4
Total	2 307.4	287.1	634.0	1.0	12.6	9.5

(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

The grading of wheat for export is based on a fair average quality (FAQ) standard. A separate standard is determined for each of the four main wheat producing States by a committee of representatives of the Wheat Board, bulk handling authorities, State Departments of Agriculture, farmers, millers and shippers. Samples of wheat from the several wheatgrowing districts are mixed in the proportion grown in the districts and the FAQ weight is determined from the sample. These weights are used as a guide in determining standards of wheat delivered to the Wheat Board.

Since 1957-58 in South Australia, two standards have been fixed in each season with the exception of the 1960-61 and 1966-67 seasons when three standards were fixed.

Currently the two standards are known as FAQ and Hard (called Semi-hard before December 1966), the latter being used for wheat of a better quality meeting two main requirements—that the type of wheat is one of a number of specified hard varieties and secondly, that it is of a uniform vitreous appearance of which not more than 10 per cent is mottled or bleached. Because of hard wheat's better baking qualities, resulting in a keener overseas demand, growers of this grade receive a premium price. Growers delivering inferior wheat (grain containing excessive foreign matter) or lightweight wheat receive reduced payments.

This method of setting FAQ standards for export marketing is peculiar to Australia, as other countries sell to fixed grades or according to sample. The standards adopted in each of the ten seasons 1962-63 to 1971-72 were shown in imperial weights in a table on page 386 of the *South Australian Year Book* 1973.

For the 1972-73 season the test weight standards for wheat were shown in kilograms per hectolitre, *i.e.*:

FAQ	81.6 kg/hl
Hard	80.7 kg/hl

Wheat Stabilisation Plan

Wheat grown in Australia is marketed under a government stabilisation scheme which provides for the fixing of a home consumption price for each season, the pooling of the proceeds of local and overseas sales, the guarantee of a minimum price varied by changes in costs of production and the operation of a stabilisation fund into which are paid the proceeds of a tax on exports.

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.

Under the *Wheat Export Charge Act 1968-1973*, 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, any surplus being returned to the growers.

The Stabilisation Fund is used to make up deficiencies in respect to 5.44 million tonnes from each crop where the average export realisation falls below the guaranteed return. In the event of the fund being unable to meet the deficiency the Australian Government is required to meet its obligations under the guarantee.

International Grains Agreements

The fifth International Wheat Agreement came into effect on 1 August 1962 for a period of three years, but was extended until 31 July 1968. Under this agreement the participating importing countries undertook to buy each year from the exporting countries a stated percentage of their total commercial import requirements. Previously, participating exporting countries competed to supply at prices within a prescribed range but under a provision of this agreement it was not necessary for a maximum price declaration to be made.

The International Grains Arrangement, 1967 embraced a Wheat Trade Convention and a Food Aid Convention and came into force on 1 July 1968 for a period of three years. The Arrangement covered new ground in its pricing provisions; whereas the 1962 International Wheat Agreement specified a maximum and minimum price for one wheat, the new Arrangement specified maximum and minimum prices for fourteen wheats. The Food Aid Convention of the Arrangement provided for a programme of food aid amounting to 4.5 million tonnes of grain for human consumption in each of the three years of the Arrangement.

The new agreement, the International Wheat Agreement 1971, has a life of three years from 1 July 1971. Like the International Grains Arrangement, the Agreement comprises two separate legal instruments, the Wheat Trade Convention and the Food Aid Convention, linked by a common preamble.

The Wheat Trade Convention 1971 ensures that the machinery for consultation and co-operation on wheat marketing existing under earlier Agreements will be maintained. The administrative body, the International Wheat Council, continues in existence. The Convention provides for the continuation of the full reporting and recording of all commercial and concessional transactions in wheat and flour. There is an important departure from earlier agreements in that the latest Wheat Trade Convention contains no specific pricing provisions. However, the Convention specifically provides that when it is judged that prices and related rights and obligations are capable of successful negotiation, the International Wheat Council shall arrange a further conference with the objective of bringing them into effect within the life of the Convention.

The new Food Aid Convention is basically unchanged from its predecessor. Under this Convention a number of developed countries, importers and exporters alike, will continue to provide developing countries with food aid in the form of grains or flour for human consumption.

Prices

The table below shows the trend in export and domestic prices of Australian wheat for the years 1963-64 to 1972-73.

Export and Domestic Prices of Australian Wheat

Year	Export Price	Home Price
	per Tonne (a)	per Tonne
	\$	\$
1963-64	56.22	53.65
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

(a) Average of the twelve monthly prices, year ended July (From 1 December 1970, 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 1963-64 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. Since 1 December 1969 the following f.o.r., terminal ports, prices have 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

BARLEY

Production

In 1971-72 the acreage sown to barley in South Australia represented 31 per cent of the Australian total and yielded 34 per cent of the grain produced. Of the area sown in South Australia, 97 per cent was 2-row barley for grain, 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.

Although formerly a crop of comparatively minor importance, barley growing increased from approximately 200 000 hectares sown for grain in 1946-47 to 450 000 hectares in 1953-54. Total area sown to barley in 1972-73 was 729 000 hectares, 692 000 hectares being sown for grain. A record production of barley of over 1 million tonnes was achieved in 1971-72. Production in 1972-73 was 509 000 tonnes.

Area and Production of Barley for Grain: Statistical Divisions, South Australia

Statistical Division	Area		Production	
	1971-72	1972-73	1971-72	1972-73
	'000 hectares		'000 tonnes	
Adelaide	5	4	10	6
Central	258	240	437	231
Kangaroo Island	4	4	5	4
Mount Lofty Ranges	31	30	53	35
Murray	182	154	188	40
South East	25	24	38	22
Eyre	212	179	226	127
Northern	61	52	85	42
Far North	5	5	5	2
Total	784	692	1 047	509

Unlike wheat, barley growing has nearly always been confined to very suitable districts resulting in high and remarkably stable yields. During the period 1901-02 to 1935-36 the highest yield was 1.12 tonnes per hectare and except for the severe drought of 1914-15 the lowest was 0.77 tonnes per hectare. The subsequent increase in barley growing in districts subject to greater climatic variations, e.g. Murray Mallee and Eyre Peninsula, has been responsible for greater average yield fluctuations since 1936-37 but over the period the average yield has increased, the record yield being 1.58 tonnes per hectare in 1958-59. The average yield in 1972-73 was 0.74 tonnes per hectare because of poor seasonal conditions.

Yorke Peninsula, reputed to be the best barley growing area in Australia, has been the major producing district in South Australia since the 1914-18 War. In the 1972-73 season this area contributed just over 37 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. Prior is capable of producing grain of very high malting quality under favourable conditions but it suffers from two major deficiencies—it is susceptible to neck break and shattering if strong winds are experienced when the crop is nearly ripe and it is not well adapted to conditions of high soil fertility.

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. These characteristics resulted in a significant switch to this variety from one per cent in 1961-62 to 30 per cent of total area sown in 1968-69.

A new malting variety, Clipper, was released in South Australia to replace Prior in 1969. 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 1972-73 season 487 000 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 1972-73 Clipper was the most widely grown variety, accounting for 67 per cent of total area sown to barley. The percentage sown to Prior and Noyep dropped to 11 and 10 per cent respectively.

Research

The barley research programme 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.

Research is continuing at a number of sites in the main barley growing areas, to establish correct times and rates of seeding for the variety of Clipper and a new variety Ketch is being grown on selected holdings to provide seed for replacement of the variety Noyep.

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 first season of South Australian and Victorian joint marketing in 1942-43 the Board received 86 000 tonnes of barley. Since then, barley receipts have increased considerably and in the 1960-61 season the Board received a record total of 1 012 000 tonnes. This record was exceeded in 1971-72 when receipts were 1 135 000 tonnes. Since 1966-67 receipts of bulk barley have been greater than receipts of bagged barley.

Following recommendations submitted in a report by an investigating committee in October 1963 a bulk handling scheme for barley was introduced. In 1963-64, the first full year of its operation, bulk barley was received direct from

growers at terminal ports in South Australia, and a total of 27 000 tonnes was handled; 851 000 tonnes were handled in 1971-72. In 1964-65 bulk barley was received for the first time at other than terminal silos.

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		Total
	Malting	Milling	Feed	Malting	Feed	
	'000 tonnes					
1964-65	158	232	117	1	6	513
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	288	476	—	2	864

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 1971-72 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	
Bagged Barley					
1967-68	67.90	64.37	58.64	55.99	
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	
Bulk Barley					
1967-68	63.93	60.40	55.11	52.47	
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	

PRODUCTION

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 hectares				'000 tonnes	
1968-69	209	61	76	345	216	242	
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	

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 1972-73, 82 per cent of the total area of oats was sown in four varieties—Swan, 95 000 hectares; Avon, 51 000 hectares; Irwin, 39 000 hectares; and Kherson, 23 000 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 1972-73, 15 200 hectares of rye for grain yielded 2 879 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.

Hay: Area and Production, South Australia

Season	Oaten	Wheaten	Lucerne	Barley and Rye	Clover and Grass	Total
AREA ('000 hectares)						
1965-66	45	19	15	6	36	121
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
PRODUCTION ('000 tonnes)						
1965-66	120	55	67	14	118	374
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

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 1972-73 production was 23 000 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 11 000 hectares devoted to market gardens, districts adjacent to Adelaide account for 4 500 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 1 200 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 from 13.8 tonnes per hectare in 1947-48 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.

Area, Production and Utilisation of Grapes, South Australia

Season	Area of Vines	Total Grape Production (Fresh)	Wine Production (a)	Dried Fruit Production		
				Currants	Sultanas	Raisins
	Hectares	Tonnes	'000 litres	Tonnes		
1963-64 ..	23 747	215 117	123 208	4 606	12 437	933
1964-65 ..	23 819	238 057	127 391	5 125	13 415	3 172
1965-66 ..	23 767	186 752	108 579	3 204	9 845	2 261
1966-67 ..	23 099	229 034	133 310	3 833	12 614	1 148
1967-68 ..	23 524	204 458	136 633	3 162	4 671	612
1968-69 ..	24 513	221 027	164 505	2 298	1 603	167
1969-70 ..	26 239	272 321	196 850	3 378	2 981	239
1970-71 ..	27 659	224 618	169 265	3 201	1 132	202
1971-72 ..	28 769	238 246	181 907	3 098	7 979	633
1972-73 ..	29 528	220 426	180 191	2 026	3 244	468

(a) Excludes grape spirit added.

Grapes are grown commercially in South Australia in non-irrigated areas of 480 to 660 millimetres rainfall, and in much drier areas (frequently with less than a 250 millimetre rainfall) where irrigation is available (e.g. Upper Murray irrigation areas). The following table gives particulars of area of vines and production of grapes in the main statistical divisions in 1972-73.

**Area and Production of Vines: Statistical Divisions, South Australia
1972-73**

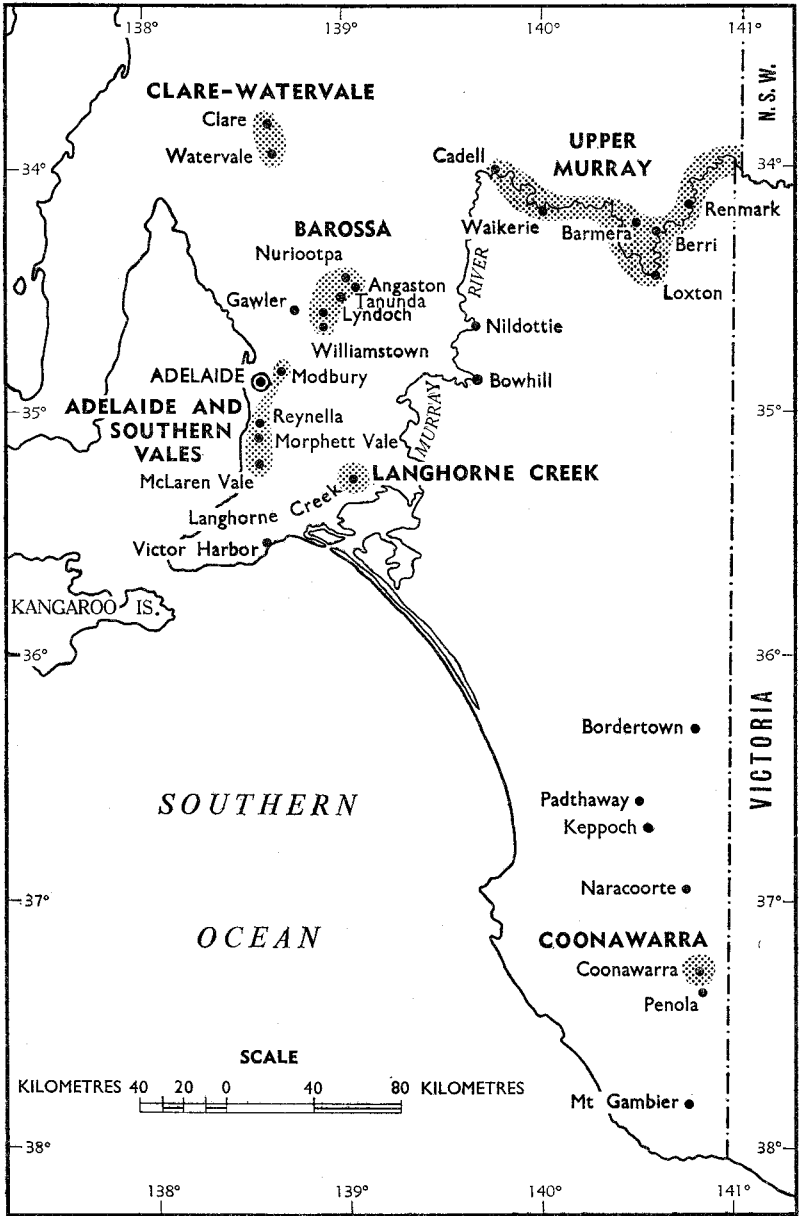
Statistical Division	Area		Production of Fresh Grapes			
	Bearing	Not bearing	Wine	Table	Drying	Total
	Hectares						Tonnes
Adelaide	3 647	908	20 950	29	184	21 163
Mount Lofty Ranges	9 076	1 389	54 413	15	131	54 559
Murray	11 607	1 190	140 012	1 168	21 784	162 964
South East	798	804	4 894	—	—	4 894
Total (a)	25 200	4 328	220 576	1 213	22 106	243 895

(a) Includes remainder of divisions.

Grape Growing Districts

The grape growing districts of South Australia are subject to substantial variety in geographical location, climatic variations and soil conditions and can be divided into six easily recognisable regions (see map on page 430) ranging from the Clare-Watervale district in the north to the southern limit of the grape growing area at Coonawarra in the south-east of the State and bounded by the warm irrigated areas of the Murray to the east.

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	1968-69	1969-70	1970-71	1971-72	1972-73
Hectares					
Vines:					
Bearing age	21 535	21 678	22 396	23 924	25 200
Not yet bearing ..	2 979	4 560	5 263	4 845	4 328

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 at prices, according to variety, which 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 spirit made by co-operatives is sold in bulk to proprietary wineries.

Production of Grapes, South Australia^(a)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Tonnes					
Grapes:					
For wine	206 194	244 251	208 523	224 718	220 576
For table	596	1 315	1 058	1 849	1 213
For drying	14 237	26 756	15 038	44 517	22 106

(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 1972-73 from 3 057 hectares of bearing sultanas was

approximately 40 100 tonnes. The main wine-grape variety, Grenache, produced 42 300 tonnes from 4 847 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 (2 493 and 1 684 hectares respectively in 1973), while not leading in acreage, are most important in white and red table wine production because of their superior quality.

Principal Varieties of Vines, South Australia

Variety	March 1970	March 1971	March 1972	March 1973
Hectares				
Sultana	3 473	3 344	3 252	3 084
Muscat Gordo Blanco	2 179	2 130	2 094	2 036
Currants	1 305	1 252	1 216	1 157
Grenache	4 925	5 168	5 273	5 366
Shiraz	3 367	3 961	4 422	4 772
Doradillo	1 912	1 894	1 904	1 882
Palomino (Paulo, Listan)	2 658	2 687	2 671	2 646
Common Palomino (a)				
Pedro Ximinez				
Semillon (b)	2 376	2 558	2 858	3 101
Rhine Riesling				
Clare Riesling				
Mataro	1 333	1 432	1 505	1 575
Other	2 711	3 227	3 571	3 909
Total	26 239	27 653	28 769	29 528

(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 1972-73 production shows the concentration of fruitgrowing in the Adelaide, Mount Lofty Ranges and Murray Divisions.

**Production of Principal Fruit Crops: Statistical Divisions, South Australia
1972-73**

Fruit	Statistical Division				Total
	Adelaide	Mount Lofty Ranges	Murray	Other	
Tonnes					
Citrus fruit:					
Oranges;					
Navel	57	72	46 868	399	47 396
Other	63	73	77 711	461	78 308
Other citrus fruit ..	211	11	12 673	120	13 015
Non-citrus fruit:					
Apples	9 222	17 958	666	94	27 940
Apricots	8 632	15 612	369 664	5 735	399 643
Peaches	9 649	16 844	1 093 299	8 072	1 127 864
Pears	106 026	167 384	245 386	2 037	520 833
Plums and prunes ..	19 131	14 811	18 722	808	53 472

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		
TREES OF BEARING AGE ('000)							
1968-69 ..	469	606	7	31	40	34	1 187
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
PRODUCTION (Tonnes)							
1968-69 ..	31 872	48 240	507	1 642	1 998	3 889	88 148
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

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; production first exceeded 50 000 tonnes in 1962-63 while in 1970-71 a record level of 127 445 tonnes was achieved. The 1970-71 record was exceeded in 1972-73 when production was 138 719 tonnes. The increase during the decade was largely because of the extensive orange tree plantings in newly-developed irrigation schemes, including those of Sunlands and Golden Heights near Waikerie.

Another factor has been a change from furrow to overhead sprinkler irrigation for citrus trees planted since 1950. This change, together with advances in irrigation timing techniques, has raised the potential yield of recent plantings. High salinity in irrigated water over the last few years has led to the introduction of under-tree sprinklers.

Apple growing is the principal non-citrus fruit industry. Although the area of apple orchards has decreased by some 50 per cent over the last forty years, production has gradually increased, partly because of the removal of lower yielding orchards and partly because of the general adoption of supplementary irrigation and lighter pruning practices. 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 35 000 tonnes was achieved in 1964-65, while production in 1972-73 was 27 940 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. The area devoted to pear growing reached a peak in 1922, then declined gradually until 1952. An expansion of the canned fruit industry caused a subsequent increase in plantings along the River Murray.

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
TREES OF BEARING AGE ('000)						
1968-69	520	369	49	374	162	69
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
PRODUCTION (Tonnes)						
1968-69	29 746	25 013	843	23 557	8 266	1 519
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

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 1972-73 included 2 721 tonnes of dried apricots, 424 tonnes of dried peaches, 261 tonnes of plums and prunes and 388 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. In addition the Board 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 1972-73, 8 699 hectares of field peas were grown for grain yielding 6 310 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 1972-73 season approximately 50 per cent of the 1 175 655 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
Cereals:		
Wheat	April-June	November-January
Barley	May-July	November-January
Oats	April-June	November-January
Fruit:		
Grapes . . . . .	..	February-May
Citrus . . . . .	..	May-February
Apples . . . . .	..	January-April
Apricots . . . . .	..	December-January
Peaches . . . . .	..	December-March
Pears . . . . .	..	January-April
Vegetables:		
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 agricultural production for South Australia in the 1972-73 season was \$177 768 000. 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 1968-69 to 1972-73 are shown.

Gross Value of Principal Agricultural Commodities, South Australia

Commodity	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Cereals:					
Wheat	112 551	82 332	40 562	76 381	44 588
Barley	25 657	23 724	34 902	40 295	27 506
Oats	5 686	3 303	5 053	5 496	3 974
Rye	370	165	357	306	240
Canary seed	—	21	16	20	13
Crops for hay	7 507	4 417	4 558	4 752	6 709
Crops for greenfeed or silage ..	1 596	1 396	1 427	907	1 221
Field peas	749	909	829	1 159	705
Orchard and berry fruit:					
Citrus	8 104	8 395	12 635	12 885	12 995
Apples	3 655	4 372	4 343	4 007	5 003
Apricots	4 201	3 850	5 370	4 300	5 263
Peaches	2 556	2 914	2 918	2 999	4 385
Other	4 033	4 961	4 665	4 571	5 720
Vine fruit:					
Wine grapes	13 514	15 904	14 122	15 988	18 167
Table grapes	136	342	289	506	384
Dried currants, raisins, etc. . .	1 617	2 592	1 650	4 496	2 498
Vegetables:					
Potatoes	4 045	2 610	6 059	4 393	5 796
Green peas	546	924	1 138	1 658	1 643
Other	13 333	13 607	15 438	16 963	17 903
Other crops	2 080	2 249	2 352	2 994	2 911
Total crops (excluding pastures)	211 935	178 987	158 680	205 077	167 623
Pastures:					
Pasture seed	2 422	2 280	2 101	2 232	3 023
Pastures cut for hay	6 607	2 950	4 055	5 897	7 122
Pastures cut for green feed or silage	133	67	58	<i>n.a.</i>	<i>n.a.</i>
Total Pastures	9 162	5 297	6 215	8 129	10 145
Gross value of Agriculture . . .	221 097	184 284	164 895	213 206	177 768

Market prices of principal crops grown in South Australia for the years 1968-69 to 1972-73 are set out in the following table. Wheat prices have shown little fluctuation in recent years, and have not been below \$48.10 per tonne since the 1948-49 season.

Prices of other cereals, however, are subject to marked variations from year to year. For example, since 1947-48 average barley prices per tonne have been as high as \$74.07 and as low as \$36.60, while in the same period oats prices have been as high as \$64.48 and as low as \$23.15 per tonne.

Prices of Agricultural Commodities, South Australia

Commodity	1968-69	1969-70	1970-71	1971-72	1972-73 p
Cereals: Dollars per tonne					
Wheat (a)	50.01	51.88	52.98	55.26	56.09
Barley (a)	41.09	36.82	49.21	40.96	59.30
Oats	29.10	33.01	38.08	37.20	62.70
Rye	38.54	46.37	59.12	41.98	94.35
Fruit:					
Apples	172.69	175.84	180.04	205.76	246.18
Apricots	242.51	283.39	306.82	316.92	331.62
Peaches	330.20	420.34	373.31	385.56	392.91
Pears	218.99	225.85	194.98	209.68	232.22
Oranges;					
Navel (a)	101.05	112.53	97.37	101.05	78.08
Other (a)	84.97	112.99	94.16	116.66	92.32
Grapes;					
Table	227.71	259.83	273.06	273.53	311.89
Wine (b)	65.54	65.11	67.72	71.15	82.36
Vegetables:					
Potatoes (a)	58.83	32.92	83.80	60.55	85.05
Onions	99.38	98.20	87.77	122.99	105.21
Tomatoes;					
Glasshouse	365.61	320.60	320.60	346.32	396.84
Other	212.20	238.84	306.82	227.82	335.29

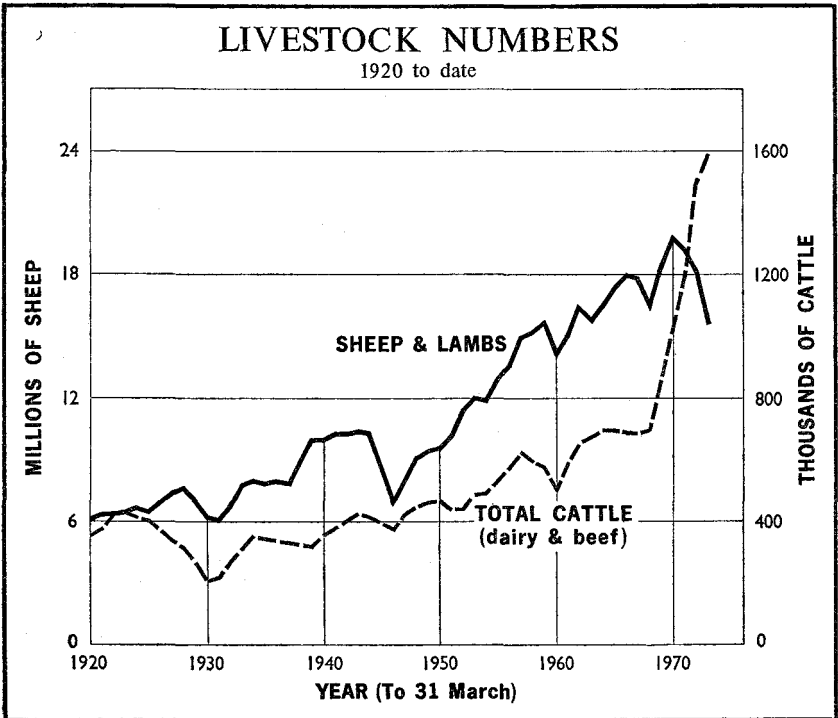
(a) Average price realised.

(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 ten years. Area under pasture for the years 1968 to 1973 is shown for statistical divisions in the following table.

Area Under Pasture: Statistical Divisions, South Australia^(a)

Statistical Division	October			March	
	1968	1969	1970	1972	1973
	'000 hectares				
Adelaide	23	25	24	23	26
Central	147	177	190	168	165
Kangaroo Island	141	141	141	149	155
Mount Lofty Ranges	236	257	260	244	285
Murray	378	422	438	470	500
South East	1 160	1 227	1 267	1 342	1 461
Eyre	437	466	466	482	506
Northern	86	96	110	106	119
Far North	9	11	13	10	12
Total	2 618	2 822	2 910	2 994	3 230

(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.

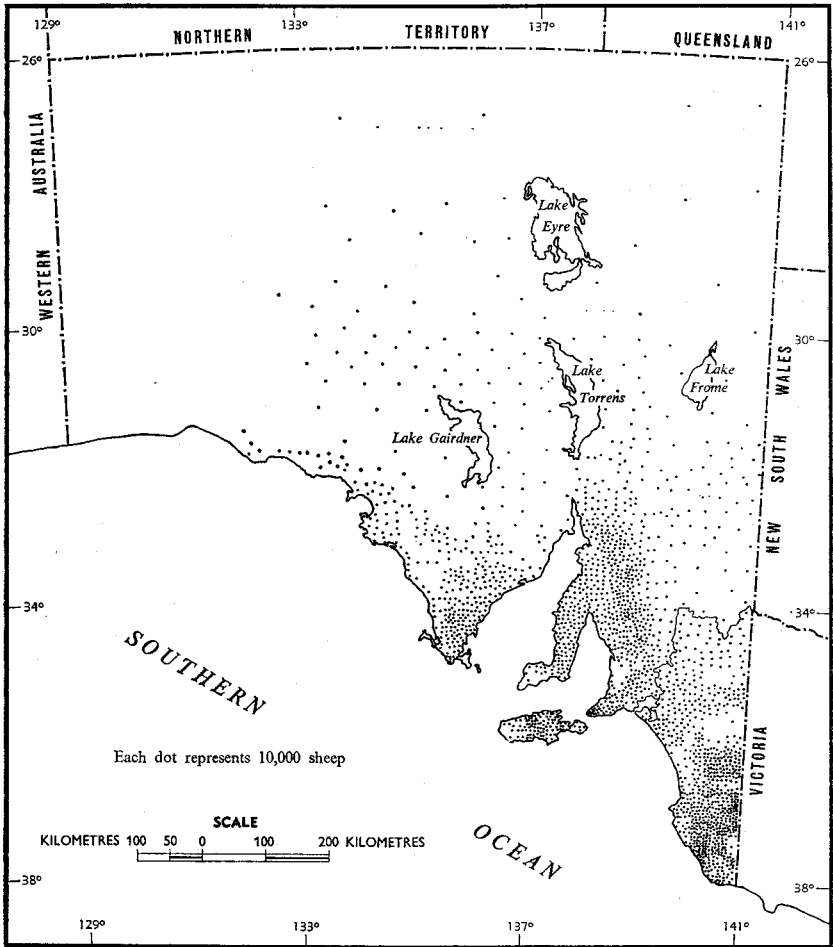
The most important perennial grasses in the better rainfall areas are phalaris tuberosa, perennial rye grass and cocksfoot while most widely used in the medium to low rainfall areas is the annual, wimmera rye grass. The naturalised annual grasses which occur over the whole of the State contribute substantially to total pasture production. Details of fertilisers used on pasture are given on pages 414-5.

SHEEP

Numbers and Distribution

The pastoral industry was the first to become established, mainly because there was an assured overseas market for wool, hides and tallow. Sheep numbers were as high as 7.6 million by 1891, a peak that was not exceeded until 1932. The severity of the droughts during this period is reflected in the reduced flocks of 1902 (4.8 million) and 1915 (3.7 million).

SOUTH AUSTRALIA
SHEEP DISTRIBUTION
At 31 March 1970.



After 1932 sheep numbers steadily increased, exceeding 10 million by 1940, but again a drought severely reduced the numbers to less than 7 million in 1946. Thereafter the sheep population increased steadily as improved farming techniques raised the grazing capacity of the pastoral and wheat-sheep zones.

At 31 March 1970 a record number of 19 747 000 sheep were being maintained in South Australia and the number at 31 March 1971 was 19 166 000. The number of sheep in South Australia at 31 March 1972 had fallen to 17 970 000 and drought conditions reduced the number to 15 651 000 at 31 March 1973.

By far the greatest concentration of sheep is in the South East Division which carried 4.4 million sheep at 31 March 1973. 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 1973 was in the Eyre Division (2 227 000) and sheep numbers of over 1.8 million were reported in Northern and Far North Divisions.

Sheep Numbers: Statistical Divisions, South Australia
At 31 March

Statistical Division	1969	1970	1971	1972	1973
			'000		
Adelaide	179	186	164	133	103
Central	1 753	1 975	1 916	1 816	1 503
Kangaroo Island	836	875	896	814	700
Mount Lofty Ranges	1 680	1 756	1 740	1 583	1 387
Murray	2 057	2 351	2 223	2 178	1 705
South East	5 725	5 775	5 719	4 986	4 376
Eyre	2 484	2 758	2 723	2 625	2 227
Northern	1 804	2 128	2 003	2 007	1 816
Far North	1 875	1 942	1 782	1 827	1 834
Total	18 392	19 747	19 166	17 970	15 651

Between 1960 and 1966 there was a substantial increase in the number of sheep but a decrease in the number of flocks—the number of smaller flocks (less than 500 sheep) falling quite considerably although this was partly offset by an increase in flocks of 1 000 to 5 000 sheep. The number of sheep continued to increase between 1966 and 1969, and the number of flocks fell at about the same rate as between 1960 and 1966.

The distribution in statistical divisions of sheep flocks classified by size of flock at 31 March 1969 is given in the following table.

**Sheep Flocks Classified by Size of Flock: Statistical Divisions, South Australia
At 31 March 1969**

Number of Sheep in Flock	Statistical Division							Total (a)
	Adelaide	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	
					Number of Flocks			
Under 50	225	92	487	167	211	31	72	1 288
50- 99	75	60	185	89	75	17	41	548
100- 199	83	146	308	165	101	29	100	943
200- 499	122	761	639	645	306	154	480	3 148
500- 999	63	840	554	829	516	695	578	4 140
1 000- 1 999	29	434	362	539	1 010	826	377	3 704
2 000- 4 999	10	91	138	122	804	264	139	1 847
5 000- 9 999	1	7	16	12	150	8	28	298
10 000-19 999	—	—	2	4	28	—	4	74
20 000 or more	—	—	—	—	2	—	2	23
Total flocks	608	2 431	2 691	2 572	3 203	2 024	1 821	16 013

(a) Includes Kangaroo Island and Far North Divisions.

At 31 March 1973, 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		
1964	199	7 545	772	4 277	3 609	16 402
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

Breeds of Sheep

The predominant breed in South Australia is the Merino which accounts for more than 80 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.

Of the remaining recognised breeds, the Australasian breeds, Corriedale and Polwarth, are most important. These are dual purpose sheep, used for mutton and at the same time producing wool of good quality. The Corriedale is a fixed cross between Lincoln rams and Merino ewes while the Polwarth is a fixed comeback bred from the mating of Merino rams with Lincoln-Merino ewes.

British longwools (Border Leicester, Cheviot and Romney Marsh) are used for mating with the Merino or crossbred ewes mainly to produce fat lambs but useful types of comeback and crossbred wools, are also yielded. British shortwools (Dorset Horn, Ryeland, Suffolk, Southdown and Shropshire) are used principally for production of export lambs.

**Breeds of Sheep, South Australia
At 31 March**

Breed	1967	1968	1969	1970	1971
			'000		
Merino	14 856.9	13 418.1	15 275.1	16 749.3	16 304.1
Corriedale	1 158.6	1 113.0	1 085.3	973.1	940.6
Dorset Horn	46.5	58.9	62.0	67.4	77.9
Border Leicester	26.6	37.5	32.3	29.6	27.7
Polwarth	104.4	113.9	114.1	139.6	147.6
Romney Marsh	23.9	25.7	26.6	21.1	17.6
Ryeland	4.4	5.7	7.1	6.7	5.7
Southdown	5.4	7.8	5.3	4.9	4.7
Suffolk	16.7	17.0	16.9	14.9	18.4
Other	3.4	3.1	4.3	3.8	4.3
Merino-Comeback	220.1	213.6	198.8	168.4	214.7
Crossbred	1 396.7	1 391.0	1 564.3	1 568.3	1 402.6
Total	17 863.6	16 405.3	18 392.1	19 747.1	19 165.8

Lambing

In 1969 a record 8 598 000 ewes were mated and the number of lambs marked totalled 7 193 000. In 1972, 7 846 000 ewes were mated and the number of lambs marked was 5 993 000. Early reports from farmers indicated that they intended to mate 7.8 million ewes in 1973—approximately 5.3 million to Merino rams, 0.8 million to other longwool rams and 1.7 million to shortwool rams.

Details of lambs marked and the lambing percentage in each statistical division in 1971 and 1972 are given in the next table.

PRODUCTION

Lambing: Statistical Divisions, South Australia

Statistical Division	Lambs Marked		Lambing Percentage (a)	
	1971	1972	1971	1972
	'000			
Adelaide	66	55	87.96	86.73
Central	760	718	78.78	77.92
Kangaroo Island	247	175	72.29	58.71
Mount Lofty Ranges	675	582	84.74	80.68
Murray	874	785	76.73	73.32
South East	2 041	1 760	85.32	83.98
Eyre	805	723	73.01	70.15
Northern	702	681	76.53	75.25
Far North	523	515	65.72	69.57
Total	6 693	5 993	78.51	76.39

(a) Percentage of lambs marked to ewes mated.

Sheep Shearing and Wool-clip

In the agricultural areas of the State there is a predominance of shearing during the late winter and spring months, August to November. Shearing in the South East Division occurs somewhat later, with some 75 per cent of the wool-clip being obtained in the period October to November. In the northern pastoral 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 1968-69 to 1972-73.

Sheep and Lambs Shorn: Wool-clip and Average Fleeceweight, South Australia

Classification	1968-69	1969-70	1970-71	1971-72	1972-73
	NUMBER SHORN ('000)				
Sheep	15 087	16 924	17 556	16 613	15 009
Lambs	3 865	4 990	4 409	4 210	3 973
Total	18 952	21 914	21 965	20 823	18 982
	WOOL-CLIP ('000 kg)				
Sheep	87 191	100 982	95 035	94 792	85 353
Lambs	6 883	9 293	7 695	7 792	6 844
Crutchings	4 587	5 180	4 912	4 904	4 419
Total	98 661	115 455	107 641	107 487	96 616
	AVERAGE FLEECEWEIGHT (a) (kg)				
Sheep	5.78	5.97	5.41	6.00	5.98
Sheep and lambs	5.21	5.27	4.90	5.16	5.09

(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 6.00 kg a head being achieved in 1971-72. 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 1972-73 by statistical divisions is given in the next table. This shows the high average fleeceweight obtained in the northern pastoral areas.

Sheep and Lambs Shorn, Wool-clip and Average Fleeceweight
Statistical Divisions, South Australia
1972-73

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	179	17	196	890	28	944	5.11	4.82
Central	1 434	338	1 772	8 226	536	9 212	6.05	5.20
Kangaroo Island	707	139	846	3 297	207	3 669	4.90	4.34
Mount Lofty Ranges	1 350	345	1 695	7 388	548	8 328	5.76	4.91
Murray	1 750	451	2 201	10 450	734	11 752	6.29	5.34
South East	4 123	1 224	5 347	22 785	2 099	26 051	5.81	4.87
Eyre	2 237	528	2 765	12 726	749	14 132	5.98	5.11
Northern	1 714	526	2 240	10 326	936	11 784	6.33	5.26
Far North	1 514	406	1 921	9 264	1 007	10 743	6.43	5.59
Total	15 009	3 973	18 982	85 353	6 844	96 616	5.98	5.09

(a) Includes crutchings.

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 1971 only 72 per cent of total sheep in the South East Division were Merinos, compared with a total State figure of over 80 per cent), but more importantly by the lighter wool quality of the Merino and the smaller framed sheep in this area.

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 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.

The Price Averaging Plan Wool Marketing Scheme which began on 1 July 1970, under the then Wool Marketing Corporation and which applied to one, two and three bale lots and other wool voluntarily submitted, ceased on 30 June 1973.

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 1972-73 resulted in a gross value of production of \$142 million.

The South Australian Merino generally produces wool of a much broader quality than the Merino of the eastern States. The second table on page 447 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.

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.

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
Percentage of Total Number of Bales							
1962-63	34.9	40.5	11.2	2.6	9.0	1.8	100.0
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

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. 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	In Store at End of Season
	Bales	Weight		Per Kg (Greasy)	
	Number	'000 kg		Cents	
1950-51 ..	383 630	53 086	125 956	237-28	6 304
1965-66 ..	591 641	84 881	87 402	102-98	40 197
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

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
	Cents per kg					
Greasy Merino:						
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
Greasy Crossbred:						
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 1973 the total number of cattle in South Australia was 1 583 000.

Cattle Numbers: Statistical Divisions, South Australia
31 March 1973

Classification	Statistical Division							Total (a)
	Central	Mount Lofty Ranges	Murray	South East	Eyre	Northern	Far North	
Associated with milk production:	'000							
Bulls (b)	0.4	1.7	0.7	1.2	0.1	0.2	—	4.4
Cows	5.6	64.7	26.0	32.0	1.5	3.7	—	141.0
Heifers	1.6	17.9	6.4	8.5	0.4	1.1	—	38.0
Calves under one year	1.7	16.5	6.2	8.3	0.6	1.1	—	36.3
House cows	0.7	1.0	0.9	1.4	1.3	0.7	0.1	6.6
Total	10.1	101.8	40.3	51.5	3.9	6.7	0.2	226.3
Associated with meat production:								
Bulls (b)	1.6	3.2	1.8	13.6	1.9	1.4	3.1	27.7
Cows and heifers	36.8	70.0	41.4	351.8	55.2	28.6	88.8	705.8
Calves under one year	26.1	44.2	31.5	218.7	38.0	18.2	44.7	441.1
Other cattle	8.6	18.8	9.4	103.4	6.6	6.2	23.2	182.4
Total	73.1	136.2	84.2	687.4	101.6	54.3	159.9	1 357.0
Total cattle	83.1	238.0	124.5	738.9	105.5	61.0	160.1	1 583.3

(a) Includes Adelaide and Kangaroo Island Divisions.

(b) Used or intended for service.

