



South Australian Year Book

1981

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SOUTH AUSTRALIAN
YEAR BOOK

1981

BHP Co Ltd blast furnace and wharf at Whyalla

S.A. State Promotion Unit





*South
Australian
Year Book*

No. 16 : 1981

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and Government Statist*

**AUSTRALIAN BUREAU OF STATISTICS
SOUTH AUSTRALIAN OFFICE**

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PREFACE

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

This volume, the sixteenth issue of the Year Book, includes a special article on Marine Mammals and a regional study of Lower North Statistical Subdivision. 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 pages 663-4.

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 more detailed historical or up-to-date data, either on a specific subject or embracing wider fields.

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

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

I gratefully acknowledge the valuable assistance given by contributors of special articles, the Government Printing Office staff, the staff of Griffin Press Limited and Computer Graphics Corporation Pty Ltd. My thanks are tendered to the staff of this Bureau, especially Mr I. R. Milne, 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
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 (\$) and cents unless another currency is specified.

Where figures have been rounded, discrepancies may occur between sums of component items and totals.

Symbols Used

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

Citation of Acts

Acts of the Commonwealth Parliament are cited in *italics* with the relevant year in roman type *e.g. Census and Statistics Act 1905.*

Acts of the South Australian Parliament are cited in roman type *e.g. Licensing Act, 1967-1980.*

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 3 700 kilometres. South Australia covers a total area of 984 377 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.

A comparison of the areas, length of coastline and standard time of the various States and Territories is shown in the following table. The areas and length of coastline were determined by the Division of National Mapping by manually digitising these features from the 1:250 000 map series of Australia. This means that only features of measurable size at this scale were considered. About 60 000 points were digitised at an approximate

spacing of 0.5 kilometres. These points were joined by chords as the basis for calculation of areas and coastline lengths by computer.

Area, Coastline and Standard Times, Australia

State or Territory	Estimated Area (a)		Length of Coastline (a)	Standard Time	
	Total	Percentage of Total Area		Meridian Selected	Ahead of G.M.T.
	'000 km ²		km		Hours
New South Wales	802	10.43	1 900	150°E	(b) 10.0
Victoria	228	2.96	1 800	150°E	(b) 10.0
Queensland	1 727	22.48	7 400	150°E	10.0
South Australia	984	12.81	3 700	142°30'E	(b) 9.5
Western Australia	2 526	32.87	12 500	120°E	8.0
Tasmania	68	0.88	3 200	150°E	(b) 10.0
Northern Territory	1 346	17.52	6 200	142°30'E	9.5
Australian Capital Territory ..	2	0.03	35	150°E	(b) 10.0
Australia	7 682	100.00	36 735	..	..

(a) As determined by the Division of National Mapping.

(b) Because of 'daylight saving' an hour should be added from late October to early March.

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.

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 time keeping 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 communications.

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 in 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 Middle-back 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, extends 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 Mount 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.

Eclipses

A special article on eclipses was included on pages 5-11 of the *South Australian Year Book* 1977.

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

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

RAINFALL

Average Annual Rainfall

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

Distribution of Rainfall, South Australia and Australia

Average Annual Rainfall	Proportion of Total Area	
	South Australia	Australia
	Per cent	Per cent
Under 250 mm	82·6	38·8
250 mm and under 400 mm	9·1	19·8
400 mm and under 500 mm	4·5	11·2
500 mm and under 600 mm	2·6	9·5
600 mm and under 750 mm	0·8	7·5
750 mm and under 1 000 mm	0·4	6·2
1 000 mm and over	(a)	7·0
Total	100·0	100·0

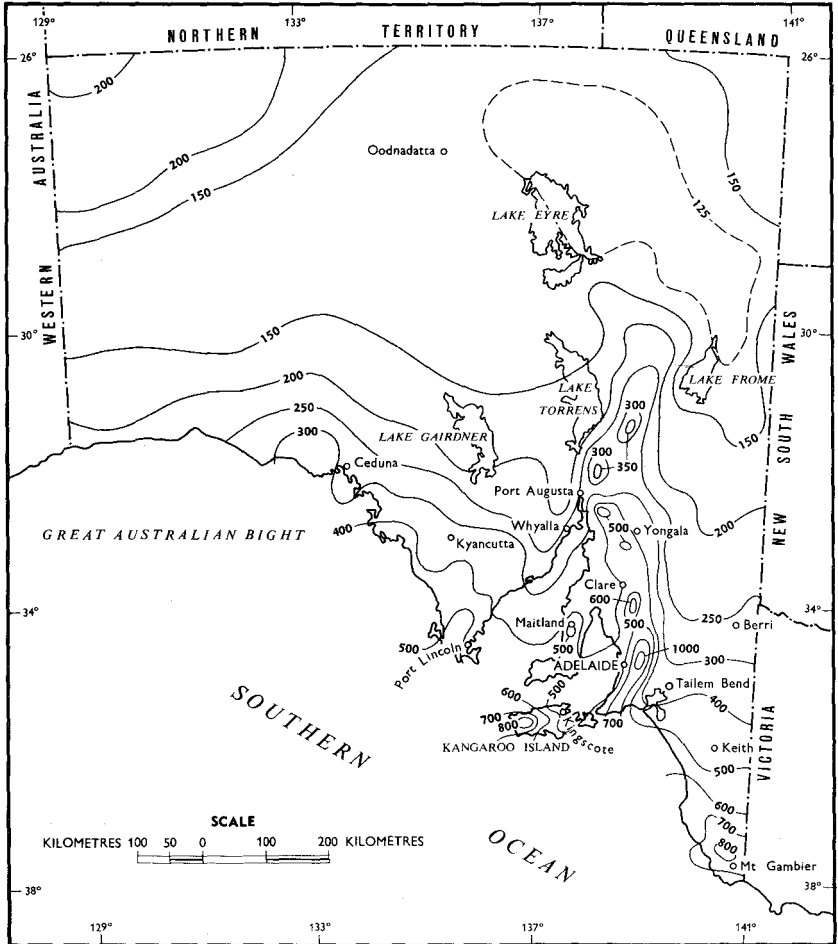
(a) Less than 0·05 per cent—an area of the order of 750 hectares in the Mount Lofty Ranges.

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 Mount Lofty, 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. The means decrease 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 several periods when the annual totals were less than 75 millimetres during consecutive years.

Mean monthly rainfalls at seventeen selected recording stations are shown in the table below. The average number of days receiving 0.2 millimetres or more of rain is also shown.

Mean Rainfall and Days of Rain: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
MEAN RAINFALL (a) (millimetres)													
Adelaide (West Tce)	20	21	24	44	68	72	66	61	51	44	31	26	528
Berri	17	22	11	17	28	26	24	27	27	24	20	19	262
Ceduna	11	14	13	21	38	37	40	37	29	27	23	20	310
Clare	26	25	25	48	75	80	81	79	72	57	36	29	633
Keith	19	23	22	35	56	52	54	56	51	45	33	26	472
Kingscote	15	18	18	37	60	73	78	64	46	36	24	19	488
Kyancutta	13	19	13	20	36	40	43	42	34	28	23	19	330
Maitland	18	22	20	43	64	68	66	62	50	43	28	22	506
Mount Gambier	24	32	33	60	75	77	102	90	68	63	47	38	709
Oodnadatta	23	35	8	10	15	13	11	11	12	15	9	13	175
Port Augusta	15	17	17	19	26	27	20	23	22	23	18	16	243
Port Lincoln	14	15	19	36	58	74	77	67	50	35	23	18	486
Port Pirie	18	19	17	29	40	41	33	36	34	33	23	20	343
Stirling	39	37	43	96	143	183	161	156	124	99	61	48	1 190
Tailem Bend	18	24	21	28	42	39	39	41	39	38	29	27	385
Whyalla	19	24	16	18	27	25	22	25	25	27	23	20	271
Yongala	21	21	16	26	36	41	40	45	39	34	28	24	371
AVERAGE NUMBER OF DAYS OF RAIN (b)													
Adelaide (West Tce)	4	4	5	9	13	15	16	16	13	11	8	6	120
Berri	3	3	3	5	7	8	9	9	7	6	4	4	68
Ceduna	3	4	4	7	11	11	13	12	10	8	6	5	94
Clare	4	4	5	8	12	14	15	15	13	11	7	5	113
Keith	4	4	5	8	12	13	15	15	12	11	8	6	113
Kingscote	3	4	5	9	13	15	18	16	13	10	6	5	117
Kyancutta	3	3	4	7	11	11	14	14	11	9	6	5	98
Maitland	4	4	4	8	12	14	15	15	12	10	7	5	110
Mount Gambier	8	8	11	15	18	18	22	21	18	17	14	12	182
Oodnadatta	3	3	2	2	3	3	2	4	3	3	3	3	34
Port Augusta	2	2	3	4	6	8	8	8	6	6	4	3	60
Port Lincoln	4	4	5	9	14	16	18	18	13	11	7	5	124
Port Pirie	3	2	3	5	8	10	10	10	8	7	5	4	75
Stirling	6	6	7	13	15	17	18	18	15	14	11	9	149
Tailem Bend	4	4	4	7	11	11	13	13	11	9	7	6	100
Whyalla	3	3	3	5	7	7	8	8	6	6	4	4	64
Yongala	4	3	4	6	10	12	13	13	10	8	6	5	94

(a) For all years of record to end of 1978 except for Adelaide (see page 16). (b) Days receiving 0.2 millimetres or more.

Seasonal Distribution of Rainfall

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

By contrast, the occurrence of rain over interior districts is quite erratic, but southern parts of the interior still exhibit a discernible trend for winter maxima. Records collected over the years from this northern half of the State show that heavy rains of up to 75

millimetres may occur in any month of the year, but on the other hand at least two or three months without any significant rain at all are experienced practically every year.

Rainfall Intensity

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

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

Stansbury (18 February 1946)	222 mm
Stirling (17 April 1889)	208 mm
Ardrossan (18 February 1946)	206 mm
Oodnadatta (9 February 1976)	200 mm
Carpa, 25 km SW of Cowell (18 February 1946)	199 mm
Innaminka Station (28 January 1974)	189 mm

Other Yorke Peninsula towns besides Stansbury and 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. At Bellenden Ker (in Queensland) 1 140 millimetres were recorded in the twenty-four hour period ending 9 a.m. on 4 January 1979. The next day a further 807 millimetres were recorded at the same station. 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 133 days of snow experienced over a period of 140 years to the end of 1980. 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, 1967 and 1976-77 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 11 and 12 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 to 150 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.

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.

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 hot, dry, northerly winds persist over the State for two or more consecutive days, developing crops may suffer stress.

Monthly mean maximum and minimum temperatures at seventeen selected recording stations within the State are shown in the following tables. These are based as nearly as possible on a standard period except for the figures for Adelaide (Kent Town) which are estimates based on a comparison of readings taken between 1977 and 1979 at the Kent Town and West Terrace sites.

Mean Maximum Temperatures: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
	°Celsius												
Adelaide (Kent Town)	28.8	28.8	26.2	22.1	18.5	15.6	14.9	16.1	18.4	21.5	24.7	27.2	21.9
Berri	31.2	30.2	28.2	22.6	18.9	15.9	15.4	17.2	20.7	23.5	26.9	29.6	23.4
Ceduna	28.5	27.9	26.5	24.0	20.7	18.2	17.3	18.3	21.2	23.5	25.8	27.2	23.3
Clare	29.4	29.1	26.2	21.3	16.9	13.8	12.9	14.5	17.3	20.8	24.6	27.5	21.2
Keith	29.9	29.5	26.9	22.2	18.0	15.5	14.8	15.9	18.4	21.3	24.4	27.4	22.1
Kingscote	23.5	23.3	22.0	19.6	17.2	15.2	14.4	14.8	16.3	18.3	20.4	22.3	18.9
Kyancutta	32.8	32.0	30.0	25.0	21.0	17.7	17.7	18.1	21.6	25.0	28.3	30.8	24.9
Maitland	28.5	28.2	25.5	21.9	17.7	15.3	14.2	15.1	17.2	20.9	23.9	25.9	21.2
Mount Gambier	25.1	24.6	22.7	19.0	15.7	13.7	13.0	13.9	15.6	17.6	19.8	22.5	18.6
Oodnadatta	37.3	36.2	33.6	28.0	22.9	19.7	19.5	21.6	26.0	30.1	33.4	36.1	28.7
Port Augusta	32.0	31.8	29.6	25.2	21.1	17.5	17.0	19.0	22.4	25.6	28.6	30.8	25.0
Port Lincoln	25.3	24.9	23.9	21.4	18.8	16.4	15.8	16.5	18.1	20.0	21.9	23.7	20.6
Port Pirie	31.7	31.4	29.4	24.6	20.2	17.1	16.3	17.9	20.7	24.4	27.4	29.9	24.3
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
Tallem Bend	29.5	28.7	26.9	23.1	18.9	16.2	15.6	16.6	19.8	22.4	24.8	27.0	22.4
Whyalla	28.6	28.3	25.7	23.0	20.0	17.6	16.4	17.7	20.2	22.4	25.5	26.7	22.9
Yongala	29.9	29.6	26.6	21.3	16.7	13.1	12.3	14.0	17.3	21.4	25.4	28.4	21.3

Mean Minimum Temperatures: Selected Stations, South Australia

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
	°Celsius												
Adelaide (Kent Town)	15.9	16.2	14.5	11.9	9.5	7.5	6.5	7.1	8.4	10.5	12.7	14.8	11.3
Berri	15.3	14.9	13.4	10.2	7.8	6.1	5.3	6.0	7.8	10.0	12.2	14.1	10.3
Ceduna	14.9	14.9	13.0	10.5	8.4	7.0	6.1	6.0	7.6	9.7	11.9	13.7	10.3
Clare	13.7	13.8	11.5	8.3	5.8	4.3	3.3	3.9	5.1	7.4	9.9	12.1	8.5
Keith	12.6	12.8	11.1	9.0	7.2	5.6	5.2	5.5	6.4	8.1	9.6	11.5	8.8
Kingscote	14.6	15.2	14.1	12.3	10.6	9.2	8.3	8.1	8.9	10.2	11.7	13.3	11.4
Kyancutta	15.7	14.0	12.2	9.3	7.2	5.2	4.7	4.8	6.1	8.1	10.4	12.6	9.1
Maitland	15.1	15.5	14.2	12.1	9.6	7.6	6.8	6.9	7.9	9.8	11.5	13.5	10.9
Mount Gambier	10.7	11.4	10.1	8.4	7.0	5.4	4.9	5.1	5.8	6.9	7.9	9.6	7.8
Oodnadatta	22.5	22.0	19.2	14.1	9.6	6.7	5.7	7.1	10.9	15.0	18.1	20.9	14.4
Port Augusta	18.6	18.9	16.8	13.3	10.1	7.8	6.7	7.7	9.8	12.6	15.3	17.5	12.9
Port Lincoln	15.2	15.5	14.6	12.7	10.9	9.2	8.3	8.2	9.0	10.4	12.1	13.8	11.7
Port Pirie	17.2	17.4	15.8	12.8	10.3	8.2	7.5	7.9	9.4	11.6	13.9	15.9	12.3
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
Tallem Bend	13.8	13.9	12.3	10.2	8.3	6.0	5.5	5.9	7.2	8.8	10.7	12.4	9.5
Whyalla	18.1	18.9	17.2	13.6	10.7	8.5	7.4	8.1	9.9	12.6	14.7	16.6	13.1
Yongala	13.2	13.4	10.8	7.3	4.7	3.1	2.3	2.7	4.0	6.2	9.2	11.7	7.4

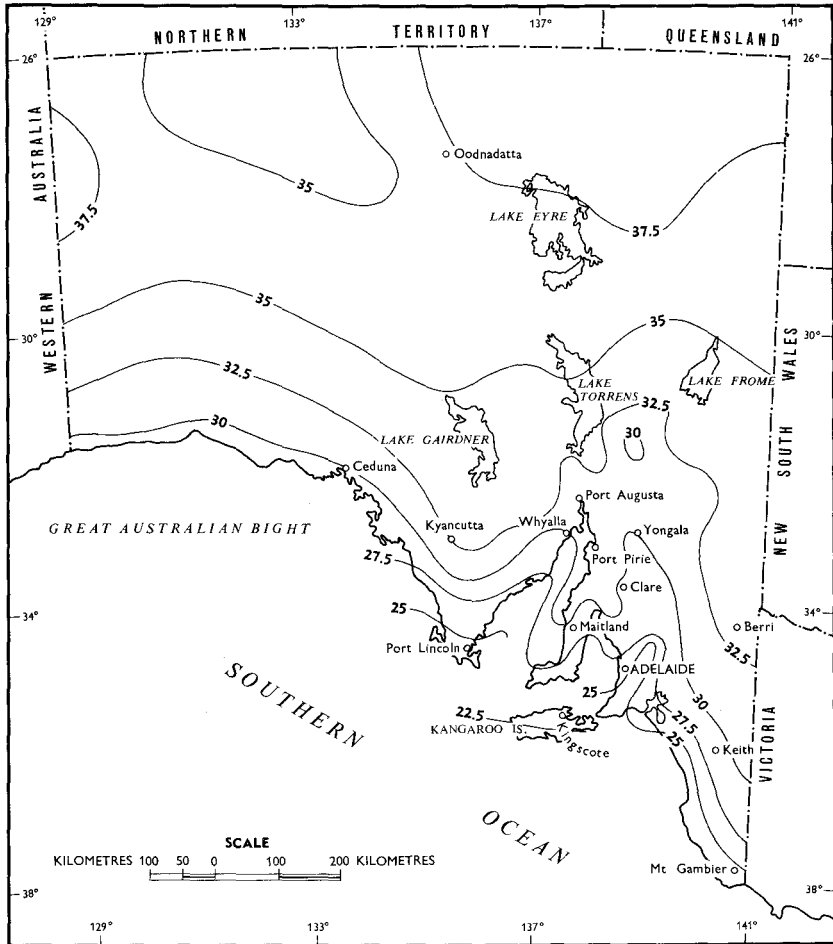
The highest temperature recorded in South Australia was 50.7°C at Oodnadatta on 2 January 1960, and the lowest -8.2°C at Yongala on 20 July 1976.

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

SOUTH AUSTRALIA MEAN MAXIMUM TEMPERATURE: JANUARY

Based on all years of records
Isotherms in ° Celsius



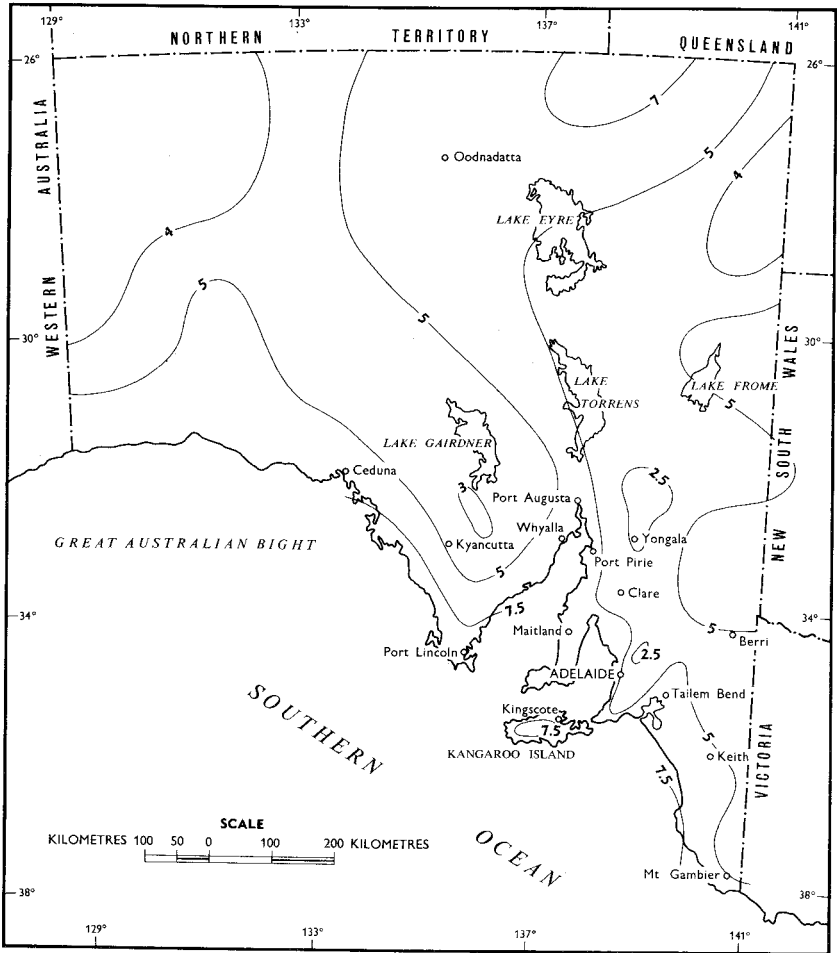
lowest relative humidity values tend to occur during the warmest part of the afternoon when measurements of under 20 per cent are not uncommon.

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

NATURAL ENVIRONMENT

SOUTH AUSTRALIA
MEAN MINIMUM TEMPERATURE: JULY

Based on all years of records
Isotherms in ° Celsius



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—167 km/h at Woomera on 14 November 1979, 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.

EVAPORATION

Evaporation is determined by measuring the amount of water evaporated from a free water surface exposed in a standard tank or pan. Before 1967, measurements were made using the sunken tank method *i.e.* tanks, each 0·91 metres internal diameter and 0·91 metres deep, sunk into the soil so that the rim was only 25 millimetres or so above the ground.

Early in 1967 a change-over to the American Class A evaporation pan was made after this instrument had been accepted as the standard evaporimeter for Australia. These pans, 1·22 metres in diameter and 0·3 metres deep, are placed above ground level on wooden pallets. Wire mesh guards are fitted to the pans to prevent birds and stray animals drinking from them. All evaporation figures quoted in this section are for a Class A pan fitted with a bird guard.

The annual average evaporation varies from below 1 500 millimetres in parts of the Mount Lofty Ranges and the lower South East to greater than 3 500 millimetres over an area around and to the north east of Oodnadatta in the far north of the State (see map on page 14).

Climatological Data, West Terrace, Adelaide (continued)

(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	140	140	140	140	21	60	30	30
	mm	mm	mm	No.	km/h	km/h		
January	20	84	58	4	13	116	SW	SW
February	21	155	141	4	12	106	NE	SW
March	24	117	89	5	11	126	S	SW
April	44	154	80	9	11	130	NE	SW
May	68	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	61	157	57	15	13	121	NE	SW
September	51	148	40	13	13	111	NNE	SW
October	44	133	57	11	13	121	NNE	SW
November	31	113	75	8	13	130	SW	SW
December	26	101	61	6	13	121	SW	SW
Year	528	786	141	120	12	148	NE	SW

(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	95	58	107	77	105	12	108	121
	Hours	No.		No.	No.	mm	mb	mb
January	10.0	12.4	3.1	0.0	2.0	254	11.9	1 013.2
February	9.3	10.9	3.3	0.0	1.7	216	12.5	1 014.3
March	7.9	10.9	3.5	0.0	1.7	176	12.0	1 017.2
April	6.0	6.6	4.5	0.0	1.4	120	11.5	1 019.9
May	4.8	4.6	5.1	0.4	1.5	79	10.8	1 020.1
June	4.2	4.0	5.3	1.1	1.5	56	10.0	1 019.9
July	4.3	3.6	5.2	1.3	1.4	60	9.5	1 020.0
August	5.3	4.9	4.9	0.6	1.7	78	9.7	1 019.0
September	6.2	5.7	4.6	0.2	1.7	110	10.0	1 017.7
October	7.2	5.7	4.5	0.0	2.6	164	10.2	1 016.0
November	8.6	6.6	4.2	0.0	3.0	196	10.5	1 015.0
December	9.4	9.0	3.7	0.0	2.2	241	11.3	1 013.3
Year	6.9	85.0	4.3	3.6	22.4	1 751	10.5	1 017.1

(a) Days receiving 0.2 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 Class A pan (period 1967-1977). (e) Mean of 9 a.m. and 3 p.m. readings corrected to sea level.

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.

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.

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 140 year annual rainfall average is 528 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 41 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 76 per cent in 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.

Transfer of Bureau of Meteorology to New Site

Temperature and rainfall averages have been estimated for the recently opened Kent Town site. These are shown in the following tables with the long term means for the discontinued West Terrace observations. The temperatures refer only to observations taken from the Stevenson Screen thus eliminating the bias introduced with Greenwich Stand readings.

Comparison of Rainfall: West Terrace, Adelaide and Kent Town

Site	Years of Record	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
		Millimetres												
West Terrace, Adelaide:														
Long term mean rainfall	140	20	21	24	44	68	72	66	61	51	44	31	26	528
Kent Town:														
Estimates of average rainfall		22	22	26	47	76	79	75	69	57	51	33	28	585

Comparison of Temperature: West Terrace, Adelaide and Kent Town

Site	Years of Record	°Celsius												Year
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
Maximum:														
West Terrace, Adelaide;														
Long term mean temperature	92	28.5	28.5	26.0	22.1	18.5	15.7	14.9	16.0	18.3	21.3	24.3	26.8	21.7
Kent Town;														
Estimates of average temperature	28.8	28.8	26.2	22.1	18.5	15.6	14.9	16.1	18.4	21.5	24.7	27.2	21.9
Minimum:														
West Terrace, Adelaide;														
Long term mean temperature	92	16.5	16.8	15.1	12.7	10.4	8.4	7.5	8.0	9.2	11.1	13.1	15.1	12.0
Kent Town;														
Estimates of average temperature	15.9	16.2	14.5	11.9	9.5	7.5	6.5	7.1	8.4	10.5	12.7	14.8	11.3

From these tables the estimated average maximum temperatures at Kent Town vary from 0.4°C higher than at West Terrace in December to 0.1°C lower during June.

Estimated average minimum temperatures at Kent Town are all lower than the corresponding average temperatures at West Terrace. Differences range from 0.3°C in December to 1.0°C in July.

Rainfall has been recorded at West Terrace for 140 years, the longest continuous record in the Southern Hemisphere. The estimated average annual total for Kent Town is 11 per cent higher than at West Terrace. However, monthly means range from 5 per cent higher in February to 14 per cent higher in July.

It follows that it is likely that new extreme temperature and rainfall readings will be recorded for 'Adelaide' at the Kent Town site. Such occurrences should not be compared with extremes that have been recorded at West Terrace. A new series of climatological statistics has been started for the Kent Town site and this will be kept separate from the West Terrace data.

WEATHER CONDITIONS IN SOUTH AUSTRALIA: 1980

Summer 1979-80

During December strong winds damaged several roofs in the western suburbs of Adelaide. Late in the month severe thunderstorms caused flooding at Port Pirie, Pimba and Marree and roads were closed in many parts of the State. The following month was one of predominantly southerly winds which kept temperatures below the January normal on many days, particularly in the settled areas. Several bushfires broke out in each month of the summer season, but those experienced during February in the Adelaide Hills, near Ceduna, at Coonalpyn and in the Deep Creek Conservation Park near Cape Jervis were by far the most destructive.

District rainfall averages in the pastoral interiors for summer were lower than usual. The average for the North West was 27 per cent below normal, for the Far North it was 18 per cent below normal while a deficiency of 64 per cent was recorded for the North East district. The average rainfall for Yorke Peninsula was 10 per cent above normal, but deficits of between 33 and 85 per cent were recorded for summer in the remaining districts. Severe rainfall deficiencies occurred in the Upper South East and Murray Mallee and in parts of the adjoining districts. Some areas which included Taillem Bend, Sandalwood and Peake experienced their driest summer on record.

Mean summer maximum temperatures were generally within about 1°C of normal as

were the mean summer minimum temperatures. Cool spells were more frequent than hot spells throughout the summer. However, in one hot spell during the third week in February extreme maximum temperatures for that month were recorded at many stations. Bushfires accompanied the hot spell. One fire broke out in the Adelaide Hills and raged throughout Mylor and Echunga burning at least thirty-five homes. Other large fires occurred near Ceduna, Coonalpyn, Norton Summit, Ashton and near Cape Jervis where the Deep Creek Conservation Park suffered great losses. The spate of major fires was preceded by smaller fires during the previous two months.

Autumn 1980

Rainfall recorded during the first three months of 1980 at the Bureau of Meteorology, Kent Town, amounted to 5.8 millimetres. Thus, at the end of March Adelaide had experienced its driest start to the year since 1839, when records commenced.

There were 113 bushfires during March. Although most were minor, some caused extensive damage. One fire near Kimba burned 9 000 hectares and at Woodside losses in another fire amounted to 40 000 dollars. Several bushfires also broke out during the first half of April, notably at Lucindale and at Horsnell Gully in the Adelaide Hills. During the second half of April, heavy rains flooded outback road and rail links, thunderstorms caused damage and local flooding at Port Lincoln, Strathalbyn, Milang, Goolwa and Tailm Bend. Strong winds damaged houses on northern Yorke Peninsula during May. The locations affected included Port Hughes, Moonta Bay, Kadina and Wallaroo where blackouts occurred. Damage to boats at Streaky Bay, Yrabie and Port Lincoln was attributed to the same intense depression.

District rainfall averages in the pastoral interiors for autumn were higher than usual. For the North West, Far North and North East rainfall averages were respectively, 10, 63 and 38 per cent above normal.

In the settled areas the district rainfall averages ranged from 62 mm for the Upper Murray Valley to 146 mm for the Lower South East. Deficits of 15 to 23 per cent occurred over Yorke Peninsula, Kangaroo Island, the Adelaide Plains and the Mount Lofty Ranges. Excesses of between 10 and 41 per cent were recorded for the Western Agricultural, the Upper North, Lower North, Lower Murray and the Murray Mallee, while autumn rainfall in the remaining districts was within 10 per cent of normal.

Mean autumn maximum temperatures were above normal by up to two degrees throughout the State. Two brief hot spells, when daily maximum temperatures were generally more than five degrees above normal, occurred in March. There were three in April and another two such spells during May.

Mean autumn minimum temperatures were also up to two degrees above normal. There were no pronounced cold spells, although on the last three days of April minimum temperatures throughout South Australia were about four degrees below normal.

Winter 1980

June rainfall was above normal in most districts and many districts received above normal July rainfall. However, August rainfall was below normal in all districts and extreme lowest August rainfall totals were recorded at a number of stations. The lack of rainfall during the last winter month had an adverse effect in the traditional wheat growing area of South Australia. Crops suffered stress during this month, not only as a result of lack of moisture, but also from above normal temperatures experienced over most of the State.

During June gale-force winds were experienced in Adelaide causing some structural damage to buildings. They accompanied storms which caused power failures in some Adelaide suburbs and minor flooding along the Metropolitan coastline as well as in the

Mount Lofty Ranges. Other areas affected by minor flooding included Kimba, Port Pirie and Port Germein. During July fogs and frosts were fairly common. Thunderstorms occurred in the Central districts in late August, but caused little damage.

District rainfall averages in the pastoral interiors for winter were within 10 per cent of normal. The highest gaugings were 92 mm at Yardea, 89 mm at Lake Everard and 88 mm at Blinman.

Over the settled areas the district rainfall averages ranged from 75 mm for the Upper Murray Valley to 264 mm for the Mount Lofty Ranges. Deficits of 11 to 18 per cent occurred in the Lower Murray Valley, the Mount Lofty Ranges, Adelaide Plains, Kangaroo Island and the Western Agricultural district. They were largely the result of very light August rainfall registrations. Averages for the remaining districts were within 10 per cent of normal despite the low readings taken during August when some stations received the lowest rainfall totals recorded for that month.

Mean winter maximum temperatures were up to 1°C above normal. Although no pronounced hot or cold spells were experienced, maximum temperatures were between 5°C and 8°C above normal at many centres on several days, particularly during August.

Mean winter minimum temperatures were up to 1.5°C above normal throughout the State.

Spring 1980

Spring 1980 was variable, with a dry September, a wet October and hot and cold spells during November. Bushfires, in late October, occurred close to Cleve, Minnipa, Cudlee Creek and Mount Alec (near Wilpena Pound). They were followed by more bushfires in mid-November which burned scrubland near Arkaroola, Hawker, Balcanoona, the West Coast, Karoonda, Kapunda and Port Augusta.

In the interior districts Spring rainfall was 22 to 46 per cent below normal. Little rain was recorded in those districts during September and November, but October registrations in the North West and North East interiors were respectively 33 and 43 per cent above normal. In the Far North the district average for October was close to the long term norm.

In the settled areas the district rainfall averages for Spring were between 10 and 30 per cent above normal in Kangaroo Island, the Adelaide Plains, Mount Lofty Ranges, County Light and the Lower Murray Valley. They were within 10 per cent of normal over the remainder of the settled areas. Below average rainfall was recorded in September; October rainfall was about twice the monthly average, while in November most districts received below normal rainfall. The heavy October rains were very valuable to cereal growers throughout the settled areas. Meningie, Port Wakefield and Riverton received their highest October rainfall in the century since records began at those stations. Several other stations also had record October rainfall. Heavy rain on 5 October caused damage to telephone cables, affecting about eleven thousand subscribers in northern Adelaide suburbs.

In addition, severe thunderstorms with strong wind gusts caused power failures, tore roofs off houses and brought down trees in the southern settled areas on 8 and 14 September. On 22 October lightning damaged a power transformer at One Tree Hill.

Mean maximum temperatures for Spring were about 1°C to 3°C above normal and the corresponding mean minimum temperatures were about 1°C to 2°C above normal throughout the State. On 29 September extreme maximum temperatures for that month were recorded at Ceduna, Kingscote and Port Lincoln. On 16 November the highest ever maximum temperatures for that month were recorded at Loxton, Renmark and Eudunda, although readings have only been taken at those sites for the last twenty-four years.

1.3 NATURAL RESOURCES

MINERALS

The opal fields at Coober Pedy, Mintabie and Andamooka supply most of the world's precious opal. The estimated value of raw opal production in South Australia was \$40 million in 1979. Most of this is exported to Hong Kong, Japan, USA and Germany.

Iron ore is mined in the Middleback Ranges on Upper Eyre Peninsula. These ranges lie to the west of Whyalla, a coastal port with a steelworks and shipbuilding facilities, and extend discontinuously from Iron Knob in the north to Iron Duke nearly 65 kilometres to the south. In excess of 150 million tonnes of ore have been mined since 1900. Currently production is at the rate of approximately 2.6 million gross tonnes per annum.

Copper ore is being mined at Mount Gunson by open-cut mining methods and, until recently, at Burra. The Mount Gunson Mine, 145 kilometres north-west of Port Augusta and 56 kilometres south-east of Woomera, is being mined at the annual rate of approximately 500 000 tonnes of ore of more than 2 per cent copper for the production of copper sulphide concentrates for export. The Burra Mine, 161 kilometres north of Adelaide will treat stockpiled ore (averaging 2.0 per cent copper) at the rate of 190 000 dry tonnes per year. The copper oxide produced at Burra is used for the production of fertilisers, agricultural chemicals and copper sulphate.

Vast deposits of copper-uranium mineralisation have been discovered at Olympic Dam on Roxby Downs Station, 80 kilometres north of Woomera and 55 kilometres west of Andamooka. Copper-uranium mineralisation, with minor gold and rare earths, has been intersected at a depth of approximately 350 metres and the area has the potential to develop into a very large mining operation.

Leigh Creek coal field, operated by the Electricity Trust of South Australia, is the only deposit which is being mined at present and to date approximately 36 million tonnes of coal have been mined for power generation at the Playford Power Station in Port Augusta. The current production rate is approximately 1.5 million tonnes per annum.

Permian sub-bituminous coal has been defined by drilling at Lake Phillipson, 80 kilometres south of Coober Pedy. The deposit consists of a number of seams in two main elongated troughs which together total approximately 2 000 million tonnes. The Wakefield Tertiary lignite deposits held by the Electricity Trust of South Australia, have estimated reserves of 2 000 million tonnes and a bulk sample has been procured for testing by excavation of a trial pit near Bowmans. Western Mining Corporation Ltd has announced the discovery of brown coal in drilling operations near Kingston (SE) which are additional to coal finds by the company in the Victorian portion of the Otway Basin.

Barite is obtained from several localities in the Flinders Ranges. The Oraparinna Mine is the largest producer of industrial grade barite in Australia. Oil drilling grade barite is mined at Mount Mulga, north of Olary and at several deposits in the Flinders Ranges.

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

High grade kaolin is produced from weathered shales at Birdwood and altered metasediments at Williamstown in the Mount Lofty Ranges. Sillimanite and damourite (mica) are also obtained from the open-cut at Williamstown. White burning plastic clays are mined near Adelaide at Golden Grove, One Tree Hill and McLaren Vale and clays for refractory and ceramic uses are supplied from Tregolana, Longwood and Woodside.

High quality dolomite for steel making is quarried at Ardrossan and for glass making at Tantanoola. Silica sand for glass making and foundry use is mined at Normanville.

Flint for ceramic and grinding purposes is gathered from the beaches near Port MacDonnell and screened from clay at Longwood.

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.

South Australia contains many deposits of limestone and apart from quarries worked for construction purposes the main deposits are at Rapid Bay for steel making, Angaston and Klein Point for cement, Mount Gambier for whiting and building stone, and Penrice for chemicals and cement.

Magnesite is mined on a small scale north-west of Copley.

Monumental stone is produced from white marble at Angaston, black granite from Black Hill, blue granite from Kingston (SE) brown granite from Sienna, and red granite from Calca. Billiard table slate and paving stone is supplied from Mintaro and Jones Hill in the northern Flinders Ranges. Walling and paving stone is also obtained from Willunga and Wistow.

Nephrite jade, which occurs as lenses north-west of Cowell, is mined for ornaments and jewellery, and is also exported in crude form. Banded calcite, used for ornamental purposes, occurs in narrow veins near Warrioota in the Flinders Ranges.

Talc is produced from Mount Fitton in the Flinders Ranges, Gumeracha, Lyndoch and Tumbay Bay for use in ceramics and cosmetics.

High grade zinc ore is mined at Puttapa, 30 kilometres south of Leigh Creek as markets allow.

Significant deposits of uranium have been discovered in the Lake Frome region but no mining has commenced.

A special article on the Minerals of South Australia was included on pages 21-39 of the *South Australian Year Book* 1975.

PETROLEUM RESOURCES

Before the late 1940s South Australia had no satisfactory indigenous source of primary energy. A number of deposits of sub-bituminous coal including those at Leigh Creek, Moorlands, Balaklava and Lake Phillipson were known but none of these were considered worthy of development.

Industrial unrest in the late 1940s led to a growing awareness of the State's dependence on eastern States coal and foreign oil and led to the development of the Leigh Creek coalfield.

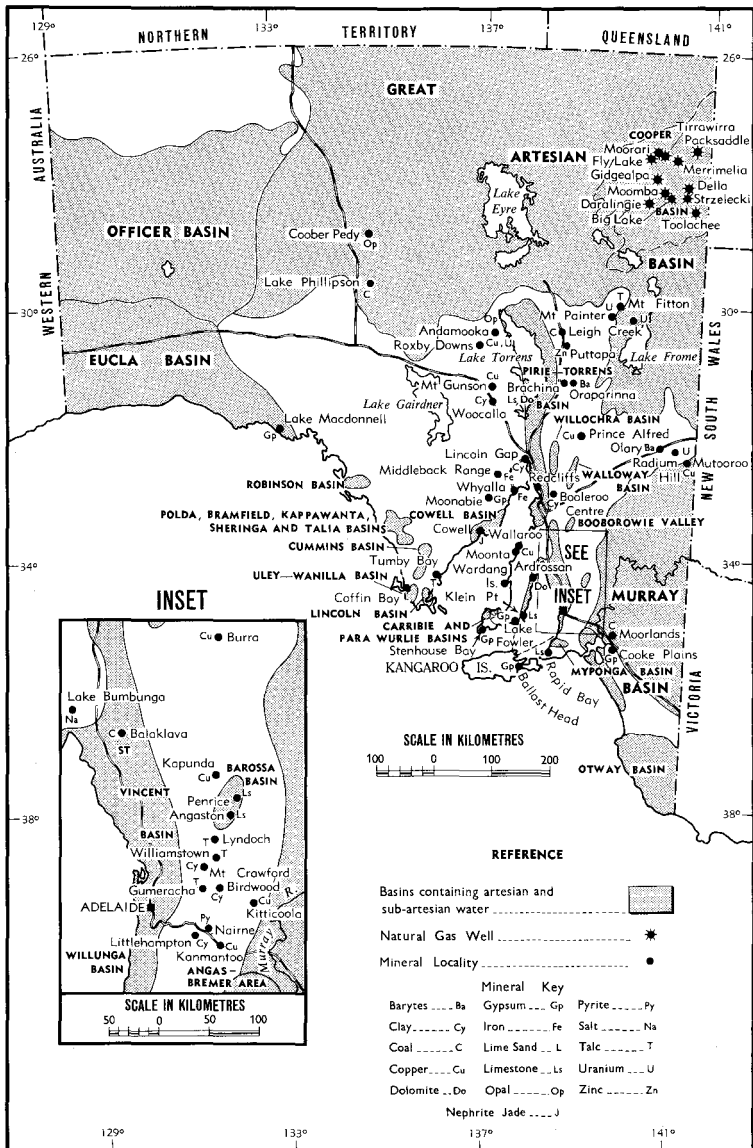
The search for petroleum was actively encouraged and assisted from the mid-1950s. This culminated in the discovery of the Gidgealpa gas field in 1963 by Santos Limited and the then Delhi Australian Petroleum Limited.

Following the discovery of a second major gas field at Moomba, a pipeline was constructed from Moomba to Adelaide and came into operation late in 1969.

A revival of petroleum exploration activity in the early 1970s resulted in a number of new discoveries of both gas and oil. An agreement was made with the Australian Gas Light Company Limited to supply gas to the Sydney area, over a 25-year period. Adequate reserves were demonstrated to exist by late 1972, and supply to this new market commenced in December 1976.

Renewed drilling activity has been stimulated by the discovery of oil in the Mesozoic

SOUTH AUSTRALIA
MINERAL RESOURCES AND
ARTESIAN WATER



Eromanga Basin which overlies the Cooper Basin, particularly in the Dullingari and Strzelecki fields, indicating that there is considerable potential for further discoveries.

Recent hydrocarbon shows in Cambrian, Mesozoic and Tertiary basins outside the main producing area have led to increased exploration both onshore and offshore. Extensive exploration programs will be undertaken in the near future in the offshore Poldia and Great Australian Bight basins.

Proved and probable remaining recoverable reserves in the Cooper Basin as reported by Santos Limited are:

- (a) Natural gas; 90 600 million cubic metres,
- (b) Natural gas liquids; 44 680 megalitres,
- (c) Crude oil; 7 840 megalitres.

UNDERGROUND WATER

South Australia is the driest of the Australian States with more than 82 per cent of its area receiving an average annual rainfall of less than 250 mm. The wettest parts of the State are the south and south-eastern coastal areas and the Mount Lofty-Flinders Ranges. Only small areas of the Mount Lofty Ranges, Kangaroo Island and the lower South East receive more than 600 mm per year. As a consequence of the rainfall pattern, South Australia is notably deficient in rivers. The River Murray, the only large permanent river, originates outside the State. The few streams commencing in the ranges are short and seasonal in flow. In this situation groundwater is of considerable importance and it is estimated that at least 105 000 wells have been drilled or dug in the search for water.

Annual groundwater use in South Australia is estimated to be 357 000 megalitres which is approximately 35 per cent of total water use. The greatest use of groundwater is for irrigation which accounts for an estimated 227 000 megalitres per year. Principal areas of use are the South East, including the Angas-Bremer irrigation area near Langhorne Creek, the Adelaide Plains and the Mount Lofty Ranges. Stock and industry account for an estimated 100 000 megalitres per year, which includes approximately 77 000 megalitres flowing from artesian wells in the Great Artesian Basin.

Most public water supplies in South Australia originate from reservoirs in the Mount Lofty and Flinders Ranges and on Eyre Peninsula and from the River Murray. These sources provide an estimated 92 per cent of reticulated supplies with groundwater supplying the remaining 8 per cent, or approximately 20 000 megalitres per year.

Approximately fifty towns and districts are fully or partly dependent on groundwater for public water supplies. The two main areas of use are the South East and Eyre Peninsula which together account for approximately 93 per cent of groundwater used for public water supplies.

Although saline groundwater occurs over much of the western part of the State there are a number of large sedimentary basins where low salinity groundwater is available. These include the Great Artesian Basin, Murray and Otway Basins and St Vincent Basin. In addition there are a number of smaller basins which are important sources of groundwater for irrigation, town water supplies or stock.

Artesian flows occur in some of these basins but the largest flows are from the Great Artesian and Otway Basins. The Great Artesian Basin has a total area of 1 700 000 square kilometres of which 310 000 square kilometres are in South Australia, covering 30 per cent of the State. The main intake area for the principal aquifer lies along the western margin of the Great Dividing Range in New South Wales and Queensland. Minor intake also occurs along the western margin of the basin in South Australia. Natural outlets for the basin are the mound springs west and south of Lake Eyre. Total discharge from the springs is estimated to be 30 000 megalitres per year. Deep wells are necessary to tap the

artesian aquifer, and individual wells may yield 4 500 kilolitres per day or more. The water is generally unsuitable for irrigation because of its chemical composition and it is used mainly for the watering of stock, with town water supplies being a minor use.

The Murray Basin has a total area of 278 000 square kilometres, mainly in Victoria and New South Wales, the area in South Australia being 73 000 square kilometres. The southern and central portions of the basin contain relatively low salinity groundwater suitable for most purposes. Salinity increases steadily in a north and north-westerly direction and the groundwater becomes unusable in the vicinity of the River Murray. Very large yields can often be developed from cavernous limestone aquifers occurring at relatively shallow depth and in some places from sand dunes and other local aquifers. Towns in the central part of the basin are supplied with groundwater, which is also extensively developed for stock supplies and for irrigation. Towns along the western margin, as far south as Keith, are provided with water by pipeline from the River Murray. At Padthaway, an area marginal to the Murray Basin, where groundwater occurs at shallow depth, annual withdrawal for irrigation is approximately 24 000 megalitres per year.

The Otway Basin in South Australia lies south of Kingston and extends along the southern coast of Victoria. Large supplies of low salinity groundwater are available from the Gambier Limestone aquifer over much of the basin. A deeper confined aquifer provides artesian supplies in the Kingston-Beachport area, the water being used mainly for flood irrigation of pasture, and for town water supplies.

The Eucla Basin, occurring in the south-western part of the State, has an area of 41 000 square kilometres in South Australia, but the greater part (135 000 square kilometres) lies in Western Australia. Little use is made of groundwater from the basin because of its high salinity, but water suitable for stock is available from the limestone aquifer in some areas, particularly near the head of the Great Australian Bight.

The Adelaide Plains Sub-Basin is part of the St Vincent Basin, extending 160 kilometres north of Adelaide, on the western side of the Mount Lofty Ranges. Good quality groundwater is obtainable in certain parts of the plains and it is extensively used for the irrigation of market gardens in the Northern Adelaide Plains. Pumping in this area has greatly exceeded the groundwater recharge rate for a number of years and it is a Proclaimed Region under the Water Resources Act, 1976 and the use of groundwater is subject to controls.

In the Adelaide Metropolitan area the reticulated water supply has been augmented by groundwater on a number of occasions since 1915, the last time in 1967-68 when 9 500 megalitres were pumped over a seven month period.

Other small basins within or adjacent to the St Vincent Basin include Willunga and Noarlunga embayments and Myponga and Hindmarsh Tiers areas. In all these areas groundwater is used for stock and increasingly for irrigation.

The Pirie-Torrens Basin extends from Port Broughton to the northern end of Lake Torrens. Groundwater from the basin is used mainly for stock except in the Nelshaby-Napperby area east of Port Pirie where it is suitable for the irrigation of market gardens.

The Willochra and Walloway Basins located near Quorn and Orroroo respectively, also provide mainly stock water supplies. However, there is limited irrigation of pastures in both basins. In the Barossa Valley groundwater generally has a low salinity and it is being used increasingly for irrigation of vines.

There are several important groundwater basins on Eyre Peninsula including Lincoln, Uley-Wanilla, Uley South and Poldas Basins. They provide more than half the water for the reticulation system covering much of Eyre Peninsula. The fractured rocks of the Mount Lofty Ranges contain significant groundwater resources which are used for irrigation in several areas *e.g.* Piccadilly Valley.

The exploration and testing of the groundwater resources of the State is a continuing responsibility of the South Australian Department of Mines and Energy, which provides the services of geologists and an extensive drilling organisation. Pamphlets on the groundwater occurrences throughout the State, particularly those in the more important basins are published by the Department.

The Water Resources Act, 1976, administered by the Engineering and Water Supply Department, covers the drilling for and development of groundwater over the whole State.

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 soils of Adelaide and environs have varying engineering properties and provide varying foundation conditions for buildings. They may be classified as follows:

- (a) Expansive clay soils which show changes in volume with changes in moisture content; these soils are often commonly known as 'Bay of Biscay' soils;
- (b) Collapsing soils which, when wetted beyond a certain limit, lose strength and are liable to settle suddenly, even under their own weight; they are usually fine limy silts of windblown origin;
- (c) Compressible soils, occurring chiefly on the coastal river estuaries, are associated with high water tables and restricted surface drainage; these soils are unable to carry building loads without long-term settlement;
- (d) Stable soils, which include alluvial sands and gravel, and most weathered rocks.

Different types of house footing have been designed or adapted to cope with these problem soils, and further details are given in the pamphlet entitled *Soil Tests and House Foundations in Adelaide*, published by the Department of Mines and Energy.

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 found. 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) is 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, especially in times of drought, has led to the depletion of, and alteration to, much of the vegetation of this area.

Temperate Areas

In general, vegetation characteristics of the temperate zone of South Australia succeed each other in a fairly predictable sequence from the highest to the lowest rainfalls. Under the high and intermediate rainfalls (about 750-1 000 millimetres) dry sclerophyll forest is well developed, particularly in the Mount Lofty Ranges, where it constitutes a western outlier of the dry sclerophyll forest system occurring in eastern Australia. *Eucalyptus obliqua* and *Eucalyptus baxteri* predominate, but other species such as *Eucalyptus rubida* (the candlebark) are sometimes prominent. Such forest is replete with

lesser trees *Acacia melanoxylon* (blackwood) at a lower canopy level and a rich array of sclerophyllous shrubs and sub-shrubs beneath. Most species have generic analogues in equivalent dry sclerophyll forests of both eastern and western Australia. Sclerophyll forest in South Australia has been cut over extensively and is being invaded by aliens. Lower rainfall areas down to about 400 millimetres per annum support mainly savannah woodlands and layered woodlands with South Australian bluegum (*Eucalyptus leucoxyton*) and peppermint gum (*Eucalyptus odorata*) as predominant trees. Associated trees include river redgum (*Eucalyptus camaldulensis*) especially along river and creek frontages, sheoak (*casuarina* spp.), and manna gum (*Eucalyptus viminalis*). In these vegetations the grass stratum is expressed and the shrub stratum rather suppressed. These vegetations are now almost entirely replaced by agricultural areas.

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

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

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

(ii) *Mallee*. Intercalated between the Eremaean and temperate systems proper, there is developed in South Australia extensive mallee vegetation, dominated by eucalyptus, 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 29 of this issue.

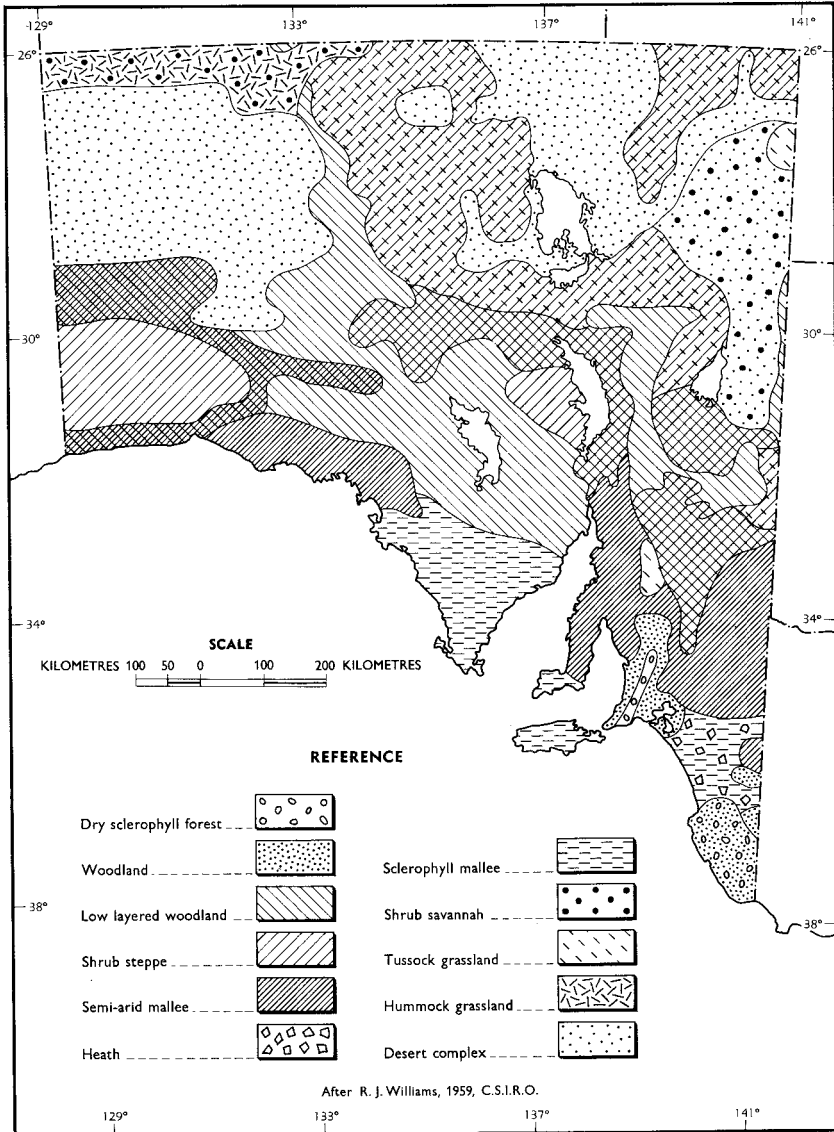
FAUNA

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 8.3 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 wide-spread 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 40 000 square kilometres on the mainland (see Part 6.4), and Flinders Chase Reserve (549 square kilometres) on Kangaroo Island which is free from the introduced fox.

SOUTH AUSTRALIA
VEGETATION MAP



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 number, 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 (*Lasiiorhinus 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 almost 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 nearly 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.

A special article on the insects of South Australian homes and gardens was included on pages 32-42 of the *South Australian Year Book* 1976.

MARINE MAMMALS *

Introduction

Public interest in marine mammals has increased dramatically in recent years. This has been stimulated by the many oceanaria and 'marinelands' where these animals may be viewed, and issues such as the Canadian harp seal hunt, commercial whaling, and the killing of dolphins in the North Pacific either accidentally by drowning in tuna purse-seine nets or deliberately by Japanese fishermen on the island of Iki.

Rogue seals also attract a lot of attention when they interfere with fishing operations or carry parasites which affect fish around the coasts of many countries and have to be culled. Interest is further aroused by fairly frequent reports of marine mammal strandings along our coasts, particularly when attempts are made to return beached whales to the sea or dispose of the large carcasses of dead animals.

Because of their general beauty and seeming intelligence, the bloodiness of their slaughter and their many fascinating adaptations to an aquatic way of life, mammals of the sea are subjects of a great deal of interest, affection and emotion by the scientific and lay community.

Marine mammals belong to three orders of the Class Mammalia. The great whales, dolphins and porpoises constitute the order Cetacea; manatees and dugongs make up the order Sirenia; and seals, sea lions and walruses and the sea otter belong to the order Carnivora.

The cetaceans and sirenians are wholly aquatic: living, feeding and breeding in water. The sea otter and seals and their allies feed at sea but come out onto land (or ice) to breed. They are not so completely adapted to life in the water as are the fish-shaped cetaceans and the rather less streamlined and not-so-beautiful sirenians. Despite their fish-like form whales and their allies are mammals. They breathe air, give birth to active, developed young which they suckle, and are warm-blooded. Dolphins, however, are still referred to as 'Royal Fyshe' in certain circles in Great Britain. The name Sirenia is related to the superstitions of early sailors who believed these ungainly creatures to be mermaids or sirens of the deep luring them to a watery tryst. Seals are usually referred to as the Pinnipedia (fin-footed).

Adaptations to Aquatic Life

Adaptations to water permit energy to be conserved by various means to enable aquatic mammals to (1) swim swiftly despite the frictional forces of water, (2) conserve

* Contributed by John K. Ling and Peter F. Aitken, South Australian Museum.

body heat despite the fact that it may be lost 30 times more quickly in water than in air, (3) remain submerged for long periods without having to breathe and (4), in the case of cetaceans and sirenians, mate, give birth to, and suckle and protect young in the water.

Aquatic mammals are streamlined in shape, their body contours being smoothed by the thick layer of subcutaneous blubber whose chief function is to insulate against heat loss. When heat control between the animal and its environment is necessary, this is achieved by the peripheral blood vessels dilating or contracting, thereby allowing warm blood to reach the extremities or preventing cold blood from returning to the heart. Heat may be further conserved through arteries and veins lying very close to each other so that blood returning to the heart from the extremities is warmed as it passes close by arterial blood going from the heart to the outer regions of the body.

Experiments over the years have shown that all vertebrates can make certain physiological adjustments which adapt them to immersion in water. However, these physiological adaptations are most highly developed in the aquatic mammals and reach perfection in whales, with the sirenians and seals and their allies being less highly adapted. Such adaptations enable whales to remain submerged at depths exceeding 1 000 metres for up to one hour and even seals have been recorded at depths of over 500 metres for 45 minutes. The various physiological adjustments are triggered by a reflex action which is controlled by the central nervous system and stimulated when the nostrils or blowhole are immersed.

Special pigments enable muscles as well as blood to store oxygen; and the blood volume of aquatic mammals is relatively higher than in land mammals. During a dive the blood flow is either slowed through a marked decrease in heart rate or diverted away from certain organs altogether. Moreover, de-oxygenated blood is not returned to the heart, but is held in large sac-like sinuses, so that the heart is required to pump only oxygenated blood to various parts of the body, and not maintain venous pressure. Breathing stops altogether.

Classification

Whales

The order Cetacea is divided into three sub-orders: the Archaeoceti, all of which are extinct and known only from fossils; the Odontoceti or toothed whales, containing most of the living species of cetaceans, which are predators with varying numbers of rather uniform, peg-like teeth; and the Mysticeti, the whale-bone or baleen whales. The latter are characterised by having large fibrous baleen plates hanging down from the upper jaw and surrounding the mouth. The baleen acts as a sieve, retaining food whilst allowing the water in which the food was carried to filter through.

Three families of toothed whales occur in Australian waters: the Delphinidae (ocean dolphins) which are small to medium in size (2-10 metres) with sharp snouts mostly arising from bulging foreheads, numerous peg-like teeth usually in both upper and lower jaws, and bodies strikingly patterned in grey, pink, black and white; Ziphiidae (beaked whales) which are medium in size (4-10 metres) with long pointed snouts arising from either narrow streamlined or prominent bulbous foreheads and, typically, only a few teeth in the front of the lower jaws; and Physeteridae (sperm whales) which include both small (3.5 metres) and large (15 metres) species that have disproportionately massive, broad, blunt snouts with single blowholes offset to the left in front and numerous conical teeth in the underslung rod-shaped lower jaws.

Two families of baleen whales occur also in Australian waters: the Balaenidae (right whales) which include both pygmy (6 metres) and giant (18 metres) species that have strongly down-curved upper jaws with long narrow baleen plates and no throat grooves;

and Balaenopteridae (rorquals) which are medium to very large in size (9-30 metres) with relatively straight jaws, short broad baleen plates and numerous parallel throat grooves.

Seals

Seals were once placed in a separate order, Pinnipedia, but are now known to be so closely related to other carnivores that they are best regarded as families of the order Carnivora. There are three families: the Odobenidae (walruses of the Arctic), Otariidae (eared seals, *i.e.* fur seals and sea lions) and Phocidae (earless seals). Only the latter two families occur in the southern hemisphere and contain some species which reside and breed on, or simply visit the coasts of Australia.

Eared and earless seals have other distinguishing features. Eared seals could also be referred to as walking seals, because they are able to rotate their hind limbs at right angles to the body and walk on all fours—at quite a fast rate. Earless seals (sometimes called 'true' seals) cannot bend their hind flippers away from the longitudinal axis. On land, therefore, they hitch themselves along by means of their relatively short front flippers (as compared with those of the eared seals), dragging the rear part of the body over the ground. Fur seals and sea lions use their large front flippers as paddles for swimming and the hind flippers as rudders for steering. The 'true' seals propel themselves by means of a side-to-side sculling action of their hind flippers while the front flippers act as stabilisers and brakes.

Fossil History and Ancient Dispersal

Although the fossil record for sea mammals in Australia is extremely sparse, it is sufficiently good in other parts of the world for the palaeontological history of the various groups to be reasonably well understood. They are all believed to have originated from land mammals in Early Tertiary time or earlier (50-60 million years ago). Strangely enough, the best fossils occur in Eocene (53-36 million years) sediments, while some more recent strata hold only a very sparse record of fossil marine mammals.

It is possible that whales originated in that part of the world now occupied by the Mediterranean Sea, but known by geologists today as the ancient Tethys Sea. The eared seals probably arose in the northern Pacific Ocean where Alaska and the Chukchi Sea are now. The earless ('true') seals are believed to have arisen in the region of the present North Atlantic Ocean.

Whales have spread to all of the world's oceans. Many species have almost world-wide distributions, or the same forms occur north and south of the equator but are now prevented from crossing because of the wide temperature barrier which these cold-adapted forms cannot penetrate.

The seals spread north but mainly south from their points of origin, eventually invading the southern hemisphere where they distributed themselves around the islands and Antarctic Continent in the Southern Ocean. Today, there are many species of fur seals, sea lions and true seals in the southern hemisphere.

Whales and Dolphins off South Australia

We know much less about the biology of the various species of wholly aquatic cetaceans inhabiting or visiting our waters than we do about the seals which must spend part of their life on land. Our knowledge of some species of cetaceans is based only on chance sightings or the remains of a single stranded individual—merely enough to be able to say they do occur here. Others become stranded more often, sometimes in huge schools which appear to have committed mass suicide. On one such occasion in 1944 nearly 300 False Killer Whales, *Pseudorca crassidens*, beached themselves over a 30-kilometre front on the eastern shore of Gulf St Vincent between Port Parham and Port

Gawler. Groups of up to six Pilot Whales, *Globicephala melaena*, are also regularly stranded around Kangaroo Island and the tips of Yorke and Eyre Peninsulas, and pairs of Pygmy Sperm Whales, *Kogia breviceps*, have been found more than once.

The causes of such perplexing behaviour are still not fully understood. The popular 'suicide' concept seems most unlikely and, so far, no other theory proposed by cetologists has gained general acceptance. However, there are three popular theories. First, a combination of bottom or environmental conditions renders the school or 'pod' leader's sonar ineffective and a strong social bond disposes the other whales to follow their leader onto the beach. This may be at least part of the explanation since many mass strandings occur under similar conditions on shallow, gently sloping beaches with sandy or muddy bottoms. Second, heavy parasite infestations in the whales' nasal passages, inner ears or brains upset their sonar. This may also explain some strandings, but by no means all groups of beached whales are so affected. Third, the whales are fleeing in panic from predators such as Killer Whales, *Orcinus orca*, or other dangers. This theory has few adherents.

South Australia's first industry after colonisation was based on marine mammals. Whaling was carried out by the South Australian Company at Encounter Bay on the south coast. This was a shore-based operation whose principal quarry was the Southern Right (or Black) Whale, *Eubalaena australis*, so named because it was the 'right' whale to catch as it carried very thick blubber and floated instead of sinking when killed. It could therefore be played from small whale boats and towed back to shore for treatment. Sperm and Humpback Whales were also hunted, but these were more difficult to land using small craft, and while many may have been struck few were taken.

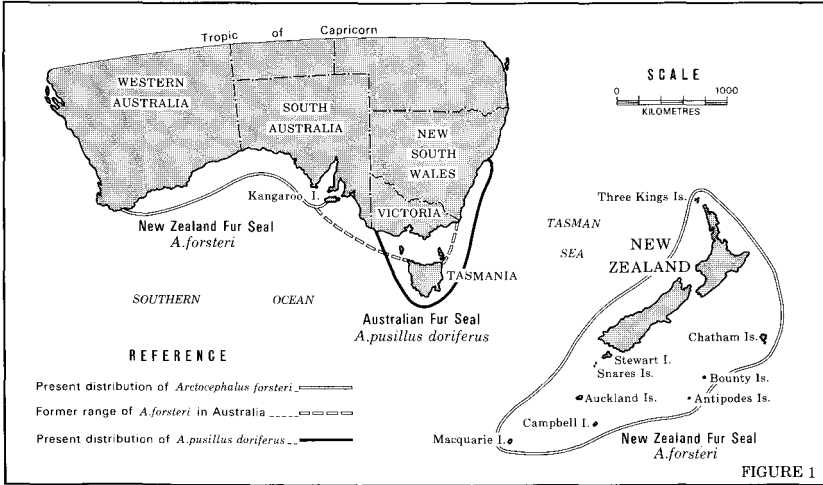
Right Whales were hunted almost to extinction, but they are again to be seen around our south coast and at the entrances to the two gulfs, often in spring time when nursing females from 16 to 18 metres in length are accompanied by their 2- to 3-month-old calves which may measure from 6 to 8 metres long. These pairs swim very close to shore where the belly of the bulky female may almost touch the sea bottom, but despite appearances, they are not in any trouble and may cruise slowly up and down the shoreline for hours before swimming out to sea again. The function of this behaviour is possibly to enable the young whale to strengthen its swimming muscles and practice its diving in sheltered inshore waters. As summer approaches these whales will move south to the Antarctic where their food, 'krill', abounds and by the following autumn the youngsters will be supplementing their milk diet with krill.

Other cetaceans likely to be seen swimming in inshore waters are the Common Dolphin, *Delphinus delphis*, and Bottlenosed Dolphin, *Tursiops truncatus*. The latter comes right inshore into very shallow water and is a harmless and friendly animal whose dorsal fin is often mistaken for that of a shark. The also harmless Common Dolphin occurs farther out to sea and small-boat fishermen may encounter them cruising around their vessels several kilometres from land, alarming the uninitiated.

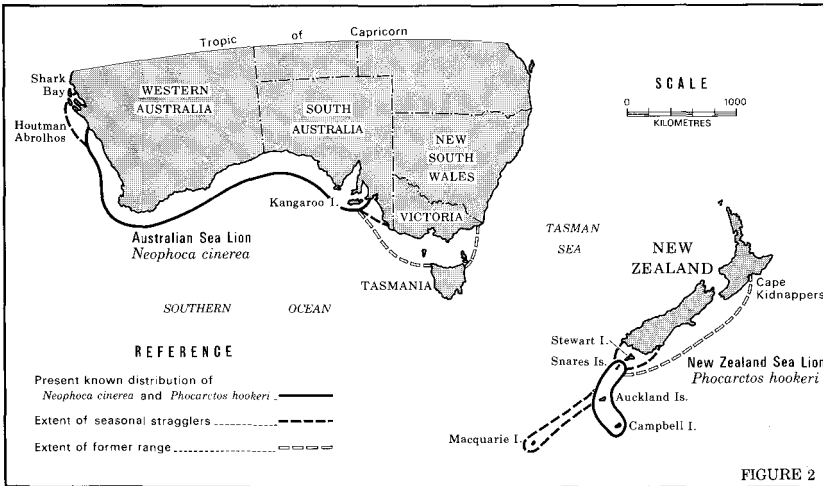
Much of our knowledge of the other cetaceans frequenting the waters of South Australia comes from stranded animals or what has been discovered overseas since many species of whales and dolphins are ubiquitous, occurring over vast areas of the world's oceans.

Few South Australians would realise the immense variety of whales and dolphins that have been stranded around our coasts over the past 100 years, or the fact that during the last 15 years five hitherto unrecorded species have been collected and more will no doubt be found in the future. These species, examples of which are preserved, mostly as skeletons in the South Australian Museum, are listed in the Appendix at the end of this article.

DISTRIBUTION OF AUSTRALASIAN FUR SEALS



DISTRIBUTION OF AUSTRALASIAN SEA LIONS



Seals in South Australia

Two species reside and breed in South Australia today: the New Zealand Fur Seal, *Arctocephalus forsteri*, which ranges from Kangaroo Island to Cape Leeuwin, WA (see Figure 1), and the Australian Sea Lion, *Neophoca cinerea*, which occurs on The Pages, east of Kangaroo Island and extends to Houtman Abrolhos, WA. It once may have extended as far as Port Stephens, NSW and certainly occurred in eastern Bass Strait (see Figure 2), where Captain Matthew Flinders, that most meticulous of observers, recorded it in *Investigator's* log. Also, bones which are unmistakably those of *Neophoca* have been recovered from Aboriginal middens in north-western Tasmania.

The Australian Sea Lion was first described and given its specific name *cinerea* by the French naturalist Francois Peron who sailed with Nicolas Baudin's expedition to southern Australia in 1801-04. Peron first saw these ash-coloured animals (hence the specific name) on Kangaroo Island. They must have been either females or juvenile males because, when the expedition reached St Francis Island in the Nuyts Archipelago, Peron saw what he took to be another species to which he gave the name *albicollis* (meaning white neck) but which we now know to have been adult males.

William Westall, who was Flinders' artist aboard the *Investigator*, made what is probably one of the earliest drawings of Australian Sea Lions, again on the northern coast of Kangaroo Island which Flinders visited in 1802.

The noted artist-naturalist George French Angas, who accompanied Governor Grey on an expedition to the South East of South Australia in 1844, painted a most beautiful and accurate watercolour of sea lions at the head of Rivoli Bay near where the town of Beachport now stands. At the same time a sea lion was shot and clubbed to death, then measured and described and the skin and skull presented by Grey to the British Museum (Natural History). The skull, bearing the marks of the clubbing, is still held in the latter institution. The original field sketch is now in the National Library, Canberra. The skull is believed to be the oldest documented specimen of the Australian Sea Lion, since either Peron did not collect any animals in 1802 or, if he did, they have subsequently been lost or destroyed.

Long before South Australia was formally colonised sealers and their Aboriginal wives eked out a rather precarious existence on Kangaroo Island, growing their own crops of grain and vegetables and trading in wallaby and seal skins. Between the years 1804 and 1834 at least 66 480 (fur?) seal skins and 600 sea lion ('hair' seal) skins were taken from South Australia to Sydney and Hobart for export to Europe and the Orient. The precise sources of these cargoes are not listed, but Kangaroo Island must have figured prominently. Today, however, seal populations on Kangaroo Island are not great and it is likely they were much larger in the early days for them to have yielded such harvests. Sealers also came from New South Wales and Van Diemens Land to hunt the seals of other offshore islands, but they all left few records from which we might surmise the pristine state of South Australian seal populations or even the species taken.

Australian Sea Lions and New Zealand Fur Seals in South Australia are each estimated to number about 3 000 to 5 000, which makes them quite rare in comparison to many other species in the world. However, the New Zealand Fur Seal is much more numerous across the Tasman, where there is also a New Zealand Sea Lion, *Phocarctos hookeri*, whose numbers are the same as, or slightly greater than, its Australian counterpart.

The Australian Fur Seal, *Arctocephalus pusillus doriferus*, from Bass Strait is also seen occasionally in South Australia, particularly in the Lower South East, as are a number of Antarctic seals. These are the Southern Elephant Seal, *Mirounga leonina*, which used to breed on King Island in Bass Strait but now occurs on Macquarie Island and other subantarctic islands; and the Ross, Weddell, Crabeater and Leopard Seals all

of which are true Antarctic forms. The Ross Seal, *Ommatophoca rossi*, has been recorded once in Australia when a young male came ashore at Beachport SA, in January 1978. Crabeater Seals, *Lobodon carcinophagus* (they feed on krill, not crabs), have been recorded twice and Weddell Seals, *Leptonychotes weddelli*, once. Only Leopard Seals, *Hydrurga leptonyx*, are relatively common visitors to our shores from the icy south.

The largest breeding concentration of fur seals in South Australia is on the South Neptune Islands in Spencer Gulf. Fur seals breed in December and January and, at the same time, yearlings of the previous breeding season leave the colony and haul out (*i.e.* come ashore) at other sites including Cape du Couedic, Kangaroo Island. One pup is born to almost every mature female (cow) each year. Females mature at about 4-5 years while males (bulls) take longer, *i.e.* 7-9 years, to attain maturity. By then more males have died so that each bull serves a small harem of 4-6 cows in a closely guarded territory.

The pups are born with long, fine black fur. This is replaced at about 3 months by a shorter silvery-grey coat, which becomes darker at successive annual moults until it assumes the typical grey-brown colour of adults. Bulls develop manes on their necks and may attain a weight of 250-300 kg while females rarely exceed about 80 kg. Pups weigh about 5 kg at birth, but gain weight quite rapidly during the initial phases of the suckling period, which may last six months or until the next pup is born.

A somewhat similar life cycle is followed by the sea lion which is bigger and appears to breed every eighteen months; very unusual for wild animals whose biology is normally attuned to an annual cycle. However, the sea lion occupies a fairly moderate environment where food is probably not limited and strict adherence to an annual timetable possibly not so essential. Indeed, even the eighteen-month cycles may not be universal; sea lions may be able to adjust their cycles to prevailing conditions. Notwithstanding their relative rarity, sea lions in South Australia appear to be maintaining their small population at a stable level.

Conservation of Marine Mammals

Whales

All marine mammals are now completely protected throughout Australia and, in the case of whales, porpoises and dolphins, beyond by the *Whale Protection Act 1980* which replaces the *Whaling Act 1960*, reflecting a change in emphasis from exploitation to conservation. There are also international conventions for the protection of marine mammals. The most significant of these is the Convention on International Trade in Endangered Species (CITES) which has become known as the Washington Convention.

Under a convention in 1946 the International Whaling Commission (Incorporated) was established to regulate commercial whaling. A further convention, the 1931 Convention for the Regulation of Whaling, is also still in existence, and there is a Permanent Commission of the Conference on the Use and Conservation of the Marine Resources of the South Pacific which was set up in 1952. In May 1980 the Convention on the Conservation of Antarctic Marine Living Resources was agreed upon and now awaits ratification by eight of the fifteen nations who initialled the agreement. The importance of this convention lies in its ecosystem approach, which complements the provisions of the International Whaling Commission and the Convention for the Conservation of Antarctic Seals (see below). Thus all components of the Antarctic ecosystem—plants, crustaceans, fish, birds and mammals—are covered.

The main factor affecting the survival of whales and their allies is without question harassment by man. This may be caused through hunting, accidental drowning in fishing

or shark-prevention nets, or disturbance—deliberate or innocent, by powerboats carrying sightseers. This is a growing threat as people become more interested in whales and tour parties are organised in some parts of the world to view them along migration routes. The most notable is perhaps the annual migration of grey whales along the California coast of the United States of America.

Very occasionally ships may collide with whales and cetaceans may also be affected by oil spills, although they ought to be able to escape relatively easily from any but a vast oil slick. Nevertheless, much more needs to be known about the distribution and abundance of marine mammals so that the effects of oil spills at sea can be gauged in relation to them and their food. We must never forget the whole food chain, or web of life, when considering the ecological effects of man's actions whether they be accidental (or conscious) pollution or deliberate killing of some component of the ecosystem, such as the harvesting of the whale food, krill.

Generally speaking, whales are truly international animals and, indeed, are apt symbols for animal conservation today, not only as a reminder of man's past depredations on them but also for their universal appeal as some of nature's most magnificent creatures.

Thus, it would be good if the growing interest in sea mammals could be harnessed to a greater effort to learn more about them, particularly from stranded animals, provided these can be reported quickly and accurately to appropriate authorities. Recently the South Australian Museum published a guide to stranded marine mammals which provides some simple aids to identification as well as reporting procedures and what information to record (in writing) and pass on to museum or wildlife personnel.

Seals

Following decimation of their stocks in earlier times seals are now completely protected throughout Australia. However, if they are to survive or even multiply, we must do more than merely protect individuals from being killed.

Firstly, we need to know much more about their distribution and abundance and breeding biology (age at maturity, number of young, season, etc.).

Secondly, breeding animals and sites must be protected from harassment so that reproductive groups and nursing mothers and their young are not disturbed. The first few weeks or months of life are critical for all animals and it seems likely that if young seals get a good start in life they stand a reasonable chance of surviving beyond the first year. Weaklings either drown or are taken by sharks more easily than the stronger pups.

Thirdly, aggregations of seals and their hauling out sites must be protected from the effects of marine pollution such as oil and other spills. Hence an efficient early-warning system is necessary, so that if a shipping disaster occurs near a seal rookery, preventive measures can be commenced as quickly as possible.

Important seal hauling out sites and adjacent waters should therefore be set aside as Conservation Parks and Marine Reserves. In South Australia such areas should include most offshore islands or parts thereof, *e.g.* the Seal Bay Conservation Park and Cape du Couedic on Kangaroo Island. Other more significant sites are The Pages in Backstairs Passage, Dangerous Reef and the Neptune Islands in Spencer Gulf, parts of Nuyts Archipelago and the Point Labbatt Conservation Park, where the only mainland colony of Australian Sea Lions in South Australia resides.

While every effort should be made to allow people to view the animals, steps must also be taken to prevent harassment and disturbance, particularly at breeding sites. If these can be viewed without causing disturbance, so much the better, because courtship and mother-young behaviour are fascinating to watch.

Continued efforts also need to be made to educate people in the importance of seals in



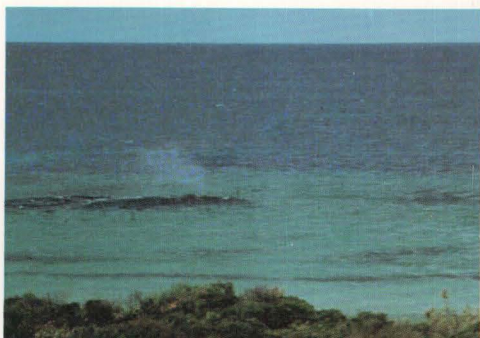
Pygmy Right Whale (*Caperea marginata*); Tulka, Eyre Peninsula, SA 1955.

Blue Whale (*Balaenoptera musculus*) 26·6 metres long; Corvisart Bay, SA 1918.





Southern Right Whale (*Eubalaena australis*) with calf; Port Lincoln, SA 1968.



Southern Right Whale 'blowing', with calf behind; Rossiter Bay, WA 1979.



Bryde's Whale (*Balaenoptera edeni*); head of Gulf St Vincent, SA 1972.



Young Bryde's Whale; Brownlow Beach, Kangaroo Island, SA 1975.



Young Minke Whale (*Balaenoptera acutorostrata*); Tulka, Eyre Peninsula, SA 1978.

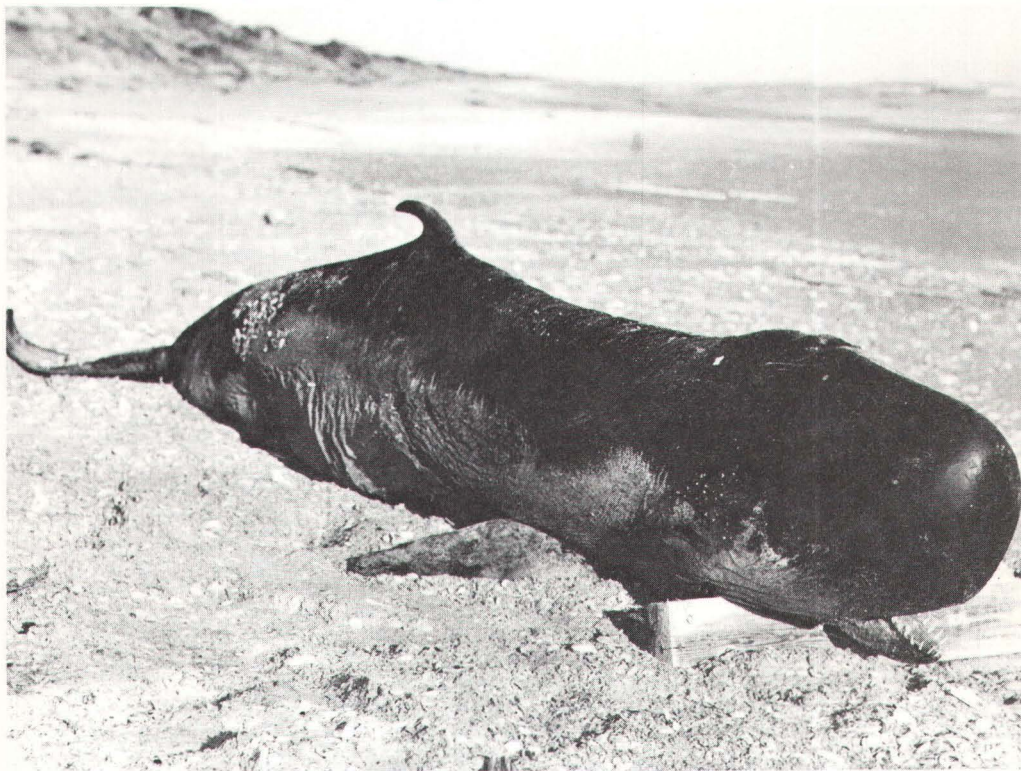


Southern Bottle-nosed Whale (*Hyperoodon planifrons*); Goolwa, SA 1979.



Sperm Whale (*Physeter catodon*); north coast Kangaroo Island, SA 1974.

Pygmy Sperm Whale (*Kogia breviceps*); Younghusband Peninsula, SA 1973.





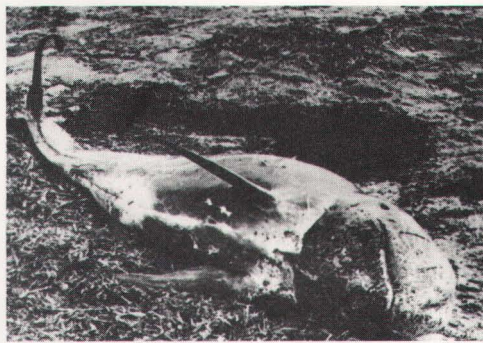
Dwarf Sperm Whale (*Kogia simus*) in shallow water at Largs Bay, SA 1958.