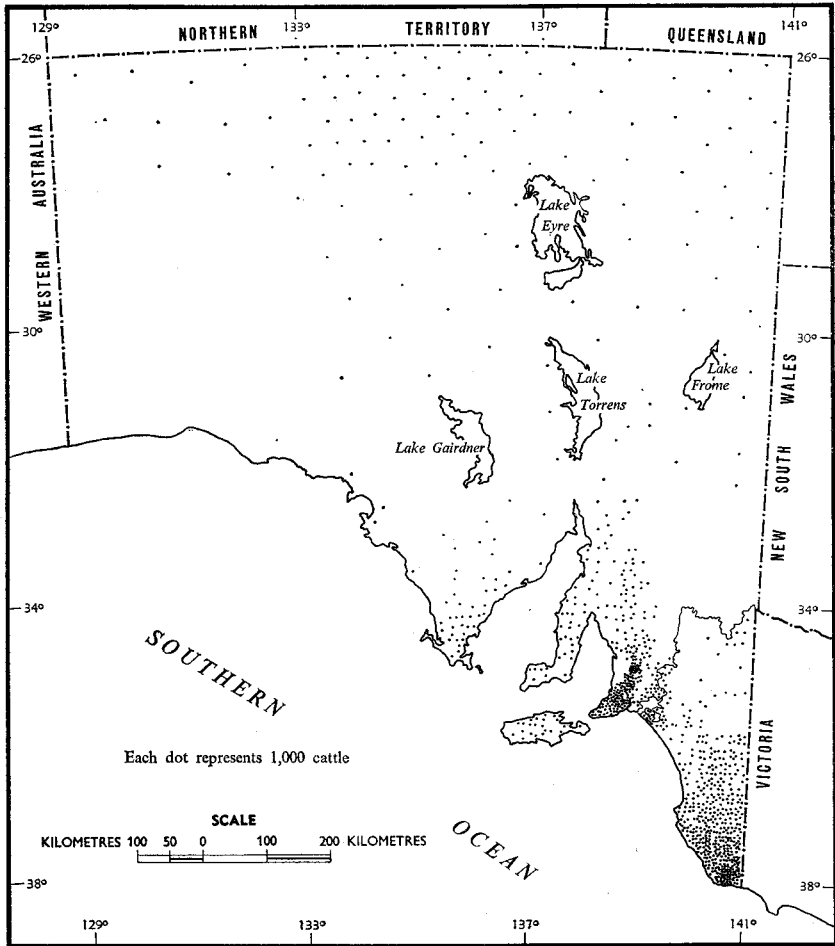
Cattle for Meat Production

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 1973 there were 1 357 000 cattle for meat production.

In 1973 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.

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.

SOUTH AUSTRALIA CATTLE DISTRIBUTION At 31 March 1970.



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 have also 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 June 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. The average milk production per cow in South Australia for ten years ending 1972-73 was 2 941 litres whereas the Australian average for the same period was 2 394 litres.

Average Milk Production Per Cow, South Australia and Australia
Year Ended 30 June

Area	Annual Average		1970	1971	1972	1973	Annual Average 1964-73
	1959-63	1969-73					
	Litres						
South Australia	2 535	3 139	3 291	3 214	3 123	2 848 _p	2 941 _p
Australia . . .	1 968	2 584	2 655	2 609	2 623	2 648 _p	2 394 _p

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 1963-64 and later seasons.

Production and Utilisation of Milk, South Australia

Year	Total Milk Produced	Milk Used for					Other Purposes
		Butter		Factory Cheese (a)	Home Consumption		
		On Farm	In Factory		Milk Board Area	Outside Milk Board Area	
'000 litres							
1963-64	443 348	2 414	148 303	154 517	84 698	44 511	8 906
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 p	424 718	818	101 005	174 297	96 073	42 560	9 970

(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		
1963-64	7 616	15 529	1968-69	6 637	19 151
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

(a) Includes factory and farm production.

(b) Factory production only.

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 (which replaced the Metropolitan and Export Abattoirs Board in November 1972) 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 ten 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		
1963-64	279	2 996	214	40 396	53 712	11 342	105 452
1964-65	275	3 100	241	37 866	56 281	12 859	107 006
1965-66	277	3 474	298	37 099	61 713	15 467	114 279
1966-67	265	3 358	316	39 376	63 479	16 203	119 058
1967-68	245	4 019	310	33 605	69 833	16 040	119 478
1968-69	220	2 977	317	36 189	57 735	16 195	110 119
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

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:					
Bullocks and steers;			Dollars		
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

Livestock, Average Prices at Adelaide Market (continued)

Class of Stock	1969	1970	1971	1972	1973
Fat sheep:			Dollars		
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
Pigs:					
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* 1964-1973. 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^(a)
At 31 March

Particulars	1969	1970	1971	1972	1973
			'000		
Hens and pullets ..	1 629	1 680	1 848	1 899	1 558
Other fowls and chickens	1 456	1 690	1 885	1 993	2 332
Ducks	83	83	75	47	26
Turkeys	65	69	73	40	33
Geese	18	17	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Egg production (b) ..	188 307	199 833	229 848	249 618	175 336

(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, 1941-1972, 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 of 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 fourteen years, annual production increasing from about half of a million birds in 1959 to over 11 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 programmes; 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 slaughtering was 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.

**Eggs Set and Chicks Hatched in Commercial Hatcheries
South Australia**

Year	Chicks Hatched (b) and Intended to be Raised for:					
	Eggs Set (a)		Chicken Meat		Egg Production	Breeding (d)
	Meat Strains	Egg Strains	Meat Strains: Unsexed	Egg Strains: Cockerels (c)	Egg Strains: Pullets (c)	Egg Strains: Pullets and Cockerels
						'000
1968-69 . . .	6 546	5 049	5 053	180	1 854	39
1969-70 . . .	8 090	5 971	6 173	373	2 136	47
1970-71 . . .	11 891	5 885	9 100	300	2 125	57
1971-72 . . .	13 253	4 933	10 431	117	1 876	30
1972-73 . . .	12 944	3 739	10 131	103	1 408	47

(a) Including eggs which failed to hatch. (b) Excluding chicks destroyed. (c) Egg strain chicks sold as 'unsexed' have been allocated equally between chicks for chicken meat and chicks for egg production. The number so reported was 98 000 in 1968-69; 108 000 in 1969-70; 69 000 in 1970-71; 70 000 in 1971-72; and 66 000 in 1972-73. (d) Details of meat strain chicks for breeding purposes are not available for publication.

**Poultry Slaughtered for Human Consumption
South Australia^(a)**

Period	Chickens (Broilers, Fryers, or Roasters)					Hens and Stags	Ducks and Drakes	Turkeys	Total
	NUMBER SLAUGHTERED ('000)								
1968-69	4 415	282	35	21	4 753				
1969-70	5 597	287	46	34	5 964				
1970-71	7 894	341	50	23	8 308				
1971-72	9 887	502	45	10	10 443				
1972-73	11 124	438	41	17	11 620				
	LIVE WEIGHT OF POULTRY SLAUGHTERED (Tonnes)								
1968-69	6 600	669	86	127	7 482				
1969-70	8 504	661	127	197	9 489				
1970-71	12 344	762	148	138	13 392				
1971-72	15 446	1 182	118	64	16 810				
1972-73	17 258	1 010	110	97	18 475				
	DRESSED WEIGHT OF POULTRY SLAUGHTERED (Tonnes)								
1968-69	4 961	448	59	97	5 565				
1969-70	6 295	452	85	154	6 986				
1970-71	8 998	528	101	104	9 730				
1971-72	11 077	800	84	46	12 006				
1972-73	12 363	677	79	71	13 190				

(a) Excludes geese slaughtered.

(b) Dressed weight of whole birds, pieces and giblets as reported by producers.

Beekeeping

Beekeeping in South Australia is a small industry—in 1972-73 there were 867 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^(a)

Season	Beekeepers	Hives		Honey Produced	Yield of Honey per Productive Hive	Beeswax Produced
		Productive	Un-productive			
	No.	No.	No.	'000 kg	kg	'000 kg
1968-69 ..	768	54 838	15 046	2 617	48	42
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

(a) Excludes particulars for producers having less than five hives.

VALUE OF RURAL PRODUCTION

The value of rural 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 rural production are given in the following table.

Gross Value of Rural Production, South Australia

Class of Production	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Agricultural	221 097	184 284	164 895	213 206	177 768
Pastoral	136 070	148 939	123 858	153 067	270 233
Dairying	39 016	40 834	43 918	47 262	47 808
Other rural	12 659	11 984	14 368	17 168	15 986
Total	408 842	386 041	347 039	430 704	511 795

Earlier information on the gross value of rural production is given in the Statistical Summary page 686.

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 \$121 million in 1972.

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, 1959-1970 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 Commonwealth 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.

The 1968-69 Census differed from previous censuses and therefore 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 1971-72 have been published by the Commonwealth 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 1971-72. 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 Sub-division, South Australia, 1971-72

Industry Sub-division	ASIC Code (a)	Number of Establishments Operating at 30 June 1972	Persons Employed (b)			Wages and Salaries \$ million
			Males	Females	Total	
Metallic minerals	11	8	} 1 401	191	1 592	8.1
Coal	12	1				
Crude petroleum including natural gas	13	1				
Construction materials	14	62	480	13	493	2.2
Other non-metallic minerals	15	32	412	14	426	1.9
Total mining, excluding services to mining . . .		104	2 293	218	2 511	12.3

(a) Australian Standard Industrial Classification.

(b) At 30 June 1972; includes working proprietors.

Employment

The statistics of the number of persons employed relate to working proprietors at the end of June 1972 and employees on the payroll of the last pay period in June 1972, 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
Sub-division, South Australia, 1971-72**

Industry Sub-division	ASIC Code (a)	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses	Value Added
			1971	1972		
			\$ million			
Metallic minerals	11	} 72.7	3.1	5.6	24.2	51.0
Coal	12					
Crude petroleum including natural gas	13					
Construction materials	14	10.8	0.9	0.9	3.0	7.8
Other non-metallic minerals	15	12.5	1.6	1.7	6.6	5.9
Total mining, excluding services to mining		96.0	5.6	8.2	33.9	64.7

(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 1971 and 1972 are listed in the following table.

Mining and Quarrying Production, South Australia^(a)

Mineral	Unit of Quantity	Quantity		Value	
		1971	1972	1971	1972
\$'000					
Metallic:					
Copper .....	..	..	..	1 875	4 668
Iron ore	'000 tonnes	6 866	6 327	59 672	55 438
Pyrite concentrate	'000 tonnes	64	32	696	343
Other .....	..	..	..	4	224
Non-metallic:					
Barite	'000 tonnes	20	26	240	186
Clays	'000 tonnes	679	739	975	1 004
Coal	'000 tonnes	1 491	1 602	3 082	3 350
Dolomite	'000 tonnes	352	378	683	663
Gypsum	'000 tonnes	652	721	1 588	1 771
Limestone	'000 tonnes	1 782	1 484	2 666	2 236
Opal (b) .....	..	..	..	11 000	20 000
Salt	'000 tonnes	697	582	2 746	2 313
Talc, soapstone	'000 tonnes	11	11	211	212
Other .....	..	..	..	391	491
Construction material quarrying ..	'000 tonnes	16 024	16 001	16 169	18 183
Natural gas	millions of m ³	909	1 023	(c)8 500	(c)10 000
Total .....	..	..	..	110 498	121 082

(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. The map on page 24 shows a number of localities referred to in this section.

Iron Ore

The only proved 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 production was more than 6.3 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 programme, 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 25 000 tonnes in 1972.

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 have in general 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, Stenhouse Bay 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 exceeded 721 000 tonnes in 1972.

Reserves of high grade gypsum at Lake MacDonnell have been proved 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 1972-73 amounted to \$971 342.

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 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.

The value of overseas exports of salt from South Australia amounted to \$233 809 in 1972-73.

Opal

The estimated value of raw opal production exceeded \$20 million in 1972. In terms of value it ranked second only to iron ore as the most important mineral produced in South Australia during 1972. Overseas exports of opal from South Australia during 1972-73 were reported at \$5 738 841.

In spite of the value of opal being won at present, opal mining remains a small scale operation. Both Andamooka and Coober Pedy are small outback settlements with few amenities and with floating populations. 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 11 336 tonnes were mined in 1972. 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 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 was 1 023 million cubic metres valued at the city gate, Adelaide, at \$10.0 million.

Limestone and Dolomite

The combined quantity of limestone and dolomite extracted each year is in excess of 1.8 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.

Limestone Production, South Australia
(Excluding Limestone Used as Building Stone, Road Materials, Etc.)

Classification	1968	1969	1970	1971	1972
			'000 tonnes		
Flux	708.5	749.3	860.7	723.4	371.7
Cement	568.0	732.4	636.8	712.3	770.2
Chemical	291.7	302.7	336.6	330.2	329.3
Other	14.3	17.2	18.9	15.8	12.5
Total	1 582.4	1 801.6	1 853.0	1 781.9	1 483.7

Clay

South Australia possesses a wide variety of clays which are used for industrial purposes such as cement manufacture, building bricks and roofing tiles, refractory ware, pottery and ceramic purposes.

Because of the scarcity of local timber supplies, softwoods excepted, much greater use is made of clay bricks for construction in South Australia than in other parts of Australia. The clay brick industry is concentrated near Adelaide.

There are also widely distributed occurrences of special clays for ceramic and refractory ware, the most noteworthy being the ball clay at Woocalla, china clay at Mount Crawford, and fire clay at Birdwood, Littlehampton, Tea Tree Gully, Booleroo Centre, and Lincoln Gap.

The Department of Mines, together with the Australian Mineral Development Laboratories, is continually engaged in investigations relating to the usage of clay deposits encountered during geological surveys throughout the State.

Details of clay production for the years 1968 to 1972 are given in the following table.

Clay Production, South Australia

Classification	1968	1969	1970	1971	1972
			'000 tonnes		
Brick clay and shale .	484.9	566.0	575.4	574.1	652.1
Cement clay (shale) .	36.3	39.2	34.7	32.6	41.0
Fire clay	38.4	45.5	25.3	47.4	18.7
Kaolin and ball clay	8.1	10.0	18.1	10.3	7.6
Pottery clay	34.2	33.0	15.8	14.1	19.7
Total	602.0	693.7	669.3	678.6	739.1

Construction Material Quarrying

Post-war industrial expansion, accompanied by extensive housing programmes and highway construction has resulted in a rapidly increasing demand for construction materials. Production was 16 million tonnes in 1972 compared with 2.2 million tonnes in 1947.

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	1968	1969	1970	1971	1972
	'000 tonnes				
Granite	4.7	5.5	4.6	5.2	5.6
Gravel	—	—	0.1	0.2	0.2
Limestone	16.7	26.1	27.4	25.1	24.5
Marble	1.5	2.8	3.1	5.4	5.5
Quartz	—	0.2	0.9	1.0	0.1
Sandstone	12.0	11.3	11.8	10.5	9.3
Slate	7.3	2.9	3.6	2.0	2.0
Total	42.2	48.9	51.5	49.4	47.3

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	1968	1969	1970	1971	1972
	'000 tonnes				
Limestone	4 414	5 968	4 802	4 620	5 437
Quartzite	3 268	3 853	3 222	3 702	3 949
Sand	2 110	2 930	2 626	2 707	2 408
Other materials	1 700	3 514	4 545	4 947	4 160
Total	11 492	16 265	15 194	15 976	15 954

MINERAL DEVELOPMENTS

In 1973 no exploratory holes were drilled in the Cooper Basin but some exploratory seismic survey work was carried out. Several appraisal and development holes were drilled to aid in the gas and oil reserve determination of the Basin. In the south-east of the State five exploratory wells were drilled, one of them off-shore, but no new accumulations of petroleum were discovered.

The commencement of construction of the pipeline to supply natural gas from the Cooper Basin to the Sydney area is imminent. Some construction problems will be experienced because of the flooding of the Darling River and the Cooper Basin generally but this should not delay the expected completion in 1975.

The petrochemical plant planned for the vicinity of Redcliffs Point on upper Spencer Gulf has reached the advanced planning stage. The plant and an associated oil refinery will be constructed and operated by a consortium of private companies, while a liquids pipeline from the Cooper Basin, also carrying the ethane feedstock for the plant, will also be constructed. Water supply and port facilities will be provided by the State Government and a power station will be constructed by the Electricity Trust of South Australia (ETSA), but operated by the petrochemical consortium. The main feedstocks for the plant will be ethane and brine and the principal products will be caustic soda, used in the production of aluminium, and ethylene dichloride for PVC manufacture.

All household gas appliances in Adelaide now use natural gas from the Gidgealpa area. In 1973 an average of about 3.2 million cubic metres of gas a day was supplied to the Adelaide area compared with an average of 2.8 million in 1972. About 68 per cent of the total was used at the Torrens Island power station. 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.

Major exploration is still continuing for copper, uranium and other minerals, but at a reducing rate. Little interest was shown in 1972-73 in regional exploration for base metals, however, there was an overall intensification of activity on fewer tenements. Only sixty-seven Exploration Licences were current in 1973 compared with 115 in June 1972. 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 \$4.1 million expended on exploration areas in 1972 by companies holding Exploration Licences (or the old Special Mining Leases) was almost the same level as that spent in 1971. However during 1973 there was a decline in the general level of exploration in South Australia, in spite of the very significant increases in world metal prices.

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 was \$121 million, an increase of \$10.5 million on the 1971 figure. The value of iron ore sales decreased by \$4 million to \$55.4 million; the estimated value of raw opal sales increased by \$9 million to \$20 million; the value of copper concentrates and other copper products sold increased by nearly \$3 million to \$4.7 million; and natural gas sales increased by \$1.5 million to \$10 million.

The gain in opal production was mainly attributable to greatly increased activity in the Cooper Pedy area. The increased South Australian copper output, from 2 250 tonnes of copper content in the copper products sold in 1971 to

7 100 tonnes in 1972, was mostly because of the inclusion of a full year of sales from the recently opened 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 stock-piled 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. When fully operational about 350 000 tonnes of ore should 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 will soon re-open their 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 their 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 will be provided for about 110 people on the open-cut mine and plant and a small township will be provided 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.

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 their testing of the Lake Phillipson coal deposits (found originally in 1905) has indicated that the total recoverable quantity could exceed 500 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 Cooper 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 1970-71 and 1971-72.

Private Mineral Exploration (Other than Petroleum), South Australia^(a)

Particulars	Unit	On Current Producing Leases		On Other Areas		Total Private Exploration	
		1970-71	1971-72	1970-71	1971-72	1970-71	1971-72
Footage:							
Drilled	'000 m	7.6	<i>n.a.</i>	187.8	<i>n.a.</i>	195.4	122.8
Sunk or driven	'000 m	—	<i>n.a.</i>	4.0	<i>n.a.</i>	4.0	<i>n.a.</i>
Man weeks worked							
(b)	'000	0.5	0.1	10.8	8.9	11.2	9.0
Expenditure:							
Drilling	\$'000	33	<i>n.a.</i>	1 735	<i>n.a.</i>	1 768	75
Other	\$'000	229	<i>n.a.</i>	4 223	<i>n.a.</i>	4 452	3 981
Total							
expenditure	\$'000	263	1 073	5 957	2 984	6 220	4 057

(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 1968 to 1971.

Private Petroleum Exploration and Development, South Australia

Particulars	Unit	1968	1969	1970	1971
Wells drilled ^(a)	No.	15	14	23	20
Footage drilled	'000 m	30.3	19.6	41.0	52.5
Expenditure:					
Private sources	\$'000	3 261	4 311	6 431	7 084
Government subsidy ^(b)	\$'000	1 407	609	923	537
Total expenditure . . .					
	\$'000	4 668	4 920	7 354	7 621

(a) Number of wells reaching total depth during year.

(b) Payments under the *Petroleum Search Subsidy Act 1959-1964*.

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. 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 1973 being 126 246 hectares. In addition the Woods and Forests Department is responsible for 2 176 hectares of reservoir lands, of which 1 116 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 1 235 hectares each year. In the same time the area under plantation on Forest Reserves has increased by 20 878 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 devoted largely to the production of poles, posts, rails and sleepers. The mallee lands are a source of some firewood.

Some areas of forest reserves not planted with conifers are maintained in natural hardwoods but it is unlikely that further hardwood plantations will be established except in small trial areas.

Plantations

Exotic softwoods accounted for approximately 98 per cent of the planted forest area at 30 June 1973.

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 has proved ideal for forestry activity, but the upper South East is not suitable for commercial forestry.

The following table clearly illustrates the overwhelming importance of one species, *Pinus radiata*, in the composition of South Australian forests.

The 97 hectares of 'Other' softwoods planted in State forests during 1972 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 1972 and Net Area of Plantations at 31 March 1973

Location	Planted during 1972			Plantations at 31 March 1973		
	Softwoods		Hard-woods	Softwoods		Hard-woods
	<i>Pinus Radiata</i>	Other Pinus		<i>Pinus Radiata</i>	Other Pinus	
Hectares						
State forests:						
South Eastern Region;						
Penola	17	—	—	12 058	1 931	1
Mount Burr	36	—	—	9 440	575	68
Mount Gambier	304	—	—	7 849	769	3
Myora	—	—	—	5 511	214	—
Caroline	306	51	—	5 809	624	—
Tantanoola	205	26	—	7 364	1 004	6
Comaum	20	—	—	2 714	306	7
Other	242	—	—	2 026	109	2
Total South Eastern	1 130	77	—	52 771	5 532	87
Central Region;						
Mount Crawford	341	11	—	4 724	369	39
Kuitpo	10	—	—	2 045	420	156
Second Valley	84	1	—	1 286	195	11
Total Central	435	12	—	8 055	984	206
Northern Region;						
Bundaleer	52	5	—	1 275	36	197
Wirrabara	68	—	—	1 583	67	54
Other	—	—	—	—	—	146
Total Northern	120	5	—	2 858	103	397
Murray Lands Region	—	—	—	—	6	49
Western Region	—	3	—	47	21	344
Waterworks reserves	31	—	—	1 003	113	1
Total State forests	1 716	97	—	64 731	6 759	1 084
Total private forests	623		—	16 573		118
Total forests	2 436		—	88 065		1 201

Forests, South Australia
Net Area of Plantations at 31 March

Location	1969	1970	1971	1972	1973
State forests:					
	Hectares				
South Eastern Region;					
Penola	13 205	13 528	13 891	14 037	13 989
Mount Burr	13 655	9 762	10 056	10 050	10 083
Mount Gambier	7 844	7 881	8 117	8 363	8 621
Myora	5 158	5 374	5 537	5 725	5 725
Caroline	4 858	5 398	5 852	6 076	6 434
Tantanoola	3 052	7 664	7 825	8 180	8 374
Comaum	2 770	2 927	2 986	3 006	3 027
Other	1 236	1 386	1 609	1 895	2 137
Total South Eastern	51 780	53 918	55 875	57 331	58 390
Central Region;					
Mount Crawford	3 645	3 807	3 987	4 282	5 131
Kuitpo	2 591	2 605	2 605	2 618	2 622
Second Valley	1 890	1 994	2 097	2 117	1 492
Total Central	8 127	8 407	8 690	9 017	9 245
Northern Region;					
Bundaleer	1 314	1 378	1 386	1 470	1 507
Wirrabara	1 454	1 544	1 598	1 636	1 703
Other	146	146	146	146	146
Total Northern	2 914	3 068	3 130	3 252	3 356
Murray Lands Region	55	55	55	55	55
Western Region	392	397	403	408	412
Waterworks reserves	899	972	1 024	1 085	1 117
Total State forests	64 167	66 817	69 177	71 148	72 575
Total private forests	16 823	16 172	15 964	16 445	16 691
Total forests	80 990	82 992	85 141	87 593	89 266

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.

FOREST ADMINISTRATION

State Forests

State forests are administered by the Woods and Forests Department, the head of which is 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 \$33 375 000 at 30 June 1973 of which \$19 775 000 was timber and land at net cost. The present value of the State pine forests is approximately \$75 million.

Private Forests

Private forests accounted for approximately 20 per cent of the planted area at 31 March 1973. Three private companies operating pine plantations in the South East control the bulk of private forest land, 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 1967-68 to 1971-72.

Forest Log Usage, South Australia

Year	Softwoods	Hardwoods
Cubic Metres		
1967-68	737 719	12 147
1968-69	774 649	12 786
1969-70	816 612	13 131
1970-71	874 569	10 424
1971-72	900 800	8 791

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.

PRODUCTION

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 some 680 persons in milling activities.

State Forestry Employees, South Australia

At 30 June

Classification	1969	1970	1971	1972	1973
Professional Staff:					
Foresters	37	37	44	49	53
Other	39	40	41	36	31
Non-professional field staff	30	28	30	27	31
Clerical staff	110	112	115	119	122
Labour (silvicultural forest works, etc.)	263	258	285	246	275
Total	479	475	515	477	512

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 expansion of *Pinus radiata* resources, as well as into forestry in general.

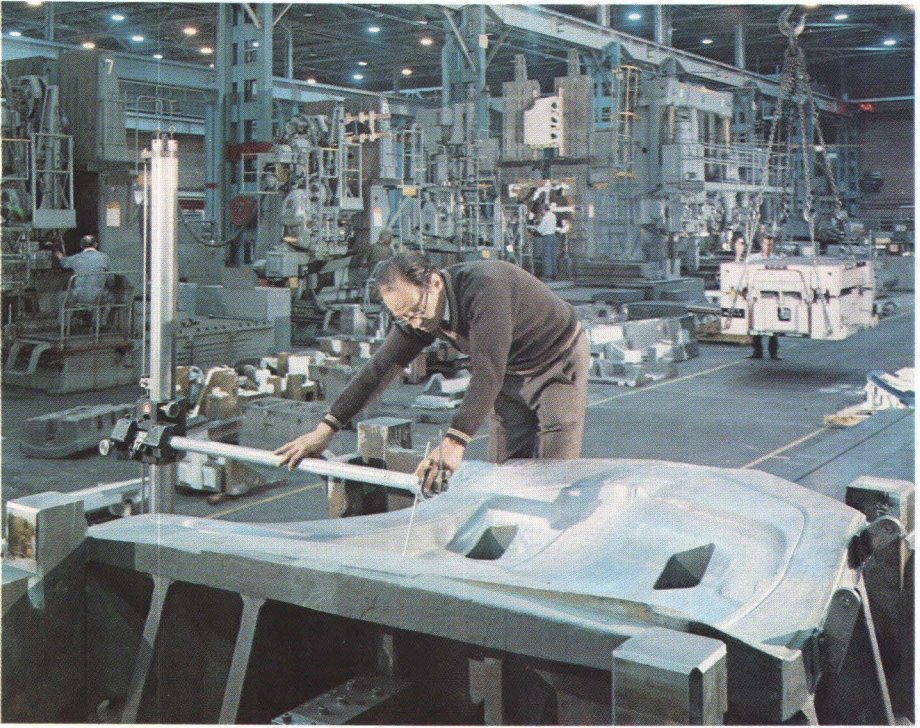
The Woods and Forests Department maintains its own research facilities and in addition combines with the Australian Forest Research Institute in operating a regional branch of the Institute at Mount Gambier. Certain aspects of forestry research are also undertaken by the Soils Division of the Commonwealth 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 fertilisers, both to stimulate growth and to bring into production land previously considered unsuitable, and the improvement of planting stock through selective breeding. Preventative research is concerned with the extremely important question of soil deterioration and with combating various diseases and pests. Permanent sample plots are maintained in departmental forests for research into various aspects of forest management.

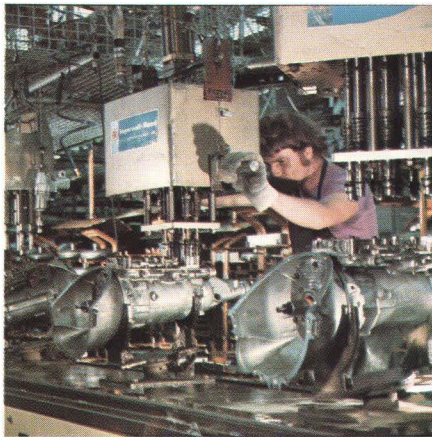
The Woods and Forests Department provides an advisory service in arboriculture and distributes, through its nurseries at Belair and Berri, a wide variety of trees which are suitable for planting in various climatic and soil conditions.

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.



General Motors-Holden's Pty Ltd
Toolmaker marking-up large die in toolroom machine shop of a motor vehicle manufacturer at Woodville



General Motors-Holden's Pty Ltd
Assembly of motor vehicle automatic transmissions at the Woodville Plant



Broken Hill Proprietary Co Ltd
Iron ore mining at Iron Monarch—a blast on an ore bench

Tapping one of the two furnaces in the Basic Oxygen Steel making (BOS) plant at Whyalla. Each has a capacity of 100 tonnes and a heat cycle of 45 minutes

Broken Hill Proprietary Co Ltd





Broken Hill Associated Smelters Pty Ltd
Ore smelting and refining at Port Pirie. Interior of Cell Room in Zinc Plant showing cathodes being removed for stripping

Export markets have been established for poly vinyl chloride (PVC) plumbing pipes and fittings and irrigation equipment. A container is loaded with PVC pipes

Iplex Plastics Ltd





South Australian Government Tourist Bureau
Cut logs are loaded in a softwood forest at Millicent

Southern Rock Lobster is caught off the South East coast and off Port Lincoln. A baited lobster
pot is cast

SAFCOL



Other protective measures include spraying to prevent the disorder known as 'die-back', exposing land before replanting to counteract the bark beetle which is only a problem on felled areas, 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.

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.

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.

FISHERMEN AND 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 \$17 140 000 in 1972-73.

The number of boats engaged in commercial fishing activities is shown in the following table.

PRODUCTION

Fishing: Persons and Equipment Engaged, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Boats engaged:					
Under 6 metres	1 851	1 171	1 488	<i>n.a.</i>	1 596
6 metres and under 9	472	345	388	<i>n.a.</i>	376
9 metres and under 12	139	138	153	<i>n.a.</i>	175
12 metres and under 15	78	82	81	<i>n.a.</i>	104
15 metres and under 18	30	29	31	<i>n.a.</i>	34
18 metres and under 21	11	12	10	<i>n.a.</i>	17
21 metres and over	10	7	11	<i>n.a.</i>	12
Total	2 591	1 784	2 162	1 652	2 314

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	1968-69	1969-70	1970-71	1971-72	1972-73
Marine:					
			'000 kg		
Australian salmon	796	1 404	1 039	1 881	799
Bream (black)	59	17	4	15	25
Garfish	431	435	259	459	552
Mullet	230	165	61	229	353
Mulloway	76	42	40	40	56
Ruff	189	224	80	277	241
Shark	1 926	2 132	2 109	1 480	390
Short finned pike	161	158	91	115	134
Snapper	360	483	356	528	516
Tuna	3 268	1 773	2 459	4 348	6 696
Whiting	864	964	834	714	959
Other marine species	237	345	760	182	383
Total	8 595	8 142	8 092	10 268	11 104
Freshwater:					
Golden perch (callop)	78	82	90	22	24
Murray cod	15	48	20	19	12
Bony bream	256	156	301	362	339
Tench	52	49	129	156	248
Catfish	21	18	24	23	15
Other freshwater species	39	39	59	47	47
Total	461	391	621	631	686
Total fish production	9 056	8 534	8 713	10 898	11 790

Tuna, salmon, shark, whiting, snapper and garfish are the most important marine species.

Tuna are taken in the waters south of Eyre Peninsula and Kangaroo Island. Occasional catches are taken beyond the continental shelf. Although purse-seining has been attempted, the only successful technique to date is pole fishing with live bait. The use of spotting aircraft has increased the efficiency of fishing operations. Most tuna are landed at Port Lincoln although occasional landings have been made at Port Adelaide.

Whiting are taken commercially in Spencer and St Vincent Gulfs, Investigator Strait and the West Coast bays. In many areas hand lining continues to provide profitable catches as this fish attracts a high price. In other areas of the gulfs and the West Coast large quantities of whiting and garfish are netted.

Shark fishing extends from the Victorian border in the east to Fowlers Bay in the far west. The main landing ports are the South East crayfish ports, Port Adelaide, Port Lincoln and Victor Harbor. Shark are taken by long line and, more recently, by mesh netting. Following the decline in shark catches in 1972 because of high concentrations of mercury in their tissues, fishermen have been encouraged to fish for scale fish and leatherjackets.

Snapper are taken by handline in the deeper waters of Spencer and St Vincent Gulfs and in the offshore waters of the Great Australian Bight.

Australian salmon provides useful off-season fishing for a number of tuna fishermen with the best catches being taken in Spencer Gulf and around Kangaroo Island. Most of these fish are landed at Port Lincoln for canning. In the South East large quantities of salmon trout are netted for crayfish bait. Of other species mulloy and snapper are highly regarded as table fish. Mulloy are netted in the River Murray Mouth area and snapper are taken by hand and long line in most areas of the State, and by netting in shallower parts of the gulfs and West Coast bays.

Approximately 150 part-time commercial fishermen using drum nets, gill nets and set lines are engaged in fishing on the River Murray and Lakes area. This is the only commercial source of fresh water fish in the State because of the general lack of permanent streams and lakes. The river has been sectioned into 'reaches' and 'reserves' and each commercial river fisherman is issued with a permit to fish a separate reach.

Production in 1960-61 was valued at \$1 610 000 and by 1972-73 had reached \$5 614 055, the gross values of the major species being:

	\$
Tuna	2 544 631
Whiting	1 443 630
Snapper	341 010
Garfish	340 477
Australian salmon	228 956
Shark	154 473
All other	560 878
	5 614 055

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. Since 1964-65 the value of southern rock lobster production has exceeded the value of scale fish species.

Rock Lobster Production, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Estimated gross weight (^{'000} kg)	2 234	2 077	2 232	2 252	2 958
Value (^{'000})	3 448	3 204	4 478	5 362	6 325

The prawn fishing industry operates in Spencer and St Vincent Gulfs and in the waters of the Great Australian Bight. In the 1972-73 season approximately 1 789 tonnes of prawns valued at \$2 997 000 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 1972-73 were valued at \$947 686.

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	1968-69	1969-70	1970-71	1971-72	1972-73
Gross (in shell) weight (^{'000} kg)	1 596	1 081	1 100	1 141	900
Value (^{'000})	422	405	653	796	655

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 programmes. Tuna, rock lobster, shark and abalone resources are being investigated by a joint Australian Government and States group consisting of the Division of Fisheries and Oceanography of the Commonwealth Scientific and Industrial Research Organization, 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 and abalone research programmes. All programmes 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 programmes. 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 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 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 programme 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 at the 1968-69 Census are not comparable with figures obtained from previous factory censuses. The 1969-70 and 1971-72 Censuses were also collected on the new basis. 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, 1934-1972 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, 1935-1972.

THE STRUCTURE AND LOCATION OF SECONDARY INDUSTRY

Industrialisation since the 1939-45 War has to a considerable extent 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, 1971-72(a)

Industry Subdivision	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Food, beverages and tobacco	225	11 943	43 432	227 359	84 216
Textiles	43	2 184	7 679	35 806	12 919
Clothing and footwear	103	4 194	10 131	32 016	17 061
Wood, wood products and furniture	420	5 937	18 505	80 532	33 499
Paper and paper products, printing	205	5 626	21 751	77 109	42 314
Chemical, petroleum and coal products	70	2 763	12 453	66 191	30 351
Non-metallic mineral products	120	3 716	15 918	74 776	37 607
Basic metal products	59	4 349	19 064	83 960	31 891
Fabricated metal products	399	11 254	42 522	156 327	71 452
Transport equipment	135	24 128	104 416	344 316	124 988
Other machinery and equipment	346	19 271	72 877	247 596	116 408
Miscellaneous manufacturing	247	5 414	19 585	66 973	31 244
Total manufacturing	2 372	100 779	388 333	1 492 960	633 949

(a) A map of the Adelaide Statistical Division is included on page 114.

Manufacturing Establishments: Summary of Manufacturing Operations by
Statistical Division, 1971-72

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Adelaide	2 372	100 779	388 333	1 492 960	633 949
Central	42	378	1 101	5 712	2 092
Kangaroo Island	4	9	14	63	34
Mount Lofty Ranges	164	3 541	11 024	78 308	28 757
Murray	118	2 804	9 491	66 668	25 062
South East	125	3 815	15 090	82 328	35 196
Eyre	36	595	1 835	10 139	4 218
Northern	110	9 636	42 408	205 149	73 569
Far North	8	19	43	175	96
Total State	2 979	121 576	469 339	1 941 500	802 975

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 1971-72 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 readily seen from this table. Thus, transport equipment accounted for 18 per cent of value added while fabricated metal products, machinery and equipment etc., accounted for 15 per cent. Employment in these industries was 22 per cent and 17 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.

**Manufacturing Establishments: Summary of Operations by Industry Subdivision
South Australia, 1971-72**

Industry Subdivision	Number of Establishments	Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Food, beverages and tobacco	457	17 810	63 219	375 090	134 463
Textiles	49	2 664	8 941	40 064	14 571
Clothing and footwear	106	4 275	10 262	32 326	17 221
Wood, wood products and furniture	524	8 071	25 693	115 365	47 760
Paper and paper products, printing	251	7 056	28 296	112 609	61 089
Chemical, petroleum and coal products	78	3 029	13 606	73 440	32 830
Non-metallic mineral products	173	4 145	17 572	86 429	43 199
Basic metal products	66	10 000	45 019	234 876	80 047
Fabricated metal products	463	11 924	45 064	168 674	77 727
Transport equipment	164	26 822	115 758	376 045	141 274
Other machinery and equipment	382	20 154	75 617	256 574	120 440
Miscellaneous manufacturing	266	5 626	20 292	70 007	32 354
Total manufacturing	2 979	121 576	469 339	1 941 500	802 975

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	1969-70		1971-72	
		South Australia	Australia	South Australia	Australia
Number of establishments at 30 June	number	2 977	35 676	2 979	36 145
Average employment:					
Male	number	94 601	950 069	96 194	954 817
Female	number	23 815	346 571	25 382	347 519
Wages and salaries	\$'000	385 779	4 328 612	469 339	5 257 482
Turnover	\$'000	1 764 380	20 686 158	1 941 500	23 642 784
Stocks, closing	\$'000	335 883	3 623 009	398 721	4 186 894
Value added	\$'000	714 579	8 261 744	802 975	9 736 391
Fixed capital expenditure	\$'000	77 066	1 030 658	87 787	1 297 782

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 1969-70 and 1971-72 are given in the following tables. In these years, females constituted 20.5 per cent 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 1973 working proprietors shown for 1971-72, nearly 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	1969-70			1971-72		
	Males	Females	Total	Males	Females	Total
Food, beverages and tobacco	11 608	4 659	16 267	12 661	5 149	17 810
Textiles	1 684	1 392	3 076	1 470	1 194	2 664
Clothing and footwear	1 100	3 121	4 221	1 033	3 242	4 275
Wood, wood products and furniture	6 663	979	7 642	6 947	1 124	8 071
Paper and paper products, printing	5 087	1 750	6 837	5 224	1 832	7 056
Chemical, petroleum and coal products	2 785	575	3 360	2 488	541	3 029
Non-metallic mineral products	3 645	358	4 003	3 762	383	4 145
Basic metal products	9 284	601	9 885	9 326	674	10 000
Fabricated metal products	9 165	1 746	10 911	9 530	2 394	11 924
Transport equipment	25 222	1 618	26 840	25 107	1 715	26 822
Other machinery and equipment	15 225	5 459	20 684	14 858	5 296	20 154
Miscellaneous manufacturing	3 133	1 557	4 690	3 788	1 838	5 626
Total manufacturing	94 601	23 815	118 416	96 194	25 382	121 576

Manufacturing Establishments: Average Number of Persons Employed by Type of Employment, South Australia

Industry Subdivision	1969-70			1971-72		
	Working Proprietors	Employees	Total	Working Proprietors	Employees	Total
Food, beverages and tobacco	268	15 999	16 267	277	17 533	17 810
Textiles	23	3 053	3 076	26	2 638	2 664
Clothing and footwear	86	4 135	4 221	69	4 206	4 275
Wood, wood products and furniture	436	7 206	7 642	484	7 587	8 071
Paper and paper products, printing .	158	6 679	6 837	169	6 887	7 056
Chemical, petroleum and coal products	26	3 334	3 360	22	3 007	3 029
Non-metallic mineral products	85	3 918	4 003	73	4 072	4 145
Basic metal products	30	9 855	9 885	24	9 976	10 000
Fabricated metal products	269	10 642	10 911	298	11 626	11 924
Transport equipment	110	26 730	26 840	99	26 723	26 822
Other machinery and equipment . . .	182	20 502	20 684	192	19 962	20 154
Miscellaneous manufacturing	178	4 512	4 690	240	5 386	5 626
Total manufacturing	1 851	116 565	118 416	1 973	119 603	121 576

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 45 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, 1971-72

Industry Subdivision	Salaries and Wages Paid to			Total Usage of Materials, Electricity and Fuels, Containers, Etc.
	Administrative, Office, Sales and Distribution Employees	Production and All Other Workers	All Employees	
			\$'000	
Food, beverages and tobacco	20 159	43 060	63 219	209 631
Textiles	1 897	7 044	8 941	23 071
Clothing and footwear	2 044	8 218	10 262	12 490
Wood, wood products and furniture	5 402	20 292	25 693	54 599
Paper and paper products, printing .	10 197	18 099	28 296	40 347
Chemical, petroleum and coal products	5 507	8 100	13 606	31 664
Non-metallic mineral products	4 813	12 759	17 572	32 066
Basic metal products	12 914	32 105	45 019	130 629
Fabricated metal products	11 746	33 318	45 064	73 908
Transport equipment	25 339	90 418	115 758	227 589
Other machinery and equipment . . .	21 104	54 513	75 617	115 869
Miscellaneous manufacturing	5 033	15 259	20 292	31 513
Total manufacturing	126 156	343 183	469 339	983 375

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^(a)

Item	Units of Quantity	1969-70			1971-72		
		Production	Sales and	Transfers	Production	Sales and	Transfers
		Quantity	Quantity	Value	Quantity	Quantity	Value
							\$'000
Aerated and carbonated waters, bottled and canned	'000 l	68 519	72 132	12 116	85 386	75 430	15 111
Bacon and ham	'000 kg	4 973	4 946	8 372	5 096	4 987	8 681
Barrels, kegs, vats, drums and tanks	..	..	..	4 241	..	..	3 858
Batteries, wet cell (automotive), 12 volt, rebuilt	number	8 159	8 159	95	9 014	9 009	107
Blinds and awnings:							
Metal venetian	..	..	..	414	..	..	421
Outdoor, canvas	..	..	..	576	..	..	684
Outdoor, metal	..	..	..	538	..	..	4 923
Brandy	'000 l	2 891	3 414	4 756	3 840	3 603	4 923
Bricks, clay	'000	111 343	112 839	5 653	137 532	134 819	7 466
Butter, from cream (excl. that from whey cream)	'000 kg	7 750	7 543	n.a.	6 196	5 502	n.a.
Butter, total value	..	..	..	16 040	..	..	4 527
Cakes, pastry, pies and puddings (not canned)	..	..	..	11 829	..	..	13 443
Cheese, cheddar, green wt.	'000 kg	17 294	17 139	n.a.	16 805	17 409	n.a.
Chickens	'000 kg	6 163	6 152	5 294	10 837	10 921	9 917
Fertilisers, manures (of blood, bone and/or offal)	tonnes	5 221	5 217	307	4 323	4 320	256
Floorboards, Australian timbers	m ³	39 810	40 614	2 761	40 758	40 517	3 181
Flour, white	tonnes	107 582	109 238	10 496	98 109	108 332	11 377
Fluorescent light fittings	..	..	..	3 216	..	..	2 620
Fruit, crystallised and glace	'000 kg	750	693	617	623	891	931
Fruit juice	'000 l	3 650	3 879	1 240	3 611	2 913	924
Furniture:							
Sheet metal	..	..	..	3 162	..	..	3 252
Wooden	..	..	..	12 523	..	..	16 386
Gloves, work	doz. pairs	87 585	83 045	591	82 474	96 746	667
Hot water systems, electric	number	9 481	9 509	644	9 379	n.a.	n.a.
Ice	tonnes	20 805	20 690	358	20 008	18 354	293
Ice cream	'000 l	n.a.	n.a.	n.a.	16 669	n.a.	n.a.
Machinery:							
Conveyors and appliances	..	..	..	3 636	..	..	4 328
Hoists, cranes, lifting machinery	..	..	..	3 376	..	..	2 514
Mining and drilling	..	..	..	3 632	..	..	9 001
Pumping	..	..	..	2 824	..	..	1 966
Mattresses, innerspring	number	69 532	69 551	1 247	62 310	61 991	1 034
Newspapers and periodicals printed and published	..	..	..	5 860	..	..	8 308

Selected Articles Produced: South Australia, 1969-70 and 1971-72^(a) (continued)

Item	Units of Quantity	1969-70			1971-72		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
				\$ 000			\$ 000
Paints:							
Architectural and decorative;							
Primers and under-coats	'000 l	670	608	540	712	704	653
Finishing coats . . .	'000 l	1 576	1 535	1 538	1 706	1 660	1 862
Industrial;							
Primers and under-coats	'000 l	1 513	1 502	1 117	<i>n.a.</i>	1 495	1 212
Finishing coats . . .	'000 l	2 836	2 802	2 673	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Plaster, fibrous	m ²	287 588	284 199	337	216 052	225 859	454
Ready mixed concrete . .	m ³	766 016	766 016	12 583	901 655	924 959	15 754
Smallgoods . . . . .	..	..	..	10 515	..	..	11 713
Steam, gas and water fittings . . . . .	..	..	..	3 302	..	..	2 861
Steel, fabricated constructional	tonnes	43 694	43 658	12 577	76 950	79 082	22 624
Tallow, inedible	'000 kg	16 410	16 757	1 999	27 100	26 996	3 436
Tarpaulins . . . . .	..	..	..	373	..	..	184
Tents, flys and marquees	..	..	..	945	..	..	<i>n.a.</i>
Window frames, aluminium . . . . .	..	..	..	4 199	..	..	4 967
Wine:							
Fortified	'000 l	40 362	41 035	14 626	35 640	37 756	16 256
Unfortified	'000 l	63 628	58 641	21 758	63 473	51 900	24 202

(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.

Motor Vehicles

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.

PRODUCTION

Motor Vehicles and Parts, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		\$'000			
			1969-70			
Adelaide	101	20 605	73 715	215 824	335 018	128 866
Other	5	11	15	58	106	48
Total	106	20 616	73 730	215 882	335 124	128 914
			1971-72			
Adelaide	94	21 074	92 430	210 152	318 269	112 391
Other	6	18	40	115	187	72
Total	100	21 092	92 470	210 267	318 457	112 464

Basic Iron and Steel

Since the turn of the century most of the iron ore used in the Australian steel industry has come from the Middleback Ranges, inland from Whyalla. In 1941, with the installation of a blast furnace, Whyalla became the major source of Australia's foundry iron but this changed in 1965 when the steel mill was opened and the hot metal was fed directly into the steel works.

There are a number of large pipe and tube making firms located in and near Adelaide. These firms accounted for more than 20 per cent of the Australian output of ferrous pipes, tubes, and fittings. Statistics for these plants are also 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			
			1969-70			
Adelaide	34	3 888	14 258	36 190	58 065	23 688
Other	4	3 593	14 439	72 089	98 043	28 528
Total	38	7 481	28 697	108 279	156 108	52 216
			1971-72			
Adelaide	34	3 833	17 084	39 385	67 572	27 352
Other	5	3 899	17 360	64 357	86 135	21 940
Total	39	7 732	34 444	103 742	153 706	49 293

Appliances and Electrical Machinery

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, waterheating systems, batteries and other electrical machinery.

Appliances and Electrical Equipment, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		1969-70		\$'000	
Adelaide	123	13 997	44 022	90 894	159 507	72 510
Other	8	151	288	434	1 146	730
Total	131	14 148	44 310	91 328	160 653	73 240
	Number		1971-72		\$'000	
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

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. The activities of one establishment include the printing and binding of a wide range of books for both Australian and overseas publishers.

Printing and Publishing, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number		1969-70		\$'000	
Adelaide	169	4 566	15 202	16 778	45 416	28 880
Other	42	369	1 029	648	2 643	2 013
Total	211	4 935	16 231	17 426	48 059	30 893
	Number		1971-72		\$'000	
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

Wine and Brandy

Winemaking has been established in this State for a long period. It employs both modern technology and traditional skills and in 1972-73 South Australia accounted for more than 65 per cent of the total production of Australian wineries and distilleries. Principal production areas are the Barossa Valley, the Upper Murray irrigation areas and the districts south of Adelaide. An extensive review of the South Australian wine industry was included on pages 376-95 of the *South Australian Year Book* 1968.

PRODUCTION

Wine and Brandy, South Australia

Statistical Division	Number of Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
1969-70						
Adelaide	27	510	1 547	9 747	13 757	5 689
Other	48	1 479	4 040	27 231	37 352	14 297
Total	75	1 989	5 587	36 978	51 109	19 986
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

COMMERCE

10.1 INTERNAL TRADE

Extensive statistics of retail trade have been collected and published over many years. The first full census of wholesale trade, however, was conducted as part of the integrated Economic Censuses of 1968-69, outlined briefly below. For a detailed description of these censuses, reference should be made to the *South Australian Year Book* 1971 pages 446-57.

ECONOMIC CENSUSES, 1968-69

For the year ended 30 June 1969 the censuses of wholesale trade, and of retail trade and selected services, were conducted for the first time on an integrated basis with censuses of mining, manufacturing and electricity and gas production and distribution. The integration of these Economic Censuses was designed to increase substantially the usefulness and comparability of the kinds of statistics already being collected and published by the Bureau and to form a basis for the sample surveys which supply current economic statistics from quarter to quarter, particularly those which provide data for the quarterly national income and expenditure estimates.

The integration of these Economic Censuses meant that for the first time they were being collected on the basis of a common framework of reporting units and data concepts and in accordance with a standard industrial classification. As a result, the statistics for the industries covered by the censuses are now provided with no overlapping or gaps in scope, and in such a way that aggregates for certain important and economic data such as value added, employment, salaries and wages, fixed capital expenditure and stocks can be obtained on a consistent basis for all sectors of the economy covered by the censuses.

The standardisation of census units in the integration of Economic Censuses means that the basic census unit (the establishment) in general now covers all

the operations carried on under the one ownership at a single physical location. A retail establishment is thus one predominantly engaged in retailing, and a wholesale establishment one predominantly engaged in wholesaling, but the data supplied for them now cover, with a few exceptions, all activities at the location.

Establishment statistics, other than the number of establishments, also include data relating to separately located administrative offices and ancillary units serving the establishment and forming part of the business (enterprise) which owns and operates the establishment. These units, such as head offices, storage premises, transport depots and motor vehicle repair and maintenance workshops, were formerly excluded from censuses.

WHOLESALE TRADE

The term wholesale trade is 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. Each establishment is identified in terms of a particular location and all sales, employment etc., are recorded for that location regardless of the size of the sales territory covered, *i.e.* the location of customers. For this reason, all of the sales etc., of the wholesale establishments located in South Australia are credited to South Australia even though the sales territories may extend over several States.

In the tables which follow, establishments have been classified in accordance with the Australian Standard Industry Classification (ASIC). Each ASIC class is defined in terms of a specified range of economic activities designated as primary to that class and an establishment which is engaged mainly in economic activities designated as primary to a particular class is classified to that class whether or not that establishment is also engaged in other secondary activities.

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.

**Wholesale Establishments: Employment and Wages and Salaries, by Industry
Class South Australia, 1968-69**

Industry Class	Establishments Operating 30 June 1969	Persons Employed (a)			Wages and Salaries
		Males	Females	Persons	
		Number			\$'000
General wholesalers	59	799	369	1 168	3 065
Wool selling brokers, stock and station agents and farm suppliers	310	2 690	714	3 404	9 641
Wool buyers and farm products wholesalers, n.e.c.	89	604	129	733	1 949
Petroleum and petroleum products wholesalers	206	1 713	305	2 018	6 900
Metals and minerals wholesalers, n.e.c.	19	93	31	124	319
Chemicals and allied products wholesalers, n.e.c.	57	203	71	274	871
Agricultural and construction machinery dealers	261	1 559	349	1 908	4 847
Tyres and motor vehicle parts wholesalers	107	1 777	543	2 320	5 876
Professional and scientific equipment wholesalers	32	193	94	287	746
Dealers in business machines including computers	40	635	215	850	2 845
Electrical, electronic equipment wholesalers, n.e.c.	108	833	277	1 110	3 172
Industrial machinery and equipment wholesalers, n.e.c.	177	1 292	450	1 742	5 766
Timber wholesalers	54	480	86	566	1 565
Dealers in builders hardware and materials, n.e.c.	404	2 950	998	3 948	9 537
Household appliances, radio and television wholesalers	54	526	247	773	2 299
China, glassware and domestic hardware whole- salers	41	139	84	223	498
Furniture and floor coverings wholesalers	48	166	104	270	629
Mens and boys clothing wholesalers	50	146	70	216	490
Womens and girls and infants clothing whole- salers	79	175	136	311	671
Footwear wholesalers	19	72	34	106	247
Textile and textile products wholesalers, n.e.c.	83	545	265	810	2 091
Meat wholesalers	32	265	40	305	894
Poultry, smallgoods and dairy products whole- salers	64	365	136	501	1 185
Fruit and vegetable wholesalers	100	739	458	1 197	2 437
Fish wholesalers	38	230	221	451	954
Eggs wholesalers	6	55	78	133	310
Confectionery and soft drinks wholesalers	44	242	97	339	808
Beer, wine and spirits wholesalers	33	344	139	483	1 308
Cigarettes, cigars and tobacco wholesalers	18	247	68	315	1 022
Groceries and food wholesalers, n.e.c.	113	1 137	641	1 778	4 405
Photographic equipment and supplies whole- salers	17	126	75	201	511
Watches, clocks and jewellery wholesalers	54	117	73	190	332
Toys and sporting goods wholesalers	37	162	77	239	396
Books, periodicals, paper and paper products wholesalers	81	655	345	1 000	2 639
Pharmaceuticals and toilet preparations whole- salers	96	683	369	1 052	2 621
Wholesalers, n.e.c.	129	836	281	1 117	3 184
Total wholesale trade	3 159	23 793	8 669	32 462	87 029

(a) At 30 June 1969; includes working proprietors.

Wholesale Establishments: Summary of Operations, by Industry Class
South Australia, 1968-69

Industry Class	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses	Value Added (a)
		1968	1969		
		\$'000			
General wholesalers	32 584	5 674	5 391	27 061	5 240
Wool selling brokers, stock and station agents and farm suppliers	67 965	6 596	6 894	50 978	17 286
Wool buyers and farm products wholesalers, n.e.c.	70 288	5 238	8 501	64 065	9 486
Petroleum and petroleum products wholesalers	173 536	12 923	11 596	128 739	43 470
Metals and minerals wholesalers, n.e.c.	7 165	842	1 193	6 655	860
Chemicals and allied products wholesalers, n.e.c.	14 121	2 682	2 347	11 553	2 833
Agricultural and construction machinery dealers	60 618	11 622	11 302	47 654	12 644
Tyres and motor vehicle parts wholesalers	65 063	9 395	10 848	54 313	12 203
Professional and scientific equipment wholesalers	6 568	1 266	1 375	4 872	1 804
Dealers in business machines including computers	12 436	2 467	2 319	5 292	6 997
Electrical, electronic equipment wholesalers, n.e.c.	40 862	4 781	5 933	34 513	7 501
Industrial machinery and equipment wholesalers, n.e.c.	66 277	10 523	11 222	54 637	12 340
Timber wholesalers	26 118	3 023	2 922	22 461	3 556
Dealers in builders hardware and materials, n.e.c.	84 732	11 637	12 269	66 494	18 870
Household appliances, radio and television wholesalers	51 573	6 269	7 378	46 719	5 963
China, glassware and domestic hardware whole- salers	5 595	1 104	1 033	4 292	1 232
Furniture and floor coverings wholesalers	6 288	668	699	4 940	1 379
Mens and boys clothing wholesalers	4 751	472	473	3 649	1 103
Womens and girls and infants clothing whole- salers	5 658	694	627	3 995	1 597
Footwear wholesalers	3 122	243	280	2 452	706
Textile and textile products wholesalers, n.e.c.	28 853	5 265	5 024	23 926	4 686
Meat wholesalers	27 276	709	657	24 699	2 525
Poultry, smallgoods and dairy products wholesalers	23 371	612	1 144	21 480	2 424
Fruit and vegetable wholesalers	29 174	523	461	24 286	4 825
Fish wholesalers	17 115	982	821	13 312	3 643
Eggs wholesalers	9 596	212	271	8 733	922
Confectionery and soft drinks wholesalers	14 922	940	1 032	12 514	2 500
Beer, wine and spirits wholesalers	20 313	3 127	3 145	16 335	3 995
Cigarettes, cigars and tobacco wholesalers	32 409	1 357	1 483	30 247	2 289
Groceries and food wholesalers, n.e.c.	95 759	6 783	6 693	83 780	11 890
Photographic equipment and supplies whole- salers	6 165	628	707	4 229	2 015
Watches, clocks and jewellery wholesalers	5 242	946	1 079	4 057	1 319
Toys and sporting goods wholesalers	4 060	744	768	3 149	935
Books, periodicals, paper and paper products wholesalers	24 982	3 719	4 234	20 282	5 214
Pharmaceutical and toilet preparations whole- salers	31 963	3 286	3 289	25 768	6 196
Wholesalers, n.e.c.	50 369	7 829	8 915	44 609	6 846
Total wholesale trade	1 226 889	135 779	144 923	1 006 742	229 291

(a) 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 is 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 Census of Retail Trade for 1968-69 included the following types of service establishments in its scope in addition to establishments classified to retail trade: 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.

Some changes in the scope of the Retail Census have been made for reasons connected with the introduction of a standard industrial classification; for example, bread vending and milk vending by independent vendors mainly engaged in retailing bread or milk by home delivery service are included for the first time.

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 Sales made by Retail, Selected Service, Manufacturing, Mining, Wholesale
and Electricity and Gas Establishments, South Australia, 1968-69**

Commodity Group	Establish- ments	Retail Sales of Goods		
		Total	Sales per Establish- ment	Sales per Head of Population
		No.	\$'000	\$
Groceries	3 288	128 063	38 949	113.19
Fresh meat	1 369	53 018	38 728	46.86
Fresh fruit and vegetables	1 669	22 336	13 383	19.74
Bread, cakes and pastries	2 486	20 799	8 366	18.38
Delivered bread	36	5 792	160 889	5.12
Delivered milk	530	12 598	23 770	11.14
Fresh and/or cooked fish, chips, hamburgers, etc.	845	6 866	8 125	6.07
Confectionery, ice-cream, soft drinks, wrapped lunches	4 132	35 656	8 629	31.52
Beer, wine and spirits	922	80 412	87 215	71.07
Cigarettes and other tobacco products	5 576	31 622	5 671	27.95
Furniture, mattresses, blinds, etc. including installation and repairs	450	23 351	51 891	20.64
Floor coverings, carpets, lino, etc., laying of floor coverings	264	12 668	47 985	11.20
Fabrics, piece goods, manchester, blankets, soft furnish- ings, etc.	906	24 619	27 173	21.76
Clothing, mens and boys	918	34 265	37 326	30.29
Clothing, womens, girls and infants	1 179	58 403	49 536	51.62
Footwear, mens and boys	828	7 568	9 140	6.69
Footwear, womens, girls and infants	732	13 067	17 851	11.55
Radio, radiograms, tape recorders, etc.	421	6 243	14 829	5.52
Musical instruments, records, etc.	254	3 692	14 535	3.26
Television sets and accessories	358	5 824	16 268	5.15
Domestic refrigerators and freezers	335	7 626	22 764	6.74
Washing machines, stoves, household heating appliances, etc.	384	12 638	32 911	11.17
Other household appliances	643	11 070	17 216	9.78
Domestic hardware, china, glassware (including garden equipment)	1 658	18 890	11 393	16.70
Petrol, oils and motor lubricants, etc.	1 917	55 775	29 095	49.30
Motor vehicles	417	103 797	248 914	91.74
New parts and accessories for motor vehicles	1 478	16 491	11 158	14.58
Used motor vehicles	574	69 296	120 725	61.25
Used parts and accessories for motor vehicles	255	2 229	8 741	1.97
New and used motor cycles, motor scooters	135	2 054	15 215	1.82
New and used motor tyres, tubes and batteries	1 489	20 769	13 948	18.36
Boats, outboard motors, caravans	102	5 651	55 402	4.99
Cosmetics, perfumes, toilet preparations, etc.	2 066	13 305	6 440	11.76
Patent medicines and therapeutic appliances	1 352	11 619	8 594	10.27
Prescription medicines	528	13 920	26 364	12.30
Photographic equipment and supplies	771	4 086	5 300	3.61
Watches, clocks, jewellery and silverware	694	8 120	11 700	7.18
Sporting goods, bicycles, toys, etc.	1 054	10 389	9 857	9.18
Books, stationery and newspapers	1 990	24 505	12 314	21.65
Antiques, disposal goods, secondhand goods (excluding traded-in goods)	203	3 167	15 601	2.80
Cut flowers, garden seeds, shrubs, etc.	366	2 920	7 978	2.58
Travel goods, brief cases, etc.	341	1 488	4 364	1.32
Bottled liquified petroleum gas	160	1 616	10 100	1.43
Other	706	7 159	10 140	6.33

Retail Establishments: Employment and Wages and Salaries, by Industry Class
South Australia, 1968-69

Industry Class	No. of Establishments at 30 June 1969	Persons Employed (a)			Wages and Salaries \$'000
		Males	Females	Total	
Department stores	15	3 198	6 356	9 554	17 787
Variety and general stores	281	853	1 871	2 724	3 992
Supermarkets	79	1 235	2 129	3 364	5 337
Grocers and tobacconists	2 047	2 703	4 640	7 343	5 494
Butchers	1 001	2 607	550	3 157	5 024
Fruit and vegetable stores	465	634	1 217	1 851	1 349
Liquor stores	44	64	54	118	128
Confectionery and soft drink stores	701	817	2 064	2 881	1 826
Fish, chips and hamburger shops	311	413	557	970	418
Bread and cake shops	239	295	801	1 096	1 154
Bread vendors	25	120	17	137	286
Milk vendors	529	907	338	1 245	205
Furniture and floor coverings stores	172	995	445	1 440	3 107
Fabric and household textile stores	180	170	449	619	764
Men's and boys' wear stores	227	618	357	975	1 370
Women's, girls' and infants' wear stores	509	231	1 626	1 857	2 383
Footwear stores	203	354	579	933	1 147
Shoe repairers	127	183	42	225	206
Household appliance stores	292	1 387	669	2 056	5 193
Household electric appliance repairers	90	465	144	609	1 468
China, glassware and domestic hardware stores	158	235	292	527	665
Watchmakers and jewellers	207	344	324	668	943
Musical instrument and record stores	47	107	90	197	293
New motor vehicle dealers and motor vehicle repairers	857	5 790	1 292	7 082	16 099
Used motor vehicle and parts dealers	238	1 296	219	1 515	3 873
Tyre and battery retailers and tyre retreads	141	1 100	143	1 243	3 215
Service stations	943	3 327	1 156	4 483	5 154
Smash repair workshops	332	1 364	214	1 578	2 958
Motor cycle dealers	39	220	50	270	500
Boat and caravan dealers	50	173	50	223	481
Pharmacies	559	931	1 632	2 563	4 292
Photographic equipment stores	27	65	33	98	156
Sporting goods, bicycle and toy stores	189	334	244	578	631
Newsagents, stationers and booksellers	378	1 029	770	1 799	1 493
Antique and secondhand goods dealers	143	220	134	354	359
Nurserymen and florists	116	153	281	434	445
Retailers, n.e.c.	154	324	326	650	965
Total retail establishments	12 115	35 261	32 155	67 416	101 157
Motion picture theatres	109	644	537	1 181	1 368
Cafes and restaurants	231	579	1 334	1 913	2 310
Licensed hotels, motels and wine saloons	640	4 940	4 683	9 623	16 662
Licensed bowling and golf clubs	15	146	42	188	389
Licensed clubs, n.e.c.	37	273	189	462	722
Laundries and dry cleaners	154	495	1 092	1 587	2 964
Men's hairdressing	226	320	42	362	180
Women's hairdressing and beauty salons	720	315	2 244	2 559	2 530
Total selected service establishments	2 132	7 712	10 163	17 875	27 125
Total retail and selected service establishments	14 247	42 973	42 318	85 291	128 283

(a) At 30 June 1969; includes working proprietors and unpaid helpers.

Retail Establishments: Summary of Operations, by Industry Class
South Australia, 1968-69

Industry Class	Turnover	Stocks at 30 June		Purchases, Transfers In and Selected Expenses	Value Added (a)
		1968	1969		
			\$'000		
Department stores	125 161	16 158	18 285	92 252	35 036
Variety and general stores	36 058	6 358	6 525	28 429	7 795
Supermarkets	66 355	3 623	4 100	56 683	10 149
Grocers and tobacconists	111 421	8 021	8 912	93 939	18 373
Butchers	48 989	585	633	36 845	12 192
Fruit and vegetable stores	16 728	234	257	12 959	3 792
Liquor stores	2 015	243	288	1 591	469
Confectionery and soft drink stores	24 659	971	1 111	19 374	5 424
Fish, chips and hamburger shops	6 859	137	177	5 016	1 883
Bread and cake shops	7 878	180	220	5 475	2 443
Bread vendors	1 873	4	5	1 323	551
Milk vendors	12 946	7	10	10 386	2 564
Furniture and floor coverings stores	26 770	4 155	4 778	19 672	7 721
Fabric and household textile stores	6 772	1 463	1 513	4 918	1 904
Men's and boys' wear stores	11 112	2 956	3 173	7 946	3 383
Women's, girls' and infants' wear stores	21 035	4 876	4 645	15 086	5 718
Footwear stores	10 320	3 216	3 191	7 433	2 863
Shoe repairers	982	72	75	376	609
Household appliance stores	44 032	6 333	6 720	30 724	13 695
Household electric appliance repairers	3 828	340	275	1 500	2 263
China, glassware and domestic hardware stores	6 188	1 379	1 415	4 629	1 595
Watchmakers and jewellers	7 075	2 331	2 607	4 544	2 807
Musical instrument and record stores	2 277	467	591	1 638	763
New motor vehicle dealers and motor vehicle repairers	202 441	19 158	20 938	163 323	40 898
Used motor vehicle and parts dealers	53 346	5 581	6 799	44 387	10 177
Tyre and battery retailers and tyre retreads	22 274	2 825	3 182	16 578	6 052
Service stations	64 880	2 662	2 827	51 415	13 630
Smash repair workshops	10 168	356	364	4 452	5 724
Motor cycle dealers	3 737	785	802	2 689	1 065
Boat and caravan dealers	6 019	781	843	4 914	1 167
Pharmacies	31 287	4 981	5 433	20 800	10 939
Photographic equipment stores	1 458	284	278	935	517
Sporting goods, bicycle and toy stores	6 347	1 518	1 742	4 627	1 944
Newsagents, stationers and booksellers	17 929	2 352	2 264	13 302	4 539
Antique and secondhand goods dealers	3 004	554	629	2 039	1 040
Nurserymen and florists	2 819	180	199	1 686	1 151
Retailers, n.e.c.	4 456	344	429	2 051	2 490
Total retail establishments	1 031 499	106 471	116 236	795 937	245 327
Motion picture theatres	5 738	52	53	2 321	3 418
Cafes and restaurants	10 084	240	259	5 270	4 833
Licensed hotels, motels and wine saloons	94 934	3 171	3 322	58 675	36 410
Licensed bowling and golf clubs	1 182	27	29	601	783
Licensed clubs, n.e.c.	2 960	127	138	1 414	1 357
Laundries and dry cleaners	6 570	120	123	1 305	5 268
Men's hairdressing	1 330	56	64	415	923
Women's hairdressing and beauty salons	6 730	186	224	1 389	5 379
Total selected service establishments	129 529	3 979	4 212	71 390	58 371
Total retail and selected service establishments	1 161 027	110 451	120 448	867 327	303 698

(a) Sales and other operating revenue *plus* increase (or *less* decrease) in the value of stocks, *less* purchases, transfers in and selected expenses.

**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

The following table shows the value of retail sales of goods in South Australia in broad commodity groups in each of the years 1967-68 to 1971-72.

Value of Retail Sales: Commodity Groups, South Australia^(a)

Commodity Group	Value of Retail Sales of Goods				
	1967-68	1968-69	1969-70	1970-71	1971-72
	\$ million				
Groceries	106.4	115.6	122.1	129.2	142.0
Butchers meat	50.2	52.9	56.2	59.0	64.4
Other food	94.7	97.0	103.7	108.3	116.6
Total food and groceries	251.3	265.5	282.0	296.5	323.0
Beer, wine and spirits	71.7	77.6	84.7	92.0	99.5
Clothing, drapery, etc.	113.2	118.5	124.7	135.0	141.9
Footwear	18.9	20.1	21.6	23.2	24.1
Hardware, china, etc.	16.6	18.5	20.0	23.3	25.2
Electrical goods	42.4	44.8	47.9	52.9	60.1
Furniture and floor coverings	31.5	34.8	40.8	43.6	48.3
Chemist goods (b)	36.1	39.2	41.6	44.9	50.5
Other goods (c)	81.9	87.9	99.0	107.4	118.3
Total excluding motor vehicles, etc.	663.6	706.9	762.3	818.8	890.9
Motor vehicles, parts, petrol, etc.	242.0	261.1	285.7	297.6	322.5
Total	905.6	968.0	1 048.0	1 116.4	1 213.4

(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.

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.

Total retail sales (excluding motor vehicles etc.) in 1972-73 were \$1 021 million. Details for commodities are not available.

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 Customs and Excise 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 and 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 and 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 1959-1973* 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 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 insures are '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 issues 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 is necessary to obtain business in the face of overseas competition. The Corporation is now 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.

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 421).

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 (1957), Philippines (1965), Republic of Korea (1965), USSR (1965, 1973), Bulgaria (1966), Poland (1966), Hungary (1967), Romania (1967), Yugoslavia (1970), Czechoslovakia (1972), Indonesia (1972) and the People's Republic of China (1973). 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 the Commonwealth of Australia*.

METHOD OF RECORDING IMPORTS AND EXPORTS

Overseas trade statistics are compiled from documents obtained under the *Customs Act* 1901-1973. 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 1972-73, \$200.0 million, was \$10.2 million above the level of 1971-72. Increases in the imports of wood and timber and machinery, other than electric, more than offset a decrease in the imports of iron and steel.

During 1972-73 Japan supplied \$41.0 million of imports, \$12.3 million more than in 1971-72 (the main increases were in imports of road motor vehicles and parts in the 'transport equipment' commodity group) and displaced United Kingdom as the most important source of imports.

The level of imports from United Kingdom fell from \$43.3 million in 1971-72 to \$35.0 million in 1972-73.

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 1972-73 accounted for 20.5 per cent; United Kingdom which supplied over half of imports in 1953-54 accounted for only 17.5 per cent in 1972-73; 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 15.1 per cent in 1972-73.

Overseas Imports to South Australia, Principal Countries

Country of Origin	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Canada	21 698	14 818	11 737	10 265	9 253
France	2 002	2 208	2 560	2 150	2 910
Germany, Federal Republic of	8 404	10 047	9 229	10 534	11 855
India	1 910	1 913	1 865	2 481	1 649
Italy	4 082	3 576	3 747	3 698	3 765
Japan	25 945	21 667	28 643	28 612	40 955
Malaysia	1 685	2 749	1 977	1 944	3 169
Netherlands	6 042	5 396	5 707	7 420	4 199
New Zealand	2 749	3 683	3 194	3 502	3 795
Saudi Arabia	21 490	19 032	17 886	17 022	15 490
Sweden	1 915	2 346	2 558	2 047	2 273
Switzerland	1 980	2 492	1 841	2 195	2 438
United Kingdom	45 973	43 252	49 789	43 330	34 981
United States of America	63 435	43 266	34 348	27 473	30 152
Other	22 646	24 777	23 276	27 076	33 096
Total	231 956	201 223	198 358	189 748	199 978

The following table shows, by commodity groups the imports from principal countries during the year 1972-73. In comparison with 1971-72, imports of transport equipment (mainly road motor vehicles and parts) from Japan increased by \$8.6 million to \$15.3 million while similar imports from the United Kingdom and the United States of America fell by \$4.9 million to \$3.6 million and \$2.3 million to \$3.7 million respectively. Imports from the United States of America of machinery, other than electric, and wood and timber increased by \$3.6 million to \$10.1 million and \$1.4 million to \$2.3 million respectively.

Imports of iron and steel from Japan fell by \$0.7 million to \$5.7 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, 1972-73**

Commodity Group	Canada	Germany, Federal Republic of	Japan	United Kingdom	USA	Total (a)
	\$'000					
Food and live animals:						
Fish and fish preparations	67	26	728	364	26	2 192
Coffee, tea, cocoa, spices	—	9	139	23	2	1 231
Other	20	34	108	398	235	2 428
Beverages and tobacco	6	48	4	537	9	1 211
Crude materials, inedible:						
Crude rubber	99	32	43	37	537	1 480
Wood, timber and cork	3 491	6	—	1	2 319	9 715
Textile fibres and waste	39	—	110	1	34	843
Crude fertilizers and crude minerals	1 548	13	111	16	119	4 986
Other	705	2	10	127	399	2 698
Mineral fuels, lubricants	7	64	15	35	78	(b)22 337
Animal and vegetable oils and fats	—	12	9	13	13	253
Chemicals:						
Chemical elements and compounds	44	352	522	463	736	2 510
Plastic materials and artificial resins	84	520	540	840	657	3 578
Other	169	552	281	1 137	681	4 108
Manufactured goods:						
Rubber manufactures	6	435	588	1 834	266	3 764
Paper, paper board and manufactures	1 431	308	453	426	189	5 801
Textile yarn, fabrics, made-up articles	75	161	2 040	1 228	2 637	11 284
Non-metallic mineral manufactures, n.e.s.	69	313	1 935	1 214	720	6 428
Iron and steel	138	125	5 679	763	216	7 701
Non-ferrous metals	360	54	9	508	152	1 576
Manufactures of metal, n.e.s.	19	256	1 112	1 160	659	4 084
Other	5	63	79	386	26	2 425
Machinery and transport equipment:						
Machinery, other than electric	442	4 838	4 220	9 664	10 143	34 321
Electrical machinery and appliances	144	1 549	3 688	3 944	1 881	15 251
Transport equipment	20	1 014	15 291	3 551	3 743	25 337
Miscellaneous manufactured articles	144	734	2 314	5 577	2 712	16 391
Commodities and transactions not classified to kind	102	334	927	735	964	6 045
Total	9 253	11 855	40 955	34 981	30 152	199 978

(a) Includes 'other'.

(b) Mainly from Saudi Arabia (\$15 489 990).

EXPORTS

The total value of overseas exports from South Australia during 1972-73 was \$521.7 million, \$127.7 million above the level of 1971-72. Considerable increases in exports of wool (an all-time record of \$150.0 million), beef, hides, iron and steel and transport equipment (mainly motor cars and parts) more than offset decreases in exports of wheat (reflecting reduced sales to the Arab Republic of Egypt) and barley (less to Taiwan and the United Kingdom).

Overseas Exports from South Australia, Principal Commodities

Commodity	1968-69	1969-70	1970-71	1971-72	1972-73
QUANTITY					
Beef, lamb and mutton ('000 kg)	8 213	26 212	34 199	34 215	37 760
Wheat (tonnes)	456 659	1 122 964	1 616 580	1 209 432	924 702
Barley (tonnes)	272 963	444 797	539 226	848 219	334 397
Wool:					
Greasy ('000 kg)	77 117	83 682	80 681	85 421	90 676
Other ('000 kg)	5 019	5 724	5 736	11 740	5 760
Ores and Concentrates:					
Iron ('000 tonnes)	1 066	1 409	1 379	2 064	1 123
Lead and lead alloys, unworked (tonnes)	120 538	167 781	136 958	132 239	152 874
Iron and steel; blooms billets etc. (tonnes)	186 905	265 006	89 134	97 051	434 750
Passenger motor cars:					
Unassembled (No.)	12 128	20 058	20 908	16 412	41 869
Assembled (No.)	1 214	2 333	1 860	1 890	1 479
VALUE (\$'000)					
Beef, lamb and mutton	5 111	14 743	17 013	18 550	30 554
Wheat	24 126	55 944	79 445	61 363	46 251
Barley	11 683	16 133	23 670	35 652	17 250
Wool:					
Greasy	76 511	73 121	55 520	61 111	137 329
Other	8 236	8 675	7 308	7 077	12 627
Ores and concentrates:					
Iron	11 784	16 397	14 629	11 677	10 606
Lead and lead alloys, unworked	25 839	44 965	32 403	28 718	37 374
Iron and Steel; blooms billets etc.	9 959	18 805	7 394	6 123	27 910
Passenger motor cars:					
Unassembled	5 538	8 895	9 155	7 434	19 045
Assembled	2 071	3 969	3 461	2 735	3 680

Overseas Exports from South Australia, Principal Commodity Groups

Commodity Group	1968-69	1969-70	1970-71	1971-72	1972-73
\$'000					
Food and live animals:					
Meat and meat preparations	5 544	16 538	18 746	20 389	34 942
Dairy products and eggs	3 769	6 275	5 642	5 508	8 238
Cereal grains and cereal preparations	39 824	76 551	108 605	102 253	66 900
Fruit and vegetables	8 465	8 498	7 752	9 581	9 870
Other	4 414	7 552	8 008	10 612	14 548
Beverages and tobacco	2 777	2 318	2 539	2 907	2 593
Crude materials, inedible (except fuels):					
Hides and skins	6 435	8 337	6 638	6 461	14 532
Textile fibres and their waste	84 787	81 826	62 863	68 278	149 997
Metalliferous ores and metal scrap	58 184	69 804	57 499	52 112	48 460
Other	3 090	3 592	4 302	4 578	4 371
Mineral fuels, lubricants	465	1 453	1 276	1 257	1 227
Animal and vegetable oils and fats	888	2 080	2 664	3 545	2 617
Chemicals	335	588	800	533	1 275
Manufactured goods:					
Iron and steel	14 564	24 819	12 005	10 375	33 240
Non-ferrous metals	39 095	58 342	43 593	39 446	47 962
Manufactures of metals, n.e.s.	2 071	3 691	2 439	4 438	4 554
Other	2 110	4 535	4 254	4 644	7 717
Machinery and transport equipment	20 824	34 748	38 628	41 291	62 819
Miscellaneous manufactured articles	1 610	2 307	2 466	4 804	4 922
Commodities and transactions not classified to kind	1 681	3 176	3 017	1 052	935
Total	300 934	417 030	393 737	394 064	521 720

Exports of manufactured goods have been increasing both in absolute terms and as a proportion of total exports but the bulk of exports is still of goods usually classified as primary products. In 1972-73 the 'Crude materials, inedible' group accounted for \$217.4 million, or 41.7 per cent of exports (including wool \$150.0 million, 28.7 per cent), and the 'Food and live animals' group accounted for \$134.5 million or 25.8 per cent (including wheat \$46.3 million, 8.9 per cent and beef \$19.8 million, 3.8 per cent).

Exports to principal countries during the year 1972-73 classified by commodity groups are shown below.