Pilot Whale (*Globicephala melaena*); Coffin Bay, SA 1978.



Common Dolphin (*Delphinus delphis*); Southend, SA 1977.



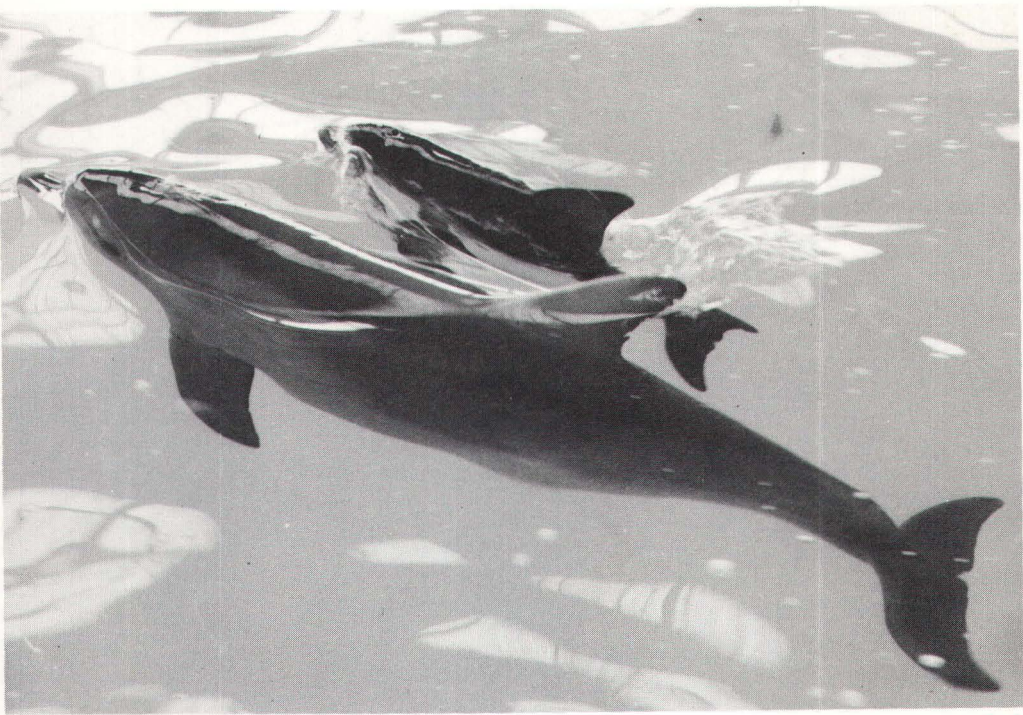
Risso's Dolphin (*Grampus griseus*); Point Turton, SA 1975.



False Killer Whale (*Pseudorca crassidens*); Port Prime, SA 1944.



Mass stranding of False Killer Whales on eastern shore of Gulf St Vincent, SA 1944.



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Bottle-nosed Dolphin (*Tursiops truncatus*) with calf born at 'Marineland of South Australia' on 4 December 1980.



Bottle-nosed Dolphins stranded at Memory Cove, SA 1977.

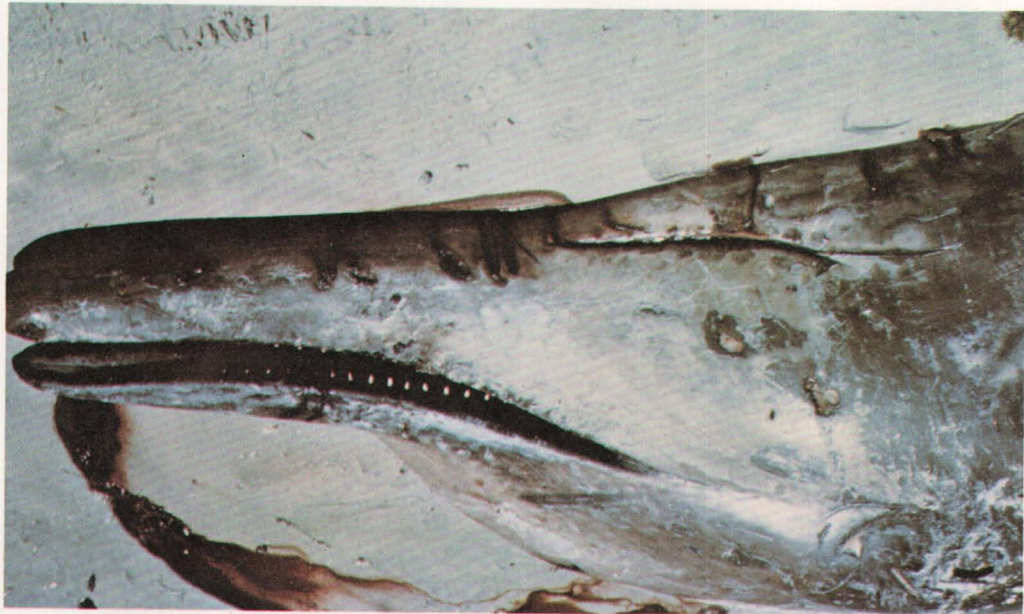


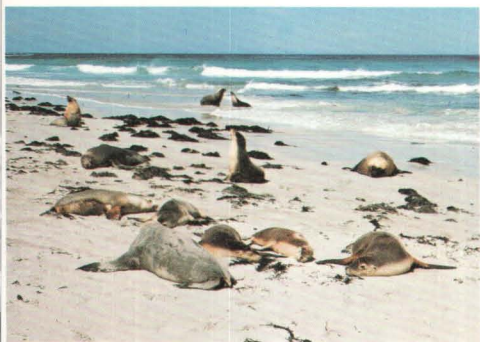
Bottle-nosed Dolphins swimming off Nuyts Archipelago, SA 1977.



Shepherd's Beaked Whale (*Tasmacetus shepherdi*); Port MacDonnell, SA 1976.

Head of Shepherd's Beaked Whale: the first known Australian stranding, and the seventh and most complete specimen ever found in the World; Port MacDonnell, SA 1976.





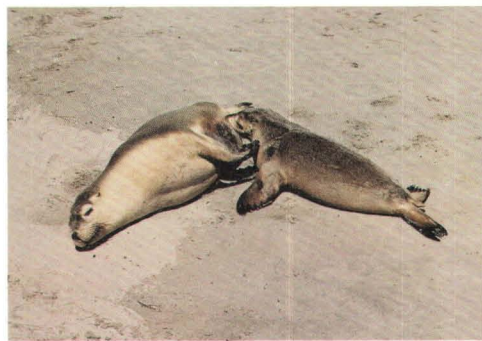
Australian Sea Lions (*Neophoca cinerea*); Seal Bay, Kangaroo Island, SA.



Adult male Australian Sea Lion, Nuyts Archipelago, SA.



Female Australian Sea Lion suckling pup about 2 weeks old; Seal Bay, Kangaroo Island, SA. Note plastic tags.



Female Australian Sea Lion suckling 'pup' 12-18 months old; Seal Bay, Kangaroo Island, SA.



New Zealand Fur Seals (*Arctocephalus forsteri*) near Cape du Couedic, Kangaroo Island.



Male New Zealand Fur Seal, Cape du Couedic, Kangaroo Island.



New Zealand Fur Seal (*Arctocephalus forsteri*) pup at Macquarie Island.



Female(?) Elephant Seal (*Mirounga leonina*) at Little Dip Conservation Park, SA.



Leopard Seal (*Hydrurga leptonyx*) at Macquarie Island.



Crabeater Seal (*Lobodon carcinophagus*), ANARE Station, Mawson, Antarctica.



Weddell Seal (*Leptonychotes weddelli*), ANARE Station, Casey, Antarctica.



Ross Seal (*Ommatophoca rossi*), ANARE Station, Mawson, Antarctica.

the balance of nature as well as making them more aware of the intrinsic interest and beauty of these sleek and, in the case of the Australian Sea Lion, friendly animals. Their presence in large numbers at a popular tourist resort close to a large city is unique in the world today and such an asset should be carefully managed for the present and future generations. An informed and concerned public will be the best kind of watchdog over the national heritage.

As far as Antarctic seals are concerned, they are now protected under the International Convention for the Conservation of Antarctic Seals. This extended their protection to the waters and pack ice beyond the Antarctic Continent, which had already been provided for under the 1959 Antarctic Treaty. The 1972 Antarctic Seals Convention was epoch-making in that measures for protecting a marine resource had been worked out and brought into force before exploitation began.

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Acknowledgements

The authors are grateful to the Royal Zoological Society of South Australia for permission to reproduce Figures 1 and 2 which were first published in the Society's Centenary Symposium volume *The Status of Endangered Australasian Wildlife*. Thanks are also due to the Antarctic Division, Department of Science and Technology for supplying the photographs of four Antarctic species of seals.

APPENDIX

CLASSIFICATION OF MARINE MAMMALS SIGHTED IN SOUTH AUSTRALIA
(TO DECEMBER 1980)

Phylum CHORDATA

Sub-phylum VERTEBRATA

Class MAMMALIA

Order Cetacea

Family Balaenidae (Right Whales)

Eubalaena australis—Southern Right Whale*Caperea marginata*—Pygmy Right Whale

Family Balaenopteridae (Rorquals)

Balaenoptera acutorostrata—Minke Whale*Balaenoptera edeni*—Bryde's Whale*Balaenoptera musculus*—Blue Whale*Balaenoptera physalus*—Fin Whale*Megaptera novaeangliae*—Humpback Whale

Family Physeteridae (Sperm Whales)

Kogia breviceps—Pygmy Sperm Whale*Kogia simus*—Dwarf Sperm Whale*Physeter catodon*—Sperm Whale

Family Ziphiidae (Beaked Whales)

Berardius arnuxi—Arnoux' Beaked Whale*Hyperoodon planifrons*—Southern Bottle-nosed Whale*Mesoplodon bowdoini*—Andrew's Beaked Whale*Mesoplodon grayi*—Gray's Beaked Whale*Mesoplodon layardi*—Strap-toothed Whale*Tasmacetus shepherdii*—Shepherd's Beaked Whale*Ziphius cavirostris*—Cuvier's Beaked Whale

Family Delphinidae (Ocean Dolphins)

Delphinus delphis—Common Dolphin*Globicephala melaena*—Pilot Whale*Grampus griseus*—Risso's Dolphin*Pseudorca crassidens*—False Killer Whale*Orcinus orca*—Killer Whale*Tursiops truncatus*—Bottle-nosed Dolphin

Order Carnivora

Family Otariidae (Eared Seals)

Neophoca cinerea—Australian Sea Lion*Arctocephalus forsteri*—New Zealand Fur Seal*Arctocephalus pusillus doriferus*—Australian Fur Seal

Family Phocidae (Earless Seals)

Mirounga leonina—Southern Elephant Seal*Hydrurga leptonyx*—Leopard Seal*Leptonychotes weddelli*—Weddell Seal*Lobodon carcinophagus*—Crabeater Seal*Ommatophoca rossi*—Ross Seal

EXPLORATION AND COLONISATION

EXPLORATION BEFORE COLONISATION

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

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

Rear-Admiral D'Entrecasteaux, who had been searching all around Australia for the lost French explorer La Perouse, sighted land south of Cape Leeuwin in December 1792 and examined the cliffs of the Great 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 (Tasmania). The early impressions of the South Australian coast were therefore most unfavourable and tended to discourage further investigation.

The British who followed were far more interested in the possibility of colonisation to help ease their population problem at home, and consequently, once the effects of early discouragement had worn off, they began to take an interest in South Australia as a

possible site for a new colony. Lieutenant James Grant was the first British explorer to sail along the South Australian coast, sighting the extreme easterly shores of South Australia about 1800. While in Cape Town he had been informed of the discovery of Bass Strait and was instructed to sail through it in the *Lady Nelson* on his way to Port Jackson. Sailing along the extreme south-east coast he named Cape Banks, Cape Northumberland, Mount Schank and Mount Gambier.

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

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

Governor Darling of New South Wales sent Captain Collet Barker to the southern coast to try to solve the mystery 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 discourage 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, which he found 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 wide-spread unemployment and poverty, the popular remedy for which was emigration. Nevertheless the somewhat revolutionary nature of the plans was to result in seven years of negotiation and considerable modification of early ideas before the colonisation of South Australia was finally approved.

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

selling land at a suitably high price to prevent all labourers becoming landowners and by devoting the proceeds to free passage for a carefully selected labour force.

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

The first attempt to form a colony was made by Robert Gouger who, having met Wakefield in Newgate Gaol in 1829, was so impressed with his ideas as to approach certain interested parties with a view to purchasing a tract of land in South Australia. He was unable, however, to gain sufficient support to interest the Colonial Office in his plans. In 1830 the National Colonization Society was formed with Gouger as its secretary. The Society served to further disseminate Wakefield's principles, but was not directly associated with plans for a colony in South Australia.

Renewed interest in colonisation followed the first of Captain Sturt's enthusiastic reports of the land of the lower Murray and in 1831 a group of intending settlers, still enthused with the ideas of Wakefield, formed the South Australian Land Company. A committee headed by Colonel Robert Torrens approached the British Government for a charter and then made preparation for the first voyage. The Government was not prepared to grant the necessary territory, and negotiation continued until 1833 when the Company finally conceded that the Government was unlikely to approve any plans involving a chartered colony.

From the same core of enthusiasts who had supported this and earlier ventures there emerged in 1834 the South Australian Association. This group was prepared to abandon hopes for a chartered colony, conceding the issue of self-government, provided that the enabling legislation accommodated Wakefield's other principles for land sales and migration. The passage of the legislation was by no means smooth; the scheme was new and involved untried principles, and knowledge of the territory was still extremely limited. Doubts on the suitability of the site were to be largely dispelled by the writings and personal representations of Sturt and the confirmatory expedition by Barker, and finally in July 1834 legislation for a colony in South Australia was put before Parliament. This legislation represented a considerable compromise on earlier plans.

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

Although Parliament was prepared to authorise the experiment it was not prepared to finance it; the colony was to be self-supporting. The Commissioners were accordingly authorised to borrow \$400 000 against future general revenue to finance the founding of the colony and the establishment of government, and \$100 000 against the sale of land to start the migration program. Finally, the Act contained two conditional clauses which were to harass the whole venture and served to delay colonisation another twelve

months. The first of these conditions, which were to be satisfied before the Commissioners could exercise their general powers, required that government securities to the value of \$40 000 be lodged as a guarantee for the venture. Secondly, land to the value of \$70 000 was to be sold before settlement.

A Board of Commissioners with Torrens as Chairman was appointed early in 1835. The Board immediately offered land in the new colony at \$2 an acre including rights to a city acre with every 80 acres of rural land. In spite of considerable publicity, unsurveyed land in an unknown colony proved difficult to sell, and with less than half the land sold the price was reduced to the permitted minimum of \$1.20 an acre. Finally, George Fife Angas, a member of the Board, together with two others took up the balance of the land on behalf of the South Australian Company, which was then in the process of being formed.

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

The *Cygnets* carrying the Deputy Surveyor, G. S. Kingston and his staff left at the end of March and the *Rapid* with Colonel William Light, Surveyor-General, on board departed at the beginning of May. One of Light's most important tasks was to choose a site for the first settlement and details of his early movements are given on page 44. The first Company vessels reached Kangaroo Island in July, and colonists arrived at Adelaide from early November. The first Governor of the colony, Captain John Hindmarsh RN, arrived at Holdfast Bay on 28 December 1836 and the new colony was officially proclaimed on the same day. By this time some 300 colonists were already in residence. Hindmarsh was to remain in the colony for eighteen months, a period marked by political feuding and very little progress.

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

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

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

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

Appalled at the stagnation of the colony, Gawler immediately undertook a liberal spending program. Surveying was considerably increased with the result that 200 000 hectares had been surveyed by mid-1841. At the same time an extensive public building and works program provided relief for the unemployed. Generally, Gawler created a renewed state of optimism which remained until 1840 when land values were depreciated and sales declined. Immigrants continued to arrive throughout this period.

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

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

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

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

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

EXPLORATION AFTER COLONISATION

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

The earliest exploratory moves of the colonists were directed towards establishing an overland route between Adelaide and Encounter Bay, and in discovering a north-easterly passage to the River Murray that would by-pass the Mount Lofty Ranges. Contact was first made with Encounter Bay in about July 1837 by Colonel Light and J. H. Fisher, and in December of the same year an expedition by Strangways and Hutchinson played a further important part in making contact with the River Murray by driving a bullock cart across the ranges to Encounter Bay, and then exploring the Murray mouth, the Goolwa channel and the southern part of Lake Alexandrina. The north-easterly route to the Murray was first traversed successfully early in 1838. Penetration of the Mount Lofty

Ranges began in 1837, and by the end of the year parties had crossed the ranges and descended to Lake Alexandrina.

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

Other parts of the State were also attracting attention. A section of Yorke Peninsula was visited in 1838, and in the following year a number of expeditions were made into the hinterland of Port Lincoln. Thus by 1840 the area within an 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 came 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 north, including Eyre's new-found lake, and the possibility of establishing an overland stock route to Western Australia. Eyre having just returned from the desolate country of the Great Australian Bight showed little enthusiasm for the latter idea, and in June 1840 set out for the north. From Mount Arden he made three attempts to penetrate beyond the lakes, but after following the Flinders Ranges to Mount Hopeless and making a number of observations, he concluded that Lake Torrens was a giant horseshoe-shaped salt lake forming an impassable barrier. This erroneous belief was to persist for eighteen years.

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

In 1842 and 1843 the Surveyor-General, Colonel Frome, made two trips to the Lake Torrens region in an attempt to determine the nature of the area. However, after

reaching a 'desert-like' Lake Frome (which he believed to be part of Lake Torrens) he turned back, making two short thrusts to the east on the return journey. Frome had seen enough to be able to report that there was no country as far as the meridian 141° (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 ten 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 and John McKinlay from Adelaide, were to pass through the same area in search of Burke and Wills. After finding traces of the expedition on Cooper Creek, McKinlay pushed east and then north, to reach the Gulf of Carpentaria.

The construction of the Overland Telegraph between 1870 and 1872, and the subsequent maintenance of this link between Adelaide and Darwin, naturally led to minor exploration of the adjacent country. At this stage attention turned to the land between the telegraph line and the settlements of Western Australia. Foremost among the explorers of this region, and whose paths brought them within South Australia, were John Forrest and William Ernest Giles. In March 1870 Forrest left Perth for Adelaide, covering much the same path as Eyre had taken 30 years earlier. Forrest crossed South Australian territory again in 1874 when he travelled from Geraldton in Western Australia across the centre of the continent, coming down the Alberga watercourse to Peake telegraph station.

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

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

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

CONSTITUTION AND GOVERNMENT

3.1 SYSTEM OF GOVERNMENT

South Australia is one of the six Australian States (originally constituted by Acts of the Imperial Parliament) which at Federation in 1901 ceded many of their powers on matters of national importance (*e.g.* international affairs and defence) to the Commonwealth of Australia. 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 State Bank of South Australia, the Electricity Trust of South Australia, the South Australian Housing Trust and the South Australian Meat Corporation.

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

Electoralates

The State is a single multi-member electorate for elections for both the Commonwealth (Senate) and South Australian (Legislative Council) Parliaments. There are ten members elected from South Australia to the Commonwealth Senate; these members are elected for a period of six years with half of them generally retiring each three years.

The South Australian Legislative Council consists of twenty-two members elected for a term of six years, with eleven generally retiring each three years. Before the last general election there were twenty-one Legislative Councillors, eleven having been

elected under the present system which was introduced by the Constitution and Electoral Acts Amendment Act, 1973 and ten under the system which applied before the election of 12 July 1975.

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 Commonwealth Constitution provide for changes in House of Representatives electorates in certain eventualities. Because of a prescribed relationship between population and the distribution of House of Representatives electorates, the Chief Australian Electoral Officer determines the representational entitlement of the States during each Parliamentary triennium, based on the latest available statistics prepared by the Australian Statistician (rather than on Census figures). Should the representation entitlement of any State change consequent upon such a determination, a redistribution is required.

In South Australia the boundaries of electorates are defined in a schedule to the State Constitution, and these have been changed from time to time on the recommendations of various electoral commissions which were appointed at irregular intervals with specific instructions as to how they should divide up the State. However, following an amendment to the Constitution in 1975, a permanent Electoral Commission was appointed in 1976 with instructions to divide the State into forty-seven House of Assembly electoral districts, each district having the same number of electors, with a maximum tolerance of ten per cent from the electoral quota. This Commission also has the duty to review boundaries periodically to maintain equal numbers of electors in electorates.

Party System

Most members of both the Commonwealth 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 generally 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

Both in the Commonwealth and in 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 Commonwealth 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 the fourteen senior Ministers of the Commonwealth Government constitute the Cabinet and other Ministers only attend Cabinet meetings when required, but from 1972 to 1975 all Ministers were members of the Cabinet. In South Australia, all thirteen Ministers are members of Cabinet.

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

Executive Council

The Executive Council is usually presided over by the Governor-General or Governor, the members holding office during his pleasure. All Ministers of State must be members of the Executive Council. Commonwealth 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 inquire 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 inquire 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 Commonwealth and South Australian Government departments, by local government authorities, and by public corporations deriving authority and responsibility from either Commonwealth 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 Commonwealth legislation are completely, or almost completely, administered by State authorities, often in matters in which (the Commonwealth and the State having concurrent powers) Commonwealth legislation either supplements or supersedes State legislation, *e.g.* the Births, Deaths and Marriages Registration Branch applies the *Marriage Act* 1961 in this State. Performance of State functions by Commonwealth authorities is neither as frequent nor as extensive, but there are instances of the provision of services or facilities, *e.g.* the Commonwealth 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 Commonwealth 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 Commonwealth courts in industrial matters.

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

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

3.2 COMMONWEALTH GOVERNMENT

Federation

The Commonwealth of Australia was proclaimed on 1 January 1901 in 'An Act to constitute the Commonwealth of Australia', a statute of the Imperial Parliament, which received Royal Assent in July 1900. The draft constitution, which was enacted with only minor amendment, had been prepared at intercolonial 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 Commonwealth Government and, in section 51, for certain specified fields of interest to be common to both the Commonwealth 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 Commonwealth 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.

COMMONWEALTH 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 Commonwealth 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 or are prohibited immigrants under that Act are excluded from the franchise.

Membership

Qualifications necessary for membership of either House of the Commonwealth 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 Public Service of the Commonwealth except as a member of an incorporated company of more than twenty-five persons.

EXECUTIVE GOVERNMENT

Governor-General

On 8 December 1977 His Excellency Sir Zelman Cowen, AK, GCMG, QC, was sworn in as the nineteenth Governor-General of the Commonwealth. 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 Commonwealth 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-sixth Ministry (the fourth Fraser Ministry) are listed below.

Fraser Ministry at 16 April 1981**Inner Cabinet***Prime Minister*

The Rt Hon. J. M. Fraser, CH, MP (Vic.)

Deputy Prime Minister and Minister for Trade and Resources

The Rt Hon. J. D. Anthony, MP (NSW)

Minister for Industry and Commerce

The Rt Hon. Sir Phillip Lynch, MP (Vic.)

Minister for Communications and Leader of the House

The Hon. I. McC. Sinclair, MP (NSW)

Minister for National Development and Energy and Leader of the Government in the Senate

Senator the Hon. J. L. Carrick (NSW)

Minister for Foreign Affairs

The Hon. A. A. Street, MP (Vic.)

Minister for Primary Industry

The Hon. P. J. Nixon, MP (Vic.)

Treasurer

The Hon. J. W. Howard, MP (NSW)

Minister for Defence

The Hon. D. J. Killen, MP (Qld)

Minister for Finance

Senator the Hon. Dame M. G. C. Guilfoyle, DBE (Vic.)

Minister for Industrial Relations and Minister Assisting the Prime Minister

The Hon. R. I. Viner, MP (WA)

Attorney-General

Senator the Hon. P. D. Durack, QC (WA)

Minister for Social Security

Senator the Hon. F. M. Chaney, MP (WA)

Minister for Education and Minister Assisting the Prime Minister in Federal Affairs

The Hon. W. C. Fife, MP (NSW)

Outer Ministry*Minister for Transport*

The Hon. R. J. D. Hunt, MP (NSW)

Minister for Health

The Hon. M. J. R. MacKellar, MP (NSW)

Minister for Immigration and Ethnic Affairs

The Hon. I. M. Macphree, MP (Vic.)

Minister for Science and Technology

The Hon. D. S. Thomson, MC, MP (Qld.)

Minister for Administrative Services and Minister Assisting the Minister for Defence

The Hon. K. E. Newman, MP (Tas.)

Minister for Business and Consumer Affairs

The Hon. J. C. Moore, MP (Qld.)

Minister for the Capital Territory and Minister Assisting the Minister for Industry and Commerce

The Hon. M. Hodgman, MP (Tas.)

Minister for Veterans' Affairs and Minister Assisting the Treasurer

Senator the Hon. A. J. Messner, MP (SA)

Minister for Aboriginal Affairs and Minister Assisting the Minister for National Development and Energy

Senator the Hon. P. E. Baume (NSW)

Minister for Housing and Construction and Minister Assisting the Minister for Trade and Resources

The Hon. D. T. McVeigh, MP (Qld.)

Minister for Home Affairs and Environment

The Hon. I. B. C. Wilson, MP (SA)

Minister for Employment and Youth Affairs

The Hon. N. A. Brown, QC, MP (Vic.)

Salaries and Allowances

From 1 August 1980 the annual salary for each Senator and Member has been \$30 026 with an electorate allowance of either \$11 500 or \$16 750 depending on the area of the Member's electorate. Senators receive an electoral allowance of \$11 500.

The Remuneration Tribunal determined new salaries to be effective from 1 July 1980, but each of the salary levels so determined was adjusted in accordance with the decision arising from the National Wage case which was before the Australian Conciliation and Arbitration Commission at the time the Tribunal arrived at its conclusions.

The following additional payments are also made:

Prime Minister—\$33 015 plus expense allowance of \$15 655;

Deputy Prime Minister—\$16 653 plus expense allowance of \$9 133;

Ministers (Inner Cabinet)—\$13 731 plus expense allowance of \$6 523;

Treasurer—\$15 485 plus expense allowance of \$7 828;

Leader of the House—\$13 731 plus expense allowance of \$7 828;

Ministers (Outer Ministry)—\$12 271 plus expense allowance of \$6 523;

Speaker (House of Representatives)—\$12 271 plus expense allowance of \$6 523;

President (Senate)—\$12 271 plus expense allowance of \$6 523;

- Chairman of Committees (House of Representatives)—\$5 259 plus expense allowance of \$1 305;
- Chairman of Committees (Senate)—\$5 259 plus expense allowance of \$1 305;
- Leader of the Opposition (House of Representatives)—\$13 731 plus expense allowance of \$7 828;
- Deputy Leader of the Opposition (House of Representatives)—\$9 934 plus expense allowance of \$6 227;
- Leader of the Opposition (Senate)—\$9 934 plus expense allowance of \$6 227;
- Deputy Leader of the Opposition (Senate)—\$4 966 plus expense allowance of \$1 305;
- Government Whip (House of Representatives)—\$4 966 plus expense allowance of \$1 305;
- Opposition Whip (House of Representatives)—\$4 383 plus expense allowance of \$1 305;
- Deputy Government Whip (House of Representatives)—\$1 461;
- Deputy Opposition Whip (House of Representatives)—\$701;
- Other Whips (House of Representatives)—\$2 922;
- Government Whip (Senate)—\$4 090 plus expense allowance of \$1 305;
- Opposition Whip (Senate)—\$4 090 plus expense allowance of \$1 305.

Superannuation

The *Parliamentary Contributory Superannuation Act 1948* provides for the payment of superannuation retirement benefits to or in respect of former members of the Commonwealth Parliament. Contributions by Senators and Members are compulsory.

Generally, contributions by members are at the rate of 11·5 per cent of the total of the parliamentary allowance and of any additional salary or allowance in the nature of salary payable by reason of service as a Prime Minister, a Minister, or office-holder in the Parliament. The contributions are reduced when a member completes 18 years parliamentary service, *i.e.* the rate becomes 5·75 per cent of the parliamentary allowance plus 11·5 per cent of the amount of any additional salary or allowance in the nature of salary received by reason of service as a Prime Minister, a Minister, or office-holder in the Parliament.

Members who retire involuntarily become eligible for a retiring allowance after eight years service (or less in certain circumstances) while those who retire voluntarily become eligible after twelve years service (or less in certain circumstances). A member who becomes entitled to a retiring allowance, other than on the grounds of ill-health, may elect to convert the whole or a percentage of that retiring allowance to a lump sum payment. 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 whether retirement was involuntary or voluntary.

The scheme also provides for the payment of annuities to eligible widows and widowers of former members. Where the former member was in receipt of a retiring allowance at the time of death, the annuity payable is five-sixths of that allowance or, if the member had elected to commute the whole or part of that allowance, five-sixths of the allowance that would have been payable had the member not elected. Where the member died during parliamentary service, the annuity payable equals five-sixths of the retiring allowance that would have been payable to the member had the member retired involuntarily. An annuity is payable to an eligible dependent child if both parents have died.

THE SENATE

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

Representation

At present the Senate consists of sixty-four members—ten from each State, two from the Australian Capital Territory and two from the Northern Territory. 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. By the *Senate (Representation of Territories) Act 1973*, the number of Senators was increased from sixty to sixty-four with the addition of two Senators from both the Australian Capital Territory and the Northern Territory. The Territories were represented in the Senate for the first time following the general election of 13 December 1975. Except in extraordinary circumstances each Senator is elected for a term of six years, five from each State and all Territory Senators retiring every three years.

From 1 July 1981 representation in the Senate was as follows:

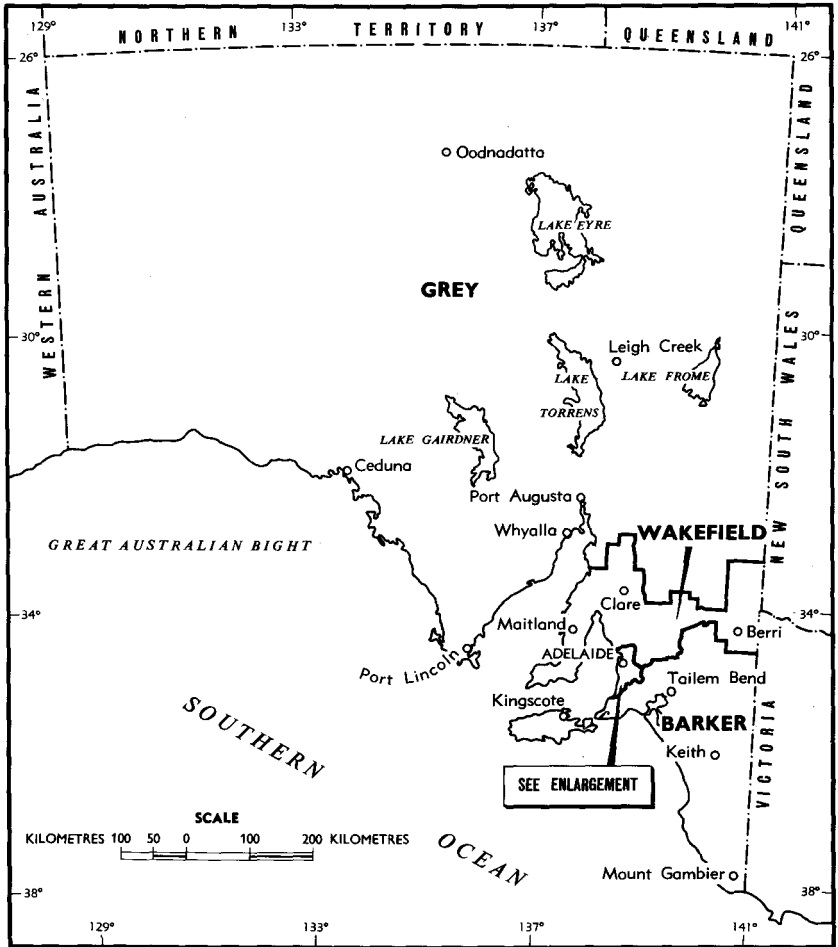
State or Territory	ALP	LP	NCP	AD	IND
New South Wales	5	3	1	1	—
Victoria	4	4	—	2	—
Queensland	4	3	2	1	—
South Australia	4	5	—	1	—
Western Australia	4	6	—	—	—
Tasmania	4	5	—	—	1
Australian Capital Territory	1	1	—	—	—
Northern Territory	1	1	—	—	—

ALP Australian Labor Party LP Liberal Party of Australia NCP National Country Party AD Australian Democrats
IND Independent

Elections for the Senate: Voting, South Australia

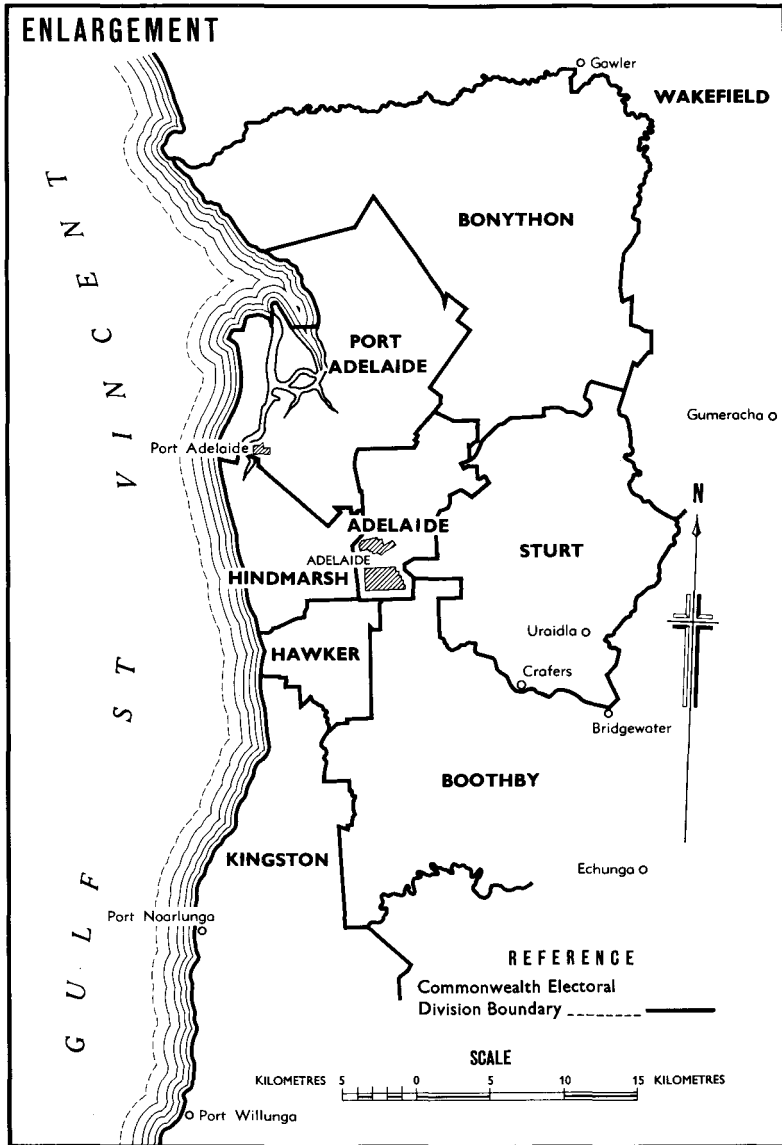
Date of Election	Electors Enrolled	Votes Recorded		Informal Votes	
		Number	Percentage of Electors Enrolled	Number	Percentage of Votes Recorded
10 December 1949	434 224	420 437	96·82	48 838	11·62
28 April 1951	440 454	427 593	97·08	24 792	5·80
9 May 1953	453 496	437 583	96·49	21 297	4·87
10 December 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	750 308	722 434	96·28	82 191	11·38
13 December 1975	789 004	759 369	96·24	75 540	9·95
10 December 1977	824 205	783 669	95·08	81 451	10·39
18 October 1980	849 899	806 695	94·92	70 359	8·72

SOUTH AUSTRALIA
COMMONWEALTH ELECTORAL DIVISIONS
As proclaimed 11 November 1977



PORTION OF SOUTH AUSTRALIA COMMONWEALTH ELECTORAL DIVISIONS

As proclaimed 11 November 1977



The members representing South Australia in the Senate are:

To Retire 30 June 1984:

Messner, Anthony John (LP)
 McLaren, Geoffrey Thomas (ALP)
 Young, Harold William (LP)
 Elstob, Ronald Charles (ALP)
 Teague, Baden Chapman (LP)

To Retire 30 June 1987:

Jessop, Donald Scott (LP)
 Hill, Robert (LP)
 Foreman, Dominic John (ALP)
 Bolkus, Nick (ALP)
 Haines, Janine (AD)

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.

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 the Commonwealth 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.

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
29 May 1954	455 872	(a) 357 854	(a) 96·77	8 812	2·46
10 December 1955	462 747	444 827	96·13	18 050	4·06
22 December 1958	490 930	473 832	96·52	15 619	3·30
9 December 1961	521 396	501 312	96·15	15 629	3·12
30 November 1963	541 536	523 135	96·60	13 963	2·67
26 November 1966	585 465	563 341	96·22	16 220	2·88
25 October 1969	624 626	599 719	96·01	20 562	3·43
2 December 1972	671 081	644 211	96·00	16 845	2·61
18 May 1974	750 308	722 434	96·28	20 311	2·81
13 December 1975	789 004	759 369	96·24	18 201	2·40
10 December 1977	824 205	783 669	95·08	26 461	3·38
18 October 1980	849 899	806 695	94·92	22 491	2·79

(a) Contested electorates only.

Following an electoral redistribution of House of Representatives seats in 1977 by Federal Electorate Redistribution Commissioners, the number of members of the House of Representatives was reduced from 127 to 124. The number of South Australian seats in the House of Representatives was reduced from 12 to 11 with the seat of Angas being abolished.

The number of Western Australian seats was increased to 11 in 1980, with a corresponding increase to 125, in the total number of seats.

After the election of 18 October 1980 representation in this House was as follows:

Party	NSW	Vic.	Qld	SA	WA	Tas.	ACT	NT	Total
ALP	18	17	5	6	3	—	2	—	51
LP	16	13	7	5	8	5	—	—	54
NCP	9	3	7	—	—	—	—	1	20

ALP Australian Labor Party LP Liberal Party of Australia NCP National Country Party

House of Representatives, 1980 Election Voting and Party Representation in South Australian Electorates

Electorate	Electors on Roll	Electors Voting	Successful Candidates		
			Name	Party	First Preference Votes
Adelaide	75 745	71 298	Hurford, C. J.	ALP	36 124
Barker	75 778	72 476	Porter, J. R.	LP	40 445
Bonython	82 214	77 527	Blewett, N.	ALP	40 825
Boothby	79 879	75 377	McLeay, Hon. J. E.	LP	41 542
Grey	73 128	69 361	Wallis, L. G.	ALP	33 871
Hawker	74 487	70 563	Jacobi, R.	ALP	34 066
Hindmarsh	77 809	73 942	Scott, J. L.	ALP	34 106
Kingston	80 612	77 189	Chapman, H. G. P.	LP	35 069
Port Adelaide	76 268	72 270	Young, M. J.	ALP	43 746
Sturt	78 411	74 634	Wilson, I. B. C.	LP	37 018
Wakefield	75 568	72 058	Giles, G. O'H.	LP	41 934

REFERENDA

Alteration to the Constitution must be initiated in the Commonwealth 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 the Commonwealth as a whole.

Of the thirty-six proposals so far submitted to the people of Australia for amendment to the Constitution, only eight have been approved (one in each of 1906, 1910, 1928, 1946 and 1967, and three in 1977). 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 on 21 May 1977, four alterations to the Constitution were proposed. Three of the four referendum proposals were approved, but the Constitution Alteration (Simultaneous Elections) Referendum was defeated because it recorded a majority of votes in only three States (although it was approved by the majority of electors in Australia).

3.3 GOVERNMENT OF SOUTH AUSTRALIA

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

VICE-REGAL REPRESENTATION

Keith Douglas Seaman, OBE, was sworn in as the Queen's representative in South Australia on 1 September 1977.

The title of the vice-regal representative has been varied from time to time. The first three holders of the Office were styled 'Governor and Commander-in-Chief', the next two, 'Lieutenant-Governor', and the following two, 'Captain-General and Governor-in-Chief'. The title then reverted to its original form until Federation in 1901. Since then, because of the appointment of a 'Governor-General and Commander-in-Chief in and over the Commonwealth', the holder of the State office has been described simply as 'Governor', and this title is used in the following table, which lists occupants of the office since the foundation of South Australia.

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

Governors of South Australia

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

Governors of South Australia (continued)

Name	From	To
Lt-Gen. Sir George T. M. Bridges, KCB, KCMG, DSO	4 December 1922	4 December 1927
Brig.-Gen. the Hon. Sir A. G. A. Hore-Ruthven, VC, KCMG, CB, DSO	14 May 1928	26 April 1934
Maj.-Gen. Sir W. J. Dugan, KCMG, CB, DSO	28 July 1934	23 February 1939
Sir Charles M. Barclay-Harvey, KCMG	12 August 1939	26 April 1944
Lt-Gen. Sir C. W. M. Norrie, KCMG, CB, DSO, MC	19 December 1944	19 June 1952
Air Vice-Marshal Sir Robert A. George, KCMG, KCVO, KBE, CB, MC	23 February 1953	7 March 1960
Lt-Gen. Sir Edric M. Bastyan, KCMG, KCVO, KBE, CB	4 April 1961	1 June 1968
Maj.-Gen. Sir James W. Harrison, KCMG, CB, CBE	4 December 1968	16 September 1971
Sir Mark L. Oliphant, KBE	1 December 1971	30 November 1976
Sir Douglas R. Nicholls, KCVO, OBE	1 December 1976	30 April 1977
Keith Douglas Seaman, OBE	8 September 1977	

A Governor is normally appointed for a term of five years, but he can be reappointed for one or more subsequent terms. At present he is granted a basic salary of \$20 000 a year and an expense allowance which is altered in accordance with the Consumer Price Index number for Adelaide. The amount appropriated from Consolidated Revenue for the Governor's salary and allowances for 1979-80 was \$60 500. The Governors' Pension Act, 1976 provides for a pension to be paid to former Governors and to the spouses of deceased Governors.

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

Deputy Governors

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

Deputy Governors (continued)

Name	Occupancy of Office		Occurrences in Office	Total Period in Office	
	First	Most Recent		Years	Days
Hon. Sir G. S. Reed	24/7/1951	4/11/1957	5	—	31
Hon. J. J. Bray	25/6/1968	5/8/1973	8	—	72
Hon. D. S. Hogarth	8/7/1971	8/7/1971	1	—	1
Sir W. R. Crocker, KBE	7/9/1973	17/5/1979	26	1	6

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; 1973, eleven; 1975, twelve and 1978, thirteen. 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. This restriction on the number of Ministers from the lower House was removed by the Constitution Act Amendment Act (No. 2), 1975, and now it is permissible for all Ministers to be selected from the House of Assembly.

The Constitution of 1856 provided for salary payments to Ministers only and salary payments to other members did not commence until 1887. For details of salaries and allowances paid to members of Parliament see page 72.

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-eight 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

Premiers of South Australia (continued)

Name	Dates of Office	Total Period in Office	
		Years	Days
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
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- 15/2/1979	8	259

Premiers of South Australia (continued)

Name	Dates of Office	Total Period in Office	
		Years	Days
Hon. R. S. Hall	17/4/1968- 2/6/1970	2	47
Hon. J. D. Corcoran	15/2/1979- 18/9/1979	—	216
Hon. D. O. Tonkin	18/9/1979-		

Ministry

The Ministry is the sixty-fourth to hold office. The members at 1 July 1981 were:

Premier, Treasurer, Minister of State Development and Minister of Ethnic Affairs

Hon. David Oliver Tonkin, MP

Deputy Premier and Minister of Mines and Energy

Hon. Eric Roger Goldsworthy, MP

Attorney-General and Minister for Corporate Affairs

Hon. Kenneth Trevor Griffin, MLC

Minister of Industrial Affairs and Minister of Public Works

Hon. Dean Craig Brown, MP

Minister of Education and Minister of Aboriginal Affairs

Hon. Harold Allison, MP

Chief Secretary, Minister of Fisheries and Minister of Marine

Hon. William Allan Rodda, MP

Minister of Local Government, Minister of Housing, Minister of Arts and Minister Assisting the Premier in Ethnic Affairs

Hon. Charles Murray Hill, MLC

Minister of Agriculture and Minister of Forests

Hon. William Edwin Chapman, MP

Minister of Environment and Planning

Hon. David Charles Wotton, MP

Minister of Transport and Minister of Recreation and Sport

Hon. Michael Minell Wilson, MP

Minister of Community Welfare and Minister of Consumer Affairs

Hon. John Charles Burdett, MLC

Minister of Health and Minister of Tourism

Hon. Jennifer Lilian Adamson, MP

Minister of Water Resources, Minister of Irrigation, Minister of Lands and Minister of Repatriation

Hon. Peter Bruce Arnold, 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). The following table gives the dates and the number of House of Assembly sitting days for Parliamentary sessions in recent years.

Parliamentary Session	Period	House of Assembly Sitting Days
1973	19/6/73-27/6/73	4
1973-74	24/7/73-28/3/74	69
1974-75	23/7/74-18/6/75	74
1975-76	5/8/75-19/2/76	45
1976-77	8/6/76-28/4/77	65
1977	19/7/77-17/8/77	11
1977-78	6/10/77-22/3/78	45
1978-79	13/7/78-1/3/79	55
1979	24/5/79-22/8/79	11
1979-80	11/10/79-12/6/80	35
1980-81	31/7/80-4/12/80	38

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 before 12 July 1975, the State was 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 was filled in the same manner as those in the single-member House of Assembly Districts discussed above. The second vacancy in each district was 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, the number of electorates and the voting system has been changed for Legislative Council elections commencing with the election of 12 July 1975. 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 register preferences for groups of candidates rather than individuals (although a group may contain only one candidate) and a candidate's election depends on the proportion of votes his group obtains and his position within the group on the ballot paper. Because an optional preference voting system applies it is not necessary for electors to indicate preferences for each group in order to register formal votes.

Members, Qualifications, and Privileges

Certain requirements must be met before a person qualifies for membership of the South Australian Parliament. The following persons are not eligible for membership of either House: Judges, persons under the age of eighteen, aliens, members of the Commonwealth 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 72-4.

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

The franchises for the separate Houses are shown on pages 73-4. 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.

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:

Members and Electorates, South Australia

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
1975	21	1	47	47
1979	22	1	47	47

(a) Separate representation for Northern Territory.

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

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.

Life of Parliament

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.

Legislation introduced in 1933 extended the life of the twenty-eighth Parliament 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.

Salaries and Allowances

Salaries and allowances for members of Parliament are determined periodically by the Parliamentary Salaries Tribunal, pursuant to the provisions of the Parliamentary Salaries and Allowances Act, 1965-1978.

The annual salary from 1 January 1981 is \$27 780 per member with allowances of between \$5 500 and \$20 350 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—\$32 275 plus expense allowance of \$4 125.

Deputy Premier—\$22 670 plus expense allowance of \$3 425.

Leader of the Government in the Legislative Council—\$19 725 plus expense allowance of \$3 255.

Other Ministers—\$18 580 plus expense allowance of \$2 860.

President of Legislative Council and Speaker of House of Assembly—each \$15 560 plus expense allowance of \$1 620.

Chairman of Committees, House of Assembly—\$7 780 plus expense allowance of \$810.

Leader of the Opposition, House of Assembly—\$18 580 plus expense allowance of \$2 860.

Leader of the Opposition, Legislative Council—\$7 170 plus expense allowance of \$905.

Deputy Leader of the Opposition, House of Assembly—\$7 170 plus expense allowance of \$905.

Government Whip—\$5 105.

Opposition Whip—\$5 105.

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

Cost of Parliamentary Government

The following table shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in South Australia, comprising the Governor, the Ministry, the Legislative Council, House of Assembly and electoral activities.

Cost of Parliamentary Government, South Australia

Particulars	1977-78	1978-79	1979-80
		\$'000	
Governor's Establishment	436	495	484
Ministry	480	565	661
Parliament:			
Legislative Council(a)	528	572	612
House of Assembly(a)	1 114	1 200	1 260
Other(b)	3 353	4 137	4 951
Total Parliament	4 995	5 909	7 968
Electoral	1 055	539	1 166
Royal Commissions, Select Committees, etc.	588	396	81
Total	7 554	7 904	9 215

(a) Allowances to members, travelling and other expenses.

(b) Government contribution to members' superannuation funds, printing, reporting staff, library, etc.

Superannuation

All members are required to contribute to a Superannuation Fund established under the Parliamentary Superannuation Act, 1974, which provides for the payment of superannuation pensions to persons, or widows or widowers or eligible children of persons, who have served as members of the State Parliament. Members qualify for a pension after fifteen years service but can qualify for a pension after six years service if they retire involuntarily or are over sixty years of age.

Every member is required to contribute 11.5 per cent of his salary, including additional salary received as a Minister, officer of Parliament or member of a Parliamentary Committee. According to the length of service the pension payable to ordinary members varies between 41.2 per cent of basic salary (presently \$10 310 a year) and 75 per cent of basic salary (presently \$18 768 a year). Greater amounts of pension accrue to those members who have made additional contributions based on additional salary as a Minister or an office holder. Pensions are increased or decreased on 1 October each year in accordance with the increase or decrease in the Consumer Price Index for the preceding year ending 30 June.

At 30 June 1980 there were sixty-nine contributors to the fund; forty-five ex-members, twenty-three widows and one child 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 pages 69-70, 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.

The Constitution and Electoral Acts Amendment Act, 1973, assented to on 22 November 1973, 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 did not become fully effective for two general elections as only half the Legislative Councillors retire at each election and eleven members (not ten as previously) are now elected at each general Legislative Council election. At the general election of 15 September 1979, eleven members were elected to the Legislative Council and at present there are twenty-two members in this House. 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. Under the Constitution and Electoral Acts Amendment Act, 1973, all names which appear on the House of Assembly Electoral Roll are included on the Legislative Council Electoral Roll. Thus, all electors entitled to vote at House of Assembly elections are entitled also to vote at Legislative Council elections. Qualifications for House of Assembly electors are discussed below.

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 Commonwealth Naval, Military or Air Force, or a member of the Mercantile Marine, during any war in which the Commonwealth 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, and is not of unsound mind.

Persons convicted of an offence punishable with imprisonment for one year or more and persons attainted of treason are entitled to the same voting rights as ordinary citizens under the provisions of the Constitutional Act Amendment Act, 1976.

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

Membership

Subject to the exclusions mentioned on pages 69-70 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 through his death, resignation or disqualification and, usually, is filled at a by-election.

Electorates and Electoral Distribution

The present allocation of thirty-three metropolitan and fourteen country electorates for the House of Assembly became operative from 23 August 1977 and was determined by the Electoral Districts Boundaries Commission. Before this date there were twenty-eight metropolitan and nineteen country House of Assembly electoral districts. The first election incorporating the present boundaries was held on 17 September 1977.

The Commission, constituted by the Constitution Act Amendment Act (No. 5), 1975, differs from previous commissions for redistribution of electoral boundaries in that each of those commissions was created by the Parliament to make a single report and recommendation to the Parliament. The boundaries so recommended did not become effective unless the recommendation was approved by the Parliament. However, the present Commission has perpetual succession and a common seal as a corporate entity. The reports made by the Commission do not require validating legislation and become operative three months after publication of the Commission's Order.

Under the Act any elector may, within one month of the Commission's Order, appeal to the Full Court of the Supreme Court.

Officers and their Functions

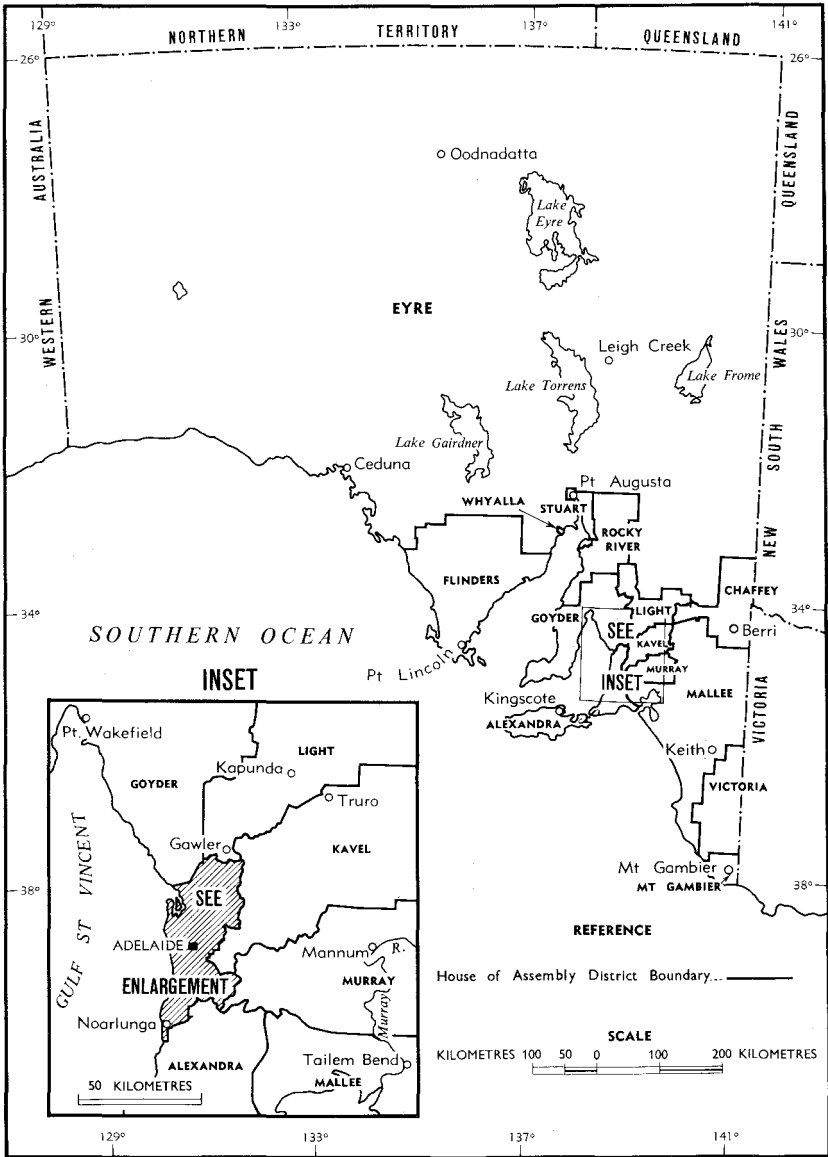
A Speaker presides over the House, and his election is the first business when a Parliament first meets. He presides over debate, maintains order, represents the House officially, communicates its wishes and resolutions, defends its privileges when necessary, and applies its procedure. The Speaker may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

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

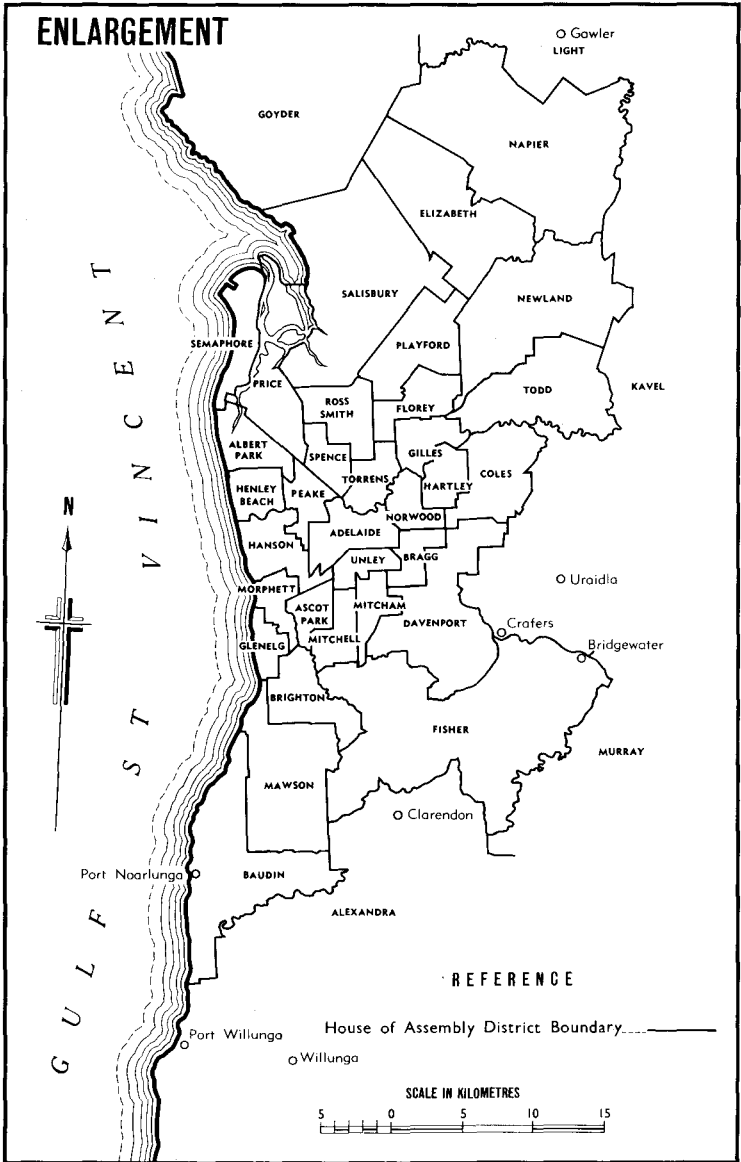
ELECTIONS AND PARTY REPRESENTATION

The following table gives details of the numbers of electors on the Electoral Rolls and voting in contested electorates for all general elections from 1950 to 1979.

SOUTH AUSTRALIA
SOUTH AUSTRALIAN ELECTORAL DISTRICTS
Operative from 23 August 1977



PORTION OF SOUTH AUSTRALIA
SOUTH AUSTRALIAN ELECTORAL DISTRICTS
 Operative from 23 August 1977



South Australian Parliament: Voting at Elections, 1950 to 1979

Date	Legislative Council			House of Assembly		
	Contested Electorates			Contested Electorates		
	Electors Enrolled	Electors Voting	Per Cent	Electors Enrolled	Electors Voting	Per Cent
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	336 529	95.00
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
12 July 1975	771 414	719 753	93.30	771 414	721 770	93.56
17 September 1977				818 335	764 072	93.37
15 September 1979	826 586	765 033	92.55	826 586	768 985	93.03

The following table shows the Party representation in both Houses of the South Australian Parliament resulting from each general election from 1950.

South Australian Parliament: Party Representation at Elections, 1950 to 1979

Date	Legislative Council			House of Assembly		
	ALP	LP	Other	ALP	LP	Other
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	26	18	3
12 July 1975	10	9	2	23	20	4
17 September 1977	10	11	—	27	18	2
15 September 1979	10	11	(a) 1	19	25	(b) 3

(a) Australian Democrats. (b) 1 Australian Democrats, 1 National Country Party, 1 Independent.
ALP Australian Labor Party LP Liberal Party of Australia

At the general election held on 15 September 1979 there were forty-seven electorates represented in the House of Assembly, thirty-three metropolitan and fourteen country. The table below shows the electoral returns for that general election.

House of Assembly: Party Representation, 1979

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
Metropolitan:					
Adelaide	16 288	14 613	Wright, J. D.	ALP	7 436
Albert Park	18 112	16 915	Hamilton, K. C.	ALP	7 901

House of Assembly: Party Representation, 1979 (continued)

Electorate	Electors on Roll	Electors Voting	Successful Candidate		
			Name	Party	First Preference Votes
Metropolitan: (continued)					
Ascot Park	16 432	15 387	Trainer, J. P.	ALP	7 066
Baudin	21 097	19 490	Hopgood, D. J.	ALP	8 918
Bragg	16 716	15 355	Tonkin, Hon. D. O.	LP	9 771
Brighton	18 654	17 434	Glazbrook, R. E.	LP	8 195
Coles	18 416	17 148	Adamson, Hon. J. L.	LP	9 502
Davenport	17 983	16 659	Brown, Hon. D. C.	LP	12 253
Elizabeth	18 583	17 126	Duncan, P.	ALP	8 809
Fisher	20 670	19 484	Evans, S. G.	LP	11 886
Florey	17 770	16 552	O'Neill, H. H.	ALP	7 679
Gilles	17 499	16 376	Slater, J. W.	ALP	7 489
Glenelg	17 058	15 697	Mathwin, J.	LP	9 527
Hanson	17 377	16 147	Becker, H.	LP	9 459
Hartley	18 504	17 278	Corcoran, J. D.	ALP	8 253
Henley Beach	18 417	17 217	Randall, R. J.	LP	7 244
Mawson	21 470	20 334	Schmidt, I.	LP	9 225
Mitcham	16 794	15 699	Millhouse, R. R.	AD	6 947
Mitchell	17 077	15 930	Payne, R. G.	ALP	7 624
Morphett	16 968	15 891	Oswald, J. K. G.	LP	7 959
Napier	17 748	16 145	Hemmings, T. H.	ALP	7 940
Newland	21 401	20 078	Billard, B.	LP	9 661
Norwood	16 670	15 335	Webster, F. R. (a)	LP	6 899
Peake	16 493	15 367	Plunkett, K. H.	ALP	8 319
Playford	18 340	17 217	McRae, T. M.	ALP	7 524
Price	15 885	14 741	Whitten, G. T.	ALP	7 694
Ross Smith	16 031	14 883	Bannon, J. C.	ALP	8 997
Salisbury	20 557	19 172	Arnold, L. M. F.	ALP	10 840
Semaphore	18 029	17 056	Peterson, N. T.	IND	5 106
Spence	15 578	14 461	Abbott, R. K.	ALP	9 502
Todd	18 850	17 719	Ashenden, E. S.	LP	8 478
Torrens	16 684	15 160	Wilson, Hon. M. M.	LP	8 186
Unley	15 892	14 313	Langley, G. R. A.	ALP	6 424
Country:					
Alexandra	18 402	17 179	Chapman, Hon. W. E.	LP	11 584
Chaffey	18 074	17 049	Arnold, Hon. P. B.	LP	9 970
Eyre	15 317	13 644	Gunn, G. McD.	LP	7 856
Flinders	15 932	14 951	Blacker, P. D.	NCP	7 833
Goyder	16 893	15 888	Russack, E. K.	LP	11 772
Kavel	17 923	16 814	Goldsworthy, Hon. E. R.	LP	11 248
Light	16 257	15 323	Eastick, Hon. B. C.	LP	9 412
Mallee	15 552	14 552	Lewis, I. P.	LP	6 488
Mount Gambier .	17 699	16 597	Allison, Hon. H.	LP	8 983
Murray	18 017	16 851	Wotton, Hon. D. C.	LP	10 180
Rocky River	17 071	16 125	Olsen, J. W.	LP	7 669
Stuart	17 038	16 050	Keneally, G. F.	ALP	10 236
Victoria	15 564	14 523	Rodda, Hon. W. A.	LP	9 476
Whyalla	16 602	15 240	Brown, M. J.	ALP	9 173

(a) Following the decision by the Court of Disputed Returns that the election for the seat of Norwood was void, a by-election was held on 16 February 1980. The successful candidate was Mr G. J. Crafter.

ALP Australian Labor Party NCP National Country Party AD Australian Democrats
LP Liberal Party of Australia IND Independent

Speaker : The Hon. B. C. Eastick, MP
Chairman of Committees : G. M. Gunn, MP
Leader of the Opposition : J. C. Bannon, MP
Deputy Leader of the Opposition : J. D. Wright, MP
Government Whip : S. G. Evans, MP
Opposition Whip : D. J. Hopgood, MP
Clerk of the House of Assembly : G. D. Mitchell

The members of the Legislative Council after the general election of 15 September 1979 were as follows:

Blevins, Hon. F. T. (ALP)	Dunford, Hon. J. E. (ALP)
Bruce, Hon. G. L. (ALP)	Foster, Hon. N. K. (ALP)
Burdett, Hon. J. C. (LP)	Griffin, Hon. K. T. (LP)
Cameron, Hon. M. B. (LP)	Hill, Hon. C. M. (LP)
Carnie, Hon. J. A. (LP)	Laidlaw, Hon. D. H. (LP)
Chatterton, Hon. B. A. (ALP)	Levy, Hon. J. A. W. (ALP)
Cornwall, Hon. J. R. (ALP)	Milne, Hon. K. L. (AD)
Creedon, Hon. C. W. (ALP)	Ritson, Hon. R. J. (LP)
Davis, Hon. L. H. (LP)	Sumner, Hon. C. J. (ALP)
Dawkins, Hon. M. B. (LP)	Whyte, Hon. A. M. (LP)
DeGaris, Hon. R. C. (LP)	Wiese, Hon. B. J. (ALP)

President and Chairman of Committees : Hon. A. M. Whyte, MLC
Leader of the Opposition : Hon. C. J. Sumner, MLC
Clerk of the Legislative Council : J. W. Hull

Court of Disputed Returns

In South Australia, provision is made in the Electoral Act, 1929-1976, 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-two petitions referred to it by the House of Assembly concerning the election of twenty-seven members of that House. The Court's decisions in these cases are summarised hereunder:

Election voided and member unseated	16
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 (1970)—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 thirty-three departments. In the following list, the departments have been grouped according to Ministerial control.

PREMIER, TREASURER, MINISTER OF STATE DEVELOPMENT AND MINISTER OF ETHNIC AFFAIRS

Hon. David Oliver Tonkin, MP

Department of the Premier and
Cabinet

Department of the Public Service
Board

Treasury Department

DEPUTY PREMIER AND MINISTER OF MINES AND ENERGY

Hon. Eric Roger Goldsworthy, MP

Department of Services and Supply

Department of Mines and Energy

ATTORNEY-GENERAL AND MINISTER OF CORPORATE AFFAIRS

Hon. Kenneth Trevor Griffin, MLC

Law Department

Department of the Corporate
Affairs Commission

Supreme Court Department

Electoral Department

MINISTER OF INDUSTRIAL AFFAIRS AND MINISTER OF PUBLIC WORKS

Hon. Dean Craig Brown, MP

Department of Industrial Affairs
and Employment

Department of Trade and Industry
Public Buildings Department

MINISTER OF EDUCATION AND MINISTER OF ABORIGINAL AFFAIRS

Hon. Harold Allison, MP

Education Department

Department of Further Education

CHIEF SECRETARY, MINISTER OF FISHERIES AND MINISTER OF MARINE

Hon. William Allan Rodda, MP

Police Department

Department of Fisheries

Department of Correctional Services

Department of Marine

Auditor-General's Department

MINISTER OF LOCAL GOVERNMENT, MINISTER OF HOUSING, MINISTER OF ARTS AND MINISTER ASSISTING THE PREMIER IN ETHNIC AFFAIRS

Hon. Charles Murray Hill, MLC

Department of Local Government

Art Gallery Department

Department for the Arts

MINISTER OF AGRICULTURE AND MINISTER OF FORESTS

Hon. William Edwin Chapman, MP

Department of Agriculture

Department of Woods and Forests

MINISTER OF ENVIRONMENT AND PLANNING

Hon. David Charles Wotton, MP

Department of Environment and Planning

MINISTER OF TRANSPORT AND MINISTER OF RECREATION AND SPORT

Hon. Michael Minell Wilson, MP

Highways Department

Department of Transport

MINISTER OF COMMUNITY WELFARE AND MINISTER OF CONSUMER AFFAIRS

Hon. John Charles Burdett, MP

Department of Public and

Department for Community Welfare

Consumer Affairs

MINISTER OF HEALTH AND MINISTER OF TOURISM

Hon. Jennifer Lilian Adamson, MP

Hospitals Department

Department of Tourism

MINISTER OF WATER RESOURCES, MINISTER OF IRRIGATION, MINISTER OF LANDS AND MINISTER OF REPATRIATION

Hon. Peter Bruce Arnold, MP

Engineering and Water Supply

Department of Lands

Department

SUPREME COURT JUDGES

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. Judges of the Supreme Court at 28 March 1980 were:

Hon. Leonard James King (Chief Justice)	Hon. James Michael White
Hon. Roma Flinders Mitchell, CBE	Hon. Christopher John Legoe
Hon. George Henry Walters	Hon. Brian Rothwell Cox
Hon. Howard Edgar Zelling, CBE	Hon. Robert Finey Mohr
Hon. William Andrew Noye Wells	Hon. Roderick Grant Matheson
Hon. Alexander Keith Sangster	Hon. Donald Carter Williams
Hon. Samuel Joshua Jacobs	

THE OMBUDSMAN

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

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

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

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

During 1979-80, 782 complaints were registered and of those fully investigated, approximately 27 per cent were found to be justified fully or in part.

LEGISLATION

During 1980, 115 Public Acts were passed by the South Australian Parliament. Details of some of the more important legislation passed during this period are given below.

The Bank of Adelaide (Merger) Act, 1980 (No. 59). An Act to provide for the transfer to Australia and New Zealand Banking Group Limited of the undertakings of the Bank of Adelaide and the Bank of Adelaide Savings Bank Limited.

Company Takeovers Act, 1980 (No. 60). An Act to regulate the acquisition of shares in companies incorporated in South Australia.

Constitution Act Amendment Act, 1980 (No. 45) amended the Constitution Act, 1934-1978 to recognise Local Government in the State Constitution.

Environmental Protection Council Act Amendment Act, 1980 (No. 9) amended The Environmental Protection Council Act, 1972 to increase the size of the Council to nine members.

Meat Hygiene Act, 1980 (No. 23). An Act to provide for the licensing of slaughtering works and pet food works; to regulate the standard of hygiene at those works, and the quality of meat and meat products.

Petroleum Shortages Act, 1980 (No. 94). An Act to provide for rationing motor fuel, and other means of conserving petroleum, in the event of shortages of petroleum occurring in the State.

South Australian Heritage Act Amendment Act, 1980 (No. 83) amended the South Australian Heritage Act, 1978-1979 to enable significant aspects of the privately owned cultural and natural environment to be conserved by means other than acquisition or planning controls.

State Disaster Act, 1980 (No. 106) makes provision for the protection of life and property in the event of a disaster.

Supreme Court Act Amendment Act, 1980 (No. 53) amended the Supreme Court Act, 1935-1978 to provide for judges of the Supreme Court to retire on attaining the age of seventy years.

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. L. Rundle A.M.

INTERSTATE REPRESENTATION

The South Australian Tourist Bureau maintains offices at 402 George Street, Sydney, NSW, and at 25 Elizabeth Street, Melbourne, Victoria, to foster and facilitate tourist travel to South Australia.

CONSULAR REPRESENTATIVES

There are 24 countries represented in South Australia by consuls, vice-consuls, consular-agents or consul-generals.

Austria: John A. Nelson, Consul-General

Dr Peter E. Steidl, Vice-Consul

Belgium: Sir Robert E. Porter, Consul (a)

Britain: H. Charles Schmidt, Consul-General

Denmark: Trevor R. Taylor, Consul

Dominican Republic: Peter H. D. Lathlean, Consul

Finland: Colin C. Verco, OBE, Consul

France: Dr Rex J. Lipman, Consul

Germany: Bruce R. Macklin, OBE, Consul

Greece: Athanasios A. Camilos, Consul-General (b)

Nicolaos M. Dictakis, Consular-Agent

Italy: Dr Paolo V. Massa, Consul

Japan: J. Langdon Parsons, Consul-General

Lebanon: Elias G. Nemer, Consul

Liberia: William B. Coombs, Consul

Malaysia: Hassan B. M. Salleh, Consul

Mexico: Robert W. Clampett, Consul

Netherlands: Max L. Liberman, Consul

Norway: John N. Howe, Consul

Peru: Max J. Hill, Consul

Philippines: J. Rolfe Sabine, Consul-General

Thomas P. Fowler, Vice-Consul

Portugal: Raymond F. Walters, Consul (c)

Sweden: Mrs June S. Tanner, Consul

Switzerland: Paul A. Richter, Consul

Thailand: Mrs Joan M. Walton, Consul

United States of America: William J. McGovern, Consular-Agent

(a) Dean of the Consular Corps.

(b) *Consul de Carriere.*

(c) Secretary, Consular Corps.

STATE EMBLEMS

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

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

3.4 PUBLIC CORPORATIONS

A public corporation is defined, for statistical purposes, as a body (other than a local government authority or body whose receipts and payments are included in the public accounts of the Commonwealth, 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 1981 there were 127 local government areas in South Australia. The site of Monarto which was constituted as a municipality under the Monarto Development Commission Act, 1973 with the Commission as the corporation and council of the municipality, reverted to the control of the Department of Lands in December 1980

following the Act's repeal. Each local government area is controlled by a council consisting of members elected by local ratepayers and exercising powers under the Local Government Act, 1934-1980.

The total area incorporated in local government areas at 1 January 1981 was 151 524 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 and 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 127 local government areas at 1 January 1981, 36 were municipalities (including 25 cities) and 91 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 petitions by electors 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 eighteen district councils, Berri, Clare, Gumeracha, Kadina, Kanyaka-Quorn, Kapunda, Karoonda-East Murray, Kingscote, Loxton, Meadows, Millicent, Murat Bay, Murray Bridge, Penola, Strathalbyn, Victor Harbor, Waikerie and Willunga have been granted mayoral status.

Functions of Local Government

The Local Government Act, 1934-1980 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, Roads; health services and Local Boards of Health in Part 6.5, Health; and libraries in Part 6.4, Culture and Recreation. Among the many other functions of local government authorities are the provision 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.

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 elector for the area for which he seeks election. Special magistrates, undischarged bankrupts, persons holding contracts or employment under the council, persons under sentence for crimes, 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

Under the provisions of the Local Government Act, 1934-1980 universal adult franchise applied in local government elections and polls from 2 July 1977. A person is entitled to enrol as an elector if he is resident in a local government authority area, or if he is a ratepayer in respect of ratable property within the area. A body corporate is enrolled under the name of a nominated agent. Recent changes to the Act now provide the right of non-naturalised residents to be enrolled.

Officers and their Functions

Each council may appoint any officers it considers necessary to carry out its duties, including 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 executive officer, and an auditor.

Employment in local government administration is now regarded as a career and councils now require a great range of skilled employment including community development officers, accountants, planning officers, social workers and data processing personnel. 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 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. Continuity of service between councils for long service leave and other purposes is provided for in the Local Government Act. The Minister of Local Government sets a minimum standard of superannuation benefits which must be made available to council employees. Other officers employed in local government are required to hold appropriate qualifications; these include engineers, overseers, building surveyors and inspectors, health surveyors 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 Valuer-General. When this is done a council avoids the necessity of employing a valuer but a fee for each valuation is payable to the Valuer-General. There is no right of appeal to the council against valuations so based; in respect of the Government valuation the right of appeal lies against the Valuer-General 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.

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

The Commonwealth Government makes available to the States for sharing by local government authorities an agreed percentage of income tax collected by the Commonwealth. The basis on which the States make the funds available to local government authorities must be agreed to by the Commonwealth Government and must include an approved distribution on a *per capita* basis with the balance distributed on an equalisation basis. South Australia is making 30 per cent of the State amount available to local government authorities on a *per capita* basis.

The State Government provides funds and subsidies to local government for a wide range of functions including public libraries, recreation centres and facilities, public parks, caravan parks, effluent and stormwater drainage, and roads.

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. Further information is contained in Part 11.5, Local Government Finance.

South Australian Local Government Grants Commission

This body was established in 1976 under the provisions of the South Australian Local Government Grants Commission Act, 1976.

Its main function is to recommend to the Minister the councils to which grants should

be made and the amount of such grants. It has, for the purpose of its inquiries, the powers of a commission appointed under the Royal Commissions Act, 1917.

The Commission is required to ensure that all funds provided are distributed each year and that as far as possible, any grant to a council will be sufficient to enable the council to function at a standard not appreciably below similar councils. The grants recommended by the Commission are required to be free from any direction as to specific use.

The recommendations of the Commission must be forwarded to the Minister who may refer them back requesting further consideration. The Commission is required to reconsider its recommendation in the light of the request and following this the Minister, even though no amendments are made to original recommendations, must approve of those recommendations.

Local Government Advisory Commission

The Local Government Advisory Commission was established by Act of Parliament in 1976. The Commission comprises a Chairman who must be a person holding judicial office, one member being a public servant nominated by the Minister and another member appointed by the Governor.

The Commission is required to investigate and make recommendations on voluntary amalgamations of councils submitted to it and to advise the Minister on any matter relating to any petition or counter petitions referred to it for investigation.

The Commission has the powers of a royal commission.

Outback Areas Community Development Trust

The Outback Areas Community Development Trust Act, 1978 established the Outback Areas Community Development Trust to make funds available to improve community facilities in the isolated centres of the outback unincorporated areas of the State. The Trust is empowered to borrow \$1 million, and works closely with local community and progress associations in the determination of needs and priorities for funding.

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

The Planning and Development Act Amendment Act, 1971 reconstituted the State Planning Authority to include a wider representation of experts in the fields of local government, conservation and aesthetics. Further amendments in 1972, 1973, 1975, 1976 and 1978 provided for the appointment of permanent commissioners to the Planning Appeal Board, made provision for objector appeals, enabled the State Planning Authority to acquire and develop land within the Port Adelaide District Business Zone, prohibited subdivision of land within the Hills Face Zone, brought all land under subdivision control and made large shopping centres in residential areas subject to Ministerial control until 31 December 1979.

Amendments in 1980 extended the duration of interim development controls and required councils to have regard for the provisions of the Metropolitan Centres Supplementary Development Plans from December 1980.

Development in the City of Adelaide is now controlled under the City of Adelaide Development Control Act, 1976. Authorities under the Act are the Corporation of the City of Adelaide, the City of Adelaide Planning Commission and the City of Adelaide Planning Appeals Tribunal.

Development Plans

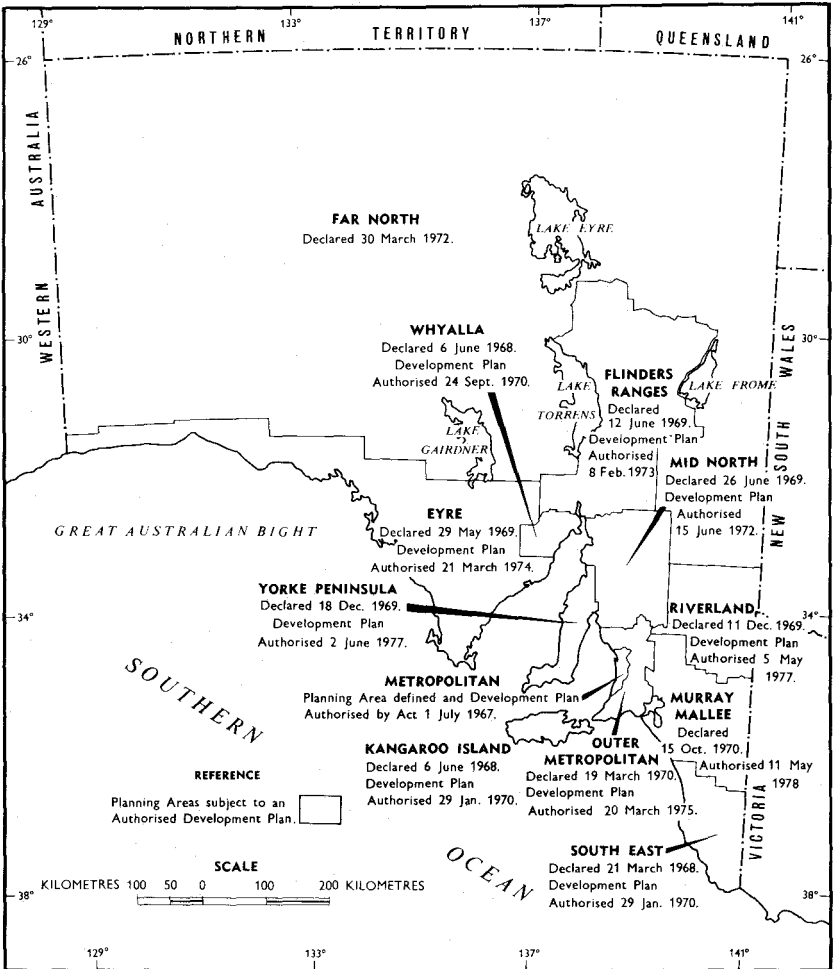
Twelve planning areas have been declared covering the whole of the State. Development plans have been authorised for eleven of these areas, namely, Metropolitan (1 July 1967), South East (29 January 1970), Kangaroo Island (29 January 1970), Whyalla (24 September 1970), Mid North (15 June 1972), Flinders Ranges (8 February 1973), Eyre (21 March 1974), Outer Metropolitan (20 March 1975), Riverland (5 May 1977), Yorke Peninsula (2 June 1977) and Murray Mallee (11 May 1978). The development plan for the remaining area of the State has been available for public inspection since November 1980. In some parts of the State, such as in the Metropolitan area and Whyalla, the planning emphasis is on guiding 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 consideration of any representations, the State Planning Authority submits the development plan to the Minister in its original or amended form. The Minister in turn forwards the plan to the Governor with his recommendation for action.

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

Where existing development plans need to be updated or revised, a similar process is put in motion for the preparation of a supplementary development plan. Reasons for the

SOUTH AUSTRALIA PLANNING AREAS



preparation of supplementary development plans include: bringing forward comprehensive development policies for whole local government areas; allowing for the introduction of large public works; and introducing development control direction where none previously existed.

Considerable planning responsibility is being delegated to local government by the

State government. Many councils therefore are now preparing supplementary development plans for their areas which set out comprehensive policies for forward planning as a basis for council programs and, in addition, for the day-to-day control of development. Many of these plans have been authorised or are in advanced stages of preparation. An up-to-date list may be obtained from the Secretary of the State Planning Authority.