**Overseas Exports from South Australia to Principal Countries
Commodity Groups, 1972-73**

Commodity Group	Germany, Federal Republic of	Japan	New Zealand	South Africa, Republic of	United Kingdom	USA	Total (a)
	\$'000						
Food and live animals:							
Meat and meat preparations . . .	316	5 005	—	45	6 239	16 891	34 942
Dairy products and eggs . . .	—	3 403	—	—	3 040	75	8 238
Fish and fish preparations . . .	18	2 346	13	360	199	5 661	9 684
Cereal grains and cereal preparations	—	11 053	11	33	764	—	(b)66 900
Fruit and vegetables	708	946	1 385	62	1 795	702	9 870
Other	53	853	14	10	519	35	4 864
Beverages and tobacco	1	71	201	—	389	271	2 593
Crude materials, inedible:							
Hides, skins and fur skins . . .	573	400	18	27	338	73	14 532
Textile fibres and their waste . .	9 589	60 717	377	3	7 709	454(c)	149 997
Metalliferous ores and metal scrap	4 215	31 879	—	535	4 123	15	48 460
Other	175	478	1 031	254	129	347	4 371
Mineral fuels and lubricants . . .	95	—	113	1	1	—	1 227
Animal and vegetable oils and fats	17	5	14	769	—	5	2 617
Chemicals	11	41	91	48	165	104	1 275
Manufactured goods classified chiefly by material:							
Iron and steel	15 503	—	2 517	392	11	18	33 240
Non-ferrous metal manu- factures	—	5 204	5 450	10	12 661	10 871	47 962
Other	743	716	749	575	846	1 424	12 270
Machinery and transport equip- ment:							
Machinery, other than electric Electrical machinery and appliances	102	116	597	1 578	137	606	6 353
Transport equipment	—	18	390	153	2 140	413	5 540
Miscellaneous manufactured articles	—	597	20 191	16 922	3 388	54	50 926
Miscellaneous manufactured articles	123	626	273	137	1 406	909	4 922
Commodities and transactions not classified to kind	10	141	23	32	133	23	935
Total	32 264	124 616	33 458	21 945	46 114	38 952	521 720

(a) Includes 'other'.

(b) Mainly to USSR (\$15 647 580); Chile (\$5 605 076) and Sri Lanka (\$5 128 136).

(c) Mainly to USSR (\$13 800 100); France (\$12 037 913) and Italy (\$6 435 838).

The following table shows the value of exports to principal countries during each of the years 1968-69 to 1972-73. Japan replaced United Kingdom as South Australia's principal export market in 1966-67 and has retained that position.

Overseas Exports from South Australia, Principal Countries

Country of Consignment	1968-69	1969-70	1970-71	1971-72	1972-73
					\$'000
Arab Republic of Egypt	485	484	12 385	14 500	3 785
Belgium-Luxembourg	6 257	7 443	8 917	6 827	8 622
Canada	3 899	5 122	4 686	7 701	7 295
China, People's Republic of	7 660	35 035	14 056	834	1 848
France	12 060	12 522	10 184	12 892	23 363
Germany, Federal Republic of	10 233	11 584	11 112	13 102	32 264
Hong Kong	2 752	5 762	8 162	7 282	8 811
India	8 846	13 340	9 124	7 699	10 692
Italy	8 040	9 445	4 719	7 086	10 823
Japan	76 785	79 312	71 162	73 462	124 616
Netherlands	4 100	5 261	6 752	5 831	4 710
New Zealand	13 682	23 263	22 272	28 422	33 458
Philippines	4 910	11 337	6 950	4 217	5 523
South Africa, Republic of	8 219	12 604	18 420	12 948	21 945
Taiwan	2 899	5 742	9 708	13 973	8 991
United Kingdom	49 529	71 015	53 955	54 515	46 114
United States of America	29 425	39 253	25 158	23 012	38 952
USSR	6 039	9 831	10 722	10 361	29 449
Other	45 113	58 677	85 294	89 400	100 460
Total	300 934	417 030	393 737	394 064	521 720

In 1972-73 Japan took goods valued at \$124.6 million, 23.9 per cent of total exports, compared with \$73.5 million (18.6 per cent) in 1971-72. The downward trend in recent years of exports to the United Kingdom which appeared to have been arrested in 1971-72 resumed in 1972-73 with a decrease in exports of \$8.4 million to \$46.1 million (8.8 per cent).

During 1972-73 the USA (\$39.0 million, 7.5 per cent) regained its position from New Zealand (\$33.5 million, 6.4 per cent) as the third largest market for South Australian goods. There was a large increase in exports to the Federal Republic of Germany of \$19.2 million (to \$32.3 million, 6.2 per cent) and to the Republic of South Africa of \$9.0 million (to \$21.9 million, 4.2 per cent) during 1972-73.

Exports of Wool

In 1960-61 Japan replaced the United Kingdom as the principal market for wool exported from South Australia and in 1972-73, 40.5 per cent of wool exports went to Japan. The USSR, with 9.2 per cent of wool exports regained the position it lost to France (8.0 per cent) in 1971-72 as the second largest market for wool.

Overseas Exports of Wool from South Australia

Country of Consignment	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Belgium-Luxembourg	3 970	4 730	3 475	1 973	4 919
France	7 319	6 194	4 807	7 386	12 038
Germany, Federal Republic of	5 536	5 759	4 184	4 796	9 589
India	3 797	3 641	2 569	2 342	3 013
Italy	4 154	4 767	3 000	3 463	6 420
Japan	25 075	21 678	19 999	22 344	60 717
Poland	2 293	1 445	732	2 012	5 050
United Kingdom	5 631	6 457	4 101	4 798	7 709
USA	6 947	3 682	1 043	269	454
USSR	6 025	9 417	8 324	6 898	13 800
Other	14 000	14 028	10 593	11 908	26 245
Total	84 747	81 797	62 828	68 189	149 956

Exports of Wheat

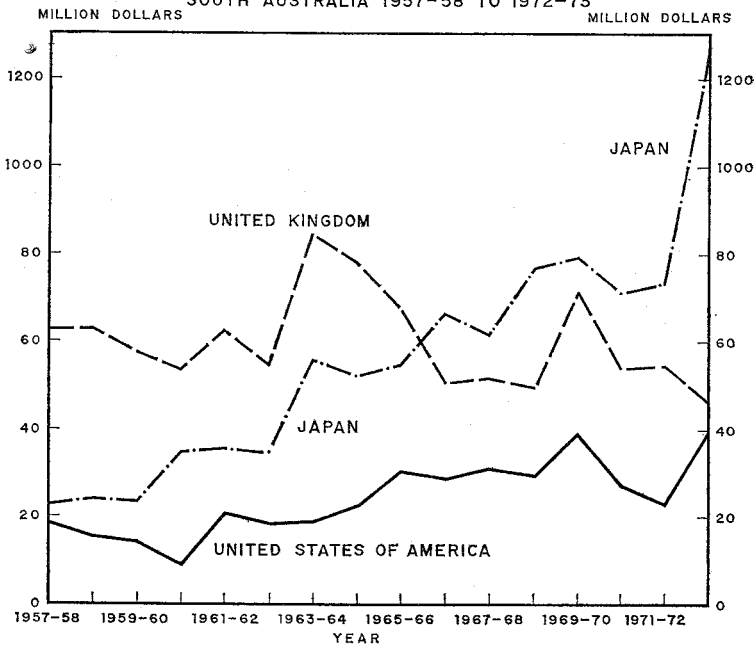
From the record level of \$79.4 million in 1970-71 the value of wheat exported decreased in 1971-72 by \$18.0 million and a further \$15.1 million to \$46.3 in 1972-73, the lowest since 1968-69. The relative importance of countries of consignment also fluctuates. Although, in several years, the People's Republic of China has been the principal market, taking 62.6 per cent of total wheat exports in 1969-70, it took no wheat exports in 1971-72, and in 1972-73 it took only 3.1 per cent. On the other hand the USSR, which took no wheat in 1969-70 and 1970-71, took 4.3 per cent in 1971-72 and 33.8 per cent in 1972-73. Iraq which was a prominent buyer of South Australian wheat in 1971-72 (14.0 per cent) took no wheat from South Australia in 1972-73.

Overseas Exports of Wheat from South Australia

Country of Consignment	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Arab Republic of Egypt	—	—	12 292	14 214	2 595
Chile	—	—	1 821	5 986	5 605
China, People's Republic of	7 657	35 027	14 056	—	1 456
Indonesia	—	—	—	—	4 709
Iraq	—	2 762	15 694	8 569	—
New Zealand	2	2	2 252	2 278	—
Norway	2 979	—	1 625	—	1 496
Pakistan, Islamic Republic of	—	1 265	3 166	1 463	—
Saudi Arabia	1 798	2 747	2 869	3 275	1 132
Sri Lanka	1 229	2 233	2 792	3 464	5 114
USSR	—	—	—	2 648	15 648
Yemen, Arab Republic of	637	1 199	2 761	4 516	1 450
Yemen, People's Republic of	1 105	2 630	1 357	792	—
Other	8 721	8 080	18 761	14 158	7 045
Total	24 126	55 944	79 445	61 363	46 251

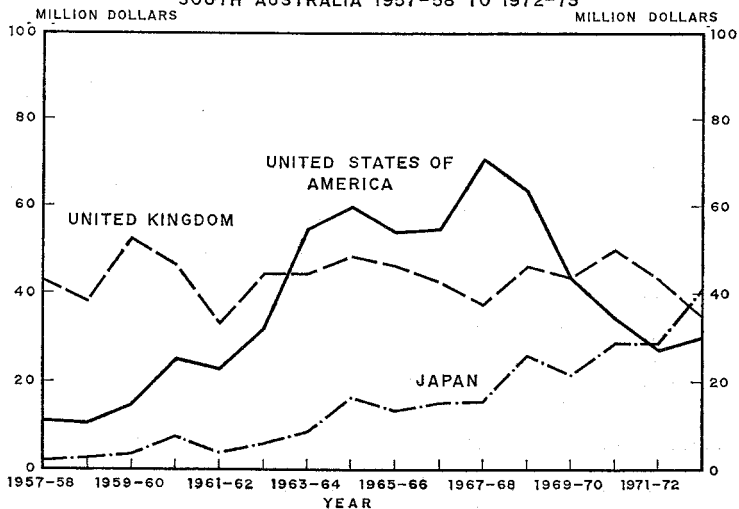
OVERSEAS EXPORTS THREE PRINCIPAL COUNTRIES

SOUTH AUSTRALIA 1957-58 TO 1972-73



OVERSEAS IMPORTS THREE PRINCIPAL COUNTRIES

SOUTH AUSTRALIA 1957-58 TO 1972-73



TRADE AT PRINCIPAL PORTS

The following table shows the value of imports and exports at the principal ports during each of the years 1968-69 to 1972-73.

Value of Overseas Trade: Principal Ports, South Australia

Port	1968-69	1969-70	1970-71	1971-72	1972-73
IMPORTS (\$'000)					
Port Adelaide (a)	204 094	175 433	171 192	163 532	170 899
Port Augusta	—	—	—	—	—
Port Lincoln	1 776	1 455	607	1 109	757
Port Pirie	418	159	991	1 414	2 080
Port Stanvac	22 162	19 055	19 113	20 037	18 100
Walleroo	488	827	460	618	360
Whyalla	3 018	4 294	5 995	3 039	7 303
Total	231 956	201 223	198 358	189 748	199 498
EXPORTS (\$'000)					
Ardrossan	(b)	5 635	10 420	6 332	7 454
Thevenard	4 606	6 758	8 630	10 948	11 408
Edithburgh	7	75	24	—	—
Port Adelaide (a)	173 896	223 142	215 066	232 015	356 487
Port Augusta	(c)	7 444	8 377	1 970	—
Port Lincoln	12 274	23 076	29 096	29 012	19 230
Port Pirie	72 612	98 066	76 471	73 299	72 251
Port Stanvac	224	437	383	520	113
Walleroo	11 670	14 313	(d)20 880	(d)19 970	(d)12 469
Whyalla	25 644	38 085	24 390	19 998	42 306
Total	300 934	417 030	393 737	394 064	521 720

(a) Includes 'Parcels Post, Adelaide'; 'Adelaide City (including Adelaide Airport)', Stenhouse Bay and Woomera.

(b) Included with Wallaroo.

(c) Included with Port Pirie.

(d) Includes Port Giles.

Over 85 per cent of imports are unloaded at Port Adelaide but the proportion of exports loaded there is much lower—in 1972-73 it was approximately 68 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. Some details of vessels entered and cleared at various South Australian ports are given on pages 564-5.

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 1970-71, 1971-72 and 1972-73.

Customs and Excise: Net Revenue, South Australia

Customs Tariff and Excise Tariff Item	1970-71	1971-72	1972-73
CUSTOMS			
		\$'000	
Live animals; animal products	75	61	60
Vegetable products	35	47	56
Animal and vegetable oils and fats	44	52	30
Prepared foodstuffs; beverages, vinegar; tobacco:			
Spirituous and alcoholic preparations	1 972	2 356	2 937
Tobacco, cigarettes, etc.	984	1 286	1 295
Other	256	255	281
Automotive spirit and other mineral products . .	583	375	3 331
Chemicals and products thereof	362	351	236
Plastics, resins, rubber and manufactures thereof	1 200	1 078	1 397
Hides, skins, leather and articles thereof . . .	118	126	144
Wood and wicker	1 111	1 100	1 509
Paper-making material; paper and paper manufactures	445	483	496
Textiles	1 192	1 441	2 273
Footwear, sunshades, whips, artificial flowers, etc.	257	250	228
Earthenware, cement, china, etc.	676	558	599
Pearls, precious stones and metals, imitation jewellery, coin, etc.	46	50	56
Base metals and articles thereof	1 867	1 037	1 238
Electrical and mechanical machines and machinery	5 124	5 244	5 406
Transport equipment and parts thereof	4 798	4 159	5 937
Optical, surgical and scientific instruments, etc.	563	529	613
Arms and ammunition and parts thereof . . .	21	9	4
Miscellaneous manufactured articles	435	459	664
Works of art, antiques, etc.	1	-2	1
Other customs revenue	202	361	323
Primage	279	263	307
Total net customs and primage duties . .	22 646	21 927	29 419
EXCISE			
Petroleum products	33 674	41 523	40 692
Spirits	4 536	4 849	5 704
Tobacco, cigars and cigarettes	23 839	27 639	30 953
Grape wine for commercial purposes (a) . . .	3 092	4 093	1 192
Other	28 369	29 699	31 506
Total net excise duties	93 510	107 822	110 047
Total net customs, primage and excise revenue	116 156	129 750	139 461

(a) Operative from 19 August 1970.

10.3 PRICES

MEASUREMENTS OF PRICE MOVEMENTS

The prices of a wide range of commodities and services are recorded at regular intervals by the Commonwealth 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 (see below) 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 on page 680.

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 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. This involved the linking of six indexes, with significant changes in composition or weighting introduced at the June Quarter 1952, June Quarter 1956, March Quarter 1960, December Quarter 1963 and December Quarter 1968. The principal changes involved were:

- (a) the introduction of private motoring (1952), of television (1960), of furniture (1963), and of services by dentists, doctors, hospitals and health insurance funds (1968),
- (b) alterations in the proportions of houses under various modes of occupancy (1952, 1956, 1963 and 1968), and
- (c) changes in the weights of fuel and fares (1952, 1956, 1963 and 1968) and of private motoring (1956 and 1963).

From the December Quarter 1968 the Index has been recalculated using weights based on the pattern of consumption in the years 1962-63 to 1966-67 with 1966-67 as the base year.

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^(a)

Year	Food	Clothing and Drapery	Housing	Household Supplies	Miscel- laneous	All Groups
1963-64	88.8	95.5	88.7	97.5	85.8	90.2
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

(a) Base year 1966-67 = 100.0.

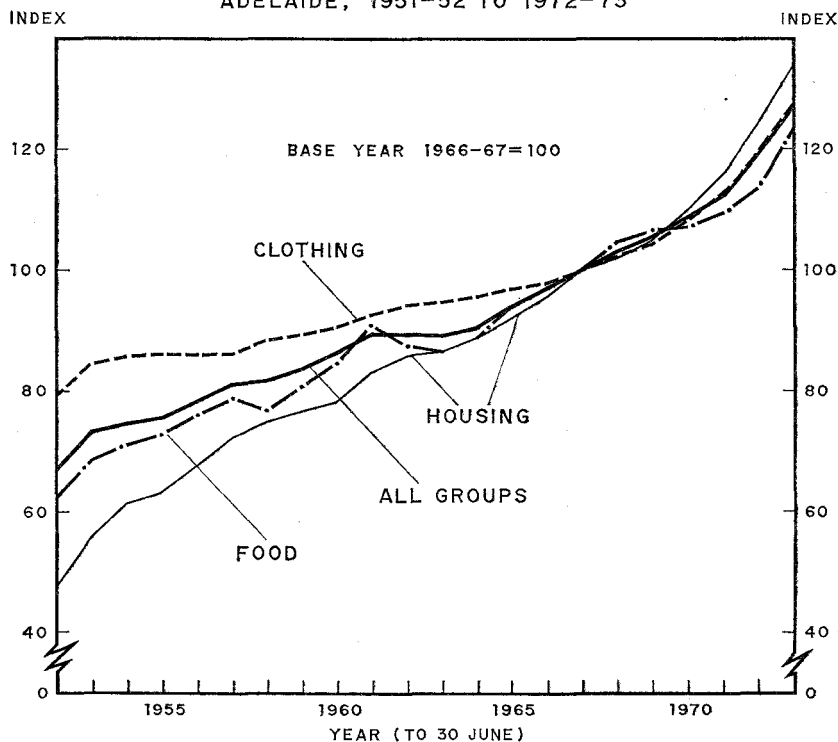
The 'All Groups' index for Adelaide is shown in the following table with that for each of the other capital cities. It is emphasised that these numbers reflect changes in prices within each individual city, but they do *not* measure differences in the level of prices between cities, and the Consumer Price Index should *not* be regarded as a 'cost of living' index.

Consumer Price Index, Adelaide and Other Capital Cities^(a)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Six State Capital Cities	Canberra
1963-64 ..	91.4	90.4	89.6	90.2	89.8	91.7	90.6	92.5
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

(a) Base year 1966-67 = 100.0.

CONSUMER PRICE INDEX
ADELAIDE, 1951-52 TO 1972-73



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 Commonwealth Statistician.

OTHER PRICE INDEXES

The Commonwealth Statistician prepares and publishes the following indexes on an Australian basis but details are not available for individual States:

- Price of Agricultural Production,
- Price of Dairy, Poultry and Bee Production,
- Price of Pastoral Production,
- Farm Production: Prices at Principal Markets, Australia,
- Export Price Index,
- Wholesale Price Index of Electrical Installation Materials,
- Wholesale Price Indexes of Metallic Materials.

In addition the Reserve Bank of Australia maintains an Import Price Index.

For the four 'production' fields listed above, 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 1973 five of these had been prepared and issued; they are the Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products, the Price Index of Copper Materials Used in the Manufacture of Electrical Equipment, the Price Index of Electrical Installation Materials, the Price Index of Materials Used in House Building and the Price Index of Materials Used in Building other than House Building. The first two have been designed as a replacement for the materials components of the now obsolete Wholesale Price (Basic Materials and Foodstuffs) Index while the latter two 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		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Concrete, etc.	110.0	119.1	127.5	113.4	121.2	127.0
Cement products	120.3	127.9	135.0	121.8	132.0	139.9
Clay bricks, tiles, etc.	121.1	128.6	137.5	118.0	124.5	130.7
Timber, board, etc.	119.9	127.5	142.3	118.5	124.8	137.0
Steel products	116.4	128.9	136.2	115.0	127.9	136.8
Other metal products	111.8	122.3	128.8	112.4	118.5	124.9
Plumbing fixtures, etc.	117.5	127.7	135.4	113.6	122.6	129.6
Electrical installation materials	114.7	118.8	124.4	115.0	120.2	126.2
Installed appliances	105.9	110.2	112.3	103.8	107.4	108.3
Plaster and plaster products . .	104.8	115.1	118.9	109.4	116.9	118.7
Miscellaneous materials	113.8	119.6	129.1	111.0	116.4	124.9
All Groups	116.7	124.8	134.8	115.7	122.7	131.1

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)^(a)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
Year:							
1968-69	109.3	103.6	105.6	107.0	105.9	104.1	106.3
1969-70	115.2	107.2	109.4	112.4	110.3	107.7	110.9
1970-71	119.8	112.3	115.2	116.7	113.9	114.3	115.7
1971-72	126.1	118.9	124.8	124.8	121.1	120.7	122.7
1972-73	135.6	126.5	133.8	134.8	126.9	130.8	131.1

(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)		
	1970-71	1971-72	1972-73	1970-71	1971-72	1972-73
Concrete, etc.	109.7	119.3	127.2	113.0	120.6	124.5
Cement products	118.8	127.0	137.8	118.0	126.1	135.0
Bricks, stone, etc.	121.3	130.0	140.3	118.6	124.2	130.1
Timber, joinery, etc.	114.8	124.3	133.9	117.0	123.4	132.9
Steel and iron products	112.6	123.5	130.6	115.8	125.4	130.3
Aluminium products	107.2	116.0	121.1	113.0	119.3	125.4
Other metal products	122.5	122.5	127.1	121.4	120.6	126.4
Plumbing fixtures	121.4	134.5	145.5	121.3	134.3	143.5
Miscellaneous materials	111.4	118.8	123.7	110.3	116.9	124.5
Electrical installation materials	110.9	114.7	120.5	110.9	114.7	120.5
Mechanical services components	118.9	127.5	132.3	119.0	127.7	132.4
Special purpose index (b)	113.4	122.8	130.4	115.5	123.0	128.9
All Groups	113.9	122.7	129.8	115.5	123.0	128.9

(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
Year:							
1968-69	106.5	105.0	105.1	105.0	104.7	105.1	105.6
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

COMMODITY PRICES

Retail Prices of Food

The next two tables show, respectively, the average retail prices of selected food items in Adelaide during recent years and the prices of those items in the various Australian capital cities in December 1973.

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	1969	1970	1971	1972	1973
Groceries:		Cents				
Bread (a)	907g	19.0	19.0	20.4	22.3	25.0
Self-raising flour	907g	17.2	18.8	16.9	18.1	19.8
Tea	227g	29.5	28.4	30.1	31.9	30.2
Rice	454g	13.9	14.2	14.8	15.4	17.4
Jam (b)	680g	33.9	34.3	36.1	37.6	39.4
Peaches, canned	822g	28.6	30.1	30.4	30.6	31.7
Potatoes	3.2kg	27.3	38.1	42.7	41.4	75.8
Onions, brown	454g	9.0	10.4	12.1	11.6	17.9
Dairy products:						
Butter, factory	454g	52.0	52.6	53.6	55.1	54.9
Cheese, processed	227g	24.1	23.5	24.0	27.7	29.1
Eggs (c)	doz	66.6	62.0	60.2	55.8	66.6
Bacon, rashers	227g	45.9	46.2	48.4	50.0	56.0
Milk; fresh, bottled (a)	1.14l	19.8	20.0	20.7	22.0	22.8
Meat:						
Beef;						
Rib (without bone)	454g	58.8	60.6	63.3	64.7	80.0
Rump steak	454g	102.0	104.4	109.7	114.0	135.9
Sausages	454g	27.5	28.2	28.9	28.8	39.5
Corned silverside	454g	63.3	65.6	68.4	70.7	85.9
Lamb;						
Leg	454g	45.0	45.0	44.6	47.3	65.2
Forequarter	454g	43.1	41.9	39.4	43.3	66.8
Loin chops	454g	51.3	51.0	49.5	52.2	76.6
Mutton;						
Leg	454g	32.6	31.2	29.9	31.8	50.9
Forequarter	454g	26.8	25.8	24.8	25.4	46.3
Loin chops	454g	33.0	29.6	28.5	30.4	51.9
Pork;						
Leg	454g	65.7	65.3	70.2	70.1	77.3
Chops	454g	66.1	65.1	70.6	69.7	78.3

(a) Delivered.

(b) Plum jam in 1969, thereafter apricot jam.

(c) 55 gram eggs.

**Average Retail Prices of Selected Food Items, Australian Capital Cities
December 1973**

Item	Unit	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	Canberra
Groceries:								
Cents								
Bread (a)	907g	29.0	26.0	23.0	26.0	26.0	28.0	29.7
Self-raising flour	907g	23.8	23.8	19.4	20.4	23.3	25.4	24.1
Tea	227g	30.1	30.5	29.8	29.5	30.1	31.2	31.8
Rice	454g	18.9	20.3	19.5	18.4	19.7	19.6	19.9
Jam, apricot	680g	33.0	38.4	39.0	39.5	41.0	42.2	33.9
Peaches, canned	822g	34.0	34.7	37.2	32.7	38.1	35.7	31.6
Potatoes	3.2kg	110.9	111.2	106.3	87.2	65.4	77.0	122.2
Onions, brown	454g	21.9	22.8	21.2	20.5	14.2	22.5	29.3
Dairy products:								
Butter, factory	454g	58.0	55.8	55.5	54.8	55.7	58.0	58.5
Cheese, processed	227g	29.0	29.8	31.0	30.2	29.4	31.2	28.6
Eggs	doz (b)	77.6	76.2	75.6	72.0	74.4	80.0	76.0
Bacon, rashers	227g	56.9	64.6	60.7	62.8	51.2	56.6	60.0
Milk; fresh, bottled (a)	1.14l	30.0	24.0	28.0	24.0	24.0	24.0	26.0
Meat:								
Beef:								
Rib (without bone)	454g	85.2	84.0	87.2	86.4	71.5	80.0	83.1
Rump steak	454g	154.6	154.0	140.1	146.5	135.1	149.9	161.9
Sausages	454g	42.5	45.2	46.9	44.5	33.7	44.3	46.0
Corned silverside	454g	85.7	89.0	91.9	92.5	81.4	100.3	90.6
Lamb:								
Leg	454g	74.5	69.6	86.0	74.6	71.6	74.4	82.1
Forequarter	454g	68.8	62.7	87.3	79.6	67.0	67.5	77.1
Loin chops	454g	79.5	76.8	88.0	85.9	74.9	73.2	94.6
Mutton:								
Leg	454g	61.2	48.3	60.5	58.5	52.3	51.0	62.2
Forequarter	454g	57.8	40.5	57.3	52.0	43.1	46.2	57.6
Loin chops	454g	58.3	47.7	60.5	56.3	49.9	50.0	60.6
Pork:								
Leg	454g	101.0	96.1	93.3	92.6	77.0	97.7	101.6
Chops	454g	93.1	92.6	91.5	92.6	77.4	95.7	102.6

(a) Delivered.

(b) 55 gram eggs.

Other Commodity Prices

South Australian prices of agricultural products are shown in the table on page 436, 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, 1948-1973 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 181-2.

Amendments to the Prices Act have provided for the continuation of price control: an amendment in October 1973 covers the period to 31 December 1975.

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 for a term in excess of three years 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 is given a period of at least two months during which time improvements may be made to the property. If, at the expiration of the time period, it is subsequently found that the property has not been satisfactorily improved, then it is customary for the Trust to control the rent appropriate to the standard of accommodation provided.

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)	1 212	1 432	747	2 443	2 742	..	3 193
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 1973 current licences totalled fifty-three. Special annual permits included 102 charter coach, 170 hire car and 96 miscellaneous passenger permits while special permits for short periods issued during the year covered 5 344 passenger vehicles. The Board also registers persons and firms who book passengers on behalf of a licensee; at 30 June 1973 there were 101 such agents.

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 the Commonwealth 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 612) of the South Australian Railways at 30 June 1973 totalled \$156 010 000. Operations for 1972-73 resulted in a deficit of \$25 884 000 and after taking into account contributions from Consolidated Revenue totalling \$22 500 000, there was a deficit of \$3 384 000. The following summary shows details of capital indebtedness, working expenses, and revenue for the five years to 1972-73.

South Australian Railways: Capital Indebtedness, Working Expenses and Revenue

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Capital indebtedness	142 643	151 156	152 750	157 474	156 010
Working expenses	36 393	39 287	43 002	46 801	52 621
Revenue	30 522	33 566	34 635	35 603	35 332
Deficit on operating	5 871	5 721	8 367	11 197	17 289
Debt charges	6 446	7 053	7 757	8 280	8 595
Total deficit for year	12 317	12 774	16 124	19 477	25 884
Less contributions from Consolidated Revenue	11 000	14 674	14 500	19 500	22 500
Net surplus (+) or deficit (-)	-1 317	+1 900	-1 624	+23	-3 384

Working Expenses

The cost of operating the South Australian Railways during 1972-73 was \$52 621 000 plus debt charges which amounted to \$8 595 000. 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 five years to 1972-73 is given in the following table.

standardisation to 30 June 1973 was \$63 700 000, of which \$61 799 000 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 1973 amounted to \$633 000.

Debt charges for 1972-73 were:	\$
Interest on Loan Funds provided for capital purposes (other than stores) including exchange on overseas debt	7 330 671
Interest on Loan Funds invested in stores	299 897
Interest under Railways Standardisation and Railway Equipment Agreements	940 842
Interest on Railways of Australia rollingstock	23 096
	8 594 506

Sources of Revenue

For the five year period ending 30 June 1973 approximately 80 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 1968-69 to 1972-73 are shown in the table below.

South Australian Railways, Sources of Revenue

Source	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Country passengers	1 625	1 688	1 837	1 944	2 026
Suburban passengers	1 968	2 002	2 055	2 152	2 285
Parcels, mails, etc.	977	920	912	815	774
General merchandise and miscellaneous freight	12 212	12 931	13 691	13 599	15 074
Wool	155	172	138	134	137
Wheat	2 415	3 817	4 134	3 365	2 419
Barley and other grains	795	1 025	909	1 963	584
Livestock	834	1 122	1 016	951	1 063
Minerals	7 102	7 372	7 221	7 537	7 106
Rents and miscellaneous	1 384	1 395	1 467	1 765	2 353
Refreshment services and bookstalls	1 055	1 122	1 255	1 378	1 510
Total	30 522	33 566	34 635	35 603	35 332

Revenue from road motor services, amounting to \$247 000 in 1972-73, is included in the above 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 1972-73 was 3 879 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 1972-73 totalled 10 024 364.

The following table shows revenue and working expenses for the five years to 1972-73.

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	\$	\$
1968-69	30 522	36 393	119	9 939	3.07	3.66
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

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	1973				
	Number								
Locomotives:									
Steam	365	225	151	4	4				
Diesel electric;									
Main line	} 12	{ 30	41	54	60				
Shunting and transfer						12	21	46	46
General purpose						10	35	45	45
Total	377	277	248	149	155				
Rail cars:									
Power;									
Diesel	—	118	134	124	125				
Petrol	53	4	—	—	—				
Non-power;									
Controlled equipped	—	7	7	7	7				
Trailer	28	52	58	40	37				
Coaches	485	353	243	170	103				
Interstate coaches	54	61	71	65	98				
Goods and livestock wagons	8 895	8 000	7 962	7 694	7 347				
Service wagons and vans	478	467	526	622	635				

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 1973 was as follows.

**South Australian Railways, Locomotive Fuel Consumption
(At 30 June in selected years)**

Fuel	1955	1960	1965	1970	1973
	Tonnes				
Steam locomotives:					
Coal	203 076	80 127	20 739	1 935	154
Heavy oil	86 679	29 510	4 356	2 933	16
Diesel locomotives:					
Diesel oil	5 028	12 273	20 971	26 546	28 665
Rail cars:					
Petrol	640	257	—	—	—
Diesel oil	827	8 306	8 665	8 444	8 979

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

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 in recent years it has been necessary to introduce special freight rates on some lines. General increases in intrastate freight rates were announced early in 1971: the two previous increases occurred in 1960 and 1966.

From 1 July 1968 a uniform classification of rates and conditions for the movement of inter-system goods traffic was adopted by the Commonwealth Railways authority and all State Railway authorities. However, some traffic on inter-system lines has been excluded from the application of the uniform rates; such exclusions affecting South Australia relate to traffic between railway stations within South Australia; between South Australian Railways stations and Central Australia Railways stations, Trans-Australian Railways stations and Broken Hill: in these cases a combination of local, special or district and inter-system rates applies. The rates from July 1968 are generally lower than those previously applicable. The next table shows the freight tonnages carried by the South Australian Railways for the years 1968-69 to 1972-73.

South Australian Railways, Freight Carried

Freight	1968-69	1969-70	1970-71	1971-72	1972-73
	'000 tonnes				
Wool	21	28	23	22	25
Wheat	572	964	1 076	793	564
Barley	181	260	222	443	142
Livestock	121	175	161	139	149
Minerals	1 557	1 702	1 650	1 790	1 676
General merchandise	2 666	2 887	2 989	2 856	3 263
Total	5 118	6 017	6 121	6 044	5 820
	'000 kilometres				
Goods and livestock train kilometres	4 207	4 674	4 794	4 730	4 665
	cents				
Average earnings per tonne-kilometre	2.96	2.83	2.80	2.90	2.77

The tonnages of freight carried during 1972-73 were 3.7 per cent below the level of the previous year. Significant increases were recorded in wool, livestock and general merchandise traffic. On the other hand there were substantial decreases in the movement of grain and minerals. During 1972-73 a total of 317 000 tonnes of general goods was carried in 'overseas containers', mainly between Melbourne and Adelaide, representing an increase of 4.8 per cent over the previous year.

Accident Casualties

The table below shows casualties, other than railway employees, as recorded by the South Australian Railways for the years 1968-69 to 1972-73.

South Australian Railways, Accident Casualties

Persons	1968-69	1969-70	1970-71	1971-72	1972-73
Killed	12	30	14	7	11
Injured	109	112	111	144	171

RATIONALISATION OF RAILWAY SERVICES

In May 1968 the Minister of Transport announced the Government's decision to carry out a programme 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 Sandergrrove 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 OMNIBUS 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 omnibus 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 omnibus 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.

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, and the erection of new workshops and new parking and servicing depots.

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 1972-73 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						
1968-69 ..	6 233	239	—	6 104	409	41
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

At 30 June 1973 loan indebtedness amounted to \$7 596 000; these loans are secured by debentures issued to the Treasurer of South Australia.

Working Expenses

Working expenses of the Trust were \$1 244 000 in 1940-41 and had nearly doubled by 1946-47 when they were \$2 402 000. In 1972-73 working expenses reached a record high level of \$8 269 000. Details for the last five years are given in the following table. The average number of persons employed by the Trust during 1972-73 was 1 137 (160 salaried and 977 wages staff): salaries and wages paid amounted to \$5 876 000 or over 71 per cent of total working expenses.

Municipal Tramways Trust, Working Expenses

Working Expense	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Traffic operations	3 431	3 479	3 954	4 094	4 441
Maintenance	1 065	1 074	1 159	1 227	1 485
Power for traffic	30	30	30	31	31
Fuel and oil for traffic	244	248	301	349	379
Highways contribution	86	86	87	86	123
Depreciation	429	401	378	485	676
Other expenses	820	976	1 077	1 009	1 135
Total	6 104	6 293	6 986	7 282	8 269
			Cents		
Working expenses per traffic kilometre . .	35-52	36-69	40-19	42-00	47-33

Route Length, Kilometres Run, Passengers Carried and Fares

The following two tables show the details of route length, kilometres run and passengers carried for the years 1968-69 to 1972-73. The route length has slightly increased and kilometres run have generally decreased over the years shown. The details for electric trams refer to the Adelaide-Glenelg service, the only remaining tram service in this State. Since 1944-45 there has been a steady decline in the number of passengers carried.

Municipal Tramways Trust, Route Length and Traffic Kilometres

Year	Route Length at End of Year			Kilometres Run During Year		
	Electric Trams	Motor Buses	Total	Electric Trams	Motor Buses	Total
	Kilometres			'000		
1968-69	11	243	254	670	16 514	17 185
1969-70	11	263	274	674	16 479	17 153
1970-71	11	263	274	669	16 712	17 381
1971-72	11	264	275	673	16 663	17 336
1972-73	11	268	279	676	16 794	17 470

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
1968-69	45 393	6 233	17 185	13.50	36.27
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	40.27

The table below shows passenger fares, from 10 March 1974, 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
					\$
1	10	5	5	1.50	..
2	20	10	5	3.00	5.00
3	25	10	10	3.00	6.50
4-9	30	15	10	4.50	6.50
10 or more	30	15	15	4.50	6.50

Transfer and periodical tickets were introduced on 25 February 1973: a transfer ticket, costing 35 cents, enables a passenger to transfer on two routes in the same direction at a cheaper rate than previously when it was necessary to pay a fare for travel on each route separately; 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^(a)

Particulars	1950	1955	1960	1965	1970	1973
Rollingstock:						
Electric trams	279	178	30	30	26	26
Motor omnibuses	81	140	364	353	344	376
Trolley buses	61	91	56	—	—	—
Total vehicles	421	409	450	383	370	402
Seating capacity:						
Electric trams	14 280	10 147	1 908	1 908	1 664	1 664
Motor omnibuses	3 998	5 268	14 428	14 112	14 234	17 296
Trolley buses	2 984	4 184	2 006	—	—	—
Total seating	21 262	19 599	18 342	16 020	15 898	18 960

(a) 31 January in 1950.

Under a three year programme, 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. The new vehicles have rear mounted engines, lower step height and two-way radio contact with the depot.

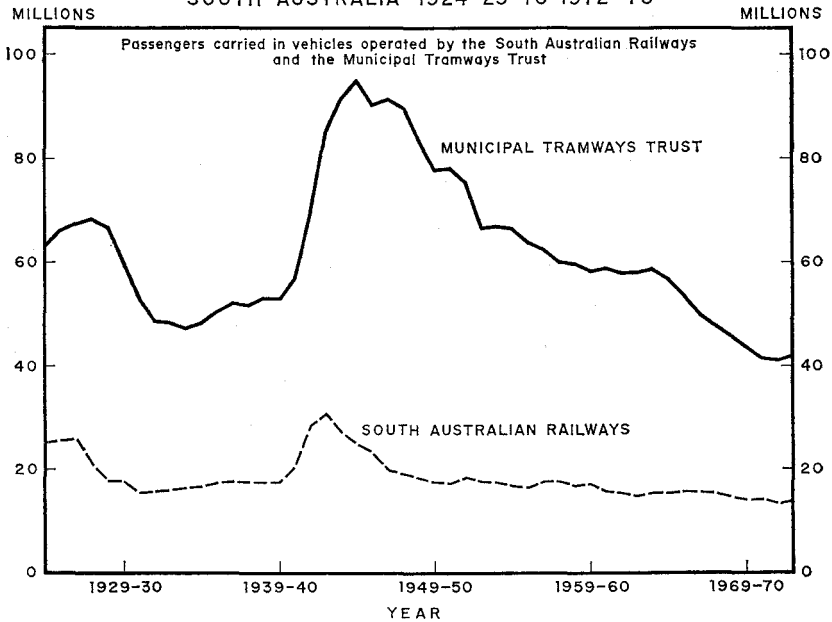
Accident Casualties

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
1968-69	—	105	—	89	—	214
1969-70	—	107	—	83	3	210
1970-71	—	109	—	71	1	200
1971-72	—	119	—	88	3	235
1972-73	—	120	—	71	—	219

PUBLIC TRANSPORT
SOUTH AUSTRALIA 1924-25 TO 1972-73



PRIVATE MOTOR BUS SERVICES

Metropolitan Services

Since 1941 route length of private motor bus services licensed by the Municipal Tramways Trust has increased by more than five times from 74.70 kilometres in 1941 to 408.60 kilometres in 1972-73, while the number of passengers carried has increased by more than seven times 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).

Private Motor Omnibuses, Metropolitan Services

Year	Route Length	Kilometres Run	Passengers Carried	Rolling Stock	Traffic Receipts (Gross)
	Kilometres	'000 km	'000	No.	\$'000
1968-69	409	9 596	15 024	230	2 123
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

Until March 1974 the Municipal Tramways Trust granted licences to private bus operators to carry passengers within a prescribed area which included the Cities of Elizabeth and Salisbury and parts of the local government areas of Munno Para and Tea Tree Gully, but from this date most of the licensed private motor bus services were taken over by the Trust.

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, 1956-1972, 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 February 1974 the rates were 29 cents for 'flag fall' and 16 cents a kilometre. 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, equal to 8 cents a kilometre, is charged. For journeys which extend beyond the 40-kilometre radius contract rates not to exceed 11 cents per outward and return kilometre are charged.

Licences issued at 30 June 1973 include taxi-cabs, white plates (*i.e.* restricted) 250, green plates 558; hire cars 42; and funeral cars 11. Drivers' licences current totalled 3 100.

Taxi licence fees are \$36 a year and private hire licence fees are \$25. Revenue received during 1972-73 was \$29 052 from taxi licences, \$1 216 from hire car licences and \$10 995 from driver's licences. Total revenue from all sources was \$89 455, and expenditure was \$66 578.

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, 1959-1973.

The present legislation for the control of road traffic in South Australia is set out in the Road Traffic Act, 1961-1973 and the Motor Vehicles Act, 1959-1973.

Registration of Motor Vehicles

Under the provisions of the Motor Vehicles Act, 1959-1973 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 \$4 for a vehicle weighing less than 50 kilograms to \$8 for a motor bicycle having a side car attached. For commercial vehicles the range of fees is from \$6 for a vehicle not exceeding 10 PW and with tare weight 1780 kilograms or less to \$67.60 plus \$7.80 for each 5 PW or portion thereof exceeding 75 PW, for vehicles exceeding 75 PW. For private vehicles a minimum annual fee of \$7 applies for vehicles that do not exceed 10 PW and for vehicles in excess of 75 PW a maximum fee of \$47.90 plus \$4.70 for each 5 PW or portion thereof the PW of the vehicle exceeds 75. Registration fees for trailers (with pneumatic tyres) range from \$6 for trailers of unladen weight not exceeding 1020 kilograms to \$12 for trailers of unladen weight exceeding 2030 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 pages 551-2.

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^(a)
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
Total on register	468.2	490.1	510.3	536.0	572.4
			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 1969 to 1973 are shown in the following table.

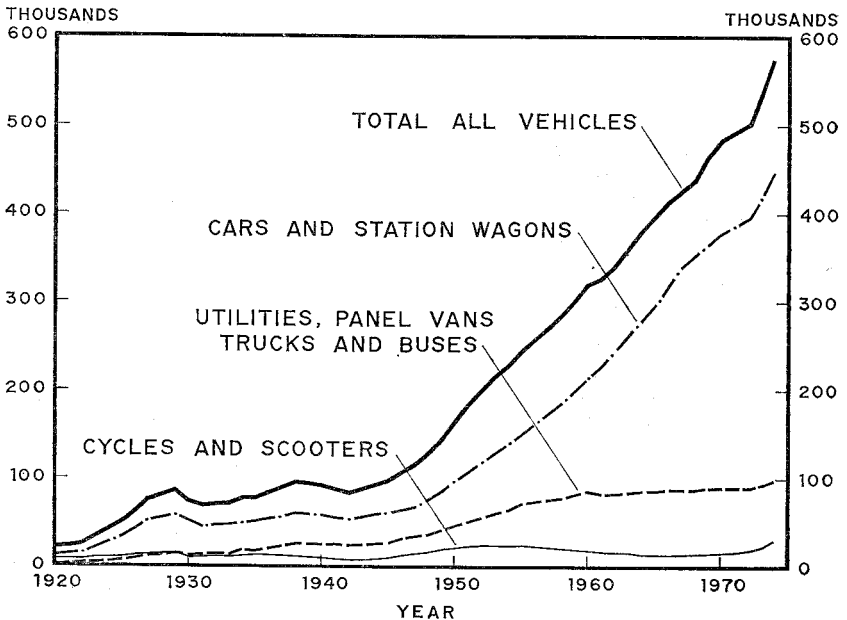
New Motor Vehicle Registrations, South Australia^(a)

Type of Vehicle	1969	1970	1971	1972	1973
Cars	33 620	34 311	33 563	32 779	38 333
Station wagons	4 847	4 309	4 134	4 193	4 887
Light commercial type vehicles:					
Open (b)				3 093	3 667
Closed (c)				1 258	1 693
Trucks (e)	(d) 6 888	(d) 6 547	(d) 5 945	2 424	2 949
Other truck type vehicles (f)				69	80
Buses	244	280	337	326	251
Motor cycles	2 225	2 994	4 474	6 523	10 877
Total	47 824	48 441	48 453	50 665	62 737

(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.

MOTOR VEHICLES ON REGISTER

SOUTH AUSTRALIA 1920 TO 1973



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 January 1971 the licence fee has been \$3; the fee for a learner's permit is \$1. 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 1973 totalled 592 481. 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 \$20 778 000 in 1972-73. 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, 1959-1973 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 an insurance company 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 20 March 1974, premiums for private and business cars in the metropolitan area were increased, by \$13.00 to \$45.00 and those in the country by \$17.00 also to \$45.00. Premiums for primary producers' trucks were increased by \$2.00 to \$10.00 and for goods-carrying vehicles in the metropolitan area by \$13.00 to \$47.00. Premiums for taxis in country areas remained at \$50.00, while those in the metropolitan area were reduced by \$20.00 to \$120.00.

During 1972-73, third party insurance premiums received amounted to \$15 469 000 and claims paid were \$17 239 000.

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.

The following tables show the number of vehicles of each type and year of model in South Australia at 31 December 1962 and 30 September 1971.

Number of Motor Vehicles: South Australia, 1962 and 1971^(a)

Type of Vehicle	31 December 1962 30 September 1971	
	'000	
Motor cars	220.0	335.5
Station wagons	18.9	61.2
Light commercial type vehicles (b):		
Open	38.5	33.6
Closed	9.9	10.0
Trucks (b):		
Rigid	31.7	39.3
Articulated		
Other truck type vehicles	1.0	2.9
Buses	1.6	1.6
Motor cycles	16.7	2.6
Total	338.1	503.7

(a) Includes Australian Government owned vehicles except defence services vehicles.

(b) Total light commercial type vehicles and total trucks for 1971 are not strictly comparable with figures for 1962 because of changes in classification, e.g. for 1971 trucks include vehicles previously allocated to light commercial type vehicles.

**Number of Tractors, Plant and Equipment, Caravans and Trailers
South Australia, 1962 and 1971^(a)**

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
Total	65.3	104.1

(a) Includes Australian Government owned vehicles except defence services vehicles.

**Number of Motor Vehicles: Type, Year of Model, South Australia
at 30 September 1971^(a)**

Year of Model	Type of Vehicle						Total (b)
	Motor Cars	Station Wagons	Light Commercial Type Vehicles	Trucks	Other Truck Type Vehicles	Buses	
	'000						
Before 1950	2.0	—	0.4	2.6	0.3	—	5.3
1950 to 1954	13.3	0.1	2.4	5.2	0.1	0.1	21.2
1955 to 1959	41.2	4.2	7.3	6.1	0.2	0.5	59.6
1960	14.2	3.2	2.2	1.5	0.1	0.1	21.3
1961	10.8	2.9	2.0	1.4	0.1	0.1	17.2
1962	17.1	4.5	2.5	1.6	0.1	0.1	25.9
1963	21.6	6.4	2.8	2.2	0.1	0.2	33.3
1964	24.6	7.6	3.3	3.0	0.1	0.1	38.8
1965	25.1	6.0	3.2	2.7	0.1	0.1	37.2
1966	22.4	4.7	2.9	2.5	0.1	0.1	32.7
1967	24.9	4.8	3.0	2.4	0.1	0.1	35.3
1968	28.2	4.3	2.8	2.7	0.1	0.2	38.3
1969	31.6	4.7	3.2	3.3	0.1	0.3	43.3
1970	35.4	4.8	3.5	3.2	0.1	0.2	47.3
1971	23.0	3.0	1.9	1.9	0.1	0.2	30.1
Total (c)	335.5	61.2	43.6	42.2	1.6	2.6	503.7

(a) Includes Australian Government owned vehicles except defence services vehicles.

(b) Includes 16 600 motor cycles; year of model of motor cycles is available only in a few cases.

(c) Includes vehicles for which year of model is unknown.

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 %	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 was set up in 1960 under the provisions of the Road Traffic Act, 1961-1973; 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 1973 warning notices were sent to 11 120 drivers who had accumulated six or more demerit points and 1 480 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.

An amendment to the Road Traffic Act, effective from 1 August 1973, requires that a medical practitioner should take a blood sample of specified persons involved in road traffic accidents. In the ten months to 31 May 1974, blood samples of 6 542 persons involved in road traffic accidents were analysed and 975 (14.9 per cent) were found to have alcohol levels in excess of 0.08 per cent.

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 Recorded	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 Recorded	Persons Killed	Persons Injured	Total Accidents Recorded	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
PERSONS KILLED							
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
Total	135	23	9	99	63	—	329
PERSONS INJURED							
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
Total	4 906	1 736	564	4 499	914	6	12 625

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
PERSONS KILLED							
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
PERSONS INJURED							
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

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
Intersections:				
Controlled	5 573	1 127	16	1 636
Uncontrolled	14 299	3 643	68	4 996
Other than intersections:				
Straight road	13 720	3 224	131	4 177
Bend or curve	2 379	897	88	1 313
Railway level crossing;				
Controlled	72	19	2	21
Uncontrolled	72	30	5	43
Other location	2 079	327	19	439
Total	38 194	9 267	329	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	Wednesday	Thursday	Friday	Saturday	Sunday	Total	
TOTAL ACCIDENTS									
After: Midnight	Until: 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
PERSONS KILLED									
After: Midnight	Until: 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	2	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	1	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
PERSONS INJURED									
After: Midnight	Until: 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.

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 Passengers,
South Australia, 1973**

Seat Belt Details	Drivers (a)			Passengers (b)	
	Killed	Injured	Not Injured	Killed	Injured
Seat belts fitted:					
Reported as worn	28	1 668	27 136	11	628
Reported as not worn . .	32	338	2 745	6	178
Seat belts not fitted . . .	36	936	8 839	12	406
Information not available .	38	1 934	21 275	17	1 202
Total	134	4 876	59 995	46	2 414

(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 table on page 562 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.

It should be noted in particular that these figures do not measure exposure to risk: for example they take no account of miles 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 following 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.

Road Traffic Accidents: Age and Sex of Licensed Drivers and of Drivers and Riders Involved in Accidents, South Australia^(a)

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.

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 1911-1973*, the *Seamen's War Pensions and Allowance Act 1940-1973*, the *Australian Coastal Shipping Commission Act 1966-1973*, 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, 1936-1973* and the *Marine Act, 1936-1970*. 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 1973.

Shipping, Vessels on South Australian Register At 31 December 1973

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 ..	65	3 709	1 261	83	1 459	1 152	—	—	—
50-99	27	2 450	1 609	9	1 079	728	—	—	—
100-199 ..	4	927	697	2	679	309	1	179	179
200-499 ..	1	350	234	—	—	—	—	—	—
500-999 ..	1	2 241	963	—	—	—	—	—	—
1 000-2 999 ..	—	—	—	—	—	—	—	—	—
3 000 and over	3	21 961	13 253	—	—	—	—	—	—
Total ..	101	31 638	18 017	94	3 217	2 189	1	179	179

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 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, 1972-73

Port	Coastal				Overseas		Total	
	Intrastate		Interstate		Number	Net Tonnage	Number	Net Tonnage
	Number	Net Tonnage	Number	Net Tonnage				
		'000		'000		'000		'000
Ardrossan	37	135	17	61	14	85	68	281
Ballast Head	11	23	19	46	—	—	30	69
Edithburgh	—	—	—	—	5	45	5	45
Port Adelaide (a)	345	305	210	666	601	3 089	1 156	4 061
Port Augusta	—	—	—	—	7	28	7	28
Port Lincoln	50	138	18	115	69	476	137	729
Port Pirie	12	55	48	228	115	603	175	885
Port Stanvac	21	203	29	373	34	952	84	1 529
Rapid Bay	27	124	12	46	—	—	39	170
Stenhouse Bay	1	1	—	—	—	—	1	1
Thevenard	10	38	25	91	64	233	99	362
Wallaroo	—	—	5	5	24	142	29	147
Whyalla	44	200	221	2 155	68	488	333	2 843

(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
1968-69	984	1 451	775	3 284	1 271	8 009	3 030	12 745
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

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 1950's of bulk handling facilities for grain. The general trend has been toward 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	
		1971-72	1972-73	1971-72	1972-73
Ardrossan . . .	Australia	64	54	194 900	196 158
	Other countries	20	14	115 338	85 172
	Total	84	68	310 238	281 330
Port Adelaide . .	Australia	476	499	879 365	905 417
	Greece	42	27	298 714	211 859
	Italy	21	18	218 512	171 519
	Japan	37	27	130 121	123 065
	Liberia	41	40	269 299	227 320
	Netherlands	41	35	178 282	152 682
	New Zealand	48	53	90 969	103 530
	Norway	47	33	329 849	207 283
	Sweden	53	50	210 584	206 255
	United Kingdom	171	172	946 105	848 221
	Other countries	183	202	826 049	903 409
	Total	1 160	1 156	4 377 849	4 060 560
Port Lincoln . .	Australia	49	65	228 543	242 767
	Greece	11	7	90 711	49 586
	United Kingdom	11	12	76 599	87 859
	USSR	1	19	5 246	113 385
	Other countries	38	34	266 729	235 187
Total	110	137	667 828	728 784	
Port Pirie . . .	Australia	76	64	308 218	327 175
	India	11	14	53 376	64 729
	New Zealand	12	13	23 377	26 054
	United Kingdom	35	29	239 770	187 942
	USSR	1	14	6 337	57 447
	Other countries	48	41	268 418	221 763
Total	183	175	899 496	885 110	
Port Stanvac . .	Australia	68	56	689 845	643 833
	Norway	5	4	162 678	113 719
	United Kingdom	12	9	350 571	277 241
	Other countries	18	15	534 612	493 813
	Total	103	84	1 737 706	1 528 606
Thevenard . . .	Australia	40	35	82 480	129 059
	New Zealand	20	28	40 443	53 154
	Panama	6	9	26 809	24 710
	Other countries	38	27	176 145	154 809
	Total	104	99	325 877	361 732
Whyalla	Australia	212	238	1 838 997	1 923 599
	New Zealand	5	12	9 637	23 964
	United Kingdom	28	41	401 349	529 733
	Other countries	31	42	770 642	365 416
	Total	276	333	3 020 625	2 842 712

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	1968-69	1969-70	1970-71	1971-72	1972-73
	'000 tonnes				
Ardrossan	548	496	603	566	519
Ballast Head	135	157	161	172	179
Kingscote	140	148	133	140	157
Klein Point	364	471	403	561	590
Port Adelaide	3 730	3 754	3 339	3 417	3 441
Port Augusta	44	46	48	32	41
Port Giles	—	—	141	126	73
Port Lincoln	640	885	764	728	576
Port Pirie	1 152	1 439	1 420	1 362	1 256
Port Stanvac	2 727	2 725	2 959	2 810	2 620
Proper Bay	477	496	457	344	232
Rapid Bay	263	292	299	200	291
Stenhouse Bay	209	180	169	155	23
Thevenard	415	485	544	702	757
Wallaroo	167	356	367	278	228
Whyalla	7 010	8 481	8 356	6 866	7 852
Other ports	43	42	39	40	43
Total	18 063	20 453	20 201	18 501	18 878

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 on returns 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 1971-72 and 1972-73, 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—	1971-72		1972-73	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA	50 167	151	63 749	759
Canada	7 191	56	4 906	981
Central America	—	—	—	2
Bermuda and Caribbean Area	—	6 678	1 041	2 279
South America	87 947	—	207 385	168
Europe (excluding USSR):				
Northwestern, Central and Baltic;				
United Kingdom	332 882	71	117 991	14
Other	415 498	1 267	492 328	2 486
Southern Area	62 094	1 989	14 190	2 362
USSR (in Europe and Asia)	56 572	1 363	352 766	—
Africa	551 038	9 620	117 594	31 864
Asia (excluding USSR)	2 755 748	58 208	2 342 533	59 548
Papua and New Guinea, New Zealand and Pacific Islands	246 996	79 495	219 976	115 683
Indian Ocean Islands and Antarctica	—	—	—	—
Total cargo loaded	4 566 134	158 898	3 934 460	216 146

Shipping: Cargo Discharged in South Australia, Trade Area of Origin

Cargo Discharged from Ports in—	1971-72		1972-73	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA	24 015	22 949	19 787	34 094
Canada	55 582	62 305	105 396	71 736
Central America	—	—	—	—
Bermuda and Caribbean Area	1 778	—	5	78
South America	—	—	1 026	256
Europe (excluding USSR):				
Northwestern, Central and Baltic;				
United Kingdom	5 303	14 047	1 431	5 612
Other	7 073	21 431	8 902	11 646
Southern Area	2 361	6 369	815	4 594
USSR (in Europe and Asia)	1	108	—	23
Africa	5 929	6 682	52 581	3 122
Asia (excluding USSR)	1 775 738	91 431	1 662 890	111 792
Papua and New Guinea, New Zealand and Pacific Islands	110 104	12 385	251 496	8 160
Indian Ocean Islands and Antarctica	90 180	—	87 983	—
Total cargo discharged	2 078 064	237 707	2 192 310	251 113

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 532.

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 Customs and Excise.

The following table shows numbers and types of passengers who disembarked, embarked and passed through South Australian ports during the five years 1968 to 1972.

Shipping: Passenger Movement by Sea, South Australian Ports(a)

Year	Type of Passenger					
	Overseas			Total (including Other (b))		
	Disem- barked	Embarked	Passed Through	Disem- barked	Embarked	Passed Through
1968	6 004	6 955	42 601	7 881	8 153	50 888
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

(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 1920-1973* 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 the Commonwealth 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 air-worthiness of the aircraft under authority delegated by the Department of Transport, which maintains liaison and surveillance.

World Gliding Championships

The fourteenth World Gliding Championships were held at Waikerie, South Australia, in January 1974. The Championships were held over a period of two weeks with eleven flying days. The number of flying days was the greatest of all the World Gliding Championships which commenced at Wasserkuppe, West Germany in 1937.

In all, sixty-seven pilots from twenty-two nations competed in the Championships, thirty-nine in the Standard Class and twenty-eight in the Open Class. Temporary accommodation was provided at the Waikerie High School with a camp post office and other essential services such as laundry and banking.

Weather information was gathered from 5 a.m. each day and when this was completed, a team of three experienced glider pilots, the task-setters, set the course for the day. After the task had been set, the operations committee, including the chief marshal, the tugmaster (tow plane chief), groundsman, verifier, communications personnel, and flight officer, were informed. This was followed by a briefing of all the competitors in the main hangar at about 9.30 a.m. The gliders took off between 11.30 and 1.30 each flying day and the entire field was airborne in about 50 minutes.

The Standard Class of the Championships was won by H. Reichmann of Germany with I. Renner of Australia second. The Open Class winner was G. Moffat of the USA.

The ideal conditions enabled the holding of a 707 kilometre speed race (the longest ever) and an unofficial world speed record was created by G. Ax of Sweden who averaged 140.2 km/h around a 500 kilometre triangle. The competing pilots covered a greater total distance (239 460 km) and had a longer total flying time (3 691 hours) than at any previous championships.

The next World Gliding Championships will be held in Finland in 1976.

Aircraft on Register

The total number of aircraft listed at 30 June 1973 on the Australian register, which included aircraft based in Papua New Guinea, was 3 905, an increase from 3 802 registered at June 1972. 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				
	1969	1970	1971	1972	1973
Regular public transport (a)	18	14	14	14	13
Private	139	151	163	178	185
Charter	103	119	124	125	117
Other (b)	84	92	93	99	103
Total	344	376	394	416	418

(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 table below shows adult passenger single air fares, in force at 3 May 1974, 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	59·20	74·00
Brisbane (b)	83·30	104·20
Broken Hill	—	23·50
Canberra (b)	55·40	69·20
Darwin	125·40	156·80
Hobart (c)	57·00	71·20
Melbourne	28·50	35·60
Perth	85·10	106·40
Sydney	51·40	64·30

(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*.

Commuter services were also introduced between Woomera, Port Augusta, Port Pirie and Adelaide, and between Adelaide and Penneshaw. In December 1970 a similar service was introduced between Adelaide, Wudinna and Streaky Bay; this was later extended to include Cleve and Minnipa, following withdrawal of the airline service to these centres. Late in 1971 an Adelaide to Arkaroola service was commenced, and in 1972 a service between Adelaide, Eucla and Kalgoorlie with intermediate stops at Penong, Coorabie and Nullarbor began. From August 1973 the Adelaide to Port Augusta service was extended to Leigh Creek, and from November 1973, to Oodnadatta. These additions followed, curtailment and subsequent withdrawal of the airline services to Leigh Creek and Oodnadatta.

Passengers and Freight Carried

The number of passengers carried on civil airlines in South Australia has more than doubled on both interstate and intrastate services during the last ten years while tonnage of freight has increased by more than 50 per cent. 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 381.

Principal Airports, South Australia Passengers, Freight and Aircraft Movements

Airport	1968-69	1969-70	1970-71	1971-72	1972-73
Passengers (a)					
Adelaide (b) (c)	937 016	1 022 085	1 023 536	1 050 104	1 156 808
Kingscote	45 993	50 878	51 135	47 993	48 609
Port Lincoln	40 514	43 816	42 429	46 648	49 758
Woomera	29 269	25 701	21 476	17 719	15 564
Whyalla	29 210	28 392	30 204	31 063	32 662
Mount Gambier	18 800	20 479	22 086	21 890	24 958
Freight—Tonnes (d)					
Adelaide (b) (c)	14 015	15 125	14 408	14 617	14 469
Kingscote	168	168	145	129	136
Port Lincoln	151	163	133	123	119
Woomera	340	288	233	210	168
Whyalla	130	114	120	112	122
Mount Gambier	88	93	95	112	109
Aircraft Movements (e)					
Adelaide (c)	20 502	22 081	21 918	21 780	22 659
Kingscote	1 424	1 495	1 584	1 455	1 745
Port Lincoln	1 467	1 493	1 432	1 382	1 742
Woomera	1 028	907	726	608	536
Whyalla	1 197	1 133	1 139	1 106	1 188
Mount Gambier	1 238	1 243	1 247	1 251	1 257

(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's 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 1963-64 to 1972-73, there were thirty-four civil aviation accidents involving casualties and these resulted in the death of fifty-seven persons and injury to eighteen. These figures exclude parachutists killed in contact with earth after an uninterrupted fall.

Seven of the accidents occurred in gliding, fifteen in private flying, three in aerial agriculture, four in training and five in charter operations. Thirty-eight of the deaths occurred in private flying, fourteen in charter work, three in gliding and one in each of aerial agriculture and 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.

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 1901-1973*. 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 1973 there were 821 post offices and 278 687 telephone services in operation.

Details of post offices and the number of persons employed in postal services in South Australia for the years 1968-69 to 1972-73 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	1969	1970	1971	1972	1973
Post Offices:					
Official	177	177	175	175	171
Non-official	720	711	685	651	650
Telephone Offices	86	84	83	83	70
Total	983	972	943	909	891

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^(a)
At 30 June

Persons Employed	1969	1970	1971	1972	1973
Direct employees:					
Permanent officers	8 147	8 326	8 582	8 831	9 178
Temporary and exempt employees	2 087	2 159	2 013	2 007	2 099
Total	10 234	10 485	10 595	10 838	11 277
Other:					
Non-official and semi-official postmasters and post mistresses	721	709	688	654	626
Persons exclusive of postmasters employed at non-official offices	205	205	214	202	192
Telephone office keepers	86	83	83	71	68
Mail contractors	311	309	257	256	308
Total	1 323	1 306	1 242	1 183	1 194
Total all employees	11 557	11 791	11 837	12 021	12 471

(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 receipts and payments and take no account of outstanding liabilities or of amounts due but not received at the end of the financial year.

Until the end of financial year 1967-68 the cash accounts were used to record the cash receipts which were paid into the Australian Government Public Account and the cash payments made from funds appropriated by the Australian Parliament for Post Office purposes.

Changed financial arrangements were introduced from 1 July 1968 following an amendment of the Post and Telegraph Act. The cash accounts now contain details of cash receipts paid into, and cash payments made from, the Post Office Trust Account.

Post Office Trust Account: Cash Receipts South Australia and Northern Territory

Year	Postal	Telephone	Telegraph	Proceeds of sales	Recoverable Works	Inter- national Services	Total
				\$'000			
1968-69	13 211	34 523	1 606	444	4 391	149	54 323
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

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	Accommo- dation Services	Other Adminis- trative Expenses	Total
				\$'000			
1968-69	34 445	16 241	1 255	2 415	1 775	3 337	59 469
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	2 883	4 922	101 674

Postal Articles Handled

Articles handled by the Postmaster-General's Department in South Australia and Northern Territory during the years 1968-69 to 1972-73 are shown in the following table.

Postal Articles Handled, South Australia and Northern Territory

Year	Letters and Newspapers Postcards (a)	Packets (a)	Parcels (b)	Registered Articles	All Articles
Posted for delivery:					
Within Australia;			'000		
1968-69	178 428	17 680	1 501	752	198 361
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
Beyond Australia;					
1968-69	8 930	1 214	65	62	10 271
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
Received from beyond Australia:					
1968-69	5 807	3 412	119	35	9 373
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

(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 1972-73 the corresponding values were \$13 099 000 and \$9 059 000. Total commission charged on money orders issued in 1972-73 amounted to \$243 000. The fee on postal orders issued in 1972-73 amounted to \$275 000.

The value of money orders and postal orders paid in 1944-45 amounted to \$2 995 000 and \$1 072 000 respectively; in 1972-73 the corresponding values were \$12 058 000 and \$7 755 000.

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
1968-69 ..	550	907	20 008	60	513	861	19 404	22	380
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

X-rays, and other matter capable of being photographed. A recent extension of this service has enabled the format of a daily newspaper to be transmitted from Sydney for printing by facsimile process in Adelaide.

Telephone Services

The Post Office has continued to provide additional subscriber services, more and better trunk line circuits, and has installed automatic telephone exchanges. At 30 June 1973 there were 2 378 trunk line channels and 371 country automatic telephone exchanges in the State. There are 60 automatic exchanges in the Adelaide Telephone District. From 1 October 1973 the normal charges for selected telephone services are as follows:

Installation charge for a new telephone service is \$60. Annual rental charges are based on the facilities provided; where continuous exchange facilities exist the charge is \$55, or in the case of pensioners \$36.66, paid half-yearly in advance. The corresponding rental charges to subscribers with non-continuous exchanges are \$35 and \$23.34 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 4.75 cents per call. The corresponding charge for calls from public telephones is 5 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 9 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 December 1973, STD facilities were available to approximately 187 000 subscribers in the Adelaide Telephone District and about 27 000 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 10 000 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 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	
1969	721	198 177	16	1 278	21 828	2 875	224 174	5 852
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

(a) Excludes trunk junctions.

Metropolitan services are all operated through automatic exchanges, whereas at 30 June 1973, 83 279 country services were automatic and 17 900 services were manually connected. Metropolitan services totalled approximately 178 000 and of these 119 000 were residence services. In the country, business phone services accounted for the large share (about 54 per cent) of services.

RADIO AND TELEVISION SERVICES

Details of radio and television stations licensed in South Australia are shown in the following table.

Radio and Television Stations, South Australia
At 30 June (a)

Radio Communication Stations	1969	1970	1971	1972	1973
Broadcasting:					
National	8	8	9	10	10
Commercial	8	8	8	8	8
Television:					
National	3	3	4	4	4
Commercial	5	5	5	5	5
Transmitting and receiving:					
Fixed;					
Aeronautical	5	5	5	—	—
Outpost	160	164	173	168	171
Other	115	142	174	151	154
Land;					
Aeronautical	21	25	28	29	35
Base stations for mobile services	812	902	1 027	1 133	1 275
Coast	21	21	21	25	24
Experimental	63	67	62	69	66
Mobile	10 119	11 195	12 508	13 773	15 437
Space services	—	—	—	1	1
Amateur	740	752	752	740	748
Receiving only:					
Fixed	3	9	14	17	19
Mobile	—	—	—	—	10
Total stations	12 083	13 306	14 790	16 133	17 967

(a) Excludes stations in Northern Territory.

NOTE: A fixed station is established at a fixed location for the exchange of radio messages with other fixed stations whereas a land station is established at a fixed location for the exchange of radio messages with mobile stations. An outpost station is established in an outback area and communicates with control stations operated by such organisations as the Royal Flying Doctor Service. A space service is a radiocommunication service between earth stations and space stations, between space stations, or between earth stations when signals are retransmitted by space stations, or transmitted by reflection from objects in space.

Under the Broadcasting and Television Act radio and television receivers must be licensed. A person who owns both a radio and a television receiver at the one address is issued with a combined receiving licence while a person owning only one type of receiver is issued with a radio listeners' licence or a television viewers' licence.

The number of radio listeners' licences, television viewers' licences and combined receiving licences in force at 30 June 1969 to 1973 and revenue from these licences during the years 1969-70 to 1972-73 are given in the following table.

**Broadcast Listeners' and Television Viewers' Licences
South Australia and Northern Territory**

Item	Unit	1969-70	1970-71	1971-72	1972-73
Listeners' licences (a) ..	Number (b)	69 598	69 101	66 792	69 909
Viewers' licences (a) ..	Number (b)	59 438	61 868	69 537	76 520
Combined licences	Number (b)	232 921	241 384	248 820	262 502
Revenue (a)	\$'000	5 238	5 586	7 057	7 720

(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 and telex services by cable and by radio, and the provision, maintenance and development of cable and radio facilities for the conduct of Australia's overseas telephone services and of the facilities for services with ships at sea. 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 the Commonwealth of Australia*, e.g. No. 57, 1971, pages 370-2.

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 (previously entitled Semi-government); 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, 1934-1972 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 the Commonwealth 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 Commonwealth 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 1973

Sources and Nature of Funds	\$'000	\$'000	\$'000
Public Debt:			
Securities Current at 1 July 1972		1 333 720	
New Loans Raised during 1972-73		202 410	
		<hr/>	
		1 536 130	
Less: Securities Redeemed and Converted . .		121 001	
		<hr/>	
Public Debt at 30 June 1973			1 415 129

Government of South Australia, Sources and Disposal of Funds
at 30 June 1973 (continued)

Sources and Nature of Funds—continued	\$'000	\$'000	\$'000
Other Interest Bearing Indebtedness:			
Trust Fund Balances			31 755
Liabilities to Australian Government;			
Housing Agreements (a)			258 929
Other			39 838
Non-Interest Bearing Indebtedness:			
Trust Fund Balances			8 842
Departmental Balances and Other Funds . . .			21 794
			<u>1 776 287</u>
Disposal of Funds			
Loan Account:			
Total of Loan Works at 1 July 1972		1 271 338	
Payments during 1972-73		164 353	
		<u>1 435 691</u>	
Less: Repayments	27 630		
Securities Cancelled	19 380		
Other Credits (b)	60 074		
		<u>107 085</u>	
Loan Works Account Balances at 30 June			1 328 606
1973			78 000
Other Loan Expenditure (c)			
Consolidated Revenue Account:			
Deficit at 1 July 1972		5 624	
Less: Special grant (d)		7 500	
Surplus in respect of period to 30 June 1972		<u>1 876</u>	
Receipts for Year	520 866		
Payments for Year	524 777		
Deficit for Year		3 911	
Deficit at 30 June 1973			2 035
Forestry Agreement:			
Advances to Forestry Board			1 668
Housing Agreements (a):			
Advances to SA Housing Trust		145 555	
Advances to Home Builders Account No. 1		<u>113 375</u>	
			258 929
Natural Gas Pipeline Agreement:			
Advances to Natural Gas Pipelines Authority			13 125
Railway Standardisation and Equipment:			
Improvements and Advances			17 039
Other Agreements			8 006
Cash at Bank			68 880
			<u>1 776 287</u>

(a) From 1 July 1971 to 30 June 1973 Housing programmes are financed from Loan Account.
 (b) Amount of debt to be taken over by Australian Government (\$26 000 000) and Capital Works Grant, in lieu of loan raising (\$34 074 000). (c) Not represented by Assets: debt to be taken over by Australian Government. (d) Pursuant to Section 96 of Australian Constitution on account of the period to 30 June 1971.

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 onward 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 five years to 1971-72. 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

Receipts	1968-69	1969-70	1970-71	1971-72 P
Current receipts:			\$ million	
Taxes, fees, fines, etc.	85.9	95.3	100.3	137.1
Business undertakings;				
Gross operating surplus (a)	51.2	62.7	63.3	66.2
Interest, rent, royalties and dividends	12.4	14.7	16.2	16.7
Grants from Australian Gov- ernment	127.3	140.0	177.7	193.4
Total current receipts ..	276.6	312.8	357.5	413.5

**State and Local Government Authorities and Public Corporations
South Australia, Receipts (continued)**

Receipts	1968-69	1969-70	1970-71	1971-72 <i>p</i>
	\$ million			
Capital receipts:				
Net borrowing:				
Government securities,				
Australia	72.3	81.0	51.9	84.3
Overseas	-3.4	-15.4	-6.5	-6.9
Local government and public corporation securities . .	34.9	22.6	24.9	<i>n.a.</i>
Net receipts of private trust funds	-0.3	0.3	0.6	<i>n.a.</i>
Net advances from Aus- tralian Government	26.9	25.6	26.5	-0.6
Other funds available (incl. errors and omissions) (b) .	-1.7	1.4	-2.7	<i>n.a.</i>
Grants from Australian Gov- ernment	32.0	40.5	65.6	69.7
Total capital receipts . . .	160.7	156.1	160.4	165.4
Reduction in:				
Cash and bank balances (c) .	-17.7	-2.1	-0.7	} -1.3
Security holdings	0.9	-7.4	-6.2	
Total receipts	420.6	459.4	510.9	577.6

(a) Before providing for interest and depreciation.

(b) Consists mainly of movements in debtors, creditors, reserves and provisions (other than for depreciation) of public business undertakings.

(c) Includes balances held by government authorities in government banks.

**State and Local Government Authorities and Public Corporations
South Australia, Outlay**

Outlay	1968-69	1969-70	1970-71	1971-72 <i>p</i>
	\$ million			
Current outlay:				
Purchase of goods and ser- vices and grants to organisa- tions	142.3	160.2	195.3	235.2
Interest	72.2	81.4	89.6	99.6
Cash benefits to persons . . .	1.4	3.3	4.3	4.8
Subsidies	0.4	0.2	0.2	0.4
Grants towards private capital expenditure	1.4	1.9	2.2	2.3
Total current outlay . . .	217.7	247.0	291.5	342.2

State and Local Government Authorities and Public Corporations
South Australia, Outlay (continued)

Outlay	1968-69	1969-70	1970-71	1971-72 <i>p</i>
\$ million				
Capital outlay:				
Gross capital formation (a) . . .	188.8	196.4	201.2	219.5
Net advances to other sectors . . .	14.1	16.1	18.2	15.9
Total capital outlay . . .	202.9	212.4	219.4	235.4
Total outlay	420.6	459.4	510.9	577.6

(a) Expenditure on fixed assets and increase in stocks.

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. However, 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. The Commission approved advance grants to South Australia of \$5 million in respect of 1970-71 and \$7 million in respect of 1971-72. In July 1972 the Commission announced a further grant to this State of \$21 million, comprising a completion grant in respect of 1970-71 of \$7.5 million and an advance grant in respect of 1972-73 of \$13.5 million. For 1973-74 the Commission recommended a completion grant in respect of 1971-72 of \$4.9 million 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 programmes 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.

The *States Grants Act* 1970 provides for the continuation of formula grants, however, from 1971-72 the 'betterment' factor was increased from 1.2 per cent to 1.8 per cent. Other payments authorised by this Act and not included in

the base for determining formula grants are \$2 per head of population to be made to NSW and Vic. for each of the five years 1970-71 to 1974-75 and a grant of \$12.5 million to WA in 1970-71, decreasing by \$3 million in each year to 1974-75. At the June 1973 Premiers' Conference it was decided that the 1973-74 grant to WA would remain at \$6.5 million, instead of being reduced to \$3.5 million. (As a corollary the special temporary addition to that State's borrowing programme for larger authorities was reduced by \$3 million.) Following discussions between the Australian and Western Australian Governments it was agreed that the 1974-75 grant would also remain at \$6.5 million.

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.

At a special Premiers' Conference held in April 1971, the Australian Government agreed to provide the States with extra financial assistance totalling \$43 million to be applied towards reducing the States' accumulating deficits. Under the *States Grants Act 1971* this money was shared between the States in proportion to their shares of the 1970-71 Financial Assistance Grants.

The *States Grants Act (No. 2) 1971* gave effect to an agreement made at the June 1971 Premiers' Conference that the Australian Government would transfer to the States as soon as possible the right and responsibility to levy payroll tax and that there would be an appropriate adjustment to the financial assistance grants. The reduction in the financial assistance grants in 1971-72 (and in the 'base' figure for future years' calculations) is less than the amount of payroll tax foregone by the Australian Government and made available to the States. The main factors in this lesser reduction in the grants are a sum of \$22.3 million in recognition of the States' serious budgetary problems, and a sum of about \$8 million to permit the States to relieve local government (other than business undertakings) of the impost of payroll tax. As part of the overall arrangements the Australian Government agreed to make a further contribution of \$40 million towards the States' problems in 1971-72, but this amount will not be written into the base for escalation in future years in accordance with the formula under the legislation. In recognition of the fact that payroll tax may be expected to grow at an annual rate a little below the rate of growth of grants under the formula, the Australian Government, in calculating the 1972-73 grants, increased further the 1971-72 base by \$3 million for the six States combined. At the February 1972 Premiers' Conference the Australian Government agreed to provide further special revenue assistance to the States in 1971-72 totalling \$32.5 million. Of this, \$15 million was provided by way of non-recurring grants distributed between the States in proportion to their financial assistance grants and the remaining \$17.5 million was a special repayable advance to New South Wales. The additional assistance of \$15 million was authorised by the

States Grants Act 1972. In September 1972 the Australian Government announced a further repayable advance of \$15 million to New South Wales. For further details see the document *Commonwealth Payments to or for the States.*

Following the June 1971 Premiers' Conference it was reported that the Premiers had 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 could be transferred to the States.

At the June 1972 Premiers' Conference the Australian Government agreed to 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 also agreed to provide special additional revenue assistance to the States in 1973-74 totalling \$25 million and to be distributed among the States in proportion to the financial assistance grants payable under the formula.

The *States Grants (Debt Charges Assistance) Act 1970* provides for the Australian Government to take over responsibility for charges on \$200 million of existing State debt at the beginning of each of the five years commencing 1970-71. Formal transfer of such debt from the States to the Australian Government will occur in June 1975.

Capital assistance in the form of a grant, in lieu of loan raisings, is authorised by the *States Grants (Capital Assistance) Act 1970* which provides for a grant to the States of \$200 million in 1970-71, increasing in future years in proportion to the increase in the Loan Council works and housing programme. South Australia's share of this grant, proportionate to its share of the works and housing programme, was approximately \$27.4 million in 1970-71. This assistance was continued in 1971-72 under the 1971 Act, South Australia's share being 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. South Australia's share of the general works and housing grant for 1972-73 was approximately \$34.1 million and its share of the government primary and secondary schools grant for the same year was approximately \$1.8 million. For 1973-74 South Australia's share of the general works grant is \$37.6 million: this excludes specific advances for welfare housing (see comments below) and is after allowance 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 have been 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.