Development Control

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

Most local councils in Metropolitan Adelaide have gazetted zoning regulations to control development within their areas. Outside of Metropolitan Adelaide, the Cities of Mount Gambier, Port Pirie and Whyalla also have gazetted zoning regulations. Many local authorities operate interim development control powers delegated to them by the State Planning Authority.

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 rural character of the area. Also under direct control of the Authority is the extractive industry in those parts of the State under interim development control or with zoning regulations. The Authority has interim development control over the Flinders Ranges, the area around the proposed Redcliff petrochemical works, parts of Kangaroo Island, some small portions of Metropolitan Adelaide and land fronting the River Murray.

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

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 Planning is responsible for the administration of the Planning and Development Act.

Regional Open Space

By 31 December 1980, 4 631 hectares of land had been acquired by the State Planning Authority for major open spaces and regional parks in the Adelaide area at a cost of \$12.09 m. In other parts of the State a total of 4 366 hectares of land had been acquired by the Authority by the end of 1980 at a cost of \$1.6 m.

During 1980, the Authority experienced a cut-back in available funds necessitating curtailment of the land acquisition program. The locations of properties acquired during the year included Maslins Beach, Upper Sturt, Port Adelaide Centre and additional land at Henley Park Reserve, Swan Reach and at the Onkaparinga Estuary.

A series of disastrous bushfires swept through several of the metropolitan reserves in the first three or four months of the year with some reserves being struck two or three times. The koala colony in the newly-acquired Giles Park was destroyed in the fire. A

program of building concrete water tanks at strategic locations for fire fighting purposes was commenced.

Committees were set up to prepare concept plans for Salisbury North and Anstey Hill Reserves.

Development of a mini-park at Chapel Hill, on the southern rim of the Onkaparinga Gorge, was commenced. This park will act both as a trail head for walking tracks through the Gorge and as a picnic ground for tourists and visitors to the winegrowing areas of the Southern Vales.

The State Cabinet authorised a joint venture with the District Council of Port Elliot and Goolwa for development of the Bashams Beach Reserve by the Council as a Regional Park over the next 15 to 20 years. Stage 1 involves substantial Government assistance to the Council in constructing a new caravan park at Port Elliot to provide modern high class facilities. The Council will re-invest a percentage of profits from the new caravan park to develop progressively the whole Regional Park. Allied to this scheme are several opportunities for private investment in tourist accommodation and amenities. Total investment in Stage 1 could total approximately \$1.5 m split evenly between the private and public sectors.

Monarto

A new city, eventually accommodating over 100 000 people, was to be established near Murray Bridge, 80 kilometres south-east of Adelaide.

The Monarto Development Commission, responsible for the implementation of the project, acquired 19 000 hectares of land. Most of the land is now being farmed but extensive areas have been planted with trees and regeneration of natural vegetation has been encouraged. Initial development areas were identified and servicing and subdivisional plans prepared.

Following an earlier deferment, the project was finally cancelled in October 1980, with the passage of the Monarto Legislation Repeal Act, 1980. Investigations are now proceeding to establish those portions of the site to be disposed of, those which will be retained because of valuable vegetation or potential for parks, or those to be set aside for the urban expansion of Murray Bridge.

Coast Protection

The Coast Protection Act, 1972-1978 provides for the conservation and protection of the State's coastline, including its foreshore and beaches. A Coast Protection Board of six members has been established under the chairmanship of the Director of Planning. Its objectives are broadly to protect and restore the coast, to develop any part of it for enjoyment by the public and to carry out research.

The Board makes grants to local government authorities to assist them with projects and to help carry out work within the boundaries of the appropriate coast protection districts. Work could include the provision of boating facilities, protecting embankments, car park areas and other public amenities. Loss of sand from several metropolitan beaches is a major problem and the Board is devoting technical and financial resources to a sand replenishment program.

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

Two coast protection districts, Metropolitan and Yorke, were declared in 1973; Fleurieu coast protection district and South East were declared in 1974 and 1976

respectively. The declaration of the remaining three districts, Eyre, Spencer and Kangaroo Island coast protection districts will follow.

A consultant study of the Fleurieu district, which extends from the northern boundary of the hundred of Myponga to the centre of the Murray Mouth, was completed in 1978 and the draft management plans for the district, together with those for the Metropolitan coast protection district, were displayed for public comment in 1979. A study report for the Yorke district, which includes the coastline from Port Gawler to the northern boundary of the District Council of Port Broughton, has been completed and a draft management plan is now under way. Work was also commenced on a management plan for the South East Coast Protection District during 1979.

In 1979-80 the Coast Protection Board expended \$1 222 000 on foreshore protection, repairs, improvements and restoration and the purchase of land. Much of this work was undertaken by local government bodies who, in many cases, contributed additional funds towards the cost of the works and land.

Department of Environment and Planning

The Department of Urban and Regional Affairs was established in 1977 by the amalgamation of the State Planning Office, the Urban Land Price Control Unit, the Office of the Minister of Mines and Energy and Minister of Planning and the Office of the South Australian Land Commission.

The main functions of the Department were:

- (1) to assist the Minister in promoting more efficient and equitable urban and regional development; and
- (2) to assist the integration of urban and regional development programs and projects of all State Government agencies.

On 7 August 1980, a new Department of Environment and Planning was proclaimed. This Department, formed by the amalgamation of the former Departments of Urban and Regional Affairs and Environment, became operational by the middle of 1981.

Rundle Mall

A special article on the development of Rundle Mall appeared on pages 114-18 of the *South Australian Year Book 1977*.

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,

The Real Property (Registration of Titles) Act, 1945-1975 provides for the small proportion of land remaining under the general law to be converted to the Torrens System and this transition is still in progress in certain areas.

SYSTEMS OF TENURE

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 1980 land in South Australia was occupied as follows:

	Area Hectares	Proportion Per Cent
Area sold, dedicated, etc.;		
Sold	6 234 544	6.33
Free grants	857 083	0.87
Dedicated (a)	132 586	0.13
Under agreement to purchase	51 584	0.05
Total	7 275 797	7.38
Area under lease and licence (b);		
Perpetual	8 758 919	8.89
Pastoral	45 750 781	46.48
Other	519 765	0.53
Total	55 029 465	55.90
Area in occupation		
Remainder of State;	62 305 262	63.28
Lakes and lagoons	3 198 959	3.25
Open for allotment or selection	—	—
Other vacant land (c)	32 933 457	33.47
Total area of State	98 437 678	100.00

(a) Includes State forest reserves.

(b) Includes areas held under Mining Acts.

(c) Includes surveyed roads, railways and other reserves, 9 453 438 hectares; of which 7 948 396 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 62 305 262 hectares.

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 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.

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 19 hectares in 1979-80.

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.

Trust Grants and Reservations

A free grant of Crown lands may be made for any public purpose. Of the 857 083 hectares thus alienated at 30 June 1980, 310 799 hectares had been granted for the Defence Research Centre. 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 1980, there was no forest land 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 1979-80, 69 hectares in irrigation areas were allotted under perpetual leases.

MINING CLAIMS, LEASES AND LICENCES

Legislation

The granting of leases and licences and the pegging of new claims is governed by the Mining Act, 1971-1978. A total of 278 private mines was current at 30 June 1980. Mineral royalties received by the Department of Mines and Energy during 1979-80 amounted to \$5 823 000.

The following table shows tenements held under the Mining Act, 1971-1978 and the Petroleum Act, 1940-1978 for the last five years.

**Tenements Held Under Mining and Petroleum Acts, South Australia
At 30 June**

Particulars	1976	1977	1978	1979	1980
Mineral claims	90	68	334	131	91
Precious stones claims	993	1 222	1 094	1 450	1 484
Leases	1 361	674	1 530	1 393	1 476
Exploration licences	80	120	109	123	231
Petroleum licences and permits	15	5	18	19	23

Minerals Resumed

The mineral rights on private land were resumed by the Crown in July 1972 so that all minerals are the property of the Crown. If minerals (other than extractive minerals) which have been resumed under the Mining Act, 1971-1978 are mined any royalties collected upon the minerals recovered are payable to the person so divested of his property in minerals upon application.

A royalty of 2.5 per cent (5 per cent for extractive minerals) of the value of the

minerals, immediately upon recovery from the earth, is payable to the Minister of Mines and Energy on all minerals (except precious stones) recovered and sold or used for commercial purposes. No royalty is payable on precious stones.

Extractive Minerals

Extractive minerals are defined as sand, gravel, stone, shell, shale or clay but does not include any such minerals that are mined for a prescribed purpose, nor 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, 1971-1978 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.

The royalties collected from the mining of extractive minerals are paid into the Extractive Areas Rehabilitation Fund to be used in rehabilitating land disturbed by mining operations. The Fund may also be used for research into methods of mining engineering and practice with a view to reducing environmental damage or impairment. Receipts into this Fund during 1979-80 amounted to \$579 449.

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 landholder if the land is freehold or held on perpetual lease. Three weeks notice must also be given to any landholder before 'declared equipment' can be used on his land. In either case the landholder 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 landholder.

Exploration licences have a maximum term 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 under conditions which give proper consideration to the protection of the 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 1980 a total of 15 080 hectares of closer settlement lands was 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 Commonwealth 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 Commonwealth Government under the *Wheat Industries Assistance Act* 1938. An amount of \$1 426 000 was allocated to South Australia. By arrangement with the Commonwealth 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 1979-80 amounted to \$26 474.

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 1979-80. The balance of the Fund at 30 June 1980 was \$535 518.

CROWN LANDS DEVELOPMENT

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

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

ASSISTANCE FOR RETURNED SERVICE PERSONNEL

1914-18 WAR

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

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

1939-45 WAR AND KOREA-MALAYA OPERATIONS

War Service Land Settlement

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

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

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

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

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

Particulars	1977	1978	1979	1980
Farms allotted:				
Number	1 032	1 032	1 032	1 032
Area ('000 hectares)	285	285	285	285
Expenditure:				
State	10 210	10 734	10 775	10 838
Commonwealth Government;			\$'000	
Acquisition of land	6 846	6 846	6 846	6 846
Development and improvement of land	31 658	31 650	31 648	31 648
Provisions of credit facilities	43 512	44 290	44 846	45 166
Other	16 537	17 379	17 579	17 625
Total expenditure by Common- wealth Government	98 553	100 165	100 919	101 285
Total expenditure	108 763	110 899	111 694	112 123

The Department of Lands administers the War Service Land Settlement Scheme on behalf of the Commonwealth Government. The Commonwealth Government provides the funds and meets the costs of the scheme with the exception of administration costs and two-fifths of any losses, which 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 Commonwealth 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 1978 by the Department of Lands.

SOUTH AUSTRALIAN LAND COMMISSION

The South Australian Land Commission was established in November 1973 under the provisions of the Land Commission Act, 1973. In its first annual report to 30 June 1974 the Commission stated its objectives as being:

- (1) to stabilise the price of urban land by its active participation in the acquisition, management, development and disposal of land for the whole range of urban uses;
- (2) to divert the flow of land value increments resulting from the conversion of land to urban use or the assumption by land of a potentiality for urban use through community development, to the community;
- (3) to achieve comprehensive and orderly urban development which does not occur when development decisions are taken by individual land owners on the basis of their own personal situations.

Financial assistance has been provided by the Commonwealth Government under the *Urban and Regional Development (Financial Assistance) Act 1974*. At 30 June 1980, the Commission has received advances of \$52 730 572 for the acquisition of land for development purposes. Financial assistance (\$3 484 333 at 30 June 1979) has also been received from the State Government.

Land purchased or acquired by the Commission for urban purposes at 30 June 1980 was 5 020 hectares within localities designated for urban development in the Metropolitan Development Plan, 42 hectares in country towns and 1 747 hectares of land within localities designated for Metropolitan Open Space.

Since first releasing fully serviced housing allotments on to the market on 11 April 1975 at Happy Valley, the Commission has sold, to 30 June 1980, a total of 3 777 allotments from sixteen subdivisions in Salisbury, Meadows, Noarlunga, Marion, Tea Tree Gully, Munno Para and Mount Gambier.

A total of 64 fully serviced allotments were completed during 1979-80.

In addition to subdivisional development, the Commission continues to be involved in several other streams of activity such as, suburban scale planning, community and retail centre planning and development.

An important event for the Commission in 1977-78 was the enactment of the Tea Tree Gully (Golden Grove) Development Act, 1978 and the establishment under the Act of a Development Committee comprising State and local government representatives charged with the responsibility of overseeing the planning and development of the Commission's land holdings of approximately 1 300 hectares in Golden Grove.

During 1979-80 the role of the Commission was reviewed by a Committee established by the South Australian Government. Acting upon the Committee's recommendations the Government decided that the Commission's name would be changed to the South Australian Urban Land Trust and its future role limited to that of an urban land bank.

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 of land, 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

Financial Details

The following table gives details of total advances made to the rural sector by government authorities and balances outstanding at 30 June 1980.

Advances to Settlers, South Australia

Particulars	Advances made during 1979-80	Total Advance at 30 June 1980	Principal Outstanding at 30 June 1980	
			Persons	Amount
	\$'000	\$'000	Number	\$'000
Department of Lands:				
Advances to soldier settlers	—	10 144	97	79
Advances under closer settlements Acts	—	5 461	56	59
Settlement of returned service personnel (1939-45 War) (a)	289	45 090	370	4 316
Advances under Crown Lands Development Act	—	986	40	415
Department of Agriculture:				
Advances in drought affected areas(b)	—	22 618	1 197	14 357
Advances under Marginal Dairy Farms Reconstruction Scheme(a)(b)	—	1 995	125	569
Advances under Rural Industry Assistance Scheme (a)	3 782	50 877	1 680	33 678
Advances under Fruitgrowing Reconstruction Scheme(a)(b)	—	411	218	357
Advances under Beef Industry Assistance Scheme(b)	—	764	52	266
Advances to soldier settlers; Irrigation	—	2 096	33	34
State Bank of South Australia:				
Advances to settlers for improvements (c)	66	4 754	263	1 208
Advances under Vertebrate Pests and Fencing Acts(d)	9	2 996	34	64
Advances under Loans to Producers Acts	5 070	51 824	302	20 176
Total	9 216	200 016	4 467	75 578

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

(b) Currently not operative.

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

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

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.

Farmers Assistance Fund

The Primary Producers Emergency Assistance Act, 1967 provides a means of servicing the essential carry-on requirements of primary producers suffering loss as a result of drought, fire, flood, frost, animal or plant disease, insect pest or other natural calamity. Assistance is given to enable such persons to continue in the business of primary production where no other source of financial assistance is available to them and who, by virtue of the assistance, have a reasonable prospect of being able to continue in the business of primary production.

Payments and/or direct grants may also be made towards the cost of fodder or water for starving stock, including the transport of livestock to and from agistment and for any other purpose deemed necessary.

The first \$3.0 million expenditure in any calamity is to be borne from State funds.

Loans bear interest at the rate charged by the State Bank of South Australia in respect of overdraft loans made to primary producers at the time of making the advance.

Rural Industry Assistance Scheme

The Rural Industry Assistance (Special Provisions) Act, 1971 and Rural Industry Assistance Act, 1977 gave effect to agreements between the Commonwealth and South Australian Governments for a scheme of assistance which provides for carry-on finance, debt reconstruction, farm build-up, farm improvement, rehabilitation and household support 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.

Farm build-up is to assist the process whereby farms which are too small to be profitable can be enlarged to an economic unit.

Farm improvement is intended to assist in restoration of an uneconomic property to economic viability by improving the use of the property without increasing its size.

Rehabilitation and household support measures provide limited assistance to alleviate conditions of personal hardship.

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 Commonwealth Government and at 30 June 1980, \$36 353 000 had been received. The State is liable for the repayment to the Commonwealth Government of 75 per cent of the moneys made available by the Commonwealth Government under the terms of the Rural Assistance (Special Provisions) Act, 1971 and 85 per cent of the moneys advanced under the terms of the Rural Assistance Act, 1977.

Total advances from the Fund by way of repayable loans to 30 June 1980 amounted to \$50 780 000.

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

Rural Industry Assistance: South Australia, Applications and Approvals from Commencement of Operations to 30 June 1980^(a)

Debt reconstruction:	
Applications received	1 360
Applications declined	795
Applications approved	505
Total assistance approved	\$16 430 000
Average assistance approved	\$33 000
Farm build-up:	
Applications received	1 480
Applications declined	591
Applications approved	802
Total assistance approved	\$28 758 000
Average assistance approved	\$36 000
Farm improvement:	
Applications received	103
Applications declined	39
Applications approved	53
Total assistance approved	\$435 000
Average assistance approved	\$8 200
Rehabilitation:	
Applications received/approved	24
Total assistance approved	\$82 500
Expenditure to 30 June 1977	\$77 800
Household support:	
Applications received	61
Applications declined	2
Applications approved	53
Total assistance approved	\$312 000

(a) Commenced 27 May 1971.

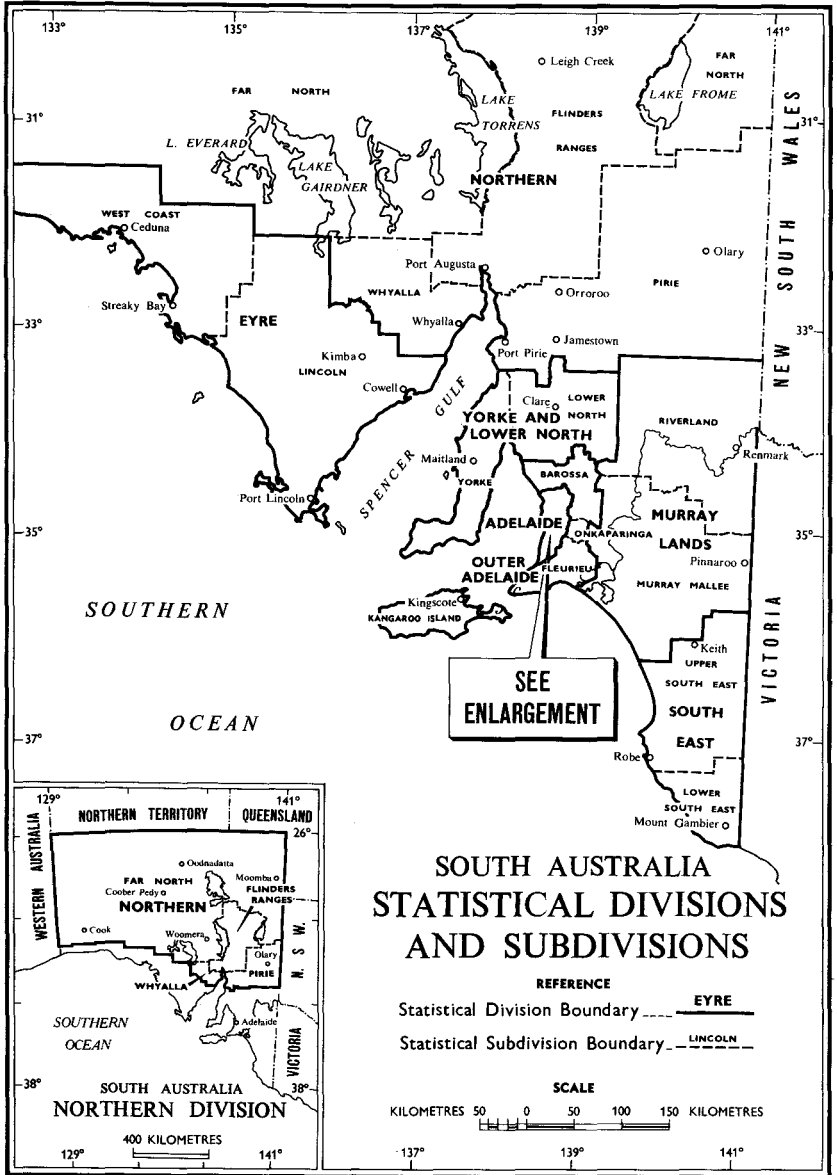
4.3 STATISTICAL DIVISIONS AND SUBDIVISIONS

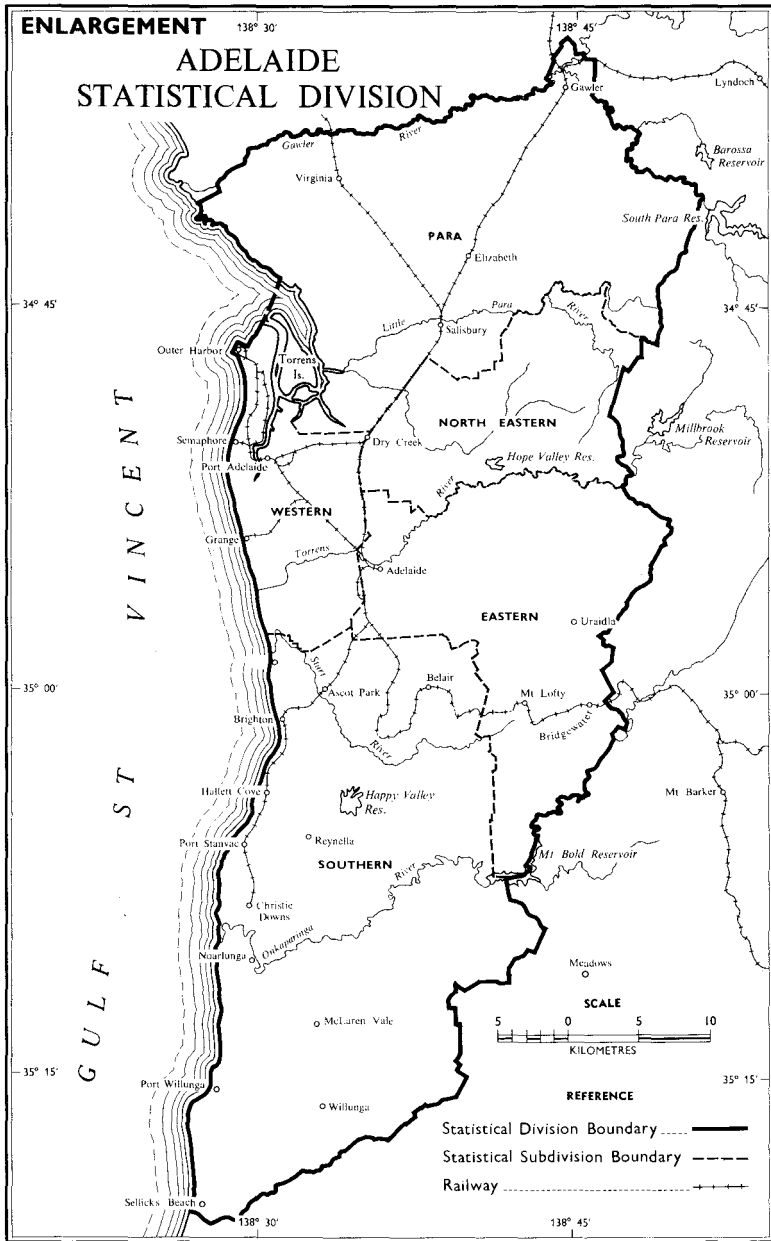
For the purpose of presenting the statistical series of South Australia, the State is divided into a number of areas which are entitled statistical divisions.

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 Commonwealth Government reverted to 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.

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.

These statistical divisions and subdivisions were adopted for the publication of official statistics from 1 January 1971.

CURRENT DIVISIONS AND SUBDIVISIONS

From 1 July 1976 new statistical divisions and subdivisions were adopted for the publication of official statistics. Maps showing the new statistical divisions and subdivisions are included on pages 106 and 107. A more detailed article together with descriptions of the divisions and subdivisions was included on pages 135-43 of the *South Australian Year Book 1977*.

PART 5

POPULATION

5.1 THE CENSUS

PRE-FEDERATION ACTIVITY

Early 'musters'

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 Commonwealth 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 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, 1971, 1976 and 1981. 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, the eighth in 1971, the ninth in 1976, and the tenth in 1981.

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 *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). However, for the 1976 and 1981 Censuses there is facility to extract population details on a *de jure* basis from the local government level to the whole State. 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 the end of June because this time has fulfilled the condition mentioned and is otherwise suitable, being the end of a financial year and of a quarterly period used extensively for statistical purposes.

Scope of the Census

The census covers the population and dwellings of Australia.

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 Aboriginals, pursuant to Section 127 of the Constitution which specifically excluded them from the count of the population.

Diplomatic representatives, families and staffs are still excluded but, following the results of a referendum held in 1967, Section 127 of the Constitution was repealed and full-blood Aboriginals were included in censuses from 1971. In 1971 Census publications, where 1966 figures are also shown, these figures have been amended to include full-blood Aboriginals 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, sublet, or held in different apartments and occupied by different persons or families, each part so let, sublet, or held and used for the purpose of human habitation shall be deemed a dwelling'. Measureable characteristics such as class of dwellings, 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 Aboriginals also were excluded at censuses before 1971.

Before the 1976 Census, all householder's schedules were fully processed. The 1976 Census processing was undertaken in two stages. In the first stage all schedules were processed, with data on the number of males, females and persons extracted, together with some information on marital status, location, age distribution and birthplace. In the second stage, all schedules from non-private dwellings and 50 per cent of those from private dwellings were processed (except for the Northern Territory). The data extracted in the second stage (except that for the Northern Territory) are thus subject to sampling errors. Further details on the nature and extent of such errors may be obtained from the publication *Making Sense of the Census* (Catalogue No. 2129.0).

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 at 30 June 1976 was estimated as 1 261 600 persons.

South Australia's population as recorded at the 1976 Census has been adjusted for underenumeration utilising results from a post-enumeration survey conducted after the census to measure the degree of census error. Net underenumeration was derived by comparing results from the census and the survey and identifying omissions and duplications in the census. Upward adjustment made was 1.35 per cent for 1976. The 1971 Census figure has been adjusted for underenumeration revealed in a similar survey and further revised following reconciliation of intercensal recordings of natural increase and migration, giving a net upward adjustment of 0.99 per cent.

Population: South Australia, Censuses 1844 to 1976

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	491 406	480 081	971 487	24 913	3.13
1966 30 June	550 196	544 788	1 094 984	24 699	2.54
1971 30 June(b)	586 051	587 656	1 173 707	15 745	1.44
1976 30 June(b)	620 162	624 594	1 244 756	14 210	1.21

(a) Excludes full-blood Aborigines before 1961 Census. (b) 1971 and 1976 Census figures have not been adjusted for underenumeration. Adjusted figures were 1 185 300 and 1 261 600 respectively.

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 increases* (which consists mainly of the excess of arrivals over departures, either from overseas or interstate).

Increases in the Population, South Australia^(a)

Period	Recorded Natural Increase			Other Increase(b)			Total Increase
	Males	Females	Persons	Males	Females	Persons	Persons
Annual Average:							
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	(c) 1 787	(c) 1 929	(c) 3 716	(-) 860	(-) 397	(-) 1 257	2 459
1941-1950	(c) 3 977	(c) 4 026	(c) 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	5 980	6 401	12 381	4 206	4 975	9 181	21 562
Year:							
1971	6 487	6 823	13 310	3 204	2 619	5 823	19 133
1972	5 822	6 258	12 080	924	1 113	2 037	14 117
1973	4 973	5 599	10 572	3 942	3 194	7 136	17 708
1974	4 761	5 184	9 945	8 154	8 248	16 402	26 347
1975	4 746	5 293	10 039	(-) 2 456	(-) 3 841	(-) 6 297	3 742
1976	4 376	4 572	8 948	1 106	1 433	2 539	11 487
1977	4 590	4 886	9 476	2 797	2 785	5 582	15 058
1978	4 021	4 774	8 795	(-) 905	(-) 626	(-) 1 531	7 264
1979	4 197	4 620	8 817	(-) 1 613	(-) 1 355	(-) 2 968	5 849

(a) Excludes full-blood Aborigines before 1961. (b) Figures from 1971 exclude short-term overseas migration. (c) Deaths of defence personnel (except those registered on civil registers during 1940 and 1941) not deducted in calculating natural increase.

As from June 1971, intercensal estimates of overseas migration exclude short-term (less than one year) movements, consistent with the measurement of interstate migration. 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.

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:						
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	8.58	20.15	11.79	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 Aboriginals before 1961.

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 1966 however, the State's growth rate has generally been below the Australian rate.

Estimates of the population of the State for the last six 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

Year	Males	Females	Persons	Total Increase for Year	Rate of Growth
					Per cent
1974	625 700	627 900	1 253 600	26 300	2.15
1975	628 000	629 300	1 257 300	3 700	0.30
1976	633 400	635 300	1 268 800	11 500	0.91
1977	640 800	643 000	1 283 800	15 100	1.19
1978	643 900	647 200	1 291 100	7 300	0.57
1979	646 500	650 400	1 297 000	5 800	0.45

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 family allowance procedures or Commonwealth Government electoral procedures, supplemented by results of any special count or sample survey. The estimates above have been revised according to results of the 1971 and 1976 Censuses adjusted for underenumeration.

The estimated mean population for South Australia is calculated for the years ended 30 June and 31 December. Estimates for the last six 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
1974	612 600	614 200	1 226 700	617 000	618 600	1 235 600
1975	621 600	623 500	1 245 100	625 400	627 400	1 252 800
1976	627 600	629 000	1 256 500	630 200	631 700	1 261 900
1977	633 500	635 300	1 268 800	637 400	639 300	1 276 700
1978	640 600	642 700	1 283 300	642 600	645 200	1 287 700
1979	643 700	646 900	1 290 600	645 100	648 700	1 293 800

(a) Figures have been adjusted for underenumeration.

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

Urban Centres

Commencing with the 1966 Census, a boundary has been drawn at each census 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.

When delimiting urban centres of less than 25 000 population the urban centres are determined subjectively (by 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 regarded as part of the centre. For 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 collection districts, the smallest units available, which must have a density of at least 200 persons per square kilometre for inclusion in the urban centre. A gap in urban development of less than three kilometres (by the shortest rail or road distance) is ignored while urban areas three or more kilometres apart are treated as separate even if the gap comprises mainly reserved land or a natural barrier. Particular rules apply to contiguous areas with special functions such as airports, sporting areas and industrial areas which do not meet the density criterion.

The boundary of such an urban centre is thus 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.

Population in Urban Adelaide

At the 1966 Census, Urban Adelaide 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 showed that Urban Adelaide had extended to encompass the whole of the urban area of Reynella-Port Noarlunga as well as fringe development particularly in northern suburbs (see map on page 116).

Urban Adelaide as defined for the 1976 Census comprised 19 complete local government areas and part of each of seven others and totalled 603·2 square kilometres.

Over the past decade there has been a considerable fall in the population of the City of Adelaide, and lesser falls in all of the older municipalities close to the city, namely Prospect, Hindmarsh, Thebarton, Unley, Kensington and Norwood, and St Peters. The greatest proportionate increases in population have occurred in the local government areas of Munno Para and Salisbury (generally north of the city); Campbelltown and Tea Tree Gully (north-east); Meadows, Mitcham and Noarlunga (south-west). Recently, development at West Lakes has brought about a substantial increase in Woodville's population.

Although figures for Urban Adelaide, defined according to the density criteria, are not available for the 1947 and 1954 Censuses, there appears to have been a continual increase in the proportion of the total State population residing in Urban Adelaide until the 1971 Census. At the 1961 Census, the population of Urban Adelaide defined according to the 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 1966 Census.

In 1971, the amalgamation of Urban Adelaide and Urban Reynella-Port Noarlunga, together with the inclusion of further peripheral development, resulted in an increase to 809 482 persons (69 per cent of the State population). At the 1976 Census, Urban Adelaide's share of the total State population was little changed, at just less than 69 per cent.

Urban and Rural Population, South Australia, Censuses 1921 to 1976^(a)

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	728 279	66·51	174 964	15·98	190 167	17·37	1 094 984
1971 ^(d)	809 482	68·97	183 187	15·61	179 148	15·26	1 173 707
1976 ^(d)	857 196	68·85	198 777	15·97	187 546	15·07	1 244 756

(a) Excludes full-blood Aboriginals before the 1966 Census.

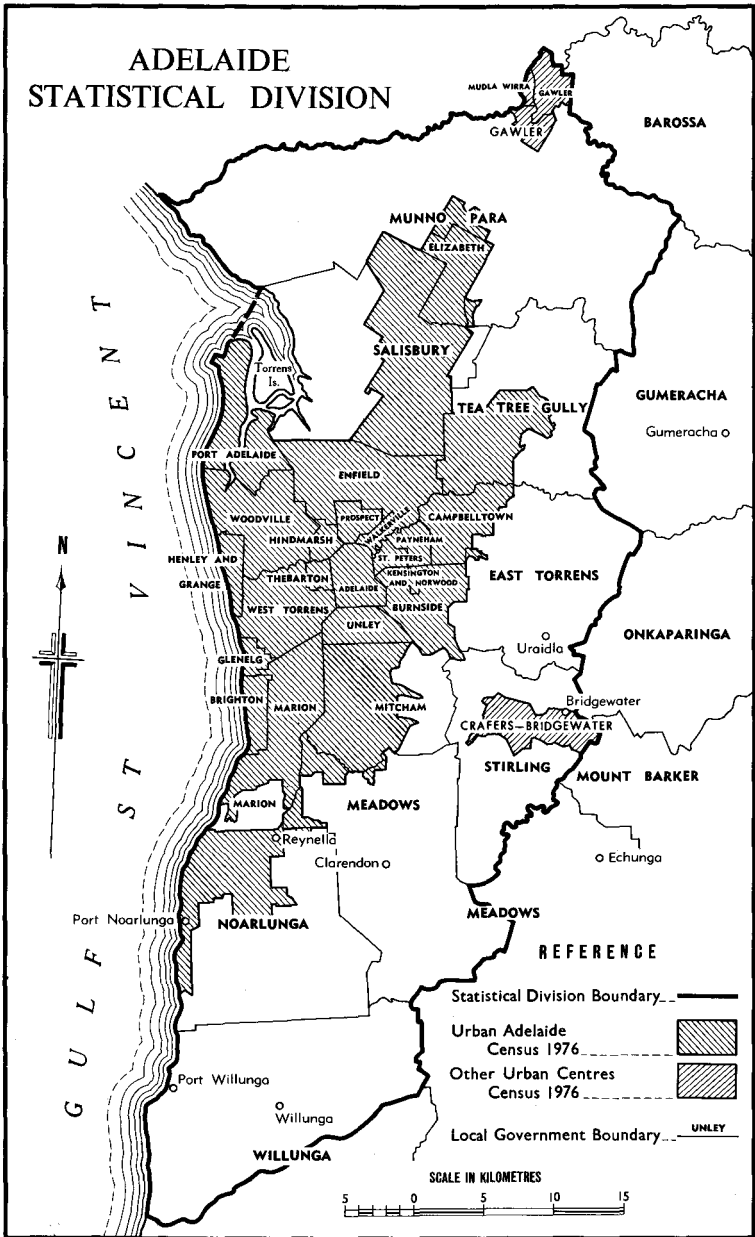
(b) See definition of Urban Adelaide.

(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, 1971 and 1976 figures comprise clusters of 1 000 or more persons and a small number of holiday resorts which are regarded as urban on a dwelling density basis.

(d) The figures are not adjusted for census underenumeration.

Population in Other Urban Centres

Only a very small proportion (16 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 33 426 at the Census of 30 June 1976 is the only such centre in South Australia.

Population of Urban Centres: South Australia, Censuses 1971 and 1976^(a)

Urban Centre	Census at 30 June		Urban Centre	Census at 30 June	
	1971	1976		1971	1976
Adelaide	809 482	857 196	Moonta	1 570	1 751
Angaston	1 813	1 734	Mount Barker	2 475	3 204
Balaklava	1 114	1 237	Mount Gambier	17 934	19 292
Barmera	1 687	1 946	Murray Bridge	7 441	8 740
Berri	2 713	2 890	Naracoorte	4 429	4 571
Bordertown	1 979	1 983	Nuriootpa	2 468	2 808
Burra	1 276	1 201	Penola	1 293	1 254
Ceduna	2 070	2 327	Peterborough	3 023	2 760
Clare	2 099	2 260	Port Augusta	12 224	13 092
Cooper Pedy	1 394	1 903	Port Broughton	508	654
Crafers-Bridgewater	5 308	6 600	Port Elliot	566	768
Crystal Brook	1 181	1 410	Port Lincoln	9 158	10 272
Gawler	6 959	8 596	Port MacDonnell ...	585	712
Goolwa	681	1 148	Port Pirie	15 456	15 005
Jamestown	1 331	1 325	Quorn	1 008	1 048
Kadina	2 828	2 849	Renmark	3 278	3 371
Kapunda	1 261	1 362	Strathalbyn	1 535	1 701
Keith	1 212	1 191	Streaky Bay	914	1 008
Kingscote	1 011	1 121	Tailem Bend	1 982	1 999
Kingston (SE)	1 173	1 250	Tanunda	1 939	2 254
Lobethal	1 377	1 422	Victor Harbor	3 527	4 279
Loxton	2 663	2 786	Waikerie	1 252	1 611
Maitland	1 020	1 017	Walleroo	2 097	2 045
Mannum	2 043	2 137	Whyalla	32 109	33 426
Millicent	5 075	5 471	Woomera	(b) 4 082	2 958

(a) See text for definition of 'urban'. Population figures have not been adjusted for census underenumeration.

(b) Included Maralinga in 1971.

Between 1971 and 1976 most urban centres beyond the Adelaide Statistical Division experienced population growth; this was most evident in the River Murray towns, the Lower South East and the West Coast. The 'Iron Triangle' was somewhat of an enigma in that Whyalla and Port Augusta continued to expand, whereas Port Pirie's population declined.

Statistical Divisions

Around Urban Adelaide a further boundary has been defined. This boundary circumscribes the area in close economic and social contact with the urban centre, 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 116). In addition to Urban Adelaide there are two urban centres within the Adelaide Statistical Division, Urban Gawler and Urban Crafers-Bridgewater.

The six further statistical divisions which have been delineated in South Australia are mainly amalgamations of local government areas. They represent closely allied and meaningful areas of production and community interest. Factors taken into account

when determining their boundaries were differential living zones, patterns of retail shopping, location and nature of industry, transport routes, provincial newspaper circulation, coverage of provincial radio and television stations, spheres of activity of cultural groups and sporting associations.

The population of the Adelaide Statistical Division at the time of the 1966 Census together with estimates at 30 June 1971, 1976 and 1979 is shown in the following table.

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

Local Government Area	Census		Estimates	
	1966	1971	1976	1979
Adelaide (C)	18 619	16 500	13 900	13 400
Brighton (C)	22 638	22 900	21 800	20 700
Burnside (C)	38 776	39 900	39 300	37 800
Campbelltown (C)	32 083	38 100	41 500	42 300
East Torrens (DC)	3 822	4 300	4 900	5 200
Elizabeth (C)	32 956	33 600	34 000	34 300
Enfield (C)	80 336	(b) 78 100	74 400	70 200
Gawler (M)	5 703	5 600	6 200	6 300
Glenelg (C)	14 763	15 500	14 700	14 000
Gumeracha (DC) (part)	(c)	(c)	800	800
Henley and Grange (C)	14 146	16 400	16 900	16 300
Hindmarsh (M)	11 367	10 400	8 800	8 200
Kensington and Norwood (C)	11 943	11 200	9 800	9 400
Light (DC) (part) (d)	155	200	500	700
Marion (C)	66 984	68 600	68 700	69 700
Meadows (DC) (part)	2 824	5 200	12 400	17 900
Mitcham (C)	52 889	58 000	60 300	59 500
Munno Para (DC)	14 279	20 400	22 700	26 200
Noarlunga (C)	14 214	28 700	47 900	57 700
Payneham (C)	16 847	17 800	17 900	17 100
Port Adelaide (C)	39 846	39 300	36 500	36 400
Prospect (C)	21 415	21 100	19 700	18 600
Salisbury (C)	35 766	56 600	78 100	83 800
Stirling (DC)	7 552	8 500	11 100	12 900
St Peters (M)	11 339	10 800	9 400	8 900
Tea Tree Gully (C)	21 315	36 900	55 700	63 300
Thebarton (M)	12 303	11 900	10 400	9 700
Unley (C)	39 735	40 300	37 500	35 700
Walkerville (M)	4 593	(b) 7 300	7 300	7 000
West Torrens (C)	46 233	50 500	48 600	46 100
Willunga (DC) (part)	2 190	2 700	4 200	6 400
Woodville (C)	73 930	73 400	76 200	76 600
Total	771 561	850 700	912 100	933 300

(a) Figures for 1971 and 1976 have been adjusted for Census underenumeration. Hence, figures for 1971, 1976 and 1979 are not strictly comparable with those for 1966.

(b) Comparisons with previous censuses are affected by transfer in July 1970 of the suburb of Vale Park (approximately 2 200 persons) from Enfield (C) to Walkerville (M).

(c) Part of Tea Tree Gully (C) transferred to Gumeracha in July 1976. (d) Mudla Wirra (DC) amalgamated with Freeling (DC) to form Light (DC) in March 1977.

(C) Municipality with city status (M) Municipality (DC) District Council

The estimated population of statistical divisions and subdivisions at 30 June 1971, 1976 and 1979 are shown in the following table.

Estimated Population of Statistical Divisions and Subdivisions, South Australia ^(a)

Statistical Division and Subdivision	30 June		
	1971	1976	1979
Adelaide:			
Para	91 000	108 400	117 500
North Eastern	119 900	145 200	150 300
Western	222 500	216 100	211 100
Eastern	215 700	212 300	208 300
Southern	201 600	230 000	246 100
Total Adelaide	850 700	912 100	933 300
Outer Adelaide:			
Barossa	22 650	25 400	27 200
Kangaroo Island	3 200	3 300	3 500
Onkaparinga	11 300	12 950	14 750
Fleurieu	15 500	17 950	21 300
Total Outer Adelaide	52 600	59 600	66 750
Yorke and Lower North:			
Yorke	20 600	20 950	22 500
Lower North	19 200	19 050	19 000
Total Yorke and Lower North	39 750	40 000	41 500
Murray Lands:			
Riverland	29 300	30 500	31 550
Murray Mallee	28 400	29 750	30 700
Total Murray Lands	57 650	60 250	62 250
South East:			
Upper South East	18 750	18 450	18 800
Lower South East	37 750	40 100	41 500
Total South East	56 450	58 550	60 300
Eyre:			
Lincoln	24 700	26 200	27 600
West Coast	6 200	6 700	7 250
Total Eyre	30 900	32 900	34 850
Northern:			
Whyalla	33 850	35 550	32 250
Pirie	33 050	32 250	32 050
Flinders Ranges	18 500	19 800	21 100
Far North	9 900	9 150	8 100
Total Northern	95 300	96 800	93 500
Total State (including migratory)	1 185 300	1 261 600	1 293 800

(a) The figures have been adjusted for census underenumeration.

Statistical Districts

At the 1976 Census, around each urban centre of at least 25 000 persons, a further boundary (the statistical boundary) was defined to contain the anticipated growth

of the urban centre for a period of at least 20 years. This fixed boundary (as distinct from the urban boundary which is continuously moving) delimits an area which for general statistical purposes is free from the practical problems imposed by a moving boundary, but which nevertheless represents the town or city in a wider sense. In selected cases, statistical district boundaries were delineated around urban centres below 25 000 persons where existing local government area boundaries were clearly inadequate in indicating the extent of urban development.

The estimated population of statistical districts at 30 June 1971, 1976 and 1979 are shown in the following table.

Estimated Population at 30 June: Statistical Districts, South Australia^(a)

Statistical District	At 30 June		
	1971	1976	1979
Mount Gambier	18 300	19 800	20 750
Murray Bridge	8 550	10 150	11 000
Port Augusta	13 200	14 500	15 650
Port Lincoln	9 500	10 400	11 050
Port Pirie	15 650	15 250	14 900
Whyalla	32 550	34 400	31 150

(a) Population figures have been adjusted for census underenumeration.

Projections of the Population

Details of projections of population for South Australia may be found in the publication *Projections of the Population of South Australia* (Catalogue No. 3203.4).

Further References

Additional information may be found in the following publications:

South Australian Office

3201.4 *Population and Dwellings in Local Government Areas*

3203.4 *Projections of the Population of South Australia*

Central Office

2204.0 *Characteristics of Population in Local Government Areas*

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, 1966-1975 which came into operation on 1 January 1968. The administration of the Act is the responsibility of the Principal Registrar of Births, Deaths and Marriages. For registration purposes the State is divided into twenty-two registration districts each of which has a registry office in the charge of a District Registrar.

The Principal Registrar maintains a register of all live births and of all deaths registered in the State and each District Registrar maintains, in a register, duplicate copies of the registrations of births and deaths which occurred in the district under his jurisdiction. Up to the end of 1967 separate registers were kept of still births, which were not included in the registration or statistics of either live births or of deaths. Compulsory registration of still births was introduced in South Australia in 1937.

The current legislation does not require the Principal Registrar to maintain a register of still births, but it provides for a 'Medical Certificate of Cause of Perinatal Death' to be filled in and forwarded to the Principal Registrar by the attending medical practitioner in respect of a 'child not born alive of at least twenty weeks gestation or four hundred grams weight'. The 'perinatal' certificates are also required from attending medical practitioners for children dying within twenty-eight days of birth.

The birth of each live-born child is required to be registered by a parent within sixty days of the date of birth. Registration of a live birth after the expiration of sixty days following the date of birth requires also the payment of a fee and a declaration in a form prescribed by the Act.

A death is required to be registered within fourteen days of the date of death by the occupier of the building or place in which the death occurred. Special provisions and penalties exist for the late registration of a death. A body may not be buried unless the undertaker is in possession of a 'Notice of signing of Medical Certificate of Cause of Death' signed by a medical practitioner or of an order by a coroner for burial, and the undertaker is required within seven days of the disposal of the body to notify the Principal Registrar of such disposal.

Births and deaths of Aborigines when registered are incorporated in registers, but to the end of 1965 were excluded from statistics where there was definite indication that they were of full-blood. Statistics of births and deaths for 1966 and subsequent years cover all registrations.

In accordance with international practice, statistics for a period are on the basis of the births and deaths which were registered during that period. However, numbers registered in a period usually differ from the number of occurrences in the same period and, mainly because of the longer period allowed for registration, such variations generally are more apparent in birth than in death figures.

BIRTHS

The South Australian birth rate per thousand of mean population during 1979 was 14.28 compared with the Australian rate of 15.5 per thousand. This was also the lowest rate recorded by any of the Australian States or Territories for the same period. The lowest ever recorded rate of 14.13 was established in 1935.

Live Births Occurred and Registered, South Australia

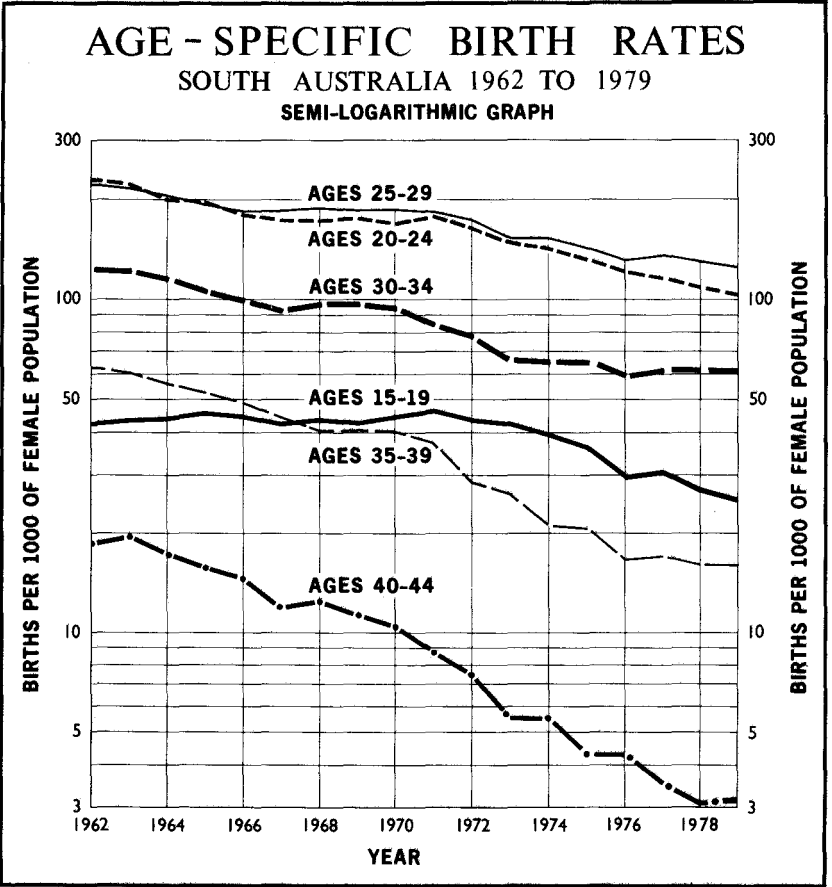
Year	Total Live Births Occurred (a)	Live Births Registered				
		Total	Rate (b)	Males	Females	Masculinity (c)
1974	19 967	20 181	16.33	10 489	9 692	108.22
1975	19 592	19 986	15.95	10 212	9 774	104.48
1976	18 904	18 947	15.02	9 838	9 109	108.00
1977	19 022	19 260	15.09	9 907	9 353	105.92
1978	18 381	18 558	14.41	9 496	9 062	104.79
1979	17 490	18 478	14.28	9 520	8 958	106.27

(a) Figures are subject to the addition of late registrations, particularly to 1979.

(b) Number per 1 000 of mean population. (c) Number of male births per 100 female births.

Age-specific Birth Rates

One significant feature of age-specific birth rates as shown in the following table is that



whereas in 1961, females in the 20-24 years age group accounted for the highest number of births, this can now be attributed to those in the 25-29 years age group. Also, a general decline in the fertility of women of all ages is evident, and this is particularly marked in the older age groups. In accordance with this, total fertility has decreased, reflecting the tendency toward smaller families.

Age-specific Birth Rates and Total Fertility, South Australia^(a)

Year	Age Group (Years)							Total Fertility
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
	Annual Rates							
1961 (b)	46.66	246.12	235.33	135.45	65.04	19.54	1.48	3.75
1966 (b)	44.56	178.73	181.58	99.31	49.30	14.62	0.75	2.84
1971 (b)	46.70	179.03	186.66	82.68	37.14	8.69	0.55	2.71
1972	43.89	164.12	174.75	76.28	28.26	7.54	0.52	2.48
1973	42.72	147.34	154.14	65.16	26.10	5.46	0.58	2.21
1974	39.78	139.79	150.07	64.16	20.93	5.52	0.22	2.10
1975	36.15	135.54	146.27	63.71	20.14	4.37	0.34	2.03
1976 (b)	30.06	126.50	138.97	59.96	17.25	4.26	0.20	1.89
1977	30.12	119.80	145.07	60.59	17.74	3.56	0.15	1.89
1978	27.40	111.48	136.98	61.54	16.83	3.08	0.15	1.79
1979	25.81	105.77	137.50	61.64	16.88	3.16	0.36	1.76

(a) Number of live births per 1 000 of female population in each age group. Excludes particulars of full-blood Aboriginals before 1966. (b) Census year.

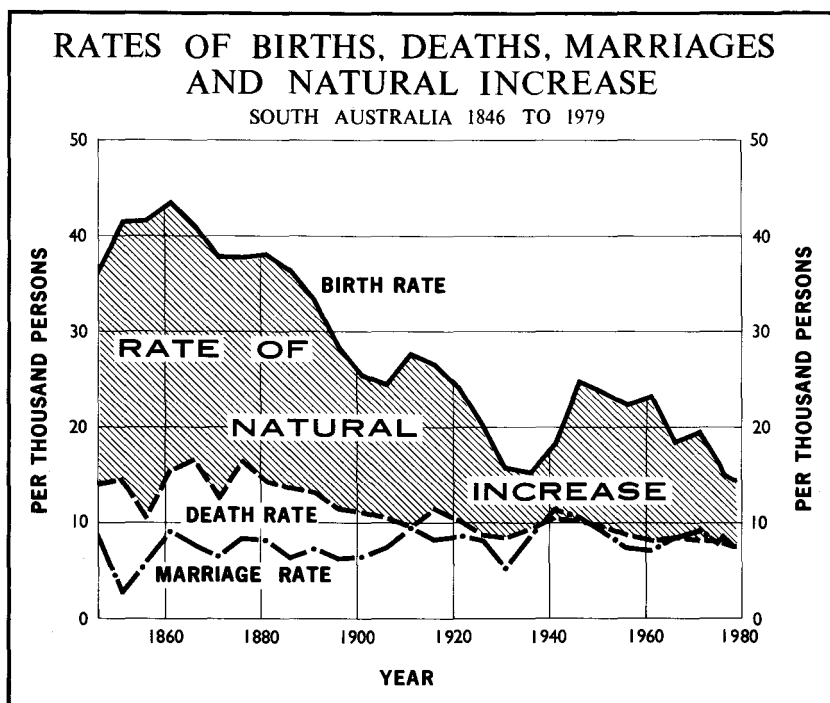
Gross and Net Reproduction Rates

The gross reproduction rate is an indication of the number of live females that can be expected to be born to a woman through her child-bearing period. The net reproduction rate, which is a measure of the degree to which the population can replace itself, is derived from the gross reproduction rate by taking into account the females who fail to survive to the end of their child-bearing period. The following table indicates that the net reproduction rate has been steadily decreasing, reaching a level of 0.851 in 1979. This level is lower than the point at which women produce only one female child to take their place in the reproductive cycle and, excluding the impact of migration, if this trend continues, zero population growth will ultimately be reached. It should be realised, however, that these figures are not a forecast of what can be anticipated but only a hypothetical projection of what would happen if the given conditions upon which they have been based continued to apply.

Gross and Net Reproduction Rates, South Australia^(a)

Year	Gross Reproduction Rate	Net Reproduction Rate	
		Rate	Mortality Experience on which Rate is Based
1961 (b)	1.841	1.781	1960 to 1962 1965 to 1967
1966 (b)	1.368	1.323	
1971 (b)	1.318	1.281	1970 to 1972
1972	1.196	1.162	
1973	1.075	1.044	
1974	1.009	0.981	
1975	0.994	0.966	
1976 (b)	0.907	0.886	1975 to 1977
1977	0.915	0.895	
1978	0.873	0.853	
1979	0.851	0.832	

(a) Excludes particulars of full-blood Aboriginals before 1966. (b) Census year.



Ex-nuptial Births and Legitimations

Since 1960 there has been a marked increase in the number and rate of ex-nuptial births. For the previous forty years, the rate remained relatively steady at about three per hundred live births, but in recent years the rate has increased sharply, reaching a record level of 11.35 per hundred live births in 1979.

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*, 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 Births			Rate per 100 Live Births	Legitimations
	Males	Females	Total		
1975	1 025	918	1 943	9.72	326
1976	906	883	1 789	9.44	350
1977	959	937	1 896	9.84	369
1978	1 038	1 012	2 050	11.05	328
1979	1 087	1 011	2 098	11.35	277

Confinements and Live Births

In the table below confinements in each of the years 1976 to 1979 have been shown in relation to age group of the mother and nuptiality.

Confinements: Age Group of Mother and Nuptiality, South Australia

Age Group (Years)	Number of Confinements (a)				Percentage of Total in each Category			
	1976	1977	1978	1979	1976	1977	1978	1979
NUPTIAL CONFINEMENTS								
10-14	—	—	—	—	—	—	—	—
15-19	1 038	1 003	808	706	6.1	5.8	5.0	4.4
20-24	6 062	5 835	5 363	5 129	35.7	33.9	32.9	31.6
25-29	6 885	7 115	6 733	6 802	40.5	41.3	41.2	42.0
30-34	2 313	2 560	2 748	2 872	13.6	14.9	16.8	17.7
35-39	572	586	566	590	3.4	3.4	3.5	3.6
40-44	122	104	100	101	0.7	0.6	0.6	0.6
45 and over	6	4	5	11	0.0	0.0	0.0	0.1
Not stated	2	3	—	—	0.0	0.0	—	—
Total	17 000	17 210	16 323	16 211	100.0	100.0	100.0	100.0
EX-NUPTIAL CONFINEMENTS								
10-14	15	12	16	13	0.8	0.6	0.8	0.6
15-19	700	757	796	792	39.4	40.3	39.2	38.1
20-24	587	605	674	711	33.0	32.2	33.2	34.2
25-29	288	292	344	350	16.2	15.5	17.0	16.8
30-34	125	137	142	151	7.0	7.3	7.0	7.3
35-39	48	60	53	53	2.7	3.2	2.6	2.6
40-44	14	14	4	7	0.8	0.7	0.2	0.3
45 and over	1	1	—	1	0.1	0.1	—	0.0
Not stated	—	—	—	—	—	—	—	—
Total	1 778	1 878	2 029	2 078	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 1978 and 1979 classified separately for single births and multiple births in which at least one issue was live-born. Multiple births registered in South Australia during 1979 comprised 188 cases of twins and 3 cases of triplets, representing an average of 10.4 multiple confinements per 1 000 confinements.

Confinements and Live Births: Class of Birth, South Australia

Particulars	1978				1979			
	Confinements (a)	Live Births			Confinements (a)	Live Births		
		Male	Female	Total		Male	Female	Total
Nuptial:								
Single births	16 138	8 266	7 872	16 138	16 041	8 244	7 797	16 041
Twins	183	188	175	363	168	186	147	333
Triplets	1	—	3	3	2	3	3	6
Quads	1	4	—	4	—	—	—	—
Total nuptial	16 323	8 458	8 050	16 508	16 211	8 433	7 947	16 380
Ex-nuptial:								
Single births	2 006	1 011	995	2 006	2 057	1 071	986	2 057
Twins	23	27	17	44	20	16	22	38
Triplets	—	—	—	—	1	—	3	3
Total ex-nuptial	2 029	1 038	1 012	2 050	2 078	1 087	1 011	2 098
Total	18 352	9 496	9 062	18 558	18 289	9 520	8 958	18 478

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

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 1979 in the following table.

Confinements: Relative Ages of Parents, South Australia, 1979^(a)

Age Group of Father (Nuptial Births) (Years)	Age Group of Mother (Years)							Total
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over	
Under 20	102	23	1	—	1	—	—	127
20-24	468	1 959	250	25	—	—	—	2 702
25-29	101	2 496	3 742	351	31	—	—	6 721
30-34	25	525	2 335	1 560	100	9	—	4 554
35-39	8	96	365	713	238	23	2	1 445
40-44	2	21	80	166	154	32	1	456
45-49	—	6	18	41	42	27	6	140
50 and over	—	3	11	16	24	10	2	66
Mothers:								
Married	706	5 129	6 802	2 872	590	101	11	16 211
Unmarried	805	711	350	151	53	7	1	2 078
Total	1 511	5 840	7 152	3 023	643	108	12	18 289

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

Between 1969 and 1979 the proportion of nuptial first live births rose from 38.6 to 41.7 per cent of total nuptial births registered. Over the same period the number of fourth or subsequent children born into existing marriages declined from 2 963 to 930, a fall from 14.5 to 5.7 per cent of total nuptial births registered. These figures reflect the decline in the average number of children born into the family unit.

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, 1979**

Duration of Marriage	Number of Confinements (a)	Previous Issue of Marriage						
		0	1	2	3	4	5	6 and Over
Under 1 year	1 432	1 332	92	8	—	—	—	—
1 year	1 552	1 294	233	20	5	—	—	—
2 years	1 919	1 153	714	49	3	—	—	—
3 years	1 904	897	904	98	3	2	—	—
4 years	1 965	769	961	216	15	4	—	—
5 years	1 881	550	937	359	34	1	—	—
6 years	1 592	353	780	387	67	5	—	—
7 years	1 215	198	548	393	66	7	2	1
8 years	878	126	313	328	95	12	2	2
9 years	591	60	167	252	85	21	4	2
10 years	396	35	106	158	81	7	4	5
11 years	257	19	48	111	60	14	4	1
12 years	182	20	27	81	40	9	4	1
13 years	143	7	17	56	36	18	6	3
14 years	209	—	6	26	55	17	5	6
15 years and over	209	12	11	43	28	44	24	20
Total	16 211	6 832	5 864	2 585	673	161	55	41

(a) Includes previous issue not stated.

Nuptial First Live Births: Duration of Marriage of Parents, South Australia

Duration of Marriage	Nuptial First Live Births				Percentage of Total			
	1976	1977	1978	1979	1976	1977	1978	1979
Under 5 months	471	452	440	409	6.60	6.25	6.42	5.99
5 months	212	263	226	226	2.97	3.64	3.30	3.31
6 months	178	179	144	153	2.50	2.47	2.10	2.24
7 months	77	101	59	64	1.08	1.40	0.86	0.94
8 months	91	91	98	83	1.28	1.26	1.43	1.21
9 months	135	155	131	136	1.89	2.14	1.91	1.99
10 months	135	146	109	146	1.89	2.02	1.59	2.14
11 months	128	153	120	115	1.79	2.11	1.75	1.68
Total under 1 year	1 427	1 540	1 327	1 332	20.00	21.29	19.35	19.50
1 year	1 483	1 426	1 397	1 294	20.79	19.71	20.37	18.94
2 years	1 323	1 240	1 225	1 153	18.55	17.14	17.86	16.88
3 years	1 066	1 091	968	897	14.94	15.08	14.11	13.13
4 years	808	799	746	769	11.33	11.04	10.88	11.26
5 years	463	496	529	550	6.49	6.86	7.71	8.05
6 years	246	261	286	353	3.45	3.61	4.17	5.17
7 years	137	170	173	198	1.92	2.35	2.52	2.90
8 years and over	178	210	207	286	2.50	2.90	3.02	4.19
Not stated	2	2	—	—	0.03	0.03	—	—
Total	7 133	7 235	6 858	6 832	100.00	100.00	100.00	100.00

The previous 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 60.55 per cent in 1969 to 38.44 per cent in 1979. A corresponding increase is evident in the two to four years duration of marriage groups;

from 32.27 per cent to 41.26 per cent and from 7.18 per cent to 20.31 per cent in the five years and over group.

DEATHS

The 9 661 deaths registered in South Australia during 1979 represented a crude death rate of 7.46 per thousand of mean population, the lowest yet recorded in this State. Although crude death rates in excess of 16.0 were recorded in the 1860s, the rate has not exceeded 9.0 since 1956. Other fluctuations in the number of deaths and the crude death rate over time can be seen in the Statistical Summary, Appendix A.

Deaths: Numbers Registered and Rates, South Australia

Year	Numbers Registered			Crude Death Rate (a)		
	Males	Females	Persons	Males	Females	Persons
1975	5 466	4 481	9 947	8.74	7.14	7.94
1976	5 462	4 537	9 999	8.67	7.18	7.92
1977	5 317	4 467	9 784	8.34	6.99	7.66
1978	5 475	4 288	9 763	8.52	6.65	7.58
1979	5 323	4 338	9 661	8.25	6.69	7.47

(a) Number of deaths per 1 000 of estimated mean population.

Deaths: Numbers Registered in Age Groups, South Australia

Age Group	Males			Females			Persons		
	1977	1978	1979	1977	1978	1979	1977	1978	1979
Under 1 year	113	138	88	108	89	78	221	227	166
1 year	10	9	13	6	6	7	16	15	20
2 years	5	9	6	4	—	4	9	9	10
3 years	5	10	3	4	—	7	9	10	10
4 years	8	2	1	3	6	4	11	8	5
Total under 5 years ...	141	168	111	125	101	100	266	269	211
5-9 years	18	16	18	27	5	8	45	21	26
10-14 years	21	17	13	10	13	12	31	30	25
15-19 years	93	91	85	36	29	27	129	120	112
20-24 years	86	89	87	29	24	24	115	113	111
25-29 years	81	63	82	19	25	34	100	88	116
30-34 years	48	60	74	29	22	38	77	82	112
35-39 years	68	65	66	32	33	31	100	98	97
40-44 years	77	90	82	54	46	43	131	136	125
45-49 years	187	173	166	97	69	72	284	242	238
50-54 years	273	256	277	158	151	149	431	407	426
55-59 years	429	399	417	177	191	187	606	590	604
60-64 years	583	573	566	282	261	277	865	834	843
65-69 years	700	777	746	390	358	381	1 090	1 135	1 127
70-74 years	743	790	808	528	515	539	1 271	1 305	1 347
75-79 years	714	739	720	664	605	642	1 378	1 344	1 362
80-84 years	528	551	484	735	699	714	1 263	1 250	1 198
85-89 years	372	378	336	658	704	616	1 030	1 082	952
90-94 years	126	147	145	324	325	334	450	472	479
95 years and over	29	33	40	93	112	110	122	145	150
All ages	5 317	5 475	5 323	4 467	4 288	4 338	9 784	9 763	9 661

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 (Years)	Death Rate (b)							
	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72	1975-77
0-4	19.98	9.90	8.09	6.41	5.82	4.58	4.66	3.19
5-9	2.33	1.18	1.00	0.52	0.50	0.44	0.43	0.36
10-14	1.55	1.08	0.68	0.65	0.46	0.55	0.38	0.36
15-19	2.41	1.69	1.42	1.50	1.08	1.19	1.48	1.52
20-24	3.47	2.35	1.44	1.88	1.37	1.33	1.55	1.57
25-29	3.67	2.51	1.59	1.70	1.59	1.34	1.12	1.29
30-34	3.97	2.51	1.88	1.57	1.62	1.13	1.41	1.24
35-39	5.12	3.23	2.41	2.29	2.08	2.23	2.04	1.73
40-44	6.10	4.73	3.63	3.56	3.43	3.27	3.15	2.62
45-49	8.37	6.82	6.12	5.48	5.44	5.71	5.49	5.09
50-54	11.58	9.82	10.74	10.16	9.24	9.59	9.37	8.27
55-59	18.99	15.11	16.28	15.71	15.75	15.92	16.01	13.35
60-64	26.02	24.98	26.08	24.33	24.39	26.69	25.10	22.57
65-69	41.62	36.14	40.08	39.31	37.84	40.55	41.00	36.55
70-74	62.49	57.07	60.79	62.59	59.47	63.86	64.42	55.42
75-79	105.50	92.60	97.69	94.55	88.56	90.71	96.09	86.26
80-84	158.90	147.86	145.56	141.64	135.85	138.50	142.39	136.02
85 and over	269.50	257.03	248.89	235.84	227.39	228.91	230.02	233.90
All ages	10.75	9.29	10.87	9.80	9.00	9.17	9.31	8.58

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

(b) Average annual number of deaths per 1 000 population at ages shown.

Age-specific Death Rates: Females, South Australia^(a)

Age Group (Years)	Death Rate (b)							
	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72	1975-77
0-4	16.29	8.29	7.12	5.01	3.93	3.47	3.39	2.50
5-9	2.30	1.04	0.54	0.45	0.35	0.33	0.32	0.35
10-14	1.32	0.88	0.38	0.42	0.30	0.29	0.29	0.21
15-19	2.71	1.25	0.75	0.52	0.37	0.44	0.65	0.56
20-24	2.91	2.36	1.04	0.63	0.58	0.46	0.48	0.44
25-29	3.95	2.73	1.65	0.85	0.70	0.53	0.60	0.42
30-34	4.18	2.66	1.91	0.99	0.96	0.87	0.91	0.67
35-39	5.27	3.85	2.03	1.79	1.33	1.14	1.18	0.90
40-44	4.99	4.10	3.48	2.56	1.80	2.13	1.86	1.84
45-49	6.42	5.80	4.59	3.65	3.03	3.29	2.95	2.77
50-54	9.18	8.06	7.09	5.88	5.22	4.99	4.60	4.39
55-59	10.65	11.24	10.33	9.04	7.82	7.59	7.41	6.73
60-64	18.07	17.68	14.97	14.06	12.74	12.82	12.16	10.67
65-69	33.15	27.16	25.22	23.01	21.05	20.39	20.32	16.92
70-74	46.20	42.19	42.17	40.35	35.52	35.36	33.42	29.24
75-79	83.56	75.53	72.07	72.20	58.28	60.81	57.60	52.12
80-84	131.63	121.15	121.57	109.92	108.61	100.52	99.42	86.30
85 and over	232.84	233.59	214.35	215.80	199.38	183.88	186.55	186.61
All ages	9.00	8.23	9.19	8.31	7.38	7.42	7.50	7.10

(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 Classification of Diseases (ICD). From time to time revisions to these classifications 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 (ICD6) 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 Australian Statistician in *Demography* 1950, Bulletin No. 68. The Seventh Revision (ICD7) adopted in Australia in 1958, did not affect comparability significantly.

Similarly, the Eighth Revision (ICD8), adopted ten years later in 1968, provided few changes beyond the transfer of some categories, e.g. cerebrovascular disease from diseases of the nervous system to diseases of the circulatory system, and a revised classification for the recording of perinatal morbidity and mortality.

The Ninth Revision (ICD9) was introduced in 1979 and while not departing radically from ICD8 in its structure is more detailed in many classifications. The most significant feature of ICD9 relevant to causes of death is that maternal condition codes from the section 'Certain conditions originating in the perinatal period' are not available for Infant Deaths but may be used for Perinatal Deaths (*see* below).

In the following table deaths registered in 1979 are shown classified according to an abbreviated list, derived from ICD9, which effectively replaces the 'B' list of ICD8. Also included are percentages for each cause and the rate per 10 000 of mean population.

Causes of Death: South Australia, 1979^(a)

Abbreviated Classification (b)	ICD9 Code Number	Number of Deaths	Proportion of Total	Rate per 10 000 of Mean Population
Per cent				
S1 Intestinal infectious diseases	001-009	8	0.1	0.1
S2 Tuberculosis	010-018	2	—	—
S4 Meningococcal infection	036	1	—	—
S6 Septicaemia	038	7	0.1	0.1
S8 Measles	055	1	—	—
S10 All other infective and parasitic diseases	{ Remainder }	8	0.1	0.1
	{ 001-139 }			
S11-S20 Malignant neoplasms	140-208	1 945	20.1	15.0
S21 Benign neoplasms and neoplasms of unspecified nature	210-239	19	0.2	0.1
S22 Diabetes mellitus	250	125	1.3	1.0
S23 Nutritional marasmus	261	1	—	—
S24 Other protein-calorie malnutrition	262, 263	2	—	—
S25 Anaemias	280-285	15	0.2	0.1
S26 Meningitis	320-322	4	—	—
S28 Chronic rheumatic heart disease	393-398	39	0.4	0.3
S29 Hypertensive disease	401-405	100	1.0	0.8
S30 Acute myocardial infarction	410	2 386	24.7	18.4
S31 Other ischaemic heart disease	411-414	605	6.3	4.7
S32 Other forms of heart disease	415, 416, 420-429	538	5.6	4.2
S33 Cerebrovascular disease	430-438	1 239	12.8	9.6
S34 Atherosclerosis	440	164	1.7	1.3
S35 Other diseases of circulatory system	417, 441-459	172	1.8	1.3
S36 Pneumonia	480-486	230	2.4	1.8
S37 Influenza	487	5	0.1	—
S38 Bronchitis, emphysema, asthma	490-493	189	2.0	1.5
S39 Other diseases of respiratory system	{ Remainder }	197	2.0	1.5
	{ 460-519 }			
S40 Ulcer of stomach and duodenum	531-533	61	0.6	0.5
S41 Appendicitis	540-543	3	—	—
S42 Chronic liver disease and cirrhosis	571	137	1.4	1.1
S43 Nephritis, nephrotic syndrome, nephrosis	580-589	48	0.5	0.4
S44 Hyperplasia of prostate	600	6	0.1	—
S46 Direct obstetric death	640-646, 651-676	1	—	—
S48 Congenital anomalies	740-759	68	0.7	0.5
S49 Birth trauma	767	6	0.1	—
S50 Hypoxia, birth asphyxia and other respiratory conditions	768-770	30	0.3	0.2

Causes of Death: South Australia, 1979^(a) (continued)

Abbreviated Classification(b)	ICD9 Code Number	Number of Deaths	Proportion of Total	Rate per 10 000 of Mean Population
			Per cent	
S51 Other conditions originating in the perinatal period	{ Remainder } 760-779	34	0.4	0.3
S52 Symptoms, signs and ill-defined conditions	780-799	85	0.9	0.7
S53 All other diseases	{ Remainder } 001-799	457	4.7	3.5
S54 Motor vehicle traffic accidents	E810-E819	302	3.1	2.3
S55 Accidental falls	E880-E888	84	0.9	0.6
S56 All other accidents	{ Remainder } E800-949	130	1.3	1.0
S57 Suicide	E950-E959	179	1.9	1.4
S58 Homicide	E960-E969	27	0.3	0.2
S59 All other external causes	E970-E999	1	—	—
Total all causes		9 661	100.0	74.6

(a) The classifications are not strictly comparable with previous years following the introduction of ICD9 for 1979 registrations.

(b) No deaths were recorded in 1979 in the following categories: S3 Whooping Cough (033), S5 Tetanus (037), S7 Smallpox (050), S9 Malaria (084), S27 Acute rheumatic fever (390-392), S45 Abortion (630-639), S47 Other complications of pregnancy, childbirth and puerperium (647, 648).

Main Causes of Death: Age Groups, South Australia, 1979

International Classification Number	Age Group and Cause of Death	Number of Deaths	Proportion of Total Deaths in Age Groups	Proportion of Total Deaths from the Specified Cause
			Per cent	Per cent
	0-4 Years			
740-759	Congenital anomalies	51	24.2	75.0
760-779	Certain conditions originating in the perinatal period	70	33.2	100.0
780-799	Symptoms and ill-defined conditions	38	18.0	44.7
E800-E999	Accidents, poisonings, violence	28	13.3	3.9
	Other causes	24	11.4	..
	5-14 Years			
140-208	Malignant neoplasms	12	23.5	0.6
E800-E999	Accidents, poisonings, violence	26	51.0	3.6
	Other causes	13	25.5	..
	15-24 Years			
140-208	Malignant neoplasms	8	3.6	0.4
E800-E999	Accidents, poisonings, violence	185	83.0	25.6
	Other causes	30	13.5	..
	25-34 Years			
140-208	Malignant neoplasms	30	13.2	1.5
E800-E999	Accidents, poisonings, violence	131	57.5	18.1
	Other causes	67	29.4	..
	35-44 Years			
140-208	Malignant neoplasms	64	28.8	3.3
393-398, 410-429	Heart disease	46	20.7	1.3
430-438	Cerebrovascular disease	17	7.7	1.4
E800-E999	Accidents, poisonings, violence	61	27.5	8.4
	Other causes	34	15.3	..
	45-54 Years			
140-208	Malignant neoplasms	187	28.2	9.6
393-398, 410-429	Heart disease	212	31.9	5.9
430-438	Cerebrovascular disease	46	6.9	3.7
E800-E999	Accidents, poisonings, violence	85	12.8	11.8
	Other causes	134	20.2	..
	55-64 Years			
140-208	Malignant neoplasms	423	29.2	21.7
393-398, 410-429	Heart disease	600	41.5	16.8
430-438	Cerebrovascular disease	112	7.7	9.0
E800-E999	Accidents, poisonings, violence	75	5.2	10.4
	Other causes	237	16.4	..

Main Causes of Death: Age Groups, South Australia, 1979 (continued)

International Classification Number	Age Group and Cause of Death	Number of Deaths	Proportion of Total Deaths in Age Groups	Proportion of Total Deaths from the Specified Cause
			Per cent	Per cent
	65-74 Years			
140-208	Malignant neoplasms	608	24.6	31.3
250	Diabetes mellitus	48	1.9	38.4
393-398, 410-429	Heart disease	1 060	42.8	29.7
430-438	Cerebrovascular disease	281	11.4	22.7
440-448	Diseases of arteries, arterioles and capillaries	75	3.0	23.4
490-493	Bronchitis, emphysema, asthma	60	2.4	31.7
E800-E999	Accidents, poisonings, violence	39	1.6	5.4
	Other causes	303	12.2	..
	75 Years and Over			
140-208	Malignant neoplasms	608	14.7	31.3
250	Diabetes mellitus	54	1.3	43.2
393-398, 410-429	Heart disease	1 628	39.3	45.6
430-438	Cerebrovascular disease	775	18.7	62.6
440-448	Diseases of arteries, arterioles and capillaries	211	5.1	65.7
490-493	Bronchitis, emphysema, asthma	96	2.3	50.8
E800-E999	Accidents, poisonings, violence	93	2.2	12.9
	Other causes	676	16.3	..

The long-term trends in deaths and death rates from some of the main causes are discussed in the following pages. 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

In 1956 a poliomyelitis immunisation program 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.

Deaths from certain infectious diseases over the period 1915 to 1979 are shown in the following table.

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

Period	Respiratory Tuberculosis	Typhoid Fever	Scarlet Fever	Diphtheria	Whooping Cough	Acute Poliomyelitis	Measles
Annual Average:						(b)	
1915-19	339	311	4	94	21		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
1970-74	8	—	—	—	—	—	—
1975-79	2	—	—	—	—	—	1

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

Period	Respiratory Tuberculosis	Typhoid Fever	Scarlet Fever	Diphtheria	Whooping Cough	Acute Poliomyelitis	Measles
Year:							
1975	4	—	—	—	—	—	—
1976	3	—	—	—	—	—	1
1977	2	—	—	—	—	—	—
1978	1	—	—	—	—	—	1
1979	2	—	—	—	—	—	1

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

(b) Not separately recorded.

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. This latter group, which accounted for 185 of the 1 945 deaths attributed to malignant neoplasms in 1979, includes such diseases as lymphosarcoma, Hodgkin's disease, leukaemia and multiple myeloma.

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	1960	1965	1970	1975	1979
	Number				
Malignant neoplasm of:					
Lip, oral cavity and pharynx	21	20	35	33	46
Digestive organs and peritoneum	425	479	546	583	594
Respiratory and intrathoracic organs (b)	130	201	291	381	436
Skin	28	34	44	48	57
Breast	120	107	146	171	172
Uterus	66	61	52	55	48
Other female genital organs	39	47	63	61	51
Male genital organs	74	84	110	142	116
Urinary organs	67	88	79	88	91
Brain and nervous system	32	50	43	54	58
Other and unspecified sites	48	84	83	107	91
Neoplasms of lymphatic and haematopoietic tissue	97	128	160	187	185
Total deaths	1 147	1 383	1 652	1 910	1 945
	Rate (c)				
Lip, oral cavity and pharynx	0.22	0.19	0.30	0.27	0.36
Digestive organs and peritoneum	4.50	4.50	4.72	4.71	4.59
Respiratory and intrathoracic organs (b)	1.38	1.89	2.51	3.08	3.37
Skin	0.30	0.32	0.38	0.39	0.44
Breast	1.27	1.01	1.26	1.38	1.33
Uterus	0.70	0.57	0.45	0.44	0.37

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

Site of Disease	1960	1965	1970	1975	1979
	Rate (c)				
Malignant neoplasm of:					
Other female genital organs	0.41	0.44	0.54	0.49	0.39
Male genital organs	0.78	0.79	0.95	1.15	0.90
Urinary organs	0.71	0.83	0.68	0.71	0.70
Brain and nervous system	0.34	0.47	0.37	0.44	0.45
Other and unspecified sites	0.51	0.79	0.72	0.86	0.70
Neoplasms of lymphatic and haematopoietic tissue	1.03	1.20	1.38	1.51	1.43
Total rate	12.14	13.00	14.26	15.43	15.04

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

(b) Includes intrathoracic organs for ICD9 only.

(c) Per 10 000 of mean population.

Malignant Neoplasms: Age-specific Death Rates, South Australia ^(a)

Age Group (Years)	Death Rate (b)						
	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72	1975-77
	MALES						
0-4	—	0.49	1.18	1.02	1.14	1.27	0.88
5-14	0.12	0.51	1.05	0.82	0.97	0.79	0.45
15-24	0.31	0.07	1.64	0.86	0.90	0.90	0.85
25-34	1.05	1.18	1.21	1.33	1.62	1.24	1.79
35-44	3.36	2.57	4.63	4.29	3.72	5.36	3.69
45-54	8.65	12.35	10.42	11.57	15.09	14.80	14.48
55-64	35.41	32.77	33.43	36.52	43.46	43.94	42.23
65-74	89.18	82.62	69.54	83.67	87.28	101.64	101.49
75 and over	147.57	148.98	149.45	142.29	151.06	175.14	196.61
All ages	11.40	13.60	12.54	12.86	14.09	15.69	16.45
	FEMALES						
0-4	0.30	0.41	1.24	0.79	0.57	0.57	0.13
5-14	0.13	0.23	0.34	0.79	0.55	0.38	0.51
15-24	0.25	0.40	0.72	0.46	0.82	0.56	0.45
25-34	1.49	1.74	1.99	2.16	1.70	2.39	1.46
35-44	6.32	4.42	5.95	6.66	5.68	4.88	5.27
45-54	16.86	15.39	12.67	16.69	16.14	15.83	14.26
55-64	34.61	30.12	32.91	28.19	30.33	30.90	30.06
65-74	55.98	57.21	52.26	52.24	49.90	55.38	51.11
75 and over	115.15	108.52	98.41	99.76	94.61	102.54	112.27
All ages	11.37	13.12	12.64	12.68	12.30	13.13	13.44

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

(b) Average annual number of deaths per 10 000 of population at ages shown.

The next table indicates a general increase in deaths from malignant neoplasms up to 1978 and the preceding table of age-specific death rates shows how the rate has increased for older age groups. Therefore, it appears that the increase over the period in the all ages rate is attributable in part to the increasing number of elderly people.

Deaths from Malignant Neoplasms, South Australia ^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
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
1970-74	958	784	1 742	15.94	13.06	14.50
1975-79	1 079	840	1 919	16.97	13.15	15.06
Year:						
1975	1 052	858	1 910	16.82	13.68	15.25
1976	994	837	1 831	15.77	13.25	14.51
1977	1 066	855	1 921	16.72	13.37	15.05
1978	1 184	804	1 988	18.43	12.46	15.44
1979	1 101	844	1 945	17.07	13.02	15.04

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

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

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.

Deaths from Cerebrovascular Disease, South Australia ^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
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
1970-74	582	808	1 390	9.72	13.46	11.59
1975-79	547	780	1 327	8.60	12.22	10.42
Year:						
1975	570	834	1 404	9.11	13.29	11.21
1976	566	799	1 365	8.98	12.65	10.82
1977	561	776	1 337	8.88	12.12	10.47
1978	541	751	1 292	8.42	11.64	10.03
1979	497	742	1 239	7.70	11.45	9.58

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

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

Although the rate generally has fallen since 1954, deaths from this cause still constituted 18.7 per cent of deaths of persons aged seventy-five years and over in 1979. During the period 1930-34 deaths classified to this cause were only 8.6 per cent of all deaths, but during 1975-79 they were 13.5 per cent of all deaths.