OTHER FINANCIAL ASSISTANCE

In addition to the grants under the Financial Agreement, the special grants recommended by the Australian Government 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, varied from time to time, 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. This is intended to assist the States in continuing the provision of housing for lower income groups and is supplemented during the first five years by additional grants toward the cost of reduced rents charged to needy families occupying South Australian Housing Trust homes. 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 programmes 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. Interim grants will be provided in 1973-74 and 1974-75 and grants for subsequent years will be the subject of recommendations by the Hospitals and Health Services Commission, a body established to study Australian health care needs and to submit recommendations thereon to the Australian Government.

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. Capital and current grants for the three years 1967 to 1969 totalled \$182 500 000. The *States Grants (Universities) Act (No. 2) 1970*, as amended, provided for grants of up to \$249 716 000 to the States for universities (including halls of residence and teaching hospitals) during the three calendar years 1970 to 1972: the *States Grants (Universities) Act (No. 2) 1972* extended this assistance a further three years. 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.

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 *State 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 to advise on, amongst other things, the financial needs of government and non-government schools. Capital and recurrent grants to government schools, authorised by the *States Grants (Schools) Act 1972* have not been altered as a result of the Australian Government's adoption (in the main) of the Interim Committee's recommendation; however, additional general building grants will be paid to government schools in 1974 and 1975. Independent schools will receive capital grants authorised by the Act in respect of 1973-74 and subsequent grants will be based on recommendations of the Interim Committee: recurrent grants in 1973 will be as authorised by the Act and thereafter based on recommendations.

While the programme 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 programme) the existing programme 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 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 will increase 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 1972-73 are provided under the *States Grants (Aboriginal Advancement) Act 1972*. The *States Grants (Aboriginal Advancement) Act (No. 2) 1973* provides for grants of \$32 250 000 in 1973-74.

The *South Australian Grant (Fruit Canneries) Act 1971* provides for a grant of approximately \$1.3 million to assist the South Australian Government to write off debts owed to it by two fruit canneries.

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 \$54 million and payments up to 30 June 1973 totalled \$94.8 million (including \$9 100 000 to South Australia). Some details of the scheme are given on pages 109-11. The *States Grants (Fruit-growing Reconstruction) Act 1972* provides 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.

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 next 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. On 26 June 1973 grants of \$12 million under the non-metropolitan relief scheme for the following three months were announced.

In 1973-74 the Australian Government will commence a five-year programme of grants to assist in the upgrading of urban public transport (including railways); \$32.1 million is provided for the first year. Beginning in 1973-74 the Australian Government will make payments to the States in respect of growth centres, land commissions, metropolitan area improvement programmes and sewerage works. An amount of \$101 million is anticipated for 1973-74.

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 *Commonwealth Payments to or for the States* presented to the Australian Parliament.

Figures in the following table are those which have been published in various issues of that bulletin and show the general pattern of Australian Government payments to or for the State of South Australia since the Financial Agreement in 1927: some amounts shown are repayable to the Australian Government (e.g. portion of railway project payments) but repayable advances for housing and war service land settlement are not included.

Australian Government Payments To or For the States, South Australia

Particulars	1959-60	1969-70	1970-71	1971-72	1972-73
Financial Agreement:			\$'000		
Interest on State Debt	1 408	1 408	1 408	1 408	1 408
Sinking Fund on State Debt	1 583	3 053	3 226	3 458	3 689
Special Grants	2 852	—	5 000	7 000	21 000
Financial Assistance Grants (tax reimbursements)	55 350	125 706	151 602	158 491	181 430
Additional Assistance	—	1 690	4 650	5 929	—
Debt charges assistance	—	—	1 496	2 991	4 487
Commonwealth Aid Roads Act	9 846	21 000	23 500	25 500	28 000
Grants to universities	1 787	6 470	8 180	8 494	10 595
Science laboratories and technical training	—	2 010	2 393	1 958	1 958
Research Grants	—	551	759	577	851
Mental health institutions—contributions to capital expenditure	184	1 299	909	246	453
Tuberculosis Act, 1948—Capital	214	69	108	155	243
Current	1 247	551	545	715	760
Agricultural extension services	102	460	538	651	690
Railway projects	102	12 212	2 048	1 024	556
Natural gas	—	—	2 250	1 750	—
Colleges of advanced education	—	2 402	3 773	3 350	3 825
Softwood forestry	—	350	300	93	400
Rural Reconstruction	—	—	—	3 000	6 100
Assistance for deserted wives	—	210	294	464	776
Teachers colleges	—	2 021	140	1 063	2 397
Pre-school teachers colleges	—	—	480	110	45
Aboriginal advancement	—	535	660	800	1 740
School libraries	—	627	1 343	891	1 154
Independent schools	—	759	1 526	1 889	2 529
Tailem Bend pipeline	—	1 500	1 500	1 500	756
Dwellings for aged pensioners	—	160	311	1 002	380
Non-metropolitan unemployment relief	—	—	—	1 620	5 040
Metropolitan unemployment relief	—	—	—	—	4 620
Capital grants for government schools	—	—	—	910	1 823
Housing grants	—	—	—	623	1 093
Other	152	332	2 083	1 210	3 924
Total	74 827	185 375	221 122	238 872	292 722

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 1972-73 were hospital benefits \$1 802 000, pharmaceutical benefits \$2 226 026, free milk for school children \$1 034 000, tuberculosis reimbursement of maintenance expenditure and surveys \$811 000.

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 307-10) 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 1972-73 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 582-3.

Consolidated Revenue Account, South Australia

Particulars	1939-40	1949-50	1959-60	1969-70	1972-73
			\$'000		
Receipts	25 511	58 721	160 555	338 498	520 866
Payments	25 837	59 100	161 177	335 578	524 777
Surplus (+) or deficit (-):					
Current year	-325	-379	-622	+2 920	-3 911
Cumulative	+1 999	+3 215	-3 376	-4 579	-2 035

Per Head of Population

	Dollars				
Receipts	42.72	85.50	171.99	293.06	435.65
Payments	43.28	86.05	172.65	290.53	438.92

Sources of Revenue

The sources of revenue for the financial years 1969-70 to 1972-73 were as follows:

Consolidated Revenue Account: Sources of Revenue, South Australia
Total Revenue

Source of Revenue	1969-70	1970-71	1971-72	1972-73
			\$'000	
Net taxation (a)	59 840	62 745	97 476	120 474
Business undertakings	86 418	91 282	102 439	109 513
Territorial: Land sales, rents, etc.	3 028	3 072	3 250	3 238
Other:				
Interest and exchange	24 849	26 691	29 577	31 335
Fees, fines, rents, etc.	35 559	38 860	46 636	55 483
Australian Government grants (b)	128 803	164 207	175 866	200 824
Total	338 498	386 859	455 245	520 866

Per Head of Population

	Dollars			
Net taxation (a)	52.08	53.71	82.35	100.76
Business undertakings	75.21	78.15	86.54	91.60
Territorial: Land sales, rents, etc.	2.64	2.63	2.75	2.71
Other:				
Interest and exchange	21.62	22.85	24.99	26.21
Fees, fines, rents, etc.	30.94	33.27	39.40	46.40
Australian Government grants (b)	112.09	140.58	148.57	167.97
Total	294.58	331.19	384.60	435.65

Consolidated Revenue Account: Sources of Revenue, South Australia (continued)
Proportion of Total Revenue

Source of Revenue	1969-70	1970-71	1971-72	1972-73
	Per cent			
Net taxation (a)	17.68	16.22	21.41	23.13
Business undertakings	25.53	23.60	22.50	21.02
Territorial: Land sales, rents, etc.	0.89	0.79	0.71	0.62
Other:				
Interest and exchange	7.34	6.90	6.50	6.02
Fees, fines, rents, etc.	10.51	10.04	10.25	10.65
Australian Government grants (a)	38.05	42.45	38.63	38.56
Total	100.00	100.00	100.00	100.00

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Includes grants under Financial Agreement and Financial Assistance Grants (originally entitled 'Tax Reimbursement').

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 611, 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^{(a)(b)}

Tax	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Land tax	7 644	7 595	7 550	9 732	10 212
Succession duty	8 822	8 312	9 030	10 659	11 699
Gift duty	309	611	733	834	815
Racing tax (b)	1 374	948	1 018	1 295	1 444
Motor tax (b)	13 728	14 537	15 671	19 593	20 832
Stamp duties (c)	14 847	20 620	(d)20 711	21 980	30 516
Payroll tax	—	—	—	22 804	34 029
ETSA levy	—	—	468	2 081	2 242
Licences: liquor	2 633	3 083	3 255	3 591	3 650
other	681	746	834	1 063	1 303
Court fees and fines	3 174	3 259	3 297	3 636	3 531
Other	140	128	178	209	201
Total	53 351	59 840	62 745	97 476	120 474

Consolidated Revenue Account: Revenue from Taxation
South Australia (continued)

Proportion of Total Taxation

Tax	1968-69	1969-70	1970-71	1971-72	1972-73
			Per cent		
Land tax	14.33	12.69	12.03	9.98	8.48
Succession duty	16.54	13.89	14.39	10.93	9.72
Gift duty	0.58	1.02	1.17	0.86	0.67
Racing tax (b)	2.57	1.59	1.62	1.33	1.20
Motor tax (b)	25.73	24.29	24.98	20.10	17.29
Stamp duties (c)	27.83	34.46	(d)33.01	22.55	25.33
Payroll tax	—	—	—	23.40	28.24
ETSA levy	—	—	0.75	2.14	1.86
Licences: liquor	4.93	5.15	5.19	3.68	3.03
other	1.28	1.25	1.33	1.09	1.08
Court fees and fines	5.95	5.45	5.25	3.73	2.93
Other	0.26	0.21	0.28	0.21	0.17
Total	100.00	100.00	100.00	100.00	100.00

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) See also State Taxation on page 611.

(c) Excludes stamp duty on third party insurance.

(d) Includes payments in lieu of stamp duty.

Early in 1969 an expanded receipts duty was introduced by the State Government. A duty of 1 cent in each \$10 (or part thereof) became payable on certain receipts including cash sales but excluding salaries and wages. A High Court ruling in relation to appeals against similar legislation in two other States invalidated some parts of the receipts duty legislation in all States: the Court found that duty on some receipts is an excise duty which only the Australian Government has power to levy. The Australian Government subsequently agreed to introduce legislation to impose a receipts duty throughout Australia and to make the proceeds available to the States; such an arrangement existed from 18 November 1969 to 30 September 1970 after which receipts duty ceased to be payable under either State or Australian Government legislation.

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 (since Federation) 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^(a)

Tax	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Income tax	219 783	288 340	332 936	380 318	417 318
Sales tax	38 733	44 380	48 881	52 288	57 732
Payroll tax	17 703	20 410	23 339	8 211	2 467
Customs duties	19 298	21 006	22 646	21 913	29 414
Excise duties (b)	73 445	79 972	93 510	107 308	110 047
Estate duty	5 956	6 998	5 214	6 513	7 053
Gift duty	1 073	707	702	540	530
Wool tax	1 833	1 706	—	—	—
Stevedoring industry charge	1 509	1 710	1 547	1 649	1 659
Broadcasting Listeners and Television Viewers Licences	4 930	5 238	5 657	7 160	7 721
Other	471	598	1 407	1 481	2 638
Total	384 733	471 065	535 837	587 379	636 579
	\$	\$	\$	\$	\$
Per head of population	340.05	409.94	458.73	496.22	532.43

(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 1938-39 was \$9 914 000, for 1958-59, \$50 370 000 and for 1972-73 it was \$109 513 000. 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 pages 595-6. A dissection of revenue from business undertakings is given in the following table.

Revenue from Business Undertakings, South Australia^(a)

Undertaking	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Railways (b)	40 350	48 737	48 140	55 243	57 910
Marine and harbours	6 547	7 244	7 461	7 813	7 324
Waterworks	15 580	17 403	20 275	21 682	25 373
Sewers	8 210	9 382	11 428	13 077	14 269
Irrigation	1 042	1 152	1 173	1 256	1 262
Produce	433	546	809	1 016	999
Woods and forests (c)	960	1 440	1 440	1 740	1 800
State Bank (c)	370	515	556	614	576
Total	73 490	86 418	91 282	102 439	109 513

(a) Receipts into Consolidated Revenue but excluding recoveries of interest and sinking fund.
 (b) Includes grant from Treasury each year—\$22 500 000 in 1972-73.
 (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 Commonwealth 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	1969-70	1970-71	1971-72	1972-73
	\$'000			
General public services:				
General administration n.e.c.	13 113	16 258	17 346	20 128
Law, order and public safety	17 439	20 454	24 627	28 741
Other general public services (a)	148	188	347	396
Education	86 407	104 759	129 297	148 640
Health	37 640	46 329	55 819	67 615
Social security and welfare	5 978	7 249	8 867	14 510
Housing and community amenities:				
Housing	1 262	1 360	1 641	1 696
Community and regional development	191	—	609	804
Protection of the environment (b)	3 148	3 745	4 570	5 421
Community amenities n.e.c.	40	50	81	79
Recreation and related cultural services	2 832	3 204	4 544	5 951
Economic services:				
General administration, regulation and research	2 092	2 653	3 384	3 978
Agriculture, forestry, fishing (c)	5 624	6 908	8 396	8 771
Mining, manufacturing and construction (d)	2 837	3 200	3 593	5 593
Electricity, gas and water	10 232	11 627	12 066	14 378
Transport and communication:				
Rail (non-urban) (e)	41 705	44 692	52 074	59 417
Road	12 686	13 499	17 109	17 810
Sea	3 861	4 564	4 862	4 736
Urban transit systems (incl. urban rail) (e)	10 207	11 292	12 985	14 222
Other transport and communication	34	51	30	46
Other economic services	979	1 320	1 291	1 381
Other purposes (f)	77 511	83 469	92 808	100 499
Total	335 606	386 871	456 346	524 812

(a) Includes immigration. (b) Includes sewerage. (c) Includes irrigation. (d) Includes Produce Department. (e) Includes contribution towards deficit. (f) 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 19.06 per cent in 1972-73. 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 28.33 per cent in 1972-73.

A table showing the net cost of each purpose appears below: 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 43.26 per cent of the net cost in 1971-72 and 41.67 per cent in 1972-73.

**Consolidated Revenue Account: Net Expenditure Classified According to Purpose
South Australia p**

Purpose	1971-72		1972-73	
	Net Expenditure	Per Head of Population	Net Expenditure	Per Head of Population
	\$'000	\$	\$'000	\$
General public services:				
General administration n.e.c.	13 779	11.64	15 684	13.12
Law, order and public safety	17 511	14.79	21 067	17.62
Other general public services (a)	226	0.19	253	0.21
Education	117 154	98.97	134 127	112.18
Health	37 796	31.93	48 362	40.45
Social security and welfare	7 823	6.61	12 717	10.64
Housing and community amenities:				
Housing	1 599	1.35	1 551	1.30
Community and regional development	607	0.51	766	0.64
Protection of the environment (b)	-8 767	-7.41	-9 104	-7.61
Community amenities n.e.c.	68	0.06	63	0.05
Recreation and related cultural services	4 392	3.72	5 580	4.67
Economic services:				
General administration, regulation and research	1 809	1.53	2 426	2.03
Agriculture, forestry, fishing (c)	3 294	2.78	3 334	2.79
Mining, manufacturing and construction (d)	9	0.01	2 037	1.70
Electricity, gas and water	-10 063	-8.50	-11 404	-9.54
Transport and communication;				
Rail (non-urban) (e)	4 638	3.92	9 281	7.76
Road	16 860	14.24	17 472	14.61
Sea	-3 190	-2.69	-2 829	-2.37
Urban transit systems (incl. urban rail) (e)	5 055	4.27	6 323	5.29
Other transport and communication	29	0.02	44	0.04
Other economic services	364	0.31	552	0.46
Other purposes (f)	59 759	50.48	63 531	53.14
Total	270 820	228.79	321 903	269.24

(a) Includes immigration. (b) Includes sewerage. (c) Includes irrigation.

(d) Includes Produce Department. (e) Includes contribution towards deficit.

(f) Predominantly interest and sinking fund: these expenditures are not allocated to purpose.

Business Undertakings, Expenditure

Details of the expenditure of business undertakings for the years 1968-69 to 1972-73 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^(a)

Undertaking	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Railways	34 517	36 419	40 663	44 571	49 746
Marine and harbours	3 718	3 659	4 360	4 655	4 732
Waterworks	8 705	9 920	11 100	11 378	13 648
Sewers	2 958	3 090	3 668	4 414	5 003
Irrigation	1 215	1 292	1 454	1 591	1 837
Produce	637	726	976	1 086	1 173
Total	51 750	55 106	62 221	67 695	76 139

(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 1973 they represented approximately 2.3 per cent of the indebtedness of the South Australian Government. Total balances at 30 June 1971, 1972 and 1973, with many of the larger balances itemised, are shown in the following table.

**Trust Funds Accounts, South Australia
Balances at 30 June**

Particulars	1971	1972	1973
		\$'000	
Adelaide Festival Centre Trust	—	(a)	1 984
Electricity Trust of South Australia	900	—	800
Fire Brigades Board	674	769	1 022
Flinders University of South Australia	1 165	954	1 569
Municipal Tramways Trust	550	—	—
Natural Gas Pipelines Authority of S.A.	1 053	661	198
Planning and Development Fund	545	129	1 781
Royal Adelaide Hospital Endowment Fund	946	993	394
South Australian Housing Trust Fund	2 712	4 618	12 498
South Australian Institute of Technology	1 398	1 142	1 831
State Bank of South Australia	—	—	1 000
University of Adelaide	2 724	2 988	2 944
Other	3 186	3 670	5 734
Balances on which interest is paid	15 853	15 924	31 755

Trust Funds Accounts, South Australia
Balances at 30 June (continued)

Particulars	1971	1972	1973
		\$'000	
Agricultural Research and Service Grants	382	350	314
Australian Government Grant for Education Purposes	687	908	1 220
Crown Solicitors Trust Account	584	1 419	877
Leigh Creek Coal Fund	249	—	—
Lotteries Fund	247	331	174
Public Trustee; Common Fund Reserve	183	183	182
Unemployment Relief:			
Metropolitan	—	—	2 400
Rural	—	522	1 266
Other	1 271	1 902	2 409
Balances on which no interest is paid . .	3 603	5 615	8 842
Total Trust Funds	19 456	21 540	40 597

(a) For 1972 there was a balance of \$300 000 on which no interest was paid.

LOAN FUND ACCOUNTS

tion of assets such as schools, reservoirs, hospitals, forests, plant and stores; tion 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 programmes 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 1968-69 to 1972-73 is shown in the next table.

Loan Fund Accounts: Gross Expenditure, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Undertakings:					
Railways	5 212	6 810	7 745	8 121	5 218
Harbours and jetties	2 987	4 412	5 307	4 788	6 043
Metropolitan water supply and sewers	15 683	18 407	18 228	18 327	18 971
Country water supply and sewers (a)	11 844	11 664	12 299	13 449	11 541
Irrigation works	425	372	649	1 034	792
Afforestation	2 282	2 485	3 068	2 741	3 200
Other undertakings	518	271	130	168	173

Loan Fund Accounts: Gross Expenditure, South Australia (continued)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Loans and advances:			\$'000		
Advances to primary producers	1 584	1 812	2 421	2 135	2 338
State Bank	—	1 000	2 000	1 000	2 000
Advances for housing (b) . .	650	459	2	27 717	29 863
Electricity Trust	6 000	6 000	4 500	4 500	3 000
State Planning Authority . .	—	—	250	350	1 500
Other loans and advances . .	3 658	1 568	1 139	2 145	736
Other purposes:					
Buildings:					
Hospitals	7 791	11 074	10 669	13 911	13 873
Schools	13 270	15 500	17 885	22 315	29 770
Police and courts	594	667	1 329	1 351	1 981
Other	3 071	3 537	5 203	7 641	10 278
Capital grants (c)	6 669	7 390	12 077	11 315	14 579
Parks and Reserves	410	590	383	363	901
River Murray improvements	253	251	48	119	814
Metropolitan floodwaters, etc.	1 842	2 627	1 606	1 472	1 464
Data processing equipment . .	8	8	920	205	728
Festival Theatre	700	900	900	900	980
Other	1 160	3 571	1 482	2 937	3 322
	86 611	101 374	110 239	149 004	164 065
Repatriation of overseas loans	—	829	278	250	—
Floating Conversion Loans:					
Floatation expenses, etc. . . .	307	217	425	436	288
Total	86 918	102 418	110 944	149 690	164 353

(a) Includes Morgan-Whyalla water main and water conservation.

(b) Includes amounts previously provided under the Housing Agreement.

(c) For university, college of advanced education and non-government hospital buildings.

The following table shows expenditure from loan fund accounts for the year ended 30 June 1973 together with credits and net balances.

Loan Fund Accounts
Gross Expenditure, Credits, and Net Balances, South Australia, 1972-73

Particulars	Expenditure	Credits			Net Aggregate Balance at 30 June
		Repayments, etc.	Other (a)	Total	
Undertakings:				\$'000	
Railways	5 218	870	5 485	6 356	139 100
Harbours and jetties	6 043	501	711	1 212	62 655
Metropolitan water supply and sewers	18 971	2 854	2 020	4 874	248 807
Country water supply and sewers (b)	11 541	2 373	1 699	4 072	171 388
Irrigation works	792	89	177	266	11 693
South-eastern drainage . .	75	8	125	134	14 839
Afforestation	3 200	2 420	—	2 420	18 848
Produce stores	98	4	65	69	1 682

Loan Fund Accounts
Gross Expenditure, Credits, and Net Balances
South Australia, 1972-73 (continued)

Particulars	Expenditure	Credits			Net Aggregate Balance at 30 June
		Repayments, etc.	Other (a)	Total	
\$'000					
Loans and advances:					
Advances to primary producers	2 338	1 556	—	1 556	8 909
State Bank	2 000	—	87	87	19 469
Advances for housing (c)	29 863	2 012	443	2 455	128 218
Tramways Trust	400	20	51	71	7 596
Electricity Trust	3 000	419	1 129	1 548	152 856
Natural gas pipelines	—	—	—	—	5 500
Other loans and advances	2 012	14	380	394	6 193
Other purposes:					
Roads and bridges	800	—	147	147	9 718
Buildings;					
Hospitals	13 873	2 038	18 777	20 814	72 531
Schools	29 770	6 936	30 651	37 588	135 076
Police and courts	1 981	12	111	123	16 681
Other	10 278	512	612	1 124	54 912
River Murray weirs, etc.	814	—	2 000	2 000	12 481
Leigh Creek coalfield	—	—	96	96	4 957
Capital grants (d)	14 579	3 768	10 811	14 579	—
Mines Department stores, etc.	312	68	170	238	1 854
Metropolitan floodwaters, etc.	1 464	29	452	483	11 407
Data processing equipment	728	—	306	306	1 431
Festival Theatre	980	—	880	880	100
Parks and reserves	901	222	679	901	—
West Lakes	1	192	—	192	707
Other	1 102	357	461	817	8 955
	163 136	27 274	78 525	105 800	1 328 561
Floating Conversion Loans:					
Floataion expenses, etc.	1 217	356	929	1 285	45
Total	164 353	27 630	79 454	107 085	1 328 606

(a) Includes securities redeemed and cancelled by the National Debt Commission on account of South Australia (\$19 380 000), Capital Works grants from the Australian Government (\$34 074 000) 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 programmes determined by Loan Council.

During 1972-73 funds provided by the Australian Government for railway standardisation works totalled \$550 000. The State's liability at 30 June 1973 was \$15 864 000: this is in addition to the State's liability of \$414 000 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 1973 was \$633 000.

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 589 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 1972-73 was \$78 000 000.

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 programmes 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 semi-government authorities.

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 1971-72 and 1972-73 are given in the following table. Corresponding figures for all States are also stated.

National Debt Sinking Fund

Particulars	1971-72		1972-73	
	South Australia	All States	South Australia	All States
Receipts:	\$'000			
Contributions by Australian Govern- ment	3 458	26 323	3 689	27 979
Contributions by State (a)	3 704	28 336	3 933	29 994
4½ per cent contributions by State on cancelled debt	8 511	64 835	9 176	70 226
4 per cent contributions on funded deficits	50	2 725	50	2 891
Contributions by State on loans for wasting assets	261	677	275	681
Interest received from State in respect of repurchased securities to date of cancellation of securities	16	139	16	144
Interest on the temporary investments of State funds during the year	18	140	19	174
Special contributions in respect of loans converted at a discount	—	107	—	107
Interest accrued on securities purchased as a short-term investment of State funds	—	—	—	—
Total receipts	16 018	123 280	17 158	132 195
Expenditure:				
Redemptions and repurchases:				
In Australia	12 193	94 374	14 937	94 131
In London	1 020	11 574	1 432	25 939
In New York	2 134	14 999	1 975	15 474
In Canada	65	486	62	459
In Netherlands	73	571	73	571
Total expenditure	15 485	122 005	18 479	136 575

(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 the Commonwealth of Australia*.

The Loan Fund

A summary of loan raisings to finance State Government loan works in South Australia during 1972-73 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
(1) <i>Cash operations:</i>	
Surplus at 30 June 1972	10 382
Receipts:	
New loan raising	100 789
Repayments	27 630
Capital works grant	34 074
	172 876
Payments	164 353
	8 523
(2) <i>Movement in public debt:</i>	
The public debt at 30 June 1972	1 333 720
<i>Add:</i> Face value of new loans raised:	
For cash	100 789
For conversion	89 621
	1 524 130
<i>Less:</i> Face value of securities redeemed and cancelled	
by National Debt Commission	19 380
Loans converted	89 621
	109 001
The public debt at 30 June 1973	1 415 129

The Public Debt

The following table gives details of the public debt and total indebtedness of South Australia at 30 June 1973 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 Indebted- ness (a)	Non- interest Bearing Indebted- ness (a)	Total Indebtedness	
	Total	Per Head			Total	Per Head
	\$'000	\$	\$'000	\$'000	\$'000	\$
1969	1 143 954	1 004-08	261 696	3 313	1 408 962	1 236-69
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	1 180-36	330 521	8 842	1 754 492	1 463-43

(a) Gross less securities held on these accounts.

Public Debt According to Rate of Interest, South Australia
At 30 June (continued)

Nominal Rate Per Cent	1969	1970	1971	1972	1973		
					Total	Redeemable In	
						Australia	Other (a)
					\$'000		
3	5 036	5 008	5 008	5 005	5 001	207	4 794
2.75	3 689	3 589	3 589	—	—	—	—
2.5	5 872	5 872	5 872	5 872	5 872	—	5 872
2.325	616	607	605	589	546	546	—
1.5	4 813	4 627	4 439	4 247	4 053	4 053	—
1 (b)	5 455	5 159	4 850	4 527	4 190	4 190	—
Special bonds (c)	62 882	65 119	75 756	81 467	84 906	84 906	—
Total	1 143 954	1 210 489	1 256 337	1 333 720	1 415 129	1 379 093	36 036

(a) \$24 444 000 redeemable in UK, \$8 326 000 in USA, \$1 241 000 in Canada, \$1 402 000 in Switzerland and \$622 000 in Netherlands. Converted at rates current at the time of the several raisings. Debt redeemable at rates of exchange obtaining at 30 June 1973 totalled \$30 577 000, resulting in a contingent asset of \$5 459 000.

(b) Australian Government Debentures.

(c) Rate of interest varies from 5.2 to 6.6 per cent according to date of maturity.

Public Debt According to Year of Maturity, South Australia
At 30 June

Year of Maturity	1969	1970	1971	1972	1973		
					Total	Redeemable In	
						Australia	Other (a)
					\$'000		
1969-70	125 713	—	—	—	—	—	—
1970-71	115 339	138 854	—	—	—	—	—
1971-72	62 604	98 552	125 059	—	—	—	—
1972-73	61 872	82 966	102 536	102 073	—	—	—
1973-74	35 328	64 854	93 618	134 097	133 638	133 638	—
1974-75	64 455	63 422	66 646	82 082	115 859	106 047	9 812
1975-76	65 320	64 784	74 809	122 659	181 021	179 012	2 008
1976-77	39 129	48 704	45 134	50 474	49 796	49 796	—
1977-78	45 801	56 659	72 451	71 319	70 015	68 036	1 978
1978-79	21 345	43 664	63 334	68 571	67 387	63 690	3 697
1979-80	31 302	31 112	39 043	38 922	38 753	37 862	891
1980-81	28 643	28 401	39 130	45 057	44 958	42 776	2 182
1981-82	35 891	35 668	35 448	51 781	65 734	60 536	5 197
1982-83	12 783	12 512	12 244	23 413	49 232	46 791	2 441
1983-84	48 842	48 842	48 842	48 842	56 645	55 979	666
1984-85	60 450	60 450	60 450	60 450	60 450	60 450	—
1985-90	202 799	214 009	247 138	250 463	250 186	247 817	2 369
1990-95	7 945	28 086	27 970	61 122	99 357	99 357	—
1995-2000	3 626	3 626	3 626	3 626	3 626	3 626	—
2000-2005	68 917	68 917	82 456	82 456	83 777	83 777	—
2005-2010	—	10 591	10 591	30 521	38 949	38 949	—
Optional	5 652	5 615	5 613	5 594	5 547	753	4 794
Interminable	197	197	197	197	197	197	—
Indefinite	2	2	2	2	2	2	—
Total	1 143 954	1 210 489	1 256 337	1 333 720	1 415 129	1 379 093	36 036

(a) \$24 444 000 redeemable in UK, \$8 326 000 in USA, \$1 241 000 in Canada, \$1 402 000 in Switzerland and \$622 000 in Netherlands. Converted at rates current at the time of the several raisings. Debt redeemable at rates of exchange obtaining at 30 June 1973 totalled \$30 577 000, resulting in a contingent asset of \$5 459 000.

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 \$22 160 000 at 30 June 1973.

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 semi-government authorities, constitute 'total taxation to other accounts' as recorded in the following table.

State Taxation, South Australia^(a)

Tax	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
To Consolidated Revenue (b)	53 351	59 840	62 745	97 476	120 474
To other accounts:					
Road maintenance charges ..	2 557	2 839	2 958	3 287	3 401
Lottery tax (c)	1 734	1 817	1 864	1 903	1 967
Racing taxes (d)	1 590	1 849	2 378	3 005	3 745
Stamp duty (e)	400	937	959	989	1 016
Receipts duty (f)	—	234	(g)33	-153	—1
Fire Brigades Board (h) ..	931	1 056	1 144	1 414	1 780
Builders Licensing Board ..	—	—	101	120	110
Reserves Contributions (i) ..	102	148	199	237	561
Other	123	156	151	245	220
Total to other accounts ..	7 437	9 037	9 786	11 047	12 801
Total taxation	60 788	68 877	72 531	108 524	133 274
			\$		
Per head of population	53.73	59.94	62.09	91.68	111.47

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) See table on page 596 for details.

(c) Surplus from State Lotteries.

(d) Includes off-course duty paid by Totalizator Agency Board to Hospitals Fund, fractions, on-course totalisator turnover tax, and amounts collected by Betting Control Board for payment direct to racing, etc., clubs.

(e) Stamp duty on third party insurance. Amounts paid into Hospitals Fund.

(f) Received into deposit account in anticipation of refund (\$1 000 in 1972-73).

(g) Net after refund of \$117 000.

(h) Levy on Insurance Companies.

(i) 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 1968-69 to 1972-73. 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	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Income	59 788	64 832	69 518	74 883	80 290
Operating expenses	45 956	49 454	(a) 52 997	(a) 58 159	(a) 62 040
Surplus on operating	13 831	15 378	16 521	16 724	18 250
Debtenture interest	13 619	14 602	15 853	17 058	17 841
Net surplus	212	776	668	—334	409
Capital indebtedness	263 327	278 257	291 166	304 660	312 215

(a) Includes Statutory Contribution to State Revenue.

Municipal Tramways Trust

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
	\$'000				
Income	6 472	6 696	6 881	6 978	7 304
Operating expenses	6 104	6 293	6 986	7 282	8 269
Surplus on operating	368	403	—104	—304	—965
Interest charges	409	410	356	340	406
Deficit	41	6	460	644	1 371
Grant from SA Government	—	—	480	630	1 330
Net deficit	41	6	—20	14	41
Capital indebtedness	8 026	6 929	5 781	7 268	7 562

Savings Bank of South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Income	21 041	23 002	25 654	28 965	33 148
Management expenses etc.	5 925	6 608	7 929	9 446	11 259
Interest on customers' deposits	14 768	15 893	17 026	18 311	20 067
Net profit	347	501	699	1 209	1 821
Depositors' balances (a)	398 143	416 307	438 793	469 607	537 953

(a) At end of period. Figures include deposit stock.

South Australian Meat Corporation^(a)

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Income	4 465	6 489	7 713	9 078	11 026
Operating expenses	4 270	6 301	7 895	9 441	10 973
Surplus on operating	195	189	—181	—364	53
Interest	96	93	90	110	124
Net surplus	99	96	—271	—474	—71
Capital indebtedness	1 869	1 822	1 772	2 320	2 662

(a) Constituted as Metropolitan and Export Abattoirs Board before 9 November 1972.

GRANTS FROM STATE GOVERNMENT

The following table shows grants to a number of public corporations during each of the five years ended 30 June 1973.

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	1968-69	1969-70	1970-71	1971-72	1972-73
			\$'000		
Adelaide Children's Hospital (a)	2 419	2 576	3 535	3 342	4 622
Adelaide and Flinders Universities (b)	13 573	15 308	20 126	20 367	24 851
Fire Brigades Board	243	277	300	395	410
Home for Incurables (a)	634	226	519	1 480	1 910
Institute of Medical and Veterinary Science	916	1 199	1 374	1 703	2 290
Municipal Tramways Trust	—	—	480	630	1 330
Public Examinations Board	—	120	124	140	169
Queen Victoria Hospital (c)	549	831	1 217	1 042	1 207
Renmark Irrigation Trust	243	174	254	298	176
SA Institute of Technology (d)	4 545	4 577	7 816	6 182	6 271
Total	23 122	25 288	35 745	35 578	43 236

(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 National 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 1972 and debt outstanding at 30 June 1971 and 1972. A further table shows debt outstanding at 30 June 1972 according to rate of interest and year of maturity.

**Public Corporations: New Money Loan Raisings and Funds
Provided for Redemption of Debt, South Australia, 1971-72**

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	14 521	—	14 521	2 154	—	2 154
Coal mining	—	—	—	392	—	392
Electricity supply	4 250	10 334	14 584	1 461	650	2 111
Hospitals	—	323	323	—	117	117
Housing	13 100	7 725	20 825	1 616	1 336	2 951
Natural gas pipeline	1 750	300	2 050	—	—	—
Tramways	1 000	—	1 000	62	—	62
Other	1 445	624	2 069	37	44	81
Total	36 065	19 305	55 371	5 721	2 146	7 867

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds.

**Public Corporations: Debt Outstanding, South Australia
At 30 June 1971 and 1972**

Authority	Debt in Australia at					
	30 June 1971			30 June 1972		
	To Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000			\$'000		
Banking	121 435	—	121 435	133 802	—	133 802
Coal mining	5 444	—	5 444	5 052	—	5 052
Electricity supply	147 715	143 855	291 569	151 404	153 538	304 942
Hospitals	—	182	182	—	369	369
Housing	202 444	50 891	253 335	213 929	57 280	271 209
Natural gas pipeline	18 750	22 550	41 300	20 500	22 850	43 350
Tramways	5 815	—	5 815	7 268	—	7 268
Other	2 689	2 284	4 972	4 097	2 750	6 847
Total debt	504 292	219 761	724 052	536 051	236 787	772 838
	Annual Interest Payable (\$'000)					
Total interest	24 631	12 973	37 604	26 400	14 346	40 746

**Public Corporations: Debt Outstanding According to
Rate of Interest and Year of Maturity, South Australia
At 30 June 1972**

Rate of Interest	Debt	Year of Maturity	Debt
	\$'000		\$'000
No interest	1 406	Fixed dates:	
Under 3 per cent	88	1972-73	6 498
3 and under 3½ per cent ..	18 498	1973-74	7 878
3½ and under 4 per cent ..	10 224	1974-75	7 133
4 and under 4½ per cent ..	115 117	1975-76	7 763
4½ and under 5 per cent ..	90 028	1976-77	5 683
5 and under 5½ per cent ..	266 955	1977-78	12 044
5½ and under 6 per cent ..	119 635	1978-79	11 698
6 per cent and over	149 489	1979-80	12 989
Not specified	1 398	1980-81	10 554
		1981-82	7 296
		1982-83	7 193
		1983-84	19 675
		1984-85	10 805
		1985-86 and onwards ..	61 088
		Not stated	39 305
		Instalments:	
		Yearly or less	538 773
		Not stated	6 447
		Net overdraft	16
Total debt	772 838	Total debt	772 838

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 monies by local government bodies is authorised by the Local Government Act, 1934-1972. 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, 44 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, 1926-1973], 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 1971-72. Values are prepared on an accrual basis as distinct from the cash basis used for years before 1968-69.

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Income
South Australia, 1971-72

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
Taxation:		\$'000	
Rates;			
Declared for year	22 512	9 538	32 050
Fines on overdue rates	64	37	101
<i>Ex gratia</i> payments in lieu of rates	10	63	73
Total rates	22 586	9 638	32 224
Licences and permits;			
Building	289	50	339
Dog	94	58	152
Other	87	37	124
Total licences and permits	470	145	614
Total taxation	23 056	9 783	32 838
Public works:			
Reimbursements for roadworks;			
State Government (b)	1 289	516	1 805
Ratepayers (moieties)	744	162	906
Other	279	151	430
Sewerage and effluent drainage fees	74	227	302
Total public works	2 386	1 056	3 442
Public services:			
Ferries	—	253	253
Fire protection	56	121	177
Hospitals and health (including cemeteries, etc.)	117	121	238
Libraries	113	37	150
Sanitary and garbage	203	157	360
Street lighting	4	2	5
Tourism	14	121	135
Traffic and parking	1 370	17	1 388
Vermin control	—	30	30
Weed control	21	147	168
Other	326	179	505
Total public services	2 224	1 185	3 409

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Income
South Australia, 1971-72 (continued)

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
			\$'000
Council properties:			
Current;			
Commercial premises, n.e.i.	39	23	62
Halls and theatres	320	146	466
Houses	362	72	434
Offices	22	54	76
Parks, gardens and other recreational facilities	1 100	626	1 726
Swimming pools	166	91	257
Markets and other	338	42	380
Capital (c);			
Land and buildings	71	53	124
Other	88	30	118
Total council properties	2 505	1 138	3 643
Government grants for roadworks:			
Grants (d)	414	3 549	3 963
Reimbursements (e)	1 446	3 815	5 261
Total Government grants for roadworks	1 861	7 364	9 224
Other income:			
Fines (mainly traffic and parking)	546	4	550
Interest	568	108	677
Reimbursements for private works	285	437	722
Sale of surplus materials	14	42	56
Other	103	222	324
Total other income	1 517	813	2 330
Total income	33 549	21 338	54 886

(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, 1971-72

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
General administration	2 996	1 974	4 970
Debt services:			
Interest;			
On loans	2 880	547	3 427
On overdraft	14	49	62
Principal redeemed	2 550	1 323	3 873
Total debt services	5 444	1 918	7 362
Public works:			
Roads, streets and bridges;			
Construction	6 247	8 495	14 742
Maintenance	4 119	3 652	7 771
Road, etc. plant—running costs unallocated	818	737	1 555
Sewerage and effluent drains;			
Construction	10	128	138
Maintenance	111	36	147
Contributions to stormwater drainage schemes (b)	883	189	1 071
Total public works	12 188	13 236	25 425
Public services:			
Building Act	456	66	522
Ferries	—	252	252
Fire protection	630	244	873
Hospitals and health (including cemeteries, etc.) (c)	1 436	712	2 149
Libraries	406	104	510
Sanitary and garbage	1 437	353	1 790
Street cleaning	347	26	373
Street lighting	926	231	1 157
Tourism	33	77	110
Town Planning	235	3	238
Traffic and parking	1 119	41	1 159
Vermin control	21	53	74
Weed control	95	278	373
Other	103	92	195
Total public services	7 244	2 531	9 776

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Expenditure
South Australia, 1971-72 (continued)

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Council properties:			
Current;			
Halls and theatres	498	245	744
Houses	147	64	211
Offices	27	58	86
Parks, gardens and other recreational facilities	3 152	1 172	4 324
Swimming pools	220	99	320
Markets and other	129	59	188
Capital (d);			
Land and buildings,			
Halls and theatres	156	38	193
Offices	59	26	85
Parks, gardens and other recreational facilities	433	223	656
Other	489	249	738
Plant and machinery,			
Roadmaking	547	792	1 339
Other	47	58	105
Other assets	103	50	153
Total council properties	6 009	3 133	9 142
Other expenditure:			
Cost of private works	282	381	663
Donations to charitable organisations, clubs, etc.	68	95	163
Other	96	72	168
Total other expenditure	446	548	994
Total expenditure	34 327	23 341	57 669

(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, 1971-72

Current Account Transactions (a):	\$'000	
Electricity Undertakings;		
Current income,		
Electricity sales	1 146	
Other	410	
Total current income ..	<u>1 556</u>	
Current expenditure,		
Generation and distribution	658	
Purchase of electricity	534	
Debt services,		
Interest	103	
Principal redeemed	139	
Administration and other	311	
Total current expenditure	<u>1 745</u>	
Deficit		189
Quarries;		
Current income	114	
Current expenditure	146	
Deficit		<u>31</u>
Other;		
Current income,		
Goods and services	1 123	
Maintenance subsidies,		
State Government	284	
Local authorities	53	
Total current income ..	<u>1 460</u>	
Current expenditure,		
Goods and services	1 397	
Surplus		<u>63</u>
Deficit (all undertakings)		<u>157</u>
Capital Account Transactions (b):		
Expenditure on construction or purchase of assets;		
Electricity undertakings,		
Distribution equipment	61	
Plant and machinery and other ..	49	
Total electricity undertakings	<u>111</u>	
Other (c)	157	
Total Capital Expenditure (b) ..		<u>268</u>

(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 \$150 000.