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 1940.

The percentage of total deaths classified to heart disease increased from 25.5 per cent in the period 1940-44 to 36.55 per cent during 1975-79. 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 should be made only with caution.

Deaths from Diseases of the Heart, South Australia ^(a)

Period	Number of Deaths			Death Rate (b)		
	Males	Females	Persons	Males	Females	Persons
Annual Average:						
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
1970-74	2 080	1 503	3 583	34.70	25.02	29.85
1975-79	2 043	1 550	3 593	32.12	24.28	28.19
Year:						
1975	2 034	1 531	3 565	32.52	24.40	28.46
1976	2 080	1 589	3 669	33.01	25.16	29.08
1977	2 017	1 552	3 569	31.62	24.28	27.96
1978	2 034	1 561	3 595	31.65	24.20	27.92
1979	2 051	1 517	3 568	31.80	23.40	27.59

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

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

External Causes

In the table which follows, deaths from selected categories of external cause (accidents, poisonings and violence) are shown for recent years.

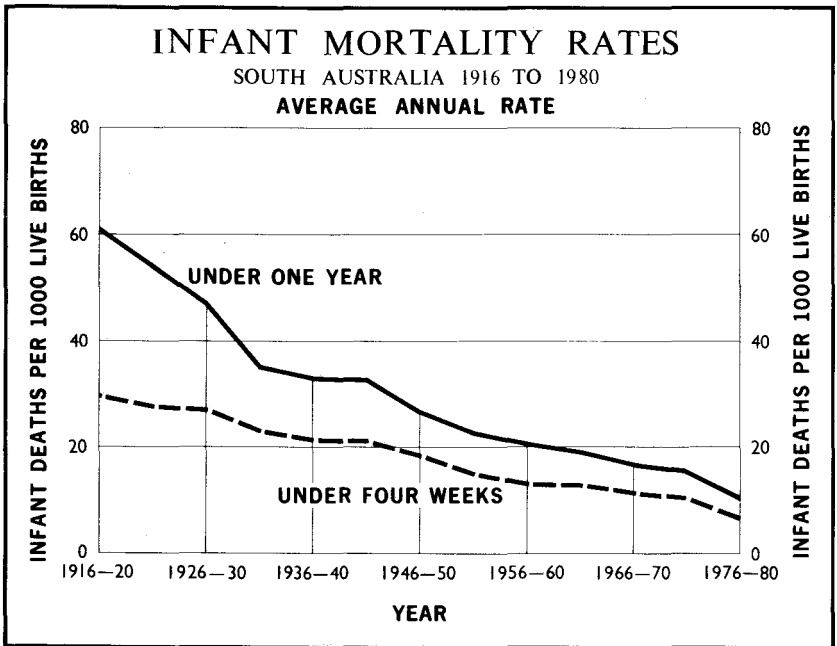
Motor vehicle traffic accidents account for considerably fewer deaths than those caused by either heart disease, cerebrovascular disease or malignant neoplasms although it is comparable with these other major causes when considered in terms of 'life years lost'. In 1979 there were 223 deaths from all causes of persons in the 15-24 years age group and of these 52.0 per cent were caused by motor vehicle accidents.

Deaths: External Causes (Accidents, Poisonings and Violence), South Australia

Year	Cause							Total Deaths for Category
	Motor Vehicle Traffic Accidents	Accidental Drownings	Accidental Poisonings	Accidental Falls	Suicide (Intentional) Self-inflicted Injury	Homicide and Injury Purposely Inflicted	Other External Causes	
MALES								
1975	249	41	3	48	103	9	77	530
1976	222	28	9	36	105	8	69	477
1977	232	20	4	37	101	16	73	483
1978	218	25	12	26	116	16	89	502
1979	229	28	4	33	132	16	72	514
FEMALES								
1975	82	5	2	59	46	9	34	237
1976	74	13	1	48	41	14	27	218
1977	96	9	2	54	28	8	29	226
1978	79	3	3	40	39	11	23	198
1979	73	5	1	51	47	11	21	209

Deaths: External Causes (Accidents, Poisonings and Violence), Age Groups South Australia, 1979

Age Group	Cause							Total Deaths for Category
	Motor Vehicle Traffic Accidents	Accidental Drownings	Accidental Poisonings	Accidental Falls	Suicide (Intentional) Self-inflicted Injury	Homicide and Injury Purposely Inflicted	Other External Causes	
MALES								
Under 15 years	13	9	—	—	1	1	10	34
15-24 years	96	7	3	3	33	3	6	151
25-34 years	51	1	—	1	25	2	19	99
35-44 years	18	3	1	1	16	4	4	47
45-54 years	16	5	—	4	28	3	7	63
55-64 years	18	1	—	3	19	3	13	57
65-74 years	11	2	—	3	5	—	5	26
75 years and over	6	—	—	18	5	—	8	37
Total	229	28	4	33	132	16	72	514
FEMALES								
Under 15 years	10	3	—	—	—	1	6	20
15-24 years	20	1	—	1	5	3	4	34
25-34 years	12	—	—	1	11	5	3	32
35-44 years	6	—	—	—	7	—	1	14
45-54 years	7	—	1	1	9	2	2	22
55-64 years	7	1	—	—	10	—	—	18
65-74 years	5	—	—	2	4	—	2	13
75 years and over	6	—	—	46	1	—	3	56
Total	73	5	1	51	47	11	21	209



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 11·67 in 1975-79. In 1979 the rate was 8·98. The number of infant deaths and infant death rates for selected years since 1851 are shown in the Statistical Summary, Appendix A.

The fall in infant mortality is attributable to many factors, but the most important are reflected in the falling neo-natal death rate. This is partly because of better pre-natal care and obstetric management, which have led to safer births, and to the neo-natal intensive care units at major maternity hospitals which have brought about a high survival rate for small and immature infants.

Statistics of infant mortality shown in the following table are inclusive of the neo-natal segment of perinatal deaths which are discussed in the following paragraphs. It should be noted that owing to reconciliation difficulties between the sources of information from which the data is compiled, minor differences may be noted when comparing neo-natal deaths with infant deaths under four weeks shown in this section.

Infant Mortality: Age at Death, South Australia

Year	Under 1 Day	1 Day and under 1 Week	1 Week and under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 12 Months	Total under 12 Months	
							Number	Rate (a)
MALES								
1975	56	26	7	16	15	9	129	12.63
1976	59	35	17	21	20	13	165	16.77
1977	47	22	9	10	14	11	113	11.41
1978	51	22	11	15	23	16	138	14.53
1979	31	14	6	14	16	7	88	9.24
FEMALES								
1975	35	11	13	11	12	11	93	9.52
1976	47	26	8	15	8	7	111	12.19
1977	43	23	15	11	10	6	108	11.55
1978	37	8	3	23	10	8	89	9.82
1979	29	15	5	14	13	2	78	8.71
PERSONS								
1975	91	37	20	27	27	20	222	11.11
1976	106	61	25	36	28	20	276	14.57
1977	90	45	24	21	24	17	221	11.47
1978	88	30	14	38	33	24	227	12.23
1979	60	29	11	28	29	9	166	8.98

(a) Rate per 1 000 live births.

The causes of infant deaths in 1979 classified according to age group are shown in the following table.

Infant Mortality: Causes in Age Groups, South Australia, 1979

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 (000-139)	—	—	1	—	—	1
Diseases of nervous system and sense organs (320-389)	—	—	1	—	1	2
Diseases of respiratory system (460-519)	—	—	—	—	—	—
Congenital anomalies (740-759)	28	5	6	8	—	47
Perinatal causes:						
Disorders relating to short gestation and unspecified, low birthweight (765)	21	—	—	—	—	21
Birth trauma (767)	5	—	1	—	—	6
Intrauterine hypoxia and birth asphyxia (768)	7	—	—	—	—	7
Respiratory distress syndrome (769)	6	—	—	—	—	6
Other respiratory conditions (770)	12	3	1	—	1	17
Other perinatal causes (Rem. 764-779)	10	2	1	—	—	13
Sudden death (cause unknown) (798)	—	1	15	16	4	36
All other diseases	—	—	1	2	—	3
Accidents, poisonings, violence (E800-E999)	—	—	1	3	3	7
Total all causes	89	11	28	29	9	166

PERINATAL DEATHS

Perinatal deaths comprise:

- (a) *Fetal deaths* : a child born not alive, of at least twenty weeks gestation or 400 grams weight;
 (b) *Neo-natal deaths* : a live-born child dying within twenty-eight days after birth.

Legislation which became effective from the beginning of 1968 requires a Medical Certificate of Cause of Perinatal Death to be filled in by the attending medical practitioner and forwarded to the Principal Registrar. Before 1968 neo-natal deaths were not separated for registration purposes from other deaths. However, from 1937 to 1967 a separate register of all still births (fetal deaths) was maintained by the Principal Registrar; registration of a still birth was compulsory and related to any child which after the twenty-eighth week of gestation did not breathe or show any signs of life at any time after being completely expelled from its mother. Only total numbers of the registered still births were recorded and no detailed statistics were compiled.

**Live Births, Fetal Deaths, Neo-natal Deaths and Perinatal Deaths
South Australia**

Year	Live Births	Perinatal Deaths					
		Fetal		Neo-natal		Total Perinatal	
		Number	Rate (a)	Number	Rate (b)	Number	Rate (c)
MALES							
1975	10 212	92	8.93	89	8.72	181	17.56
1976	9 838	107	10.76	111	11.28	218	21.92
1977	9 907	89	8.90	78	7.87	167	16.71
1978	9 496	96	10.01	84	8.85	180	18.77
1979	9 520	89	9.26	51	5.36	140	14.57
FEMALES							
1975	9 774	97	9.83	59	6.04	156	15.80
1976	9 109	103	11.18	81	8.89	184	19.97
1977	9 353	89	9.43	81	8.66	170	18.00
1978	9 062	82	8.97	48	5.30	130	14.22
1979	8 958	74	8.19	49	5.47	123	13.62
PERSONS							
1975	19 986	189	9.37	148	7.41	337	16.70
1976	18 947	210	10.96	192	10.13	402	20.98
1977	19 260	178	9.16	159	8.26	337	17.34
1978	18 558	178	9.50	132	7.11	310	16.55
1979	18 478	163	8.74	100	5.41	263	14.11

(a) Fetal death rate is the number of fetal deaths per 1 000 of the total of live births and fetal deaths.

(b) Neo-natal death rate is the number of neo-natal deaths per 1 000 live births.

(c) Perinatal death rate is the number of perinatal deaths per 1 000 of the total of live births and fetal deaths.

Despite the improvements which have already been achieved infant and perinatal mortality still presents one of the most challenging areas for medical and scientific research. For example, Rh incompatibility is now a declining cause of death as a direct result of prophylactic immunisation. In Adelaide, research on placental efficiency and fetal anoxia has enabled pre-natal detection of impending danger, so that treatment can prevent damage or death of the fetus. Falling death rates attributable to placental disorders and anoxia is evidence of this.

With the introduction of the Ninth Revision of ICD in 1979 provision exists for the classification of perinatal deaths according to the main disease or condition in both the child and the mother as illustrated in the table below.

Perinatal Deaths: Causes of Death, South Australia

Cause of Death	1979
Main disease or condition in child:	
Slow fetal growth, fetal malnutrition and immaturity (764-5)	34
Birth trauma (767)	5
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	88
Fetal and neo-natal haemorrhage (772)	4
Haemolytic disease of fetus or newborn (773)	5
Other conditions originating in the perinatal period (Rem. 764-779)	75
Congenital anomalies (740-759)	51
Infectious and parasitic diseases (001-139)	—
All other causes (140-739, 780-799, E800-E999)	1
Total	263
Maternal condition:	
Maternal conditions which may be unrelated to present pregnancy (760)	12
Fetus or newborn affected by maternal complications of pregnancy (761)	33
Fetus or newborn affected by complications of placental cord and membranes (762)	92
Fetus or newborn affected by other complications of labour and delivery (763)	4
No maternal condition reported	122
Total	263

EXPECTATION OF LIFE

The expectation of life at age x is defined as the average number of years lived after age x by each 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, 1966 and 1971.

Expectation of Life, Australia

Age	1901-10	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72
MALES								
0	55.2	59.2	63.5	66.1	67.1	67.9	67.6	67.8
5	57.9	60.4	62.6	63.8	64.3	64.8	64.4	64.5
10	53.5	56.0	58.0	59.0	59.5	59.9	59.5	59.7
15	49.0	51.4	53.4	54.3	54.7	55.1	54.6	54.8
20	44.7	47.0	48.8	49.6	50.1	50.4	50.0	50.2
25	40.6	42.7	44.4	45.0	45.5	45.8	45.4	45.6
30	36.5	38.4	39.9	40.4	40.9	41.1	40.7	40.9
35	32.5	34.2	35.5	35.8	36.3	36.5	36.0	36.2
40	28.6	30.1	31.1	31.2	31.7	31.8	31.4	31.6
45	24.8	26.0	26.9	26.8	27.2	27.4	27.0	27.1
50	21.2	22.2	22.8	22.7	22.9	23.1	22.8	22.9
55	17.7	18.5	19.0	18.8	19.0	19.2	18.8	18.9
60	14.3	15.1	15.6	15.4	15.5	15.6	15.3	15.4
65	11.3	12.0	12.4	12.3	12.3	12.5	12.2	12.2
70	8.7	9.3	9.6	9.6	9.6	9.8	9.5	9.5
75	6.6	6.9	7.2	7.2	7.3	7.5	7.3	7.3
80	5.0	5.0	5.2	5.4	5.5	5.6	5.5	5.5

Expectation of Life, Australia (continued)

Age	1901-10	1920-22	1932-34	1946-48	1953-55	1960-62	1965-67	1970-72
FEMALES								
0	58.8	63.3	67.1	70.6	72.8	74.2	74.2	74.5
5	60.8	63.6	65.6	67.9	69.6	70.8	70.6	71.0
10	56.4	59.2	61.0	63.1	64.8	65.9	65.8	66.1
15	51.9	54.6	56.3	58.3	59.9	61.0	60.8	61.2
20	47.5	50.0	51.7	53.5	55.1	56.2	56.0	56.4
25	43.4	45.7	47.2	48.7	50.2	51.3	51.2	51.5
30	39.3	41.5	42.8	44.1	45.4	46.5	46.3	46.7
35	35.4	37.3	38.4	39.5	40.7	41.7	41.6	41.9
40	31.5	33.1	34.0	34.9	36.0	37.0	36.9	37.2
45	27.6	29.0	29.7	30.5	31.4	32.3	32.3	32.6
50	23.7	24.9	25.6	26.1	27.0	27.9	27.8	28.1
55	19.9	21.0	21.6	22.0	22.8	23.6	23.6	23.8
60	16.2	17.2	17.7	18.1	18.8	19.5	19.5	19.7
65	12.9	13.6	14.2	14.4	15.0	15.7	15.7	15.9
70	10.0	10.4	11.0	11.1	11.6	12.2	12.2	12.4
75	7.6	7.7	8.2	8.3	8.7	9.2	9.2	9.4
80	5.7	5.6	6.0	6.0	6.3	6.7	6.7	6.9

Further References

Additional information may be found in the following publications:
South Australian Office

- 3301.4 *Births*
- 3302.4 *Deaths*
- 3303.4 *Perinatal Deaths*

Central Office

- 3301.0 *Births*
- 3302.0 *Deaths*
- 3303.0 *Causes of Death*
- 3304.0 *Perinatal Deaths*

5.4 MIGRATION

Powers and Legislation of the Commonwealth Government

Under the Constitution, the Commonwealth Parliament is empowered to make laws on immigration, emigration, aliens and the influx of criminals. Immigration into Australia is regulated by the *Migration Act 1958*, which came into force on 1 June 1959. The *Aliens Act 1947*, 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 and Ethnic Affairs. Under the provisions of the *Australian Citizenship Act 1948* aliens may, upon application, be granted citizenship; generally, this is after three years residence but may be earlier under certain circumstances. Legislation and conditions of immigration into Australia and of naturalisation are discussed in detail in *Year Book Australia*.

Assisted Migration

From early colonial times free or assisted passages were given to large numbers of migrants from Britain, and to lesser numbers from other countries. Responsibility for

migrant recruitment and transport was originally with the Colonial Governments, then the States, and in 1920-21 was transferred to the Commonwealth Government.

After the 1939-45 War, Australia and Britain entered into agreements to provide free passages for ex-servicemen and assisted passages for other British migrants. The first agreement ended in 1955, but the assisted passage agreement continued until 1972. Since then Australia has provided unilateral assistance for British migrants.

Large-scale assisted migration from Europe began with Australian participation in the resettlement of Displaced Persons under the auspices of the International Refugee Organisation. Agreement with a number of European countries, either directly or through the agency of the Inter-governmental Committee for European Migration, resulted in a preponderance of European assisted migration to Australia over the next twenty-five years. During this time Australia developed unilateral arrangements to assist other migrants from Europe, the United States and elsewhere.

Since May 1973, there has been a uniform policy on assisted migration from all countries. Assisted passages are now only given to skilled tradesmen and refugees.

Refugees now comprise about one-quarter of Australia's total immigration program. Australia is committed to taking 14 000 Indo-Chinese refugees which will bring the number resettled in Australia since mid-1975 to 51 000 by 30 June 1981. In general, those selected from transit camps have immediate relatives in Australia or have other special qualities which will assist their integration into Australian society—*e.g.*, an occupation in demand or knowledge of English. Those who arrive in refugee boats without prior authority have their claims for Refugee Status determined by the Minister for Immigration and Ethnic Affairs, on recommendation from the Determination of Refugee Status Committee. Of the 11 513 Indo-Chinese refugees who arrived in Australia in the twelve months ending July 1979, 825 stated on arrival that their proposed destination was South Australia.

Assisted settler arrivals from January 1947 to December 1977 totalled 2 052 817, of whom 1 139 154 arrived under British schemes. Of the total, 230 711 stated on arrival that their proposed destination was South Australia.

Overseas Arrivals and Departures

Since 1924 the movements of overseas travellers have been classified into two main categories according to declared intention regarding residence short-term and long-term (including permanent). For short-term movements, overseas visitors and Australian residents are identified separately.

The principal categories of travellers according to stated purpose of travel are:

Permanent movement ; consisting of people 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; and the departure of visitors and the return of Australian residents who have stayed (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.

The following table gives details for 1979 of overseas arrivals and departures of people whose State of residence had been or was intended to be South Australia. For departures, State of residence refers to the State in which the traveller regards himself as living or as last having lived. State of intended residence for arrivals is derived from the intended address given by settlers and Australian residents returning after a journey

abroad. Particularly in relation to settlers, this information does not necessarily refer to the State in which a traveller will eventually establish a permanent residence.

**Overseas Arrivals and Departures: Mode of Transport and Category of Traveller
State of Residence, South Australia, 1979**

Category of Traveller	By Sea		By Air		Total
	Males	Females	Males	Females	
ARRIVALS					
Assisted settlers	—	—	604	545	1 149
Other settlers	21	19	1 255	1 430	2 725
Total permanent	21	19	1 859	1 975	3 874
Long-term residents returning	60	46	2 060	1 933	4 099
Long-term visitors arriving	7	7	795	554	1 363
Total permanent and long-term	88	72	4 714	4 462	9 336
Short-term residents returning	760	812	38 473	39 620	79 665
Short-term visitors arriving	156	214	13 229	12 558	26 157
Total arrivals	1 004	1 098	56 416	56 640	115 158
DEPARTURES					
Former settlers	69	76	658	681	1 484
Other residents	19	13	393	408	833
Total permanent	88	89	1 051	1 089	2 317
Long-term residents departing	115	114	2 027	1 922	4 178
Long-term visitors departing	3	3	635	453	1 094
Total permanent and long-term	206	206	3 713	3 464	7 589
Short-term residents departing	762	894	38 534	38 522	78 712
Short-term visitors departing	55	104	11 916	13 317	25 392
Total departures	1 023	1 204	54 163	55 303	111 693

Australian Citizenship

The status of 'Australian Citizen' was created under the *Nationality and Citizenship Act 1948* which came into force on 26 January 1949. The relevant Act is now the *Australian Citizenship Act 1948* and under its provisions all migrants, regardless of origin, are required to satisfy uniform requirements for the granting of citizenship.

In the table which follows, numbers of migrants granted citizenship are shown according to previous citizenship. From 1974 citizens of Britain (and colonies) and other Commonwealth nations were included for the first time. Before 1 December 1973 these people were granted citizenship by registration.

Previous Citizenship of Persons Granted Australian Citizenship, South Australia

Nationality	1974	1975	1976	1977	1978	1979
Austrian	14	41	29	37	30	15
Britain and colonies, citizens of	238	5 430	5 011	2 526	2 198	1 864
Cypriot	4	57	72	30	56	108
Czechoslovak	57	111	29	37	21	9
Danish	7	18	31	11	12	22

Previous Citizenship of Persons Granted Australian Citizenship, South Australia
(continued)

Nationality	1974	1975	1976	1977	1978	1979
Dutch	108	258	187	120	103	64
Finnish	19	31	27	33	14	17
French	35	91	60	75	65	35
German	132	416	275	142	137	152
Greek	671	1 520	964	698	473	374
Hungarian	22	41	37	29	24	13
Indian	20	99	78	36	44	43
Irish	1	68	60	22	38	24
Italian	435	1 109	1 092	769	672	489
Lebanese	27	95	89	79	43	37
Malaysian	19	60	61	45	55	70
Maltese	3	117	53	49	50	68
New Zealander	1	18	29	22	17	19
Polish	71	109	85	61	92	56
Singaporean	19	16	21	17	31	10
South African	15	65	56	50	32	31
Spanish	27	68	92	62	30	29
Turkish	16	57	30	19	11	25
US American	25	37	20	14	20	8
Yugoslav	224	673	502	537	445	387
Stateless	34	54	33	44	34	75
Other	131	369	272	426	362	372
Total	2 375	11 028	9 295	5 990	5 109	4 416

Entry for Residence

From January 1975, all people living overseas other than New Zealand citizens who wish to come to Australia as settlers have had to obtain visas for entry. Under a reciprocal agreement with New Zealand, citizens of that country may enter Australia without prior authority and if travelling direct from New Zealand are not required to hold passports.

Australian migration policy enables consideration to be given to 'family reunion' applications which involve spouses and unmarried dependent children under twenty-one years of age and aged parents of permanent residents of Australia.

Sponsorship is necessary and nominations may also be accepted for parents of working age provided that they are regarded as able to maintain themselves satisfactorily in Australia without becoming a charge on public funds. People whose entry is approved within the scope of 'family reunion' rules are required to meet only health and character requirements.

Nominations in favour of, or applications from, refugees, displaced persons or those whose circumstances warrant special consideration on compassionate grounds may be considered under relaxed eligibility rules and selection standards in the light of their particular circumstances.

Citizens of Britain, Ireland or Canada may be considered for entry on a sponsored or unsponsored basis where close association with a permanent resident of Australia or a former close association with Australia can be shown. The people concerned must be self-supporting with the intention of retiring in Australia, and be able to meet all migrant standards excluding the need to have specific skills or qualifications.

Applications may be lodged overseas by intending migrants seeking entry on the basis of their having skills, qualifications, personal and other qualities which represent a gain to Australia and which are conducive to successful settlement. Applicants in this category must meet normal entry requirements, including favourable assessment of their employment prospects. Australian employers may nominate workers from overseas provided they are not available locally and the terms and conditions offered meet Australian awards and conditions.

Temporary Entry

Persons seeking to enter Australia for reasons other than settlement may be considered under the policies of the Commonwealth Government relating to visitors, students and temporary residents.

Visitors

Visas are issued free of charge overseas with minimal formality and delay to applicants seeking to make genuine visits to Australia for short periods for purposes such as tourism, business, visiting relations or friends and pre-arranged medical treatment. Persons granted visit visas are made aware through information notes and a declaration they sign as part of the visa application that they are not entitled to undertake employment or studies and that they are required to leave Australia at the end of their authorised period of stay.

Overseas students

Australia has a comprehensive program of aid to under-developed countries involving the sponsorship of students. This program is the responsibility of the Minister for Foreign Affairs and is administered by the Australian Development Assistance Bureau. Each year the Bureau brings to Australia substantial numbers of mainly post-graduate students undertaking formal studies, and trainees who participate in short extensive courses, seminars or workshops.

The private overseas student policy is aimed at providing opportunities for people from overseas to acquire qualifications and skills, especially in fields where Australia has developed a special expertise, that will be of value to the student in pursuing a career in the homeland. This is to the benefit of the student and the home country but at the same time the scheme is an important element in the development of cultural exchange and fostering of international understanding and goodwill.

The private overseas scheme provides students with full-time courses of study at Australian educational institutions; specialised full-time courses at private institutions such as pilot training, secretarial studies and computer courses; employment designed to provide on-the-job training for the acquiring and updating of skills; special English language courses; and exchange arrangements between students of Australian and overseas schools and universities.

Temporary Residents

The policy of the Commonwealth Government is that opportunities for employment in Australia are to be available as a first priority to Australian residents.

Temporary residence visas may, however, be issued to overseas persons to enter Australia for limited periods to engage in pre-arranged specialised activities. Persons who may receive such visas include senior management personnel possessing expertise not available locally; academic staff; members of religious organisations; and entertainers and sportsmen, both individuals and groups.

Generally, action for the granting of visas is initiated in Australia by the organisation or entrepreneur which seeks the temporary entry of the persons concerned. Persons

seeking temporary residence for periods in excess of twelve months are required to meet the health and character standards which apply to migrant entry.

Ethnic Affairs

The Department of Immigration and Ethnic Affairs is responsible through its Ethnic Affairs Branch for developing policies and programs designed to promote and secure the integration of new settlers. These policies emphasise the principles of equal opportunity, cultural diversity and social cohesion in our multicultural society. Action has been taken through the Ethnic Liaison Officer Scheme to ensure that all Commonwealth Government services take account of the special needs of migrants and that migrants have equal access to, and information on, the services provided by the Commonwealth Government. The Australian Ethnic Affairs Council advises the Minister for Immigration and Ethnic Affairs on matters relating to the integration of migrants into the Australian community.

Education

The Commonwealth Government funds a national adult migrant education program which includes information to help new arrivals learn about living in Australia and opportunities for English language learning. That program, which started in the late 1940s has developed over the years. It has been revised and strengthened with the acceptance by the Commonwealth of the recommendations of the Galbally Report particularly those relating to the teaching of English to migrants.

The program is divided into two distinct phases: the on-arrival initial settlement phase and the on-going phase. The initial settlement phase is directed to new arrivals to provide the first English language learning opportunities for recently arrived migrants and refugees. Bilingual information instructors also provide information about living in Australia in the home language of new arrivals to the extent practicable.

There has been a significant increase in the size and number of education and settlement centres in hostels to accommodate language courses for hostel residents. Accommodation in the community and the hostels is continuing to be developed to meet the needs of new arrivals who go straight into private accommodation in the community and to provide accommodation for some of the follow-up courses and other learning activities in the on-going phase of the program.

The on-going phase of the program aims at providing subsequent and sequential learning opportunities. These are provided without cost to migrants, and include day and evening classes, part-time and full-time courses, correspondence, television lessons, and courses at the workplace. A voluntary home tutor program helps men and women who are unable to take advantage of other learning opportunities.

For the most part courses in the adult migrant education program in South Australia are conducted by the State Adult Migrant Education Service. These are fully funded by the Commonwealth through the Department of Immigration and Ethnic Affairs.

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. Census technology and coverage have changed over the years, reducing comparability between censuses. Examples are the inclusion of full-blooded Aboriginals for the first time in 1966, and the introduction of sample processing in 1976. The latter may result in minor differences between the sum of estimated components and estimated totals, and between totals in different tables.

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 supply basic material for the calculation of fertility rates, mortality rates, annuity rates and probabilities of survival.

Age distribution of the population at the two most recent censuses after adjustment for underenumeration are given in the following table. Large absolute changes in population occurred in the age groups 25-29, which increased by 25 151, and 0-4 and 40-44, which fell by 7 896 and 7 773 respectively. The movement in the older 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. The decrease in the lower age group can in part be explained by the sharp decline in fertility in recent years.

The median age of the population of South Australia at the 1954 Census was 29·6 years, falling to 28·3 at the 1961 Census. After allowing for adjustment for underenumeration this trend continued and at 30 June 1971 the median age had fallen to 27·4 years (males 26·7 and females 28·1). However by 30 June 1976 it was estimated to have risen to 28·6 years (males 27·9 and females 29·2).

Estimated Age Distribution of Population, South Australia, 1971 and 1976^(a)

Age Last Birthday (Years)	30 June 1971			30 June 1976			Increase Persons
	Males	Females	Persons	Males	Females	Persons	
0-4	57 056	53 517	110 573	53 037	49 818	102 855	(-) 7 718
5-9	59 521	56 653	116 174	57 951	54 860	112 811	(-) 3 363
10-14	59 638	58 473	118 111	60 388	56 664	117 052	(-) 1 059
15-19	53 803	53 151	106 954	59 757	58 478	118 235	11 281
20-24	51 487	49 245	100 732	53 764	52 998	106 762	6 030
25-29	40 608	38 961	79 569	52 624	52 096	104 720	25 151
30-34	35 598	35 026	70 624	42 953	41 314	84 267	13 643
35-39	33 302	32 336	65 638	36 658	36 106	72 764	7 126
40-44	38 323	35 433	73 756	33 556	32 427	65 983	(-) 7 773
45-49	37 743	36 434	74 177	37 923	35 118	73 041	(-) 1 136
50-54	31 944	31 027	62 971	36 609	36 009	72 618	9 647
55-59	29 180	29 273	58 453	30 590	30 203	60 793	2 340
60-64	22 207	24 124	46 331	26 741	28 214	54 955	8 624
65-69	16 496	19 097	35 593	19 615	22 947	42 562	6 969
70-74	11 403	15 584	26 987	13 327	17 127	30 454	3 467
75-79	7 316	12 473	19 789	8 000	12 829	20 829	1 040
80-84	4 229	7 675	11 904	4 113	8 800	12 913	1 009
85-89	1 679	3 583	5 262	1 738	4 069	5 807	545
90 and over	460	1 230	1 690	537	1 606	2 143	453
Total	591 993	593 295	1 185 288	629 881	631 683	1 261 564	76 276

(a) Population adjusted for underenumeration.

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 since then has continued to fall.

Proportional Age Distribution of Population, South Australia, 1901 to 1976

Year	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

Proportional Age Distribution of Population, South Australia, 1901 to 1976 (continued)

Year	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								
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(a)	29.8	63.2	7.0	28.4	61.5	10.1	29.1	62.4	8.5
1976(a)	27.2	65.3	7.5	25.5	63.8	10.7	26.4	64.5	9.1

(a) Population adjusted for underenumeration.

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 (a)	99.8
1891	105.6	1976 (a)	99.7

(a) Figures adjusted for underenumeration.

Before the 1971 Census the only census at which masculinity was less than 100 was 1947. 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 was 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 six Censuses 1947 to 1976.

Masculinity of Population According to Age, South Australia

Age Last Birthday (Years)	Census				Estimate	
	1947	1954	1961	1966	1971	1976
0-4	104.30	104.46	103.21	105.73	106.61	106.46
5-9	106.18	104.85	104.98	104.01	105.06	105.63
10-14	104.60	105.38	105.75	105.26	101.99	106.57
15-19	100.43	105.27	105.55	104.70	101.23	102.19
20-24	95.29	113.81	109.21	103.05	104.55	101.45
25-29	96.70	111.99	110.23	104.00	104.23	101.01
30-34	99.26	106.65	110.78	105.49	101.63	103.97
35-39	101.27	105.80	105.31	108.13	102.99	101.53
40-44	107.23	107.05	104.86	104.43	108.16	103.48
45-49	99.93	110.99	107.65	104.45	103.59	107.99
50-54	89.83	104.54	106.49	104.43	102.96	101.67
55-59	96.52	91.53	105.42	101.79	99.68	101.28
60-64	93.65	87.94	88.90	97.59	92.05	94.78
65-69	88.05	87.80	77.48	80.52	86.38	85.48
70-74	83.07	81.72	78.01	68.46	73.17	77.81

Masculinity of Population According to Age, South Australia (continued)

Age Last Birthday (Years)	Census				Estimate	
	1947	1954	1961	1966	1971	1976
75-79	77.76	73.53	71.88	69.06	58.65	62.36
80-84	70.90	66.71	62.44	60.33	55.10	46.74
85-89	65.19	62.38	59.06	52.12	46.86	42.71
90 and over	56.17	53.08	40.60	41.25	37.40	33.44
All ages	98.16	102.72	102.32	100.99	99.78	99.71

Marital Status

The marital status of the population was ascertained at the 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.

Marital Status of Population, South Australia, Censuses 1971 and 1976^(a)

Marital Status	30 June 1971				30 June 1976			
	Males		Females		Males		Females	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Never married:								
Under 15 years of age	173 940	29.7	165 910	28.2	169 471	27.3	160 595	25.7
15 years of age and over	113 130	19.3	85 163	14.5	124 921	20.1	94 635	15.2
Total never married	287 070	49.0	251 073	42.7	294 392	47.5	255 230	40.9
Married	275 465	47.0	276 232	47.0	295 976	47.7	295 468	47.3
Married but permanently separated	6 565	1.1	7 204	1.2	9 698	1.6	11 890	1.9
Widowed	11 364	1.9	46 617	7.9	11 118	1.8	50 784	8.1
Divorced	5 587	1.0	6 530	1.1	8 976	1.4	11 223	1.8
Total	586 051	100.0	587 656	100.0	620 161	100.0	624 595	100.0

(a) Population as enumerated, not adjusted for underenumeration.

In 1976 the number of persons who were stated to have been never married represented 44.2 per cent of the total population, a lower proportion than in 1971. Married persons in 1976 represented 47.5 per cent of the total compared with 47.0 per cent in 1971.

At the 1971 Census 80.4 per cent of widowed persons were female and this proportion had increased to 82.0 per cent in 1976. 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.

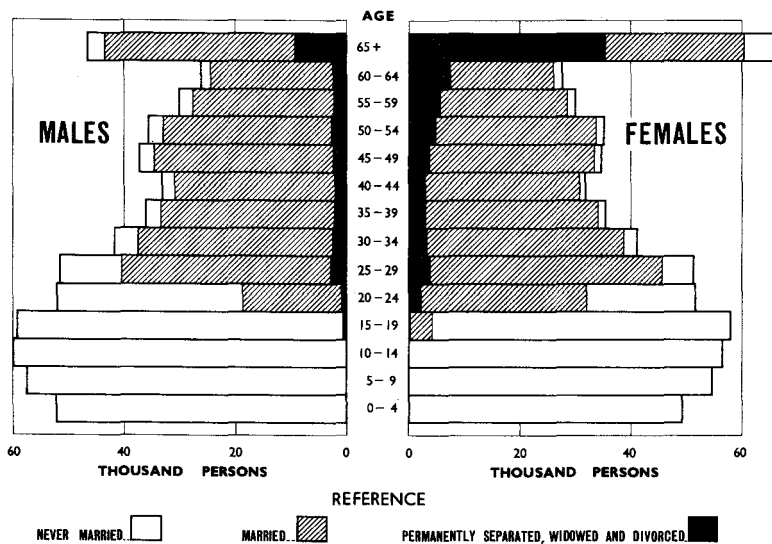
The diagram on page 151 shows details of sex, age and marital status of the population at the 1976 Census.

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 1976 the proportion was down to 76.4 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 12.7 per cent in 1976.

SOUTH AUSTRALIA
DISTRIBUTION OF POPULATION BY SEX, AGE
AND MARITAL STATUS

1976 Census



Country of Birth of Population, South Australia
Censuses 1971 and 1976^(a)

Country of Birth	30 June 1971		30 June 1976		Increase	
	Persons	Males	Females	Persons	Persons	
Australia	893 638	468 111	483 424	951 535	57 897	
New Zealand	3 226	2 113	1 985	4 098	872	
Europe:						
United Kingdom and Republic of Ireland	148 020	79 409	78 473	157 882	9 862	
Germany	15 410	7 631	7 762	15 393	(-)	17
Greece	14 717	7 712	6 994	14 706	(-)	11
Italy	32 428	17 275	14 668	31 943	(-)	485
Netherlands	11 743	5 717	5 024	10 741	(-)	1 002
Poland	7 058	4 125	2 789	6 914	(-)	144
Yugoslavia	8 931	5 187	3 816	9 003	(-)	72
Other	22 815	12 650	10 032	22 682	(-)	133
Total Europe	261 122	139 706	129 558	269 264	8 142	
Other countries	15 721	10 231	9 631	19 862	4 141	
Total born outside Australia	280 069	152 051	141 173	293 224	13 155	
Total	1 173 707	620 162	624 598	1 244 760	71 053	

(a) Population as enumerated, not adjusted for underenumeration.

Period of Residence in Australia

At the 1976, and previous censuses, details of period of residence in Australia were sought from overseas born.

Period of Residence in Australia of Persons in South Australia Censuses 1971 and 1976^(a)

Period of Residence in Australia	30 June 1971			30 June 1976			
	Residents			Residents			Visitors
	Males	Females	Persons	Males	Females	Persons	Persons
Under 1 year	7 686	7 460	15 146	1 935	2 024	3 959	} 3 271
1 year and under 2	8 309	8 034	16 343	2 918	3 021	5 939	
2 years and under 3	6 950	6 724	13 674	3 521	3 442	6 962	
3 years and under 4	4 962	4 721	9 683	3 466	3 615	7 082	
4 years and under 5	6 032	6 003	12 035	3 744	3 534	7 278	
5 years and over	103 438	92 166	195 604	83 377	76 039	159 416	
Not stated	6 887	7 005	13 892	51 255	48 059	99 314	
Born outside Australia	144 264	132 113	276 377	150 214	139 736	289 950	3 271
Born in Australia	439 365	454 273	893 638	468 111	483 424	951 535	..
Total	583 629	586 386	1 170 015	618 325	623 160	1 241 485	3 271

(a) Population as enumerated, not adjusted for underenumeration.

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 5 years. By 1976 the number (excluding visitors) had increased to 289 950, but the proportion of those who had lived in Australia for less than five years had fallen to 10·8 per cent although the reliability of the latter figure may be affected by the higher number in the 'Not stated' category.

Religion

Information on the religious affiliations of the population is obtained only at population censuses. There is, however, no legal obligation to answer the question on religion and at the 1976 Census respondents representing approximately 10 per cent of the South Australian population chose not to answer.

The Church of England has always had the greatest number of adherents, its relative importance having been fairly consistent since 1866 when it accounted for 31·8 per cent of answers compared with 22·1 per cent in 1976.

Changes in the pattern of religious affiliation appear to some extent attributable to migratory movements. This is particularly noticeable in the case of Catholics (*i.e.* persons described as either Catholics or Roman Catholics) who accounted for only 14·3 per cent of the answers in 1933 compared with 19·9 per cent in 1976.

The proportion of the population claiming no religious affiliations has increased over the years, from 8·2 per cent of the population in 1971 to 11·3 per cent in 1976.

Religious Denomination of Population, South Australia
Censuses 1971 and 1976^(a)

Religious Denomination	30 June 1971		30 June 1976	
	Persons	Proportion of Total	Persons	Proportion of Total
Christian:		Per cent		Per cent
Baptist	22 010	1·9	22 004	1·8
Catholic, Roman Catholic ^(b)	242 166	20·6	247 572	19·9
Church of England	286 754	24·4	275 338	22·1
Lutheran	62 641	5·3	62 344	5·0
Methodist	215 328	18·3	195 890	15·7
Presbyterian	39 920	3·4	34 778	2·8
Other Christian	133 057	11·3	136 454	11·0
Total Christian	1 001 876	85·4	974 381	78·3
Non-Christian:				
Hebrew	1 131	0·1	1 072	0·1
Muslim	628	0·1	1 031	0·1
Other Non-Christian	1 424	0·1	2 747	0·2
Total Non-Christian	3 183	0·3	4 849	0·4
Indefinite	3 751	0·3	5 528	0·4
No religion	95 874	8·2	140 070	11·3
Not stated	69 023	5·9	119 930	9·6
Total	1 173 707	100·0	1 244 758	100·0

(a) Population not adjusted for underenumeration. (b) So described in individual census schedules.

Educational Attainment

Schooling History

At the 1976 Census information was sought on the age at which people aged 15 years and over left school. The following table summarises the details obtained from this question and for children under fifteen years in South Australia.

Schooling History of Population, South Australia
Census 1976^(a)

Age Left School	Males	Females	Persons	Proportion of Total
Not attending school:				Per cent
Age 0-4 years	51 899	49 374	101 272	8·1
Age 5-14 years	2 850	2 427	5 277	0·4
Still attending school	137 279	129 268	266 546	21·4
Age left school:				
12 years or younger	14 050	15 343	29 393	2·4
13 years of age	17 639	18 931	36 570	2·9
14 years of age	101 293	110 715	212 008	17·0
15 years of age	89 255	105 293	194 548	15·6
16 years of age	82 976	88 348	171 324	13·8
17 years of age	52 996	47 772	100 768	8·1
18 years of age	23 170	14 391	37 561	3·0
19 years or older	11 488	5 050	16 537	1·3
Never attended school	3 690	4 352	8 042	0·6
Not stated	31 578	33 333	64 911	5·2
Total	620 162	624 596	1 244 757	100·0

(a) Population as enumerated, not adjusted for underenumeration.

Educational Qualifications

At the 1971 and 1976 Censuses 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 in 1971, only 19.5 per cent had obtained any educational qualifications since leaving school, but this proportion had risen to 21.2 per cent in 1976.

**Educational Qualifications of Population, South Australia
Censuses 1971 and 1976^(a)**

Highest Level of Qualification Obtained	1971		1976	
	Persons	Males	Females	Persons
No qualification	671 026	274 540	355 957	630 498
Trade level	84 283	80 333	11 601	91 934
Technician level	26 770	17 322	20 379	37 701
Tertiary (excluding degrees)	25 090	14 728	15 704	30 431
Bachelor degree, post graduate-diploma or equivalent	12 404	14 413	6 277	20 691
Higher degree level or equivalent	1 779	2 178	474	2 652
Qualification not classified by level	12 449	3 256	7 368	10 623
Inadequately described	56			
Total with qualifications	162 831	132 230	61 803	194 032
Not stated	—	43 920	46 240	90 160
Total population 15 years of age and over	833 857	450 689	464 001	914 690

(a) Population as enumerated, not adjusted for underenumeration.

Family Structures

At the 1976 Census, occupants of private dwellings were asked to identify the household head and to describe the relationship of each person in the household to this person. From the answers provided to this and other questions, the structures of families were determined. The results for South Australia are summarised in the following table.

**Family Structure of Population, South Australia
Census 1976^(a)**

Family Structure	Male Head	Female Head	Total Families
Head only	31 140	43 768	74 908
Head and children only	2 336	12 208	14 544
Head and spouse only	91 818	2 382	94 200
Head, spouse and children	113 976	1 388	115 364
Head and other adults only	5 344	11 420	16 764
Head, other adults and children	1 154	4 288	5 442
Head, spouse and other adults only	36 230	506	36 736
Head, spouse, other adults and children	39 316	448	39 764
Commune	84	12	96
Total families in private dwellings	321 398	76 420	397 818

(a) Population as enumerated, not adjusted for underenumeration.

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 Commonwealth 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, Commonwealth or State Courts, respectively, and represents an important part of the law in force in South Australia).

The scope of Commonwealth legislation is limited to the subjects specified in the Commonwealth Constitution. In some cases Commonwealth Government powers of legislation are exclusive of, in others concurrent with, those of the State. In all cases of conflict, valid Commonwealth laws override State laws.

LEGAL PROFESSION

Legal practitioners in South Australia are entitled to act as either barristers or solicitors, although some practitioners elect to practise only in one of these capacities. All practitioners have a right of audience in all Courts of South Australia except the Supreme Court, where only principals have this right.

After completing the prescribed academic training, followed by a period of practical training in a legal practice course or in articles, aspirant practitioners apply to the Full Court of the Supreme Court for admission to practise, and are issued with a Practising Certificate which is subject to annual renewal.

Rules of Court regulate the conditions of entry into the legal profession and the Legal Practitioners Act, 1936-1979 provides the basis for control of legal practitioners in such areas as discipline, remuneration, accounting for trust funds and the qualifications of notaries public. The Act also constitutes the Law Society of South Australia and provides for the hearing of charges of unprofessional conduct by a Statutory Committee of that Society, and the referral of such charges to the Supreme Court which may make such order as it thinks fit.

In 1980 there were 1 086 legal practitioners entitled to practise in South Australia.

Members of the legal profession voluntarily provide an advisory service outside normal business hours. Any person may obtain preliminary legal advice through this service for which a nominal charge is made. The service operates at Adelaide, Campbelltown, Christies Beach, Norwood, Mount Gambier, Naracoorte and Port Lincoln.

LAW 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 principal legal adviser to the Government.

The Attorney-General is charged with the conduct of business relating to the Supreme Court and inferior Courts 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, and the Electoral Department.

The Law Department, in addition to performing various administrative functions, comprises the Local and District Criminal Courts and Courts of Summary Jurisdiction, the Crown Law Office, the Sheriff's Office, the Coroner's Office, the Government Reporting Division, Office of Crime Statistics and ancillary legal research services.

SUPREME COURT

The Supreme Court is the superior court of record in and for the State and is constituted by the Chief Justice and the puisne judges appointed under the Supreme Court Act, 1935-1980. The Supreme Court is a court of law and equity and is vested with jurisdiction in civil, criminal, testamentary, land and valuation, admiralty and appellate causes or matters. The Supreme Court Rules made by the Judges under the power contained in the Act regulate the pleading practice and procedure of the Court in any jurisdiction and the manner in which all suitors' funds are to be dealt with. The officers of the Court are appointed by the Governor on the recommendation of the Public Service Board except that in the case of the Masters, the concurrence of the Chief Justice is required.

There are at present thirteen judges of the Supreme Court, comprising the Chief Justice Mr Justice King, and twelve puisne judges. A judge holds office until the age of seventy years at a salary determined by the Governor. 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 Commonwealth 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. The Court has original jurisdiction over all litigious matters arising in the State except where its jurisdiction is excluded by statute. The original jurisdiction of the Court is usually exercised by a single judge sitting in Court or in Chambers. Although it is still possible to have certain civil issues tried before a jury, this has not been done for many years.

The Court 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 acts as a court of appeal from inferior courts. In proper cases, appeals lie from decisions of the Supreme Court to the High Court of Australia or where not excluded by statute, direct to Her Majesty In Council (*i.e.* the Privy Council).

The following table gives details of persons tried and convicted for the years 1975 to 1979. In the post-war period to the end of 1977, a total of fifty-six persons were sentenced to death in South Australia; forty-one of these sentences were subsequently commuted. The last execution in South Australia occurred in 1964; no female has been executed in the State since 1873. The Statutes Amendment (Capital Punishment Abolition) Act, 1976 assented to on 23 December 1976 abolished capital punishment in South Australia.

Supreme and Circuit Courts: Trials and Convictions, South Australia

Year	Tried		Convicted	
	Males	Females	Males	Females
1975	188	9	149	6
1976	188	17	143	15
1977	198	16	175	13
1978	210	22	172	20
1979	272	22	222	19

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. Except in the case of certain small estates, a grant of representation is generally necessary to obtain title to the property of a deceased person. The Succession Duty Act, 1929-1977 was amended during 1979 and exempted completely from payment of succession duty, the estates of persons who died on or after 1 January 1980.

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.

Details of trials and convictions for Supreme and Circuit Courts in 1978 and 1979 are included in the table below.

Supreme and Circuit Courts: Trials and Convictions, South Australia, 1978 and 1979

Major Offence	1978				1979			
	Tried		Convicted		Tried		Convicted	
	Males	Females	Males	Females	Males	Females	Males	Females
Homicide	22	3	13	3	21	2	15	1
Assault (including rape)	78	1	58	1	107	2	71	2
Robbery and extortion	43	3	41	2	58	1	53	1
Fraud, forgery and misappropriation	20	6	18	6	26	13	26	11
Theft, breaking and entering	15	1	15	1	22	1	22	1
Property damage	11	3	9	3	19	—	17	—
Driving and related offences	—	—	—	—	—	—	—	—
Other offences	20	5	18	4	19	3	18	3
Total	209	22	172	20	272	22	222	19

LOCAL AND DISTRICT CRIMINAL COURTS

Local and District Criminal Courts are now constituted under the Local and District Criminal Courts Act, 1926-1980. An amendment to the Act in 1969 increased the jurisdiction of Local Courts, established District Criminal Courts and provided for the appointment of a Senior Judge and other judges.

Local Courts

Local Courts were first established in South Australia by an ordinance of 1850 and originally had criminal as well as civil jurisdiction. The Local Courts Act, 1926 effected important alterations in the structure and jurisdiction of Local Courts by abolishing juries in Local Courts and also justices as constituent members of Courts of Full Jurisdiction (except on the application of a party), by conferring equitable jurisdiction on the Local Court of Adelaide of Full Jurisdiction, and by giving a full appeal to the Supreme Court on facts as well as on law from all judgments, determinations and orders of local courts in actions involving more than \$60.

Local Courts are divided into three groups—Full Jurisdiction, Limited Jurisdiction and Special Jurisdiction. The courts vested with all three jurisdictions are the Local Courts of Adelaide, Berri, Mount Gambier, Port Lincoln, Port Pirie and Whyalla. These courts may hear and determine actions for amounts up to \$20 000. The equitable jurisdiction provisions have also been extended to all Local Courts of Full Jurisdiction. Local Courts of Limited Jurisdiction may hear and determine claims of up to \$2 500, with special provisions for hearing 'small claims' as defined for a pecuniary sum not exceeding \$500. Courts of Special Jurisdiction may hear and determine any unsatisfied judgment summons whatever the amount of the judgment.

Local Courts: Summary of Transactions, South Australia

Year	Total Claims		Verdicts and Judgments				Service and Execution of Process Act	
	Sum-mones Issued (a)	Amount Sued For	Verdicts by Trial		Judgment by Default		Sum-mones for Service out of Jurisdiction	Amount
			Number	Amount	Number	Amount		
		\$'000		\$'000		\$'000		\$'000
1975	84 607	26 109	2 356	4 013	34 079	8 133	1 812	1 722
1976	70 443	46 343	3 348	6 321	29 016	8 100	2 102	2 946
1977	73 687	48 116	5 115	5 055	29 005	12 084	2 651	2 771
1978	77 963	45 837	5 132	5 782	29 147	14 071	2 676	3 988
1979	80 944	63 039	3 056	5 329	30 911	17 769	3 312	4 138

(a) Including those withdrawn or settled out of Court.

A Local Court of Full Jurisdiction may be constituted of a Judge of the Supreme Court or a Local Court Judge, and exercise all jurisdictions under the Act. A special magistrate may exercise limited jurisdiction and special jurisdiction, while two justices of the peace sitting together or one special justice sitting alone may exercise special jurisdiction only.

Any Local Court may reserve any question of law arising in any action for the decision of the Supreme Court, and any party who is dissatisfied with any final judgment, determination or order of a Local Court, if the claim exceeds \$500, may appeal to the Supreme Court. Appeals involving claims under \$500 may be made if leave of the Supreme Court is obtained.

Pursuant to Section 28 of the Act the Governor may appoint the Senior Judge or any other judge to make rules of court for carrying into effect the Act or any other Act conferring jurisdiction upon Local Courts.

District Criminal Courts

These courts came into operation on 31 August 1970 and have jurisdiction to hear and determine many of the indictable offences that previously could only be tried by the Supreme Court. The State is divided into three proclaimed districts; Central Criminal Court District, Northern Criminal Court District, and the South Eastern Criminal Court District.

The jurisdiction of a District Criminal Court is exercisable by a District Criminal Court Judge sitting in open court, with or without a jury, or in chambers as the case may require. The Crown is represented in District Criminal Courts by the Attorney-General or by counsel appearing on his behalf. The other party may conduct his own case or may engage counsel on his behalf. A person who is not a practitioner of the Supreme Court entitled to practise cannot appear in a District Criminal Court on behalf of any party.

Appeals against verdicts and sentences of District Criminal Courts are to the Full Court.

Pursuant to Section 321 of the Act the Senior Judge and two other judges may make rules of court for carrying into effect the District Criminal Court provisions of the Act.

Details of trials and convictions for District Criminal Courts, for 1978 and 1979 are included in the tables below.

District Criminal Courts: Trials and Convictions, South Australia, 1978 and 1979

Major Offence	District Criminal Courts							
	1978				1979			
	Tried		Convicted		Tried		Convicted	
	Males	Females	Males	Females	Males	Females	Males	Females
Homicide	16	1	12	1	13	1	10	1
Assault (including rape)	213	9	164	6	211	7	147	3
Robbery and extortion	10	—	10	—	3	—	3	—
Fraud, forgery and misappropriation	68	14	60	13	72	12	65	12
Theft, breaking and entering	588	40	563	33	596	23	553	20
Property damage	10	—	10	—	7	—	4	—
Driving and related offences	11	1	11	1	9	1	8	1
Other offences	170	25	159	23	211	28	192	21
Total	1 086	90	989	77	1 122	72	982	58

COURTS OF SUMMARY JURISDICTION

Courts of Summary Jurisdiction are held in all major towns to hear 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 is to penalty is imprisonment for two years. Their procedure is regulated by the Justices Act, 1921-1976. They are presided over, either by a special magistrate, a special justice or by two justices of the peace, with the more serious cases 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 they are required to be practitioners of the Supreme Court who have been practising for some years.

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

Offence	1974-75	1975-76	1976-77	1977-78
Against the person	888	767	793	814
Against property:				
Burglary and housebreaking	—	13	82	32
Larceny (various)	2 223	1 956	2 125	2 431
Other	1 430	1 251	1 256	1 190
Against morality	146	150	219	181
Against good order:				
Drug offences	274	440	904	1 008
Drunkenness	6 736	5 923	4 634	3 376
Unlawfully on premises	307	232	214	190
Vagrancy	152	75	95	101
Other	2 731	2 608	2 412	2 702
Other, relating to:				
Road Traffic and Motor Vehicles Acts ...	70 732	76 835	86 478	71 643
Licensing Act	299	365	344	182
Community Welfare Act	565	332	154	77
Police Offences Act	1 091	1 024	982	1 047
Local Government Act	6 836	1 452	2 168	1 841

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

Offence	1974-75	1975-76	1976-77	1977-78
Broadcasting and Television Act	608	—	—	—
Income Tax Assessment Act	1 702	9	111	—
Other	7 682	2 326	2 253	1 589
Total persons convicted:				
Males	92 296	84 874	91 800	76 229
Females	12 106	10 884	13 424	12 175
Total	104 402	95 758	105 224	88 404

(a) Excludes juveniles. Where multiple charges have been laid against one individual at the same time each type of offence has been counted separately.

CHILDREN'S COURTS

Proceedings in Children's Courts are regulated by the Children's Protection and Young Offenders Act, 1979 as amended which came into force on 1 July 1979, replacing the Juvenile Courts Act, 1971-1975. The Senior Judge appointed under the new Act exercises administrative control over Children's Courts throughout the State.

Children's Courts may be presided over by a Judge or Magistrate. Special Justices assist in dealing with most of the traffic offences and some summary matters. Limitations are imposed on the jurisdiction of the courts depending on whether a Judge, Magistrate, or Justices of the Peace have been appointed to preside.

Children's Courts may not try homicide offences. In cases of very serious offences or persistent serious offending, an order for the child to be tried in an adult court may be obtained. A child may elect to be tried as an adult and if found guilty, be subject to the penalties set by the Children's Court.

Screening panels decide whether a young offender appears before a non-judicial tribunal called a Children's Aid Panel or a Children's Court.

Most first and minor offenders are referred to the aid panels for consideration. Children's Courts are closed to the public. Members of the Press may be present, but they are generally restricted to publishing the results of the proceedings and may not identify any child concerned in the proceedings.

Penalties imposed by a Children's Court range from a bond or fine, with or without recording a conviction, to a sentence of detention in a training centre for a period between two months and two years. When a period of detention is imposed, reports are required on the social background and circumstances of the child and these are reviewed throughout the period of detention. Payment of compensation may also be ordered as a rehabilitative and not a punitive measure.

Where mandates are issued for detention in default of payment of fines and costs or in default of compliance with an order for the payment of money other than a fine or costs such detention may be satisfied by periodic non-residential detention (community services under supervision).

A child who is dissatisfied with a finding, may appeal to the Supreme Court or may apply to have the order reconsidered in the Children's Court.

Children's Courts also deal with neglected children where the Director-General of Community Welfare applies for a declaration that a child is in need of care and that he be placed under the guardianship of the Minister of Community Welfare. For further details see Part 6.6.

**Young Offenders: Offences Proved in Children's Courts and Aid Panels
South Australia ^(a)**

Type of Offence	Children's Courts		Children's Aid Panels	
	1978-79	1979-80	1978-79	1979-80
Homicide	9	1	—	—
Assault	279	266	73	109
Robbery	24	25	3	2
Rape	25	7	1	—
Sexual offences	24	23	3	14
Breaking and entering	1 294	1 148	543	598
Vehicle theft	821	834	109	219
Other theft	1 623	1 208	1 921	2 700
Wilful damage	376	284	221	264
Receiving	108	71	91	138
Fraud	266	260	71	155
Drug offences other than alcohol	241	146	12	84
Driving and traffic ^(b)	769	526	732	608
Transport and communication	9	10	29	16
Liquor	371	236	55	145
Unlawfully on premises	137	97	107	136
Indecent behaviour	76	36	16	44
Disorderly behaviour	764	595	124	287
Other	580	415	255	412
Total offences	7 796	6 188	4 366	5 931
Male	6 901	5 537	3 413	4 368
Female	895	651	953	1 563
Total individual offenders:				
Male	2 724	2 055	2 170	2 822
Female	472	265	754	1 149

(a) Under 18 years. Excludes truants and children found to be neglected, destitute or uncontrolled.

(b) Excludes most minor traffic offences.

THE LICENSING COURT

The licensing of hotels and the issue of liquor licences and permits is governed by the Licensing Act, 1967-1977 under which is constituted a Licensing Court consisting of a Licensing Court Judge, Special Magistrates designated by the Governor as members of the Licensing Court, and Licensing Court Magistrates. The classes of licences that may be granted are:

- | | |
|---------------------------------------|--------------------------------|
| (a) Full publican's licence | (j) Packet licence |
| (b) Limited publican's licence | (k) Railway licence |
| (c) Wholesale storekeeper's licence | (l) Restaurant licence |
| (d) Retail storekeeper's licence | (m) Limited restaurant licence |
| (e) Wine licence | (n) Cabaret licence |
| (f) Brewer's Australian ale licence | (o) Theatre licence |
| (g) Distiller's storekeeper's licence | (p) Special licence |
| (h) Vigneron's licence | (q) Twenty-litre licence |
| (i) Club licence | (r) Hotel broker's licence. |

Fees for licences are paid in accordance with the amount of liquor purchased (or in some cases sold) during the preceding twelve months and at present, in the case of the retail licences, is calculated at 8 per cent of the amount of purchases.

The following table shows the number of licences current at 30 June in each year and the number of permits issued during each year for the years 1976 to 1980.

Liquor Licences and Permits, South Australia

Licence or Permit	Year ended 30 June				
	1976	1977	1978	1979	1980
Licence:					
Publican's;					
Full	603	603	604	603	604
Limited	55	58	59	66	73
Storekeeper's (a)	189	190	190	192	193
Vigneron's	75	86	89	103	109
Club	185	199	216	241	260
Restaurant	171	202	229	254	295
Permits:					
Special licensed premises	4 548	3 451	2 220	2 307	2 290
Special unlicensed premises	17 654	17 797	19 046	20 768	21 676
Booth	7 903	8 221	9 326	10 272	10 625
Club	2 041	2 092	2 209	2 452	2 306
Other	1 225	1 078	1 246	1 444	1 558

(a) Covers wholesale, retail and distillers.

In December 1976, legislation was enacted to authorise discretionary hotel bar trading hours from 5 a.m. to 12 midnight, Monday to Saturday, and to fix obligatory trading hours, Monday to Saturday from 11 a.m. to 8 p.m.

In the case of a full publican's, limited publican's and restaurant licence, liquor may be sold and disposed of in the dining area at any time on any day with or ancillary to *bona fide* meals.

The Court may upon the granting or renewal of a full publican's licence, having regard to the needs of the public, exempt the holder of the licence from the obligation to supply lodging. A limited restaurant licence authorises the consumption of liquor at any time on any day in the premises specified in the licence, with or ancillary to *bona fide* meals, by persons bringing the liquor onto the premises for their own consumption. At 30 June 1980, seven of these licences were in operation.

Permits may be granted under certain circumstances to extend the trading hours of licensed premises and to allow the sale, supply or consumption of liquor in unlicensed premises. Permits may be granted to clubs, for periods of up to one year, for the sale and supply to members for consumption on club premises—at 30 June 1980, 798 of these permits were current. Clubs whose takings from the sale of liquor exceed \$25 000 in any one year are not eligible for a permit but are required to apply for a club licence.

BANKRUPTCY

Since 1928 bankruptcy has been under Commonwealth Government jurisdiction. Under the *Bankruptcy Act* 1966 South Australia is a bankruptcy 'district' and jurisdiction is exercised through the Court of Insolvency of the State of South Australia exercising Commonwealth jurisdiction in bankruptcy.

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 tax instalment deductions and withholding tax.

A bankrupt who has not previously been discharged is automatically discharged after five years unless an objection is filed with the Registrar 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	
		\$	\$		\$	\$	
1975-76	341	2 894 881	3 646 832	10	394 858	528 012	351
1976-77	448	3 705 374	5 993 902	8	345 840	365 942	456
1977-78	655	4 973 118	9 492 844	18	551 434	2 327 360	673
1978-79	816	1 551 459	10 420 291	31	2 032 725	2 495 537	847
1979-80	964	2 328 092	9 985 499	52	2 841 137	4 095 200	1 016

JURY SYSTEM

The procedure in relation to juries is governed by the Juries Act, 1927-1976.

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. In South Australia, for many years juries have not officiated when civil causes were being tried.

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 who may claim exemption 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.

A jury list is compiled annually for each jury district. The names of persons included in the list are selected by computer process from the appropriate House of Assembly electoral rolls at the direction of the Sherriff. The jurors summoned to hear and determine an issue are later selected by ballot. Accused persons and the Crown each have the right to challenge three jurors without assigning reasons. About 2 000 persons serve on juries each year in South Australia. A jury pool system was instituted in 1974 and juries now may be required to serve in both the Supreme and District Criminal Courts during their month of service.

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, 1967-1977, 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 SERVICES COMMISSION

The Legal Services Commission, constituted under the provisions of the Legal Services Commission Act, 1977-1979, is responsible for the provision of all legal assistance in South Australia and provides free legal advice to any person.

The Commission provides legal advice in any matter as well as providing representation in court proceedings. These services are subject to a flexible means test, and to guidelines laid down from time to time. Legal services may be provided either by lawyers employed by the Commission or by private practitioners.

The Commission is administered by an independent statutory body which includes representatives from a variety of groups in the community. It is jointly funded by the State and Federal Governments and includes a Research and Education Section which is responsible for issuing pamphlets and other educational activities to advise people of their legal rights and duties.

The South Australian Law Society also conducts some evening legal advisory services, at no cost to pensioners and students, and at a nominal charge to others.

CONSUMER PROTECTION

Consumer protection in South Australia, in common with the other States, is a responsibility divided between the Commonwealth and State Governments. The major arm of Commonwealth responsibility is the Trade Practices Commission; the relevant State instrumentality is the Department of Public and Consumer Affairs. In practice, the Trade Practices Commission intervenes only in multi-State matters or where exemplary legal action is called for. The State looks into matters involving consumer redress.

The South Australian Department of Public and Consumer Affairs was formed in 1976 from units of several existing departments. A number of branches of the new Department are involved in consumer protection work. The Consumer Services Branch, headed by the Commissioner for Consumer Affairs (formerly known as the Prices Commissioner), deals with the most general consumer complaints, and generally supervises sixteen Acts, including the Consumer Transactions, Manufacturers Warranties, Door to Door Sales, Unfair Advertising, Defective Houses, Second-hand Motor Vehicles, Fair Credit Reports, Prices, and Residential Tenancies Acts.

The Standards Branch, headed by the Commissioner for Standards, specialises in matters relating to weights and measures, packaging and labelling. Included in the Standards Branch's administration are seven Acts, including the Packages, Goods (Trade Descriptions), Flammable Clothing, Trade Measurements and Trade Standards Acts.

The Builders' Licensing Board licenses and supervises the conduct of builders offering their services.

The Commercial Tribunals Branch comprises several licensing and disciplinary authorities supervising various industries, including auctioneers, credit providers, land agents and used-car dealers.

The following table shows an analysis of complaints investigated by the Consumer Services Branch during 1980.

**South Australian Department of Public and Consumer Affairs, Consumer Services Branch
Analysis of Complaints, 1980**

Particulars	Complaints	
	Number	Per Cent
Practice Complaints:		
Advertising, representations	205	2.5
Packaging or labelling	21	0.3
Sales methods	375	4.6
Prices and charges	724	8.9
Quality of product or service	3 618	44.3
Credit practices	517	6.3
Contracts	1 665	20.4
Guarantees and warranties	931	11.4
Offers of redress	103	1.3
Total practice complaints	8 159	100.0
Product Complaints:		
Food, beverages, tobacco	114	1.4
Clothing, footwear, drapery	334	4.1
Consumer durables	1 480	18.1
Motor vehicles and other transport equipment	1 955	24.0
Building and constructions	1 437	17.6
Miscellaneous products	772	9.5
Transport and energy services	266	3.3
Insurance and finance	663	8.1
Real estate and accommodation	451	5.5
Miscellaneous service	684	8.4
Total product complaints	8 156	100.0

Co-operation between the Commonwealth and South Australian authorities on a day-to-day basis ensures that overlapping and duplication of activities is kept to a minimum.

PUBLIC TRUSTEE

The office of Public Trustee was established in 1881 and is regulated by the Administration and Probate Act, 1919-1980. The Public Trustee provides a service to the public by preparing wills free of charge and in the administration of estates and in the protection of infants and absentee beneficiaries in estates administered by private administrators.

A person may appoint the Public Trustee to be the executor and trustee of a will or as trustee of any disposition of property creating a trust.

The Public Trustee, where directed by the Court, becomes administrator of certain deceased estates; acts as guardian of certain infants; controls a protected person's property under the Aged and Infirm Persons' Property Act, 1940-1975; and receives, invests and distributes for the benefit of widows and minor dependants, amounts awarded under the Workmen's Compensation Act, 1971-1979.

Under the Mental Health Act, 1976-1979 the Public Trustee has control of the estates of some patients, pursuant to appointments made by the Guardianship Board, and may be appointed to act for the estate of any person found to be of unsound mind.

The Public Trustee may be appointed under a Power of Attorney or as an agent by any person to conduct their business affairs while they are alive and may continue to perform these duties even though the person may cease to have legal capacity at a later date.

The Public Trustee may be appointed as administrator of unclaimed property and as a custodian trustee.

THE SOUTH AUSTRALIAN POLICE FORCE

The police force was first established in South Australia in 1838 and has been administered by a Commissioner of Police since 1840. Since that time the Force has grown to such an extent that a Deputy Commissioner and four Assistant Commissioners have been introduced. Each Assistant Commissioner has control of one of four major areas of the Force which have been designated 'Operations', 'Personnel', 'Crime' and 'Services'. 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 3 164 in 1980.

Women police officers were introduced in 1915 giving the Force the distinction of being one of the first in the world to do so. In that year two female officers were sworn in having equal rights with the male officers. By 1974 the number of women police officers had grown to thirty-six and at 30 June 1980 the number was 103.

The maintenance of law and order and the reduction of opportunities for criminal activity are the main functions of the uniformed branches. At 30 June 1980 there were twenty-nine metropolitan regional and 111 country police stations and offices.

Police Personnel, South Australia^(a)
At 30 June

Personnel	1976	1977	1978	1979	1980
Commissioned officers	94	101	105	108	108
Non-commissioned officers	677	718	757	782	845
Constables	1 787	1 899	2 017	2 203	2 211
Total active police force	2 558	2 718	2 879	3 093	3 164
Persons per active member	493	473	448	418	411

(a) Active police force strength. Excludes trainees and cadets, public servants, civil staff, etc.

The Traffic Region has recently completed decentralisation and now each metropolitan region has a complement of traffic police. Their duties include policing the general regulations relating to road use, controlling traffic and improving road safety by ensuring the safe and efficient flow of traffic. Such services as speed detection, accident investigation and prevention, testing vehicles for road worthiness and lecturing on road courtesy and safety are still maintained by units stationed at the Thebarton Police

Barracks. A Traffic Intelligence Centre, using information gained from accident statistics, assists in the correct placement of speed detection units in relation to accident action centres.

The Criminal Investigation Branch in Adelaide comprises a compact specialist unit responsible for the investigation of major crime or crimes involving an unusual expertise. Criminal Investigation Units are also placed in major metropolitan and country stations. To ensure that the activities of these units are co-ordinated, a Crime Intelligence Unit at Police Headquarters studies crime trends, and circulates relevant information. The Crime Director, a senior Commissioned Officer, is responsible for recommending the allocation of additional resources to any units requiring assistance. Auxiliary services provided by the Modus Operandi, Records, Fingerprints, Photographic, Documents, Ballistics, Crime Scene and Laboratory Sections are essential aids to criminal investigations.

On 30 November 1978, a Special Tasks and Rescue Force (STAR Force) was formed with headquarters at Police Barracks Thebarton. The primary function of the Star Force is to provide a mobile patrol force of trained personnel skilled in the use of firearms, anti-terrorist tactics, crowd control, crime prevention techniques, underwater recovery and search and rescue operations.

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					
1975-76	34 076 299	5 776 230	39 852 529	2 364 170	37 488 359	29.83
1976-77	40 763 959	6 981 012	47 744 971	3 076 243	44 668 728	34.98
1977-78	47 675 182	9 103 157	56 778 339	3 322 782	53 455 557	41.44
1978-79	52 008 645	10 420 694	62 429 339	3 560 976	58 868 363	45.64
1979-80	57 386 694	13 523 800	70 910 494	3 890 570	67 019 924	51.58

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

The changing role of the police in the community, together with continual changes in law and investigational techniques, has resulted in special emphasis being placed upon the training of all personnel within the Force. Applications for cadetship are accepted from the age of sixteen and a half years and training commences at seventeen years of age. Cadets are given a two-year course of academic and practical instruction before graduation to operational duties. Adults are enlisted between the ages of nineteen and twenty-nine years and are given twenty-six weeks instruction; they then serve a probationary period on general duties before being permanently appointed.

All personnel are required to undergo refresher and firearm training at selected intervals of service. In addition, courses are regularly conducted for such specialist appointments as prosecutors, detectives, technicians and instructors. At 30 June 1980 there were 204 cadets in training, including two trade apprentices, and 87 adult recruits who had received training during the year. Formal instruction was given to 1 480 members in refresher, specialist, firearm and driver training courses during 1980.

In 1971 the use of light aircraft was instituted by the Department for the transport of personnel and prisoners throughout the State. Three aircraft are now in service, two

based in Adelaide and the third at Woomera. The primary role of the Woomera based aircraft is to provide a more frequent police presence on the Aboriginal Reserves in the north-west of the State.

An extensive re-organisation of the general duty police in the metropolitan area was begun early in 1973. This involved the division of metropolitan Adelaide into three territorial regions, each commanded by a Chief Superintendent, the implementation of a sector system within these regions and the restructuring of patrol areas to give emphasis to personal contact between the patrol force and the general public. Portable UHF radio hand sets have been introduced to enable mobile and foot patrols to be in contact with each other and with their patrol base. In certain areas equipment, code named TARTA, has been developed to allow the patrolling officer to both make and receive telephone calls from the police vehicle via the Telecom exchange system. Telex and facsimile machines are also in use at certain main stations and within Police Headquarters.

An Operational Planning and Support Unit, directly responsible to the Assistant Commissioner (Operations) and under the command of a Superintendent was established in 1977. Its primary functions are to plan police requirements in providing security and crowd control measures for visits by Royalty and other dignitaries; prepare contingency plans to counter acts of terrorism and hijacking and to review and produce operational methods to assist Regional Commanders.

In February 1979, a Research and Development Group was formed, directly responsible to the Assistant Commissioner, Services and under the command of a Chief Superintendent. Research and Development Group has under its control Organisational Services, Computer Systems Section and Policy Section. Projects relating to manpower planning, organisation and methods, workload and productivity, operational research, demographic and sociological research, operational crime research, policy research and industrial relations liaison are carried out by this Group. The Computer Systems Section is being used to explore the field of the computer's application to police oriented tasks.

The Police Community Affairs and Information Service was formed in 1973 to foster better relations between the police and the general public. An Aboriginal Liaison Officer (a police officer) is attached to this Section and deals directly with police/Aboriginal relations. In July 1975, a new branch known as the Inspectorate was set up primarily to inspect operational units and to investigate complaints against police. A Publications Section also functions within this unit to prepare and co-ordinate material for the updating and maintenance of manuals and other publications.

Early in 1974, a Dog Squad of six handlers and six dogs became operational; it now comprises twelve handlers and dogs. As well as carrying out foot and mobile patrol duties, the squad is used in tracking and drug searches.

Since the opening of the Eyre Highway in September 1976 two fully equipped four-wheel drive vehicles have been used for daily patrols between Ceduna and the Western Australian border.

On 1 January 1980 a Firearms Section was formed with headquarters at Hindmarsh Square, Adelaide. The section handles Registration, Licensing, Adjudication and Enquiries and is controlled by a Superintendent. To 1 December 1980, 242 335 firearms were registered.

On 7 March 1977 a Psychology Unit was formed with headquarters at Angas Street. This unit consists of three psychologists who assist in training police officers, selection and counselling.

In 1975 a Staff Development Branch was formed with headquarters at Angas Street. This Branch is controlled by an Inspector and a First Grade Sergeant. It provides a

career path counselling service, administers external studies programs, administers the Staff Appraisal System and maintains a supply of personnel for specialist positions.

On 21 June 1977 a Welfare Officer was appointed. He is accountable to the Commissioner of Police through the Assistant Commissioner, Personnel. The Welfare office is located at Central headquarters, Angas Street. This section provides advice and assistance to police employees, to widows and dependants of deceased police members and retired police members, on financial, marital, health and other personnel problems.

CORRECTIONAL SERVICES

There were eight gaols and prisons and nine police prisons administered by the South Australian Department of Correctional Services during 1979-80. Adelaide Gaol is a holding centre for remand and short-term sentenced prisoners. Yatala Labour Prison, South Australia's largest prison, provides for long-term male prisoners under maximum, medium and minimum security ratings. Adjacent to Yatala is the Northfield Security Hospital which was officially opened in November 1973 to accommodate criminal mental defectives. This modern hospital is staffed by trained medical personnel and provides specialised treatment programs for both males and females. Port Augusta Gaol, Port Lincoln Prison and Mount Gambier Gaol are medium security prisons which accommodate male and female prisoners. Cadell Training Centre on the River Murray is a dual purpose institution which operates as a pre-release centre for long-term prisoners as well as accommodating minimum security short-term prisoners. The Women's Rehabilitation Centre at Northfield is a multi-purpose prison for females from all parts of the State. The nine police prisons serve as short-term detention centres for both males and females, and are mainly situated in the more remote country areas.

The emphasis in South Australian prisons is on rehabilitation. Industrial and trade training in various fields is available throughout the institutions, enabling prisoners to be prepared for eventual outside employment. A wide range of correspondence courses is available through the colleges of advanced education and the Open College of the South Australian Department of Further Education under the supervision of the prison education officers. Special migrant and remedial classes are also conducted by the Education Division of the Department. An assessment panel ensures that prisoners serving long-term sentences are correctly assessed for education, employment, social and other training purposes. In a wide range of matters affecting the well-being and after-care of prisoners and their families, the prison administration is assisted by chaplains, the Offenders Aid and Rehabilitation Society, the Salvation Army and other voluntary organisations. Community services rendered by prisoners include the provision of emergency fire service units and the production of soft toys for children's homes.

Probation and Parole

The Probation and Parole Branch continues to expand, both in staff numbers and in the decentralisation of services. District offices are located at Port Adelaide, Elizabeth, Salisbury, Noarlunga, Gilles Plains, Glenelg and Norwood in the metropolitan area and at Berri, Cadell, Gladstone, Whyalla, Port Augusta, Port Lincoln and Mount Gambier in the country. The Branch is responsible for providing supervision and social casework services to probationers and parolees. Probation officers provide a professional social work service, including a wider range of treatment and management alternatives for offenders. Provision of pre-sentence social reports to the courts remains one of the major functions of the Branch.

Community involvement in corrections is fostered by the Branch with a growing use of volunteers to supplement the work of the statutory staff, including the staffing of the Adelaide Court Information Service.

Prisons: Persons received under Sentence

Major Offence	1977-78		1978-79	
	Persons	Per Cent	Persons	Per Cent
Homicide	23	0·4	20	0·4
Assault	426	8·2	377	7·3
Robbery and extortion	34	0·7	51	1·0
Fraud, forgery and misappropriation	156	3·0	155	3·0
Theft, breaking and entering	776	15·0	622	12·0
Property damage	106	2·1	105	2·0
Driving and related offences	1 248	24·1	1 278	24·7
Drunkenness	724	14·0	608	11·7
Other offences	1 684	32·5	1 968	37·9
Total	5 177	100·0	5 184	100·0

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 1979 there were forty-one fire brigade stations of which twenty-one were metropolitan and twenty were country. During the year 1979-80 these brigades received 7 483 calls of which 635 were false and malicious calls. Some of these brigades are manned by permanent personnel and others by auxiliary firemen, there being at 30 June 1980, 649 officers and firemen and 137 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, 1936-1976 provides that the expenses and maintenance of brigades be defrayed in the proportion of one-eighth by the State Treasury, three-quarters by insurance companies and one-eighth by the municipalities and district councils concerned.

Total contributions for 1979-80 were \$13 734 200 made up as follows; insurance companies \$10 300 650; municipalities and district councils \$1 716 775; and State Treasury \$1 716 775.

South Australian Country Fire Services

The South Australian Country Fire Services (CFS) is a voluntary fire fighting organisation affording urban and rural fire protection to an area of 886 000 square kilometres, or approximately 90 per cent of South Australia.

The CFS had its beginning in 1939 as the South Australian Emergency Fire Services, a branch of Civil Defence formed during the 1939-45 War. When Civil Defence was

disbanded, the Emergency Fire Services was developed into a volunteer country fire service to protect those areas outside the districts covered under the Fire Brigades Act, 1936-1976.

South Australian Country Fire Services

Particulars	Unit	1978	1979	1980
Strength of service at 30 June:				
Affiliated organisations	No.	466	466	448
Volunteer members	No.	11 000	11 000	11 000
Fires attended in twelve months ended 30 June:				
Number of fires;				
Urban type	No.	265	337	346
Bush	No.	736	1 190	1 313
Area destroyed in bush fires	Hectares	79 965	66 204	142 691
Financial losses;				
Urban type	Dollars	1 687 196	2 197 083	2 830 191
Bush	Dollars	288 698	2 220 773	7 115 595

The CFS is constituted as a statutory body under the Country Fires Act, 1976. The Act was assented to on 23 December 1976 and proclaimed in full (with the exception of Section 28) on 13 September 1979.

The Regulations under the Act are framed to preserve the fundamental character of the repealed Bush Fires Act, 1960-1976 in its role in bushfires and certain fires in the open air.

The most serious fire for the 1979-80 fire danger season occurred in the Adelaide Hills on 20 February 1980, and became known as the 'Ash Wednesday Fire'. Significant property and stock losses were experienced. A total of 3 700 hectares of bush and grass land was burnt in the fire and damage to property and stock totalled \$6 487 000.

A major advance in fire control for the State was achieved during the 1979-80 fire danger season through Country Fire Services' participation in the evaluation of the use of a helicopter for emergency operations. The use of the helicopter as a fire control platform was shown to be highly successful.

WATER SAFETY AND 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 the Surf Life Saving Association 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. The Society gives instruction to schools and other interested bodies in the various methods of life saving, including the current methods of artificial respiration. This is done by honorary instructors and examiners. Classes of instruction are also conducted at all major public swimming pools throughout the State. Life saving patrols are conducted at inland waterways on weekends and public holidays during the warmer months. 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 life saving demonstrations are conducted throughout the State. Awards totalling

31 159 were issued to candidates who passed the various examinations in the 1979-80 season.

The honorary work of the Society is financed mainly by grants made by the Government 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 Association has nineteen affiliated clubs situated at Aldinga Bay, Brighton, Chiton Rocks, Christies Beach, Glenelg, Grange, Henley Beach, Hallett Cove, Moana, Port Elliot, Port Lincoln, Port Noarlunga, Seacliff, Semaphore, Somerton, Southport, North Haven, West Beach and Whyalla.

Voluntary members give many hours to patrolling their respective beaches on weekends and public holidays from the beginning of November until the end of March. At 30 June 1980 there were 1 864 members in Association clubs. From 1952 to the end of the 1979-80 season, 2 402 rescues were performed with no loss of life on patrolled South Australian beaches. 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 in January 1956. During January 1980, 42 000 children were enrolled at 227 centres throughout the State when instruction was provided by over 1 000 qualified instructors for a period of ten days. The major aim of the program is to impart water safety knowledge, teach survival and safe swimming and to enable children to assist with a rescue by the safest and quickest method available.

Term time classes are available for children in government and non-government schools from Year 1 to Year 12. Approximately 120 000 children participated in swimming and aquatic programs in 1980.

Special Aquatic Centres are operating at nine locations offering vacation and term time sessions in surfing, canoeing, water skiing, snorkelling, fishing, adventure boating, sailing and wind-surfing.