LOAN FUND INCOME AND EXPENDITURE

The following table shows the major items of loan fund income and expenditure for 1971-72. Transaction values are prepared on an accrual basis as distinct from the cash basis used before 1968-69.

**Local Government Authorities: Loan Fund Income and Expenditure
South Australia, 1971-72**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
Income:		\$'000	
Loans raised	7 940	2 498	10 439
Other	1 437	4	1 440
Total income	9 377	2 502	11 879
Expenditure:			
Public Works;			
Roads, streets and bridges,			
Construction	2 609	252	2 861
Maintenance	—	58	58
Stormwater drains	771	115	886
Sewerage and effluent drains	59	230	289
Total public works	3 439	654	4 093
Construction or Purchase of Assets;			
Land and buildings,			
Halls and theatres	2 291	72	2 363
Offices, etc.	275	66	341
Recreation reserves	380	106	486
Markets and other (including off-street car parks)	69	63	132
Plant and machinery,			
Roadmaking	71	613	684
Other assets	—	33	33
Other	31	1	32
Total construction or purchase of assets	3 117	954	4 071
Business Undertakings (b)	—	325	325
Total Expenditure	6 556	1 933	8 489

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Mudla Wirra. (b) Includes land, buildings, plant, etc.

LOAN RAISINGS AND DEBT OUTSTANDING

Local government authorities loan raisings and debts outstanding are shown in the following table. The definitions of 'new loans raised' and 'debt', given on page 615 under 'Loan Raisings and Debt Outstanding', apply to the statistics in this section also.

The tables given below show new money loan raisings and debt outstanding for the years 1962-63 to 1971-72. A further table shows debt outstanding at 30 June 1972 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		
1962-63	1 157	3 959	5 116	860	778	1 638
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

(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		
1962-63	3 673	18 953	22 626	85	1 011	1 096
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

(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 1972

Rate of Interest	Debt	Purpose	Debt
	\$'000		\$'000
No interest	964	Light and power	1 890
Under 3 per cent	—	Water supply, sewerage and drainage (a)	15 240
3 and under 3½ per cent . .	30	Roads, streets, bridges and footpaths	32 250
3½ and under 4 per cent . .	67	Council properties	17 483
4 and under 4½ per cent . .	379	Parks, gardens and rec- reational reserves	6 660
4½ and under 5 per cent . .	1 515	Other (including not stated)	2 283
5 and under 5½ per cent (a)	14 382		
5½ and under 6 per cent . .	31 032		
6 and under 6½ per cent . .	9 848		
6½ and under 7 per cent . .	332		
7 per cent and over	17 227		
Not specified	30		
	<hr/>		<hr/>
Total debt	75 806	Total debt	75 806

(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.

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, 1971-72

	\$m		\$m
Wages, salaries and supplements	20 153	Final consumption expenditure:	
Gross operating surplus:		Private	21 325
Trading enterprises;		Government	4 831
Companies	4 695	Gross fixed capital expenditure:	
Unincorporated enterprises	4 611	Private	6 104
Dwellings owned by persons	1 901	Public enterprises	1 779
Public enterprises	1 149	General government	1 506
Financial enterprises	674	Increase in stocks	-111
Less Imputed bank service charge	884	Statistical discrepancy	168
Gross Domestic Product at Factor Cost	32 299	Gross national expenditure	35 602
Indirect taxes less subsidies	3 703	Exports of goods and services	5 638
		National turnover of goods and services	41 240
		Less Imports of goods and services	5 238
Gross Domestic Product	36 002	Expenditure on Gross Domestic Product	36 002

National Income and Outlay Account, 1971-72

	\$m		\$m
Final consumption expenditure:		Wages, salaries and supplements	20 153
Private	21 325	Net operating surplus	9 081
Government	4 831	Domestic factor incomes	29 234
Saving	6 247	Less Net income paid overseas	383
		Indirect taxes	4 075
		Less Subsidies	372
		National Income	32 554
		Less Net transfers to overseas	151
Disposal of Income	32 403	National Disposable Income	32 403

National Capital Account, 1971-72

	\$m		\$m
Gross fixed capital expenditure:		Depreciation allowances ..	3 065
Private		Saving:	
Dwellings	1 749	Increase in income tax provisions	95
Other building and construction	1 440	Undistributed (company) income	621
All other	2 915	Retained income of public financial enterprises ..	107
Public enterprises	1 779	Household saving	3 014
General government	1 506	General government surplus on current transactions	2 352
Increase in stocks:		General government grants for private capital purposes	58
Farm	-136		
Non-farm	25		
Statistical discrepancy .. .	168		
Net lending to overseas ..	-134		
Gross accumulation	9 312	Finance of gross accumulation	9 312

Overseas Transactions Account, 1971-72

	\$m		\$m
Exports of goods and services	5 638	Imports of goods and services	5 238
Property income from overseas	200	Property income to overseas	583
Personal transfers from overseas	226	Personal transfers overseas ..	172
		General government transfers overseas	205
		Net lending to overseas ..	-134
Current receipts from overseas	6 064	Use of current receipts	6 064

The next three tables give details for South Australia of household income, farm income and private final consumption expenditure respectively for the years 1967-68 to 1971-72.

Household Income, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
			\$ million		
Wages, salaries and supplements	1 136	1 253	1 417	1 602	1 790
Income of farm unincorporated enterprises	62	143	123	93	157
Income of other unincorporated enterprises	139	156	175	186	200
Income from dwellings	23	22	23	24	25
Cash benefits from general government	125	137	156	176	203
All other income	167	180	205	224	255
Total household income	1 652	1 891	2 099	2 305	2 630

Household Income, South Australia (continued)

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$ million				
<i>Less:</i>					
Income tax payable	169	204	241	258	*
Other direct taxes, fees, fines, etc.	28	31	33	33	*
Consumer debt interest	} 23	24	27	32	*
Transfers overseas					
Household disposable income	1 432	1 632	1 798	1 982	*

Farm Income, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$ million				
Gross value of farm production:					
Wool (including skin wool)	80	95	91	66	}
Other pastoral products	64	59	79	80	
Wheat	42	113	85	42	
Other grain crops	16	32	27	40	
Other crops	70	77	76	85	
Dairying, poultry etc.	50	52	53	59	
Total	321	428	411	372	458
<i>Less:</i> Stock valuation adjustment	—	—3	—2	—	}
<i>Less:</i> Production costs other than wages and depreciation:					
Marketing costs	26	46	46	38	
Seed and fodder	44	37	34	32	
Other costs	90	95	95	94	
Gross farm product at factor cost	161	253	238	208	272
<i>Less:</i> Depreciation	49	50	51	51	}
Wages, net rent and interest paid	48	54	59	62	
Farm income	64	149	128	95	159
<i>Less:</i> Farm income of companies	2	6	5	2	2
Income of farm unincorporated enterprises	62	143	123	93	157

Private Final Consumption Expenditure, South Australia

Particulars	1967-68	1968-69	1969-70	1970-71	1971-72
	\$ million				
Food	296	314	334	351	381
Cigarettes and Tobacco	43	45	46	50	55
Alcoholic Drinks	84	92	101	112	122
Clothing etc.	136	143	151	164	172
Chemists' Goods	37	41	43	47	53
Medical, hospital and funeral expenses	55	61	69	81	95
Rent	131	137	145	157	172
Gas, electricity, fuel	34	38	40	42	46
Household durables	103	114	126	140	155
Newspapers, books etc.	18	20	23	26	28
All other goods n.e.i.	41	42	47	52	58
Travel and communication	196	214	240	264	288
All other services	139	151	172	186	211
Total	1 313	1 412	1 538	1 671	1 835

The information included in this section has been derived from the publication, *Australian National Accounts, National Income and Expenditure, 1971-72*, published by the Commonwealth 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* 1959-1973, providing for the constitution and management of the Commonwealth Banking Corporation; and
- (c) The *Banking Act* 1959-1973, providing for the regulation of banking and the protection of the currency and public credit of Australia.

The *Banking Act 1959-1973* applies to all banks operating in Australia or its Territories, except State banks trading in their own State. Following the 1973 amendment 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, 1925-1972 and the Savings Bank of South Australia Act, 1929-1973.

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 1973

Particulars	Central Bank Department	Note Issue Department	Rural Credits Department	Total (a)
LIABILITIES (\$'000)				
Capital	40 000	—	9 428	49 428
Reserve funds	5 568	—	11 278	16 846
Special Reserve:				
International Monetary Fund Special Drawing Rights	192 387	—	—	192 387
Development fund ..	—	—	733	733
Notes on issue	—	1 767 391	—	1 767 391
Deposits, bills payable and other:				
Statutory reserve deposits	784 112	—	—	784 112
Other trading bank deposits	39 421	—	—	39 421
Savings bank deposits	1 323 013	—	—	1 323 013
Other	2 346 690	23 970	184 524	(a) 1 573 508
Total	4 731 191	1 791 362	205 963	(a) 5 746 840

Reserve Bank of Australia, Liabilities and Assets at 30 June 1973 (continued)

Particulars	Central Bank Department	Note Issue Department	Rural Credits Department	Total (a)
ASSETS (\$'000)				
Gold and balances held abroad (b)	3 152 130	199 796	—	3 351 926
Other overseas securities	525 791	226 658	—	752 449
Australian Govern- ment securities	411 046	197 366	—	608 412
All other	642 225	1 167 542	205 963	(a) 1 034 054
Total	4 731 191	1 791 362	205 963	(a) 5 746 840

(a) Inter-departmental accounts totalling \$981 676 000 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 the Commonwealth 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 1970 to 1973 were \$264, \$281, \$294 and \$295 million respectively. Of the last mentioned amount, \$24.1 million was advanced in South Australia.

At 30 June 1973 the capital of the Development Bank (\$61.7 million) consisted of the capital of the Mortgage Bank and Industrial Finance Department of the Commonwealth Bank immediately before 14 January 1960, \$10 million provided by the Reserve Bank and \$30 million provided by the Australian Government in

the 1961-62 and 1963-64 Budgets. In addition, other funds are provided by the Commonwealth Development Bank Reserve Fund, into which the net profits of the bank are paid.

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 1970 to 1973 were \$163, \$261, \$328 and \$294 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 is now only 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 1973 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 was constituted, and 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 undermentioned 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

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 1973.

Trading Banks: Assets within Australia, June 1973^(a)

Assets	Major Trading Banks	Other Trading Banks	All Trading Banks
		\$'000	
Gold, bullion and Australian notes ..	196 480	11 832	208 312
Cash with Reserve Bank	3 632	1 668	5 300
Australian public securities:			
Australian Government and State ..	2 185 202	224 764	2 409 965
Local authorities and public corporations	13 601	13 992	27 593
Statutory Reserve Deposit Account with Reserve Bank	780 754	3 987	784 741
Loans to authorised dealers in short-term money market	119 061	30 564	149 625
Other loans, advances and bills discounted	7 087 622	768 554	7 856 176
Bank premises, furniture and sites	164 415	36 751	201 166
Other assets	918 861	61 141	980 001
Total assets	11 469 626	1 153 250	12 622 876

(a) Excludes inter-branch accounts and contingencies.

Under the provisions of the *Banking Act 1959-1973* 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 reduced in

stages from 10.0 per cent in 1970 to 6.6 per cent on 8 November 1972. During 1973 the ratio was increased to 7.1 per cent on 17 April, to 7.6 per cent on 30 April, to 8.6 per cent on 2 August (but reduced to 8.0 per cent the following day) and to 9.0 per cent on 28 August.

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

The number of branches of trading banks has decreased in each of the years 1970-71 to 1972-73 mainly because of the closure of branches of private banks in country areas. However, for the first time since 1967-68 the total number of agencies of trading banks increased in 1972-73, because of an increase in the number of agencies in the metropolitan area. From 1968-69 to 1972-73 the number of country agencies has declined continuously.

Trading Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1971	1972	1973	1971	1972	1973
Commonwealth Trading Bank	49	49	49	45	41	49
State Bank of South Australia	35	35	35	16	16	16
Private banks	353	351	342	183	149	149
Total—Metropolitan area (a)	216	220	222	120	92	106
Country	221	215	204	124	114	108
Total State	437	435	426	244	206	214

(a) As determined by individual banks for administrative purposes.

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 years 1963-64 to 1972-73, the proportion of deposits bearing interest rose from 41.5 per cent to 52.9 per cent of total deposits with a peak of 53.4 per cent in 1971-72.

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 1963-64 to 1972-73, this percentage rose from 62.1 per cent to a peak of 91.7 per cent in 1970-71 and fell to 83.4 per cent in 1972-73.

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)
			\$'000			Per Cent	
1968-69	205 262	200 405	405 666	354 782	224 360	50.6	87.5
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

(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 1972-73 for each of the Government banks and for all private banks are as follows.

Trading Banks: Balance of Deposits and Advances, South Australia 1972-73(a)

Bank	Depositors' Balances			Loans, Advances, and Bills Discounted (b)
	Bearing Interest	Not Bearing Interest	Total	
	\$'000			
Commonwealth Trading Bank	42 648	39 462	82 110	55 145
State Bank of South Australia	30 318	12 897	43 214	160 124
Private trading banks	225 193	213 153	438 346	254 801
Total	298 161	265 511	563 670	470 070

(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 1969 to 1973.

Major Trading Banks, South Australia and Northern Territory
Advances to Resident Borrowers by Type of Borrower^(a) ^(b)
(At Second Wednesday in July)

Classification	1969	1970	1971	1972	1973
	\$ million				
Business advances:					
Agriculture, grazing and dairy- ing (c)	80.1	83.0	78.1	75.3	78.8
Manufacturing	40.1	37.7	35.9	47.7	43.2
Transport, storage and communi- cation	4.2	6.8	6.5	5.3	8.4
Finance	11.8	16.1	15.1	15.6	15.7
Commerce;					
Retail trade	24.1	25.7	29.4	30.3	33.5
Wholesale trade (d)	22.1	21.1	19.5	14.6	20.8
Total commerce	46.2	46.9	49.0	44.9	54.3
Building and construction	7.3	8.4	9.7	11.1	18.2
Other business	25.6	27.7	32.4	38.8	61.0
Unclassified	2.2	3.5	2.6	2.3	2.5
Total business advances	217.6	230.1	229.2	241.0	282.0
Distribution of business advances:					
To companies	116.5	121.3	120.5	126.6	148.4
Other	101.1	108.8	108.7	114.5	133.6
Advances to public authorities . .	0.5	0.4	0.7	0.7	1.1
Personal advances:					
Building or purchasing own home	16.5	16.0	17.4	21.8	30.9
Other	24.2	29.3	34.0	43.1	77.6
Total personal advances	40.7	45.4	51.3	64.9	108.5
Advances to non-profit organisa- tions	3.2	3.2	3.0	2.9	3.3
Total advances to resident borrowers	262.0	279.1	284.3	309.6	394.9

(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

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 reduction in trading banks interest rates on 4 February 1972 the rates offered on fixed deposits of less than \$50 000 were increased on 2 August 1973. This was followed by a general increase in rates on 17 September 1973 and another increase in the rates offered on some categories of fixed deposits of less than \$50 000 on 14 January 1974.

The following table shows trading banks interest rates current at 31 January 1974, the dates from which they became operative and the rates which were applicable before those dates.

Trading Banks, Interest Rates at 31 January 1974

Particulars	Rate per	Date from	Previous
	Annium	which	Rate per
	%	Operative	Annium
			%
LENDING RATES			
Overdraft:			
Under \$50 000 (a)	9.50	17.9.73	7.75
\$50 000 and over	(b)	17.9.73	(b)
Unsecured personal loans (a) (c) ..	7.25	17.9.73	6.25
DEPOSIT RATES			
Fixed deposits (less than \$50 000) (a):			
3 months and less than 12 months ..	6.75	17.9.73	4.50
12 months and less than 2 years ..	7.50	14.1.74	7.00
2 years and less than 4 years . . .	7.50	14.1.74	7.25
4 years	7.50	17.9.73	6.00
Fixed deposits (\$50 000 and over)			
(a) (b):			
30 days to 4 years	8.00	17.9.73	6.50
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.

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 1973 there were 139 branches, 750 agencies and 828 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.

The total of depositors' balances first exceeded \$200 million in 1956, reached \$400 million in July 1969 and at 30 June 1973 amounted to more than \$537 million. During the year 1972-73 the Bank made loans amounting to \$38.5 million to depositors for housing, for rural development and for institutional and other purposes and at 30 June 1973 the total of such loans outstanding was in excess of \$198 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
1968-69	913 914	862	398 143	160 047	219 772
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

(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

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

reduced from 65 per cent to 60 per cent, the percentage of depositors' funds which a savings bank subject to the Banking Act must hold in cash or approved securities. This investment ratio was last changed in 1963. Savings banks may not accept deposits from a profit-making body unless it is acting as a trustee for a non-profit-making beneficiary.

Branches and Agencies

The number of branches of savings banks has decreased in each of the years 1970-71 to 1972-73 because of the closure of branches of private banks in country areas. Similarly, the number of agencies of savings banks has decreased in each of the years 1968-69 to 1972-73. During this period the number of agencies of private banks has decreased continuously and in 1972-73 there was a significant decrease in the number of agencies of the Savings Bank of South Australia.

Savings Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1971	1972	1973	1971	1972	1973
Commonwealth Savings Bank	78	78	78	760	735	720
Savings Bank of South Australia	136	137	139	886	904	750
Private Banks	353	350	342	739	663	640
Total—Metropolitan area (a)	306	310	315	1 529	1 498	1 374
Country	261	255	244	856	804	736
Total State	567	565	559	2 385	2 302	2 11 0

(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)	Deposits	Deposits per Head of Population	Accounts Operative (a)	Deposits	Deposits per Head of Population
	'000	\$m	\$	'000	\$m	\$
1969	1 472	691.8	607	14 534	6 707.1	548
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

(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 51 per cent in 1973. In 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				
1969	153.6	398.1	140.1	691.8
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

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						
1968-69 ..	643.7	941.6	917.5	24.0	48.1	691.8
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

(a) Includes inter-branch transfers.

Interest Rates

On 1 October 1973 the maximum interest rate payable on ordinary savings accounts was fixed by the Reserve Bank at 6 per cent for balances up to and including \$4 000 and at 6.25 per cent for the amount in excess of \$4 000 for balances up to \$20 000, this being the first change since 1 April 1970. For balances above \$20 000 no interest is payable on the amount in excess of that figure, but for approved society cheque accounts no interest bearing limit is set. 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 for balances up to \$20 000. Interest is calculated on the lowest balance in an account each month.

On 10 March 1972 the rate of interest on savings banks investment accounts was reduced from 5.25 to 5 per cent but was raised to 7 per cent on 1 October 1973. These accounts are subject to special requirements in respect of notice of withdrawal, minimum balance and minimum amounts for transactions. On 19 April 1973 the interest bearing limit was raised from \$20 000 to \$50 000.

The range of interest rates generally charged on housing loans to individuals rose on 1 October 1973 to between 7.25 and 8 per cent. Simultaneously, the maximum interest rate on other loans of less than \$50 000 was increased from 7.75 per cent to 9.50 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. For many years this bank was the only one engaged in this field, but in recent years the Commonwealth Savings Bank of Australia and some private banks have commenced 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 1969	867	192	4 352
1970	875	173	3 452
1971	872	168	3 463
1972	920	166	3 532
1973	908	161	3 618

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.

Decimal Currency

Until 13 February 1966 Australian currency was based on the British unit which was the pound (£), divided into 20 shillings (s) each of 12 pence (d). A decimal currency system was introduced on 14 February 1966 with the major unit, the dollar, equal to ten shillings and the minor unit, the cent, equal to 1.2 pence in the old currency.

At March 1974 decimal currency 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, 1970-71 to 1972-73

Country	Basis of Quotation	1970-71	1971-72	1972-73
Belgium (Financial) (a)	Francs to \$A1	} 55.11	{ 52.49	53.51
Belgium (Convertible) (a)	Francs to \$A1		{ 52.58	53.65
Canada	Dollars to \$A1	1.1326	1.1700	1.2683
China (Mainland) (b)	New Yuan to \$A1	2.72	2.71	2.72
Fiji	Dollars to \$A1	0.972	0.962	1.051
France (Financial) (a)	Francs to \$A1	} 6.133	{ 6.003	6.049
France (Commercial) (a)	Francs to \$A1		{ 6.122	6.123
Germany (West)	Deutsche Marks to \$A1	4.017	3.804	3.853
Hong Kong	Dollars to \$A1	6.740	6.670	6.936
India	Rupees to \$A1	8.330	8.505	9.735
Italy (Financial) (a)	Lire to \$A1	} 694.00	696.00	{ 828.00
Italy (Commercial) (a)	Lire to \$A1			{ 815.00
Japan	Yen to \$A1	397.36	368.29	363.49
Netherlands	Guilders to \$A1	3.990	3.835	3.924
New Zealand	Dollars to \$A1	0.998	0.998	1.030
Singapore	Dollars to \$A1	3.409	3.334	3.375
South Africa	Rands to \$A1	0.7950	0.8518	0.9567
Sri Lanka (Ceylon)	Rupees to \$A1	6.586	6.852	8.115
Switzerland	Francs to \$A1	4.755	4.567	4.502
Thailand	Bahts to \$A1	(b) 23.28	24.37	26.24
United Kingdom	Pounds to \$A1	0.465	0.461	0.522
USA	Dollars to \$A1	1.1152	1.1680	1.2811
USSR (b)	Roubles to \$A1	1.004	1.001	1.016

(a) From 20 September 1971, (Belgium, France) and 1 February 1973, (Italy) two rates quoted: 'Convertible' rate (Belgium), 'Commercial' rate (France, Italy) for trade transactions accompanied by documentation and 'Financial' rate 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 policyholders 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
Total	2 374 762	58 022	542 580	17 921	135 827	5 263

(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 last five years is shown in the next table. The relative importance of industrial policies has 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
Total (a)	68 811	74 328	79 091	84 351	84 201
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
Total ..	35 596	138 578	4 955	49 290	22 320	13 279

(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
			\$'000		
Mortgage of real estate . . .	74 623	81 001	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
Total.	92 922	101 214	107 318	107 507	109 338

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.

Under the *Insurance Act 1932-1973*, insurance companies are required to lodge a deposit with the Australian Treasurer, as security against liability to policy holders. The Act does not apply to State insurance within the limits of the State concerned. However, insurance business is conducted almost entirely under State legislation.

Companies, persons or firms of persons carrying on general insurance business are required under the Stamp Duties Act, 1923-1971 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, 1936-1973 insurance companies contribute approximately 60 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 350-2.

Under the Motor Vehicles Act, 1959-1973 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 pages 551-2.

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	1969-70	1970-71	1971-72	1972-73
Premiums:				
				\$'000
Fire and sprinkler leakage	8 703	9 125	10 374	10 594
Householders comprehensive	5 821	6 308	7 226	8 545
Loss of profits	1 105	1 247	1 342	1 487
Hailstone	324	200	343	181
Marine	2 242	2 574	2 851	3 204
Motor vehicle;				
Compulsory third party	12 816	13 209	14 251	15 469
Other	18 881	20 460	23 890	27 271
Employers liability and work-				
mens compensation	11 468	12 721	17 150	18 639
Personal accident	3 285	3 664	3 914	4 256
Public risk, third party	1 621	1 805	2 244	2 357
Burglary	845	878	1 010	1 112
Other	2 652	2 996	3 448	4 237
Total premiums	69 762	75 186	88 043	97 352
Revenue from investments	879	834	1 129	1 326
Total	70 640	76 020	89 173	98 678

Details of claims and other expenses are given below. 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	1969-70	1970-71	1971-72	1972-73
Claims:			\$'000	
Fire and sprinkler leakage	2 965	2 365	3 027	3 177
Householders comprehensive	1 367	1 743	2 091	2 982
Loss of profits	206	581	—22	185
Hailstone	134	17	265	33
Marine	1 476	1 363	1 603	1 538
Motor vehicle;				
Compulsory third party	8 745	8 503	12 799	17 239
Other	13 430	14 206	16 328	17 743
Employers liability and work-				
mens compensation	7 246	7 784	13 442	19 059
Personal accident	1 422	1 544	1 600	1 835
Public risk, third party	758	537	709	931
Burglary	404	534	642	682
Other	1 115	1 315	1 493	1 764
Total claims	39 269	40 491	53 978	67 168
Other expenses:				
Contributions to fire brigades . .	1 066	1 154	1 379	1 752
Commission and agents charges . .	7 131	7 723	8 792	9 776
Management	13 491	14 950	17 100	18 685
Taxation	2 244	2 434	1 936	1 839
Total expenses	63 201	66 751	83 185	99 221

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, although the turnover of both industrial and mining shares fell in 1972-73, the total market value of shares traded increased because the increase in the market value of industrial shares traded exceeded the fall in the market value of mining shares traded.

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. As from 1971-72, no distinction between mining and oil companies has been made when recording turnover information.

Stock Exchange of Adelaide, Turnover of Securities

Particulars	Year Ended 30 June				
	1969	1970	1971	1972	1973
	Transactions ('000)				
Shares, Australian Government loans, public corporation loans, debentures and unsecured notes	164	251	116	61	55
	Number of Shares ('000)				
Shares:					
Industrial	19 689	19 331	22 756	20 431	19 950
Mining	23 391	60 266	40 369	} 27 963	21 883
Oil	11 054	43 575	6 968		
Total shares	54 134	123 172	70 093	48 394	41 833
	Market Value (\$'000)				
Shares:					
Industrial	28 454	27 070	22 511	25 362	31 123
Mining	32 212	107 776	43 627	} 14 011	10 780
Oil	8 288	11 306	2 240		
Total shares	68 954	146 151	68 378	39 373	41 903
	(\$'000)				
Australian Government loans, public corporation loans, debentures and unsecured notes (a):					
Face value	5 413	2 443	2 701	3 256	3 698
Market value	5 179	2 747	2 477	3 165	3 720

(a) Excludes occasional large 'off-market' placements of Australian Government Securities and debentures.

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 1973, The Stock Exchange of Adelaide Limited had 1 473 companies on its Official List with a total nominal value of \$20 818 million and market value of \$36 176 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* (see pages 403-4). 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
1968-69 . . .	6	21	20 627	5 746	5 241	2 392
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

Details of financial transactions by building societies during 1972-73 are given in the next table.

Building Societies: Transactions, South Australia, 1972-73

Particulars	Permanent	Starr-Bowkett	Total
Income:		\$'000	
Interest on mortgage loans	4 268	—	4 268
Other	1 032	40	1 073
Total	5 300	40	5 340
Expenditure:			
Interest on borrowed funds	4 109	—	4 109
Administration and taxation	1 036	34	1 070
Total	5 145	34	5 179
Deposits:			
Received	5 371	—	5 371
Repaid	4 004	—	4 004
Government housing funds (a):			
Received	2 242	—	2 242
Repaid	305	—	305
Advances:			
Paid	24 913	364	25 277
Repaid	7 007	423	7 430

(a) Transactions between Societies and State Treasury.

Details of assets and liabilities of these societies, given in the following table, are compiled from individual returns with a variety of balancing dates. The figures for each year represent the aggregate of returns with balancing dates in that year.

Building Societies: Assets and Liabilities, South Australia

Particulars	1968-69	1969-70	1970-71	1971-72	1972-73
Assets:					
			\$'000		
Advances on mortgages and shares	27 529	36 466	45 439	54 134	71 982
Land and buildings ..	440	470	996	1 903	1 966
Other investments (a)	1 012	2 824	3 651	5 402	14 641
Cash and deposits ..	341	336	296	1 151	4 405
Other	130	150	164	740	906
Total assests	29 452	40 246	50 545	63 331	93 900
Liabilities:					
Subscriptions	14 820	22 881	30 542	39 262	66 011
Loans due to Government (b)	9 881	11 306	12 903	14 606	16 546
Deposits	3 139	4 457	4 892	6 389	7 757
Reserves and profits ..	1 190	1 209	1 316	1 319	1 404
Bank overdraft	335	276	683	1 392	1 857
Other	87	118	210	363	325
Total liabilities	29 452	40 246	50 545	63 331	93 900

(a) Includes fixed deposits. (b) Loans made to permanent building societies under the Housing Agreement and the *States Grants (Housing Assistance) Act 1971*.

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
Societies:					
Producers societies	39	39	39	39	41
Consumers societies	12	12	12	12	12
Producers and consumers societies	12	12	12	11	11
Total	63	63	63	62	64
Members:					
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 last five years 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
Income:			\$'000		
Sales	58 208	61 518	66 228	74 021	77 842
Other	4 756	4 571	4 962	5 814	6 328
Total	62 963	66 089	71 190	79 835	84 170
Expenditure:					
Purchases	43 220	46 260	47 826	52 106	54 889
Working expenses (a)	15 412	17 395	20 555	25 630	27 643
Interest on external borrowing	752	793	970	1 148	1 231
Total	59 384	64 448	69 351	78 883	83 763
Appropriations:					
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
Total	4 508	4 720	4 681	4 050	5 258

(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	
Assets (a):				
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
Total	52 319	7 554	11 794	71 666

**Co-operative Societies: Assets and Liabilities, South
Australia, 1972-73 (continued)**

Particulars	Producers Societies	Consumers Societies	Producers and Consumers Societies	Total
	\$'000			
Liabilities:				
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
Total	52 319	7 554	11 794	71 666

(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 658-60.

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
Selected Receipts and Payments:			
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
Income:			
Interest on loans to members	572	932	1 573
Other	40	52	108
Total	612	984	1 680
Expenditure:			
Interest on deposits	223	530	855
Other (d)	380	472	804
Total	603	1 002	1 659
Assets:			
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
Total	8 161	12 501	21 383
Liabilities:			
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
Total	8 161	12 501	21 383

(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 estates of deceased persons have been administered by executors following grants by the Supreme Court 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.

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 Commonwealth 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 1972.

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	\$
MALES					
1968	2 896	18 237	37 480	51 768	17 876
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
FEMALES					
1968	2 196	8 085	18 420	25 032	11 399
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
PERSONS					
1968	5 092	26 322	55 900	76 800	15 083
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

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 1971 and 1972.

For both years estates with an individual net value under \$2 000 formed more than 20 per cent of the total number but less than 2 per cent of total net value. In 1972, estates under \$10 000 constituted approximately 60 per cent of total numbers but less than 14 per cent of total net value, while the few estates, about 7 per cent of the total, with an individual net value of \$50 000 or more accounted for approximately 47 per cent of the total net value.

Real estate formed approximately 32 per cent of the total gross value for all estates in 1972.

Estates of Deceased Persons: Size and Structure of Estates, South Australia

Size of Net Estate (\$'000)	1971				1972			
	Estates	Value of Estates Gross			Estates	Value of Estates Gross		
		Real	Personal	Net		Real	Personal	Net
No.	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000	
Under 2	1 183	284	1 472	1 089	1 092	340	1 496	1 033
2 and under 4	862	686	2 381	2 535	739	434	2 190	2 209
4 and under 6	653	1 164	2 543	3 226	546	976	2 184	2 733
6 and under 8	537	1 937	2 269	3 791	416	1 363	1 888	2 904
8 and under 10	464	2 308	2 247	4 156	387	1 964	1 868	3 481
10 and under 20	1 065	6 598	9 428	14 750	1 029	7 288	8 190	14 305
20 and under 30	391	2 715	7 513	9 547	388	3 298	6 886	9 491
30 and under 40	186	1 333	5 347	6 441	189	1 665	5 246	6 507
40 and under 50	138	1 603	4 870	6 177	129	1 452	4 538	5 738
50 and under 100	269	4 917	14 596	18 602	242	4 229	13 505	16 686
100 and under 200	83	2 830	8 474	10 671	99	4 299	9 811	13 225
200 and under 400	26	1 155	6 144	7 127	27	1 236	6 397	7 301
400 and over	7	1 038	4 191	4 919	8	2 661	2 769	5 267
All estates	5 864	28 568	71 476	93 032	5 291	31 202	66 968	90 881

The following table provides an analysis of estates on which probate or administration was granted during 1972 according to the age group of persons leaving those estates.

Estates of Deceased Persons: Age and Sex of Deceased, Value of Estates
South Australia, 1972

Age of Deceased	Males				Females			
	Estates	Value of Estates			Estates	Value of Estates		
		Gross	Net	Average Net		Gross	Net	Average Net
No.	\$'000	\$'000	\$'000	No.	\$'000	\$'000	\$'000	
Under 21	25	211	194	7.8	6	31	28	4.7
21 to 29	51	555	503	9.9	10	207	197	19.7
30 to 39	51	532	450	8.8	9	331	311	34.6
40 to 49	179	3 199	2 814	15.7	50	366	311	6.2
50 to 59	420	8 244	7 097	16.9	159	2 594	2 405	15.1
60 to 69	698	15 352	13 836	19.8	343	4 684	4 377	12.8
70 to 79	811	18 099	17 250	21.3	717	10 718	10 152	14.2
80 and over	726	17 671	16 451	22.7	983	14 494	13 724	14.0
Not stated	34	739	641	18.9	19	143	139	7.3
All ages	2 995	64 601	59 237	19.8	2 296	33 569	31 644	13.8

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 1972-73 was \$9 053 compared with \$8 650 in 1971-72.

Mortgages: Real Estate, South Australia

Year	New Loans		Discharges	
	No.	\$'000	No.	\$'000
1963-64	37 813	207 097	29 002	93 116
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

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 hire-purchase, time payment, budget accounts and certain personal loans. Lay-bys and credit accounts not involving regular repayments are excluded.

Care should be taken in relating figures in this section to those for retail sales as the following statistics include certain sales to final purchasers, of items such as plant, machinery and tractors, which are not covered by the survey of retail sales. Transactions specifically 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.

During 1972-73 hire-purchase continued to be a significant form of instalment credit. The distinguishing feature of a hire-purchase agreement was that ownership of the goods did not pass to the purchaser until the final instalment had been paid. Hire-purchase transactions included the letting of goods with an option to purchase and agreements to purchase by instalments, irrespective of whether the instalments were described as rent, hire or otherwise.

Legislation controlling instalment credit schemes in South Australia is now 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 no longer 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 arranged during 1972-73 are given in the next table according to the nature of the commodity financed. In this and the following table the motor vehicle group includes new and used motor cars, motor cycles, commercial vehicles, tractors, caravans, motor parts and accessories. Plant and machinery includes farm machinery and implements, earthmoving equipment, aircraft, industrial plant and machinery, business machines, and commercial refrigeration. Included in household and personal goods are furniture and furnishings, domestic refrigerators, electrical goods, musical instruments, bicycles, and other household and personal goods.

**Instalment Credit for Retail Sales: New Agreements
South Australia and Northern Territory, 1972-73**

Particulars	Unit	Motor Vehicles, Etc.	Plant and Machinery	Household and Personal Goods	Total
Hire-purchase:					
Number of agreements	'000	17.7	1.7	47.6	67.0
Value of goods (a) ..	\$ million	38.1	6.4	13.1	57.6
Amount financed (a) ..	\$ million	27.4	4.5	10.7	42.6
Other instalment credit:					
Amount financed (a) ..	\$ million	65.6	1.7	26.3	93.6

(a) Excludes hiring charges, interest and insurance.

In the instalment credit statistics which follow, transactions are classified to the type of business which originally wrote the agreement regardless of whether that agreement was subsequently assigned, discounted or mortgaged.

Instalment Credit for Retail Sales: Amount Financed
South Australia and Northern Territory^(a)

Year	Motor Vehicles, Etc.	Plant and Machinery	Household and Personal Goods	Total
\$ million				
RETAIL BUSINESSES				
1968-69	2.2	0.5	21.4	24.1
1969-70	2.0	0.4	22.7	25.1
1970-71	1.9	0.3	24.0	26.2
1971-72	2.1	0.3	25.6	28.1
1972-73	2.3	0.5	28.9	31.6
NON-RETAIL FINANCE BUSINESSES				
1968-69	72.0	6.9	7.6	86.5
1969-70	88.2	5.0	7.4	100.5
1970-71	91.4	5.2	7.9	104.6
1971-72	85.9	5.0	8.9	99.8
1972-73	90.7	5.7	8.1	104.5
ALL BUSINESSES				
1968-69	74.2	7.4	29.0	110.6
1969-70	90.2	5.3	30.1	125.7
1970-71	93.3	5.5	32.0	130.8
1971-72	88.0	5.4	34.5	127.9
1972-73	93.0	6.2	37.0	136.2

(a) Excludes hiring charges, interest and insurance.

'Retail businesses' include both retailers who finance their own sales and any business set up by a retailer or group of retailers primarily to finance the sales of that retailer or group. All other businesses engaged in instalment credit financing of retail sales, irrespective of whether their main activity is financing, constitute 'non-retail finance businesses'. Details of balances outstanding at the end of each of the last five years are given below.

Instalment Credit for Retail Sales: Balances Outstanding
South Australia and Northern Territory^(a) At 30 June

Particulars	1969	1970	1971	1972	1973
\$ million					
Type of business:					
Retail businesses	25.6	25.5	25.1	24.6	26.5
Non-retail finance businesses	127.9	148.4	165.4	163.8	169.3
Total	153.5	173.9	190.4	188.4	195.8
Type of credit:					
Hire-purchase	57.4	55.1	58.3	63.3	69.9
Other instalment credit	96.1	118.8	132.2	125.1	125.9
Total	153.5	173.9	190.4	188.4	195.8

(a) Includes hiring charges, interest and insurance.

Of the \$90.7 million provided by non-retail finance businesses for motor vehicle purchases in 1972-73, \$41.7 million was for new vehicles and \$49.0 million for used vehicles.

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, and other consumer and commercial loans.

From July 1971 the scope of the monthly collection (from which the following three 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 the following three tables). In addition, the category other consumer and commercial loans was divided into finance for housing and other commercial loans.