INDUSTRIAL ACCIDENT PREVENTION

The post-war growth of industrial activity in this State was accompanied by an increasing toll of injuries and fatalities sustained during the course of employment. Legislation requires certain minimum standards of safety in working conditions to be provided in various industries, and inspections are made to ensure compliance with legislative requirements. However, legislation and inspection are not the only means of minimising industrial accidents and in the late 1950s the South Australian Government implemented a program of education for management, supervisors and employees in accident prevention measures, with the object of making all sections of industry more 'safety conscious'.

Safety officers employed in the Department of Industrial Affairs and Employment conduct safety training courses, present lectures, screen films and distribute 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 Commonwealth Department of Employment and Youth Affairs make valuable contributions within their particular spheres of activities to the promotion of industrial safety.

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 safety 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 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 Commonwealth 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 a chairman and eleven members representing the Minister of Transport, the National Council of Women, the Road Traffic Board, the Police Department, the Royal Automobile Association of South Australia, the Local Government Association, the Education Department, the State Transport Authority, the United Trades and Labor Council of South Australia, the Australian Medical Association, and the State Government Insurance Commission.

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 Transport. 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 age groups. Appropriate courses in road safety education and driver re-education are conducted.

The Council's operations are financed from part of the drivers licence fees under the Motor Vehicles Act, 1959-1978.

6.2 EDUCATION

Educational services are available to all South Australians in a wide variety of forms, some being provided by Government and others by non-government agencies. Constitutionally education is a State responsibility, but the Commonwealth makes grants for specific purposes. Education in this State can be seen as comprising three levels, namely, pre-school, school and post-school.

Pre-school education is co-ordinated by the Childhood Services Council and consists

of a range of services available to young children (under five years of age) and their parents.

In South Australia attendance at school is compulsory for children from six to fifteen years of age. No child may be admitted to a government school, other than a child/parent centre, before the age of five years. The admission of children aged five is provided for in all junior primary schools at the beginning of each school term, but schools are encouraged to receive intakes more frequently.

Education at the primary and secondary level is available at government schools controlled by the Education Department and at non-government schools, most of which are denominational. Some non-government schools provide boarding facilities. In both government and non-government schools there has been a trend towards co-education in recent years. The term 'year' is used to denote class level in both primary and secondary schools. Primary classes are designated Year 1 through to Year 7, and secondary classes Year 8 to Year 12.

South Australian schools celebrated the centenary of State education in October 1975. The present system of government schools and of compulsory education dates from the Education Act, 1875.

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, Department of Continuing Education of the University of Adelaide, and Flinders University.

An historical summary of education in South Australia was included on pages 153-4 of the *South Australian Year Book* 1969.

PRE-SCHOOL EDUCATION

From its founding in 1905 until 1945, the Kindergarten Union of South Australia concentrated its efforts on the care and education of under-privileged children, but since 1945 the emphasis has shifted to the provision of pre-school education for all children.

Although some private organisations continue to run pre-schools the majority of kindergartens in South Australia are under the direction of the Kindergarten Union of South Australia.

In 1980 the Kindergarten Union was supervising 295 subsidised kindergartens and four mobile units, with a total enrolment of 18 827 children. Teaching staff for these numbered 725 out of a total employment figure of 1 094 persons.

Parents are encouraged to participate in planning and assisting with the educational program. As well as encouraging the creative, physical and mental development of four to five-year-old children the kindergarten prepares them for the experiences of formal schooling. Sessions are generally of two and a half to three hours duration each day with enrolments limited to thirty children a session; two sessions are held daily at most kindergartens. The work of kindergartens has been expanded to a wider pattern of child care to encompass extended hours care, playgroups and resource facilities for the community. The Kindergarten Union now operates some twenty Resource Centres and fourteen Mobile Resource Units.

The Kindergarten Union became a statutory authority in 1975 receiving its funding from the Commonwealth and State Governments through the South Australian Childhood Services Council. This revenue covers teachers salaries, capital building programs and most of the kindergartens operating costs. Local committees are expected to raise a

proportion of the day-to-day operating costs and, to a degree, provide some of the 'extras' needed. Such extra revenue generally comes from fund-raising activities.

The annual recurrent budget of the Kindergarten Union for the financial year to 30 June 1981 was \$12.3 million. Approximately \$1.2 million was allocated for the construction of new centres and the rebuilding of a number of existing kindergartens.

In 1974 the Education Department established pre-school centres, now known as child/parent centres. These centres are staffed by Education Department teachers and are usually located in the grounds of existing junior primary, primary and area schools.

There are 82 child/parent centres serving approximately 5 700 children and their families. Of these child/parent centres, eleven cater for Aboriginal children in rural areas, one caters for children requiring special education and ten are integrated services centres which are co-operative ventures with the Department for Community Welfare, the South Australian Health Commission, the Kindergarten Union and local community services. Four of these are child/parent resource centres located at Alberton, Christies East, Elizabeth West and Whyalla. The Port Augusta Primary School is the base for the Remote and Isolated Children's Exercise (RICE) to serve children and their families in the outback.

The Childhood Services Council co-ordinates the development of early childhood services in South Australia. These services include child care; child health centres; the child/parent resource centre; family day care; kindergartens, pre-schools and child/parent centres; parent education; playgroups and toy libraries.

The following table shows statistics on all known day care centres and pre-school centres in South Australia. These statistics have been obtained from a census conducted by the Australian Bureau of Statistics during the week commencing 30 June 1980.

Day Care Centres and Pre-school Centres, South Australia, 1980^(a)

Particulars	Type of Centre				Total
	Kindergarten Union	Licensed by Department for Community Welfare	Government Schools	Other	
Number of centres	294	80	82	29	485
Capacity (per session)	9 969	3 162	1 983	626	15 740
Attendance:					
Boys	10 449	2 025	2 477	346	15 297
Girls	9 884	1 907	2 353	315	14 459
Total	20 333	3 932	4 830	661	29 756
Paid staff ^(b) :					
Qualified	725	296	171	82	1 274
Unqualified	369	204	109	38	720
Total	1 094	500	280	120	1 994

(a) Week commencing 30 June 1980.

(b) Includes part-time.

GENERAL SCHOOL EDUCATION

The State Government, through the Education Department, provides free facilities for primary and secondary education; however, parents may choose between government and non-government 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 Personnel, Curriculum, Educational Facilities, Research and Planning, and Management and School Services. The Department is organised into ten Education Regions and

schools are administered in many aspects through the local Regional Director. A Director-General of Further Education heads the Department of Further Education which is responsible for a wide range of post-secondary educational activities conducted by community colleges and colleges of further education in all areas of the State.

The work of the schools is materially assisted by the school councils, and also by the mothers clubs, parents and friends associations and welfare clubs. For many years these bodies have been instrumental in raising large sums for the purchase of additional amenities for schools.

In country areas many children are conveyed to government schools by free bus services provided by the Education Department. At the end of 1980 there were 690 bus services carrying an average of 26 000 students daily to 350 schools.

Although non-government primary schools largely follow the government 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 government and non-government 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 State-wide basis under the direction of the South Australian Commission for Catholic Schools. This Commission is comprised of the Archbishop of Adelaide, the Bishop of Port Pirie, priests, primary and secondary school principals, superiors, parents, teachers (lay and religious), members of school boards and regional members together with the Director of Catholic Education and the Co-ordinators of Primary and Secondary 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 non-government school. In 1980 additional payments on a needs basis varying from \$196 to \$430 per student were made to some schools.

Schools

Details of schools operating in South Australia in 1980 are given in the next table.

Schools by Size, South Australia, At 1 July 1980

Students on Roll	Government Schools				Total	Non-government Schools
	Primary	Primary-Secondary	Secondary	Special (a)		
Under 21	23	2	—	5	30	6
21 to 35	41	4	—	5	50	8
36 to 100	93	18	1	9	121	35
101 to 200	50	18	4	4	76	38
201 to 300	47	16	8	1	72	22
301 to 400	52	5	8	—	65	13
401 to 600	83	1	18	—	102	23
601 to 800	46	1	22	—	69	7
801 to 1 000	14	—	20	—	34	5
1 001 to 1 200	1	—	13	—	14	2
1 201 to 2 000	—	—	5	—	5	—
Total	450	65	99	24	638	159

(a) Schools for physically and mentally handicapped, socially maladjusted or emotionally disturbed children.

The average size of government schools has increased rapidly since 1940 partly as a result of the consolidation of country schools. There were 632 government schools in 1979 compared with 1 043 in 1940 and 1 108 in the peak year of 1935. In 1940 there was an average of 73 students to each government school, with this figure increasing to 125 by 1950, 255 by 1960 and 351 by 1970. After peaking at about 379 between 1972 and 1975, the figure declined to 343 in 1980. There has been a general increase in the average size of non-government schools.

Students

Enrolments in recent years, classified by government and non-government schools and by age of the students are given in the following tables.

Primary and Secondary Students, South Australia
At or about 1 July

Age	Government Schools			Non-government Schools		
	1978	1979	1980	1978	1979	1980
Under 6	17 893	16 669	15 960	3 146	3 121	3 471
6	20 010	18 753	17 818	2 795	2 696	2 778
7	21 081	19 739	18 720	2 856	2 912	2 936
8	20 242	20 873	19 824	3 002	2 998	3 006
9	20 111	20 079	20 502	2 900	3 045	3 128
10	19 653	19 917	19 859	2 984	3 047	3 256
11	18 786	19 157	19 516	2 922	3 178	3 142
12	19 121	18 347	18 455	3 439	3 338	3 796
13	19 381	18 645	17 996	3 537	3 704	3 742
14	19 738	19 055	18 452	3 629	3 591	3 707
15	17 490	16 956	16 279	3 576	3 616	3 518
16	11 579	11 058	10 856	2 954	3 044	3 153
17	4 398	4 290	3 578	1 442	1 426	1 268
18	728	753	640	216	214	171
19	172	159	171	43	21	21
20 and over	72	75	56	—	21	23
Total	230 455	224 525	218 682	39 441	39 972	41 116

Primary and Secondary Students, South Australia
At 1 July 1980

Age	Government Schools			Non-government Schools		
	Primary	Secondary	Total	Primary	Secondary	Total
Under 6	15 960	—	15 960	3 471	—	3 471
6	17 818	—	17 818	2 778	—	2 778
7	18 720	—	18 720	2 936	—	2 936
8	19 824	—	19 824	3 006	—	3 006
9	20 502	—	20 502	3 128	—	3 128
10	19 859	—	19 859	3 256	—	3 256
11	19 432	84	19 516	3 119	23	3 142
12	8 862	9 593	18 455	1 479	2 317	3 796

**Primary and Secondary Students, South Australia
At 1 July 1980 (continued)**

Age	Government Schools			Non-government Schools		
	Primary	Secondary	Total	Primary	Secondary	Total
13	618	17 378	17 996	146	3 596	3 742
14	129	18 323	18 452	21	3 686	3 707
15	159	16 120	16 279	3	3 515	3 518
16	131	10 725	10 856	2	3 151	3 153
17	108	3 470	3 578	—	1 268	1 268
18	99	541	640	2	169	171
19	61	110	171	—	21	21
20 and over	8	48	56	—	23	23
Total	142 290	76 392	218 682	23 347	17 769	41 116

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 July	Government Schools				Non-government Schools			
	Full-time		Part-time (a)		Full-time		Part-time (a)	
	Males	Females	Males	Females	Males	Females	Males	Females
1978	6 155	7 756	52	513	756	1 118	51	228
1979	6 207	7 630	104	663	824	1 184	43	245
1980	6 216	7 485	117	810	881	1 216	50	247
Type of Teacher 1980								
Primary	2 345	4 927	36	408	250	728	12	100
Secondary	3 752	2 365	79	375	630	460	35	140
Special (b)	119	193	2	26	1	28	2	7

(a) Equivalent full-time units of part-time teaching. Total part-time teachers at 1 July 1980, government schools, 231 males and 1 366 females; non-government schools, 104 males and 469 females.

(b) Includes schools for physically and mentally handicapped, socially maladjusted or emotionally disturbed children.

PRIMARY EDUCATION

Children normally begin their schooling at the age of five years when they enrol for primary education at either a government or non-government school. Primary education involves a seven-year course.

GOVERNMENT SCHOOLS

Metropolitan children attend junior primary and primary schools while country children normally attend a junior primary, primary, rural, area or special rural school, although those in remote areas may receive lessons by correspondence.

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 for 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, health education, music, art and craft and physical education. A new program in religious education is being introduced. An increasing provision is being made for the study of elective subjects, such as foreign languages, ballet, instrumental music and aquatics.

Ancillary services and expert advice are provided for primary schools through the Principals of the Educational Technology Centre and the School Libraries, Physical Education and Music Branches. There are also consultants in all the basic subjects who visit the schools and conduct in-service courses.

The following table shows the number of students in government schools by year of primary education in recent years.

Primary Students: Government Schools, South Australia

Year of Education	1975	1976	1977	1978	1979	1980
	'000					
Reception	6.6	7.6	7.3	6.9	6.6	5.2
Year 1	21.8	21.3	20.7	19.8	18.1	17.6
Year 2	20.8	21.5	22.0	21.2	20.1	18.1
Year 3	19.7	20.2	21.0	21.1	20.5	19.6
Year 4	19.5	19.4	20.2	20.5	20.9	20.2
Year 5	20.0	19.4	19.4	20.0	20.2	20.4
Year 6	20.3	19.7	19.4	19.1	19.6	20.0
Year 7	20.7	20.0	19.7	19.1	18.7	19.2
Ungraded special(a)	2.5	2.4	2.3	2.3	2.2	2.0
Total primary students	151.9	151.5	152.0	150.0	146.8	142.3

(a) Includes students in opportunity classes at other than special schools.

Area and Special Rural

These schools, situated in country centres, cater for both primary and secondary students. 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 or are unable to attend school through physical or emotional disability. The service also reaches itinerant families and those travelling overseas. Secondary courses are also offered to children attending a school at which a specific subject is not available.

Port Augusta School of the Air was given autonomy from the Correspondence School, with its own Principal, in 1976. It provides two-way radio contact and various other services to facilitate personal interaction. Written work is marked by staff of the School of the Air and the Correspondence School. Co-operation between the Correspondence School and the Broken Hill School of the Air assists with education of children living on the New South Wales-South Australian border. In 1980, 460 children were enrolled to receive primary education at these schools, including those enrolled at the Port Augusta School of the Air.

NON-GOVERNMENT SCHOOLS

At 1 July 1980, 23 347 children were receiving primary education at non-government schools. The majority of these children were attending Catholic schools.

Catholic

Many children receiving primary education in the Catholic school system attend parish schools while the remainder attend colleges conducted by religious orders. Both types of school are supported by fees paid by parents and by State and Commonwealth Government grants. Parish schools are the property of the parishes which are responsible for equipping and maintaining them. The educational program of each school is under the direction of the principal, who may be either a lay person or a member of a religious order, and who is usually assisted by an elected school board.

Other

Several denominational bodies including the Church of England, the Lutheran Church and the Seventh Day Adventist Church conduct primary schools; there are also two non-denominational primary schools. Primary education is provided together with secondary education at primary/secondary schools conducted by denominational bodies including the Church of England and the Uniting Church, and at three non-denominational schools.

EDUCATION OF HANDICAPPED CHILDREN

The Special Education Section of the Education Department provides education for handicapped children in a variety of settings. The general policy is that children should be educated in the most 'ordinary' situation possible and that a range of options should be available. Options provided include special schools, full-time special classes, part-time special classes, support teachers within ordinary schools helping children and teachers in regular classes, and support teachers working outside their home base schools. In addition, a variety of arrangements are entered into in which groups of handicapped children and their teachers are combined with regular groups and their teachers in a single complex. Specific provisions are made for hearing-impaired children (all within centres in regular schools), visually-impaired children (one small special school plus support services), moderately mentally retarded children (mostly in special schools but occasionally in special or regular classrooms), physically handicapped children (in both special and regular schools) and others.

Special schools are conducted for day students and within institutions for children in residence.

SECONDARY EDUCATION

Children who have completed their primary schooling are required by law to attend a secondary school, either government or non-government, until their fifteenth birthday.

GOVERNMENT SCHOOLS

The South Australian Education Department's policy is to provide comprehensive co-educational high schools which, consistent with their size and enrolment, offer the widest range of courses possible in an endeavour to meet the interests of the students.

Students living in urban areas usually attend their local high schools which, apart from four schools, are now comprehensive, co-educational schools. A program to give students a wider choice of schools commenced in 1978 and became fully operational in 1980. In country areas, secondary education is provided by special rural schools, area schools or high schools depending on the size of the population being served. The

curriculum available may be supplemented by the services of the Correspondence School.

All new schools built in recent years, and some existing schools, have been provided with gymnasiums and music and drama areas. The upgrading of schools and the provision of flexible-plan units in existing schools is continuing.

Secondary Students: Government Schools, South Australia

Year of Education	1975	1976	1977	1978	1979	1980
	'000					
Year 8	21.7	20.9	20.3	19.7	18.7	18.2
Year 9	21.3	20.8	20.3	19.9	19.1	18.4
Year 10	18.6	19.0	18.8	18.7	18.1	17.6
Year 11	14.3	14.2	14.6	15.0	14.5	14.7
Year 12	6.2	6.6	6.4	6.6	6.7	6.8
Ungraded special(a)	0.6	0.6	0.7	0.6	0.7	0.7
Total secondary students	82.7	82.1	81.1	80.5	77.7	76.4

(a) Includes students in opportunity classes at other than special schools.

The first three years of secondary schooling provide a broad general education and during this period students are introduced to as wide a range of subjects as possible. Each school is free to develop its own combination of subjects and to determine the amount of time spent on each.

Specialisation increases in Years 11 and 12 when students tend to identify more clearly their vocational goals. However, the ability of schools to cater for diverse interests and capacities may be limited by their resources.

Area Schools

Area schools, which are located in some country districts, include a secondary section as well as primary. Because of their size the secondary curriculum offered may not be as varied as that of a large metropolitan high school, but a similar breadth and balance is sought.

Special Rural Schools

These schools were first established in remote country areas in 1966 with the intention of supplying a limited secondary education in areas where it had been shown that there was an obvious need for secondary education but where the establishment of an area school was not warranted. Courses in these schools are restricted to the core subjects, English, social studies, mathematics, science—sometimes craft where facilities are available, and geography and/or history. Instruction usually does not proceed beyond Year 10 level.

Correspondence School

Children who are unable to attend a secondary school may receive secondary education through the Correspondence School. Lessons are forwarded to cover academic, commercial and art subjects up to Year 11 standard. Assistance may take the form of full correspondence or supplementary courses. Supplementary courses are conducted through a primary school head teacher who may, in the case of remoteness from secondary school facilities, conduct grades beyond Year 7. Courses are also supplied to

students in smaller secondary schools who wish to do a specific subject which is not available because of staffing problems.

Isolated students who wish to do matriculation studies (Year 12) are enrolled through the South Australian Open College, a Department of Further Education service. Some adult students whose level of literacy and numeracy make it difficult to work through the Open College, do enrol in the Correspondence School. In 1980, 440 secondary students were enrolled at the Correspondence School, including 230 students attending other schools. There were 230 adult students studying secondary subjects. With the 460 primary students, this made a total of 1 130 students enrolled at the Correspondence School in 1980.

The Curriculum

The aim of all secondary schools is to provide courses of study that best suit the needs of individual students. This has resulted in schools offering as wide a range of subjects and syllabuses as possible.

Secondary school subject curriculum committees, which are comprised of representatives of a wide spectrum of interests associated with education, meet regularly to discuss courses of study and to establish new syllabuses for secondary students. Although syllabuses are distributed to all teachers, they are in no way prescriptive. They are adapted to cater for the needs and abilities of students.

School Libraries

During the past decade there has been a rapid improvement in the quality of library service in South Australian schools. This has been caused by a combination of factors including the provision of trained teacher-librarians in most schools and multiple professional and support staff in the larger schools; the upgrading of education and in-service training courses for teacher-librarians; and the development of support and advisory services in the School Libraries Branch and at the regional level. School libraries have changed in concept from book-oriented libraries to multi-media resource centres containing a large range of print and non-print materials which provide students and staff flexibility in choosing the medium best suited to their needs at a particular time. One of the major new innovations has been the development of school/community libraries in a number of small country high schools and area schools.

Libraries in government schools have the central support services of the School Libraries Branch of the Education Department to assist them. Services offered include central cataloguing, book reviewing and selection, a quarterly professional publication, *Review*, and a central library and bulk loan scheme as well as an advisory service to principals, teachers and librarians. Important among the support services is computer based cataloguing which commenced late in 1978. The SAERIS system provides cataloguing data on microfiche and computer printed catalogue cards for schools throughout the State.

Government Schools: Library Statistics, South Australia

Particulars	Unit	1977	1978	1979	1980
Teacher-librarians	No.	521	549	561	605
Library aides	No.	335	514	620	793
Books held	million	3.2	3.4	4.6	3.9
Other materials	million	1.5	2.1	2.4	1.1
Amount spent	\$ million	1.59	2.17	2.13	2.30

NON-GOVERNMENT SCHOOLS

Secondary education is also provided by non-government schools; these schools, for the most part, are identified with various religious denominations. Non-government secondary schools usually charge fees, but a limited number of internal scholarships are available. In addition to normal day attendance some non-government schools offer boarding facilities for country students. Non-government schools provide academic courses preparing students for the Public Examinations Board examination at the Year 12 level. Church schools give religious as well as secular education.

In the next table non-government school students 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 1980 Catholic schools accounted for 74 per cent of primary students and 60 per cent of secondary students attending non-government schools.

Students at Non-government Schools, South Australia
At or about 1 July

Denomination of School	1976	1977	1978	1979	1980
Primary:					
Catholic (a)	17 666	17 594	17 120	16 907	17 237
Church of England	1 375	1 483	1 513	1 587	1 688
Lutheran	1 411	1 504	1 726	1 868	1 980
Seventh Day Adventist	187	222	237	236	234
Uniting Church (b)	965	1 025	1 083	1 147	1 194
Other	—	—	136	212	240
Non-denominational (a)	573	533	538	634	774
Total primary	22 177	22 361	22 353	22 591	23 347
Secondary:					
Catholic	9 845	9 941	10 143	10 416	10 637
Church of England	2 193	2 121	2 056	2 050	2 153
Lutheran	994	951	926	902	915
Seventh Day Adventist	140	152	154	176	168
Uniting Church (b)	2 592	2 548	2 401	2 430	2 457
Other	—	—	14	30	43
Non-denominational	1 358	1 372	1 394	1 377	1 396
Total secondary	17 122	17 085	17 088	17 381	17 769

(a) Includes students at special schools.

(b) From 22 June 1977 the Congregational, Presbyterian and Methodist Churches combined to form the Uniting Church in Australia.

Catholic Schools

The Catholic school system provides secondary education at boarding and day colleges in metropolitan and country areas. The schools seek to serve the needs of students by providing (where appropriate) courses in technical education, business and commercial education and general education together with academic courses for those seeking admission to tertiary education after matriculation (Year 12). The majority of Catholic secondary schools are owned and operated by the religious communities who conduct them and are supported by fees charged and government grants.

Other

The Lutheran Church and the Seventh Day Adventist Church conduct secondary schools and there are three non-denominational secondary schools. Secondary education is provided also at primary/secondary schools (see page 177).

Training in typing and shorthand is provided at privately owned business colleges which specialise in this field. A number of these colleges also prepare students in certain Public Examinations Board subjects.

Summary

The following table gives details of all non-government schools and covers both primary and secondary education. Additional information is shown on pages 177-8.

Non-government Schools, South Australia

Year	Number of Schools	Number of Teachers (a)	Students on Roll at or about 1 July				Total
			Primary (b)		Secondary		
			Males	Females	Males	Females	
1976	147	1 989	11 055	11 122	8 207	8 915	39 299
1977	145	2 070	11 150	11 211	8 043	9 042	39 446
1978	151	2 152	11 206	11 147	8 041	9 047	39 441
1979	155	2 296	11 365	11 226	8 274	9 107	39 972
1980	159	2 394	11 702	11 645	8 500	9 269	41 116

(a) Full-time teachers plus the full-time equivalent of part-time teachers.

(b) Includes students at special schools.

EXAMINATIONS AND EDUCATION ASSISTANCE

Examinations

In addition to internal examinations conducted by the schools the Public Examinations Board (PEB) conducts a further examination at the completion of the fifth year of secondary education. Before 1966 this examination had been known as the Leaving Honours examination and while considered a desirable fore-runner to university study had not been compulsory for entrance to the University of Adelaide (matriculation being based on the Leaving examination). Commencing with 1966 this examination became the Matriculation examination.

Matriculation Examination: Candidates and Subjects Presented, South Australia

Subject	1976	1977	1978	1979	1980
Ancient languages(a)	26	25	15	13	18
Art	1 214	1 262	1 203	1 091	1 062
Asian languages(b)	98	123	205	201	287
Biology	6 288	5 981	5 704	5 385	5 017
Chemistry	2 523	2 505	2 574	2 707	2 808
Classical Studies	1 683	1 587	1 504	1 434	1 278
Economics	3 113	2 869	2 819	2 789	2 817
English	6 931	6 506	6 186	6 006	5 737
Geography	4 266	3 781	3 606	3 432	3 066
Geology	1 387	1 520	1 613	1 557	1 495
History(c)	5 715	5 511	4 912	4 752	4 171
Mathematics 1	1 997	2 011	2 152	2 256	2 315
Mathematics 2	1 990	2 004	2 145	2 255	2 310
Mathematics IS	2 959	2 886	2 653	2 667	2 690
Music	310	362	318	466	499
Physics	2 632	2 667	2 688	2 769	2 913
Other modern languages(d)	996	977	930	1 136	1 225

(a) Ancient Greek and Latin; there were no candidates for Ancient Greek in 1980.

(b) Chinese, Indonesian, Japanese, Malay and in 1980 Vietnamese.

(c) American, Ancient, Australian, Medieval, Modern European and Modern World History.

(d) Dutch, French, German, Italian, Lithuanian, Greek, Polish, Russian, Spanish, and from 1977 Hungarian and Latvian. Hebrew was included in 1976 only.

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 to 1979 the Board issued to each Intermediate, Leaving and Matriculation examinee a certificate showing the grade achieved in each of the subjects in which examined. The last PEB Intermediate examination was held in 1968 and the last Leaving examination in 1974. The total number of candidates who presented for examination by the Board in one or more subjects at the 1980 Matriculation Examination was 8 951.

PRIMARY AND SECONDARY EDUCATION ASSISTANCE

The Commonwealth Government, the State Government and various private benefactors provide assistance to various categories of primary and secondary students.

South Australian Government

In 1981, under Primary and Secondary Books and Materials grants, cash grants of between \$11.30 and \$12.30 per primary student and \$45 per secondary student were paid to all government and non-government schools to assist with the cost of books and materials. Books bought from the grant become school property and are loaned for school use.

Students who have to travel considerable distances to the nearest school, or school bus, may also receive travelling expenses.

If students are forced to live away from home, an isolated children's allowance is normally payable by the Commonwealth Government. In a few cases where Commonwealth assistance is not available the South Australian Government pays boarding allowances and may award rural scholarships.

Commonwealth Government

The Scheme of Assistance for Isolated Children assists the parents of students who do not have reasonable daily access to an appropriate government school. The main aim of this scheme is to assist student children whose homes are geographically isolated. However, assistance is also available in certain circumstances to children with disabilities who must live away from home to attend school or study by correspondence and to students undertaking a special type of course or specialised remedial teaching. Students who must live away from home to undergo diagnostic testing of an educational nature may also be assisted, as may students from itinerant families.

The Secondary Allowances Scheme aims to provide assistance to families with a limited income so that they may maintain their children at school for the final two years of secondary education. Under this scheme an allowance of up to \$660 a year may be paid subject to a means test.

The Commonwealth Government also provides financial assistance for the education of students 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 students under the age of twenty-one who attend an approved secondary school. Grants also may be made available to full-time students who attend an approved primary school provided the student is fourteen years of age but under

twenty-one years. Benefits under this scheme comprise textbook and uniform allowances, living allowance, personal allowance and fees. Students who must live away from their normal place of residence in order to attend school are eligible for a boarding allowance in lieu of living allowance, and for up to three return journeys to their home each year.

TERTIARY EDUCATION ASSISTANCE

In 1974 the Commonwealth Government abolished tuition fees at universities, colleges of advanced education, and technical colleges and introduced the Tertiary Education Assistance Scheme.

The Tertiary Education Assistance Scheme is intended to assist students in approved courses at universities, colleges of advanced education, technical colleges and certain other approved tertiary institutions in Australia. Assistance under the scheme may include payment of living allowance, incidentals allowance, allowance for a dependent spouse and/or child, and fares allowance. All benefits are subject to a means test and a student must be eligible for living allowance in order to receive any of the other benefits. The maximum amount of living allowance payable is \$2 583 a year for independent students. Students eligible to receive living allowance at the away from home rate and students living at home may receive up to \$2 310 or \$1 402 a year respectively. In addition, each grantee may receive up to \$273 in lieu of family allowance paid in respect of the dependent student by the Department of Social Security.

The Commonwealth Teaching Service Scholarship Scheme is being phased out and no further awards will be made.

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

Awards are also available for postgraduate study either in research or in course work. Assistance is by means of taxable allowances paid to award holders. The allowances payable consist of a living allowance, an incidentals allowance and under certain circumstances special allowances in respect of dependants, cost of travel, cost in setting up residence, and a contribution to costs associated with the production of a thesis. The living allowance payable to an award holder with no dependants is \$4 620 a year.

Students Receiving Commonwealth Government Student Assistance South Australia, At 30 June

Scheme	1979	1980
Assistance for Isolated Children	623	576
Secondary Allowances	2 537	2 880
Aboriginal Secondary Grants	1 004	1 054
Tertiary Education Assistance	7 737	7 489
Commonwealth Teaching Service Scholarships(a)	19	11
Pre-school Teacher Education(a)	7	1
Postgraduate Awards	205	181
Aboriginal Study Grants	253	340
Adult Secondary Education Assistance	286	332

(a) No new awards are being offered under these schemes.

OTHER ASSISTANCE

Under the Adult Secondary Education Assistance Scheme the Commonwealth Government provides assistance to adult students undertaking one year full-time matriculation level courses at technical colleges, secondary schools and other approved institutions. This assistance is available subject to a means test and certain conditions of eligibility. Assistance under the scheme may include living allowance, incidentals allowance, allowance for a dependent spouse and/or child, and fares allowance. An applicant must be eligible for living allowance in order to receive any of the other benefits and the provision of living allowance is subject to a means test. The maximum rates of living allowance are the same as the Tertiary Education Assistance Scheme.

TERTIARY EDUCATION

The Tertiary Education Authority of South Australia was established on 1 July 1979 under the Tertiary Education Authority Act, 1979 to promote, develop and co-ordinate tertiary education in South Australia. The Authority replaced the former South Australian Board of Advanced Education which since 1972 had functioned as a co-ordinating body for the advanced education sector only.

The Authority is responsible for the co-ordinated development of the three sectors of tertiary education—universities, colleges of advanced education and further education. The Authority is also the State accrediting authority for advanced education and further education awards; it provides advice on the allocation of capital and recurrent funds to post-secondary institutions and is responsible for the overall planning of the State's provision for tertiary education.

The Authority is empowered to consult and negotiate with national authorities concerned with tertiary education, including the Tertiary Education Commission and the Australian Council on Awards in Advanced Education.

THE UNIVERSITY OF ADELAIDE

The University of Adelaide was established in 1874 by Act of Parliament passed by the South Australian Parliament. The academic work of the University began in March 1876, with four professors, three part-time lecturers, a registrar-librarian, and eight matriculated and fifty-two non-graduating students attending classes in arts and science subjects. Within a decade, law, music and medicine were added; in 1888 studies in engineering were instituted in collaboration with the South Australian School of Mines and Industries; and at the turn of the century the University broke new ground for Australian universities by founding a conservatorium of music and by instituting studies in commercial subjects. Between the two Wars the Waite Agricultural Research Institute and faculties of dentistry and economics were established; studies in agricultural science and engineering greatly developed; and diploma courses in pharmacy, public administration and physical education instituted.

The original full-time academic staff of four in 1876 had grown by May 1980 to 70 professors, 106 readers, 282 senior lecturers, 78 lecturers, and 122 tutors and demonstrators. Teaching by part-time staff amounted to 60 000 hours in 1980. Part-time staff were mainly engaged in large first-year science classes involving laboratory work and in the faculties of engineering, law, medicine and dentistry.

The governing body of the University of Adelaide is the Council, comprising the Chancellor and the Vice-Chancellor (*ex officio*), twenty-four members elected by a Convocation of Electors, four members elected by the undergraduates and five members appointed by Parliament. The principal advisory committees of the Council are the Education Committee and the Finance Committee each of which is appointed by the

Council. There is also the usual university structure of faculties, boards of studies and special committees to advise on particular aspects of the University's work.

In 1980 the University had 11 faculties: arts (11 departments); economics (2); science (11); agricultural science (7); engineering (4); medicine (8); law; mathematical sciences (5); music; dentistry (4); and architecture and planning. Higher degrees are provided in all faculties and post-graduate diploma courses are provided in applied psychology, psychotherapy, environmental studies, computing science, and education.

The University of Adelaide, Enrolments^(a)

Course	1976	1977	1978	1979	1980
Higher degree candidates ^(b)	1 243	1 218	1 164	1 140	1 092
Undergraduate, diploma, certificate and miscellaneous students:					
Agricultural Science	224	199	208	204	217
Architecture	176	188	189	188	208
Arts	2 891	2 692	2 415	2 260	2 194
Dentistry	313	309	287	289	262
Economics	752	770	761	810	809
Engineering	617	621	616	599	604
Law	609	639	642	658	670
Mathematical sciences	414	418	457	485	539
Medicine	810	781	741	732	719
Music	162	138	148	172	152
Science	1 109	1 082	1 004	999	995
Technology	2	—	—	—	—
Miscellaneous (SAIT) ^(c)	123	141	160	152	157
Elder Conservatorium ^(d)	210	210	192	202	207
Visiting students ^(e)	150	149	192	206	209
Total	9 805	9 555	9 176	9 096	9 034

(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.

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 Continuing 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 comprising, for full-time students, an entrance fee of \$20 and an annual fee of \$140; the annual fee for part-time students is proportionately less.

In terms of student enrolments, the University reached its maximum size (almost 10 000 students) in 1976 and since then there has been a steady decrease in enrolments.

From its inception until the end of 1980 the University had conferred 34 424 degrees and 9 483 diplomas by examination. There were 1 545 degrees conferred and 204 diplomas awarded in 1980.

Details of student enrolments are given in the following table.

The University of Adelaide: Enrolments, 1980^(a)

Course	New Students (b)	All Students				
		Full-time	Part-time	External	Staff	Total
Higher degree candidates	218	522	366	105	93	1 086
Master's qualifying candidates	4	1	4	—	1	6
Undergraduate, diploma and miscellaneous students:						
Agricultural Science ..	75	182	35	—	—	217
Architecture	66	199	9	—	—	208
Arts	773	1 292	880	19	3	2 194
Dentistry	42	240	22	—	—	262
Economics	203	393	416	—	—	809
Engineering	199	552	52	—	—	604
Law	174	576	94	—	—	670
Mathematical sciences	221	414	122	1	2	539
Medicine	122	714	5	—	—	719
Music	45	138	14	—	—	152
Science	340	803	189	1	2	995
Misc. (SAIT)(c)	79	—	155	2	—	157
Elder Conservatorium (d)	70	—	207	—	—	207
Visiting students(e)	154	3	200	5	1	209
Total	2 785	6 029	2 770	133	102	9 034

(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.

Waite Agricultural Research Institute

The Waite Institute was established as a research institute at Urrbrae in 1924, through the generous benefaction of Mr Peter Waite. Upon his death in 1922 Peter Waite endowed the University with the properties of Urrbrae, Claremont and Netherby (about 120 hectares) together with Urrbrae House and ancillary buildings and also a Trust Fund of \$120 000. A further 40 hectares has been added by purchase to the original gift, bringing the total to about 160 hectares at the Waite campus. The Institute also has the Mortlock Experiment Station of 275 hectares near Mintaro, which was established in 1965 through the generosity of the late Mr J. A. T. Mortlock, and the Charlick Experiment Station of 112 hectares near Strathalbyn, the purchase of which was made possible by a bequest from the late Mr Claude S. Charlick.

Under the provisions of the Agricultural Education Act of 1927 the functions of a teaching faculty of agricultural science were added to the Institute's research functions. The Institute at present has about 100 undergraduate and 90 postgraduate students. The latter undertake either Master's or Doctor of Philosophy studies, and about one third of their number is from overseas. In recent years, postgraduate students have been drawn from more than thirty countries.

There are seven departments at the Waite Institute, spanning the spectrum of the

agricultural sciences. They are agricultural biochemistry, agronomy, animal physiology, entomology, plant pathology, plant physiology and soil science. There is also a biometry section. The Institute has a distinguished research record and a world-wide reputation. Some of its more notable achievements have been in the field of soil trace element deficiencies, specifically of manganese, copper and molybdenum, which led to the development of about 50 000 square kilometres of previously unproductive country on the Yorke Peninsula, Ninety Mile Desert and the south west of Western Australia. The work on manganese was the fore-runner of trace element work throughout the world. More recently, a method of controlling the cancerous disease of stone fruits, crown gall, by biological means has been developed. This is expected to result in the elimination of losses which at present amount to about \$150 million throughout the world. The barley variety 'Clipper' which was released by the Institute several years ago is the most widely grown variety in Australia and is grown in several other countries. It is estimated to have added \$40 million per annum to the value of Australia's barley crops.

Amongst the many research programs currently being undertaken at the Institute are breeding programs for wheat, barley and triticale, investigations of mechanisms of drought tolerance in cereals, soil chemistry, biological control of insects, pasture management, beef cattle metabolism, investigations into plant viruses and many other projects of vital importance to agriculture in Australia and overseas.

In addition to the Waite Agricultural Research Institute, the CSIRO Divisions of Soils, Horticulture, and Mathematics and Statistics and also the Australian Wine Research Institute are located on the Waite Institute campus, making it one of the most important centres of research in Australia.

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 1980 were as follows: central library 874 221 volumes; law library 67 843; medical library 95 136; music library 2 603 bound volumes of scores and 15 197 pieces of music in sheets; and the Waite Agricultural Research Institute Library 37 288 volumes, making total holdings equivalent to 1 092 288 volumes, including the equivalent of 113 912 volumes held in microform.

During 1980 the Library issued 289 816 extramural loans to students, staff and graduates; 30 559 to other libraries in South Australia; and 7 653 to libraries in other States and countries. It received 3 468 loans from other libraries. Accessions totalled 60 671 volumes including 232 musical works in sheets and the equivalent of 23 987 volumes in microform, while withdrawals numbered 791 volumes. Serial titles regularly received numbered 18 655. Expenditure on staff, books, serials and binding and for other library purposes amounted to \$2 841 892 or 6.9 per cent of total university expenditure.

Elder Conservatorium of Music

Adelaide was the first University in Australia to establish a Chair of Music (1884) and a Conservatorium of Music (1897). In addition to full degree courses in practical studies,

musicology and composition, the Elder Conservatorium of Music provides instruction in the various branches of musical performance for part-time students.

Concert experience for students is provided through regular informal concerts internal to the Conservatorium and by occasional public concerts. The University Music Society, each year, arranges a series of night concerts, by members of the staff, who also provide a series of Sunday afternoon public concerts and recitals during the winter months.

In 1980 there were 151 students proceeding to the degree of Bachelor of Music and 207 students taking single subject practical studies.

Finance

Details of income and expenditure for the period 1976 to 1979 are shown in the following table.

The University of Adelaide, Finance^(a)

Particulars	1976	1977	1978	1979
	\$'000			
Income for capital purposes:				
Commonwealth Government	1 776	3 917	5 982	3 289
Income for other purposes:				
Commonwealth Government	35 157	38 753	41 071	44 306
State Government	214	288	382	491
Student fees	128	143	138	203
Other	1 915	3 094	2 817	3 508
Total income	39 190	46 195	50 390	51 797
Expenditure:				
Teaching and research	28 396	32 171	33 997	37 134
Administration	2 530	2 711	2 995	3 410
Libraries	2 417	2 666	3 027	3 384
Buildings, premises, grounds	3 273	6 455	7 120	4 778
Other	1 949	2 084	1 969	2 171
Total expenditure	38 565	46 087	49 108	50 877

(a) Includes Waite Agricultural Research Institute.

Residential Colleges

The residential colleges are independent bodies affiliated with the University. Three of the four colleges for undergraduates were founded by churches but impose no denominational restrictions on admission; the fourth undergraduate college and the college for postgraduate students have no denominational affiliation. All are situated in North Adelaide within easy walking distance of the University.

Their names, church affiliations, years of founding and residential capacities are:

St Mark's	Church of England	1925	117 students, 12 tutors;
St Ann's	Non-denominational	1947	134 students, 8 tutors;
Aquinas	Catholic	1948	102 students, 12 tutors;
Lincoln	Uniting Church	1952	176 students, 15 tutors;
Kathleen Lumley ...	Non-denominational (postgraduate)	1968	60 students.

St Mark's until 1980 confined 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.

Other Special Features

Unusual features of the University's work include its extensive research into the linguistics, myths, legends and musicology of the Aborigines; teaching and research in Computing Science ranging from first year undergraduate level to the Doctorate of Philosophy; the Mawson Institute for Antarctic Research (which also takes postgraduate students); upper atmosphere research by balloon and rocket; mineral exploration; arid zone studies; and adult education by the University's Department of Continuing Education.

THE FLINDERS UNIVERSITY OF SOUTH AUSTRALIA

During 1958 when the University of Adelaide began to plan two major new buildings on its existing 13 hectare site it became apparent that further expansion would have to take place elsewhere.

Early in 1961 the South Australian Government indicated that it would make available to the University of Adelaide an area at Bedford Park, of some 150 hectares, situated about eleven kilometres from the centre of Adelaide in the foothills of the Mount Lofty Ranges. Consequently the University of Adelaide made a submission for financial support to the Australian Universities Commission in 1962, which gave approval for the planning of Bedford Park. The institution became known as 'The University of Adelaide at Bedford Park'. Towards the end of 1965 the South Australian Government decided to make the University of Adelaide at Bedford Park a fully autonomous university under the name 'The Flinders University of South Australia', after the great explorer and hydrographer, Matthew Flinders. A more detailed history of the Flinders University was included on pages 163-8 of the *South Australian Year Book 1967*.

The Flinders University of South Australia Act came into force on 1 July 1966. The Act places the whole management of the University in the hands of a council with powers to make statutes and regulations subject to the approval of Convocation which comprises the graduates of the University, graduates of other universities who have been awarded a diploma of the University, and full-time members of the staff.

The Council comprises thirty-one members: the Chancellor; the Vice-Chancellor; the President of the Students Association; five members of the Parliament of South Australia; three members appointed by the Governor; eight members of the academic staff elected by the academic staff; one member of the ancillary staff elected by the ancillary staff; four persons elected by Convocation; one postgraduate student elected by the postgraduate students; three undergraduate students elected by the undergraduate students; and not more than three other members co-opted by the Council.

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 academic staff of each school is appointed to act as the Chairman of the School for a period of three years.

The Flinders University of South Australia
Full-time Staff Establishment, 1 January 1980

Schools:		
Academic (teaching and research)		308
Technical		152
Clerical		82
Library:		
Professional		23
Other		45
Registry:		
Senior administrative		29
Clerical		58
Caretaking, grounds and maintenance		63
Academic services:		
Professional		5
Other		3
Student services:		
Professional		8
Other		9
Total		785

At present there are eight Schools: Humanities; Social Sciences; Mathematical Sciences; Physical Sciences; Biological Sciences; Medicine; Earth Sciences; and Education. 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-six disciplines established within them.

In 1980 the University established a Board of Studies in Theology.

Details of enrolments are shown in the following two tables.

The Flinders University of South Australia: Enrolments, 1980

Course	Commencing Students	All Students		
		Full-time	Part-time	Total
Arts	483	940	617	1 557
Sciences	198	410	73	483
Economics	130	227	117	344
Education	6	29	8	37
Physical Education	10	83	10	93
Social Work	8	1	17	18
Medicine	64	348	—	348
Theology(a)	54	33	21	54
Higher degrees	88	147	236	383
Master qualifying	13	4	14	18
Postgraduate diploma	145	118	127	245
Postgraduate bachelor	57	80	47	127
Miscellaneous	105	4	139	143
Total	1 361	2 424	1 426	3 850

(a) Commenced 1980.

The Flinders University of South Australia, Enrolments

Course	1977	1978	1979	1980
Undergraduate bachelor degrees:				
Arts	1 795	1 708	1 683	1 557
Science	441	444	440	483
Economics	331	297	329	344
Education	119	103	76	37
Physical Education	103	107	113	93
Medicine	231	287	341	348
Social Work	—	—	14	18
Theology(a)	—	—	—	54
Postgraduate bachelor and diploma:				
Bachelor Social Administration	107	101	86	91
Bachelor Special Education	61	47	34	36
Diploma Education	152	94	60	53
Diploma Education (Primary)	28	29	15	7
Diploma Education Administration	8	2	—	—
Diploma Social Sciences	} 66	{ 25	33	41
Diploma Applied Psychology			36	41	39
Diploma Nutrition and Dietetics	14	12	12	12
Diploma Accounting(b)	—	46	74	91
Diploma Urban and Social Planning(c)	—	—	10	2
Higher degrees (including master qualifying) ...	404	429	418	401
Miscellaneous	185	153	167	143
Total	4 045	3 920	3 946	3 850

(a) Commenced in 1980.

(b) Commenced in 1978.

(c) Commenced in 1979.

The Library

The acquisition of books for the Library commenced in 1963 when the first Library staff was appointed. By the time teaching began in 1966 a collection of some 60 000 volumes had been assembled. At the end of 1980 the collection totalled 478 000 volumes and approximately 30 000 volumes are being added each year; 7 470 periodicals are currently received. Emphasis is placed on the acquisition of material to support the current teaching and research programs of the University. Loans to staff and students during 1980 totalled 110 000. The Medical Library, situated in the Flinders Medical Centre, is a branch of the main Library and holds about 27 000 volumes on medicine and allied subjects for University and Medical Centre users.

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, together with the other seven tertiary institutions in South Australia, have established the South Australian Tertiary Admissions Centre to which all students wishing to enrol in any of the institutions must apply for admission. Admission is subject to selection within the quota and is based on academic merit.

Degrees Offered

The University offers the following degrees; Bachelor of Arts, Bachelor of Economics, Bachelor of Education (Primary), Bachelor of Medicine and Bachelor of Surgery, Bachelor of Education (Physical Education), Bachelor of Science, Bachelor of Social Work, Bachelor of Social Administration, Bachelor of Special Education, Bachelor of Theology, Master of Arts, Master of Arts (Drama), Master of Economics, Master of Education, Master of Educational Administration, Master of Psychology, Master of Social Administration, Master of Science, Doctor of Philosophy, Doctor of Letters and Doctor of Science. In addition there are postgraduate diplomas in Accounting, Applied Psychology, Social Sciences, Education (Secondary), Nutrition and Dietetics, and Urban and Social Planning.

The Flinders Institute for Atmospheric and Marine Sciences

The Flinders Institute for Atmospheric and Marine Sciences was established by the Council to further the University's interest in physical and environmental aspects of the air and the sea.

Academic staff and postgraduate students of the University who seek to conduct their research within the framework of the Institute's operations may be considered as members. As an association of scientists with related research interests, the Institute is able to undertake a relatively wide range of investigations, the locations of which range from Antarctica to Australia's north-west continental shelf.

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. As such, in many areas of the environmental and earth sciences, the Institute is able to play 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.

In recent years, the work of the Institute has been extensively supported by, or associated with, the Australian Research Grants Committee, the Commonwealth Department of Environment, the Bureau of Meteorology, the Antarctic Division of the Department of Science, Department of Defence, the South Australian Housing Trust, the Engineering and Water Supply Department, the US National Centre for Atmospheric Research, the US National Science Foundation, Swissteco Radiation Instruments, the Horace Lamb Institute of Oceanography, Iceberg Transport International Ltd and the University's own research budget.

Flinders University Institute for Energy Studies

The Institute for Energy Studies at Flinders University has a membership extending through the disciplines of biology, chemistry, physics, geography, mathematics and meteorology. The aim of the Institute is to explore alternative methods of energy production which are non-polluting. The projects under investigation are concerned with collection, storage and conversion of various forms of solar energy, and aspects of fusion physics. The Institute publishes reports on significant developments by its research associates.

National Institute of Labour Studies

The National Institute of Labour Studies in the School of Social Sciences encourages graduate study, research and publication in the areas of industrial relations, labour economics, industrial psychology and sociology, and labour history. It publishes a quarterly review of labour events, *The Australian Bulletin of Labour*, and a working paper series. Current research projects include studies of worker participation in industry, interaction between work and social activity, unemployment and wage relativity problems.

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.

The Centre for Research in the New Literatures in English (CRNLE)

In April 1977, Flinders University established, within the School of Humanities, the Centre for Research in the New Literatures in English (CRNLE).

The primary aim of the CRNLE is promotion of research in its field by providing a specialist library collection; developing and supervising postgraduate research programs; facilitating more effective teaching of undergraduate courses; and sponsoring research investigations that involve cultural and social questions and are based on cross-cultural, comparative and inter-disciplinary approaches to the study of the literatures and societies concerned.

Membership of CRNLE is open to academic staff, research assistants, graduate students, visiting scholars who are working in conjunction with the Centre, writers and other qualified persons.

The Centre for Applied Social and Survey Research (CASSR)

The Centre for Applied Social and Survey Research (CASSR) was established by the University Council in 1977 to promote applied social and survey research, disseminate the findings of research through the publication of technical research papers and monographs and the holding of seminars, workshops and summer schools.

In addition to conducting its own research activities and providing a survey research facility for staff and students within the University, CASSR can provide consulting advice to government and private enterprise in a wide range of applied social research fields and conduct sample survey research and data analysis in accordance with the University's outside research contract policy.

CASSR's activities are controlled by a management committee which comprises a director, academic staff of the University, and a number of experts in social research from outside organisations.

Institute for Atomic Studies

The Institute for Atomic Studies was formed in 1976 to act as a focus for the interaction of scientists and graduate students and for the dissemination of reports of research involving the structure and interaction of microscopic quantum systems. Present members, within the disciplines of physics and chemistry, are pursuing fundamental research in the fields of experimental and theoretical atomic collision physics, low and intermediate energy nuclear theory, quantum field theory, statistical physics, electron transport phenomena and quantum and surface chemistry.

Institute for Australasian Geodynamics

In June 1976, the Council of the University approved the formation of the Institute for Australasian Geodynamics. The Institute grew out of the research work undertaken by the geology and geophysics staff members of the School of Earth Sciences since 1972 in various aspects of geodynamics.

The Institute was formed to provide a focus for geodynamic research within the School of Earth Sciences, but has the broader aim of:

- (a) fostering co-operative studies between Australian and Asian scientists on the geodynamic evolution of Australasia;
- (b) facilitating the training of Asian and Australian research scholars in geodynamic aspects peculiar to the region;
- (c) encouraging and co-ordinating specific research projects and the publication of reports; and
- (d) setting up and maintaining a data bank of regional geological and geophysical information.

Centre for Neuroscience

The Centre for Neuroscience was established by the Council of the Flinders University of South Australia to foster the interests in the neurosciences that existed within the Schools of Medicine, Biological Sciences and Social Sciences and in the Flinders Medical Centre.

Membership is open to University academic staff working in the neurosciences. Postgraduate students and research staff are eligible to become associate members and associate status is also granted to academic and scientific staff at other institutions in South Australia. At present the membership comprises 36 members and 34 associates.

University Hall

The Flinders University's hall of residence was completed early in 1971. During the academic year it offers accommodation for more than 200 students, mostly in single furnished study bedrooms. In addition some larger areas may be offered as share accommodation. During University vacations the Hall is available for conferences organised by outside bodies.

Finance

Details of income and expenditure for the period 1976 to 1979 are shown in the following table.

The Flinders University of South Australia, Finance

Particulars	1976	1977	1978	1979
	\$'000			
Income for capital purposes:				
Commonwealth Government	1 153	2 601	183	212
Income for other purposes:				
Commonwealth Government	15 943	18 113	19 651	21 200
State Government	84	249	220	84
Other	832	784	943	1 356
Total income	18 012	21 747	20 997	22 852

The Flinders University of South Australia, Finance (continued)

Particulars	1976	1977	1978	1979
	\$'000			
Expenditure:				
Teaching and research	11 603	13 193	14 703	15 642
Administration	2 065	2 344	2 485	2 696
Libraries	1 200	1 447	1 496	1 569
Buildings, premises, grounds	1 837	3 674	1 534	1 440
Other	640	763	962	1 204
Total expenditure	17 345	21 421	21 180	22 551

ADVANCED EDUCATION

There are six colleges of advanced education in South Australia offering courses in a wide range of fields. The colleges are Adelaide College of the Arts and Education, Hartley College of Advanced Education, Roseworthy Agricultural College, Salisbury College of Advanced Education, South Australian Institute of Technology and Sturt College of Advanced Education.

Further details of college activities are listed below.

ADELAIDE COLLEGE OF THE ARTS AND EDUCATION

Adelaide College of the Arts and Education was formed in January 1979 by the merger of the former Adelaide and Torrens Colleges of Advanced Education. Adelaide Teachers College, the original teacher training institution in South Australia, was opened on 1 June 1876. It was parent to Western Teachers College which combined with the South Australian School of Art in 1973 to form the then Torrens College of Advanced Education. Adelaide Teachers College become Adelaide College of Advanced Education in 1973. Adelaide College of the Arts and Education is the oldest institution in Australia with an unbroken history devoted to the training of teachers.

The City Campus is situated in Kintore Avenue, Adelaide, on the site of the former Adelaide Teachers College which it first occupied in 1927. The activities there are related principally to the training of secondary teachers in Arts, Music, Drama, School Librarianship, Religious Studies, and Community Languages. Postgraduate teacher education courses are also offered in Education, Teaching, Educational Administration, Curriculum Development, Community Languages and Religious Education. Courses are also offered in Interpreting/Translating and Labour Studies. The degree course in Music performance established at the former Torrens College of Advanced Education will be based at the campus in Kintore Avenue from 1981. A course in Jazz performance has also been introduced.

The Underdale Campus is a modern complex where courses are offered at the undergraduate level in Art, Design, Dance, Aboriginal Studies, Training and Development and Teacher Education for primary teachers, secondary teachers; secondary teachers in Art, Commercial Studies, Design, Home Economics, Physical Education, Science and Technology and Industrial Arts; and in Further Education. Postgraduate courses in Art and Music Education, Further Education, Teaching English as a Second Language, Reading Education and Home Economics are offered at Underdale as well as a Bachelor of Education (In-Service) degree for qualified and experienced teachers.

Most programs are available to full-time, part-time and external students. The College

is the centre in the State for external studies at the advanced education level. The College's total enrolment was over 5 200 students in 1980.

HARTLEY COLLEGE OF ADVANCED EDUCATION

Hartley College of Advanced Education was formed by the amalgamation of Murray Park and Kingston Colleges of Advanced Education.

The college offers undergraduate and postgraduate courses in the fields of Primary and Early Childhood Education; undergraduate courses in Journalism, Communication Studies and Liberal Studies and postgraduate courses in Program Evaluation, Parent Education and Counselling, and specialised teaching areas.

ROSEWORTHY AGRICULTURAL COLLEGE

Roseworthy Agricultural College is a college of advanced education located fifty kilometres north of Adelaide. Established in 1883, it is the oldest of Australia's agricultural colleges.

The College provides advanced education and training, and conducts research in the theory, management and practice of primary production, in methods of agricultural marketing and in the industrial processes involved in the agricultural processing industries. In addition to normal classroom facilities the 1 200 hectare campus includes a dairy, modern winery, vineyards and orchard. About 500 hectares are cropped annually as part of the educational program for students. Residential accommodation is provided for students.

Livestock units include cattle (Jersey and Poll Shorthorn), sheep (Merino and Poll Dorset), pigs, horses and goats. A major wheat breeding program is conducted and the variety 'Lance' was released in 1978. Several grants from the Australian Research Grants Committee have been received by College officers for research in viticulture, animal nutrition, entomology and for a study of the adoption of the new variety, 'Lance', by wheatgrowers.

The College currently offers the following courses: Bachelor of Applied Science in Oenology, Diploma of Applied Science in Agriculture, Diploma of Applied Science in Natural Resources, Associate Diploma in Wine Marketing, Associate Diploma in Agriculture (including Farm Management, Agricultural Production, Horse Husbandry and Management Options) and Graduate Diplomas in Agriculture, Natural Resources and Wine.

To be eligible for admission to the undergraduate courses, applicants normally must have completed full secondary schooling. Selection is based on performance in examinations at Year 12 level of secondary education in South Australia, or equivalent, and for some courses on previous relevant practical experience. Provision is made for the admission of mature age students. Applicants for the graduate diploma courses must have completed an appropriate three-year tertiary course of study.

At 30 April 1980 there were 372 students enrolled at the College.

SALISBURY COLLEGE OF ADVANCED EDUCATION

The College, which is located on a 28 hectare site approximately 20 kilometres north of Adelaide, was established in 1968 as the Salisbury Teachers College. The College was granted autonomy and renamed Salisbury College of Advanced Education on 1 January 1973.

The College offers the following courses: Diploma of Teaching, a three-year full-time course for junior primary, primary and secondary teachers; Bachelor of Education degree course, a one-year full-time course undertaken on the completion of a Diploma of Teaching; Graduate Diploma in Teaching (two years part-time) in the fields of Popular Culture, Geography in Education, Jazz Education, Social Education, Oral Language, Primary Mathematical Education and Women's Studies; Graduate Diploma in Curriculum (two years part-time); Graduate Diploma in Educational Technology (two years part-time); Graduate Diploma in Outdoor Education (two years part-time) and the Graduate Diploma in Reading Education (two years part-time). The College also offers a Graduate Diploma in Recreation (two years part-time) and Associate Diploma courses in Recreation and in Parks and Wildlife Management (two years full-time).

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 were subsequently introduced.

Consequent upon government policy aimed at the independent development of colleges of advanced education the last degree students under the joint arrangement with the University of Adelaide graduated in 1976. The South Australian Institute of Technology Act, revised in 1972, empowered the Institute to grant its own degrees. The first of these awards was made at the 1973 graduation ceremony.

The Institute maintains a close relationship with the Education Department and the Department of Further Education, and since 1959 there has been a progressive transfer of control of certain activities. Classes up to and including Matriculation level and all trade classes were transferred to the control of the Education Department, as was the Adelaide Technical High School in September 1963.

A number of technician courses have progressively been transferred from the Institute to the Department of Further Education 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 but which lead to a certificate awarded by the South Australian Technician Certificate Board, will continue to be offered.

In addition to its campuses at North Terrace, City, and The Levels (approximately thirteen kilometres north of the city), the Institute operates a campus at Whyalla teaching at both professional and semi-professional levels. In 1980 the Institute taught over 800 subjects.

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.

A wide range of courses and subjects to various levels is offered. All twenty-three of the professional courses presented by the Institute have been accredited by the Australian Council On Awards In Advanced Education for the award of Institute degrees. The Institute offers a Masters' degree in Applied Science (Pharmacy), a Master of Business Administration degree and a Masters' degree (Research) which is available in fourteen areas. There are also twenty-three accredited graduate diploma courses.

For a number of years the Institute has offered courses which lead by various periods of part-time study to a level of qualification below that of the full professional. These courses provide for those employed in the broad area between the tradesman and the professional. In addition to eight Technician Certificate courses, the Institute also offers thirteen Associate Diploma and two Advanced Certificate courses which may be entered after completion of a Technician Certificate or twelve years of schooling. Degree, diploma and certificate courses applicable to local needs are conducted at the Institute's Whyalla campus.

Details of income and expenditure for the period 1976 to 1979 are shown in the following table.

South Australian Institute of Technology, Finance					
Particulars	1976	1977	1978	1979	
					\$'000
Income for capital purposes:					
Commonwealth Government	1 530	763	1 704	623	
Income for other purposes:					
Commonwealth Government	12 126	14 156	15 257	16 002	
Other	166	216	273	253	
Total income	13 822	15 135	17 234	16 878	
Expenditure:					
Capital (land, buildings, plant, furniture and equipment)	1 755	898	1 871	751	
Revenue	12 619	14 324	15 399	16 277	
Total expenditure	14 374	15 222	17 270	17 028	

The Library is situated at each of the three campuses of the Institute. The total holding at the end of 1980 was 185 000 volumes with some 3 500 periodical titles being received during the year. Loans to staff and students exceeded 120 000 in 1980.

Emphasis is placed on the acquisition of material in the applied sciences, technology and social sciences to support the Institute's teaching program. Collections of audio-visual materials including films, microforms, maps, prints, records and slides are being developed.

The following table shows the details of students and staff for the period 1976 to 1980.

South Australian Institute of Technology, Students and Staff					
Particulars	1976	1977	1978	1979	1980
Students:					
Individual enrolments	5 682	5 715	6 016	5 944	6 053
Subject enrolments	19 875	22 606	24 361	23 808	23 581
Full-time teaching staff	348	335	340	337	328
Part-time teaching staff	676	608	568	567	559

STURT COLLEGE OF ADVANCED EDUCATION

Sturt College of Advanced Education, formerly Bedford Park Teachers College, was established in 1966 at the same time as the Flinders University of South Australia. The College was granted autonomy and renamed on 1 January 1973. The College occupied its present buildings in 1967. The site, of about 9 hectares, is located approximately 11 kilometres south of Adelaide and is adjacent to Flinders University.

At present the College offers programs within the School of Teacher Education and the School of Health Professions. Within the School of Teacher Education, the Diploma of Teaching is offered in the areas of junior primary, primary and secondary teaching. Students successfully completing the fourth year of study, usually all secondary and a selected number of primary student teachers, receive the award of Bachelor of Education. The Bachelor of Education is also undertaken by in-service teachers and nurse educators who have previously completed the Diploma of Teaching or its equivalents. From 1977, a one-year full-time equivalent Graduate Diploma course in Community and School Relations has been offered. From 1979 a one-year full-time equivalent Graduate Diploma in Social Education has been offered, and from 1980 one-year full-time equivalent Graduate Diploma courses are offered in Health Education, Teaching English as a Second Language and in Teaching.

From 1975 the School of Health Professions has offered three-year full-time courses in nursing and speech pathology and, from 1977, a one-year full-time diploma course in Community Health Nursing and two-year diploma courses in Radiography and Nurse Education are being offered. A bridging course is available for hospital-trained nurses who wish to study for the Diploma of Applied Science (Nursing) award. Most of the programs offered in the School of Health Professions utilise the facilities, and to a lesser extent, the staff of the Flinders Medical Centre which is situated a few hundred metres from the College.

The following table shows for all Colleges of Advanced Education in South Australia, the number of students in various course levels and fields of study from 1978 to 1980.

**Colleges of Advanced Education, Students by Course Level and Field of Study
South Australia**

Course	1978	1979	1980
Master Degree:			
Applied Science	8	13	15
Building, Surveying and Architecture	1	1	—
Commerce and Business	—	—	23
Engineering and Technology	5	7	5
Paramedical	13	27	23
Total	27	48	66
Graduate Diploma:			
Agriculture	14	11	18
Applied Science	97	84	98
Building, Surveying and Architecture	47	72	45
Commerce and Business	377	325	363
Engineering and Technology	17	14	28
Liberal Studies	188	215	391
Music	17	17	5
Paramedical	17	20	16
Teacher Education	621	743	1 020
Total	1 395	1 501	1 984

**Colleges of Advanced Education, Students by Course Level and Field of Study
South Australia (continued)**

Course	1978	1979	1980
Bachelor Degree:			
Agriculture	61	70	73
Applied Science	345	357	368
Art and Design	193	269	363
Building, Surveying and Architecture	309	289	284
Commerce and Business	1 089	1 049	1 081
Engineering and Technology	586	614	687
Liberal Studies	585	575	714
Music	43	59	81
Paramedical	559	609	594
Teacher Education	1 737	2 430	2 854
Total	5 507	6 321	7 099
Diploma:			
Agriculture	172	119	108
Applied Science	—	64	50
Art and Design	166	118	48
Liberal Studies	66	63	—
Paramedical	354	361	383
Teacher Education	6 286	5 213	4 430
Total	7 044	5 938	5 019
Associate Diploma:			
Agriculture	63	94	119
Applied Science	51	79	161
Art and Design	189	189	195
Building, Surveying and Architecture	189	188	184
Commerce and Business Studies	450	439	435
Engineering and Technology	207	236	282
Liberal Studies	613	730	758
Paramedical	219	185	201
Teacher Education	42	94	87
Total	2 023	2 234	2 422
Total:			
Agriculture	310	294	318
Applied Science	505	597	692
Art and Design	548	576	606
Building, Surveying and Architecture	546	550	513
Commerce and Business Studies	1 916	1 813	1 902
Engineering and Technology	815	871	1 002
Liberal Studies	1 448	1 583	1 863
Music	60	76	92
Paramedical	1 162	1 202	1 217
Teacher Education	8 686	8 480	8 391
Total	15 996	16 042	16 596

FURTHER EDUCATION

The Department of Further Education is responsible for a wide range of post-secondary educational activities conducted by community colleges and colleges of further education in all areas of the State.

Much of the educational development is directed towards an improvement in vocational competence. This includes the provision of courses for the employment sectors of industry, commerce and government. These courses are provided at many levels from basic trade (apprentice) to post-trade certificate, technician, para-professional and to some extent diploma level. Also associated with this vocational orientation are preparatory or general education courses.

The Department also caters for continuing education for people of all ages by providing a wide variety of general, academic, craft, art, cultural, personal development and general interest courses. The Department gives more than 1 800 educational programs involving about 2 000 subjects for over 120 000 students throughout South Australia.

The following table shows the numbers of staff employed in community and further education colleges.

Further Education: Staffing, South Australia

Staff	1977	1978	1979
Full-time teaching	1 274	1 301	1 344
Part-time teaching ^(a)	3 627	4 282	3 617
Non-teaching (ancillary)	678	721	746
Total	5 579	6 304	5 707

(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.

The following table shows the range of educational activities conducted by the Department of Further Education during 1978 and 1979, and student hours involved.

Further Education: Distribution of Educational Activities, South Australia

Courses	Student Hours			
	1978		1979	
	No.	Percentage of Total	No.	Percentage of Total
Degree and diploma	24 128	0·2	23 959	0·2
Technician, certificate and post-trade ...	3 006 326	27·7	3 087 029	30·0
Basic trade or apprenticeship	2 522 389	23·3	2 364 051	23·0
All other skilled trade and vocational ...	983 291	9·1	848 693	8·3
Preparatory or general education	2 426 631	22·4	2 198 635	21·4
General interest, enrichment and improvement	1 881 178	17·3	1 755 526	17·1
Total	10 843 943	100·0	10 277 893	100·0

The following table shows the number of subjects and course enrolments for the years 1977 to 1979.

Further Education: Enrolments, South Australia

Course	1977	1978	1979
SUBJECT ENROLMENTS			
Degree and diploma	2 727	685	581
Technician, certificate and post-trade	55 543	52 298	55 064
Basic trade or apprenticeship	25 359	23 723	23 340
All other skilled trade and vocational	29 448	27 862	26 328
Preparatory and general education	30 689	31 147	33 055
General interest, enrichment and improvement	51 145	50 232	54 718
Total	194 911	185 947	193 086
COURSE ENROLMENTS			
Degree and diploma	2 557	538	472
Technician, certificate and post-trade	30 153	27 899	29 555
Basic trade or apprenticeship	10 065	9 730	9 553
All other skilled trade and vocational	25 409	25 343	24 386
Preparatory and general education	24 542	25 815	28 645
General interest, enrichment and improvement	46 925	48 512	54 718
Total	139 651	137 837	147 329

Teaching Methods

The Department provides full-time, part-time or correspondence studies in a large number of courses. Special arrangements are made for country apprentices. Correspondence students are also able to attend community and further education colleges for supervised study.

An integrated training approach to vocational education continues to develop in many colleges. The more traditional divisions of technical courses into theory, drawing and practical plus on the job experience are being replaced by integrated course work on a project basis.

Many colleges produce and use a wide range of learning materials. These materials include slide and overhead transparencies, video tapes, and audio tapes as well as multi-media packages and are made available for internal and external students.

The Educational Multi-Media and Print Production branch of the Open College of Further Education, provides a State-wide service in the production of learning materials and their usage. Part of this service is the production of a number of video programs for general distribution and educational television service for a number of teachers.

In college library/resource centres there are now holdings of books, periodicals, sound and video tapes, slides and transparencies exceeding 250 000 items. The appointment of lecturers (resource centre) in many colleges enhances the use of the resource centre as an important part of the learning process.

Administration

Community colleges and colleges of further education function as semi-autonomous units in a Departmental network.

The Operations Division is responsible for translating established policies into operational programs particularly in the areas of curriculum, staff training and development.

The Resources Division services all areas of the Department with emphasis upon research, building, educational resources, administration, finance and clerical services.

Current and Future Developments

The major areas of change and emphasis include the following inter-related developments:

- the continuing development of the community college, both conceptually and physically;
- the further development of general studies in colleges which were predominantly technical by tradition, with the emphasis on preparatory, remedial and bridging courses;
- the development of educational programs to aid young people in the transition from school to work;
- the adoption of the 'open college' approach to education so as to reach a broader sample of the South Australian population at the post-secondary level;
- greater use of media in the teaching-learning situation in conjunction with the planned development of library/resource centres;
- co-operation and co-ordination in curriculum matters with other post-secondary institutions, and increased community involvement in educational planning.

Apprentice Education

Apprentices attend College of Further Education for courses in technical training. This is done part-time, sometimes on one day of each week and sometimes on block release for longer periods.

Effective Apprentice Enrolments in Colleges of Further Education, South Australia

Colleges	1974	1975	1976	1977	1978	1979
Metropolitan colleges of further education	7 385	7 594	7 737	8 891	8 459	7 606
Country colleges of further education	1 156	1 102	1 247	1 169	1 074	956
College of External Studies(a)	516	202	177	5	180	303
Total	9 057	8 898	9 161	10 065	9 713	8 865

(a) Includes Northern Territory apprentices.

Workers Educational Association of South Australia

The Workers Educational Association of South Australia Incorporated (WEA) was established in 1913. Originally patterned on the English WEA, it is a voluntary adult education organisation which works in close co-operation with other adult education organisations, and the trade union movement.

Activities it organises include a comprehensive day and evening class program, postal courses for trade unionists throughout Australia, and provides pre-retirement, trade union, credit union and industrial democracy training in South Australia. It possesses an adult education centre in the City. Courses are offered at the University of Adelaide, the Flinders University of South Australia, the Institute of Technology, many colleges of advanced education, high schools and other public institutions.

In 1980 there were 846 classes with a total enrolment of 19 500 students organised by the WEA and a further 17 postal courses with an enrolment of 2 100. Since 1973 a program of trade union education has been developed with the aid of a State Government grant. Courses have been provided on worker participation concepts and skills for union

officials and for employees of several government departments. The WEA's union education office also provides training and education programs for the credit union movement in South Australia. During 1980, the union education office conducted 32 courses for some 600 students in the fields of trade unionism and credit unions.

Pre-Retirement Association of South Australia

The Pre-Retirement Association of South Australia Incorporated (PRA) was established in 1978 as a voluntary organisation to meet the needs of people who are about to retire or who have recently retired. It offers courses for industry, commerce and organisations in pre-retirement education; it also assists in promoting courses for the general public and a range of seminars while stimulating research and publication. It works closely with the WEA of South Australia and other interested educational and service organisations.

University of Adelaide: Department of Continuing Education

The University initiated adult education classes in 1917 under a Department of Tutorial Classes. A Department of Adult Education was established in 1957 and was renamed the Department of Continuing Education in 1977.

The Department provides courses and schools in a range of subjects for members of the general public and arranges seminars on issues of social and political concern. It has a publications program based on proceedings of the schools and seminars including *Southern Heritage*, and *Five Creeks of the River Torrens*, two of the many studies in social and natural history. The Department also arranges courses for the continuing education of professional people.

In June 1972 the University opened an educational radio station, on 1 630 Hz, under the call sign VL5UV. Established by private donation of \$100 000 the station is administered by the Department of Continuing Education and costs are met by the University and by listeners' donations and subscriptions. Since its opening the station has provided structured courses for professional people and the general public.

Since 1975 the station has operated on the MW band under a new experimental broadcasting licence with the call sign 5UV. Under the new arrangements hours of broadcasting were doubled to approximately 100 hours per week and its range of programs included music for the first time. In addition it offered access programs for student and community groups and approximately 28 ethnic communities broadcast regularly. In October 1978 the University was offered and accepted a full AM licence by the newly established Australian Broadcasting Tribunal.

Total enrolments for all departmental activities during 1980 exceeded 5 000 and an estimated weekly audience of 45 000 listened to 5UV programs.

TRADE EDUCATION

Legislation governing apprenticeships in South Australia is contained in the Apprentices Act, 1950-1978 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. In addition, the employment of all adult apprentices must be approved by the

Apprenticeship Commission. The Commission has the general power to investigate and deal with apprenticeship matters, among which is to determine the term of indenture in any particular trade and to transfer, assign, suspend or cancel indentures as circumstances require.

Number of New Apprenticeships Commenced: Trade Groups, South Australia

Trade	1975	1976	1977	1978	1979
Metal	1 285	1 286	1 513	1 295	1 154
Electrical	403	388	386	370	327
Building	551	619	676	372	257
Furniture	208	216	181	110	98
Printing	59	67	81	86	71
Vehicle industry	167	176	175	151	116
Ship and boat-building	11	6	7	2	3
Bootmaking	17	11	8	20	17
Clothing	1	1	1	—	1
Coopering	2	1	1	—	1
Food	257	251	263	240	161
Hairdressing	289	322	297	308	260
Leather and canvas goods	1	5	2	2	2
Miscellaneous	15	33	25	26	18
Total all trades	3 266	3 382	3 616	2 982	2 486

The following table shows the number of new apprenticeships commenced, indentures completed, indentures cancelled, and apprentices employed at 31 December for the years 1975 to 1979.

Apprenticeships, South Australia

Particulars	1975	1976	1977	1978	1979
New apprenticeships commenced	3 266	3 382	3 616	2 982	2 486
Number of indentures completed	3 463	2 318	2 788	2 954	2 622
Number of indentures cancelled	484	497	486	396	329
Number of apprentices employed	11 184	11 580	12 072	11 370	11 049

The provision of technical education for apprentices is the responsibility of the Minister of Education. However the Commission has the authority to make recommendations to the Minister on matters affecting technical education and to approve courses of training and instruction for apprentices.

Apprentices generally are required to attend colleges of further education during working hours for eight hours a week or an eight week course in the first and second year and for eight hours a fortnight or a four week course in their third year—a total of 800 hours in their indenture term. Exceptions occur for certain trades.

Although almost all apprentices are required to attend a college of further education to complete a basic training course (during their first three years), facilities are provided for those who are able to attend voluntarily to do so during the fourth and final year of their indenture term. During this year, many apprentices commence studies of an advanced nature most of which are components of various Post-Trade Certificate courses which the apprentices are encouraged to complete after the end of their apprenticeship. 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 Apprentices Enrolment in Colleges of Further Education, South Australia

Colleges	1974	1975	1976	1977	1978
Metropolitan colleges of further education	7 385	7 594	7 737	8 891	8 459
Country colleges of further education	1 156	1 102	1 247	1 169	1 074
College of External Studies(a)	516	202	177	5	180
Total	9 057	8 898	9 161	10 065	9 713

(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 Commonwealth and State Apprenticeship Commission.

Apprenticeship and Trade Training Programs

The apprenticeship and trade training programs are designed to provide and maintain an adequate supply of skilled workers to meet national manpower needs.

The Commonwealth Rebate for Apprentice Full-Time Training (CRAFT) through the provision of tax-exempt rebates encourages employers to engage more apprentices and to provide improved basic practical skills training during the early years of the apprenticeship.

A CRAFT Technical Education Rebate of \$16 to \$27 a day depending on the stage of training, the year and trade group of the apprentice, is paid for the release of apprentices to attend the basic trade course in technical education. A 40 per cent premium on this rebate is attracted during the first year of apprenticeship where the apprentice has completed a pre-apprenticeship course resulting in a reduction in the normal period of apprenticeship of a minimum of 6 months as well as an exemption of at least one stage of technical education.

In addition to these basic payments, a CRAFT Off-the-job Training Rebate of \$16 to \$22 a day depending on the trade group of the apprentice may be paid for the release of the apprentice to attend an approved off-the-job training program in basic practical skills during the first year of the apprenticeship. The rebate may be paid to a maximum of 130 days. Where employers make available their training facilities for the training of apprentices from other firms, eligibility for further assistance is established related to the recurrent costs of the training as determined by the Department of Employment and Youth Affairs.

Small firms providing approved off-the-job training for their apprentices under co-operative arrangements may be eligible for financial assistance under CRAFT.

To encourage employers to increase their level of apprentice employment in those areas of skills in short supply a CRAFT \$1 000 Cash Rebate is paid for each additional new apprentice, based on a comparison of apprentices engaged between 1 December 1980 and 30 June 1981 and those engaged for the corresponding period in the previous financial year. In the period 1 December 1980 to 30 June 1981 the rebate is attracted for additional apprentices in the metal, electrical and building trades only.

A CRAFT Living-away-from-home Allowance is payable to first and second year apprentices required to live away from home in order to obtain and remain in an apprenticeship. The allowance which is subject to tax is paid at the rate of \$24 per week for their first year and \$10 per week in their second year.

The Group One-Year Apprentice Scheme (GOYAS) provides for the full-time training in a Commonwealth or State Government Training Centre during the first year of apprenticeship, of apprentices who are engaged as additional to a private sector employer's normal annual requirement and sponsored by the employer for this form of training. Wages and training costs relating to this year of training are paid by the Commonwealth Government. The apprentice returns to the sponsor employer for the remainder of the apprenticeship term.

OTHER TRAINING

Trainer Training and Training Development Services

As part of its responsibility in implementing an effective national manpower policy, the Department of Employment and Youth Affairs has established Training Development and Trainer Training Services to improve the extent and quality of training practices throughout industry and commerce. In addition, an advisory service is provided to assist companies to start or extend training in a systematic way.

Training Development provides an advisory service aimed at the promotion of additional and better training in, and for, industry and commerce. Activities range from assisting Industry Training Committees to examine specific manpower problems, to the distribution of *Training Talkback*, the journal of the National Training Council. In addition to publicising the training services of the Department, the Service acts to create an awareness of all training resources available in South Australia. Another responsibility is the administration of the Manpower Development Scheme which provides a subsidy for qualifying associations and Industry Training Committees to employ training specialists.

The general aims of the Trainer Training Service are to promote training as a concept in industry and commerce, and to improve training standards. The Service is directed at those with responsibilities for training others, including manpower training—instructional specialists and line personnel with duties for administering or implementing training. The Service is divided into several trainer training areas: Training Officer Service, Instructor Service and a Supervisor Trainer Service.

The Training Officer Service is provided to train specialists (Manpower Development Executives and Industry Training Officers). This is achieved by an eighteen weeks Training Officer (Development) Program (TOP) which is divided into three modules. TOP Stage I covers group instructional techniques and is two weeks full-time. TOP Stage II covers the design of courses for operators, from training needs assessment to evaluation. TOP Stage II consists of three weeks in a training centre and a four week practical assignment with a host company. TOP Stage III covers course design for supervisors from training needs assessment to evaluation. It consists of four weeks full-time in the training centre and a five week practical assignment with a host company.

TOP Stages I and II are conducted in all capital cities except Darwin and Stage III is conducted in Sydney, Melbourne and Adelaide.

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. The Service offers Group Instructor, Operator-Instructor and Clerk-Instructor courses.

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, Interpersonal Relations, Accident Prevention and Method Improvement. Instructional skills training conducted by or for industry can attract support under the Trainer Training Subsidy Scheme.

National Employment and Training System

The National Employment and Training System (NEAT) forms a basis for the Commonwealth Government's manpower training policy and is directed towards providing a range of employment and training programs which aim to improve the ability of industry to meet its requirements for skilled labour and to assist individuals who, without training or retraining, will remain at a disadvantage in the labour market.

NEAT is designed for operation by the Commonwealth Employment Service and has the following objectives:

- (a) to provide assistance to individuals which enables training to be undertaken in occupations in demand;
- (b) to assist in overcoming employment problems experienced by groups of persons by provided specifically designed training arrangements;
- (c) to provide specialised training programs in order to contribute to the supply of skills identified as being in short supply.

Individuals assisted under NEAT must have specific employment objectives, which should be realistic for the individual and compatible with the requirements of the labour market. The system has special provisions to cater for the more specialised needs of longer term unemployed people, the disabled, Aboriginals and other special needs clients.

Approved training can be undertaken full-time or part-time at training institutions, within industry or commerce, or by correspondence course. Persons undertaking full-time formal studies through NEAT are paid a weekly allowance which is income tested. Companies providing on-the-job training for NEAT trainees receive a percentage of the average adult male award wage as a subsidy.

The Special Youth Employment Training Program (SYETP) provides eligible young people with job skills and work experience by subsidising employers who are willing to provide employment and training.

The Education Program for Unemployed Youth (EPUY) is an education based program administered jointly by the Commonwealth Department of Education, the Department of Employment and Youth Affairs and the State Department of Further Education. EPUY courses are designed to provide young people with improved levels of literacy and numeracy as they relate to basic work skills, job seeking skills, attitudes to work and self confidence.

The Commonwealth's School to Work Transition Program (SWTP) provides wider options in education and training for certain young persons, particularly those who have left, or would otherwise leave the education system ill-equipped to compete in the labour market. The basic objective of the program is to assist young persons, who are encountering serious difficulties in making the transition from school to work, to undertake courses designed to improve their employability.

NEAT is also involved in the development of Special Programs. Where industry finds there is a shortage of skilled people in a particular occupation, training programs can be funded under NEAT. Assistance is designed to establish trial programs in educational institutions or in industry. Special courses can be arranged for the disadvantaged to assist them to find employment, when other forms of training are unavailable.

The objective of the Community Youth Support Scheme (CYSS) is to improve or maintain the employment related skills of young unemployed people. It is a community based scheme and local community groups are funded to operate projects which are relevant to the needs of young unemployed people. Participants are not paid a wage but travelling expenses may be reimbursed without interruption to receipt of benefits.

Former Regular Servicemen's Vocational Training Scheme

The objective of the Former Regular Servicemen's Vocational Training Scheme (FRSVTS) is to assist former regular service personnel who have long service, or who have been retired on medical grounds, to rejoin the civilian workforce.

Assistance under FRSVTS is available to former regular service persons who have either been honourably discharged after completing at least fifteen years effective full-time service or who have been discharged on grounds of invalidity and are entitled to an A or B class pension under the Defence Forces Retirement Benefits and Defence Force Retirement and Death Benefits legislation. To qualify for assistance under FRSVTS it is not necessary for the applicant to be seeking training for an occupation in demand in the labour market as is the case with the National Employment and Training System (NEAT). Approved training is normally undertaken full-time or part-time in established public educational training institutions. Courses considered as non-vocational will not be approved. Approved trainees are paid NEAT allowances subject to the same income qualifications as NEAT.

There is no provision under FRSVTS for on-the-job training, and therefore consideration may be given to training of this type under NEAT. The fact that a person has completed training under FRSVTS does not exclude him from consideration for on-the-job NEAT training.

STATE EXPENDITURE ON EDUCATION

The following table shows details of outlay by the South Australian Government on education for the past four years.

Consolidated Revenue Account: Outlay on Education, South Australia^(a)

Purpose	1975-76	1976-77	1977-78	1978-79
			\$'000	
General administration, regulation and research	8 608	11 742	19 489	29 986
Transportation of students	4 940	5 861	6 846	7 020
Primary and secondary education	213 319	259 125	284 745	302 032
Vocational training	15 574	19 150	18 064	19 351
University education ^(b)	-16	-32	-28	22
Other higher education	11 462	10 402	7 727	5 048
Other education programs:				
Handicapped children	2 944	3 382	7 862	9 096
Adult education	4 952	6 310	7 158	7 386
Pre-school and childcare	10 234	11 868	12 340	13 461
Other	436	1 739	1 372	1 972
Total	272 453	329 547	365 575	395 374

(a) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay.

(b) Includes expenditure on general research.

Further References

Additional information may be found in the following publications:

South Australian Office

4202·4 *Schools*

4401·4 *Day Care Centres and Pre-school Centres*

Central Office

- 4206·0 *Colleges of Advanced Education*
 4208·0 *University Statistics, Part 1—Students*
 4209·0 *University Statistics, Part 2—Staff and Libraries*
 4210·0 *University Statistics, Part 3—Finance*

6.3 SCIENTIFIC AND RESEARCH ORGANISATIONS

AUSTRALIAN MINERAL DEVELOPMENT LABORATORIES

The Australian Mineral Development Laboratories (AMDEL) is a contract research and technical consulting organisation serving the mineral industry in Australia and overseas. AMDEL is controlled by a Council which is responsible for the formulation of policy and directed by a Board of Management. The Managing Director has a seat on the board. A wide range of services is offered including chemical analysis, mineralogy, petrology, ore reserves calculations, mine planning, mineral engineering, chemical metallurgy, process design and control, plant evaluation and commissioning, materials science and engineering, computer techniques and process instrumentation and control.

AMDEL employs approximately 240 people, including about eighty with professional degrees. It maintains extensive laboratories and pilot plant equipment in Adelaide. Much of the analytical chemistry work is computerised. Small laboratories operate in Perth and Melbourne.

Contract research earnings are approximately \$6 million annually.

AUSTRALIAN MINERAL FOUNDATION

The Australian Mineral Foundation has been established by the industries, institutions and departments concerned with minerals and petroleum. It is administered by a council representative of these groups.

The mining and petroleum industries are confronted with a rapid development in technology and a continual requirement for transmitting new information both to operating staff and to postgraduate students. The Foundation fills this communication need in several ways:

- (a) by providing short-term concentrated training courses for professional and other specialised staff;
- (b) through the medium of symposia, conferences and distinguished lecturers;
- (c) through a specialised resource centre including a geoscience library and information service.

In addition an auditorium, seminar rooms, offices and extensive catering facilities are made available for conventions.

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 Commonwealth Government, the Commonwealth Scientific and Industrial Research Organization, the University of Adelaide, and scientific advisers. It is funded by contributions from the Australian wine industry, a grant from the Commonwealth Government, and income from a Trust Fund.

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 service 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 the largest scientific research organisation in Australia. It has a total staff of approximately 7 000 located in more than 100 laboratories and field stations throughout Australia: about one-third of the staff are scientists.

CSIRO is a statutory body established by the *Science and Industry Research Act 1949* and is responsible to the Minister of Science and Technology. Under the Act CSIRO replaced, but had continuity with, the former Council for Scientific and Industrial Research (CSIR) which was established in 1926. The *Science and Industry Research Act 1949* as amended by the *Science and Industry Research Amendment Act 1978* stipulates that CSIRO is to be governed by an Executive comprising a full-time Chairman, two other full-time members and between three and five part-time Members. It also provides for a statutory Advisory Council and State Committees as independent sources of advice to the Executive.

The Act indicates that the functions of CSIRO are:

- (a) to carry out scientific research for any of the following purposes;
 - (i) assisting Australian industry,
 - (ii) furthering the interests of the Australian community,
 - (iii) contributing to the achievement of Australian national objectives or the performance of the national and international responsibilities of the Commonwealth,
 - (iv) any other purpose determined by the Minister,
- (b) to encourage or facilitate the application or utilisation of the results of such research;
- (c) to act as a means of liaison between Australia and other countries in matters connected with scientific research;
- (d) to train, and to assist in the training of, research workers in the field of science and to co-operate with tertiary education institutions in relation to education in that field;
- (e) to establish and award fellowships and studentships for research, and to make grants in aid of research;
- (f) to recognise associations of persons engaged in industry for the purpose of carrying out industrial scientific research and to co-operate with, and make grants to, such associations;
- (g) to establish, develop and maintain standards of measurement of physical quantities and, in relation to those standards;
 - (i) to promote their use,
 - (ii) to promote, and participate in, the development of calibration with respect to them, and
 - (iii) to take any other action with respect to them that the Executive thinks fit,

(h) to collect, interpret and disseminate information relating to scientific and technical matters; and

(j) to publish scientific and technical reports, periodicals and papers.

CSIRO's research is carried out in 38 Divisions and 6 smaller units, three of which have their headquarters in South Australia: these are the Divisions of Horticultural Research; Human Nutrition; and Soils. Two other Divisions, Applied Physics and Materials Science, have branch laboratories in Adelaide.

Division of Applied Physics, Adelaide Branch Laboratory

The Division of Applied Physics, a member of the Institute of Physical Sciences, has its headquarters at the National Measurement Laboratory, Sydney, with branches in Adelaide and Melbourne. The Division undertakes research in applied physics related to problems in industry and the community, and collaborates with industry in exploiting promising developments. The Division is also responsible for the establishment and maintenance of the Commonwealth legal standards for the measurement of physical quantities and the provision of means of relating measurements, made throughout Australia, to these standards. The Laboratory has a number of research programs including studies in solid-state physics, the physics of fluids, optics, magnetic and dielectric properties of materials, acoustics, and vibration.

The Adelaide Branch Laboratory was formed at Woodville North in September 1977, incorporating staff and facilities from part of the former South Australian branch of the Materials Research Laboratories, Department of Defence. The role of the Laboratory includes the establishment of a close liaison with industry and Government departments to assist in solving problems associated with precise measurements using staff expertise from the Adelaide, Sydney or Melbourne Laboratories. The Branch also provides a calibration service in certain fields, particularly in temperature, electrical and physical (mass, volume, density) metrology. The Adelaide Laboratory is the principal Australian centre for the measurement of the thermal characteristics of heat insulating materials and existing facilities have recently been extended to handle materials and temperatures in frequent use in industry.

Division of Horticultural Research

This Division is concerned primarily with research on perennial fruit crops. It has a headquarters laboratory in Adelaide, a further laboratory at Merbein, near Mildura, and staff stationed at the CSIRO Laboratories at Darwin. The Division is a member of the Institute of Biological Resources.

Research is related to four main areas; grapevines, sub-tropical and tropical tree fruits and nuts, the effects of salinity on plant performance and the more fundamental physiological and biochemical aspects of plant growth and reproduction. The Division is investigating the effects of environmental factors, including light quality and temperature, on plant growth, the influence of plant hormones on plant performance and the development of the photosynthetic system of plants. Research on plant reproduction concentrates on pollination and fruit development studies in a range of plants including avocados and grapevines. A program of controlled breeding of avocados is associated with this work. Tissue culture for the purposes of propagation and asexual breeding is also under study, as are the taxonomy, ultrastructure and host-parasite relations of a range of plant parasitic nematodes including those from northern Australia.

The Division's salinity research is concerned with the responses of plant species to salt stress with the aim of selecting and breeding more salt tolerant horticultural crops. Viticultural research is concerned with breeding grapevines better suited to the hot inland irrigated regions of Australia and with developing vine management systems that increase yields and reduce costs. Methods of eliminating vine viruses are also under

study. Tree crop research aims, firstly to develop alternative perennial crops for the temperate, inland irrigated areas of Australia and secondly, to introduce and evaluate new horticultural crops for the tropical north and central regions of the continent.

Division of Human Nutrition

The Division of Human Nutrition, a member of the Institute of Animal and Food Sciences, has its headquarters and main laboratories in the grounds of Adelaide University. It also has facilities at the Glenthorne Field Station at O'Halloran Hill.

The Division studies nutritional processes with a view to identifying the existence and health consequences of nutritive imbalances and deficiencies in Australian diets. Its research includes experimental studies in inorganic nutrition and in metabolism and digestion and epidemiological and behavioural studies, with emphasis on the relationships between nutrition, lifestyle, and human health.

Division of Manufacturing Technology

CSIRO has created a new Division of Manufacturing Technology within the Institute of Industrial Technology. The new Division incorporates the Production Technology Laboratories of the Division of Materials Science. It will operate initially from laboratories in Adelaide and Melbourne.

Production technology research is carried out for the purpose of providing new and improved methods and products for use in Australian manufacturing industry. The present programs encompass a range of forming processes from both solid and liquid metal. The Division's Adelaide laboratory is concerned with industrial production technology. New facilities are in operation for undertaking research and development on an industrial scale in welding, ferrous casting, forging, and in aspects of surface coating such as plasma spraying for wear and corrosion resistance. Recent initiatives have been concerned with energy management in manufacturing and with automation and control engineering.

Division of Soils

The Division of Soils is a member of the Institute of Earth Resources, which conducts research relating to the more effective definition, utilisation and management of Australia's land, water, minerals, energy and atmospheric resources. The research of this Division is concerned with the use of soils in agriculture and forestry, and the role of soils and soil materials in hydrology, plant growth, as habitats for flora and fauna and as a base for engineered structures. The work is organised into several programs, each of which comprise a number of projects. Because soil is a complex mixture of organic and inorganic materials, with a micro-flora and micro-fauna that vary with the material from which it was formed, the climate in which it occurs, and the plants and animals that occupy its surface, very few problems in soils are capable of unidisciplinary solution.

Scientists in the Division are loosely grouped together to tackle problems in four major areas namely (1) to provide an inventory of Australia's soil and water resources; (2) to maintain and improve plant production through modifying the chemical, physical and biological properties of soils; (3) to understand the principles of erosion with a view to its control; and (4) to identify and correct soil problems arising from natural and man-made alteration of the environment. Within each area understanding of the fundamental processes occurring in soils is sought along with practical solutions to problems arising from the use of soils.

The headquarters laboratory is in Adelaide, with smaller groups in regional laboratories in Brisbane, Canberra, Hobart, and Townsville. About half the staff is in the Adelaide laboratories.

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, 1937-1978, 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 laboratory medicine 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. The staff of the Institute take part in the teaching of the medical sciences to graduates, students and technicians.

The Institute is financed partly by an annual grant from the State Government, and by its earnings from work in laboratory medicine for Government hospitals and in private practice. Its research and development projects are assisted by the National Health and Medical Research Council of Australia, the Australian Wool Corporation, the Australian Meat and Livestock Corporation, the Australian Research Grants Commission, certain private firms and by private benefactors.

The Institute of Medical and Veterinary Science

Particulars	1976-77	1977-78	1978-79	1979-80
Staff at end of year:				
Graduate	215	224	231	239
Other	612	636	629	639
Tests performed	3 786 042	<i>n.a.</i>	4 426 262	4 411 090
Revenue:				
	Dollars			
State Government grant	1 110 000	2 295 000	2 567 600	3 212 700
Fees for laboratory tests	9 454 380	10 683 873	11 711 913	12 624 453
Other	497 846	857 345	1 086 165	1 380 838
Total	11 062 226	13 836 218	15 365 678	17 217 991
Expenditure:				
Salaries and wages	8 221 136	9 939 972	10 888 557	12 178 028
Other	3 239 343	3 552 322	3 824 585	4 665 579
Total	11 460 479	13 492 294	14 713 142	16 843 607

At the Royal Adelaide Hospital the Institute operates a Blood Transfusion Service, a Nuclear Medicine Service and undertakes all required autopsies. Institute medical staff also take an active part in patient care by providing the clinical requirements of certain wards of the Royal Adelaide Hospital. To meet the need for blood transfusion and laboratory services in rural areas, regional laboratories exist in nine towns.

A computerised system of laboratory reporting, accounting and data storage for rapid retrieval has been running successfully for some years. A number of remote terminals are linked to the central computer at the Institute; three at each of the Modbury and Lyell McEwin Hospitals and two in the Royal Adelaide Hospital (Casualty Section and Intensive Care Wards). Telex links are operating to Port Lincoln, Port Augusta,

Whyalla, Mount Gambier, Naracoorte, Keith, Murray Bridge, Coober Pedy, Berri, Elizabeth and Wallaroo.

The Division of Tissue Pathology is now closely linked with the University of Adelaide by the joint appointment of a Professor of Pathology, University of Adelaide and Head of the Division of Tissue Pathology, Institute of Medical and Veterinary Science. A further advancement is the appointment of the Head of the Division of Virology, Institute of Medical and Veterinary Science as Clinical Professor of Microbiology, University of Adelaide.

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 mechanisms of drought resistance in cereals; 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; biological control of insect pests; the biochemistry of nitrogen fixation; and the studies of soil structure and mechanics.

Further details relating to the Waite Institute may be found in Part 6.2 Education.

DEFENCE RESEARCH CENTRE SALISBURY

The Defence Research Centre Salisbury (DRCS), formerly the Weapons Research Establishment, is a large research and development complex within the Defence Science and Technology Organisation (DSTO) of the Commonwealth Department of Defence. The Centre, which occupies an area of 1 170 hectares at Salisbury, had a staff of 2 655 at 31 October 1980.

DRCS comprises four separate Laboratories and a supporting Administration Branch. The Electronics Research Laboratory undertakes research and development in radio science, radar, infra-red physics, optics, electro-optics, electronic warfare, surveillance and navigation. The Weapons Systems Research Laboratory undertakes research and development related generally to weapon systems and underwater detection systems including aeroballistics, guidance and control of weapons and remotely-piloted vehicles, rocket and gun propulsion, sonobuoys and signal processing. The Advanced Engineering Laboratory undertakes engineering feasibility studies, development, design and manufacture of experimental and prototype systems and equipment in the fields of mechanical, electrical, electronic and communications engineering. The Trials Resources Laboratory is responsible for the operation of the Woomera Range and for the planning and conduct of trials and analysis of some Service exercises at Woomera and elsewhere.

Each Laboratory at DRCS provides specialised consulting services to the Defence Force, to Canberra-based staff and to other laboratories of DSTO and, where appropriate, to industry.

Facilities are provided within DRCS for branches of firms that have contracts in the defence field.

Edinburgh RAAF Base, headquarters of the Royal Australian Air Force in South Australia, adjoins DRCS. Aircraft used by DRCS for trials or the development of equipment operate from this base.

A special article on DRCS together with maps and diagrams was included on pages 184-92 of the *South Australian Year Book* 1969.

Woomera

Within the Woomera restricted area of some 130 000 square kilometres are a Trials Resources Area, comprising an instrumented Range and Service exercise and training areas, and the Defence Support Centre Woomera, comprising a township and an adjacent technical facility.

A Joint USA/Australia Defence Space Communications Station (JDSCS) is located near Woomera and makes use of the Defence Support Centre there.

The Woomera township is situated approximately 500 kilometres north-west of Adelaide and has a current population of about 2 300, including some 1 000 associated with JDSCS. It has all necessary amenities and services, including hospital, schools, community store and shops, churches, theatre, clubs and a wide range of sporting facilities.

In the next few years it is expected that the Australian Services will make considerable use of the Woomera area for training purposes.

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. In 1979 the State Library became a Division of the Department of Local Government. In 1980 the administration of public libraries was largely separated from the State Library to become the Public Libraries Division of the Department of Local Government.

The oldest section of the Library is the Reference Library, which is the central basic collection. Since 1946, except for rare irreplaceable volumes and reference works, most of the books have been available for loan. Over 4 400 periodicals are received annually, and the Newspaper Reading Room files 270 overseas and Australian newspapers; in 1979-80, 47 700 periodicals were lent. In the same year the Map collection answered 7 300 inquiries for its 75 600 maps. Legislation since 1878 provides for the deposit in the Library of copies of all items published in South Australia.

The Reference Library has a representative basic collection of nineteenth and twentieth century material in all subjects except medicine and law. It has considerable strength in a number of subjects including librarianship, wine, jazz, Australian Aborigines, River Murray shipping, sailing ships, and nineteenth century illustrated works on natural history. In addition there is a collection of tape recordings of Australian authors, folk songs and Aboriginal music. The Library is an official depository for the publications of the Australian Government, and receives selected publications from the British and United States Governments and the United Nations.

In 1979-80 the Reference Services Branch answered 171 000 inquiries. This Branch supplies lists of references and arranges for the borrowing of books, periodicals and photocopies from libraries in other States and overseas. *Pinpointer*, a bi-monthly index to popular periodicals and the quarterly *Index to Australian Book Reviews*, are published.

In 1919 the Archives Branch was established for the collection of original South Australian historical material. In 1925 legislation was passed requiring reference to the Libraries Board before destroying or disposing of public documents. At the end of June

1980 there were 15 300 metres of occupied shelf space in the Archives. In 1979-80, 10 100 inquiries were dealt with involving 26 600 issues of documents, views, maps or printed sources. A journal, *South Australiana*, is published twice a year.

The Young People's Services Branch includes the Children's Services and the Youth Lending Service. The Children's Services, formerly the Children's Library, was established in 1915 and is believed to be the oldest in Australia. The carefully selected stock includes some 37 600 books in the Children's Literature Research Collection, a special collection assembled to assist in the study of children's books. School classes visit the Library, and talks and stories are addressed to groups of children, both inside the Library and at outside venues, and to groups of parents and various societies. There are 26 900 registered borrowers in the metropolitan area and books are sent to 3 600 country children living in areas that do not have a public library.

To cater for the needs of young people between the ages of thirteen and eighteen the Youth Lending Service was established in 1957. Over 25 400 young people from the metropolitan area and country places are enrolled as members in the Service. The collection includes, besides general literature, publications of special interest to young people dealing with hobbies and careers. Cassettes, posters and paperbacks are also available for loan.

State Library of South Australia

Year	Refer- ence Library	Children's Services	Adult Lending Services	Central Pool for Local Public Libraries	Youth Lending Service	Total
At 30 June:				VOLUMES HELD		
1976	355 000	64 000	67 000	180 000	25 000	691 000
1977	371 000	64 000	80 000	180 000	23 000	718 000
1978	386 000	74 000	113 000	265 000	27 000	865 000
1979	399 000	74 000	130 000	200 000	27 000	830 000
1980	406 000	75 000	177 000	155 000	32 000	845 000
To 30 June:				VOLUMES LENT		
1976	94 000	244 000	656 000	—	126 000	1 120 000
1977	96 000	262 000	861 000	—	133 000	1 352 000
1978	92 000	266 000	896 000	—	127 000	1 381 000
1979	80 000	252 000	876 000	—	149 000	1 357 000
1980	67 000	236 000	921 000	—	147 000	1 371 000

In 1938 a Country Lending Service was established to provide books for residents in the country districts of the State, none of which had a free local public library at the time. The service continues today, but is restricted to residents of local government districts which have not yet established their own public library service, and to people in the unincorporated districts of the State. In 1946 the Adelaide Lending Service was founded so that residents of the metropolitan area might enjoy direct borrowing privileges. In 1972 these two services were amalgamated to form the Adult Lending Services Branch, and at the same time the children's and young people's collections previously functioning as part of the Country Lending Service were taken over by the Children's Services and Youth Lending Service respectively.

Since 1972, the Adult Lending Services Branch has enlarged its collection to include large print and foreign language books and periodicals, paperbacks, prints, posters, and cassettes, including music, spoken word and 'learn the language'. There are in excess of

18 600 cassettes in the collection and, despite a limit of three per borrower, loans exceeded 141 000 in 1979-80. Car manuals, musical scores and drama sets are also available. The Branch supplies bulk loans to several hospitals and institutions, and to a number of prisons in South Australia. Extension services also cater for housebound residents and invalids. Non-technical inquiries and requests for information are dealt with at the Readers Adviser Desk. The total number of adult borrowers in the metropolitan area is 72 000, and there are more than 2 800 adults in the country registered as borrowers from the Adult Lending Services.

Photographic and electrostatic copying facilities are available to the public. In 1962 the Libraries Board began a program of publishing facsimile editions and other works of Australian interest. Over 200 works have now been published, including the first edition ever of *The Journal of Post Captain Nicolas Baudin*.

Local Public Libraries

In June 1980, fifty-two local authorities were operating a total of seventy-four public libraries including twelve school-community libraries and thirteen mobile libraries, under the provisions of the Libraries (Subsidies) Act, 1955-1977. This Act, which gives the initiative for the establishment of free public libraries to local government, provides for the payment of subsidies (\$1 for \$1 based on all aspects of local government library expenditure) conditional upon a report on the matter by the Libraries Board to the State Treasurer. In 1979-80, subsidies amounted to \$3 335 000. The provision of bookstocks and other materials to public libraries operating under this Act is centred in the Public Libraries Division of the Department of Local Government, which also provides a Request and Reference Service to member libraries as a free service, as well as professional assistance to librarians and local authorities. This service includes advice on siting, and on internal planning of library buildings.

Local Public Libraries, South Australia

Year	Libraries at End of Year	Registered Readers	Books Lent	Stocks at End of Year
1975-76	37	187 000	3 882 000	564 000
1976-77	37	211 000	4 667 000	613 000
1977-78	39	244 000	5 215 000	662 000
1978-79	60	259 000	6 217 000	863 000
1979-80	74	286 000	7 506 000	1 314 000

In the year ending 30 June 1980 the annual new book provision amounted to 242 000 volumes in addition to 30 000 paperbacks and 36 000 sound recordings. About 8 000 volumes were sent to libraries in answer to requests, from a central pool of 200 000 volumes maintained in the Public Libraries Division.

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, 1939-1979.

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.

The number of institutes is continuing to decline with the expansion of Public Library services and institute libraries will be eventually phased out. This policy is being pursued with the co-operation of the Institutes Association of South Australia.

Institute Libraries, South Australia
At 31 December

Particulars	1976	1977	1978	1979
Number of institutes	167	163	155	145
Subscribers	45 308	42 415	35 224	31 249
Number of volumes	731 354	718 283	664 284	631 352
Volumes circulated during year	1 384 509	1 308 001	1 126 302	1 028 906

Other Libraries

Particulars relating to the Barr Smith Library at the University of Adelaide (1 092 288 volumes, including 113 912 microforms, at the end of 1980), the Flinders University Library (478 000 volumes at the end of 1980) and the South Australian Institute of Technology Library (185 000 volumes at the end of 1980) are given in Part 6.2. Other libraries include those of the Royal Society of South Australia specialising in natural history periodicals (approximately 30 000 volumes), the South Australian Branch of the Royal Geographical Society of Australasia (approximately 15 000 volumes) and the Parliamentary Library (about 70 000 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, which was administered by the Minister of Education. In 1972 it became a Division of the Department for the Environment. A new South Australian Museum Act was proclaimed on 11 March 1976, in which the present-day functions of the Museum were defined. In October 1977 the Museum was made a Division of the Education Department, and in October 1978 responsibility for the administration of the South Australian Museum Act, 1976-1980 was vested in the newly created Ministry of Community Development. In September 1979 the Minister of Arts assumed responsibility for the Act's administration and the Museum became a Division of the Department for the Arts.

The aim of the Museum is to increase man's understanding of himself and his environment. Similar to other major museums in Australia and overseas, it makes and preserves collections, carries out research and acts as an education and information centre for primary, secondary and tertiary students, and for the public. Its main areas of interest are archaeology, history, ethnology, natural history and geology.

The Museum's first permanent building was opened in 1884. It was the West (Jervois) Wing, located on North Terrace. The North (now the Museum's West) Wing was completed in 1895 and the East Wing was added in 1915. Since then the Museum has expanded to occupy the historically and architecturally significant buildings of the Old Police Barracks, three floors of Goldsbrough House further along North Terrace, an office/warehouse complex in Kent Town and a number of other annexes in the metropolitan area. These function mainly as work areas and collection stores. The exhibition galleries are all located in the original buildings.

The Museum is managed and operated by a Board appointed by the Minister under the provisions of the South Australian Museum Act, 1976-1980. There is a staff of seventy-one organised into four branches: Administration, Conservation, Community Services and Scientific. Sixteen professional research workers are responsible for the care of the collections and for carrying out research. Several of the collections of specimens and data are outstanding. The collection of Australian ethnological material is of world renown while those of minerals, meteorites and tektites, insects, Southern Australian animals and New Guinea ethnological objects are excellent.

The research of the scientific staff is primarily systematic, involving the naming, identification and classification of animals, minerals and artefacts, but considerable emphasis is placed also on their distribution in space and time, and interrelationships 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 and books throughout the world. The Museum's Scientific Library houses more than 33 000 books and bound periodicals.

An important recent development was the appointment of a Curator of Conservation in February 1978 with overall responsibility for the proper storage environment, and protection and restoration of the collections, particularly perishable ethnographic items. Research into aspects related to improving museum conservation practices is also carried out.

Scientific staff members give advice, based on their research results and specialised knowledge, to many other research institutions and government departments.

The Museum has a general Information Service dealing with about 10 000 inquirers annually and approximately 36 000 school children pass through the Education Centre each year. With the appointment of more teachers and the development of a Travelling Education Service (TES), educational programs were extended to country areas in 1976. During 1979-80 over 12 000 country school children took part in TES programs.

Public entertainment and education involves the presentation of temporary and long term displays in galleries covering nearly 4 000 square metres. Exhibits deal with such diverse topics as mammals, birds, fish, amphibians, reptiles, insects, minerals, meteorites, Egyptology, fossils and Australian and Pacific ethnology. Educational booklets on a variety of subjects, mostly written by Museum staff and published by the Museum, are on sale at a nominal price. Postcards and note paper are also published and are sold throughout Australia. The Museum also sells posters and model replicas of extinct animals. Free information leaflets are available to inquirers.

A Museums Extension Service began operation in 1976. The purpose of this is to provide professional museological advice to local museums to improve their ability to

preserve, document and display folk cultural material and thereby encourage greater community interest in local history and provide an additional resource for local educational needs.

The scientific work of the Museum is supported by the general public, by the many naturalists, and other societies which meet at the Museum and by a number of distinguished scientists who are appointed as Honorary Associates. In particular, the Friends of the South Australian Museum have given considerable support since their foundation in 1964, including the purchase of many notable additions to the collections.

Other Museums

The Constitutional Museum was established to preserve and interpret South Australia's political heritage. It is Australia's first political museum, and uses audio-visual techniques to show the State from before the first Europeans arrived in 1836, to the present time.

The main feature of the museum is a 100-minute program called *Bound for South Australia* which takes visitors through important stages in the State's history. There is also a series of changing displays, including one section called Speaker's Corner devoted to issues of the day.

The Constitutional Museum is housed in the restored former Legislative Council building next to Parliament House on North Terrace, Adelaide. It is one of only five pre-1875 buildings to survive in the city. The original building housed both Houses of State Parliament until 1898, when the House of Assembly moved to new quarters next door. In 1939 the Legislative Council moved out and the structure was listed for demolition, but upon the outbreak of the 1939-45 War the building saw service as a Wartime Recruiting Centre. More recently it has been a social club and a Government office.

In 1978 plans to restore the building to its 1875 condition were announced, and after two years of research and renovation it was re-opened as the Constitutional Museum in August 1980. *Bound for South Australia* takes visitors through three main areas of the museum and the entire sweep of South Australia's history. Chamber One uses slides, soundtrack, theatrical sets and electronic techniques to tell the story of the State up to the granting of self-government in 1857. In Chamber Two a sound and light display takes the story of the State from 1857 to 1901. Visitors sit in the restored House of Assembly Chamber as important debates on issues which concerned the State's early parliamentarians are re-enacted. Chamber Three is a 26-projector, widescreen presentation which tells the story of South Australia from Federation Day in 1901.

A number of historic residences serve as museums.

A railway museum has been established and maintained by a voluntary organisation, the Mile End Railway Museum.

The National Trust of South Australia

The National Trust of South Australia was established by Act of Parliament in 1955. It encourages the preservation and restoration of buildings of architectural, historic or scientific interest, the protection of scenic beauty and the conservation of land, flora and fauna.

The Trust, which is administered by a council, has fifty-three branches spread throughout the State. Finance is provided by means of gifts, legacies, fund raising functions, subscriptions and government grants.

Buildings of particular significance in South Australia are assessed on their architectural or historic merit and are categorised as either:

Classified, *i.e.* buildings having great historic significance or high architectural qualities, the preservation of which is essential to the heritage of the State; or

Recorded, *i.e.* buildings which contribute to the heritage of Australia and which should be recorded and their preservation encouraged.

Examples of the natural areas cared for are 'Wilabalangaloo' at Berri, 'Watiparinga' at Eden Hills, 'Roachdale' at Kersbrook and 'Engelbrook' at Bridgewater. The many beautiful or historic Trust properties include 'Collingrove' in the Barossa Valley, 'Beaumont House', the 'Marble Hill' ruins and reserve, and 'Olive Wood' at Renmark. 'Marble Hill' was officially re-opened on 15 February 1975 and magnificent views of the Adelaide Hills and Plains can be obtained from the restored tower and many vantage points in the thirty-one hectares of park-like setting in which the building stands. Original plans of the building are on view, together with artifacts and photographs of both the exterior and interior before the building was destroyed by fire on 2 January 1955. The original stables have been restored and converted for use as a tea room.

The Trust also owns the G. S. Sandison Reserve at Hallett Cove, an area of international scientific interest because of its glacial pavements.

In 1963 the paddle steamer *Marion* was purchased and refitted and now floats in the old graving dock at Mannum; while the Willunga Court House and Police Station, both built in the mid-nineteenth century, were restored in 1969. In the following year the Trust fully restored the Customs House at Robe and in 1971 played a prominent part in persuading the State Government to save from demolition the architecturally classic and beautiful ANZ Bank Building in King William Street which had been classified by the Trust. This building has been renamed Edmund Wright House and is now occupied by the South Australian Registrar of Births, Deaths and Marriages, and many marriage ceremonies are performed there. Concerts and benefit galas are held also at Edmund Wright House.

At December 1980, the National Trust of South Australia controlled forty-nine reserves totalling 1 184 hectares and some ninety-three restored buildings and other structures, forty-two 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 mansion Ayers House, once the home of the five times Premier of South Australia, Sir Henry Ayers and Lady Ayers.

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 for the Environment.

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 have been destroyed in the period of European settlement, a number remain which are of great interest to scholars and tourists. In addition there are some areas of the State where Aboriginal sites are of continuing significance to present-day communities. These relics are protected under the provisions of the Act.

Similarly there are many relics and sites associated with early European settlement which are protected by the Act. These include settlement sites; industrial sites, particularly those associated with the pastoral and mining industries; overland telegraph stations; military installations; marine sites, and historic shipwrecks.

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 an 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 Aboriginal and historic (including technological) relics.

In addition to a number of publications which are available from the Department for

the Environment, a special article on Aboriginal relics together with a list of declared areas as at 30 June 1969 was included on pages 201-8 of the *South Australian Year Book* 1969. Areas declared between 1 July 1969 and 31 December 1977 have been included in subsequent issues of the *South Australian Year Book*. An article entitled 'Aboriginal Culture in South Australia' was included in *South Australian Year Book* 1978.

During the period 1 January 1978 to 31 October 1979, no further Historic Reserves or Prohibited Areas have been proclaimed in South Australia.

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 State Government department under the Art Gallery Board. The name was changed to the Art Gallery of South Australia in 1975. 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, in 1962 a three-storey air-conditioned wing was built at the northern end, and in 1979 the remaining galleries were remodelled.

The collections are broad in scope and include a representative selection of Australian and European paintings and sculpture. There are large collections of prints, drawings, silver, glass and ceramics (including an important section devoted to South-East Asia), as well as furniture, arms and armour, and coins and medals. The South Australian historical collection includes relics and pictorial material of the discovery, exploration and settlement of the colony.

In addition to the permanent collections, the Gallery has a full program of visiting international and interstate exhibitions.

The Gallery has received many bequests, the Elder, Morgan Thomas, David Murray, Ragless, Boxall, Mortlock and Kolhagen bequests together totalling over \$252 000. 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. Free guided tours of the collections are provided by education officers and volunteer gallery guides.

A regular program of film evenings, lectures and demonstrations is given and the Travelling Art Exhibition, a fully equipped van with illuminated portable screens, accompanied by a driver and a lecturer, tours country centres during school term. In 1980, seventy-three centres were visited and the exhibition was viewed by 41 584 adults and children. Another innovation is the introduction of 'Outlook', an art appreciation program taking original works of art into metropolitan schools and public places.

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 1 779 and falls into five categories—Sustaining, Institutional, Family, Ordinary and Junior.

Other Galleries

South Australia's first regional gallery was opened at Naracoorte in 1968. In metropolitan Adelaide, galleries are operated by the Contemporary Art Society, the Royal SA Society of Arts, the Experimental Art Foundation, the Women's Art Movement and Round Space. An exhibition area adjacent to 'The Playhouse' has been provided by the Adelaide Festival Centre Trust and attendances at exhibitions average 400 persons a day.

The Jam Factory Workshops Incorporated, formerly the SA Craft Authority, was set up by the State Government in 1974 with administrative offices at St Peters in a large building known as the Jam Factory. The functions of the Workshops are generally to promote and encourage the development of craft industries in South Australia; to provide workshops and workshop advisory services for, and to market the products of craft industries and to improve and extend the retail and wholesale markets. The Crafts Council of South Australia is also based at the Jam Factory.

Outdoor exhibitions have been popular among amateur clubs, beginning with the Citizen's Art Group (now the Adelaide Art Society) in 1954. The Advertiser's annual open-air exhibition is supported by both professionals and amateurs.

MUSIC AND DRAMA

MUSIC

Regular concerts are given by the Adelaide Symphony Orchestra, in different series and by smaller groups such as the University Music Society, Adelaide Chamber Orchestra, Adelaide String Quartet and Chamber Players of South Australia. Choral music is presented by various choirs in occasional concerts. The State Government's subsidised regional opera company, The State Opera of South Australia, stages regular productions throughout the year in Adelaide and South Australian country centres. School performances aimed at promoting interest in opera are a regular feature of the Company's activities. Concerts are given in a number of country and outer-suburban areas, including an annual series of autumn concerts at Crafers in the Adelaide Hills.

The Festival Centre provides formal and informal venues for a wide variety of performances, from rock concerts to grand opera, and the Rundle Mall is also being used for busking and open-air community arts activities.

Australian Broadcasting Commission

In the metropolitan area the Adelaide Symphony Orchestra each year gives twenty-three 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, a series of three Prom concerts, four family concerts and a number of non-subscription concerts each year.

During 1980 the ABC gave twenty free concerts by the Adelaide Symphony Orchestra for metropolitan schoolchildren, and another twelve for children in the country. In addition to its two annual South Australian provincial tours, the orchestra performed in Darwin, Katherine and Alice Springs.

The Australian Broadcasting Commission's contributions to the 1980 Adelaide Festival included three orchestral concerts, two recitals by overseas soloists under ABC contract, while the Commission made the Adelaide Symphony Orchestra available for five performances by the Ballet of the Komische Oper, Berlin.

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.

The Elder Hall is the concert hall of the Conservatorium. It was built in 1900 and for many years was a general purpose hall. Since the 1950s it has been used mainly for musical purposes, including public performances. Free lunch hour concerts, open to the

public, are given frequently during term time by staff and students of the Conservatorium.

During 1977 the Elder Hall was completely renovated internally at a cost of \$1 million, this cost being met from money contributed to the University's Centenary Appeal Fund. The Hall is now a first-class concert hall seating 712 people, with a stage capable of accommodating an orchestra of 75 performers and a choir of 75 people. It is fully air-conditioned, and of excellent acoustical quality. A new organ, built by Casavant Freres of Canada, was installed in June 1979.

Particulars relating to the Elder Conservatorium at the University of Adelaide are given in Part 6.2.

DRAMA

The State Theatre Company of South Australia has its permanent home at The Playhouse in the Adelaide Festival Centre. Its objective is to promote the art of the theatre by the presentation of performances, commissioning the writing of works, training of persons concerned in theatrical presentations, establishing and conducting educational programs and establishing a theatrical archival collection.

The Company presents two major seasons of plays each year, principally comprising new Australian work and classics. Each year one of the Company's productions tours South Australian country areas, and a further five small-scale productions are staged at Theatre 62.

The Company has Australia's largest Theatre-In-Education team, 'Magpie', which provides schools (in both metropolitan and country areas) with a team of actor/teachers educating through entertaining students on a participatory level. Additionally, the Theatre-In-Education team presents plays designed to attract families and young people to the theatre at varying times throughout the year.

The main Company also presents rehearsed readings of new plays by Australian writers. Its 'Roadshow' program consists of short easily transportable shows, devised by Company members, which are performed for community groups free of charge.

The Adelaide Festival Centre Trust administers the Festival Theatre, The Playhouse, The Space, Amphitheatre and Opera Theatre (formerly Her Majesty's Theatre) and is the State's largest entrepreneur of outside productions for these venues. The Festival Theatre attracts productions and performers to South Australia which otherwise might never be seen in South Australia.

The Association of Community Theatres was established in 1975 to provide a system of liaison and communication amongst its member groups. This organisation, which includes amateur and semi-professional groups, and colleges of advanced education, takes special interest in the promotion of South Australian playwrights.

The Adelaide Festival Centre

The Adelaide Festival Centre is a \$21 million performing arts complex on a 2.5 hectare site located on the banks of the River Torrens near the centre of the city of Adelaide. The Centre comprises a multi-purpose concert hall and lyric theatre, two drama theatres and an open-air amphitheatre. Stage Three of the Centre's building project, completed in 1977, comprises a two-level underground car park and 0.75 hectares of open plaza, featuring an overall sculptural design. The erection of additional convention and catering facilities at a cost of approximately \$2 million began in May 1979 and was completed on schedule for the 1980 Adelaide Festival. The additional convention facilities provide

a flexible multi-purpose venue capable of seating 800 people, or 500 at banquets, and is also able to be partitioned into sound-proof meeting rooms. The restaurant and bar areas have been relocated to take full benefit of the views over Elder Park.

The Festival Theatre

The \$7.96 million Adelaide Festival Theatre was the first completed auditorium of the Centre and was officially opened on 2 June 1973. Seating nearly 2 000 people on three levels and in a series of tiered boxes, the Theatre has been designed for a kaleidoscopic range of theatre activities, including orchestral concerts and recitals, large-scale opera, ballet and drama, films, musical comedy, variety and jazz concerts, conventions and conferences. The seats extend across the Theatre in continental style with access from large foyers along the sides of the auditorium.

The Festival Centre Trustees have a policy of commissioning and purchasing works of art for the Centre which now has a collection valued at more than \$426 000.

The Drama Complex

In October 1974 work was completed on the \$7.42 million drama complex alongside the Festival Theatre. The largest auditorium in this complex is The Playhouse, a 600-seat, two-level theatre which is designed for both proscenium and thrust-stage productions.

The Playhouse is the home of the State Theatre Company of South Australia and is served by a production workshop consisting of design studio, carpentry and paint shops, assembly areas, wardrobe, millinery and wigmaking sections and a photographic darkroom.

Alongside The Playhouse and beneath plaza level is The Space, a 320-seat experimental theatre. A completely flexible auditorium, The Space can be arranged in almost any variation of seating and acting areas, and incorporates electronic music facilities. It has been designed as an ideal venue for experimental performances and teaching workshops.

Where the Festival Theatre and The Playhouse meet on the Elder Park side of the Festival Centre site, there is an open-air Amphitheatre which is formed by the natural slope of the site where the plaza steps down to Elder Park.

The Silver Jubilee Organ

In April 1979, the Festival Theatre's new Silver Jubilee Organ was inaugurated, as a tribute to the first 25 years of reign of Her Majesty Queen Elizabeth the Second. Built and installed at a cost of \$402 000, it is stored backstage at the Theatre and can be moved to different parts of the stage by two people using an air cushion similar to that which operates on hovercraft. It has two consoles, one integral with the instrument and one remote in the orchestra pit, giving it the versatile ability of solo orchestral and operatic performance. The organ has 4 200 pipes, fifty stops, three manuals and mechanical (tracker) key action.

The Centre's Activities

Australian national touring companies, The Australian Opera and The Australian Ballet, give annual seasons in the Festival Theatre and the resident Adelaide Symphony Orchestra uses the Theatre for its annual orchestral and youth concert series as well as for special celebrity concerts by international artists and orchestras. The Adelaide Festival Centre Trust and principal Australian commercial entrepreneurs use the Centre for a wide variety of other presentations.

The Adelaide Festival

In 1958, a small group of Adelaide citizens developed plans for the first Adelaide Festival of Arts, which was held in 1960. Further festivals have been held in March in years of even number from 1962.

The Adelaide Festival has achieved many artistic triumphs in its twenty-year history and has been instrumental in bringing to Australia for the first time many notable overseas companies, performers and artists. It has seen the first performances of scores of major Australian productions and an increasing number of world premieres commissioned specially by or for the Festival. Notable world premieres have included Peter Maxwell Davies' music theatre piece for The Fires of London, *Miss Donnithorne's Maggot* (1974), South Australian composer Richard Meale's oboe concerto *Evocations* performed by Heinz Holliger and Collegium Musicum of Zurich (1974), Sir Robert Helpman's ballets, *The Display* (1964) and *Perisynthyon* (1974), Alex. Buzo's *Coralie Lansdowne Says No* performed by Sydney's Nimrod Street Theatre (1974), Jack Hibberd's *A Toast to Melba* performed by the Australian Performing Group (1976), the Patrick White play *Night on Bald Mountain* (1966), the Australian Dance Theatre's *Transfigured Night* and *Stripsody* (1980) and Robin Archer's *Songs from Sideshow Alley* which was specially commissioned for the 1980 Festival. First Australian performances have included the Janacek opera *The Excursions of Mr Broucek* (1974), Sir William Walton's *Troilus and Cressida* (1964), Benjamin Britten's *War Requiem* (1964), his church parable *The Burning Fiery Furnace* (1970) and his opera *Death in Venice* (1980) and Sir Michael Tippett's opera *The Midsummer Marriage* (1978).

World famous writers who have been guests at Festival Writers Week include Yevgeny Yevtushenko, Edna O'Brien, Anthony Burgess, Allen Ginsberg, John Updike, Alan Moorhead, Angus Wilson and Nadine Gordimer.

The completion of the \$21 million Adelaide Festival Centre has caused a shift in the emphasis of the Festival. The regular appearances of leading overseas performers and companies at the Centre throughout the year has enabled the Festival to engage in activities considered more appropriate to arts festivals. These include the commissioning of new works, the encouragement of local companies and artists and the provision of a variety of programs to attract greater public interest and appreciation.

'Come Out'

In May 1975, the Festival administration, with \$30 000 in special grants from the State and Commonwealth Governments and a commercial sponsor (The Savings Bank of South Australia), staged 'Come Out', the first in a series of biennial festivals of performing, creative and visual arts for young people. These are now staged in years of odd numbers, between the main Festivals.

Regional Cultural Centre Trusts

The Regional Cultural Centres Act, 1976-1977 provides for the establishment of Regional Cultural Centres, at places designated by proclamation, and for their operation and management. Proclamations have been issued for centres at Mount Gambier, Port Pirie and Whyalla. The powers and functions of each Trust (constituted of six persons—three of whom shall be residents, including two nominated by local Councils) are to establish, maintain, develop, manage and control, a Centre for the performing arts, visual arts and crafts.

The South-East Regional Cultural Centre Trust in conjunction with the Corporation of the City of Mount Gambier, has constructed a complex comprising a theatre, a public library, Corporation offices and Trust offices. It proposes to convert the present Cor-

poration premises into a visual arts gallery. A hall property in Mount Gambier was purchased for use by art and craft groups, and as a temporary Art Gallery.

The other Centre Trusts are conducting surveys of the cultural needs of the people in their regions.

BROADCASTING

Radio and television broadcasting falls within the jurisdiction of the Commonwealth Government and, pursuant to the *Broadcasting and Television Act 1942*, is one of the responsibilities of the Minister for Communications. Commonwealth bodies which are directly involved include the Department of Communications, the Australian Broadcasting Commission, the Australian Broadcasting Tribunal, the Australian Telecommunications Commission, and the Special Broadcasting Service.

Basically the Australian broadcasting and television system is comprised of the following types of stations:

- (1) national broadcasting and television stations funded by the Commonwealth Government;
- (2) commercial broadcasting and television stations operated by companies under licence;
- (3) public broadcasting and television stations operated by corporations under licence on a non-profit basis; and
- (4) stations operated by the Special Broadcasting Service.

The responsibility for broadcasting planning, including all matters relating to the technical operation of stations, and for the investigation of interference to the transmission and reception of programs, rests with the Minister for Communications.

The Australian Broadcasting Tribunal came into being on 1 January 1977, and is responsible for certain of the functions previously performed by the Australian Broadcasting Control Board (abolished 31 December 1976), including the licensing and supervision of the operation (other than technical aspects) of all stations except national stations and stations operated by the Special Broadcasting Service. The Tribunal is required to conduct public inquiries into the granting of licences following the invitation of applications by the Minister; the renewal of licences; the setting of standards of broadcasting practices; alleged breaches of licence conditions; and such other matters as the Minister may direct. Subject to the conduct of such inquiries, the Tribunal is empowered to grant, renew, suspend or revoke licences and to determine program and advertising standards applicable to licensed stations.

RADIO

There are at present twenty medium frequency Amplitude Modification (AM) radio stations operating in South Australia. In the metropolitan area there are two national, four commercial and one public station, while there are eight national and five commercial stations in country areas. The country or regional stations relay programs from their respective parent metropolitan stations in addition to providing programs to cater for local interests.

Commercial broadcasting stations are operated by companies under licences granted by the Australian Broadcasting Tribunal with technical operating conditions determined by the Minister for Communications. The stations obtain income from the broadcasting of advertisements.

The fee for a licence for a commercial broadcasting station is \$200 plus an amount based on gross earnings as defined in the *Broadcasting Stations Licence Fees Act 1964*, assessed on a sliding scale varying from 1 per cent for amounts up to \$0.5 million to 6 per cent on amounts exceeding \$5 million.

The Australian Broadcasting Commission Collinswood studios relays a Frequency Modulation (FM) service for 24 hours each day to Sydney, Melbourne and Canberra. ABC-FM programs material which specially benefits from the FM stereo system, including music, drama and stereo documentaries. Two public stations, 5MMM-FM and 5EBI-FM operate on this channel, and a commercial station 5SSA-FM began operating in September 1980, programming stereo music.

Radio Programs

The distribution of types of program matter is set out in the following table.

Composition of Radio Programs, 1979, Medium Frequency Stations, Adelaide^(a)

Category	Commercial	National	Public
	Per cent		
Entertainment:			
Light and contemporary music	57.4	19.9	46.3
Incidental matter	3.8	4.8	4.4
Foreign language	0.1	0.1	13.2
Variety	1.4	1.0	0.5
Drama	—	1.3	0.5
Classical music and the arts	0.1	35.1	16.3
Information and services:			
News	9.1	10.2	0.4
Sport	5.5	3.9	—
Information	1.3	5.7	6.8
Religious	0.6	1.2	—
Social and political	2.1	13.3	4.7
Family	1.1	0.9	0.6
Children's	—	0.9	0.2
Education	—	1.3	6.1
Publicity	1.1	0.4	—
Advertisements	16.4	—	—
Total	100.0	100.0	100.0

(a) Percentage of transmission time (6 a.m. to 10.30 p.m.) in each category.

Radio Stations

The call signs and locations of stations are given in the following table; all call signs in South Australia are prefixed by the number '5' with the exception of the ABC-FM station.

Radio Stations, 30 June 1980, South Australia

National Stations		Commercial Stations		Public Stations	
Call Sign	Location	Call Sign	Location	Call Sign	Location
ABC	Adelaide	FREQUENCY MODULATION (FM)		5EBI	Adelaide
		5SSA(a)	Adelaide	5MMM	Adelaide

Radio Stations, 30 June 1980, South Australia (continued)

National Stations		Commercial Stations		Public Stations	
Call Sign	Location	Call Sign	Location	Call Sign	Location
MEDIUM FREQUENCY (AM)					
5AN	Adelaide	5AA	Adelaide	5UV	Adelaide
5CL	Adelaide	5AD	Adelaide		
5CK	Port Pirie	5DN	Adelaide		
5LC	Leigh Creek	5KA	Adelaide		
5LN	Port Lincoln	5AU	Port Augusta		
5MG	Mount Gambier	5MU	Murray Bridge		
5MV	Renmark	5PI	Crystal Brook		
5PA	Naracoorte	5RM	Renmark		
5SY	Streaky Bay	5SE	Mount Gambier		
5WM	Woomera				

(a) Began operations in September 1980.

TELEVISION**Television Stations**

At 30 June 1980 there were six commercial and seven national television stations, five commercial and five national television translator stations in operation in South Australia. A television translator station is a station of low power designed to receive signals of another station and re-transmit them on a different frequency. A translator station does not originate programs.

The following table shows the stations in service and the dates on which they commenced operations.

Television Stations, 30 June 1980, 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—7	Ceduna	July 1973
ABWS—7	Woomera	November 1973
ABLCS—9	Leigh Creek	April 1977
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
RTS—5A	Renmark-Loxton	November 1976

Commercial television stations are operated by companies under licences granted by the Australian Broadcasting Tribunal with technical operating conditions determined by the Minister for Communications. The stations obtain income from the televising of advertisements. The fee for a licence for a commercial television station is \$200 plus an

amount based on the gross earnings as defined in the *Television Stations Licence Fees Act 1964*, assessed on a sliding scale varying from 1 per cent for amounts up to \$0.5 million to 6 per cent on amounts exceeding \$5.0 million.

Colour Television

From 19 October 1974 to 28 February 1975 a restricted number of hours per week of colour television was transmitted for test purposes and on 1 March 1975 colour television was introduced in South Australia and is now used for most programs.

Television Programs

On commercial channels there is a considerable emphasis on drama and light entertainment, whereas the Australian Broadcasting Commission devotes more time to programs of an informative and educational nature. Statistics of Adelaide television programs are shown in the following table.

Composition of Television Programs, All Adelaide Stations, 1979^(a)

Category	Commercial National	
	Per cent	
Television drama	27.0	18.1
Cinema movies	18.0	3.6
Cartoons	6.1	1.2
Light entertainment	11.1	8.3
Sport	6.6	16.0
News	2.9	7.2
Children's	6.7	16.9
Family	2.9	1.5
Information and documentary	2.1	8.3
Current affairs	1.7	4.9
Politics	0.1	—
Religion	1.2	1.3
The arts	—	2.5
Education	0.3	10.2
Advertisements	13.3	—
Total	100.0	100.0

(a) Percentage of transmission time (6 a.m. to 12 midnight) in each category.

PUBLIC BROADCASTING

The Broadcasting and Television Act makes provision for the grant of licences for the operation of a broadcasting or a television station for special purposes. No public television stations are in operation. Fifteen public broadcasting stations had previously been licensed on an experimental basis under the provisions of the Wireless Telegraphy Act.

Applications for licences under the *Broadcasting and Television Act 1942* for a total of twenty-six stations, including those operating on an experimental basis were the subject of public inquiries by the Australian Broadcasting Tribunal during 1978. Of the twenty-four licences offered and accepted in Australia, all were in operation at 30 June 1980. Licences were offered and accepted for three stations to serve the city of Adelaide.

Station 5UV is operated by the University of Adelaide, 5MMM by the Progressive Music Broadcasting Association Incorporated and 5EBI by Ethnic Broadcasters Incorporated.

Public broadcasting stations are operated by non-profit making groups.

FILMS

South Australian Film Corporation

The South Australian Film Corporation is constituted under the South Australian Film Corporation Act, 1972-1980. The Corporation has the sole right to produce, or arrange for the production of, films for or on behalf of the State Government.

The Corporation also may undertake film production on its own behalf or for other organisations. It produces its own feature films for cinema and television release and also enters into co-production and investment arrangements with other producers. Productions in which it has been involved so far include *Sunday Too Far Away*, *Picnic at Hanging Rock*, *Storm Boy*, *The Last Wave*, *Blue Fin* and *Breaker Morant*, which have received Australian and overseas acclaim from audiences and critics. A new venture, now in production, is an eight part series for television based on the novel *Sara Dane*.

The Corporation also produces many short films for commercial sponsors, in addition to a wide range of films for State Government departments and instrumentalities. Prints of these films are sold extensively throughout Australia and abroad. Several have won Australian and international awards for excellence.

Other functions of the Corporation include the distribution and exhibition of films, the provision of library and other services relating to films and research into the effectiveness of films generally.

The Corporation encourages feature film and television production by providing studio and sound mixing facilities for rental. Liaison services for producers based outside South Australia are also available.

THE PRESS

The State's first newspaper, *The South Australian Gazette & Colonial Register*, was first printed in London in 1836, six months before colonisation. The second issue of this paper, which served both as the official government publication and as an unofficial reporter of the news, was produced in Adelaide twelve months later. *The South Australian Gazette* (renamed *The South Australian Government Gazette* in 1840) emerged as a separate organ in 1839 and the newspaper continued as *The Register*. In 1850 *The Register* became the first continuous daily paper.

In the next twenty years several more daily newspapers were introduced, and for many years there were two morning and two evening papers daily. However, since the mid-1920s the present system of three major newspapers—one morning daily, one evening daily and one weekend publication—has emerged.

The Advertiser, published each morning except Sunday, was first issued in 1858 as *The South Australian Advertiser* and absorbed *The Register* in 1931. It is distributed throughout the State, with about 76 per cent of its circulation in Adelaide and suburbs and 24 per cent in country districts.

The News, published each evening from Monday to Friday, was introduced in 1923 replacing two evening newspapers, *The Express & Telegraph* and *The Journal*, which traced back their origins to the 1860s. Eighty-seven 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 23 per cent of sales of the *Sunday Mail* are in country districts.

The *Stock Journal*, previously the *Adelaide Stock and Station Journal*, was established in 1904. It is published weekly and provides up-to-date information on stock and wool markets and the technical aspects of farming and property management.

In addition to these major State-wide newspapers, a strong provincial press has been built up. There are at present thirty country newspapers operating in the State with a combined circulation of over 106 000. 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 district papers printed by Messenger Newspapers Pty Ltd, containing items of local interest circulated in a number of suburbs of Adelaide as well as a number of Community Newspapers published on a non-profit basis by committees of local residents.

PARKS AND GARDENS

Botanic Gardens

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. Botanic Park, an area of about 30 hectares north of the Garden was acquired in 1874 and has now been developed as an arboretum.

Since 1860 powers of management have been vested in the Board of the Botanic Gardens of eight members who serve for a period of four years but who may be re-elected for further terms.

The Garden contains an extensive collection of about 6 000 species of plants. Important features are the collections of native plants from dryland regions, cacti and succulents, the class ground, glass house displays and the wisteria arbor. The Museum of Economic Botany, opened in 1888, houses a comprehensive carpological collection, displays of plant products and educational displays.

In 1954 the State Herbarium was re-established within the Botanic Garden and a new herbarium building was completed and occupied in 1965. At present it contains about 350 000 specimens. In 1980, a substantial extension was opened to the State Herbarium.

The Botanic Gardens Library is the most complete of its type in the State, with numerous rare books, periodicals and archival items.

State-wide advisory services are available on all matters relating to ornamental horticulture. Two seconded teachers from the Education Department handle all enquiries for pre-primary to tertiary curricular matters and all visits by school children to the Garden.

Experimental tree plantations have been established at Giles Corner, Kulpara, Lame-roo, Stansbury and Meningie to test hardiness of ornamental woody plants under natural rainfall.

In the mid-1960s the Wittunga Garden at Blackwood was donated by the Ashby Family to the Botanic Garden. This comprises approximately 15 hectares and has Australian and South African plants and was opened officially in September 1975.

Mount Lofty Botanic Garden of approximately 110 hectares was established in 1952. It is devoted to the cultivation of northern and southern hemisphere temperate plants and was opened to the public on 5 November 1977.

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.

The Zoological Gardens contains an excellent collection of mammals, birds and reptiles. Particular emphasis is given to Australian fauna and especially to native Australian birds. During 1979-80, 130 species and varieties of mammals, including a large collection of marsupials, and 227 different species of Australian and foreign birds were exhibited.

The many mammals, reptiles and birds are attractively displayed in cages and enclosures; the enclosures for some animals are moated yards freely open to public view. Two walk-through aviaries, a Children's Zoo, where the animals can be handled and fed, and a nocturnal house for the display of animals which are more active during the night than the day, 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 1979-80 about 372 350 persons visited the Zoological Gardens.

National Parks and Wildlife Service

The National Parks and Wildlife Act, 1972-1981, 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 for the Environment and its purpose is to establish and manage reserves for public benefit and enjoyment, and to conserve wildlife.

The Act also provides for the protection of native fauna and some species of native flora. The reserves are classified into the following types:

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 permit management of wildlife).

At 30 June 1979 the reserves comprised 199 areas throughout the State and consisted of nine National Parks, 167 Conservation Parks, fifteen Recreation Parks and eight Game Reserves. The total area was almost 4.2 million hectares, or 4.2 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).

The National Parks and Wildlife Service issues permits to keep and sell protected animals and is responsible for the issue of hunting permits in South Australia.

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 688 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. Planting during the year 1979-80 included 986 trees and 276 shrubs.

Most suburban and country local government authorities maintain parks and gardens within their areas.

RECREATION AND SPORT

Division of Recreation and Sport

The Division of Recreation and Sport is part of the Department of Transport.

On 28 June 1976 the functions of the National Fitness Council of SA were amalgamated with those of the Division of Recreation and Sport.

The Recreation and Sport Division is involved in:

- capital assistance program for community recreation facilities;
- equipment grants for recreational and sporting equipment;
- advisory services for planning of recreation facilities;
- sports coaching scheme, providing grants for coaching and training;
- financial assistance towards travel to national sporting events;
- grants for innovative recreation programs;
- implementation of the 'Life Be In It' campaign;
- administration of residential recreation centres at Mylor and Parnanga and a Conference Centre at 'Graham's Castle', Goolwa;
- club administration courses, vacation recreation programs;
- recreation for special groups, including women, the handicapped, the elderly and ethnic groups;
- maintenance and administration of walking tracks;
- research and planning for recreation and sport;
- community physical fitness;
- playground development;
- administering the Regulations under the Lottery and Gaming Act, 1936-1980, pertaining to the licensing of small lotteries in the State;
- administering the provisions of the Racing Act, 1976-1980, and Regulations thereto.

Sports Administration Centre

In May 1978 the State Government established a Sports Administration Centre at Wayville. The Centre provides individual/shared office accommodation for sporting associations, general office services, printing and duplication service and telephone facilities.

The Centre has been designed to help alleviate the problems and expenses involved with the administration of sporting organisations. It is intended to function as a house of business and is geared to encourage associations to conduct their management in a more proficient and informative manner. As a collective central point, it allows a more effective communication level to be established with Government authorities and private business groups interested in the promotion of sport.

A restriction of 5 days per week per sport has been imposed and therefore priority for accommodation is given to the recognised State Associations. If the controlling body does not require the services of the Centre, then affiliated groups, with the approval of the State body, may avail themselves of the services.

SPORTING FACILITIES

In terms of attendance the most popular spectator sport is Australian Rules football; during the 1980 season the average attendance at the 110 minor round matches was 8 186 while the average at the six final matches was 33 296.

In addition, five interstate games were played in South Australia. Total attendance was 80 978, an average of 16 196 a match. The biggest draw was the game against Western Australia which was attended by 28 595 spectators.

From 1974 the South Australian National Football League Inc. has used its headquarters ground, Football Park at West Lakes, for major games with the Adelaide Oval as a support oval for matches when Football Park is unavailable or when other matches have been programmed there. There was a record attendance of 66 897 at the Grand Final on 25 September 1976.

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.

The Olympic Sports Field which features a synthetic 'tartan' track is the headquarters of the Amateur Athletic Association of South Australia which is affiliated with the Amateur Athletic Union of Australia. Each Saturday from October to March inter-club contests are held at this arena with an approximate annual attendance of 100 000 competitors and spectators. In addition regular international twilight meets are scheduled throughout the year.

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 two hectare site and is the headquarters of the South Australian Amateur Basketball Association Inc. The stadium is also used by visiting entertainers. Other basketball stadiums are at Forestville, Bowden, Marion, Hillcrest, Colonel Light Gardens and Morphett Vale. Many school gymnasiums have basketball facilities and this sport is played in the open at various centres.

A number of indoor multi-purpose centres exist at Angle Park (The Parks centre), Blackwood, Campbelltown, Elizabeth, Ingle Farm, Marion, Noarlunga, Tea Tree Gully, Woodville, Salisbury and Port Adelaide and in country areas at the following locations: Clare, Kadina, Loxton, Mannum, Mount Barker, Mount Gambier, Naracoorte, Peterborough, Port Augusta, Renmark, Tanunda and Waikerie.

The parklands of the City of Adelaide are used extensively for sporting purposes and during 1979-80, 424 sports permits were issued catering for eighteen different sports.

Sports grounds are distributed throughout suburban Adelaide, at approximately two to three kilometre intervals, and throughout country areas. In addition sports areas are available at most government and non-government 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 31 December 1980, thirty-five registered racing clubs and twenty-eight registered country courses. Picnic race meetings are held at a number of outlying centres.

Trotting Tracks

Metropolitan trotting in South Australia is conducted at Globe Derby Park, Bolivar, a modern and well-appointed track. There are twelve other courses in use in the State and

six of these (Gawler, Kadina, Kapunda, Mount Gambier, Port Augusta and Port Pirie) have facilities for the conduct of night trotting. The remaining courses situated at Cowell, Kimba, Murray Bridge, Strathalbyn, Victor Harbor and Whyalla conduct day meetings.

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, Barmera, Gawler, Port Pirie, Port Augusta, Port Lincoln and Mount Gambier since that date. Meetings are held three to four times a week. Average attendance at Angle Park, the city track, is approximately 3 000. At present about 5 000 people own or train greyhounds in South Australia. The estimated greyhound population is 8 000 dogs. In 1980, 270 meetings were held throughout the State, and for the first time, over \$500 000 was paid out in stake money for the financial year.

Golf Courses

At 31 December 1980 there were eight suburban public courses, five 18-hole courses including one at National Park, Belair, and four par-3 links. There were also fourteen private courses operating within suburban Adelaide. In addition there are courses at many country centres. Five new nine-hole golf courses have been built, including Regency Park, Marino and North Haven.

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.

A rallycross track was commissioned at Tailem Bend Raceway on 17 April 1977. The track has been leased by the Tailem Bend Racing Club to the South Australian Motor Racing Club which conducts rallycross meetings on an average of once every six weeks. The 1.2 kilometre track, which is a combination of bitumen and loose dirt, was laid in 1976 by the District Council of Meningie.

Tennis Courts

The South Australian Lawn Tennis Club's courts (thirty-five grass and eight hard) at Memorial Drive, North Adelaide occupy approximately 4 hectares of the north parklands. The centre court was the venue for Davis Cup matches in 1952, 1956, 1963, 1968, 1975 and 1978. At 31 December 1980 the parklands also contained approximately 210 other tennis courts. Courts associated with schools, churches and private clubs exist throughout the State.

Lawn Bowling Clubs

At 30 June 1980 there were 238 bowling clubs registered with the Royal South Australian Bowling Association—sixty-seven in and near Adelaide and 171 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 233 bowling clubs registered with the South Australian Women's Bowling Association, sixty-two in the metropolitan area (including six clubs exclusively for women) and 171 in the country. The total membership exceeds 17 000 men and 10 000 women.

Swimming Facilities

At 31 December 1978 there were eighty-one public swimming pools in South Australia, of which fifty-seven 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 eighty-one pools, seventy-four had treated water, the remainder were in lakes, dams, rivers or the sea, or utilised sea water. While mainly used for recreational and instructional purposes, the facilities provide a base for fifty-four swimming clubs providing instruction and competition in swimming, diving and water polo. These clubs have 6 203 members.

Swimming pools are provided at sixty-eight government schools, twenty-eight of these being in country areas. Swimming facilities are also available at a number of non-government 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 heated 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 Centre is contained in a 2-hectare grassed area with spectator accommodation for 2 000 people forming an amphitheatre arrangement surrounding the competitive pools.

A new swimming complex was opened at Marion on 24 January 1976. The complex comprises 50-metre, learner's and wader's pools with associated facilities and was constructed at a cost of approximately \$900 000 by the Marion City Council, with financial assistance from the Commonwealth and State Governments.

An indoor 25-metre heated public swimming pool has been completed for the Parks Community Centre, the third in the State; the other two being at Mount Gambier and Whyalla.

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.

LOTTERIES AND BETTING

LOTTERIES

The State Lotteries Act, 1966-1981 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 to meet the expenses of the Commission and to pay prizes. The balance of the Lotteries Fund, which represents the surplus of income over expenditure and prize money not claimed for over six months, is transferred to the Hospitals Fund.

Up to 31 December 1980, \$231.3 million was received from the sale of tickets, including X Lotto, and Instant Money Game, of which \$140.9 million was distributed in prize money, and approximately \$74.2 million had been transferred to the Hospitals Fund.

Originally only one lottery, a 50 cent series, was conducted but in July 1967 a Jackpot series with tickets at \$1 each, was introduced. In addition special lotteries have been conducted with tickets sold at \$2, \$3, \$4, \$5, \$10 or \$20 each. The last of the 50 cent lotteries was drawn on 2 July 1974 and on 3 July 1974 a 60 cent lottery was introduced. However, its popularity gradually declined and the 60 cent lottery was discontinued on 6 August 1976.

In April 1973, a new type of lottery called 'X Lotto' (Cross Lotto) was introduced. In October 1975, the percentage of prize money was increased from 60 per cent to 61 per cent. For the year ending 31 December 1980, \$18.5 million was invested.

On 4 December 1978 the Commission introduced yet another type of lottery called 'Instant Money Game'. As its name indicates, the subscriber knows immediately whether he has won a prize. This lottery originated in America in 1974 and has spread to England, Europe, Africa. The instant prizes in this lottery range from \$2 to \$10 000, amounts of \$2 and \$5 are paid immediately at the point of sale; higher prizes are paid by cheque from Head Office immediately after verification on presentation of the ticket. Tickets are in Lots of 500 000 with a face value of \$1 each, 60 per cent of which is allocated to prize money. Sales for the year ending 31 December 1980 were \$19.5 million.

At 31 December 1980 there were 244 Lotteries Commission Agents appointed in South Australia. Of these, 157 were in the Adelaide and suburban areas, 54 in country areas and 33 were subscriber (non-ticket selling) agents.

BETTING

Legalised betting in South Australia is restricted to horse racing, trotting, dog racing and coursing. Since 1 January 1977 it has been governed by the provisions of the Racing Act, 1976-1980.

The Act makes provision for betting with the totalisator and with bookmakers at horse race, trotting and dog race meetings. The totalisator cannot be used at coursing meetings but bookmakers may operate at these meetings.

Before December 1933 legalised betting was restricted to totalisator betting at registered race meetings. From 1933 to 1967 it was limited to 'on-course' totalisator and to betting with bookmakers who were licensed to bet on courses where meetings were held, and also (from January 1934 to February 1942) with bookmakers who were licensed to bet 'off-course' in specially registered premises.

As a war-time measure racing and betting in South Australia were banned from March 1942 until October 1943. Off-course betting facilities were not re-established until 1946, when they were restricted to country areas. Port Pirie is the only town where bookmakers now operate in registered premises.

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

Particulars	1977-78	1978-79	1979-80
Amount invested:			\$'000
Bookmakers;			
Horse racing	124 447	123 551	118 719
Trotting	33 919	28 812	27 119
Dog racing and coursing	26 197	27 300	27 055
Total	184 563	179 663	172 893
Totalisator;			
Horse racing	13 956	14 581	13 938
Trotting	3 712	3 264	3 172
Dog racing and coursing	3 057	2 866	2 859
Total	20 725	20 711	19 969
Total amount invested	205 288	200 374	192 862

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

Particulars	1977-78	1978-79	1979-80
Distribution of commissions, taxes and fractions derived from betting transactions:		\$'000	
State Government;			
Bookmakers,			
Commission on bets	2033	2 002	1 926
Duty on betting tickets	147	137	126
Unclaimed bets	172	184	169
Totalisator,			
Tax and licences	1 022	1 021	980
Total paid to Consolidated Revenue	3 374	3 344	3 201
Clubs;			
Bookmakers,			
Commission on bets	1 979	1 925	1 851
Totalisator,			
Commission on takings	2 071	2 077	2 010
Fractions	127	140	174
Total payable to clubs	4 177	4 142	4 035
Racecourses Development Board;			
Commission on Totalisator takings	44	47	46
Totalisator fractions	60	41	—
Total	104	88	46
Hospitals Fund;			
Totalisator unclaimed dividends	95	94	96
Total distribution	7 750	7 668	7 378

In October 1966 provision was made for the setting up of the Totalizator Agency system of 'off-course' betting, and agencies have since been established in the metropolitan area and at numerous country towns. A Board consisting of a Chairman and seven other members representative of racing and trotting interests was appointed to administer the new system and the Totalizator Agency Board (TAB) Headquarters was established in Adelaide during December 1966. The Board was enlarged during 1970-71 to include a representative of the greyhound racing interests. The Board was changed in 1976 to comprise an independent Government appointed Chairman and Deputy Chairman plus a representative from the controlling body of each of the three codes of galloping, trotting and greyhounds. 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 1980, 172 agencies were operating of which fifty-four were sub-agencies operated in conjunction with other businesses. Further premises in the city, suburbs and country towns are being established progressively to provide a complete coverage of the whole State. In addition, a system of telephone betting is available to persons who have established accounts with the TAB. The installation of mark sense ticket betting terminals in metropolitan agencies

commenced on 8 February 1979 and at 30 June 1980, 85 metropolitan agencies were on-line. At 30 June 1980 the Board employed 203 permanent and 575 part-time staff.

For the year ended 30 June 1980 off-course investments totalled \$111 962 803 of which approximately 83 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	5 598 140
Fractions	819 722
Unclaimed dividends	396 733
Commission on NSW (Broken Hill) investments	4 185
	\$6 818 780

In addition, for the year ended 30 June 1980, an amount of \$2 454 960 became available for distribution to racing, trotting and greyhound clubs under a scheme of distribution prepared by the Controlling Bodies Board and approved by the Minister for Recreation and Sport. Since commencing operations in 1967, the Board has distributed a total of \$20 104 557 to participating clubs while in the same period, the South Australian Government has received \$49 913 639.

Racecourses Development Board

The Racecourses Development Board, established under the Lottery and Gaming Act, 1936-1980 and continued under the Racing Act, 1976-1980, administers the Horse Racing Grounds Development Fund, the Trotting Grounds Development Fund and the Dog Racing Grounds Development Fund. These funds are financed by a proportion of investments on totalisators conducted by racing clubs or the Totalizator Agency Board and are to be applied by way of grants or loans to racing clubs for providing, erecting, improving or repairing public facilities. The Board is empowered also to borrow funds for these purposes.

6.5 HEALTH

HISTORICAL

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 first mental health services were provided from the Adelaide Gaol and a short-lived 'Public Colonial Lunatic Asylum' established in 1846 on the Greenhill Road site of the present Glenside Hospital. The 'Adelaide Lunatic Asylum', situated in the Botanic Gardens, operated from 1852 to 1902. The Parkside Lunatic Asylum (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.

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 1951 when a Department of Public Health was formed to co-ordinate the work of the board and other health activities.

The major State Government authorities responsible for health services in South Australia have been traditionally the Hospitals Department and the Department of Public Health. Each Department, administered separately, had a permanent head who reported to the Minister of Health.

The Hospitals Department was responsible for the management and co-ordination of Government Hospitals in South Australia, both general and psychiatric.

The South Australian Health Commission was established on 1 July 1978 to ensure better rationalisation and co-ordination of health services in this State. A step in this direction was made in January 1978 when the Department of Public Health amalgamated with the Hospitals Department and the South Australian Health Commission assumed the functions previously undertaken by the Department of Public Health.

The Health Commission embraces the activities of the Central Board of Health, the Occupational Health Branch, the School Health Branch (including the Deafness Guidance Clinic), Dental Health Services, the Communicable Disease Control Unit, Central Cancer Registry, Health Surveying Services, Intellectually Retarded Services, Mental Health Services, the Food and Drugs Advisory Committee, the Radiological Advisory Committee, 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 Commission is responsible also for health education, including the drug education program sponsored by the Commonwealth 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 Bakehouses Registration Acts. The Board also has responsibilities under the Local Government Act, the Cremation Act, the Clean Air Regulations and Abattoirs 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 127 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 Commonwealth Government through the Departments of Health and Social Security is responsible for the administration of national health services in co-operation with State health authorities and voluntary organisations. Under the *Quarantine Act 1908* the Department of Health is responsible for the various aspects of human, animal and plant quarantine.

The South Australian Branch of the Department of Veterans' Affairs 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 South Australian Health Commission, the Department of Veterans' Affairs, religious and charitable organisations, local community committees and private owners.

RECOGNISED HOSPITALS

Recognised hospitals (formerly public hospitals) are those which have been approved under the Hospital Agreement between the State Government and the Commonwealth. This agreement was subsequently renegotiated, with some amendments, effective from 1 October 1976. They are deficit financed by the State Government; the Commonwealth has agreed to meet up to 50 per cent of net operating costs in accordance with an agreed budget.

Recognised Hospitals, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Hospitals	73	81	81	81	81
Staff (at end of year):					
Medical;					
Salaried	664	686	775	767	808
Sessional (a)	415	389	152	138	140
Nursing	7 780	8 316	8 235	7 808	7 461
Other	7 298	7 530	7 176	7 083	6 804
Total	16 157	16 921	16 338	15 796	15 213
Patients:					
Admitted and re-admitted	179 733	190 806	202 802	216 315	220 138
Average daily number resident	4 207	4 291	4 364	4 412	4 394
			\$'000		
Operating receipts:					
State Government aid	73 910	87 294	102 371	107 401	108 433
Commonwealth Government	73 910	87 294	102 371	107 401	108 433
Fees	10 654	27 376	40 350	43 923	48 686
Other	5 818	4 096	5 039	4 765	4 110
Total	164 292	206 060	250 131	263 490	269 662
Operating payments:					
Salaries and wages	108 343	148 208	182 390	189 656	198 265
Other	55 949	57 852	67 741	73 834	71 397
Total	164 292	206 060	250 131	263 490	269 662
Capital payments:					
Buildings, equipment etc.;					
Government	25 696	30 639	14 349	11 280	} 12 828
Other	5 433	12 337	6 476	8 617	
Total	31 129	42 976	20 825	19 897	12 828

(a) Includes visiting specialists paid on a sessional basis and honorary consultants, but not those paid on a modified fee for service basis.

The four former Government teaching hospitals and the former country Government hospitals, along with the five former non-governmental hospitals, were incorporated under the South Australian Health Commission Act at 30 June 1980. Each has its own board of management.

In addition there are sixty recognised hospitals in country areas and four (including Adelaide Children's Hospital and Queen Victoria Hospital) in the metropolitan area, conducted by local boards of management, which are deficit financed by the State Government and come under the general supervision of the South Australian Health Commission.

Recognised Hospitals: South Australia, 1979-80

Particulars	Royal Adelaide Hospital	Queen Elizabeth Hospital	Adelaide Children's Hospital	Other Recognised Hospitals	Total
Staff (at end of year):					
Medical:					
Salaried	269	180	103	256	808
Sessional (a)	54	28	23	35	140
Nursing	1 651	1 038	515	4 261	7 461
Others	1 697	1 126	718	3 263	6 804
In-patients:					
Admitted and re-admitted	39 818	31 514	16 605	87 937	220 138
Average daily number resident	879	510	182	1 571	4 394

(a) Includes visiting specialists paid on a sessional basis and honorary consultants, but not those paid on a modified fee for service basis.

Royal Adelaide Hospital

The Royal Adelaide Hospital is a general teaching hospital incorporated under the South Australian Health Commission Act and controlled by a board of management. The Hospital, which incorporates a department of dentistry, is a school of medical and dental clinical teaching, in conjunction with the University of Adelaide. The Northfield and Morris wards, formerly used to accommodate patients with infectious conditions, have been renamed the Hampstead Centre and care mainly for elderly patients and those maimed in road accidents.

At 30 June 1980 there were 970 beds at the North Terrace site and 137 beds at the Northfield Hospital site. This excludes 125 beds at Northfield classified as nursing home beds.

Queen Elizabeth Hospital

The Queen Elizabeth Hospital at Woodville is a general, casualty and maternity hospital incorporated under the South Australian Health Commission Act and controlled by a board of management. It is a teaching hospital affiliated with the University of Adelaide for the clinical teaching of undergraduate medical students. Opened in 1954 as a temporary 55-bed maternity hospital, it has been developed progressively to a major teaching hospital which, at 30 June 1980, had 692 beds available, including ten rehabilitation beds at the Mareeba Rehabilitation Centre, Woodville, which also incorporates a day treatment centre and an extensive domiciliary care service.

Modbury Hospital

The Modbury Hospital is a general hospital comprising medical, surgical, maternity

and children's wards, and casualty and out-patient services. It is incorporated under the South Australian Health Commission Act and controlled by a board of management. The hospital was officially opened on 16 February 1973, with 134 staffed beds. Since that time additional beds have become available progressively and at 30 June 1980, 214 beds were in use.

Queen Victoria Hospital

The Queen Victoria Hospital, founded by public subscription, was opened in 1902. It primarily provides facilities for midwifery, neo-natal paediatrics and gynaecology. It is a university teaching hospital and is controlled by a board of management. Accommodation at 30 June 1980 was 174 beds.

Adelaide Children's Hospital

The Adelaide Children's Hospital was founded by public subscription in 1876 and the first buildings were completed in 1879.

The hospital is a general paediatric teaching hospital for children and is a training school for nurses; the Department of Paediatrics of the University of Adelaide is situated at the hospital. It is controlled by a board of management and is a recognised hospital. Accommodation at 30 June 1980 was 300 beds.

Flinders Medical Centre

Opened in 1976, the Flinders Medical Centre represents a new concept of a general teaching hospital integrated with a university (Flinders University) for the clinical teaching of undergraduate medical students and for research.

At 30 June 1980, 471 beds were in use; the continuing commissioning of new facilities will increase the total available beds to 550. The centre is controlled by a board of management of eleven members.

COMMUNITY HEALTH AND DOMICILIARY CARE

Commencing in late 1971, the Domiciliary Care Program, which is funded jointly by the State and Commonwealth Governments, provides health orientated support services at home so that the recipient is able to continue to live in a domiciliary situation, where frequently, the only previous alternative was institutional care. This concept was greatly expanded in 1973-74 by the addition of the Community Health Program, which provided for a wider range of community health services, not necessarily of a domiciliary nature.

With the introduction of the Hospital Program from 1 July 1975, there has been a rationalisation of community health services, so that existing hospital facilities may be used, where appropriate, in lieu of the provision of separate facilities or projects.

The whole concept of community health care is one of continuing development as a viable alternative, in appropriate circumstances, to institutional health care.

REPATRIATION HOSPITALS

The Department of Veterans' Affairs maintains the Repatriation General Hospital at Daw Park. Formerly known as Repatriation General Hospital, Springbank, it was built as a military hospital during the 1939-45 War, and came under the control of the Department in 1947. Medical, surgical and psychiatric in-patient and out-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.

In 1974 the Daw Park Private Hospital adjacent to the Repatriation General Hospital was acquired and developed as a Rehabilitation Centre and Day Hospital. Within the Hospital's grounds is the Repatriation Artificial Limb and Appliance Centre which manufactures and supplies artificial limbs and other aids free of charge to all persons who require them, regardless of whether they have a Repatriation entitlement or not. The average daily number of patients in the Repatriation General Hospital during 1979-80 was 223. At June 1980 there were 745 staff and 336 beds.

PRIVATE HOSPITALS AND NURSING HOMES

Details of all private institutions approved for payment of Commonwealth Government hospital or nursing home benefits are given in the following table.

Private Hospitals and Nursing Homes, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Number of hospitals	47	39	37	36	37
Number of nursing homes	124	126	127	131	129
Number of beds at end of year:					
Hospitals	2 041	2 023	1 984	2 002	2 083
Nursing homes	4 117	4 318	4 663	4 932	5 146

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. The Home for Incurables at Fullarton provides accommodation and nursing attention for persons suffering from chronic disease.

MENTAL HEALTH SERVICES

The Director of Mental Health Services is responsible for the management of public psychiatric services operating under the Mental Health Act, 1976-1979. A division of the Health Commission, 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.