Companies whose main activity is leasing are included only if they are related under the Companies Act to another finance company. Special classes of financial institutions such as banks, insurance and investment companies and building and friendly societies are also excluded, although merchant banking companies are included if they come within the scope of the collection.

Finance companies here defined are not equivalent to 'non-retail finance businesses' mentioned on page 665. The statistics of 'instalment credit for retail sales', shown in the second and third of the tables which follow, form part of the figures in the tables on pages 665-6.

Shown in the following tables is a summary of transactions of Finance Companies for the last five years. 'Leasing' covers leasing of business equipment and plant, including motor vehicles for business use. 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 figure for the 'balances outstanding at end of period' from 1971-72 in the following table is partly estimated.

Finance Companies: Summary of Transactions
South Australia^(a)

Particulars	1968-69	1969-70	1970-71	1971-72(b)	1972-73
	\$ million				
Leasing of business equipment and plant:					
Goods leased during the period	12.7	16.1	20.5	23.6	30.7
Balances outstanding at end of period	21.5	27.2	35.7	(c)51.9	60.8
Other transactions:					
Amount financed	272.1	335.9	368.9	452.3	(d)379.0
Cash collections and other liquidations	286.9	349.5	392.4	478.8	(d)414.1
Balances outstanding at end of period	266.7	311.8	354.5	388.5	(d)388.0

(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.

The amount financed, which is the actual amount of cash provided, may be classified according to the purpose of the loan. The following comments are offered to clarify the content of various items in the tables below:

1. Instalment credit for retail sales is defined in the same way as in the previous section (see page 664);
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.

Finance Companies: Amount Financed
South Australia^(a)

Purpose of Loan	1968-69	1969-70	1970-71	1971-72(b)	1972-73(a)
	\$ million				
Instalment credit for retail sales	80.7	97.3	100.8	95.4	91.2
Personal loans	10.5	10.4	8.4	11.1	(c)20.8
Wholesale finance	110.7	118.6	124.7	130.5	(c)134.4
Other consumer and commercial loans:					
Finance for housing:					
Purchase of existing housing					(c)49.4
Construction of housing					(c)41.9
Purchase of individual residential blocks of land	70.1	109.5	135.1	215.3	(c)13.4
Other commercial loans					(c)28.0
Total	272.1	335.9	368.9	452.3	(d)379.0

(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.

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^(a)

Purpose of Loan	1968-69	1969-70	1970-71	1971-72(b)	1972-73(a)
	\$ million				
Instalment credit for retail sales	90.3	108.1	118.4	126.3	118.5
Personal loans	(d)	(d)	11.0	11.1	(c)19.2
Wholesale finance	111.5	119.0	125.3	130.4	(c)137.0
Other consumer and commercial loans:					
Finance for housing . .	85.1	122.3	137.8	211.0	(c)107.6
Other commercial loans .					(c)31.8
Total	286.9	349.5	392.4	478.8	(e)414.1

For footnotes see following table.

Finance Companies: Balances Outstanding, South Australia^(a)

Purpose of Loan	1968-69	1969-70	1970-71	1971-72 ^(b)	1972-73 ^(a)
	\$ million				
Instalment credit for retail sales	122.4	143.5	159.2	159.0	150.6
Personal loans	(d)	(d)	16.1	18.2	(c)28.4
Wholesale finance	15.2	17.4	20.0	23.7	(c)22.0
Other consumer and commercial loans:					
Finance for housing . .	} 129.0	150.9	159.3	187.6	{ (c)147.6
Other commercial loans .						{ (c)39.4
Total	266.7	311.8	354.5	388.5	(e)388.0

(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.

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 673) 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

POPULATION

Year	Population Estimate at 31 Dec.			Population Growth (a)			
	(a)			Recorded Natural Increase	Rate of Natural Increase	Total Increase	Rate of Popula- tion 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	577	22.29	3 433	15.29
1851	37 321	29 217	66 538	1 786	26.85	2 838	4.46
1856	56 264	51 622	107 886	3 341	30.97	10 499	10.78
1861	67 409	63 403	130 812	3 589	28.00	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	9 098	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	24 385	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)	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	43.50	1 064	191.68	1 962	15.30		0.05	0.98
1866	6 782	41.06	1 385	204.22	2 753	16.67		0.08	1.25
1871	7 082	37.95	851	120.16	2 378	12.74		0.16	1.25
1876	8 224	37.84	1 228	149.32	3 550	16.34		0.18	1.05
1881	10 708	38.08	1 364	127.38	4 012	14.27		0.35	1.22
								0.32	1.16
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 (d)	20 891	19.63	385	18.43	8 788	8.26	3.11	1.30	0.03
1966	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	9.18	*	*	*

(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 (e)	
	Total	Rate (a)			Supreme Court (c)	Courts of Summary Juris- diction (d)	Active Strength	Expen- diture by State
1841				36	37			\$'000
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 (f)	20 585	830	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	368	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

(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) Year ended 30 June. (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 Enrol- ments
	State Schools (a)		Private Schools		Uni- versities Students (g)	Colleges of Advanced Education Students	
	No.	Pupils		No.				Pupils
		Primary	Secondary		Primary	Secondary	
1851	115	3 031					
1856	147	6 516					
1861	219	10 711		236			
1866	292	14 690		n.a.			
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	14 310	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
1970	681	164 599	n.a.	170	22 464	14 642	10 176
1971	662	158 482	77 167	169	22 669	15 018	10 682
1972	(e) 615	154 886	77 926	163	22 232	15 233	11 124 (f) 3 834
1973	614	152 698	79 088	163	21 929	15 806	78 540 * 78 214

(a) Net enrolment to 1971, 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	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	43 597	74 487	3 226	2 208	3 154	11 923

(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) Expenditure	Children Maintained or Subsidised by SA Govt Expenditure	Pensions and Benefits Paid in South Australia by Australian Government					Pensioners	
			Age and Invalid Pensions	War and Service Pensions	Child Endowment	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						7 237	
1915-16 . . .	69.8	67.0	544	20				10 993	794
1920-21 . . .	101.8	95.0	910	1 028			2 060	12 320	14 663
1925-26 . . .	117.6	100.7	1 404	978			2 496	14 098	16 144
1930-31 . . .	154.8	103.7	1 982	994			3 074	20 602	16 653
1931-32 . . .	1 922.2	95.2	1 878	908			2 848	21 897	15 801
1932-33 . . .	1 500.6	90.9	1 826	844			2 726	21 461	15 517
1933-34 . . .	1 359.0	88.8	1 896	854			2 804	22 805	15 352
1934-35 . . .	1 277.0	87.8	2 068	892			3 016	24 517	15 248
1935-36 . . .	1 163.4	89.4	2 298	942			3 298	26 134	15 997
1936-37 . . .	1 086.6	89.4	2 522	1 036			3 622	27 308	16 340
1937-38 . . .	995.4	93.7	2 868	1 076			4 010	28 039	16 865
1938-39 . . .	989.6	94.0	2 836	1 098			4 008	28 857	16 680
1939-40 . . .	1 062.2	99.2	2 908	1 104			4 086	29 521	16 145
1940-41 . . .	389.9	101.4	3 032	1 088			4 192	29 642	15 424
1941-42 . . .	288.1	106.6	3 274	1 108	1 720		6 162	28 422	15 296
1942-43 . . .	232.8	113.3	3 628	1 274	1 810		7 076	27 423	16 333
1943-44 . . .	214.8	131.5	3 688	1 654	1 908		8 076	27 530	18 472
1944-45 . . .	215.4	143.1	3 624	1 838	1 870		8 276	27 507	22 071
1945-46 . . .	238.7	155.2	4 670	2 272	2 854	244	11 262	29 512	30 687
1946-47 . . .	250.7	197.8	5 102	2 692	3 196	856	13 212	32 387	35 117
1947-48 . . .	261.3	224.4	6 284	3 046	3 212	770	14 708	34 229	38 505
1948-49 . . .	279.3	255.6	7 170	3 718	4 024	1 054	17 442	35 470	42 931
1949-50 . . .	273.0	287.5	7 888	4 178	4 938	1 220	19 966	36 524	47 303
1950-51 . . .	279.0	337.6	8 600	5 214	7 564	2 122	25 216	36 582	51 589
1951-52 . . .	336.6	446.7	10 360	6 442	8 298	3 554	30 532	37 363	54 758
1952-53 . . .	445.6	466.8	12 616	7 130	9 540	4 154	25 878	39 700	58 591
1953-54 . . .	458.6	475.7	14 150	7 686	9 154	4 880	38 202	42 216	61 039
1954-55 . . .	487.2	491.2	15 310	8 778	9 428	5 824	41 560	45 147	63 767
1955-56 . . .	545.6	553.0	17 718	9 074	10 998	6 140	46 322	47 754	66 535
1956-57 . . .	686.4	494.0	19 244	9 572	10 500	6 710	48 926	50 209	68 291
1957-58 . . .	865.9	545.6	21 432	10 664	10 860	7 704	54 256	52 699	69 852
1958-59 . . .	770.4	674.6	23 150	10 860	12 618	9 868	60 460	55 181	71 331
1959-60 . . .	641.9	778.1	26 366	12 697	11 794	11 977	66 157	57 336	72 013
1960-61 . . .	691.4	914.8	28 537	13 722	14 092	12 811	73 594	60 483	72 695
1961-62 . . .	773.5	1 107.5	32 844	14 241	12 671	14 567	80 283	64 374	74 454
1962-63 . . .	693.1	1 129.9	33 951	14 867	12 861	16 066	83 393	64 156	73 239
1963-64 . . .	693.3	1 275.5	36 120	16 224	15 916	17 080	91 514	65 573	72 518
1964-65 . . .	704.3	1 516.8	38 509	16 006	16 563	18 948	96 362	66 798	70 678
1965-66 . . .	841.6	1 716.6	39 691	17 692	16 988	21 254	102 661	67 999	68 439
1966-67 . . .	996.3	1 914.4	43 720	16 776	19 063	23 100	111 394	70 521	66 624
1967-68 . . .	1 047.5	2 008.2	46 711	17 252	17 835	25 448	116 625	74 016	65 078
1968-69 . . .	1 212.0	2 235.9	50 828	19 065	18 162	28 411	126 581	76 616	62 986
1969-70 . . .	1 405.2	2 466.6	58 720	19 435	20 287	33 476	143 558	85 076	61 928
1970-71 . . .	1 745.7	2 912.8	64 714	20 405	18 284	41 773	158 743	88 936	60 406
1971-72 . . .	2 359.1	2 628.5	76 545	22 493	19 766	50 586	186 868	92 771	58 682
1972-73 . . .	4 725.4	3 079.3	101 625	25 917	22 780	57 432	232 937	104 350	59 707

(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

(a) At June; includes all industries except agriculture, defence and female private domestics. (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.

WAGES

Year	State Living Wage (a)		Federal Basic and Total 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		65.52	50.50
1973	43.15	34.10	59.60		p 74.12	p 59.96

(a) At end of year. (b) Adult rates, at end of year, for all industries excluding rural.
 (c) The total wage concept replaced the basic wage from July 1967. A separate total wage for women is not calculated. (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.

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								
1916	835	573	798				12.71	16.53	15.59
1921	941	819	989				17.45	14.33	19.78
1926	1 045	927	1 026				29.39	19.49	24.74
							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
		Not calculated							
1966				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

(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.

METEOROLOGY, ADELAIDE

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			43.1	2.9	17.7
1871	137	591	1 345		44.1	3.0	17.8
1876	110	341	1 548		45.7	0.3	16.9
1881	135	458	1 422		41.0	1.8	16.7
1886	141	366	1 421	2 588.0	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	564	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

LAND TENURE AND CULTIVATION

Year	Land Tenure			Rural Holdings	Area of Rural Holdings	Area under Crop		Area of Pastures Top-dressed	Area Under Irrigation
	Alienated and Set Apart	Under Lease Pastoral	Under Lease Total			Fertilised	Total		
	'000 hectares		No.		'000 hectares				
1836-37 . . .	25								
1841-42 . . .	124						3		
1846-47 . . .	178						14		
1851-52 . . .	286	3 966					33		
1856-57 . . .	639	5 917					82		
1861-62 . . .	964	11 921					162		
1866-67 . . .	1 386	10 840					245		
1871-72 . . .	1 870	18 363					339		
1876-77 . . .	2 768	36 173					497		
1881-82 . . .	3 994	48 500					873		
1886-87 . . .	3 856	51 209					925		
1891-92 . . .	3 478	39 412					780		
1896-97 . . .	3 509	45 400					830		
1901-02 . . .	3 274	27 889	34 632			335	905		
1906-07 . . .	3 621	31 034	38 433			629	873		
1911-12 . . .	4 716	37 048	44 921	27 120	47 012	1 010	1 200		
1916-17 . . .	5 618	39 319	46 797	29 278	52 475	1 156	1 468		
1921-22 . . .	5 713	41 619	48 830	29 693	54 311	1 197	1 367		9-1
1926-27 . . .	6 068	41 263	48 898	29 654	54 867	1 430	1 572	66	14-3
1931-32 . . .	6 599	37 981	45 665	30 648	52 354	1 705	2 112	56	17-3
1936-37 . . .	6 377	40 910	48 915	31 321	55 433	1 619	1 853	366	17-1
1941-42 . . .	5 890	46 148	54 423	30 565	58 936	1 409	1 609	427	18-5
1942-43 . . .	5 729	44 871	53 240	27 934	58 859	1 062	1 391	382	n.a.
1943-44 . . .	5 675	44 842	53 378	27 826	58 488	789	1 117	285	n.a.
1944-45 . . .	5 640	45 793	54 389	27 867	55 639	926	1 287	293	n.a.
1945-46 . . .	5 631	45 979	54 637	27 635	57 670	1 228	1 548	346	17-1
1946-47 . . .	5 655	46 200	54 876	28 040	59 154	1 366	1 572	450	18-7
1947-48 . . .	5 693	46 216	54 836	27 597	57 624	1 367	1 559	563	17-2
1948-49 . . .	5 723	46 670	55 259	28 110	59 377	1 327	1 521	705	19-5
1949-50 . . .	5 857	46 794	55 496	27 900	59 312	1 263	1 464	725	19-9
1950-51 . . .	5 879	46 811	55 424	28 248	61 403	1 316	1 488	753	32-0
1951-52 . . .	5 846	46 861	55 770	28 698	61 425	1 284	1 496	870	23-6
1952-53 . . .	5 891	46 880	55 734	28 860	61 791	1 270	1 449	940	23-1
1953-54 . . .	5 937	47 777	56 659	29 220	60 830	1 350	1 529	1 144	25-1
1954-55 . . .	5 986	46 339	55 175	28 092	60 452	1 404	1 576	1 272	28-1
1955-56 . . .	6 050	47 398	56 276	28 585	60 689	1 378	1 607	1 416	28-7
1956-57 . . .	6 387	47 379	56 255	27 936	60 675	1 376	1 610	1 488	26-7
1957-58 . . .	6 406	47 472	56 309	27 971	61 530	1 401	1 581	1 621	32-9
1958-59 . . .	6 457	47 517	56 623	28 105	61 639	1 494	1 679	1 504	34-4
1959-60 . . .	6 502	47 298	56 476	28 527	62 903	1 489	1 643	1 405	40-8
1960-61 . . .	6 547	49 350	58 524	28 711	63 316	1 751	2 010	1 335	41-3
1961-62 . . .	6 589	49 862	59 011	28 886	63 494	1 644	1 825	1 450	43-9
1962-63 . . .	6 622	49 848	59 017	28 922	63 413	1 787	1 996	1 518	45-6
1963-64 . . .	6 642	49 831	59 022	28 711	64 307	1 938	2 177	1 616	47-7
1964-65 . . .	6 677	49 734	58 873	28 754	63 517	1 932	2 141	1 908	49-8
1965-66 . . .	6 696	50 443	59 582	28 759	64 505	1 971	2 142	2 061	52-1
1966-67 . . .	6 693	50 522	59 651	28 957	65 361	2 073	2 322	2 119	56-2
1967-68 . . .	6 898	50 865	59 804	29 058	65 059	2 037	2 270	2 076	70-1
1968-69 . . .	6 920	51 804	60 220	29 137	65 603	2 431	2 783	1 728	70-4
1969-70 . . .	6 935	51 430	60 145	29 035	65 839	2 138	2 407	2 008	75-3
1970-71 . . .	6 944	51 978	60 648	29 087	65 795	1 884	2 141	1 938	77-3
1971-72 . . .	6 957	51 353	59 999	29 095	65 146	2 113	2 478	1 822	76-1
1972-73 . . .	6 966	51 024	59 602	29 001	65 372	1 864	2 084	2 033	83-1

RURAL PRODUCTION
Crop Areas and Yields

Year	Cereals for Grain						Hay (a)	Orchards (b) (c)	Vineyards (b)
	Wheat		Barley		Oats				
	Area	Yield per Acre	Area	Yield per Acre	Area	Yield per Acre			
	'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		0.3	
1861-62	126	0.74	4	0.89	1	0.91	9	0.4	
							25	0.7	
1866-67	186	0.96	5	1.13	2	1.00	45	0.9	
1871-72	280	0.39	7	0.53	2	0.49	40	1.1	
1876-77	439	0.36	4	0.60	1	0.48	37	1.3	
1881-82	716	0.31	5	0.64	1	0.48	135	1.8	
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	
1896-97	685	0.11	6	0.42	16	0.21	137	4.8	
1901-02	706	0.31	6	0.88	14	0.61	150	6.6	
1906-07	683	0.70	11	0.98	23	0.70	121	7.4	
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	
1921-22	965	0.70	69	1.08	51	0.46	226	13.1	
1926-27	1 120	0.86	104	1.01	62	0.50	201	12.8	
1931-32	1 648	0.79	98	1.06	84	0.50	218	11.8	
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	
1946-47	1 019	0.75	203	0.94	102	0.49	133	11.4	
1947-48	961	0.92	228	1.53	125	0.78	120	11.5	
1948-49	835	0.85	282	0.97	116	0.41	95	12.0	
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	
1951-52	653	1.14	337	1.13	157	0.63	104	11.9	
1952-53	648	1.48	379	1.55	150	0.81	87	11.6	
1953-54	619	1.34	454	1.42	113	0.69	106	12.0	
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	
1956-57	582	1.47	494	1.56	173	0.87	121	13.8	
1957-58	539	0.75	490	0.81	173	0.36	118	14.3	
1958-59	570	1.53	539	1.58	193	1.12	170	15.1	
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	
1961-62	902	1.02	514	0.94	131	0.61	84	15.6	
1962-63	1 050	0.99	426	0.96	168	0.62	116	16.4	
1963-64	1 134	1.30	455	1.21	203	0.82	145	16.9	
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	
1966-67	1 198	1.22	448	1.20	206	0.91	195	17.9	
1967-68	1 159	0.63	468	0.60	212	0.28	174	18.3	
1968-69	1 517	1.49	572	1.17	209	1.03	249	18.0	
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	
1971-72	1 069	1.32	784	1.34	169	0.98	245	17.2	
1972-73	986	0.83	692	0.74	142	0.52	210	16.7	
								27.7	
								28.8	
								29.5	

(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	'000 litres	'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>	<i>n.a.</i>
1942-43	10 371	424	185 49 277	357 325	2 272	171	6 705	2 976	1 659
1943-44	10 360	415	188 52 374	355 504	2 480	189	7 064	3 297	1 963
1944-45	8 474	391	187 48 402	328 228	3 065	175	8 044	3 770	2 206
1945-46	6 787	374	176 33 386	360 732	2 017	148	9 211	3 978	2 349
1946-47	7 959	424	187 42 193	426 878	1 662	146	9 456	4 306	2 839
1947-48	9 055	445	197 52 821	420 513	1 665	148	9 664	4 932	3 238
1948-49	9 366	461	203 52 120	415 058	2 011	189	11 271	5 817	3 665
1949-50	9 477	464	203 54 997	406 420	2 317	201	13 709	6 846	4 198
1950-51	10 167	433	184 56 873	379 826	2 022	218	16 128	8 134	4 590
1951-52	11 470	437	176 61 454	393 237	1 547	216	18 184	9 054	4 909
1952-53	12 037	483	183 71 966	382 781	2 353	187	19 750	9 733	5 418
1953-54	11 838	491	192 66 002	386 418	2 637	220	20 842	10 302	5 876
1954-55	12 817	524	199 70 652	412 330	2 799	233	23 110	11 452	6 363
1955-56	13 585	566	195 78 788	410 739	2 358	227	24 345	12 134	6 920
1956-57	14 984	622	195 85 642	408 694	2 329	252	26 012	12 690	7 208
1957-58	15 237	597	191 84 297	366 415	3 278	283	27 288	13 280	7 344
1958-59	15 634	576	188 84 750	373 234	3 145	287	28 532	13 778	7 537
1959-60	14 025	500	170 89 942	357 323	3 899	238	28 965	13 973	7 575
1960-61	14 952	561	170 80 473	395 510	2 784	174	30 674	14 317	7 589
1961-62	16 415	659	183 93 886	434 152	3 140	201	31 788	14 532	7 707
1962-63	15 737	679	190 94 050	433 697	3 467	254	31 671	14 595	7 553
1963-64	16 402	694	185 95 481	433 244	2 996	279	33 231	14 885	7 438
1964-65	17 289	697	182 97 856	465 065	3 100	275	34 164	15 172	7 328
1965-66	17 993	690	176 104 160	447 325	3 474	277	33 998	15 386	7 040
1966-67	17 864	687	170 107 725	448 699	3 358	265	35 829	15 392	6 634
1967-68	16 405	695	157 101 000	403 693	4 019	245	36 590	15 758	6 645
1968-69	18 392	865	163 105 714	467 377	2 977	220	36 574	15 693	6 263
1969-70	19 747	1 026	149 124 529	482 959	4 232	249	37 264	15 746	5 947
1970-71	19 166	1 196	145 117 258	469 773	5 101	264	37 023	15 852	5 571
1971-72	17 970	1 495	151 117 922	457 732	5 144	290	37 197	(a)	(a)
1972-73	15 651	1 583	148 106 006	424 722	4 538	392	37 258	(a)	(a)

(a) Not collected.

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	1 266	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	2 707	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.	4 233	1 856	7 706	110 631	3 103	714 579
1971.	6 456	1 492	6 867	110 540	n.a.	n.a.
1972.	28 700	1 602	6 327	121 082	3 035	802 975

(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 485.

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	69 399
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	10 087	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	273 451
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	403 704
1972-73	44 588	27 506	54 415	177 768	141 713	270 233	47 808	511 795

(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	14 202
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	130 992	117 337	28 188	281 217	18 614	n.a.
1970-71	119 701	94 717	31 097	251 448	19 888	n.a.
1971-72	158 804	123 412	32 163	319 185	22 821	n.a.
1972-73	131 124	227 178	33 822	393 891	24 057	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 Exports

Year	Value of Exports					Proportion of Total Exports Classified by Principal Countries of Destination				
	Total	Wheat and Flour	Barley	Wool	Minerals (a)	Japan	New Zealand	UK	USA	Other Countries
	\$'000					Per cent				
1861	1 837	76		1 302	362		3.42	89.46		7.12
1866	2 837	146		1 518	1 030		4.62	81.48	2.44	11.46
1871	3 630	578		1 948	744		4.00	89.62	n.a.	6.38
1876	5 928	2 146		2 884	658		1.96	89.58	0.07	8.39
1881	6 311	1 846		3 496	488		0.71	82.03	—	17.26
1886	5 877	420		3 508	1 126		0.69	86.90	0.04	12.37
1891	11 197	2 728		3 776	3 714	0.01	0.29	80.82	0.90	17.98
1896	8 111	222		3 038	3 878	1.38	0.48	56.39	0.28	41.47
1901	8 866	2 232		2 208	3 252	0.07	0.65	51.62	0.10	47.56
1906	13 742	4 780		3 360	3 574	—	0.26	51.68	0.24	47.82
1911	20 350	7 671	2	4 007	6 195	0.04	0.17	45.96	0.13	53.70
1915-16	12 272	3 511	19	2 824	4 747	—	1.01	42.92	21.15	34.92
1920-21	35 339	28 675	1 175	6 035	828	—	1.11	59.40	1.16	38.33
1925-26	38 900	14 825	275	8 865	10 745	6.88	1.70	51.94	1.16	38.32
1930-31	20 123	6 078	685	3 066	5 656	2.38	0.81	54.11	0.79	41.91
1935-36	30 762	9 020	707	7 561	6 860	6.66	2.05	67.44	1.11	22.74
1940-41	26 393	8 617	226	6 656	2 606	5.29	3.46	50.46	15.48	25.31
1941-42	29 624	3 863	338	11 596	6 220	1.01	3.39	32.02	34.14	29.44
1942-43	18 847	4 085	122	6 843	2 084	—	10.61	45.27	15.12	29.00
1943-44	31 170	10 504	410	8 509	2 313	—	9.18	40.36	8.61	41.85
1944-45	38 334	13 175	115	8 376	5 589	—	6.30	42.34	13.18	38.18
1946-46	40 307	7 407	718	14 917	6 550	—	4.95	25.45	26.43	43.17
1945-47	65 023	12 304	2 998	16 095	16 138	0.01	5.37	39.47	8.86	46.29
1947-48	105 805	24 507	16 030	25 608	17 460	—	4.44	39.01	8.51	48.04
1948-49	138 866	38 990	11 952	40 619	24 230	0.07	2.31	44.37	8.04	45.21
1949-50	127 864	23 227	10 564	49 621	23 262	2.95	6.38	42.42	7.63	40.62
1950-51	215 348	36 852	14 662	109 900	29 893	5.90	2.39	39.58	14.41	37.72
1951-52	194 501	42 155	18 035	65 806	42 995	4.60	7.26	39.36	14.65	34.13
1952-53	245 897	36 062	30 975	87 135	56 007	8.17	3.32	45.12	12.93	30.46
1953-54	220 498	30 518	24 465	78 817	54 059	6.35	5.80	41.66	10.57	35.62
1954-55	190 158	24 075	15 794	69 195	50 620	5.05	6.59	40.78	11.57	36.01
1955-56	195 332	26 266	14 069	70 063	53 972	6.71	7.47	38.70	10.71	36.41
1956-57	245 848	32 558	18 535	98 924	63 707	13.62	7.40	31.73	13.09	34.16
1957-58	199 764	24 868	17 183	73 082	50 249	11.23	7.85	31.50	9.32	40.10
1958-59	181 831	23 656	20 404	63 208	38 682	13.25	7.86	34.81	8.50	35.58
1959-60	181 652	19 028	12 251	74 830	38 085	12.91	4.30	32.08	7.91	42.80
1960-61	198 557	36 598	19 219	64 328	44 203	18.11	5.60	27.55	4.71	44.03
1961-62	243 975	47 819	23 422	83 107	51 374	14.80	4.14	25.83	8.56	46.67
1962-63	212 945	32 603	6 968	83 400	47 555	16.45	4.57	25.87	8.69	44.42
1963-64	322 159	76 337	13 828	107 398	63 489	17.59	4.83	26.63	5.99	44.96
1964-65	302 242	53 256	15 247	92 535	79 005	17.22	5.06	25.82	7.49	44.41
1965-66	296 276	45 864	7 050	94 486	76 896	18.38	5.89	22.81	10.37	42.55
1966-67	325 170	55 675	13 056	98 013	76 855	20.43	4.69	15.46	8.85	50.57
1967-68	282 767	31 432	2 321	77 008	88 579	21.81	5.05	18.20	11.03	43.91
1968-69	300 934	27 421	11 683	84 747	92 806	25.52	4.55	16.46	9.78	43.69
1969-70	417 030	59 457	16 133	81 797	119 292	19.02	5.58	17.03	9.41	48.96
1970-71	393 737	83 629	23 670	62 828	93 209	18.07	5.66	13.70	6.39	56.18
1971-72	394 064	64 599	35 652	68 189	84 508	18.64	7.21	13.83	5.84	54.48
1972-73	521 720	48 684	17 250	149 956	94 626	23.89	6.41	8.84	7.47	53.39

(a) Rocks, minerals and hydrocarbons, pig iron, pig lead, other lead and lead-base alloys, refined and unrefined silver.

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	Canada	UK	USA	Other Countries	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	0.15	81.30	1.44	17.11		
1881	7 133	1 022	0.04	79.06	3.80	17.10		
1886	5 003	770	0.05	78.90	6.82	14.23		
1891	8 063	1 644	0.81	71.36	7.91	19.92		
1896	6 475	1 198	0.21	68.59	7.82	23.38		
1901	7 854	1 432	0.71	56.91	14.17	28.21		
1906	7 965	2 104	1.38	63.10	10.17	25.35		
1911	12 492	4 132	1.41	58.60	12.81	27.18		
1915-16	10 304	2 816	2.27	47.68	19.81	30.24		
1920-21	24 764	6 558	2.96	42.07	21.25	33.72		
1925-26	28 160	10 602	2.18	43.30	27.84	26.68		
1930-31	7 833	1 802	2.77	36.96	16.66	43.61		
1935-36	10 839	3 616	5.48	38.65	21.16	34.71		
1940-41	10 924	3 158	5.71	38.09	12.01	44.19		
1941-42	14 924	5 164	2.29	28.11	12.36	57.24		
1942-43	11 718	3 580	1.45	20.56	14.44	63.55		
1943-44	9 562	2 128	1.22	24.97	33.53	40.28		
1944-45	9 313	1 388	3.08	24.49	19.91	52.52		
1945-46	17 556	3 622	3.19	62.28	10.13	24.40		
1946-47	23 875	6 788	7.19	35.25	13.79	43.77		
1947-48	45 908	12 740	3.89	37.96	15.45	42.70		
1948-49	60 914	21 678	2.36	49.33	9.02	39.29		
1949-50	91 509	44 334	1.92	52.15	8.81	37.12		
1950-51	112 002	50 446	1.76	48.31	8.42	41.51		
1951-52	186 062	80 450	1.72	39.99	9.37	48.92		
1952-53	86 549	41 456	4.15	43.53	11.71	40.61	271.7	84.3
1953-54	102 945	47 142	7.04	50.63	8.93	33.40	294.4	97.6
1954-55	129 607	63 144	4.17	49.18	13.28	33.37	324.4	113.4
1955-56	125 504	64 656	3.78	49.17	11.70	35.35	347.8	123.6
1956-57	90 813	40 536	5.24	44.01	12.26	38.49	362.3	124.7
1957-58	94 205	40 792	4.88	46.37	11.91	36.84	367.2	125.4
1958-59	90 693	40 534	6.78	42.08	11.50	39.64	387.2	138.0
1959-60	119 493	57 962	5.76	43.89	12.15	38.20	436.6	160.2
1960-61	142 764	72 570	6.57	32.66	17.61	43.16	448.9	156.1
1961-62	103 386	46 774	6.01	31.95	21.87	40.17	451.6	143.1
1962-63	139 826	71 820	6.79	31.83	22.92	38.46	479.9	180.5
1963-64	179 651	94 302	5.43	24.75	30.63	39.19	525.3	212.5
1964-65	204 856	108 243	5.46	23.72	29.11	41.71	574.5	238.0
1965-66	198 156	103 032	5.80	23.32	27.25	43.63	602.0	220.4
1966-67	196 771	97 861	4.96	21.64	27.72	45.68	627.1	214.7
1967-68	215 619	113 215	8.30	17.29	32.71	41.70	663.6	242.0
1968-69	231 956	134 222	9.35	19.82	27.35	43.48	706.9	261.1
1969-70	201 223	98 204	7.36	21.49	21.50	49.64	762.3	285.7
1970-71	198 358	98 358	5.92	25.10	17.32	51.66	818.8	297.6
1971-72	189 748	83 083	5.41	22.83	14.48	57.28	890.9	322.5
1972-73	199 978	88 271	4.63	17.49	15.08	62.80	p1 021.1	n.a.

TRANSPORT AND COMMUNICATION

Public Transport

Year	Railways			Buses and Trams (a)		Shipping (Entering S.A.) (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	248	32	44			114
1861	310	145	185			103
1866	425	171	236			169
1871	394	228	235			187
1876	1 400	387	402			347
1880-81	2 902	683	837			641
1885-86	3 962	779	1 098			771
1890-91	5 296	1 427	2 448			1 288
1895-96	5 436	1 057	1 973			1 661
1900-01	8 864	1 628	2 473			1 967
1905-06	10 715	1 732	2 700			2 785
1910-11	16 620	2 731	4 030	34 013	480	3 625
1915-16	20 513	2 397	3 931	43 372	649	2 566
1920-21	23 788	2 682	5 884	55 324	1 111	2 887
1925-26	25 752	3 563	8 524	66 207	1 322	4 526
1930-31	15 453	2 175	5 201	52 756	1 444	4 166
1935-36	17 431	2 482	5 781	50 625	1 347	5 318
1940-41	20 360	2 770	7 060	56 518	1 537	3 047
1945-46	23 119	2 997	9 794	90 239	2 469	1 733
1946-47	19 827	3 093	9 243	91 238	2 594	3 086
1947-48	19 067	3 396	10 219	89 661	2 661	3 651
1948-49	18 210	3 544	11 770	82 939	3 084	4 365
1949-50	17 385	3 425	(c)13 098	77 999	2 535	5 217
1950-51	17 178	3 519	14 715	78 141	3 238	5 283
1951-52	18 269	4 966	19 022	75 436	3 684	5 529
1952-53	17 565	4 172	24 976	66 571	(d) 4 232	5 900
1953-54	17 605	4 457	25 848	66 972	4 145	6 108
1954-55	16 849	4 497	26 522	66 446	4 267	6 123
1955-56	16 434	4 436	26 662	63 515	4 668	6 282
1956-57	17 406	4 518	28 132	62 190	4 578	6 360
1957-58	17 564	4 166	27 033	60 083	4 988	6 569
1958-59	16 805	4 227	26 179	59 613	5 056	6 744
1959-60	17 038	4 059	25 652	58 168	5 641	6 745
1960-61	15 574	4 537	27 883	58 912	5 515	7 613
1961-62	15 176	4 638	27 984	57 950	5 430	7 646
1962-63	14 922	4 530	27 826	58 039	5 436	7 886
1963-64	15 227	5 213	29 673	58 571	5 473	9 486
1964-65	15 196	5 131	29 960	56 434	5 899	9 697
1965-66	15 511	4 823	29 137	53 112	6 049	9 517
1966-67	15 432	4 909	30 417	49 735	6 270	10 220
1967-68	15 242	4 401	28 244	47 813	6 225	10 028
1968-69	14 423	5 037	30 522	45 393	6 472	10 345
1969-70	13 990	5 922	33 566	43 345	6 696	12 213
1970-71	13 946	6 025	34 635	41 259	6 881	11 303
1971-72	13 433	5 948	35 603	40 842	6 978	10 533
1972-73	14 042	5 820	35 332	41 680	7 304	9 957

(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, Vans, Trucks, Buses	Total (incl. Cycles, Scooters)				Postal, Etc. (c)	Tele- graph (e)	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 (d)	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	16 308
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

(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	520	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	1 735	348	198	740
1910-11 . . .	8 363	7 929	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	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	4 735	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	4 848	19 721
1958-59 . . .	145 360	147 414	41 442	635 404	690-00	20 435	11 060	4 948	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	1 180-36	120 474	*	*	*

(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.

(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	New Policies Issued					Sum Existence
	Advances (a)	Deposits (a)	Deposits at 30 June	Sum Assured					Sum Assured
								\$'000	
								No. Members	
1846		183							
1851		426	29						
1856		1 419	106						
1861		1 480	243						
1866	2 864	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	1 305	28 762	10 621	
1926	31 672	51 574	43 558	9 341	60 244	2 045	41 539	77 791	
1931	44 119	44 956	42 844	6 266	65 016	1 627	45 791	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.	n.a.	
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	78 240	
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	284 807	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	333 885	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	175 753	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	

(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 whose names 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. Radium Hill mines and treatment works officially opened. Water from the River Murray pumped into metropolitan reservoirs through the Mannum pipeline.
- 1955—Adelaide Airport at West Beach opened. The sulphuric acid plant at Port Adelaide commenced operations. Uranium treatment at Port Pirie also commenced. 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. Pyrites plant at Nairne opened. Charges for beds in public wards at the Royal Adelaide Hospital made for the first time. Atomic device exploded at Maralinga. Salk poliomyelitis vaccination programme 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). Discovery of high grade limesand deposits near Coffin Bay. 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. Post trading replaced call system at stock exchange.

- 1962**—Deliveries of bulk wheat from farms exceeded the quantity of bagged grain for the first time. 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. Ratifying legislation passed for construction of Chowilla dam. 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. Chowilla dam project deferred indefinitely. 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. South Australian wine production in 1969-70 a record.
- 1971**—Fluoridation of Adelaide Water Supply commenced. Agreement for supply of natural gas to Sydney from South Australian gas fields finalised. Points demerit scheme for drivers who commit road traffic offences introduced. Age of Majority reduced from twenty-one to eighteen. Australian Government transferred power to levy payroll tax to the States. 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. SA liquor laws relaxed. New Stirling to Verdun freeway opened. Plans announced for the sealing of the Eyre Highway from Penong to the WA border. Another major oil flow from the Tirrawarra field announced. New laws regulating door-to-door selling and used car dealing introduced. The *Clutha Capricorn* of 85 000 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. Work begun on \$40 million Flinders University medical centre. New Community Welfare, Mining and Juvenile Courts Acts came into operation. Weather temperature reports changed to degrees Celsius. North Haven residential project to house 4 000 people at the northern end of Le Fevre Peninsula announced. Daylight saving re-introduced for 1972-73 and subsequent summers. South Australian Film Corporation commenced operation. South Australia's first ombudsman, Mr G. D. Combe, 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. Manager appointed to oversee the development of the new town of Monarto. Large deposits of brown coal discovered in the Inkerman-Balaklava area, 80 kilometres north of Adelaide. Dial-a-Bus project cancelled after a two-week trial. Australian Government aid to Independent Schools in South Australia increased by 45 per cent to \$9.75 million 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. New \$1 million passenger terminal opened at Outer Harbor. Petrol rationing introduced for a short time because of a strike at the Port Stanvac oil refinery. Contract let for huge \$300 million petrochemical plant at Redcliffs. Bill passed in State Parliament for extensive improvement in workers' compensation benefits. Australian Government took over responsibility for Aboriginal Affairs from South Australian Government. Tenth Australian Scout Jamboree held at Woodhouse, near Stirling.

1974—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 programme to provide forty new pre-schools commenced. New \$2 million Western Community Hospital opened at Henley Beach. 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. Conversion of road signs to metric measurements undertaken.

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 721.

PART 1—NATURAL ENVIRONMENT

Weather Conditions in South Australia (pages 18-21)—During summer of 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 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.

PART 7—LABOUR

National Wage Case 1974 (pages 339-40)—In a unanimous decision handed down on 2 May 1974 the Australian Conciliation and Arbitration Commission followed the precedent it had set in 1973 and approved a combination increase in the Total Wage of 2 per cent on current award rates plus \$2.50 as a flat amount to apply to both adult male and adult female rates. Male and female juniors and apprentices were to receive proportionate increases. The increases applied from the beginning of the first pay period commencing on or after 23 May 1974.

The increase in the total wage raised the male minimum wage by \$8 to \$67.60 in South Australia and, for the first time since its introduction in 1966, the minimum wage was applied to females. This adjustment was to be phased in, in three steps. Females were entitled to 85 per cent of the male minimum wage from 23 May 1974, 90 per cent from 30 September 1974 and will be entitled to 100 per cent from 30 June 1975.

As in previous years one of the claims made was that the minimum wage should be adjusted automatically every quarter for changes in the Consumer Price Index; the Commission again decided against the claim. However, to allay anxiety about the possibility of rapid erosion in the real value of the minimum wage, the Commission undertook to review the decision after six months.

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LIST OF SPECIAL ARTICLES

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Flora: T. N. Lothian; 1967, 23-27.

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.

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