Government Psychiatric Institutions, South Australia

Particulars	1974-75	1975-76	1976-77	1977-78	1978-79
In-patients:					
Admitted and re-admitted	3 410	3 665	3 489	3 648	3 971
Discharged	3 204	3 801	3 499	3 743	3 935
Deaths during year	158	143	107	92	95
Remaining at end of year;					
Males	1 099	969	956	917	933
Females	975	800	810	753	758
Persons	2 074	1 769	1 766	1 670	1 691
Out and day-patients:					
Treated during year;					
Males	2 590	2 891	2 936	3 276	4 059
Females	2 623	2 976	2 751	3 240	3 894
Persons	5 213	5 867	5 687	6 516	7 953

In addition to the Enfield Hospital, there are separate 'short-term' receiving units at Glenside and 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.

The next table shows that for both males and females admitted or re-admitted as in-patients during 1978-79 the most common diagnosis was 'schizophrenia and paranoid states'.

In-patients Admitted and Re-admitted to Government Psychiatric Institutions South Australia

Diagnosis	1976-77		1977-78		1978-79	
	Males	Females	Males	Females	Males	Females
Senile and pre-senile dementia	49	84	42	67	49	88
Alcoholic psychosis	47	11	58	13	52	11
Other organic psychoses	37	57	54	66	35	39
Schizophrenia and paranoid states	454	377	434	390	505	386
Depressive psychosis	101	223	107	178	57	108
Other functional psychoses	212	280	183	332	221	366
Depressive neurosis	95	188	95	154	92	138
Other neuroses and psychosomatic disorders	52	75	41	54	61	85
Alcoholism	269	47	297	35	312	45
Drug addiction	31	18	15	11	19	11
Other personality disorders	127	118	155	145	243	131
Transient situational disturbances and behaviour disorders of childhood	31	41	35	60	74	87
Non-psychotic mental disorders associated with physical condition	10	6	24	16	20	17
Mental retardation	230	165	325	226	400	275
Non-psychiatric diagnosis	36	18	14	22	21	23
Total	1 781	1 708	1 879	1 769	2 161	1 810

In-patients discharged during 1978-79 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, 1978-79

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	9	14	11	7	16	57
Alcoholic psychosis	19	9	5	10	15	58
Other organic psychoses	12	10	4	3	8	37
Schizophrenia and paranoid states	134	127	116	94	38	509
Depressive psychosis	20	12	16	9	1	58
Other functional psychoses	52	72	41	33	3	201
Depressive neurosis	42	23	14	5	1	85
Other neuroses and psychosomatic disorders	26	14	13	7	2	62
Alcoholism	89	77	106	37	1	310
Drug addiction	8	6	2	1	—	17
Other personality disorders	104	50	44	30	7	235
Transient situational disturbances and behavi- our disorders of childhood	44	17	6	6	2	75
Non-psychotic mental disorders associated with physical condition	11	5	3	2	2	23
Mental retardation	182	126	48	18	15	389
Non-psychiatric diagnosis	10	7	1	1	—	19
Total	762	569	430	263	111	2 135

**In-patients Discharged from Government Psychiatric Institutions
Diagnosis and Period Resident, South Australia, 1978-1979 (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	10	17	20	17	25	89
Alcoholic psychosis	4	—	3	—	5	12
Other organic psychoses	18	9	5	7	8	47
Schizophrenia and paranoid states	85	103	96	75	20	379
Depressive psychosis	31	34	31	16	2	114
Other functional psychoses	100	127	81	55	9	372
Depressive neurosis	49	37	30	20	5	141
Other neuroses and psychosomatic disorders	32	25	11	10	1	79
Alcoholism	7	11	14	7	1	40
Drug addiction	6	2	2	—	—	10
Other personality disorders	53	27	24	17	3	124
Transient situational disturbances and behaviour disorders of childhood	53	18	7	9	1	88
Non-psychotic mental disorders associated with physical condition	5	3	3	4	2	17
Mental retardation	136	82	26	7	13	264
Non-psychiatric diagnosis	11	6	6	1	—	24
Total	600	501	359	245	95	1 800

The following table shows the number of patients treated in 1978-79 classified by the diagnosis and number of attendances.

**Out-patients and Day-patients Treated in Government Psychiatric Institutions
Diagnosis and Number of Attendances, South Australia, 1978-79**

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	18	—	—	—	7	25
Alcoholic psychosis	26	8	4	2	10	50
Other organic psychoses	4	1	—	—	1	6
Schizophrenia and paranoid states	241	99	70	54	140	604
Depressive psychosis	79	67	25	14	43	228
Other functional psychoses	59	42	11	9	20	141
Depressive neurosis	168	58	19	9	25	279
Other neuroses and psychosomatic disorders	342	107	45	27	37	558
Alcoholism	272	17	13	3	19	324
Drug addiction	87	44	23	18	145	317
Other personality disorders	294	76	27	13	29	439
Transient situational disturbances and behaviour disorders of childhood	260	94	22	12	19	407
Non-psychotic mental disorders associated with physical condition	18	5	2	1	4	30
Mental retardation	257	6	2	2	11	278
Non-psychiatric diagnosis	291	36	18	6	22	373
Total	2 416	660	281	170	532	4 059

**Out-patients and Day-patients Treated in Government Psychiatric Institutions
Diagnosis and Number of Attendances, South Australia, 1978-79 (continued)**

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	
			FEMALES			
Senile and pre-senile dementia	39	2	2	—	10	53
Alcoholic psychosis	24	7	2	2	9	44
Other organic psychoses	11	3	3	1	4	22
Schizophrenia and paranoid states	240	110	63	50	86	549
Depressive psychosis	138	95	50	21	65	369
Other functional psychoses	81	68	34	13	31	227
Depressive neurosis	249	88	27	18	45	427
Other neuroses and psychosomatic disorders	366	131	69	35	82	683
Alcoholism	33	9	3	1	1	47
Drug addiction	47	15	10	8	87	167
Other personality disorders	217	61	34	18	38	368
Transient situational disturbances and behaviour disorders of childhood	170	71	18	7	19	285
Non-psychotic mental disorders associated with physical con- dition	38	9	2	2	3	54
Mental retardation	183	2	3	—	8	196
Non-psychiatric diagnosis	273	57	34	15	24	403
Total	2 109	728	354	191	512	3 894

ALCOHOL AND DRUG ADDICTS TREATMENT BOARD

The treatment of those addicted to alcohol and other drugs in South Australia is the responsibility of the Alcohol and Drug Addicts Treatment Board under the provisions of the Alcohol and Drug Addicts (Treatment) Act, 1961-1976.

The Board controls the following facilities for the treatment of alcoholism and other addictions:

- Administrative Headquarters and Information Centre—Parkside;
- Driver Assessment Clinic—Parkside;
- Elura Clinic, North Adelaide—assessment clinic and out-patients centre;
- St Anthony's Hospital, 'Birrale', Belair—short-term in-patient units (recognised under the Health Insurance Act);
- Osmond Terrace Regional Referral Clinic, Norwood—a detoxification and observation unit for patients from all areas;
- Family Living Centre, Joslin—a residential therapeutic community for drug dependent persons.

An alcoholism treatment service is also provided by the Board to patients at the Flinders Medical Centre. In the country, the Board conducts a clinic at Whyalla, Port Augusta and the Riverland. It also provides a consultative service to the dependency clinic at Port Pirie.

The efforts and operations of various church and voluntary organisations are co-ordinated by the Board. These organisations are assisted financially by the South Australian Government.

Education on the various aspects of dependency is undertaken by Board staff to a number of helping professionals both at under-graduate and graduate level.

MATERNAL AND CHILD WELFARE

MOTHERS AND BABIES HEALTH ASSOCIATION

The Mothers and Babies Health Association, a voluntary body supported by govern-

ment subsidy and public subscriptions, was established in 1909 and conducts family and child health work throughout the State. At 300 centres, triple certificated sisters teach management skills to young parents, monitor the growth and development of infants and young children, and advise parents on problems associated with the growing child. Individual sessions are conducted by appointment for the management of problems in the older child up to five years. The Association also conducts a twenty-four hour telephone advisory service and a correspondence service for remote and isolated families, both within Australia and overseas. Physiotherapy, family management and ante-natal classes are conducted regularly and many parentcraft courses are conducted centrally and regionally throughout the year. There is an extensive school-lecturing service on parentcraft.

The Association, through its Torrens House mothercraft hospital, provides the only training for infant welfare sisters in South Australia. Torrens House has twenty beds and admits mothers with new-born babies for assistance in management and also treats babies and children up to the age of five years for various behavioural disorders. A day hospital and a model child-care centre are further facilities for placement and training.

Babies awaiting adoption and a social work service for single mothers, multi-problem families, and families-at-risk for child maltreatment, are further services provided.

Pamphlets and books on a wide range of topics of interest to parents are provided through the Association. In January 1980, following discussions between the Mothers and Babies' Health Association and the South Australian Health Commission, agreement was reached to establish a Child, Adolescent and Family Health Service for South Australia. This will involve the merger of the Association with the School Health Services and the Child, Adolescent and Family Psychiatric Services of the Health Commission.

SCHOOL HEALTH AND DENTAL 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. In January 1978, the staff and functions of the Department of Public Health, including the School Health Branch, were transferred to the South Australian Health Commission.

The medical assessment program aims to detect health impediments which are likely to affect the progress of children at school and to provide advice on appropriate management. No treatment is carried out by the Branch. All government and non-government schools are visited, usually annually. Students in Year 1 in primary schools are given a health assessment by a school nurse. In addition, vision, hearing and posture are assessed by a school nurse in Year 7. The activities of the Branch are being progressively extended in an endeavour to meet the total health needs of school children, including physiological and social needs. The role of the School Health Nurse has been extended into the community and the staff work in close collaboration with other health and welfare workers, teaching staff and parents.

School Health nursing staff have been appointed to Priority Project Schools, Child-Parent Resource Centres and Community Health Centres. These nurses are responsible to the School Health Branch, but are seconded to the respective establishments as staff members.

With the establishment of a pre-school system by the Education Department, the School Health Branch has established a service to pre-schools, under the direction of a medical officer experienced in developmental paediatrics.

During 1979, 64 303 children were examined by medical officers or screened by nurses in 672 metropolitan and country schools.

There were 3 031 children examined at the Deafness Guidance Clinic, including 1 522 examined for the first time in 1979; 1 224 of those examined in 1979 were referred to doctors or hospitals for treatment.

An assessment clinic, under the direction of a paediatrician, began in 1971 for children with learning and behavioural problems.

The total of seventy-nine staff of the School Health Branch at the end of 1979 included fourteen medical officers, fifty-four school nurses, three audiometrists and one social worker. Dentists using mobile vans and dentists and therapists working in 97 static clinics and the School Dental Service provided dental care to 134 168 children in the 1979 school year. The field staff of the Branch in 1979 comprised eight dentists and 166 therapists in full-time terms.

NOTIFIABLE DISEASES

Under the Health Act, 1935-1980, 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 diseases in the population.

Notifiable Diseases: Cases Notified, South Australia

Diseases	1976	1977	1978	1979	1980
Encephalitis	—	8	4	6	4
Gonorrhoea	1 855	1 921	1 444	1 110	866
Hepatitis A	235	262	142	108	115
Hepatitis B	100	107	128	189	189
Malaria	22	16	21	31	54
Meningococcal infection	10	5	19	5	4
Paratyphoid	—	—	—	4	4
Q-fever	(a)	(a)	(a)	(a)	125
Rubella	23	17	21	91	72
Salmonella infection	234	230	277	461	77
Shigella	85	76	47	101	100
Syphilis	484	360	241	355	258
Tuberculosis	96	105	93	123	128
Typhoid fever	2	—	2	—	1
Other diseases	17	28	79	175	117

(a) Q-Fever figures were included with 'other diseases' before 1980.

The Royal Adelaide Hospital maintains a venereal diseases investigation clinic at 275 North Terrace, Adelaide.

Anti-tuberculosis Campaign

Compulsory X-ray surveys, introduced in 1952, and the tuberculin tests given to children in Year 9 at most government and non-government schools are designed to detect active cases of the disease.

With improved living standards in post-war years and aided by the tuberculosis campaign, the incidence of the disease has been reduced to a very low level of 9·12 per 100 000 of mean population.

Prevention of Poliomyelitis

In the 1950s South Australia was affected by an intense poliomyelitis epidemic which began in 1949 and continued for several years, reaching a peak in 1951 when 1 491 cases with 62 deaths were registered. From 1956, when mass immunisation against poliomyelitis with Salk vaccine was begun, the incidence of the disease declined. The last indigenous case of poliomyelitis in South Australia was recorded in 1963. Since then, one case, originating in the Northern Territory and treated in Adelaide was reported in 1970 and towards the end of 1974 a child with suspected poliomyelitis was investigated at the Adelaide Children's Hospital.

The oral (Sabin) poliomyelitis vaccine was first introduced in July 1967, and is now the only vaccine used against poliomyelitis in this State. It is distributed by the South Australian Health Commission to Local Boards of Health and private medical practitioners. The Health Commission also organises poliomyelitis immunisation in areas without local government and conducts a clinic at the State Immunization Centre, Norwood.

Poliomyelitis, South Australia

Period	Cases Notified	Deaths
1950-54	3 747	117
1955-59	331	11
1960-64	82	5
1965-69	—	—
1970-74	2	—
1975-80	—	—

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, 1935-1980), 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 145.9 in 1975, 169.9 in 1976, 195.9 in 1977, 205.8 in 1978 and 211.4 in 1979.

Abortions Notified: Grounds on Which Granted, South Australia

Grounds	1978		1979	
	Number	Per Cent	Number	Per Cent
Assault	3	0.1	3	0.1
Potential damage to fetus	78	2.0	79	2.0
Specified medical disorders	53	1.4	38	1.0
Specified psychiatric disorders	3 685	96.5	3 786	96.9
Total	3 819	100.0	3 906	100.0

Abortions Notified: Marital Status, South Australia

Marital Status	1978		1979	
	Number	Per Cent	Number	Per Cent
Single	2 118	55.5	2 245	57.5
Married	1 188	31.1	1 145	29.3
Widowed	33	0.9	27	0.7
Divorced/separated	429	11.2	441	11.3
Not stated	51	1.3	48	1.2
Total	3 819	100.0	3 906	100.0

Abortions Notified: Age Distribution, South Australia

Age Group (Years)	1975	1976	1977	1978	1979
	Number				
Under 20	800	1 024	1 161	1 240	1 235
20-24	768	841	959	1 079	1 138
25-29	526	605	678	667	647
30-34	334	348	375	428	439
35-39	291	221	244	239	247
40-44	136	123	117	106	131
45 and over	23	13	9	15	18
Not stated	38	44	47	45	51
Total	2 916	3 219	3 590	3 819	3 906

Abortions Notified: Type of Termination, South Australia

Type of Termination	1975	1976	1977	1978	1979
	Number				
Vacuum aspiration	2 432	2 478	2 876	3 215	3 396
Dilation and curettage	339	583	450	388	319
Hysterectomy	16	12	11	8	6
Hysterotomy—abdominal	43	32	28	22	12
Hysterotomy—vaginal	3	1	1	—	—
Intra-uterine injection	(a)	(a)	(a)	(a)	118
Other	77	112	200	161	35
Not stated	6	1	24	25	20
Total	2 916	3 219	3 590	3 819	3 906

(a) Before 1979, these figures were included in other.

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 1980 over 100 000 individual donations were received.

The Service maintains blood banks at the Royal Adelaide Hospital, Queen Elizabeth Hospital and the Flinders Medical Centre, 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 Repatriation General Hospital, Modbury Hospital and the Lyell McEwin Hospital, Elizabeth, and regional blood transfusion centres have been established at Murray Bridge, Mount Gambier, Whyalla, Berri, Port Lincoln, Port Augusta and Wallaroo.

The cost of maintaining the Blood Transfusion Service is met by the State Government (60 per cent), the Commonwealth Government (35 per cent) and the Red Cross Society (5 per cent).

Home Nursing

The Royal District Nursing Society of South Australia Incorporated, through its fifty-one branches in metropolitan and country districts, provides registered nurses to attend the sick in their own homes, giving physical, psychological and supportive care.

Relatives are educated to assist in the care of patients and in helping patients to help themselves. Fees are not fixed but patients are expected to contribute according to their means. During 1979-80 a total of 441 344 visits were made by 186 full-time nurses. The Society also maintains an emergency hospital at Marree and a medical centre at Iron Knob.

Funding is provided by the South Australian Government (39 per cent), the Commonwealth Government (39 per cent), contributions, local government and fund raising (22 per cent).

Aerial Medical Services

The Royal Flying Doctor Service (RFDS) of Australia is a non-profit organisation providing medical, dental, ophthalmic, School of the Air and telegram services in remote

areas of Australia. The Royal Flying Doctor Service of Australia (SA and NT Section) Inc. operates over an area of approximately 2 124 000 square kilometres 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 Port Augusta and three at Alice Springs. For the year ended 30 June 1980 these aircraft flew a total of 702 246 kilometres in transporting 901 patients to hospital and treating 3 610 patients at outback clinics. A further 941 patients received dental treatment from Adelaide dentists on regular monthly visits. Doctors gave 3 828 radio consultations to outback residents and 40 426 telegrams were transmitted from 427 licensed, fixed and portable outstations.

No flying charges are made to patients and the Service relies on donations, bequests and similar sources for approximately 20 per cent of the finance required and 80 per cent from Commonwealth and State Government grants.

Ambulance Services

The St John Council for South Australia Inc. operates the ambulance service throughout South Australia through an integrated system of regular and volunteer officers. In the metropolitan area during 1979 St John ambulances travelled 2 425 723 kilometres and carried 167 371 patients. Country ambulances travelled 2 330 079 kilometres and transported 41 999 patients. Three aerial ambulances, based at Whyalla and at Adelaide, flew 2 220 hours and carried 1 232 patients in 1979. These aircraft are fitted out on the same basis as road ambulances and most of the equipment throughout the State is interchangeable. A mobile radio communication system operates throughout the State on standard frequencies.

Common training programs for all officers are based on a Manual of Casualty Care and Transport published by the St John organisation in Adelaide. The establishment of the Medic Alert Foundation, which originated in the United States of America, 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 staff in handling and treating patients. Medic Alert is administered by St John Council for South Australia for all States and Territories in Australia, excepting Western Australia.

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 4 136 cremations in South Australia during 1980.

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.

MEDICAL PERSONNEL

The following table lists registrations with the Medical, Dental, Pharmaceutical, Physiotherapy, Chiroprodists, and Nurses Boards of South Australia, and with the Board of Optical Registration.

**Professional Medical Personnel, South Australia
Number Registered at 31 December**

Profession	1974	1975	1976	1977	1978
Medical practitioners (a)	3 348	3 767	4 531	4 574	4 783
Dentists	521	564	598	635	667
Pharmaceutical chemists	969	904	973	893	976
Opticians	95	95	101	107	108
General nurses (b)	12 717	13 863	14 976	16 384	17 653
Enrolled nurses	3 641	4 419	5 884	7 036	8 125
Midwives	4 787	5 196	5 653	6 085	6 505
Psychiatric nurses	955	1 067	1 197	1 349	1 527
Mental deficiency nurses	519	578	619	680	745
Infant welfare nurses	690	699	747	786	787
Mothercraft nurses	220	257	292	332	365
Infectious diseases nurses	34	36	37	37	72
Dental nurses	169	200	224	254	272
Physiotherapists	565	601	631	657	701
Chiroprodists (c)	144	149	140	132	132

(a) Includes personnel not practising in South Australia. Date of registration is 31 January in the following year.

(b) General nurses may also be registered and included in other nursing categories.

(c) Date of registration is 1 July.

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

Institute of Medical and Veterinary Science

Details of this organisation are given in Part 6.3 Scientific and Research Organisations.

Anti-Cancer Foundation

The forerunner of the Foundation, the Anti-Cancer Campaign Committee, was formed within the University of Adelaide in 1928. The Committee's early activities were largely devoted to establishing and developing the Radiotherapy Department of the Royal Adelaide Hospital. As demand for these facilities grew the hospital assumed responsibility for routine treatment and the Committee concentrated its activities on cancer research. In 1962 the Committee was re-organised and became the Anti-Cancer Foundation of the University of Adelaide.

Early research was of a clinical nature, but more recently the Foundation has subsidised cancer research projects within the Institute of Medical and Veterinary Science, the Flinders University of South Australia, the University of Adelaide, the Queen Elizabeth Hospital and the Royal Adelaide Hospital.

An education program is conducted to encourage the public to seek early medical advice and prompt treatment. A mobile anti-cancer education unit makes an annual visit

to all the major towns of South Australia. Social workers assist with problems associated with cancer patients being cared for at home by relatives. The Foundation has established 'Martin House' a well-equipped hostel to accommodate country patients receiving treatment at the Royal Adelaide Hospital. It has also set up the Mastectomy Rehabilitation Service to help women after breast surgery.

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.

National Heart Foundation

The National Heart Foundation of Australia and its South Australian Division were established in 1960. Its aims are research into the causes of heart and arterial diseases, the rehabilitation of patients suffering from heart and arterial diseases, and the education of doctors and the general public in all aspects of cardio-vascular problems with particular emphasis on prevention and risk factors. The National Heart Campaign of 1961 raised \$5 124 000 for the work of the Foundation, of which \$662 000 was contributed in South Australia. An appeal for further funds which was made during 1969 raised \$268 000 in South Australia. Since then, the Heart Fund Continuing Support Program has been established with the aim of providing regular annual donations to support the three-part program. In 1980, the total amount raised by the Heart Fund Program is expected to exceed \$738 000.

The campaign funds are being spent on research (66 per cent), education (20 per cent) and rehabilitation (14 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, Adelaide was established by the South Australian Division in 1963. The South Australian Division is involved in professional education of medical practitioners and paramedical staff, and an increasing emphasis is placed on community education in order to make the public aware of the symptoms of heart attack and what to do if one occurs, and to stress the risk factors which increase the chances of having a heart attack.

A Heart Risk Assessment Clinic was opened at the Heart Centre in February 1978. The aim of the clinic, which is staffed by a registered nurse and assistant, is to detect abnormalities in blood pressure and blood fat levels. A complete assessment of risk factors is carried out, covering height and weight measurements, smoking and exercise, in addition to the taking of a blood specimen and blood pressure measurement. Clients are referred back to their own doctors for further advice.

With complete financial support from the Lions' Heart Research Foundation, a Mobile Educational Unit was purchased in February 1979. The unit is used in community education with emphasis on heart-lung resuscitation classes in both city and country areas.

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 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.

Consolidated Revenue Account: Outlay on Health, South Australia

Purpose	1975-76	1976-77	1977-78(a)	1978-79
			\$'000	
General administration, regulation and research	9 548	12 724	7 644	21 708
Hospital and clinical services:				
Mental health	22 937	27 805	3 068	36 014
Other hospital and clinical services	126 951	174 113	153 201	103 961
Other health services:				
Preventive services	1 189	1 302	636	762
Maternal and infant health	1 951	2 473	—	2 170
Domiciliary care	1 682	2 215	10	1 207
Health of school children	2 437	3 672	—	—
Community health facilities	2 419	4 196	643	3 295
Ambulance services	779	979	—	912
Other	3 678	4 710	768	7 605
Total	173 571	234 189	165 970	177 634

(a) Net cost to the State only. In 1977-78 the activities of the Health Commission and the Hospitals Department were controlled through a Deposit Account at Treasury.

6.6 SOCIAL WELFARE

The Commonwealth and State Governments and a large number of voluntary agencies provide social welfare services for the population. The Commonwealth Government is concerned largely with providing fixed monetary pensions and benefits and repatriation services. It also provides, either directly or through State and local government authorities and voluntary agencies, for a wide range of welfare services for people with special needs. State agencies operate in the field of child welfare and distribute emergency relief in circumstances where Commonwealth Government assistance is not available. The voluntary agencies, many of which receive government aid, provide a wide range of services in various fields of social welfare.

COMMONWEALTH GOVERNMENT PENSIONS AND BENEFITS

EXPENDITURE

The following table sets out Commonwealth Government expenditure in South Australia on social welfare, which includes expenditure under the Social Services Act, other Acts, National Health Service and disability and service pensions. The figures shown do not include administration costs.

Commonwealth Government Expenditure on Social Welfare, Selected Items
South Australia^(a)

Type of Benefit	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Social Services Act:					
Age and invalid pensions	234 266	273 814	333 579	374 344	418 769
Widows pensions	30 143	32 339	38 613	45 456	55 006
Family allowances (b)	22 896	87 491	90 483	84 100	97 481
Maternity allowance	597	522	639	264	1
Unemployment benefits	36 002	48 097	(c)84 166	116 028	119 484
Sickness benefits	6 971	8 574	(c) 9 864	9 810	11 126
Supporting parent's benefits	15 210	18 591	(c)23 874	27 943	31 040
Delivered Meals Subsidy Act	203	276	260	254	259
Aged or Disabled Persons Homes Act (d)	4 838	4 170	4 467	2 646	3 373

**Commonwealth Government Expenditure on Social Welfare, Selected Items
South Australia^(a) (continued)**

Type of Benefit	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Aged Persons Hostels Act	591	1 274	2 189	1 660	2 306
States Grants (Home Care) Act	1 388	1 147	1 820	1 403	1 579
States Grants (Deserted Wives) Act	1 509	1 879	3 203	3 143	2 981
National Health Service (e)	223 151	177 894	204 412	230 840	229 851
Disability pensions (f)	27 971	31 042	34 784	34 266	35 634
Service pensions (f)	21 406	28 667	37 234	43 953	53 439

(a) Where applicable the amounts shown include payments for supplementary assistance, allowances and additional pensions for children.

(b) From 15 June 1976 child endowment superseded by family allowance. Until 1976 payments were made to claimants' bank accounts every twelve weeks. Since then payments were four-weekly and from 15 May 1979 payments were changed to monthly intervals.

(c) Includes Northern Territory from 1977-78.

(d) Includes Personal Care Subsidy.

(e) Includes Northern Territory for some items.

(f) Includes Northern Territory.

COMMONWEALTH SOCIAL SECURITY

Brief details of Commonwealth 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.

Age and Invalid Pensions

Age pensions may be granted 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 are permanently incapacitated for work 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. Residence in New Zealand, the United Kingdom or an Australian external Territory (except Norfolk Island) may be treated as residence in Australia. Absences from Australia may, in certain circumstances, be treated as residence.

From November 1980, for both age and invalid pensions, the maximum 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 \$64.10 a week. Where married pensioner couples are living apart for an indefinite period because of the illness or infirmity of either or both, each receives a pension at the single rate. The maximum married rate for a couple both being pensioners was \$53.40 a week each. A wife's pension is payable, subject to an income test, at the married rate to an age or invalid pensioner's wife who does not qualify for an age, invalid or repatriation service pension in her own right.

**Age, Invalid and Wife Pensions, South Australia
Number of Pensioners**

At 30 June	Age Pensioners			Invalid Pensioners			Wife Pensioners
	Males	Females	Total	Males	Females	Total	Total
1976	36 027	76 890	112 917	10 667	6 645	17 312	5 646
1977	37 709	80 187	117 896	11 835	6 742	18 577	6 417
1978	40 161	82 907	123 068	12 345	6 528	18 873	7 287
1979	41 950	84 741	126 691	13 492	6 677	20 169	8 370
1980	43 213	86 662	129 875	14 078	6 646	20 724	5 625

An additional pension up to \$10 a week is payable for all children under sixteen years or who are full-time students and under twenty-five years. 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 and under twenty-five years is paid a guardian's allowance of \$6 a week in addition to the pension. The guardian's allowance is increased to \$8 a week if there is a child under six years, or if there is an invalid child under sixteen years requiring full-time care and attention.

Up to \$5 a week extra may be paid to a single pensioner or to a married couple (\$2.50 each) who pay rent or lodging. For single and married persons the maximum rate of supplementary assistance is reduced by the amount by which the pensioners' income exceeds \$1 a week.

Age, invalid and wife's pensions, unless the pensioner is seventy years of age or over, or permanently blind, are subject to an income test. From November 1978, age pensions payable free of the income test will remain at \$51.45 a week (single) and \$42.90 a week (married), but pensioners may qualify for increases subject to the income test. Additional allowances are generally subject to an income test regardless of age. Under the income test, a full pension is paid if the annual income does not exceed \$1 040 (for a single pensioner) or \$1 794 (for a pensioner couple). If the income exceeds \$1 040 (or \$1 794), the annual rate of pension is reduced by half the excess.

Certain types of income are exempted. The main exemptions are: gifts or allowances from children, parents, brothers or sisters; benefits from friendly societies; family allowances or other payments for children; Commonwealth Government health benefits and amounts received from registered benefit organisations.

Widows Pensions

Widows pensions are paid to widows and other women who satisfy certain conditions; there is a test on income. There are three classes of pensions:

- Class A, a widow with at least one dependent child who is a child of the widow or a child who entered her care before she became a widow;
- Class B, a widow of at least fifty years of age who has no child or, if she has a child, the child does not qualify her for a Class A pension and a widow of at least forty-five years of age whose Class A pension ceases because she no longer has a qualifying child;
- Class C, a widow under fifty years of age who has no child and is in necessitous circumstances within twenty-six weeks of her husband's death.

For Classes A and B the term 'widow' includes a deserted wife who has been deserted at least six months, a divorcee, and a woman whose husband has been in prison at least six months.

For all classes the term 'widow' may also include a woman who was the common law wife of a man for at least three years immediately before his death. 'Child' includes a full-time student between the age of sixteen and twenty-five.

A residential qualification is not required if a couple were permanent residents when the husband died or if an event occurs—such as divorce—which qualifies a woman as a 'widow'. In other circumstances five years continuous residence immediately preceding a lodgment of claim or ten years residence at any time is required. Certain absences are not considered as breaking continuity of residence, and residence in New Zealand, the United Kingdom or an Australian external Territory (except Norfolk Island) counts as residence in Australia. The income test operates similarly to that for age pensions.

Widows Pensions, South Australia
Number of Pensioners At 30 June

Class	1976	1977	1978	1979	1980
A	5 956	6 220	6 757	7 600	8 106
B	5 978	6 390	6 852	7 290	7 608
C	10	8	3	16	12
Total	11 944	12 618	13 612	14 906	15 726

From November 1980, the maximum rates of pension were: Class A widows, \$64.10 a week, plus a mother's allowance of \$6 a week (\$8 if there is an invalid child or a child under six years), plus \$10 a week for each child under sixteen years or a full-time dependent student; for Class B widows, \$64.10 a week; for Class C widows, \$64.10 a week.

An additional payment of up to \$5 a week may be paid to a widow pensioner who pays for rent or lodging, and whose income is under \$6 a week. In the case of a Class A widow the income limit may be increased by up to \$6 a week for each child.

Supporting Parent's Benefit

In November 1977, supporting parent's benefit was introduced making payment available to men bringing up children on their own on the same basis as it was available for women in similar situations. A man may qualify for the benefit if he is a widower, divorcee, separated husband or *de facto* husband, a man whose wife or *de facto* wife is in prison or a mental hospital or an unmarried father including a man whose *de facto* wife has died. There is a six month qualifying period for this benefit as there was for supporting mother's benefit. The benefit continues to be payable to an unmarried mother, a mother who is a deserted *de facto* wife, a *de facto* wife of a prisoner or a separated wife, from a date six months after the event which gives rise to eligibility (*e.g.* the birth of a child or separation). The rates, income test and other conditions are the same as for a Class A widows pension.

Portability

Social Services pensions once granted in Australia, continue to be paid if the pensioner goes abroad. There are some exceptions which affect only a small proportion of pensioners.

Persons Living Overseas

Pensions may be granted to persons living outside Australia subject to the following conditions:

- (1) in the case of the age pension, the claimant had lived thirty years in Australia and was of age-pension age or within five years of that age at the time of departure from Australia; in the case of invalid or widows pensions, the claimant became permanently incapacitated for work (or permanently blind) or widowed in Australia;
- (2) the claimant left Australia before 8 May 1973;
- (3) the claimant is in special need of financial assistance.

In addition, the claimant is required to satisfy the ordinary conditions for grant of pension in Australia, except that of living in Australia.

Family Allowances

Persons resident in Australia who have the custody, care and control of one or more children under the age of sixteen are eligible for family allowance (formerly known as child endowment); approved institutions of which children are inmates are similarly eligible. Family allowance is also paid for full-time students between the ages of sixteen and twenty-five years. There is no income test on family allowances, 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 15 May 1979 family allowance was paid at the rate of \$15.20 a month for the first eligible child; \$21.70 for the second; \$26 for the third; \$26 for the fourth; \$30.35 for the fifth and each subsequent child. Family allowance of \$21.70 a month is paid for each child in an institution.

Family Allowances, South Australia

At 30 June	Families		Institutions		Total Number of Children		
	Number of Families (a)	Number of Children		Approved Institu- tions		Number of Children	
		Under 16	Students (b)			Under 16	Students (b)
1976	179 187	358 746	28 100	70	1 072	102	388 020
1977	188 229	379 275		54	831		380 106
1978	189 193	376 816		54	818		377 634
1979	185 591	364 696		55	751		365 447
1980	184 544	359 056		65	563		359 619

(a) Before 1977 excludes those families with student children aged 16 and over only.

(b) Until June 1976 student endowment was payable for student children aged 16 to 21 years. With the introduction of the family allowance scheme the age range for student children was extended to 25 years.

Handicapped Child's Allowance

A handicapped child's allowance was introduced in December 1974. The allowance is paid to parents or guardians who are caring for a seriously handicapped child in their own home. It is paid to help meet the extra costs in caring for a handicapped child. It is aimed at encouraging the care of such children at home rather than in an institution.

For a severely handicapped child, the allowance is \$73 a month. Parents' or guardians' income does not affect the payment.

For a substantially handicapped child the amount depends on both parents' or guardians' income, and the additional costs involved with caring for the child. The

maximum payment is \$73 a month. In November 1978 this allowance was extended to cover handicapped children under twenty-five years of age who are full-time students but who do not receive an invalid pension.

Double Orphans Pension

A pension of \$47.70 a month is payable to the guardian of a child under sixteen years or a full-time student between the ages of sixteen and twenty-five years who has both parents dead or one dead and the other missing. The benefit is also payable in respect of either an adopted child or a child whose sole surviving parent is a long-term inmate of a prison or mental hospital.

If an orphan child is being cared for by an approved charitable or religious institution the pension may be paid to the institution.

Unemployment and Sickness Benefits

Unemployment and sickness benefits are paid to persons who suffer temporary loss of regular earnings because of unemployment, sickness or accident. There is a means test on income but not on property. Persons eligible must be between sixteen and sixty-four years of age (fifty-nine 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.

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 \$3 a week for a single person between 16 and 17 years of age with at least one parent residing in Australia. A single person 18 years of age and over may earn up to \$6 a week and still receive the full benefit. The benefit is reduced by half the amount of other income earned between \$3 and \$40 a week (between \$6 and \$50 for persons 18 years and over), and by the full amount earned above \$40 a week (\$50 a week for persons 18 years and over). For unemployment and sickness benefit, the income of the claimant's husband or wife is taken into account. Special conditions apply where the wife receives an age, invalid or service pension.

From November 1980, the weekly rates of sickness benefit are \$64.10 for a single person aged 18 years or more, \$106.80 for a married couple and \$36.00 for a person over sixteen, but under eighteen years. The weekly rates of unemployment benefit are \$64.10 for a single person aged 18 years or more with dependants, \$53.45 for a single person aged 18 years or more without dependants, \$106.80 for a married couple and \$36.00 for a person over sixteen but under eighteen years. An additional \$10 a week is payable in all cases for each child.

Normally, there is a waiting period before a person becomes entitled to unemployment benefit. Entitlement generally starts from the seventh day after the claim is lodged, or the seventh day after the person last worked, whichever is later.

However, if the person was unemployed, able and willing to work, and actively seeking work prior to lodging the claim, the full waiting period may not have to be served.

People who become voluntarily unemployed, without good reason, are not paid for the first 6-12 weeks. Social Security advises these people how long the period will be.

Secondary school leavers are not eligible for unemployment benefit until six weeks after they have left school or have completed their examinations. Similar provisions apply to tertiary students who, without good reason, cease full-time studies before completing their course.

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)
1975-76	80 535	15 010	13 273	2 224	2 458	469
1976-77	72 008	16 147	14 101	2 256	2 383	534
1977-78	86 905	25 949	13 233	2 474	2 787	554
1978-79	85 106	35 762	11 362	2 438	3 101	632
1979-80	78 136	37 000	12 224	2 800	4 375	850

(a) Excludes special benefits to migrants in accommodation centres.

(b) Average number at the end of each week.

Supplementary Assistance Allowance

Supplementary assistance is payable, subject to an income test, to an age, invalid, wife or widow pensioner, or a person receiving a supporting parent's benefit if he or she pays rent or lodging and has little or no income apart from the pension or benefit. A similar payment, known as supplementary allowance, of up to \$5 a week may be made to a sickness beneficiary who has received benefit for a continuous period of six weeks.

Special Benefits

A special benefit may be granted to a person not normally qualified for unemployment or sickness benefit or any other social service pension or allowance, or a service pension, if he is unable to earn a sufficient livelihood for himself and his dependants. The maximum rate of payment is the same as for unemployment or sickness benefit, whichever is appropriate.

Rehabilitation

The Commonwealth Rehabilitation Service assists people who are unable to work because of long-term disability 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, mental and social usefulness and to prepare them for suitable employment.

Rehabilitation, South Australia

Year	Number Accepted for Rehabilitation	Number Placed in Employment	Expenditure (a)
			\$
1975-76	323	133	1 296 422
1976-77	266	147	1 418 289
1977-78	371	164	1 541 343
1978-79	435	121	1 782 725
1979-80	425	156	2 172 000

(a) Excludes capital expenditure on sites and buildings, and administrative cost of the Rehabilitation Service.

In recognising the need for rehabilitation assistance of a social/vocational nature to be made more freely available, amendments to Part III of the Social Services Act came into operation with effect from 10 November 1977.

The effect of the changes has been to widen the categories of persons who may be provided with Commonwealth Rehabilitation Service treatment and training free of charge. There has been no alteration to the traditional categories of persons which the service has been able to accept *i.e.* pensioners, beneficiaries, etc. However, it is now possible for the Service to accept, without charge, handicapped persons from within the broad working age group who are neither pensioners nor beneficiaries but who would, in spite of residual handicaps, have reasonable prospects, with rehabilitation assistance, of either returning to gainful or sheltered employment or increasing their capacity to lead an independent life at home.

The Commonwealth Rehabilitation Service provides direct services through its centres and regional units. The facilities are designed and staffed to meet the diverse needs of disabled people.

In centres, skilled case work teams, including occupational and speech therapists, physiotherapists, nursing sisters, social workers, psychologists and vocational counsellors are working under medical supervision and using modern methods and equipment to help the disabled in achieving maximum recovery.

Funeral Benefits

A funeral benefit of up to \$20 is payable to any person liable for the funeral costs of a deceased age or invalid pensioner. A higher benefit of up to \$40 is payable to an age, invalid, wife or widow pensioner, or a person in receipt of supporting parent's benefit, liable for the funeral cost of a deceased spouse, child or another such pensioner or beneficiary. For these benefits 'pensioner' means a person who satisfies the Commonwealth Government pensioner 'fringe' benefits income test. 'Deceased pensioner' also refers to a person who satisfied those conditions before his death.

During 1979-80, 4 864 claims for funeral benefits were granted in South Australia.

Homes for the Aged

The *Aged or Disabled Persons Homes Act 1954* provides that grants may be made to certain organisations towards the capital cost of erecting or purchasing approved homes for aged or disabled people. Religious, charitable, ex-servicemen's organisations and local government bodies as well as any other approved organisation are eligible. Grants are made on the basis of \$2 for each \$1 (excluding government assistance and borrowed money, except that borrowed by local government bodies) raised by an organisation. The maximum subsidy limits under the Act are \$12 100 for a single unit and \$14 035 for a double unit, plus a maximum of \$1 920 a unit for land.

At 30 June 1980, 661 grants had been approved in South Australia since the inception of the scheme in 1954. The amount granted, \$53 050 433, was associated with the accommodation of 11 368 persons. Since October 1969, a personal care subsidy has been provided in terms of this Act, to eligible organisations providing personal care services in hostel-type accommodation for persons of eighty years of age and over. In 1980, the subsidy was increased to \$20 per week, and the cover extended to persons who, though not yet eighty years of age, required personal care services.

In 1979-80 expenditure under this Act in South Australia totalled \$5 338 765; of this amount \$3 373 785 was for capital grants and \$1 964 980 for personal care subsidies.

The *Aged Persons Hostel Act 1972* is designed to encourage the provision of hostel accommodation for the aged. Subject to certain conditions, the Commonwealth meets the cost of providing additional hostel accommodation by eligible organisations up to a maximum of \$18 150 a person. The Commonwealth also pays an additional grant of up to \$2 400 a person for the purchase of land; a further \$250 a person is available for furnishings.

The *States Grants (Home Care) Act 1969*, which is administered by the Department of Social Security, provides for financial assistance to the States to assist them in developing senior citizens' centres and a range of home care services providing housekeeping or other domestic assistance for aged persons in their homes. Payments to South Australia for the year ended 30 June 1980 amounted to \$567 296 for senior citizens' centres, \$68 280 towards the salaries of welfare officers employed in connection with senior citizens' centres and \$944 199 for home care services.

Delivered Meals Service

Under the *Delivered Meals Subsidy Act 1970*, 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 Commonwealth or State Governments. The basic rate of subsidy is 40 cents for each meal plus 5 cents for each meal including an approved Vitamin C supplement and 40 cents for all other eligible meals. The South Australian subsidy totalled \$255 243 in 1979-80.

Homeless Persons' Assistance

The *Homeless Persons' Assistance Act 1974* provides for assistance to non-profit organisations and local government bodies which provide accommodation, food and social welfare services for homeless men and women.

The Act enables grants to be made to eligible organisations to meet the cost of purchasing, constructing, altering or renting buildings to be used as homeless persons assistance centres, as well as to meet the cost of purchasing and installing furniture and equipment for such centres. Grants also meet half the salary of a social welfare worker employed at a centre, and help to meet the cost of providing food and accommodation for homeless persons at an approved centre, or of meals provided at such centres for non-residents. The rate of the food and accommodation subsidy has been prescribed at \$1.20 cents per day and the rate of meals subsidy at 40 cents per meal. Up to 30 June 1980 funds totalling \$435 139 had been made to eligible organisations in South Australia.

Handicapped Persons Assistance

Under the *Handicapped Persons Assistance Act 1974*, financial assistance is provided by the Commonwealth Government to eligible organisations conducting sheltered workshops, training centres, activity therapy centres and residential accommodation for handicapped persons. Subsidy is also available towards the cost of rehabilitation facilities (including holiday homes) which are ancillary to or provided together with an approved program of training, activity therapy, sheltered employment or residential accommodation. All capital and equipment subsidies are paid at a rate of \$4 for every \$1 raised from non-government sources. A subsidy covering 50 per cent of actual salaries may be paid toward the cost of salaries of most staff. A higher rate of 100 per cent may be paid during an initial period in the case of some new enterprises. Since October 1970, a training fee of \$500 has been paid to sheltered workshop organisations for each handicapped person who remains in normal employment for twelve months following at least six months training by the organisation.

During the year ended 30 June 1980, expenditure totalling \$6 466 499 was approved under the Act to be paid to eligible organisations in South Australia.

Handicapped Children's Benefit

A benefit is payable by the Commonwealth Government for each physically or mentally handicapped child who is under sixteen years of age and resides in an approved home conducted by a charitable organisation. From November 1976, the rate of benefit has been \$5 per day. In 1979-80, expenditure by the Commonwealth Government on handicapped children's benefits in South Australia and the Northern Territory was \$246 000. At 30 June 1980, 143 eligible handicapped children were accommodated in nine approved homes.

Reciprocal Agreements

New Zealand. An agreement exists between the Governments of Australia and New Zealand for reciprocity in social services. The arrangements cover age, invalid, wives and widows pensions, family allowances, 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 another country may qualify for any of the specified benefits of the new country under the same conditions 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 national insurance contributions had been paid 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.

Children's Services

Capital and recurrent grants are available for a range of projects including child care services under the Children's Services Program, family support services, children with special needs and accommodation service for young people.

Telephone Rental Concessions

The Department of Social Security with the Australian Telecommunications Commission provides telephone rental concessions to qualified pensioners and persons receiving sickness benefit, in the form of a one-third reduction in annual rental charges.

The Telephone Interpreter Service

A Telephone Interpreter Service is operating through the Department of Immigration and Ethnic Affairs as an adjunct to migrant welfare services. It acts as a multi-lingual information service both to migrants, especially those with queries regarding government services, and to professional people experiencing language problems with a patient or client.

NATIONAL HEALTH SERVICES

Expenditure

The following table shows Commonwealth Government expenditure in South Australia from the National Welfare Fund, the Health Insurance Fund and under the *States Grants (Hospital Operating Costs) Act 1976*, 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 administrative costs.

National Health Services Expenditure, South Australia

Type of Benefit	Year First Paid	1976-77	1977-78	1978-79	1979-80
\$'000					
National Welfare Fund:					
Hospital and nursing home benefits (a) (b) (c)	1946	16 089	16 463	19 138	21 653
Medical benefits (b) (d)	1953	65	33	5	1
Medical benefits (b) (e)	1978	—	—	33 474	53 454
Deficit financing of nursing homes (f)	1975	13 191	12 554	12 000	14 370
Domiciliary nursing care (g)	1973	912	869	796	878
Pharmaceutical benefits (g)	1948	9 949	10 417	10 146	—
Pensioner pharmaceutical benefits (g)	1951	10 086	10 924	13 167	—
Anti-tuberculosis campaign	1947	559	110	55	—
Other	—	1 348	1 428	1 662	—
Health Insurance Fund:					
Medical benefits (g) (h)	1975	46 507	28 545 (i)	14 768	(i) 17
Hospital benefits (j)	1975	73 616 (g)	122 757 (g)	125 303 (g)	138 947 (g)
Health program grants	1975	1 771	312	326	533
States Grants (Hospital Operating Costs) Act (k)	1976	3 803	—	—	—
Total		177 894	204 412	230 840	229 853

(a) Includes Northern Territory for nursing home benefits and payments before 1 December 1977, when Northern Territory nursing homes adopted the Deficit Financing arrangements.

(b) Includes benefits and payments for Northern Territory residents insured with South Australian hospital and medical organisations. There are no organisations registered in the Northern Territory.

(c) Includes benefit payments for hospitalisation before 1 April 1976.

(d) Payments for medical services rendered before 1 July 1975.

(e) Payment of Commonwealth medical benefits in respect of services rendered since 1 November 1978 when changes were made to the health insurance arrangements. Includes direct (bulk) billing payments and advances and reimbursements to registered medical benefits organisations. During 1978-79 payments were made out of consolidated revenue. Since 1 July 1979 payments have been made from the National Welfare Fund.

(f) From 1 December 1977 includes Northern Territory.

(g) Includes Northern Territory.

(h) Includes advances to cash payment centres.

(i) Payments in respect of services rendered between 1 July 1975 and 31 October 1978.

(j) Excludes payments in respect of recognised hospitals made between 26 May 1976 and 1 October 1976.

(k) Includes payments made to recognised hospitals for the period between 26 May 1976 and 1 October 1976.

National Health Benefits

From 1 September 1979, the health insurance arrangements were changed to guarantee all Australian residents protection against high cost medical services. For uninsured persons, free shared ward hospital accommodation in recognised hospitals continued and the special cover for pensioners with Pensioner Health Benefit cards and disadvantaged persons remained.

Medical

Two main changes to the medical benefits system were introduced from 1 September 1979:

- (1) the Commonwealth Government now meets all costs over \$20 for each medical service up to the limit of the Schedule fee;
- (2) the Commonwealth Government no longer pays 40 per cent of the Schedule fees up to \$20.

All patients (other than pensioners with Pensioner Health Benefit cards and disadvantaged people) are now responsible for medical costs up to a Schedule fee of \$20. Where the Schedule fee is above \$20, the patient pays \$20 and the Commonwealth is responsible for the remainder up to the Schedule fee.

People with medical insurance are able to claim part or all of these costs from their registered medical benefits organisation (depending on the cover for which they have insured), but uninsured patients have to meet the costs up to \$20 per service themselves.

All patients, whether insured or not, are entitled to Commonwealth benefit for services where the Schedule fee is more than \$20. Uninsured persons received this benefit by registering with an organisation that has agreed to pay the benefit on behalf of the Commonwealth.

Pensioners with Pensioner Health Benefit cards are eligible to receive a benefit of 85 per cent of the Schedule fee for each medical service, with a maximum payment by the patient of \$5 for any one service where the Schedule fee is charged. If the pensioner's doctor does not bulk-bill, the 85 per cent can be claimed through a registered health insurance organisation.

Eligible pensioners are still entitled, under the Pharmaceutical Benefits Scheme, to receive a wide range of medicine free of cost.

People classified by their doctors as disadvantaged are eligible to have their medical accounts bulk-billed, at 75 per cent of the Schedule fee. Doctors must accept the 75 per cent benefit in full payment for the service; that is, the patient receives the service free.

Charges in excess of the Schedule fee are required to be paid by the patients.

Medical Benefit Exclusions

Medical benefit is not payable in respect of a professional service that is a medical examination for the purposes of life insurance, superannuation or provident account schemes, or admission to membership of a friendly society.

Unless the Minister for Health otherwise directs, medical benefit is not payable in respect of a professional service where:

- (1) the service has been rendered by or on behalf of or under an arrangement with the Commonwealth, a State or a local governing body, or an authority established by a law of the Commonwealth, a State or an internal Territory;
- (2) the medical expenses were incurred by the employer of the person to whom the service was rendered; or
- (3) the person to whom that service was rendered was employed in an industrial undertaking and that service was rendered to him for purposes connected with the operation of that undertaking.

Medical benefit is not payable where the service was rendered in the course of carrying out a mass immunisation or for certain health screening services or while the patient was a (free) standard ward patient in a recognised hospital.

The following table gives details of Commonwealth Government hospital benefit payments from 1976-77 to 1979-80.

Hospital Benefits, South Australia

Type of Benefit	1976-77	1977-78	1978-79	1979-80
AMOUNT PAID (\$'000)				
National Welfare Fund:				
Hospitals;				
Insured patients (a)	25	—5	1	1
Uninsured patients	—	1	—	—
Special Account Advance and Deficit payments (a) (b) (c)	2 733	60	—	—
Subsidised Health Benefits Plan payments (a)	30	17	1	—
Patients treated without charge	—	—	—	—
Pensioner patients	—	1	—	—
Nursing home patients (d)	13 179	16 386	19 135	21 652
Other nursing home payments (e)	122	2	—	—
Total National Welfare Fund	16 089	16 463	19 138	21 653
Health Insurance Fund:				
Hospitals;				
\$16 per day payments to private hospitals (f)	7 789	7 187	7 367	7 081
Payments to recognised hospitals (g)	65 591 (h)	114 859 (h)	116 574	130 104
Section 34 payments to private hospitals	236	711	1 362	1 762
Total Health Insurance Fund	73 616	122 757	125 303	138 947

- (a) Includes benefits and payments for Northern Territory residents insured with South Australian organisations. (b) Reimbursements to registered hospital benefits organisations for losses incurred on chronic or pre-existing ailments and long-term illness. (c) Hospitalisation before 1 October 1976. (d) Includes Northern Territory before 1 December 1977 when Northern Territory nursing homes adopted the Deficit Financing arrangements. (e) Includes payments for Northern Territory residents insured with South Australian organisations and covers Subsidised Health Benefits Plan fund benefit reimbursements and Special Account Advance and Deficit payments payable from 1 January 1973. (f) Includes benefits paid to Australian citizens whose hospital care was undertaken overseas. (g) Excludes payments under the States Grants (Hospital Operating Costs) Act 1976. (h) Includes Northern Territory.

Hospital

Everyone without private insurance for hospital benefits is entitled to free accommodation in recognised hospitals with treatment by doctors engaged by the hospital.

Private Insurance

From 1 September 1979 registered medical benefits organisations have continued to offer a basic medical benefit table which provides coverage for 75 per cent of the Schedule fee with a maximum payment by the patient of \$10 for any service where the Schedule fee was charged. Without the previous 40 per cent Commonwealth medical benefit, organisations are now required to meet benefits to the insured level for the first \$20 of each medical service.

People who elect not to insure for fund benefits are required to register with a registered medical benefits organisation that has agreed to pay the new Commonwealth medical benefit to uninsured persons on behalf of the Commonwealth.

Registered medical benefits organisations claim reimbursement of the Commonwealth medical benefits paid for both insured and uninsured people from the Department of Health.

In addition to providing a basic medical benefits table, registered medical benefits organisations are able to offer a variety of medical benefits packages up to a maximum of the Schedule fee level.

Registered hospital benefits organisations were also obliged to provide a basic table covering the hospital charges raised for shared ward accommodation in recognised hospitals, of \$50 a day, for patients who choose to be treated by the private doctor of their choice. The basic table also covers charges (\$25 per day) for 'professional services' rendered to private patients in recognised hospitals in some States by doctors employed by the hospitals. It also includes outpatient benefits, where a charge is raised by the hospital. Organisations were also able to provide optional tables which included deductibles if they so chose. The basic and optional tables provided contributors with nursing home benefits. Since 1 October 1977, all payments by registered hospital benefits organisations in respect of nursing home patients have been made under the Reinsurance Arrangements.

Registered hospital benefits organisations were also able to offer supplementary benefits covering charges raised for single bed wards in recognised hospitals (\$75 a day) and benefits to wholly or substantially cover private hospital charges. In addition these organisations were free to devise attractive and competitive tables of ancillary benefits.

Long-term Patients

Amendments to the Health Insurance Act and the National Health Act were made in 1979 concerning long-term patients in hospitals. Long-term patients accommodated in hospitals who no longer require acute hospital treatment are to be reclassified as nursing home type patients and required to contribute towards their care and accommodation in the same way as patients in nursing homes. A 'nursing home type patient' is an inpatient whose hospitalisation exceeds 60 days, unless a certificate has been issued by a medical practitioner to certify that a patient is in need of acute care.

At the end of 1980 all States except South Australia had formally agreed to the introduction of the new arrangements.

Financing

The Commonwealth Government pays medical benefits for Schedule items above \$20 up to the Schedule fee from consolidated revenue. Each person is responsible for the first \$20 of any medical service, unless privately insured.

There has been no change to the subsidy of \$16 per occupied bed-day paid to private hospitals. The arrangements governing supplementary Commonwealth benefit payments to non-profit private hospitals under Section 34 of the Health Insurance Act, health program grant payments and Commonwealth payments under the hospital cost sharing agreements remain as previously.

From 1 August 1980 the Commonwealth Government increased its level of contribution to the Hospital Benefits Reinsurance Trust Fund from \$50 million to \$125 million a year.

Administration

Since 1 November 1978 the Health Insurance Commission's activities have been confined to the operation of Medibank Private, which operates in a similar way to private health insurance organisations.

The Department of Health is responsible for administering the Commonwealth medical benefit payments to the registered medical benefits organisations, bulk-billing arrangements, public and private hospital policies, payments and subsidies, nursing home policies and benefits for persons without hospital insurance and health program grants.

Nursing Home Benefits

There are two forms of Commonwealth benefit payable in respect of patients accommodated in premises approved as nursing homes under the *National Health Act 1953*. These benefits are as follows:

(i) **Basic Nursing Home Benefit.**

Basic nursing home benefit is payable in respect of all qualified nursing home patients other than those patients who are eligible to receive benefits from a registered hospital benefits organisation or from some other source such as compensation, third party insurance etc. The amount of basic benefit payable varies between States on the basis of an amount which, when combined with the minimum patient contribution (as explained below), will fully cover the costs of seventy per cent of patients in non-Government nursing homes in each State. The benefit is reviewed and adjusted annually on this basis, the last such adjustment taking effect on 6 November 1980.

At 6 November 1980 the maximum amount of basic nursing home benefit payable per day in South Australia was \$24.30.

(ii) **Commonwealth Extensive Care Benefit.**

The Commonwealth extensive care benefit is payable at the rate of \$6 a day, in addition to the Commonwealth basic benefit, in respect of patients who need and receive 'extensive care' as defined in the *National Health Act*. As in the case of the Commonwealth basic benefit, the extensive care benefit is payable in respect only of qualified patients who are not entitled to receive such benefits from a registered hospital benefits organisation, workers compensation or third party insurance.

Patients who are insured with a registered hospital benefits organisation receive all of their benefit entitlement, whether at the basic benefit or extensive care benefit levels, from that organisation and not from the Commonwealth. In all circumstances the amount of benefit payable by a hospital benefits organisation will be equivalent to the amount otherwise payable by the Commonwealth in respect of uninsured patients in nursing homes.

Generally, all nursing home patients are required to make a minimum contribution towards the approved nursing home fee charged. At 6 November 1980 it was \$8.60 a day.

Where the fees charged by a nursing home are in excess of the combined total of nursing home benefits plus the minimum patient contribution, the difference must be met by the patient. Conversely, where the nursing home fee is less than this combined total, the basic benefit (whether private health insurance benefit or Government benefit) is reduced by that amount.

Deficit Financing Arrangements

As an alternative to the provisions of patient benefits under the *National Health Act* (as outlined above), the *Nursing Homes Assistance Act 1974* provides for an arrangement whereby the Commonwealth Government meets the approved net operating deficits of religious and charitable and other non-profit nursing homes.

All organisations wishing to participate in the deficit financing arrangements must enter into a formal agreement with the Commonwealth Government for that purpose.

Commonwealth nursing home benefits as provided under the *National Health Act* are not payable to a nursing home during any period in respect of which that nursing home

participates under the deficit financing arrangements and uninsured patients are charged only a prescribed fee equivalent to the minimum patient contribution. However, the usual arrangements, as for nursing homes approved under the National Health Act apply to insured patients with the difference that insured patients attract the maximum rate of benefit from registered hospital benefits organisations.

Under the Nursing Homes Assistance Act, funding is available for the provision of medical and paramedical services which are to be provided to a specified class of persons. These services are available to both inpatients and outpatients. Such services, where approved, are termed approved services and have to be provided in association with the provision of Nursing Home care at a nursing home approved under the Nursing Homes Assistance Act.

Domiciliary Nursing Care Benefit

Since March 1973, the Commonwealth Government has provided a Domiciliary Nursing Care Benefit to persons who provide continuous care for relatives or, in certain circumstances, patients other than relatives in a private home which is the usual residence of both the caring person and the patient. This benefit was increased from \$28 a fortnight to \$42 a fortnight, effective from 4 September 1980.

Before 1 November 1979, this benefit was only payable to persons caring for aged chronically ill or infirm patients. From 1 November 1979, eligibility has been extended to include persons caring for chronically ill or infirm patients aged 16 years and over.

Patients in respect of whom the benefit is paid must be receiving adequate care from a registered nurse. A person cannot receive benefits for more than two patients at any one time. This benefit is not subject to a means test and is payable, under the National Health Act, in addition to any entitlements that persons may have under the *Social Services Act 1947* or the *Repatriation Act 1920* for pensions or other supplementary allowances.

Health Program Grants

Health Program Grants are paid under Part IV of the Health Insurance Act to approved organisations for (a) Health Services Development Projects or (b) to meet the cost, or such proportion of the cost as the Minister may determine, of approved health services, provided outside of hospitals by medical practitioners employed on a salaried or sessional basis. Eligible organisations are required to impose charges, where appropriate, for services involving privately insured patients. Generally, the grant covers the cost of Schedule medical services provided to patients in respect of whom a doctor in private practice would bulk-bill *i.e.* Pensioner Health Benefits cardholders and their dependants, and uninsured patients classified by the doctor as disadvantaged.

The total amount paid to approved organisations in South Australia during the 1979-80 financial year, in respect of (b) above, was \$532 913.

Eligibility

The Department also administers arrangements under which:

- (a) Australians receiving health care overseas may be entitled to benefits or subsidies;
- (b) overseas patients may be approved to receive subsidised treatment in Australia.

In general terms, visitors are expected to arrange privately before arrival in Australia for insurance coverage against possible health costs. Only patients from neighbouring areas with traditional links with Australia are regarded as being eligible for subsidised care in this country, and then only on certain conditions.

It is possible to arrange adequate hospital benefits cover where the visitor would not qualify for free hospital care. The cover can be arranged by insuring in the normal

hospital benefits tables operated by hospital benefits organisations. However, these organisations do impose a waiting period of two months (as do medical benefits organisations) before new members become entitled to benefits. In the case of obstetric patients seeking cover for benefits above the basic level, a waiting period of up to nine months may be imposed. To obtain immediate benefit cover on arrival in Australia, it is necessary to write to an Australian health insurance organisation and arrange for insurance to commence at least two months before the date of arrival in Australia.

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 \$2.75. Eligible 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.

Pharmaceutical Benefits, South Australia

Year	Number of Benefit Prescriptions	Cost of Benefit Prescriptions			Additional Cost to Commonwealth Government (a)
		Total Cost	Patients Contributions	Net Cost to Commonwealth Government	
	'000			\$'000	
1976-77	7 543	28 306	9 186	19 121	769
1977-78	7 769	29 833	9 460	20 372	420
1978-79	8 031	33 382	11 116	22 267	420
1979-80	7 491	32 344	10 360	21 984	309

(a) Payments to hospitals and miscellaneous services.

Anti-tuberculosis Campaign

The national campaign to eradicate tuberculosis operated from 1948 to 1976. Under the terms of the arrangements, the Commonwealth Government paid for all capital expenditure on tuberculosis projects and equipment, and reimbursed the State the proportion of maintenance expenditure incurred in the diagnosis, treatment and control of tuberculosis in excess of that amount borne by the State in 1947-48.

Anti-tuberculosis Campaign, South Australia

Commonwealth Government Expenditure	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Allowances paid to sufferers	54	53	60	27	35
Maintenance expenditure (a)	685	(b) 498	39	—	—
Capital expenditure	30	—	—	—	—
Total	769	551	99	27	35

(a) Includes administrative expenses not paid from National Welfare Fund.

(b) Half-year only.

The Commonwealth Government pays allowances to people suffering from tuberculosis to encourage them to give up work and undergo treatment. The allowances paid to persons suffering from tuberculosis are subject to an income test.

At 31 December 1980 the maximum income permitted before allowances were affected was \$20 per week for a single person and \$17.25 for each married person.

At 31 December 1980, the allowance payable to a married person and his spouse was \$55.15 a week each. In addition, an amount of \$10 a week was paid for each dependent child who was under sixteen years of age or undergoing full-time education and under twenty-five years of age. This amount was apportioned evenly between the sufferer and the spouse. A single person without dependants, if not hospitalised, received \$67.35 a week or, if receiving hospital treatment free of charge, \$64.10 a week. Widows or widowers with dependent children either under sixteen years of age or undergoing full-time education and under twenty-five years of age received \$68.10 a week, plus \$10 a week for each dependent child plus a mothers or guardians allowance of \$6 a week. An additional mothers or guardians allowance of \$2 a week was also paid where there was a dependent child under six years of age or a dependent invalid child requiring full-time care.

REPATRIATION BENEFITS

Disability Pensions

Disability 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 related to service. Since 7 December 1972 serving members of the armed forces and eligible dependants have also been eligible for disability pensions if incapacity or death is related to defence service.

Disability Pensions, South Australia^(a)

Year	Pensions in Force at End of Year			Total	Expenditure
	Incapacitated Ex-servicemen	Dependants of Incapacitated Ex-servicemen	Dependants of Deceased Ex-servicemen		
		Number			\$'000
1975-76	18 246	22 406	4 762	45 414	27 971
1976-77	17 910	21 340	4 676	43 926	31 042
1977-78	17 452	20 409	4 651	42 512	34 784
1978-79	16 993	19 467	4 576	41 035	34 266
1979-80	16 605	18 936	4 477	40 018	35 634

(a) Includes Northern Territory.

There are four main classes of disability pensions.

The special (TPI) rate (\$122.75 a week from 13 November 1980) is payable to those who are deemed totally and permanently incapacitated.

The intermediate rate (\$84.45 a week from 13 November 1980) is payable to an ex-serviceman who, because of the severity of his service related 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 service related disabilities but still retained some earning capacity. The pension payable depends on the degree of incapa-

city, the maximum from 13 November 1980 being \$46.30 a week. Pensions are also payable for a wife and each child under sixteen years of age under both special and general pensions. Student children also qualify.

The widows rate is payable to widows of ex-servicemen who died as a result of service, and to any children under sixteen years of age. An additional domestic allowance is payable to certain classes of widows. From 13 November 1980, the widows rate was \$64.10 a week and a domestic allowance of \$12.

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. Before 2 November 1978, incapacity from pulmonary tuberculosis was also a basis of eligibility. The service pension is equivalent in amount to the social services age and invalid pensions and is subject to the same income test. It also confers eligibility for a full range of medical and dental treatment, provided the separate income limit for fringe benefits is not exceeded. The dependants of service pensioners may continue to receive their appropriate allowance upon the death of the pensioner. All service pensioners aged seventy years and over have received the pension free of the income test from 8 May 1975.

Service Pensions, South Australia^(a)

Year	Pensions in Force at End of Year				Expenditure
	Ex-servicemen	Dependants of Pensioner Ex-servicemen	Dependants of Deceased Pensioners	Total	
	Number				\$'000
1975-76	9 373	4 404	345	14 122	21 406
1976-77	10 674	5 568	324	16 566	28 667
1977-78	12 044	6 770	316	19 130	37 234
1978-79	13 337	7 827	306	21 470	43 953
1979-80	15 076	9 696	324	25 096	53 439

(a) Includes Northern Territory.

Medical Services

The Department of Veterans' Affairs provides hospital treatment, general practitioner services, specialist facilities, pharmaceutical benefits, dental treatment, and nursing home benefits for eligible persons. A comprehensive rehabilitation and social worker service is also available. Medical treatment is provided for all service-related disabilities, pulmonary tuberculosis, and all forms of malignant cancers. Treatment for all non-service-related disabilities is made available to veterans receiving a disability pension at or above the 100 per cent general rate, veterans of the Boer and 1914-18 Wars, veterans who are ex-prisoners of war, veterans in receipt of service pensions (subject to income being within the limits governing the provision of free medical treatment and other fringe benefits), widows, and certain dependants of deceased male veterans whose deaths have been accepted as related to service.

Inpatient and outpatient treatment is provided at the Repatriation General Hospital, Daw Park. Facilities at the Outpatient Department include radiological, pathological, physiotherapy, and chiropody services in addition to medical specialist examinations.

The Repatriation Artificial Limb and Appliance Centre, as well as attending to repatriation needs, provides appliances and services for other government departments and provides artificial limbs free of charge to all disabled members of the community.

Department of Veterans' Affairs: Medical Services, South Australia^(a)

Year	Inpatients: Total Treated		Outpatients: Number of Visits		Pharmaceutical Benefits
	Daw Park	Other Hospitals	Daw Park	Visits to or by Medical Officer	
			Number		\$
1975-76	5 794	897	76 197	187 901	2 300 005
1976-77	5 738	270	76 847	174 023	2 344 959
1977-78	5 543	334	76 224	170 627	2 462 517
1978-79	5 835	(b) 2 649	76 048	180 618	2 562 799
1979-80	5 232	(b) 4 233	81 314	182 563	204 107

(a) Includes Northern Territory.

(b) From 1978, patients other than those eligible for repatriation benefits are included in the totals.

Education and Training

Assistance in education and training is provided, through the Department of Veterans' Affairs for children of ex-servicemen whose death, blindness or total and permanent incapacity is accepted as service-related. The Soldiers' Children Education Board guides and supervises the progress of children receiving such assistance.

Other Services

Other assistance, through the Department of Veterans' Affairs, includes gift cars for certain disabled ex-servicemen, aids for blinded ex-servicemen and business re-establishment loans. Funeral grants of up to \$300 are paid on the death of certain ex-servicemen and dependants.

ABORIGINAL ADVANCEMENT

By agreement with the South Australian Government on 1 December 1973 the Commonwealth Government assumed responsibility in relation to Aboriginal affairs policy, planning, financial administration, information and co-ordination. These functions are administered in South Australia by officers of the Department of Aboriginal Affairs in Adelaide, Port Augusta and Ceduna. The Commonwealth Government assists those Aboriginals who wish to adopt, wholly or partly, a European lifestyle. At the same time, the Government encourages self-management by Aboriginals and preservation of their cultural heritage.

The policy of the Commonwealth Government is that, wherever possible, Aboriginal people should avail themselves of the normal facilities provided for the total community, for example, welfare, health and education, and the State or Commonwealth Government departments responsible for these functions will continue to provide such services. Where special additional programs are needed for Aboriginal people the Commonwealth 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. Funds in 1979-80 were also made available direct to sixty-five Aboriginal organisations and communities within South Australia for 111 programs designed to develop Aboriginal self-management and achievement. In addition, eighty-four Aboriginals were employed on thirty-four Special Work Projects with an expenditure of about \$319 000. Up to 300

Aboriginals were employed on Community Development Employment Projects at Ernabella, Fregon, Yalata and Pipalyatjara with an expenditure of \$1 110 884.

The following table shows funding by the Department of Aboriginal Affairs on various aspects of Aboriginal advancement.

Department of Aboriginal Affairs: Funding, South Australia			
Particulars	1977-78	1978-79	1979-80
Direct Funds:		Dollars	
Housing	890 300	957 700	1 106 629
Health	473 185	953 596	956 306
Education	752 500	604 226	674 850
Welfare	304 670	351 945	426 973
Community councils	1 942 767	2 370 858	2 884 680
Recreation	29 800	32 400	55 000
Legal aid	440 000	430 000	449 981
Employment	906 220	1 020 734	1 430 181
Enterprises	483 320	322 695	225 314
Training	—	245 900	331 590
Total	6 222 762	7 290 054	8 541 504
State Grants:			
Department for Community Welfare	439 500	559 000	648 500
Education Department	1 096 420	1 325 000	1 237 000
South Australian Housing Trust	1 600 000	1 994 000	2 087 000
Department of Further Education	331 000	440 600	588 900
South Australian Health Commission	1 204 500	1 340 000	1 361 500
South Australian Public Service Board	5 500	17 000	18 800
Total	4 676 920	5 675 600	5 941 700

On 1 July 1980 the Aboriginal Development Commission (ADC) was established. The ADC has replaced the Aboriginal Land Fund Commission and the Aboriginal Loans Commission, and has taken over the Aboriginal enterprises program from the Department of Aboriginal Affairs. Finance for the first year of \$23 838 million will allow the ADC to acquire land for Aboriginal communities and groups, lend money to Aboriginals for housing and personal purposes, and finance business enterprises.

In September 1979 a State Ministry of Aboriginal Affairs was established. An office of Aboriginal Affairs was created, with the main responsibilities of advising the Minister on policies and issues, the co-ordination of special services provided by State Government departments for Aboriginal people, and liaison and co-operation with the Commonwealth Department of Aboriginal Affairs.

The Office is not a functional or service delivery department. Those responsibilities rest with the normal departments in the areas of health, education, welfare and housing.

The Commonwealth Department of Aboriginal Affairs funds special services provided by the various State departments, and these are co-ordinated through the South Australian Aboriginal Co-ordinating Committee.

The Committee provides an opportunity for senior officers of departments to meet regularly with Aboriginal representatives, and to travel to remote areas of the State to consult with Aboriginal communities.

The Office of Aboriginal Affairs provides the Secretariat for the Co-ordinating Committee.

Specific needs in education were met with the establishment, in 1973, of both the Aboriginal Community College, as part of Torrens College of Advanced Education (now part of the Adelaide College of the Arts and Education), and the Aboriginal Task Force at the South Australian Institute of Technology (SAIT). The College provides remedial work-orientated training and self-development courses for Aboriginals who have had difficulty in maintaining work continuity. Task Force students can enter SAIT on special entry and study for an Associate Diploma in Social Work or Business Administration. Successful students may be eligible to proceed to degree work in various departments of SAIT. Students can be awarded a Community Development Certificate after their first or second years. The Certificate is recognised by the Commonwealth and South Australian Public Service Boards as equivalent to matriculation.

Aboriginal people decided in 1975 to set up the South Australian Woma Committee to deal with prevention of alcohol abuse and rehabilitation. Since then, eight sub-committees have been set up in various parts of South Australia and all follow programs based on medical input and using therapy programs to change behaviour patterns.

The Aboriginal Housing Board is a predominantly Aboriginal body which makes policy and gives direction to the South Australian Housing Trust in relation to houses for Aboriginal tenants. The Trust acts as agent for the Board in purchasing, maintenance and rent collection.

STATE WELFARE SERVICES

EXPENDITURE

The following table shows outlay by the State Government from Consolidated Revenue Account on various aspects of social security and welfare. For further details of the classifications in the table see Part 11.3 State Government Finance.

Consolidated Revenue Account: Outlay on Social Security and Welfare, South Australia^(a)

Purpose	1975-76	1976-77	1977-78	1978-79
			\$'000	
General administration, regulation and research	8 080	8 242	10 186	10 441
Care of and assistance to:				
Aged persons	8 336	9 090	9 782	12 721
Incapacitated and handicapped persons ..	686	774	135	862
Unemployed and sick persons	15 458	7 166	24 480	9 357
Ex-servicemen	156	155	154	81
Widowed and deserted spouses	3 377	4 255	5 837	6 684
Families and children (b)	3 338	4 494	5 340	6 468
Other social security and welfare services:				
Services to Aboriginals <i>n.e.c.</i> (c)	825	673	656	526
Other	537	522	1 043	1 549
Total	40 793	35 371	57 613	48 689

(a) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay.

(b) Excludes reformative institutions.

(c) Includes only programs designed to meet specific needs of persons of Aboriginal descent.

COMMUNITY WELFARE

Community Development Boards have been established in local government areas with a wide and representative membership to encourage and assist people to become more involved in the life of their local community. The Boards also promote the development of links and co-operation between organisations and groups within the local community. They are responsible to the local government authorities.

The Department for Community Welfare promotes the general well-being of the community, encourages the welfare of the family as the basis of community welfare, promotes co-ordination of services and collaboration among various agencies and promotes research, education and training in community welfare.

The Community Welfare Act provides for the establishment of community welfare centres or district offices 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, Adelaide Hills, Alice Springs, Berri, Campbelltown, Ceduna, Coober Pedy, Elizabeth, Enfield, Gawler, Glenelg and Brighton, Kadina, Leigh Creek, Marion, Mitcham, Modbury, Mount Gambier, Murray Bridge, Norwood, Noarlunga, Nuriootpa, the 'Parks' area, Port Adelaide, Port Augusta, Port Lincoln, Port Pirie, Salisbury, Thebarton, Woodville and Whyalla, and branch offices at Clare, Hillcrest, Hindmarsh, Ingle Farm, Kangaroo Island, Maitland, Millicent, Naracoorte, Oodnadatta, Peterborough, Renmark, Unley, West Torrens, Woodside and Victor Harbor.

The decentralisation program has led to a new sense of involvement in the community and its many welfare needs. There is greater flexibility and opportunity to support local efforts to provide new services for youth, the aged, single parents and others in need.

The Department for Community Welfare's library has one of the most comprehensive collections in Australia on social welfare and related topics, and is used by staff, tertiary students, and other people in contact with the Department.

The Department has developed and extended its ties with Commonwealth and other State Government departments and with local government and voluntary bodies. A Community Welfare Grants Advisory Committee, established in 1972, recommends grants to assist voluntary community welfare organisations with both capital and operating costs. During 1979-80, \$728 000 was provided in grants to over 150 organisations.

Neighbourhood Youth Workers help local people learn the skills and develop the resources to establish a wide variety of activities for young people. The Duke of Edinburgh's Award scheme in South Australia provides a wide range of activities for the personal development of young people.

A special 24-hour emergency service in the Adelaide metropolitan area helps in personal and family crises. This service works in close co-operation with the Police Department. Crisis Care workers especially trained to help people under stress, provide on-the-spot assistance to individuals and families, and cars fitted with two-way radios ensure prompt attention, where necessary.

A Budget Advice service operates from thirty-two locations to help people manage their budgets, re-arrange debts and plan their spending.

Care and Supervision of Children

Under the Children's Protection and Young Offenders Act, 1979-1980, a balance is sought between the care and guidance of the young people before Childrens Aid Panels and Children's Courts and the protection of the community. The importance of the family in the child's development is also given emphasis.

Where the Minister is of the opinion that a child (up to 18 years) is in need of care, the Department for Community Welfare makes application to the Childrens Court for a declaration. If the Court finds the child to be in need of care it can place the child under the guardianship of the Minister or, alternatively, place the child under the control of the Director-General.

The Education Department institutes proceedings before a Childrens Aid Panel and sometimes subsequently a Childrens Court for truancy matters for children up to the school leaving age of 15 years.

Screening Panels, constituted by a Police Officer and a Community Welfare Worker, have been established to decide whether a young person alleged to have committed an offence is appropriately dealt with by a Court or a Childrens Aid Panel.

For young people found guilty of an offence the Childrens Court has a variety of orders available. These include Fines, Bonds, attendance at a Project Centre, sentence of detention or a suspended sentence of detention.

Many of these orders involve the Department in the young person's life for a specific period of time. Whilst the aim is to preserve and strengthen the relationship between the young person and his/her parents, sometimes placement away from home is necessary and there are a variety of types of homes available.

The Youth Project Centre, Magill, provides intensive non-residential treatment facilities for young offenders, and the Regional Youth Project services provide a similar service from decentralised locations. The Norwood Project Centre helps children who are referred with learning and behavioural difficulties. The Western and Northern Suburbs Project Teams provide a similar service to schools and departmental district offices in the Northern and Western metropolitan areas.

The Intensive Neighbourhood Care scheme, implemented in 1979, provides personal care for young offenders who would otherwise be sent into care; they live with specially selected and trained families.

Childrens Aid Panels provide a non-judicial setting in which to deal with young people who are alleged to have committed an offence. Each panel is constituted of a Police Officer and a Community Welfare Worker, who meet with the child and his family to discuss the offence and the family situation. Panels sit in most of the district office locations. Where the Panel is dealing with truancy, the Police panelist is replaced by a representative from the Education Department.

Childrens Court Services

Reports are presented on most young people appearing before a court. Officers from the Department for Community Welfare appear in the Childrens Courts to present these reports and make any further submission required. These officers liaise with the field staff involved with the child and his family.

Childrens Courts officers also make applications to the Court on behalf of the Minister and conduct 'in need of care' proceedings.

Residential Care

During 1979-80 the Department instigated a re-organisation of its community-based residential care facilities. The new system provides each metropolitan region with a regional admission unit for short-term crisis care, assessment and outreach for teenage offenders and a regional group home for teenage offenders who need therapeutic care. The changes have provided greater staffing resources in the areas of most need.

At 30 June 1980, there were 1 281 children under guardianship or control orders, of whom 111 were in departmental homes and centres and 1 170 were in their own homes or placed in foster families.

The centres under the control of the Department include SA Youth Training Centre for older youths remanded in custody or who have been sentenced to detention by a Childrens Court following an offence, and the South Australian Youth Remand and Assessment Centre which provides for girls, generally from twelve to eighteen years, and (since 1 September 1978) for boys from ten to fifteen years.

Lochiel Park is a training centre for boys, generally between the ages of fourteen and eighteen years, who are slightly 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.

Children Placed under Care and Control for the First Time, Year Ended 30 June 1980

Particulars	Males	Females	Total	Percentage of Total
				Number	Per cent
From the Childrens Courts:				
Guardianship of the Minister of Community Welfare	52	58	110	71.0
Control of the Director-General of Community Welfare	8	8	16	10.3
Admitted under Community Welfare Act:				
Guardianship of the Minister of Community Welfare	4	3	7	4.5
Control of the Director-General of Community Welfare	—	—	—	—
Transfer of control (interstate)	10	12	22	14.2
Total	74	81	155	100.0
Total for previous year	50	43	93	..

NOTE: In addition to the above, there were 202 children (94 boys and 108 girls) admitted to the temporary Guardianship of the Minister of Community Welfare. During the year 197 children in short-term care (96 boys and 101 girls) were released, when the short-term need for assistance had ceased.

There were 958 children placed on bonds requiring supervision by Departmental officers during 1979-80 and the total number of such children at 30 June 1980 was 776 (675 boys and 101 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 the Department's control and make recommendations regarding action to be taken for the child's benefit and welfare.

When a child is returned to his own home from an alternative placement, support is continued to the whole family through counselling, motivation of self-help programs, and through the full utilisation of appropriate resources throughout the Department and the community. The same services 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 ill-treated or in need of care, and the counselling of youths and children voluntarily referred to departmental officers. Six regional panels have been set up under the Community Welfare Act to consider cases of child abuse. The panels aim to minimise both the number of cases occurring and their severity.

Licensing of Foster Parents and Childrens Homes

Under the Community Welfare Act, 1972-1980 every foster parent caring for a child under the age of fifteen years must be approved by the Director-General of Community

Welfare, who is responsible for each child's welfare. Departmental officers visit such homes regularly.

Consultant and licensing services are also provided for child care, family day care and baby-sitting agencies. Family Day Care Co-ordinators are working in thirteen districts.

The Department is responsible for licensing non-statutory childrens homes in which more than 5 children under the age of eighteen are cared for apart from their parents or near relatives. Recommendations concerning approval, residential care practice, standards and funding of childrens homes are made by the Residential Child Care Advisory Committee comprising four Government and four non-statutory agency members appointed by the Minister.

Joint Departmental Projects for Early Childhood Services

The Department for Community Welfare is involved with other Government departments and community groups in providing child care at Campbelltown, Brompton, Nangwarry and Thebarton. The Department also works in co-operation with the Education Department and local groups to provide early childhood resource facilities at Elizabeth West, Alberton and Christies Beach. Mobile toy libraries operate in three areas as a joint venture with the Kindergarten Union.

Adoptions

South Australia has had an Adoption of Children Act since 1925, the current legislation being the Adoption of Children Act, 1966-1978. Under this Act the interests of the children are considered paramount. The right to place children for adoption is restricted to the Director-General of Community Welfare or to private adoption agencies which the Director-General has approved. The adoptive parents, who must be approved by the Director-General, become the legal parents after the adoption order is made by an Adoption Court (usually about six months after placement).

The following table refers to all types of adoption where the Court order has been finalised during the financial years shown.

Number of Adoptions, South Australia

Age of Child (a)	1975-76	1976-77	1977-78	1978-79(b)	1979-80
Under one year	227	195	141	120	163
One year and under two	73	42	71	47	33
Two years and under six	96	216	132	83	104
Six years and over	153	205	162	155	177
Total	549	658	506	405	477

(a) At date of adoption order. (b) Excludes ten adoptions where the prospective adopting parents applied directly to the court for an adoption order and the Department for Community Welfare has no details.

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:

- (1) adoptions where a child surrendered by its natural parent(s) is placed with approved adoptive parents and the identity of either party is kept secret;

- (2) adoptions where the identity of one or both parties is disclosed, mainly the adoption of children by step-parents but also including adoptions by relatives, foster parents and children from other countries (inter-country adoptions).

On 10 August 1978 new regulations came into effect which provide criteria for the selection of people wishing to adopt Australian children: these criteria are based on recommendations of the Community Welfare Advisory Committee on adoption matters.

The next table gives, for the two types of adoption, the number of adoption orders granted, the number of applications and the number of children placed during the financial year. The number of children placed does not include children adopted by step-parents or relatives *i.e.* those situations where an agency has not actively arranged the placement of the child.

Adoptions, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Number of adoptions granted:					
Identity not disclosed	305	222	164	146	138
Particular person—identity known	239	285	219	213	311
Inter-country	5	151	123	56	28
Total	549	658	506	415	477
Number of applications received:					
Identity not disclosed	476	326	300	224	225
Particular person—identity known	305	340	373	335	332
Inter-country	220	161	135	100	103
Total	1 001	827	808	659	660
Number of children placed (a):					
Australian born	239	189	153	160	117
Inter-country	60	60	50	25	73
Total	299	249	203	185	190

(a) 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.

Legal Services

Applications for a declaration that a child is in need of care are carried out by officers of the Department for Community Welfare except where the case is contested. In such cases the Law Department appears on behalf of the Department. The Department assists by providing reports on the social background of children whose cases are considered by the Courts, as well as Assessment Panel reports in certain cases.

The Department provides a free 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 2 300 main-

tenance 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 of 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 1979-80 financial assistance was issued to 11 314 applicants, representing 26 196 persons. The gross cost of assistance issued was \$8 968 885.

The Department provides residential care in a home at Magill for aged people in special need, most of whom are pensioners. The daily average occupancy of the Magill home was 108 during 1979-80.

Rates Remission Scheme

A remission of rates and taxes scheme for pensioners and others able to demonstrate exceptional circumstances of hardship is operated by the State Government. The scheme provides for a remission of up to 60 per cent of the cost of water and sewerage rates, land tax and council rates charged on dwellings, including flats and units owned and occupied by eligible applicants. Pensioners receive a direct remission from the rating authority on application. Applications from non-pensioners are processed by the Department and in 1979-80, 5 434 claims totalling \$227 107 were approved. The total cost of remissions by all authorities was met by the Department and totalled \$10 550 603 for 1979-80 in the following categories:

	\$
Land tax	601 495
Water, sewerage	4 858 787
Local government	4 863 214
Remissions to non-pensioners	227 107

Aboriginal Lands Trust

The Aboriginal Lands Trust was established by the South Australian Government in 1966 to hold the permanent freehold titles of existing Aboriginal Reserves, together with the titles to other land which would be purchased in future years for the use of Aboriginal people.

The Trust carries out its work on behalf of all Aboriginal people in South Australia and is completely independent of the Government.

Currently, policy of the Trust is to act essentially as a land title holding body only and to lease its land and assets to Aboriginal communities, organisations and individuals without interference in the running or use of those properties.

Communities incorporated under the Associations Incorporation Act have an elected council. Advisory and/or managerial staff are appointed according to the degree of control and management responsibility accepted by the community.

In March 1979, the South Australian Government set up a working party to examine the Aboriginal Lands Trust Act, 1966-1975. It was established to examine the system of land acquisition and holding, the functions of the Trust and the number and method of appointing members. It was also charged with reviewing provisions of the Act in respect of mining on lands held by the Trust.

The working party's report was submitted to the Government in September 1979 for consideration.

Pitjantjatjara Land Rights Act

In March 1977 a working party was established by the State Government to enquire into the feasibility of establishing a separate Pitjantjatjara Lands Trust. The working party submitted its report in June 1978.

Legislation was submitted to the Parliament in November 1978, followed by a select committee report in February 1979. However, the Bill was still under consideration when there was a change of Government in September 1979.

A new Bill introduced in November 1980 provided for granting on a freehold basis to the Pitjantjatjara people the whole of the existing North West Aboriginal Reserve and adjacent pastoral leases at present operated by Aboriginal people. There are special provisions for the control of the land by the Aboriginal people, including control of mining activities, access to the land, and for the payment of mining royalties. The Bill passed both Houses and was assented to in early 1981.

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 Commonwealth, State or local government grants. The Collections for Charitable Purposes Act, 1939-1947, requires the registration of charitable organisations before they may actively solicit funds.

Organisations which have a wide range of activities include the Australian Red Cross Society, Marriage Guidance Council, Service to Youth Council, the welfare bureaux and missions of the various churches, and organisations catering for ex-servicemen and their dependants. Most of these agencies maintain full-time staff and generally employ professional social workers. Other organisations cater for more specific needs, covering a wide range of physical and sociological disabilities. This includes the care of physically and mentally handicapped persons such as crippled children, the blind, deaf-mutes and alcoholics; also of specific groups such as aged persons, Aboriginals 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 Welfare Resources* published jointly by the South Australian Council of Social Services and the Citizens Advice Bureau. 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 Commonwealth and State Governments and the various voluntary organisations.

REGISTERED MEDICAL AND HOSPITAL BENEFIT ORGANISATIONS

In 1953 Australia introduced a system of voluntary health insurance supervised and financially supported by the Commonwealth Government. Medical benefits and full hospital benefits are payable to members of a registered organisation. In most cases both medical and hospital benefits were provided by the one organisation.

The contributions (premiums) payable to hospital benefits organisations depend on the scale of fund benefits required. Contribution rates to medical and hospital organisations may vary slightly between funds, and single and family rates are available.

Registered Medical Organisations, South Australia

Particulars	Unit	Ten Months Ended 30 June 1980 (a)
Basic benefits coverage (b):		
Registered organisations (c) (d)	No.	5
Membership (d)	'000	344
Estimated persons covered (d)	'000	881
Basic benefits table (e):		
Number of schedule services	'000	571
Cost of schedule services	\$'000	9 468
Commonwealth benefit paid	\$'000	2 673
Fund benefit paid	\$'000	4 718
Optional Benefits Table—Full Cover (f):		
Number of schedule services	'000	3 383
Cost of schedule services	\$'000	54 035
Commonwealth benefit paid	\$'000	15 232
Fund benefit paid	\$'000	38 179
Optional Benefits Table—Partial Cover (g):		
Number of schedule services	'000	60
Cost of schedule services	\$'000	851
Commonwealth benefit paid	\$'000	186
Fund benefit paid	\$'000	316
Optional Benefits Table—Supplementary Cover (h):		
Number of schedule services	'000	15
Cost of schedule services	\$'000	234
Commonwealth benefit paid (i)	\$'000	204
Fund benefit paid	\$'000	24
Ancillary fund benefit paid (j)	\$'000	17 387
Persons not medically insured (k)		
Eligible pensioners (f):		
Number of schedule services	'000	140
Cost of schedule services	\$'000	2 314
Commonwealth benefit paid	\$'000	2 083
Others (f):		
Number of schedule services	'000	26
Cost of schedule services	\$'000	782
Commonwealth benefit paid	\$'000	393
Total (f):		
Number of schedule services	'000	167
Cost of schedule services	\$'000	3 095
Commonwealth benefit paid	\$'000	2 477

(a) In respect of services rendered on and after the introduction of the new health insurance arrangements on 1 September 1979.

(b) Sum of Basic Benefits Table and Optional Benefits Table — Full Cover.

(c) Medical benefits organisations whose State of registration under the National Health Act is South Australia.

(d) At 30 June 1980.

(e) The Basic Medical Benefits table covers 75 per cent of the Medical Benefits Schedule Fee or the Medical Benefits Schedule Fee less \$10 whichever is the greater, in respect of fees charged by medical practitioners, certain dentists and participating optometrists for each service specified in the Medical Benefits Schedule. From 1 September 1979 the Commonwealth benefit ceased to be paid for Schedule fees of \$20 and under.

(f) This table is provided as an alternative to the basic table and generally provides full cover against the Medical Benefits Schedule Fee. It may also include deductibles arrangements.

(g) This table is provided as an alternative to the basic table and provides partial cover against the Medical Benefits Schedule Fee. It may also include deductibles arrangements. The partial cover table was introduced following the 1 September 1979 changes.

(h) This table provides cover up to 25 per cent of the Medical Benefits Schedule Fee to supplement Basic Medical Benefits table coverage and is generally taken in conjunction with the Basic table to give full coverage of the Schedule Fee. Formerly termed gap insurance.

(i) Commonwealth medical benefits paid in respect of Schedule services rendered to persons who have supplementary medical insurance but not basic medical insurance.

- (j) These benefits are paid in respect of mainly medical type ancillary items such as dental, chiropractic, pharmaceutical, physiotherapy, etc. However, they may also include some hospital type ancillary items. In South Australia, coverage in respect of such ancillary items is provided for in separate Ancillary Benefits Tables or as part of the Optional Benefits Tables.
- (k) As from 1 November 1978, Commonwealth-financed medical benefits have been available to all persons without medical insurance for Schedule services. These benefits are paid by the registered medical benefits organisations on behalf of the Commonwealth. The rate of benefit was 40 per cent of the Schedule fee with a maximum patient contribution of \$20 for any one service when the Schedule fee is charged, except in the case of pensioners (and their dependants) with P.H.B. entitlement. The rate of benefit in respect of these persons is 85 per cent of the Schedule fee with a maximum patient contribution of \$5 for any one service where the Schedule fee is charged. From 1 September 1979 the Commonwealth benefit ceased to be paid for Schedule fees of \$20 and under. Where the Schedule fee is above \$20, patients other than eligible pensioners and disadvantaged persons pay the first \$20 and the Commonwealth meets all costs above \$20 for each service up to the level of the Schedule fee. These benefits continue to be paid on the Commonwealth's behalf by the registered medical benefit organisations who register uninsured persons. Benefits in respect of eligible pensioners remain unchanged.

Registered Hospital Organisations, South Australia^(a)

Particulars	Unit	Year Ended 30 June 1980 ^(b)
Registered organisations ^(c) (d)	No.	8
Membership ^(d)	'000	335
Estimated persons covered ^(d)	'000	837
Basic benefits table ^(e) :		
Hospital benefit days	'000	571
Professional service days	'000	113
Outpatient services	'000	195
Hospital benefit paid	\$'000	28 341
Professional service benefit paid	\$'000	2 827
Outpatient benefit paid	\$'000	1 910
Supplementary fund benefit paid ^(f)	\$'000	6 472
Ancillary fund benefit paid ^(g)	\$'000	214

(a) Excluding payments made under the Reinsurance Arrangements.

(b) Benefit payments by registered hospital benefit organisations for hospital services received after the introduction of the increased hospital charges on 1 September 1979.

(c) Hospital benefit organisations whose State of registration under the National Health Act is South Australia.

(d) At 30 June 1980.

(e) Benefits payable under this table, \$50 per day (prior to 1 September 1979, \$40 per day), are intended to cover in full the charges for shared room accommodation in a public (recognised) hospital, and may be applied against the charges for accommodation in a single room in a public hospital, or for accommodation in a private hospital. This table also covers the following: (i) nursing home benefits which are payable from the Reinsurance Account; (ii) benefits equal to the charges per day made by a public hospital for professional services rendered to persons as inpatients of a public hospital by medical practitioners employed by, or under arrangements made by, the hospital. Benefit was increased from \$20 per day to \$25 per day on 1 September 1979; (iii) benefits equal to the charges made by public hospitals for outpatient services. Also includes details of Optional Variation-to-Basic tables offered by registered organisations. Since 1 November 1978, registered organisations have been permitted to offer optional hospital benefits tables which are variations to the basic table and which may include deductibles arrangements. Between 1 November 1978 and 31 August 1979 no registered organisation in South Australia offered an Optional Variation-to-Basic table. Since 1 September 1979 three registered organisations in South Australia have offered such tables.

(f) These benefits are paid from the Supplementary Hospital Benefits tables and are supplementary to those payable under the Basic Hospital Benefits table, or Optional Variation-to-Basic tables. They provide coverage in full against the additional charges for single room accommodation in a public hospital when taken with the Basic Hospital Benefits table. However this may not be the case when taken with an Optional Variation-to-Basic table because of deductibles arrangements which may apply. They also provide coverage towards the additional varying charges for private hospital accommodation.

(g) These benefits are paid in respect of hospital type ancillary items such as theatre fees, prostheses, ambulance, home nursing etc. In South Australia coverage in respect of such ancillary items is provided for in most Supplementary Hospital Benefits tables.

Registered Hospital Organisations, South Australia^(a)

Particulars	Unit	Year Ended 30 June 1980
Basic benefits table (b):		
Membership (c)	'000	2
Hospital benefit days	'000	291
Nursing home benefit days (d) (e);		
Basic	'000	537
Extensive	'000	316
Professional service days	'000	34
Outpatient services	'000	8
Hospital benefit paid	\$'000	13 638
Nursing home benefit paid (d);		
Basic	\$'000	10 432
Extensive	\$'000	1 896
Total	\$'000	12 328
Professional service benefit paid	\$'000	791
Outpatient benefit paid	\$'000	61

(a) Payments under the Reinsurance Arrangements which cover those people whose periods of hospitalisation exceed 35 days in one year, are shown in this table. These payments are made by hospital benefit organisations whose State of registration under the National Health Act is South Australia and are in respect of services rendered on and after 1 October 1976, except for nursing home patients.

(b) Also includes details of Optional Variation-to-Basic Tables. See footnote (e) in next table.

(c) At 30 June 1980.

(d) Since 1 October 1977, all payments by registered hospital benefits organisations in respect of nursing home patients have been made under the Reinsurance Arrangements.

(e) The number of days for which basic benefit is paid includes the number of extensive days.

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, 1919-1975. 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 Commonwealth 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 some of the societies include sickness, funeral, dental, optical, pharmaceutical and physiotherapy benefits. Small loans and 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	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
Number of registered societies (a)	12	12	11	11	10	9
Number of members (a) (b)	50 779	49 888	48 057	45 815	43 051	41 575
Revenue (c):						
Contributions and levies	15 023	21 626	18 805	39 802	48 068	50 626
Interest, dividends and rent	1 496	2 000	2 242	3 061	3 676	3 473
Other	3 120	5 179	5 015	3 268	635	1 253
Total revenue	19 638	28 805	26 063	46 132	52 379	55 352
Expenditure (c):						
Sick pay	158	156	150	134	124	120
Medical attendance and medicine	4 981	7 435	4 472	15 386	30 487	26 746
Sums payable at death ..	143	150	167	175	170	180
Hospital benefits	10 045	14 567	11 597	15 864	18 269	19 610
Administration	2 149	2 883	3 317	4 709	5 851	6 554
Other	571	644	2 508	754	1 366	1 262
Total expenditure	18 047	25 835	22 212	37 022	56 267	54 472
Total funds	24 456	27 426	31 277	40 387	36 499	37 379

(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 Commonwealth Government medical and hospital benefit subsidies excluded.

The Friendly Societies' Medical Association Incorporated operates thirty pharmacies in the metropolitan area and one at Port Pirie where medicines are dispensed for Friendly Societies' members at concession prices. The United Friendly Societies' Dispensary Inc. operates a shop at Mount Gambier.

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 Commonwealth *Marriage Act* 1961 which came into full operation on 1 September 1963 superseding, in South Australia, the *Marriage Act, 1936-1957*.

The Principal Registrar of Births, Deaths and Marriages in South Australia carries out the statutory duties under the Act and has supervision over ministers of religion (as regards their duties under the *Marriage Act*), the District Registrars appointed to the twenty-two registration districts, and other persons authorised to perform marriages.

After a marriage the celebrant is required to forward the official certificate of marriage

to the Principal Registrar who maintains at his office a register of all marriages celebrated in South Australia. In addition, a copy of the marriage certificate is forwarded by the office of the Principal Registrar to the District Registrar who maintains a register of the marriages celebrated in his district.

The total marriages and marriage rates for selected years from 1846 are shown in the Statistical Summary, Appendix A. Particulars relating to first marriages, remarriages and crude marriage rates for the last five years are shown in the following table. The crude marriage rate rose throughout the sixties from 6.99 in 1960 to 9.38 in 1970, gradually declined to a level of 8.72 in 1974 and fell substantially to 7.86 in 1975. The 1976 rate of 8.64 coincided with the introduction of the Family Law Act and a substantial increase in the number of divorced persons remarrying. However, rates for 1977 (7.93), 1978 (7.61) and 1979 (7.55) indicate a continuation of the decline apparent from the beginning of the decade. The crude marriage rate does not take into account changes over time in the age distribution of the population. Influences underlying the increase during the sixties include the upsurge of births immediately following the 1939-45 War, together with the effects of post-war immigration.

Previous Marital Status of Persons Marrying, South Australia

Year	Bridegrooms			Brides			Total Marriages	Rate (a)
	Bachelor	Widower	Divorced	Spinster	Widow	Divorced		
1975	8 504	297	1 042	8 571	336	936	9 843	7.86
1976	8 515	391	1 996	8 659	459	1 784	10 902	8.64
1977	7 672	334	2 120	7 863	398	1 865	10 126	7.93
1978	7 515	297	1 988	7 622	348	1 830	9 800	7.61
1979	7 403	292	2 083	7 545	370	1 863	9 778	7.55

(a) Per 1 000 of mean population.

Since 1970 the absolute number of both brides and bridegrooms marrying for the first time has declined, particularly marked decreases occurring in 1975 and 1977. From 1974 to 1979 the number of marriages between bachelors and spinsters declined from 9 045 to 6 660 (from 84.0 to 68.1 per cent of all marriages). However, over the period 1970 to 1975 the number of divorced persons remarrying rose substantially, bridegrooms by 65 per cent and brides by 66 per cent. Between 1975 and 1976 the increase in numbers of divorced persons remarrying was 91.6 per cent for bridegrooms and 90.6 per cent for brides; in 1977 the increase was 6.2 per cent and 4.5 per cent for bridegrooms and brides respectively. In 1979 the proportion of marriages involving at least one divorced person to all marriages was 29.3 per cent, compared with 28.6 per cent in 1978, 29.0 per cent in 1977 and 25.8 per cent in 1976.

Age at Marriage and Previous Marital Status, South Australia, 1979

Age	Previous Marital Status							
	Bridegrooms				Brides			
	Bachelor	Widower	Divorced	Total	Spinster	Widow	Divorced	Total
Under 20 years	446	—	—	446	2 115	—	—	2 115
20-24 years	4 373	—	78	4 451	4 171	3	204	4 378
25-29 years	1 872	7	409	2 288	928	27	480	1 435
30-34 years	449	16	511	976	217	21	454	692
35-39 years	113	8	342	463	55	20	283	358
40-44 years	55	17	260	332	28	29	193	250
45 years and over	95	244	483	822	31	270	249	550
All ages	7 403	292	2 083	9 778	7 545	370	1 863	9 778

During 1979 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 23·6 years for bachelors and 21·4 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 and Previous Marital Status, South Australia^(a)

Year	Median Age of Bridegrooms (Years)				Median Age of Brides (Years)			
	Bachelor	Widower	Divorced	Total	Spinster	Widow	Divorced	Total
1975	22·9	59·3	35·2	23·6	20·7	52·8	32·0	21·2
1976	23·2	58·2	35·5	24·4	20·9	50·9	32·3	21·8
1977	23·3	60·8	35·0	24·7	21·0	52·4	31·8	21·9
1978	23·5	61·3	35·0	24·9	21·2	53·6	32·0	22·2
1979	23·6	61·1	35·5	25·0	21·4	54·0	32·5	22·4

(a) The term 'median age' refers to that age which divides total age distribution into two parts of equal magnitude.

The following table highlights the tendency for brides to marry bridegrooms older than themselves. Although the age difference has narrowed generally over the past decade, this phenomenon, together with the greater life expectancy of females compared to males as shown in the table on pages 141-2, tends to perpetuate the predominance of aged widows over widowers within community and welfare institutions.

Relative Age Differences of Parties to Marriage, South Australia

Elder Partner of Marriage	Number of Marriages			Proportion of Total Marriages		
	1977	1978	1979	1977	1978	1979
	Per cent					
Bridegroom:						
8 years or more	1 288	1 201	1 216	12·7	12·3	12·4
7 years	326	317	310	3·2	3·2	3·2
6 years	492	483	418	4·9	4·9	4·3
5 years	621	622	593	6·1	6·3	6·1
4 years	882	851	832	8·7	8·7	8·5
3 years	1 192	1 116	1 155	11·8	11·4	11·8
2 years	1 414	1 336	1 336	14·0	13·6	13·7
1 year	1 397	1 314	1 305	13·8	13·4	13·3
Bride:						
1 year	539	534	566	5·3	5·4	5·8
2 years	319	269	343	3·2	2·7	3·5
3 years	167	202	197	1·6	2·1	2·0
4 years	136	144	135	1·3	1·5	1·4
5 years or more	372	400	343	3·7	4·1	3·5
No age difference	981	1 011	1 029	9·7	10·3	10·5
Total	10 126	9 800	9 778	100·0	100·0	100·0

MARRIAGE RITES

The number of marriages performed by civil officers in South Australia during the decade from 1960 to 1969 accounted for 10·9 per cent of all marriages but reached a record level of 34·3 per cent in 1979. The increase in civil ceremonies during the 1970s is evident from the following table, and can partly be accounted for by the improved facilities now provided at the office of the Principal Registrar of Births, Deaths and Marriages.

Marriages: Marriage Rites, South Australia

Rites	Number of Authorised Celebrants January 1979	Number of Marriages			Proportion of Total Marriages		
		1977	1978	1979	1977	1978	1979
Denomination:							Per cent
Baptist	75	240	247	235	2.4	2.5	2.4
Catholic	247	1 656	1 556	1 545	16.4	15.9	15.8
Church of England	212	1 236	1 195	1 191	12.2	12.2	12.2
Churches of Christ	76	288	271	269	2.8	2.8	2.8
Congregational (a) .....	..	106	..	..	1.0	..	..
Lutheran	149	544	539	485	5.4	5.5	5.0
Methodist (a) .....	..	1 079	..	..	10.7	..	..
Orthodox	23	165	162	185	1.6	1.7	1.9
Presbyterian (b) .....	..	143	..	..	1.4	..	..
Presbyterian (c)	6	13	21	25	0.1	0.2	0.2
Salvation Army	35	79	67	70	0.8	0.7	0.7
Uniting Church	294	1 051	2 160	2 076	10.4	22.0	21.2
Other denominations	221	285	340	346	2.8	3.5	3.5
Total	1 338	6 885	6 558	6 427	68.0	66.9	65.7
Civil Ceremonies by:							
State Officers	32	2 845	2 476	2 265	28.1	25.3	23.2
Other Civil Celebrants	25	396	766	1 086	3.9	7.8	11.1
Total	1 395	10 126	9 800	9 778	100.0	100.0	100.0

(a) Figures for marriages celebrated according to Congregational or Methodist rites relate only to the period before the inauguration of the Uniting Church on 22 June 1977.

(b) Marriages celebrated according to Presbyterian rites before the inauguration of the Uniting Church.

(c) Marriages celebrated according to Presbyterian rites after the inauguration of the Uniting Church.

MARRIAGE OF MINORS

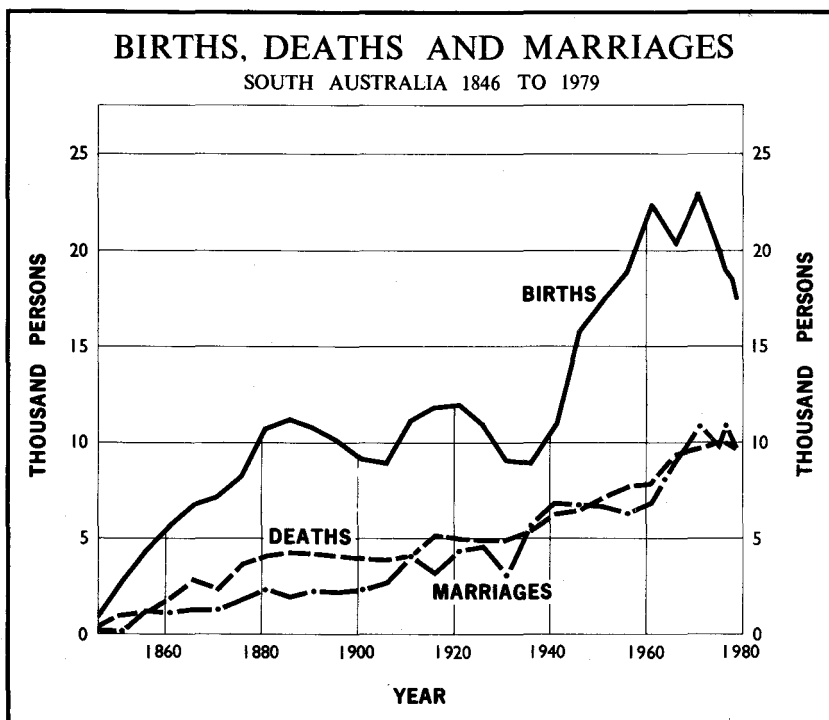
The *Marriage Act* 1961 stipulates the marriageable age to be eighteen years or over for a male and sixteen years or over for a female. Under exceptional circumstances a judge or magistrate can, upon application by a party who has not attained marriageable age but who is at least sixteen in the case of a male or fourteen in the case of a female, authorise him or her to marry a particular person who is of marriageable age.

Before 1 July 1973 prior consent had to be obtained from either both parents, one parent, a guardian or guardians, or other prescribed authority, according to the circumstances, where a party to a marriage was under twenty-one years. From 1 July 1973 the age of majority for purposes of the *Marriage Act* was reduced to eighteen years.

Figures relating to the marriages of persons under twenty-one years of age for the five years to 1979 are shown in the following table.

Marriages of Persons Under 21 Years of Age, South Australia

Year	Age in Years							Total Under 21	Percentage of Total Marriages
	Under 15	15	16	17	18	19	20		
BRIDEGROOMS									
1975	—	—	2	23	217	553	973	1 768	18.0
1976	—	—	7	17	198	480	925	1 627	14.9
1977	—	—	—	13	165	421	795	1 394	13.8
1978	—	—	1	6	133	340	692	1 172	12.0
1979	—	—	—	12	123	311	664	1 110	11.4
BRIDES									
1975	1	8	154	448	1 113	1 530	1 459	4 713	47.9
1976	—	8	141	343	1 083	1 410	1 564	4 549	41.7
1977	—	6	119	322	898	1 301	1 362	4 008	39.6
1978	—	4	79	271	800	1 228	1 279	3 661	37.4
1979	—	4	81	212	688	1 130	1 273	3 388	34.6



Further References

Additional information may be found in the following publications:

South Australian Office

3304.4 *Marriages*

Central Office

3306.0 *Marriages*

6.8 DIVORCE

The Supreme Court of South Australia had exclusive jurisdiction in divorce under the *Matrimonial Causes Act, 1858* from 1 January 1859. Uniformity throughout Australia of dissolution of marriage and other matrimonial causes has operated since 1 February 1961 under the *Matrimonial Causes Act 1959*. Jurisdiction to hear and determine causes under the Act was vested in the Supreme Courts of the States and Territories. The South Australian Registry of the Family Court of Australia commenced operations under the

Family Law Act 1975 on 5 January 1976. The Supreme Court had concurrent jurisdiction to deal with outstanding applications, presented before that date, until 31 May 1976.

The jurisdiction of the Supreme Court allowed petitions for nullity of marriage, judicial separation, restitution of conjugal rights and jactitation of marriage in addition to the most common petition for dissolution of marriage, *i.e.* divorce.

Family Court (SA Registry)

Matrimonial causes within the jurisdiction of the Court include dissolution of marriage, maintenance, custody, property settlement, enforcement and injunction proceedings. The hearing of applications for dissolution began on 1 March 1976 although hearings of the other matrimonial causes were held before that date.

Under the provisions of the *Family Law Act 1975* the sole ground for dissolution of marriage is irretrievable breakdown, established by twelve months separation. Prospective applicants are encouraged to seek help from marriage counsellors attached to the Family Court or from voluntary marriage guidance organisations.

Maintenance entitlement is determined largely by the needs of the applicant and the capacity of the respondent to pay. Any transfer or settlement of property is also taken into consideration.

In custody proceedings the welfare of children is regarded as paramount. The Court can order that children be separately represented in matters affecting their custody or maintenance. Both parties are considered liable for their maintenance according to their respective financial resources. If the proceedings are contested, both parties may be referred to a welfare officer, and the Court may then require a report on the circumstances of affected children.

In settling disputes over matrimonial property the Court takes into account any maintenance order and the effective contribution of each party to that property.

Decrees Granted

In 1979 there were 3 797 decrees granted for divorce, a decrease of 0.2 per cent on the 3 806 decrees granted in 1978. These figures suggest that the number of divorces granted has now stabilised, after an initial increase on introduction of the *Family Law Act*.

In 1977 the *Matrimonial Causes Act 1959* ceased to operate and all divorces granted from 1977 are granted under the *Family Law Act 1975*.

The following table shows the number of decrees granted for the years 1974 to 1979.

Decrees Granted, South Australia

Decree	1974	1975	1976	1977	1978	1979		Total
						To Husband	To Wife	
MATRIMONIAL CAUSES ACT								
Dissolution of marriage	1 561	1 812	1 402	..	..	..	..	..
Nullity of marriage	4	4	5	..	..	..	..	..
Judicial separation	1	3	—	..	..	..	..	..
Total	1 566	1 819	1 407	..	..	..	..	..
FAMILY LAW ACT								
Dissolution of marriage .....	..	..	4 740	4 419	3 805	1 521	2 273	3 794
Nullity of marriage .....	..	..	1	3	1	2	1	3
Total .....	..	..	4 741	4 422	3 806	1 523	2 274	3 797
ALL DECREES GRANTED								
Total	1 566	1 819	6 148	4 422	3 806	1 523	2 274	3 797

Details of the relative ages at marriage of husbands and wives for marriages dissolved in 1979 are contained in the following table.

**Dissolution of Marriage: Ages of Parties at Time of Marriage
South Australia, 1979**

Age of Husband (Years)	Age of Wife (Years)							Total Husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and Over	
Under 20	332	78	2	2	—	—	—	414
20-24	957	1 090	77	14	2	1	—	2 141
25-29	178	385	127	28	2	3	1	724
30-34	26	89	59	32	12	10	1	229
35-39	4	32	36	23	19	10	1	125
40-44	1	7	12	5	7	15	5	52
45 and over	1	6	7	9	14	14	58	109
Total wives	1 499	1 687	320	113	56	53	66	3 794

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 five years to 1979.

**Dissolution of Marriage: Duration of Marriage
South Australia**

Year	Duration of Marriage (Years)							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30 and Over	
1975	162	602	384	263	179	123	99	1 812
1976	915	1 904	1 145	728	652	449	349	6 142
1977	811	1 329	868	535	381	278	217	4 419
1978	745	1 119	746	431	360	218	186	3 805
1979	791	1 081	700	446	322	223	231	3 794

For marriages dissolved in 1979 the following two tables show the relative ages of husbands and wives at the time of dissolution, and the duration of marriage and number of children of the marriage.

Dissolution of Marriage: Ages of Parties at Time of Dissolution, South Australia, 1979

Age of Husband (Years)	Age of Wife (Years)							Total Husbands
	Under 25	25-29	30-34	35-39	40-44	45-49	50 and Over	
Under 25	229	28	2	1	—	—	—	260
25-29	348	445	53	—	—	2	—	848
30-34	53	336	352	34	3	—	—	778
35-39	14	54	237	220	23	9	1	558
40-44	3	14	44	194	135	19	4	413
45-49	—	2	15	49	120	114	23	323
50 and over	—	3	9	22	55	124	401	614
Total wives	647	882	712	520	336	268	429	3 794

**Dissolution of Marriage: Duration of Marriage and Number of Children of the Marriage
South Australia, 1979^(a)**

Duration of Marriage (Years)	Marriages Dissolved with							Total Dissolutions	Total Children
	No Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 or more Children		
Under 5	514	201	53	14	8	1	—	791	386
5-9	384	303	318	64	10	1	1	1 081	1 182
10-14	75	105	350	134	30	4	2	700	1 362
15-19	32	59	170	113	56	11	5	446	1 049
20-24	95	98	77	34	11	5	2	322	435
25-29	126	63	23	9	2	—	—	223	144
30 and over	203	17	7	3	1	—	—	231	44
Total dissolutions	1 429	846	998	371	118	22	10	3 794	..
Total children .....	..	846	1 996	1 113	472	110	65	..	4 602

(a) Number of children living and under 18 years at time of application.

The following table shows the number of children of marriages dissolved in the years 1975 to 1979.

Dissolution of Marriage: Children of the Marriage, South Australia^(a)

Year	Number of Marriages Dissolved with							Total Dissolutions	Total Children
	No Children	1 Child	2 Children	3 Children	4 Children	5 Children	6 or more Children		
1975	505	422	481	239	109	42	14	1 812	2 842
1976	2 225	1 397	1 487	681	247	73	32	6 142	7 968
1977	1 533	1 043	1 140	461	170	47	25	4 419	5 780
1978	1 347	861	1 009	425	108	41	14	3 805	4 878
1979	1 429	846	998	371	118	22	10	3 794	4 602

(a) Number of children living and under 21 years at time of petition under the Matrimonial Causes Act, and under 18 years at time of application under the Family Law Act.

Further References

Additional information may be found in the following publications:

3305.4 *Divorces*

South Australian Office

Central Office

3307.0 *Divorces*

PART 7

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 has been retained for subsequent censuses. 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'.

The introduction of sample processing in 1976 may result in minor differences between the sum of estimated components and estimated totals, and between totals in different tables. In the first table population at the 1971 and 1976 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 female proportion of the labour force has continued to increase, from 32.1 per cent in 1971 to 36.7 per cent in 1976. This has been paralleled by an increase in the proportion of married females in the labour force, which increased from 18.9 per cent in 1971 to 23.6 per cent in 1976.

**Occupational Status of the Population, South Australia
Censuses 1971 and 1976**

Occupational Status	30 June 1971			30 June 1976		
	Males	Females	Persons	Males	Females	Persons
In labour force:						
Employer	19 468	5 832	25 300	} 55 168	25 711	80 878
Self-employed	29 713	8 302	38 015			
Employee	275 292	135 712	411 004	291 670	166 638	458 308
Helper	1 009	2 240	3 249	1 489	6 659	8 148
Unemployed ...	4 682	3 673	8 355	10 608	8 947	19 555
Total labour force	330 164	155 759	485 923	358 934	207 955	566 889
Not in labour force	255 887	431 897	687 784	261 221	416 641	677 862
Total population	586 051	587 656	1 173 707	620 156	624 596	1 244 752

The following table shows the employed population at the 1976 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 and as revised in 1968. It contains eleven major groupings subdivided into seventy-three minor groups further subdivided into 395 individual categories.

Employed Population: Occupation, South Australia, 30 June 1976

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	34 455	9.9	33 437	16.8	67 893	12.4
Administrative, executive and managerial workers	28 608	8.2	4 841	2.4	33 449	6.1
Clerical workers	28 254	8.1	54 310	27.3	82 564	15.1
Sales workers	20 479	5.9	22 720	11.4	43 199	7.9
Farmers, fishermen, hunters, timbergetters and related workers	34 203	9.8	16 190	8.1	50 394	9.2
Miners, quarrymen and related workers	1 259	0.4	46	0.0	1 306	0.2
Workers in transport and communication	23 274	6.7	3 591	1.8	26 865	4.9
Tradesmen, production-process workers and labourers (n.e.i.)	150 979	43.3	20 732	10.4	171 710	31.4
Service, sport and recreation workers	14 080	4.0	30 690	15.4	44 771	8.2
Members of armed services, enlisted personnel	2 667	0.8	111	0.1	2 778	0.5
Occupation inadequately described or not stated	10 068	2.9	12 340	6.2	22 408	4.1
Total employed population	348 328	100.0	199 009	100.0	547 336	100.0

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 as a basis for the 1976 Census. Tabulations derived for the census divide the whole field of industry into twelve major industry groups, which in turn are divided into forty-eight subdivisions, 121 groups and 432 classes. For census purposes a number of additional 'undefined' categories were added to qualify imprecise or generalised descriptions of industrial activities reported in census schedules. Revised versions of the Subdivision 'Agriculture' and the Group 'Education' were also adopted.

In the next table the number of employed males and females aged fifteen years and over at the 1976 Census are classified according to industry. The proportion of the employed population engaged in community services increased from 12.6 per cent in 1971 to 15.3 per cent in 1976. The percentage recorded as employed in manufacturing industries continued to fall, from 24.4 per cent in 1971 to 20.8 per cent in 1976, in contrast to the opposite trend evident between 1933 and 1966.

Employed Population: Industry, South Australia, 30 June 1976

Industry Group	Males		Females		Persons	
	Number	Proportion of Total	Number	Proportion of Total	Number	Proportion of Total
		Per cent		Per cent		Per cent
Agriculture, forestry, fishing, etc.	31 051	8.9	16 402	8.2	47 453	8.7
Mining	3 123	0.9	342	0.2	3 465	0.6
Manufacturing	88 333	25.4	25 261	12.7	113 594	20.8
Electricity, gas and water	9 524	2.7	531	0.3	10 055	1.8
Construction	40 154	11.5	4 024	2.0	44 177	8.1
Wholesale and retail trade	59 120	17.0	41 602	20.9	100 722	18.4
Transport and storage	21 337	6.1	3 194	1.6	24 530	4.5
Communication	7 952	2.3	2 467	1.2	10 419	1.9
Finance, business services, etc.	18 336	5.3	14 878	7.5	33 214	6.1
Public administration, defence	16 660	4.8	5 942	3.0	22 602	4.1
Community services	29 565	8.5	54 053	27.2	83 617	15.3
Entertainment, recreation, etc.	9 998	2.9	15 787	7.9	25 786	4.7
Other and not stated	13 174	3.8	14 529	7.3	27 703	5.1
Total employed population	348 327	100.0	199 009	100.0	547 336	100.0

The following table shows the age distribution of the labour force at the 1971 and 1976 Censuses.

**Age Distribution of the Labour Force, South Australia
Censuses 1971 and 1976**

Age Group (Years)	30 June 1971			30 June 1976		
	Males	Females	Persons	Males	Females	Persons
15-19	29 336	28 566	57 902	34 513	31 426	65 939
20-24	43 697	29 018	72 715	46 532	34 519	81 051
25-34	71 629	27 821	99 450	90 085	47 164	137 250
35-44	68 277	30 743	99 020	66 832	40 651	107 483
45-54	65 280	26 701	91 981	68 829	36 251	105 080
55-59	26 057	7 715	33 772	26 501	10 413	36 913
60-64	17 633	3 199	20 832	18 429	4 560	22 989
65 and over	8 255	1 996	10 251	7 215	2 972	10 187
Total labour force	330 164	155 759	485 923	358 935	207 955	566 890

Labour Force Survey

In addition to complete census counts, estimates of the civilian labour force are prepared from the results of surveys based on a sample of dwellings throughout Australia. These surveys began in 1960 on a quarterly basis 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. From February 1978, the surveys have been conducted on a monthly basis. The proportion of the population included in the surveys varies from State to State (1 per cent in South Australia) but in aggregate about 0.67 per cent of the Australian population is included.

Statistics obtained from the surveys include numbers employed and unemployed; labour force participation and unemployment rates; duration of unemployment; analyses of reasons for working less than 35 hours per week; as well as age, sex, occupation and industry characteristics.

Labour force survey estimates were revised at the same time as the population estimates. The revision to population estimates took account of the underenumeration at the 1966, 1971 and 1976 Population Censuses and also incorporated a method of measuring overseas migration gain, movements of less than one year duration being ignored. In the labour force survey a new sample of dwellings was selected and a revised questionnaire was introduced for the November 1977 survey. The new sample of dwellings was chosen in order to reflect the changes in the distribution of the population shown by the 1976 Population Census results. Therefore the labour force series from August 1966 to August 1977 has been revised.

Civilian Population Aged 15 Years and Over: Employment Status, South Australia

August	Employed	Unemployed			Labour Force	Not in Labour Force	Civilian Population Aged 15 years and Over	Un-employment Rate (a)	Participation Rate (b)
		Looking for	Looking for	Total					
		Full-time Work	Part-time Work						
MALES ('000)									
1971	338.0	4.8	(c)	5.1	343.2	69.8	413.0	1.5	83.1
1972	341.5	6.7	(c)	7.5	348.9	72.0	421.0	2.1	82.9
1973	352.9	4.2	(c)	5.3	358.3	72.7	430.9	1.5	83.1
1974	358.5	5.2	(c)	5.8	364.3	75.9	440.2	1.6	82.8
1975	355.0	10.3	(c)	11.5	366.5	81.7	448.2	3.1	81.8
1976	361.0	9.4	(c)	11.0	372.0	85.3	457.3	3.0	81.3
1977	359.2	17.3	3.3	20.6	379.8	86.5	466.3	5.4	81.5
1978	350.2	27.5	(c)	28.4	378.7	96.7	475.3	7.5	79.7
1979	348.8	23.2	(c)	24.0	372.8	105.9	478.8	6.4	77.9
1980	348.5	24.9	(c)	26.8	375.3	109.4	484.7	7.1	77.4
FEMALES ('000)									
1971	162.1	5.6	(c)	7.9	170.1	255.6	425.7	4.7	40.0
1972	172.6	6.1	3.5	9.6	182.2	252.1	434.4	5.3	42.0
1973	188.0	4.4	4.1	8.4	196.5	247.4	443.9	4.3	44.3
1974	190.9	5.9	4.1	10.0	200.9	252.0	452.9	5.0	44.4
1975	194.3	11.5	5.6	17.0	211.3	251.9	463.2	8.0	45.6
1976	203.2	9.1	4.6	13.7	217.0	254.3	471.3	6.3	46.0
1977	208.7	13.1	4.7	17.8	226.6	254.1	480.7	7.9	47.1
1978	203.2	12.4	3.4	15.8	219.0	271.5	490.4	7.2	44.6
1979	198.6	16.6	4.6	21.3	219.9	275.0	494.9	9.7	44.4
1980	201.9	16.6	4.3	20.9	222.8	279.0	501.8	9.4	44.4
PERSONS ('000)									
1971	500.2	10.4	(c)	13.1	513.2	325.4	838.7	2.5	61.2
1972	514.1	12.8	4.3	17.1	531.2	324.2	855.3	3.2	62.1
1973	541.0	8.6	5.2	13.7	554.7	320.1	874.8	2.5	63.4
1974	549.4	11.0	4.8	15.8	565.2	327.9	893.1	2.8	63.3
1975	549.3	21.7	6.8	28.5	577.8	333.7	911.4	4.9	63.4

Per Cent

Civilian Population Aged 15 Years and Over: Employment Status, South Australia
(continued)

August	Employed	Unemployed		Total	Labour Force	Not in Labour Force	Civilian Population Aged 15 years and Over	Un-employment Rate (a)	Participation Rate (b)
		Looking for	Looking for						
		Full-time Work	Part-time Work						
PERSONS ('000)									
								Per Cent	
1976	564.2	18.5	6.2	24.7	589.0	339.6	928.6	4.2	63.4
1977	568.0	30.5	8.0	38.5	606.4	340.6	947.0	6.3	64.0
1978	553.4	39.8	4.4	44.2	597.6	368.1	965.8	7.4	61.9
1979	547.4	39.9	5.4	45.3	592.7	380.9	973.6	7.6	60.9
1980	550.4	41.5	6.2	47.7	598.1	388.4	986.6	8.0	60.6

- (a) The unemployment rate for any group is the number unemployed expressed as a percentage of the labour force (i.e. employed plus unemployed) in the same group.
 (b) Labour force participation rate for any group is the civilian labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.
 (c) Subject to sampling variability too high for most practical purposes.

Since the estimates are based on a sample, they may differ from the figures that would have been obtained from a complete census using the same questionnaire and procedures. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample and not the whole population was enumerated. The smaller the estimate the higher is the relative standard error. For example, the standard error of an estimate for South Australia of 500 000 persons is approximately 3 300 (0.7 per cent), while that of an estimate of 3 000 is approximately 550 (18.3 per cent). There are about two chances in three that a sample estimate will differ by less than one standard error from the figures that would have been obtained from a comparable complete enumeration, and about nineteen chances in twenty that the difference will be less than two standard errors. Further details may be obtained from bulletins relating to the surveys which are discussed in the following pages.

The definition of the labour force used in the population census is similar to that used in the survey. However, data from the Labour Force Surveys is based upon a sample employing a personal interview approach, while census data is obtained from census schedules completed by householders. Evidence indicates that the personal interview approach 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. This should be borne in mind when making comparisons between the two sets of data.

Further details may be obtained from the following bulletins: *Unemployment, Preliminary Estimates* (Catalogue No. 6201.0); *The Labour Force (Preliminary)* (Catalogue No. 6202.0); *The Labour Force* (Catalogue No. 6203.0). In addition, *Labour Force* (Catalogue No. 6201.4) contains detailed figures for South Australia.

Special Studies

The sample of dwellings referred to in respect of the Labour Force Survey has provided the framework for a number of special studies. These have recently included: the nature and extent of multiple jobholding; leavers from schools etc.; the distribution of weekly earnings of wage and salary earners; information on persons not in the labour force; information about persons who had recently been looking for work; information about changes of employment or job location and other aspects of the mobility of the

labour force; information about the highest educational qualifications attained by persons in the labour force. 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.

Leavers from Schools, Universities or Other Educational Institutions

In May 1980, a survey was conducted in conjunction with the Labour Force Survey in order to obtain, among other things, information about persons aged 15 to 25 years who had attended full-time at a school, university or other educational institution at some time during 1979. Separate information was obtained in respect of persons who had returned to full-time education in 1980 and those who had not returned to full-time education. The latter group was defined as being leavers.

The number of 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 May 1980 was 94.7 per cent compared with the national rate of 97.1 per cent while the equivalent rate for females was 95.1 per cent in this State and 93.5 per cent for Australia. Of the 25 300 leavers in this State, 16 800 were employed and 7 200 unemployed.

For comments on the reliability of the above estimates and for detailed results of this survey and other similar surveys carried out in May 1979 and earlier years, refer to bulletins entitled *Leavers from Schools, Universities or other Educational Institutions* (Catalogue No. 6227.0).

Multiple Jobholding

In August 1979 the Labour Force Survey was extended to obtain information about the nature and extent of multiple jobholding. The following table shows the number and the proportion of persons in the labour force who held a second job.

Multiple Jobholders: Number and Proportion of Persons in the Labour Force who Held a Second Job, by Marital Status, South Australia, August 1979

Multiple Jobholders	Males			Females			Persons		
	Married	Not Married (a)	Total	Married	Not Married (a)	Total	Married	Not Married (a)	Total
Number ('000)	11.7	3.6	15.3	4.6	(c)	5.9	16.3	4.9	21.2
Proportion of labour force (b) (Per cent)	4.5	3.2	4.1	3.4	(c)	2.7	4.1	2.5	3.6

(a) Never married, widowed and divorced.

(b) Multiple jobholders in each group as a percentage of the civilian labour force in the same group.

(c) Subject to sampling variability too high for most practical purposes.

Further details regarding the above survey and comparability with previous similar surveys may be obtained from the bulletin *Multiple Jobholding*, August 1979 (Catalogue No. 6216.0).

Persons Not in the Labour Force

In March 1980, the Labour Force Survey included questions to obtain information about persons aged 15 to 64 years who were not in the labour force: in particular, whether they wanted a job (and, if they did, why they were not looking for work) and

whether they had ever held a regular job and, if so, how long ago and for what reason they had left.

The following table shows for persons not in the labour force and who wanted a job, the reason for not looking for work. It should be noted that estimates for September 1979 and March 1980 are not strictly comparable with those obtained from previous surveys because the definition of 'persons who wanted a job' has been widened to include those persons who, although claiming to have looked for work in the four weeks up to and including survey week, had not taken active steps to find employment.

**Persons Aged 15 to 64 Years Who Were Not in the Labour Force and Who Wanted a Job
Reason for Not Actively Looking for Work, South Australia, March 1980^(a)**

Reason for Not Actively Looking for Work	
	Males ('000)
Personal considerations (b)	8.7
Discouraged (c)	(d)
Total males (e)	10.7
	Females ('000)
Personal considerations (b)	11.3
Family considerations (f)	17.5
Discouraged (c)	6.5
No jobs in locality or line of work	3.7
No jobs in suitable hours	(g)
Other reasons (g)	3.6
Total females	40.8

(a) Highest-ranked reason only.

(b) Includes 'own ill health, physical disability or pregnancy', 'studying' and 'no necessity to work'.

(c) Defined as those who wanted a job but were not actively looking for work because they believed they would not be able to find a job for any of several reasons, including 'no jobs in locality or line of work'.

(d) Subject to sampling variability.

(e) Includes all other reasons.

(f) Includes 'ill health of another person', 'inability to find child care', 'preference for looking after children' and 'disapproval by family'.

(g) Includes females who had a job to go to or who gave no reason.

For further details of the March 1980 survey and on previous similar surveys, refer to the bulletin *Persons Not in the Labour Force* (Catalogue No. 6220.0).

CIVILIAN EMPLOYEES

Details of the number of wage and salary earners in civilian employment are estimated on a monthly basis. These estimates, which exclude employees in agriculture and private domestic service, are based on information obtained from population censuses and other sources, known as benchmarks. Adjustments to these benchmarks are made from certain current information.

The civilian employees series, previously based on the 1971 Population Census benchmark, have been revised following adjustment of the population censuses for underenumeration.

The new estimates are based on revised benchmark data obtained from the 1966, 1971 and 1976 Population Censuses and many other sources *i.e.* labour force surveys, various economic censuses and surveys and on current data from payroll tax returns, returns from government bodies and other employment returns. For each State new totals are available for males and females from June 1966 but because reliable benchmark data at the detailed industry level was not available, industry estimates for June 1966 to May

1971 were only calculated for Australia. Also, because of changes in the private/government dissection of employees, estimates of private and State government before June 1971 are not comparable with those for later periods.

Further information on the series may be obtained from the bulletin *Civilian Employees, Australia, June 1966 to June 1979* (Catalogue No. 6214.0) and from the monthly bulletin *Civilian Employees* (Catalogue No. 6213.0). For employment in specific sectors such as factories, agriculture, the building industry, etc. further information is found in the relevant sections of this Year Book.

The revised estimates incorporating industry details based on the 1969 Preliminary Edition of the *Australian Standard Industrial Classification* (ASIC) are shown in the following table.

Civilian Employees, South Australia^(a)

June	Principal Industries				Class of Employer			Total	
	Manufacturing	Construction	Wholesale and Retail Trade	Community Services	Government				
					Australian	State	Local		
MALES ('000)									
1971	97.2	30.8	51.8	25.3	22.9	49.9	4.5	200.1	277.3
1972	94.8	31.7	50.8	27.2	23.2	51.5	5.6	196.8	277.0
1973	95.9	33.5	52.3	28.8	23.7	53.7	6.6	200.3	284.3
1974	98.1	32.6	55.1	30.5	24.4	55.5	4.7	208.3	292.9
1975	90.8	36.4	54.1	32.2	25.0	59.1	6.8	202.2	293.1
1976	90.3	34.1	55.9	34.2	24.5	61.2	5.8	202.4	293.8
1977	87.6	33.5	55.1	35.5	24.2	62.9	5.7	197.5	290.3
1978	80.8	31.3	53.0	36.0	(b) 31.4	(b) 56.2	6.0	186.8	280.3
1979	82.8	30.1	52.5	36.2	30.7	55.5	5.6	189.1	280.9
1980 (c)	80.8	27.8	51.5	36.1	30.0	54.8	5.5	184.8	275.2
FEMALES ('000)									
1971	25.6	1.8	38.8	39.9	6.1	26.8	0.8	111.1	144.7
1972	25.6	1.9	39.5	42.8	6.2	28.7	0.9	112.4	148.2
1973	28.1	1.9	40.1	46.6	6.5	31.3	0.9	119.3	158.0
1974	31.3	2.0	43.1	52.5	7.1	36.2	0.9	129.7	173.9
1975	26.4	2.1	41.0	56.2	7.5	40.8	1.1	122.8	172.3
1976	26.8	2.3	42.8	61.0	7.5	43.7	1.0	127.7	179.9
1977	25.1	2.4	42.4	63.5	7.5	46.1	1.1	126.2	180.9
1978	23.0	2.2	40.7	65.7	(b) 8.1	(b) 47.3	1.3	122.6	179.3
1979	23.6	2.4	41.0	64.8	8.1	46.6	1.4	123.9	180.0
1980 (c)	22.8	2.5	40.8	65.2	8.2	46.6	1.4	123.6	180.1
PERSONS ('000)									
1971	122.7	32.7	90.6	65.2	29.0	76.7	5.3	311.1	422.1
1972	120.3	33.6	90.3	70.0	29.4	80.2	6.5	309.3	425.3
1973	124.0	35.4	92.4	75.4	30.2	84.9	7.5	319.6	442.3
1974	129.4	34.6	98.2	83.1	31.5	91.7	5.6	338.0	466.9
1975	117.2	38.6	95.2	88.4	32.5	99.9	7.9	325.0	465.4
1976	117.1	36.4	98.8	95.2	32.0	104.9	6.8	330.1	473.8
1977	112.7	35.8	97.4	99.0	31.7	109.0	6.9	323.7	471.2
1978	103.9	33.5	93.7	101.7	(b) 30.5	(b) 103.5	7.3	309.4	459.6
1979	106.4	32.4	93.5	101.1	38.8	102.2	7.0	313.0	460.9
1980 (c)	103.6	30.2	92.3	101.3	38.3	101.4	7.0	308.7	455.3

(a) Excludes employees in agriculture, private domestic service and defence forces.

(b) On 1 March 1978 the majority of SA Railway's employees were transferred to the Australian National Railways.

(c) April latest available.

Although the series generally measure the short-term trends in employment in the defined field reasonably well, they may be less reliable for longer term measurement. There are conceptual differences between benchmark and current data, and changes in labour turnover, multiple jobholding and part-time working all affect the trend over longer periods. Also, increases in payroll tax exemption levels may result in a reduction in the number of businesses liable for payroll tax and, as a consequence, increase the

size of the unrecorded sector for which employment has to be estimated. Such a reduction is more significant in those industries, such as retail trade, in which there is a high proportion of businesses with few employees. With an increase in exemption levels a greater degree of estimation may be required in producing employment estimates for those industries.

Based on analysis of recent trends in the estimates and the above factors, the series is in need of some revision and this is currently being undertaken. Because of these factors the figures for April 1980 are the latest available.

UNEMPLOYMENT

Labour Force Surveys

Estimates of unemployment are derived from the monthly population survey. Until February 1978, surveys were conducted quarterly in February, May, August and November each year. From February 1978, the surveys have been conducted on a monthly basis.

For the purpose of the survey, unemployed persons are those aged 15 years and over who were not employed during the survey week and:

- (a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week and;
 - (i) were available for work in the survey week, or would have been available except for temporary illness (*i.e.* lasting for less than four weeks to the end of the survey week); or
 - (ii) were waiting to start a new job within four weeks from the end of the survey week and would have started in the survey week if the job had been available then; or
- (b) were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the survey week (including the whole of the survey week) for reasons other than bad weather or plant breakdown.

The following table contains estimates of the number of unemployed persons in South Australia and the corresponding unemployment rates, and the standard errors of each estimate. For an explanation of the standard error, see page 306.

Unemployed Persons, South Australia

August	Number ('000)					Unemployment Rate (Per Cent) (a)				
	Looking for Full-time Work				Looking for Part-time Work	Looking for Full-time Work				Looking for Part-time Work
	Aged 15-19 Years	Aged 20 Years and Over	Total	Total		Aged 15-19 Years	Aged 20 Years and Over	Total	Total	
1978	15.0	24.8	39.8	4.4	44.2	23.4	5.8	8.1	4.2	7.4
1979	16.2	23.7	39.9	5.4	45.3	26.5	5.6	8.2	5.1	7.6
1980	16.3	25.2	41.5	6.2	47.7	26.1	5.8	8.4	6.1	8.0
	STANDARD ERROR OF ESTIMATE (b)									
1978	1.0	1.3	1.5	0.6	1.5	1.5	0.3	0.3	0.6	0.2
1979	1.1	1.2	1.5	0.7	1.6	1.7	0.3	0.3	0.6	0.3
1980	1.1	1.3	1.5	0.7	1.6	1.8	0.3	0.3	0.7	0.3

(a) The unemployment rate is the number of unemployed in each group as a percentage of the estimated labour force in the same group.

(b) A guide to the standard error of movement may be obtained by multiplying the standard error of estimate by 1.4.

Further details may be obtained from the following bulletins: *Unemployment, Preliminary Estimates* (Catalogue No. 6201.0); *The Labour Force (Preliminary)* (Catalogue No. 6202.0); *The Labour Force* (Catalogue No. 6203.0). In addition, *The Labour Force* (Catalogue No. 6201.4) contains detailed figures for South Australia.

JOB VACANCIES

Estimates of the number of job vacancies are derived from quarterly surveys of employers which are conducted by telephone. Surveys were conducted annually in March from 1974 to 1978, and quarterly from May 1977 to May 1978 before being suspended due to a lack of resources. The present series of quarterly surveys was re-introduced in May 1979.

For the purposes of the survey a job vacancy is defined as a job available for immediate filling on the survey date and for which recruitment action had been taken by the employer. Vacancies for males or females are those jobs open to male or female applicants without preference.

Since the estimates are based on information obtained from a sample of employers, they may differ from the figures that would have been produced if the information had been obtained from all employers within the scope of the survey. One measure of the likely difference is given by the standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of employers was included in the survey. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all employers had been included and about nineteen chances in twenty that the difference will be less than two standard errors. Standard errors of estimates for South Australia are generally not greater than 20 per cent.

Job Vacancies, South Australia

Job Vacancies	August 1979	August 1980
		(⁰⁰⁰)
For Males	(a)	0.4
For Females	(a)	(b) 0.1
For Males or Females	0.9	0.5
Manufacturing (c)	(a)	0.5
Other (d)	(b) 1.2	0.5
Private	(b) 1.3	0.6
Government	0.8	0.4
Total	(b) 2.2	1.0

(a) Subject to sampling variability too high for most practical uses.

(b) Standard error greater than 20 per cent but less than 30 per cent.

(c) Australian Standard Industrial Classification (ASIC) Division C.

(d) ASIC Division A-L excluding Division C (Manufacturing), Subdivisions 01, 02 (Agriculture, etc.), 94 (Private Households Employing Staff) and defence forces.

EMPLOYMENT SERVICES

The Commonwealth Employment Service, administered by the Department of Employment and Youth Affairs, commenced operations in South Australia in May 1946. The main function of the Employment Service is 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.

Further details concerning the operations of the Commonwealth Employment Service may be found in *Year Book Australia* No. 63, 1979.

The Department of Employment and Youth Affairs is also responsible for the administration of three schemes offering financial assistance to employers to recruit and train new staff. The National Employment and Training system (NEAT) is a vocational training scheme designed to assist persons whose employment prospects would be enhanced by training. Further information on the NEAT scheme is contained in Part 6.2 Education. The Special Youth Employment and Training Programme (SYETP) is specifically designed to encourage employment of people under 25 years of age. The Commonwealth Rebate for Apprentice Full-time Training (CRAFT) scheme offers tax free rebates to offset the cost of time lost in formal off-the-job training to firms taking on apprentices.

The State Government has a number of programs designed to alleviate unemployment in South Australia. The Youth Bureau of the Department of Industrial Affairs and Employment, runs Community Improvement Through Youth (CITY) which assists young unemployed people to gain skills and confidence through the planning and management of community service projects. The Self Employment Ventures Scheme assists unemployed people attempting self-employment by providing theoretical and practical skills in operating a small business. A pilot scheme began in February 1981.

A payroll tax refund program (administered by the Department of Industrial Affairs and Employment) and a payroll tax exemption scheme (administered by the State Treasury Department) were introduced from October 1979 to provide incentives for the employment of people under 20 years of age. The Department of Industrial Affairs and Employment also administers an exemption scheme for rural areas but without an upper age limit.

There are also a number of private employment agencies, all of which are required to register with the Department of Industrial Affairs and Employment. At 31 December 1980 there were thirty-five such agencies registered.

7.2 ARBITRATION AND INDUSTRIAL ORGANISATIONS

INDUSTRIAL ARBITRATION

In Australia a unique system of conciliation and arbitration by Government tribunals has been developed, with the Commonwealth and the State Parliaments each passing their own industrial legislation.

Under Section 51 of the Constitution, the Commonwealth Parliament may make laws in relation to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. In addition the Parliament may legislate under certain industrial powers for the stevedoring industry, the maritime industry, the Commonwealth Public Service, certain national projects, the Snowy Mountains Area and flight crew officers. Commonwealth 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 Commonwealth awards are subject to State industrial jurisdiction, but where an award or determination of a State industrial tribunal is inconsistent with an award of a Commonwealth tribunal, the latter prevails to the extent of the inconsistency.

Commonwealth 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.

In February 1977 a further change was made when the jurisdiction exercised by the Industrial Court was transferred to the Industrial Division of the Federal Court of Australia.

The Conciliation and Arbitration Commission comprises a President and as many Deputy Presidents and Commissioners as are necessary.

The Commission carries out its functions of conciliation and arbitration through panels. The President assigns an industry or a group of industries to a panel consisting of a Presidential Member and one or more Commissioners.

Certain matters cannot be determined by a single member of the Commission. Those matters which must be determined by a Full Bench of at least three members of the Commission, consisting of at least two Presidential Members, include standard hours, national wage cases, the minimum wage, equal pay principles, annual leave and long service leave.

The jurisdiction of the Commission is limited to conciliation and arbitration of industrial disputes between employers and employees which extend beyond the limits of any one State. The employees must be engaged in employment that is 'industrial' in nature.

State Industrial Tribunals

The South Australian legislation governing State intervention in industrial relations is the Industrial Conciliation and Arbitration Act, 1972-1979, the principal Act having come into operation on 1 January 1973. This Act provides for:

- (1) an Industrial Court which deals with questions of law, interpretations of awards and industrial agreements, claims for sums of money due to employees, re-employment matters, industrial offences and a number of other matters;
- (2) an Industrial Commission which makes awards covering workers not under the jurisdiction of Conciliation Committees and which has jurisdiction to hear and settle disputes and demarcation matters; 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 Commission is composed of a President, five Deputy Presidents and four Commissioners. Arbitral functions of the Commission may be exercised by a presidential member or a Commissioner as directed by the President. The Registrar and other officers of the Court and Commission are appointed under the Public Service Act.

The Commissioners are Chairmen of Conciliation Committees consisting of an equal number of representatives of employers and employees. Conciliation Committees 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.

The Industrial Court is composed of the President and Deputy Presidents, respectively, of the Commission as well as three Industrial Magistrates.

Proceedings before the Industrial Commission may be commenced by an application submitted by:

- (1) the Minister of Industrial Affairs;
- (2) an employer, or group or registered association of employers in an industry employing, in aggregate, not less than twenty employees or 75 per cent of the employees within an industry, whichever is the lesser;

(3) 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.

Employer or employee associations may apply for registration which confers a legal corporate status and allows ready access to the Commission.

Further details regarding State Industrial Tribunals may be found in the *South Australian Year Book 1977* and in the Annual Report of the former Department of Labour and Industry.

EMPLOYEE ORGANISATIONS

At 31 December 1979 there were 141 separate unions operating in South Australia and of these seventy-two were registered with the South Australian Industrial Commission. 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 following table gives particulars of the number of separate unions and union membership for the years 1974 to 1979. The table includes estimated percentages of trade union members to total employees. The estimates of employees have been derived by adding figures for those in agriculture and private households employing staff to the estimates of employees in all other industries at the end of each year. The percentages shown should be regarded as giving only a broad indication of the extent of union membership among wage and salary earners because they are based on estimates of *employed* wage and salary earners that are subject to revision. The degree of unemployment of reported union members would affect the percentages for a particular year and comparisons over time. Figures previously published for the years 1968 to 1978 have been revised, with some organisations not previously regarded as trade unions being included. Further details are contained in the bulletin *Trade Union Statistics* (Catalogue No. 6323.0).

Trade Unions, South Australia, At 31 December

Year	Separate Unions	Members			Proportion of Members to Total Employees		
		Males	Females	Persons	Males	Females	Persons
	No.		'000		Per cent		
1974	142	190.5	63.9	254.4	63	36	53
1975	141	188.2	68.6	256.9	63	37	53
1976	142	187.0	69.8	256.8	62	37	53
1977	142	190.4	76.7	267.1	64	41	55
1978	141	191.5	78.7	270.3	66	43	57
1979	141	192.5	79.8	272.3	67	43	58

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 Lincoln, 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 ACTU, 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 ACTU.

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

At the end of December 1980 there were nine associations of employers registered with the South Australian Industrial Commission. In industrial matters four are dominant:

- (1) The South Australian Employers Federation Inc., which works mainly under the State Industrial Conciliation and Arbitration Act, is a federation of employer organisations, although provision is made for individual membership. Services provided include the negotiating and drafting of industrial agreements, and the preparation and presentation of cases before industrial tribunals. Advice is provided on existing awards and determinations, and on various aspects of industrial legislation.
- (2) The Chamber of Commerce and Industry (SA) Inc., which also works mainly under the State Industrial Conciliation and Arbitration Act, has individual members who subscribe directly to the Chamber for the industrial and other services provided. Where appropriate, members are grouped into trade associations. The Chamber's industrial advocates represent members in the making and variation of awards, and assist members in the settlement of disputes. The Chamber monitors Bills presented to the Parliaments and, where appropriate, makes representations on behalf of its members seeking amendments to legislation.
- (3) The Metal Industries Association, South Australia (MIASA) is the principal employers organisation registered under the provisions of the Commonwealth Conciliation and Arbitration Act. It represents the varied interests of the State's metal and engineering manufacturing sector by monitoring developments in industrial relations, education and training, trade, economic and legislative matters.
- (4) The South Australian Automobile Chamber of Commerce Inc., also registered under the Commonwealth Conciliation and Arbitration Act, is an industrial organisation aimed at protecting and conserving the interests of employers in the motor and allied industries.

INDUSTRIAL DISPUTES

In the following table industrial disputes occurring during 1979 are compiled according to the *Australian Standard Industrial Classification* (ASIC). A dispute involving workers in more than one industry group is counted once only and is included in the industry group which has the largest number of workers involved.

Industrial Disputes: Industries, South Australia, 1979^(a)

Industry	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
Agriculture, forestry, fishing and hunting	1	'000	'000	\$'000
Mining	2	0.6	6.0	204
Manufacturing:				
Food, beverages and tobacco	17	7.9	29.3	1 053
Textiles, clothing and footwear	—	0.8	1.0	36
Wood, wood products and furniture	3	1.7	2.7	93
Paper and paper products, printing and publishing	3	1.2	2.1	82
Chemical, petroleum and coal products	—	0.4	0.5	18
Metal products, machinery and equipment (c)	13	32.8	65.4	2 347
Other manufacturing (d)	3	1.9	2.3	89

Industrial Disputes: Industries, South Australia, 1979^(a) (continued)

Industry	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
		'000	'000	\$'000
Electricity, gas and water	5	3.5	3.3	125
Construction	16	5.8	8.2	324
Wholesale and retail trade	1	(e)	(e)	1
Transport and storage, communication:				
Water transport	3	1.0	2.6	100
Railway transport, air transport	5	7.3	34.0	1 257
Road transport, other transport and storage, communication	12	10.9	13.7	501
Entertainment, recreation, restaurants, hotels and personal services	2	2.2	3.6	126
Other industries	10	13.9	10.0	359
Total	96	92.5	186.5	6 785

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved at the establishments where the stoppages occurred.

(c) Includes basic metal products, fabricated metal products, transport equipment and other industrial machinery and equipment and household appliances.

(d) Includes non-metallic mineral products and leather, rubber and plastic products.

(e) Less than 50 workers involved and less than 50 working days lost.

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 should be regarded as giving only a broad measure of the extent of work stoppages.

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.

Industrial Disputes, South Australia^(a)

Period	Disputes	Workers Involved (b)	Working Days Lost	Estimated Loss in Wages
				\$'000
Year:				
1974	180	116 300	316 500	6 105.1
1975	194	69 600	127 600	3 168.2
1976	118	130 400	151 800	4 285.2
1977	93	26 400	30 600	940.0
1978	119	50 000	79 100	2 639.0
1979	96	92 500	186 500	6 785.0

(a) Disputes involving a stoppage of work of ten man-days or more.

(b) Includes workers indirectly involved at the establishments where the stoppages occurred.

EMPLOYEE PARTICIPATION

As part of its more general activities in labour relations the State Government has a policy on Employee Participation to develop better co-operation between employers, management and employees, increased productivity, improved job satisfaction and quality of work life and greater organisational effectiveness. An Employee Participation

Branch is established in the Department of Industrial Affairs and Employment to assist with the Policy. The work of the Branch includes assistance in developing participation schemes, providing help to organisations involved in implementing some form of employee participation, and providing basic information concerning employee participation to organisations and the public at large.

The main development in the private sector has been directed towards achieving more effective work structures and relationships between employers and employees, and in creating and enlarging the opportunity and the ability of people at work to influence decisions which affect their worklife. It aims to encourage the voluntary introduction of employee participation in the form of improved communication, joint consultative committees and the redesign of work tasks. The Government's role is to advise and assist employees and management to initiate such schemes only when requested. A particular feature in the private sector has been a developing interest in schemes by which employees are given a share in the company employing them.

Further References

Additional information may be found in the bulletin *Industrial Disputes* (Catalogue No. 6322.0) published by the Central Office of the Australian Bureau of Statistics.

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 (until the introduction of wage indexation guidelines in 1975) 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 gives the Australian Conciliation and Arbitration Commission power to make an award or to certify an agreement 'making provision for, or altering, rates of wages, or the manner in which rates of wages are to be ascertained, on grounds predominantly related to the national economy and without examination of any circumstance pertaining to the work upon which, or the industry in which, persons are employed'. The Commission holds wage inquiries from time to time with its findings applicable to industrial awards within its jurisdiction. A detailed account of the history of national wage fixation before the introduction of the total wage concept appears in the Arbitration Reports and a summary was included on pages 257-60 of the *South Australian Year Book* 1968.

In the 1975 National Wage Case, principles were adopted which included indexing award wages to changes in the Consumer Price Index. The following table shows the change in the Consumer Price Index, the award wage increase and the increase in the weekly minimum wage for each quarter from the beginning of 1975.

Wage Indexation: Changes in Award Total Wage and Minimum Wage

Consumer Price Index		Award Wage Increase	Minimum Wage (a)	Date Operative
Quarter	Increase			
	Per cent		\$	
1975:				
March	3.6	3.6 per cent	male 79.60 female 71.60	15 May 1975
June	3.5	3.5 per cent 6.4 per cent	82.40	18 Sept. 1975
September	0.8		87.70	15 Feb. 1976
December	5.6		(b)	
1976:				
March	3.0	3.0 per cent on award wages up to \$125 per week and \$3.80 per week on award wages above \$125.	95.50	15 May 1976
June	2.5	\$2.50 per week on award wages up to \$166 per week and 1.5 per cent on award wages above \$166.	98.00	15 Aug. 1976
September	2.2	2.2 per cent	100.20	22 Nov. 1976
December	6.0	\$5.70 per week	105.90	31 Mar. 1977
1977:				
March	2.3	1.9 per cent on award wages up to \$200 per week and \$3.80 per week on award wages above \$200.	107.90	24 May 1977
June	2.4	2.0 per cent	110.10	22 Aug. 1977
September	2.0	1.5 per cent	111.80	12 Dec. 1977
December	2.3	1.5 per cent on award wages up to \$170 per week and \$2.60 per week on award wages above \$170.	113.50	28 Feb. 1978
1978:				
March	1.3	4.0 per cent	115.00	7 June 1978
June	2.1		119.60	12 Dec. 1978
September	1.9			
December	2.3			
1979:				
March	1.7	3.2 per cent	123.40	27 June 1979
June	2.7	4.5 per cent	129.00	4 Jan. 1980
September	2.3			
December	3.0	4.2 per cent	134.40	14 July 1980
1980:				
March	2.2	3.7 per cent	139.40	9 Jan. 1981
June	2.8			
September	1.9			

(a) From the beginning of the pay period which included 30 June 1975 the adult male and female minimum wages were equalised.

(b) Minimum wage further increased to \$92.70 from 1 April 1976.

Following a conference of parties the Commission held an inquiry in 1978 into the wage fixation principles. In a decision in September 1978 it announced variations to the principles including the reduction of the periodicity of wage hearings from quarterly to six monthly with sittings to be held in April and October following the publication of the Consumer Price Index for the March and September quarters. Another significant change was to allow applications for the indexing of over-award payments.

In its decision in January 1981 the Commission announced that no further national wage hearings would be held under the existing principles, as it no longer regarded them as a sustainable approach to wage fixation. A conference of parties chaired by the President of the Commission will conduct an examination of the future of wage fixation.

State Wage Fixation

For many years award fixation in South Australia was based on a living wage plus a margin for skill but, since September 1975 wages have been fixed on the basis of a total wage. Likewise, for many years the Full Commission granted flow-ons of the Commonwealth national wage determinations annually but as from May 1975, the concept of quarterly wage indexation was introduced. In December 1975, the Full Commission adopted the Commonwealth wage indexation guidelines but reserved the right to deal with anomalous situations outside the scope of wage indexation and in June 1976 it ruled that under State awards service payments, leading hand rates and other special allowances should be included in the ordinary rates to which indexation rises apply.

On 19 December 1978 the Full Commission heard and granted the first wage increase based on the new six-monthly hearings in lieu of the previous three-monthly hearings. In April 1979 the revised principles allowing wage increases to rectify inequities of different employees doing similar work for dissimilar pay were adopted. In addition a new 'unusual or extra-ordinary circumstances' clause was inserted, providing for pay increases outside indexation where the Commission accepts there is a pay anomaly whereby reason of unusual or extraordinary circumstances there are compelling reasons for the making of a one-time adjustment to found a fair and proper basis for the ongoing application of indexation adjustments.

On 29 August 1980 the Commission set out new guidelines which provide for a once-only adjustment to wages in awards where there has been no general non-economic adjustment since 1 July 1978 or where a general non-economic adjustment of an average amount of less than \$8.00 per week has been made.

In 1967 the concept of a minimum wage for adults was introduced into State awards and this has been the same as the minimum wage in Commonwealth awards as shown in the previous table.

Under the Industrial Commission Jurisdiction (Temporary Provisions) Act, 1975-1976 the Commission and Conciliation Committees are empowered to have regard to and may apply and give effect to any principles, guidelines or conditions enunciated or laid down by the Australian Conciliation and Arbitration Commission as modified by the South Australian Full Commission. Under this Act no industrial agreement providing for an increase in remuneration can be registered until the Commission certifies that it is not against the public interest, having regard to any principles, guidelines or conditions laid down by the Full Commission.

Applications for awards and variations to awards are commenced by summons filed in the Registry. The President usually assigns the application to a member of the Commission for hearing and determination.

Proceedings before Conciliation Committees are commenced by requisition to the Chairman of the Committee. Conciliation Committees have power to make awards by way of 'round table' discussion and conciliation rather than by a first instance resort to

an arbitral tribunal. If the Committee cannot agree to a matter then the Chairman refers the matter to a normal Commission hearing before himself for arbitration and eventual decision.

At the end of 1980 there were 164 State awards and 38 Conciliation Committee awards in existence.

Equal Pay

In a decision handed down on 15 December 1972, the Full Bench of the Australian Conciliation and Arbitration Commission decided to enlarge the concept of 'equal pay for equal work' to that of 'equal pay for work of equal value', *i.e.* award rates for all work should be considered without regard to the sex of the employee. The new principle is applied to all awards of the Commission. However, it was considered that the social and economic consequences of the decision would be wide-ranging and so under normal circumstances implementation would take place by three equal instalments so that one-third of any increase was payable no later than 31 December 1973, half of the remainder by 30 September 1974 and the balance by 30 June 1975. Under principles established in 1969, equal pay was to be given for equal work and the decision was not intended to rescind those principles under which females could become entitled to equal pay earlier than they would under the December 1972 decision.

In the 1972 decision, the Commission rejected the claim that adult females be paid the same minimum wage as adult males because of the family considerations involved in male minimum wages. However, in the 1974 National Wage Case the Commission discarded the family component concept and decided to extend the male minimum wage to females in three stages, the rates for both males and females becoming equal from the beginning of the pay-period in which 30 June 1975 occurred.

Following an amendment to the Industrial Conciliation and Arbitration Act in September 1975, the concept of a separate State living wage for both males and females was abolished by a decision of the Full Bench of the South Australian Industrial Commission handed down on 15 December 1975.

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 Commonwealth and State jurisdiction are known as award rates. The amounts shown in the following tables are a weighted average of minimum weekly wage rates payable to adult males and females in South Australia. Generally these are award rates; however, in a few cases where unregistered agreements are dominant in a particular industry, rates prescribed therein are used. The amounts shown should not be regarded as actual current averages, but rather as indexes expressed in money terms. The minimum rates used are for representative occupations within each industry, the weights for each occupation and industry being based on sample surveys conducted in 1954, with allowance made where necessary for subsequent changes in the industrial structure. Because of coverage difficulties rural industries are excluded. The statistics are designed to show movements in minimum wages as distinct from salaries, with the result that those awards, etc. which relate solely or mainly to salary earners have been excluded.

In the next table weighted average minimum weekly wage rates for males and females are shown for individual industrial groups.

**Weekly Wage Rates: Industrial Groups, South Australia^(a)
At 31 December**

Industrial Group	1976	1977	1978	1979	1980
	Dollars				
	ADULT MALES				
Mining and quarrying	127·33	142·40	152·81	158·91	176·66
Manufacturing:					
Engineering, metal work, etc.	126·86	140·26	153·38	165·28	179·51
Textiles, clothing and footwear	123·37	135·60	145·49	150·14	171·67
Food, drink and tobacco	127·16	140·40	151·01	158·40	176·68
Sawmilling, furniture, etc.	122·87	135·65	145·49	150·16	172·01
Paper, printing, etc.	137·40	150·99	161·39	168·85	187·31
All manufacturing groups	127·43	140·74	152·78	162·41	178·41
Building and construction	144·54	158·00	173·92	182·11	200·27
Railway services	122·84	135·51	151·64	161·97	175·99
Road and air transport	129·18	142·61	155·37	162·47	178·09
Shipping and stevedoring	157·57	172·21	184·94	192·85	213·46
Communication	159·70	174·72	185·69	195·84	213·28
Wholesale and retail trade	131·82	145·79	158·78	164·78	183·80
Public authority (n.e.i.) and community and business services	129·16	142·35	152·16	157·00	172·09
Amusement, hotels, personal services, etc.	121·06	133·78	143·01	147·57	166·38
All industrial groups	132·20	145·69	158·53	167·12	183·98
	ADULT FEMALES				
Manufacturing:					
Engineering, metal work, etc.	121·89	134·59	146·38	154·79	168·89
Textiles, clothing and footwear	118·67	133·04	142·87	147·45	167·25
Food, drink and tobacco	121·31	136·39	146·03	151·92	169·40
Other manufacturing	121·45	134·15	143·79	149·16	165·35
All manufacturing groups	120·98	134·38	144·77	151·00	167·73
Transport and communication	132·10	145·26	153·98	159·03	173·26
Wholesale and retail trade	131·97	145·95	156·41	161·39	180·21
Public authority (n.e.i.) and community and business services	122·81	141·33	150·90	155·77	171·66
Amusement, hotels, personal services, etc.	116·90	129·94	138·93	143·38	160·36
All industrial groups	125·11	139·06	149·15	154·58	171·81

(a) Weighted average minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

Classified as Commonwealth are awards of, or agreements registered with, the Australian Conciliation and Arbitration Commission and the Coal Industry Tribunal, and determinations of the Commonwealth 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.

Weekly Wage Rates, South Australia^(a)

31 December	Rates of Wage				Index Numbers All Groups (Base: Australia 1954 = 100) (b)	
	Commonwealth Awards		State Awards		Adult Males	Adult Females
	Adult Males	Adult Females	Adult Males	Adult Females		
	Dollars					
1975	117.57	103.82	109.07	103.02	407.6	519.1
1976	134.03	119.67	127.68	129.70	468.1	631.0
1977	147.40	133.20	141.46	143.08	515.9	698.5
1978	161.20	143.26	151.37	153.15	560.8	749.1
1979	170.73	149.29	158.17	158.20	591.7	776.5
1980	187.22	165.85	175.95	175.90	651.4	863.0

(a) Weighted average of minimum weekly rates payable for a full week's work (excluding overtime) as prescribed in awards, determinations and agreements. Excludes rural industries.

(b) The index numbers refer to the weighted average minimum weekly wage rates of all awards.

EARNINGS

Figures given in the first series in this section are derived from particulars of employment and wages and salaries recorded on payroll tax returns, from other direct returns and from estimates of the unrecorded balance. The figures represent average weekly earnings of civilian male (whether adult or junior, full-time or part-time) wage and salary earners and include award wages, salaries, overtime earnings, over-award and bonus payments and payments made in advance or retrospectively during the period.

Particulars of wages and salaries are not available for males and females separately from the sources used for this series; average earnings have therefore been calculated by using total civilian employees expressed in terms of 'male units'. Male units represent total male employees plus a proportion of female employees based on the approximate ratio of female to male average earnings.

Average Weekly Earnings per Employed Male Unit, South Australia

Year	September Quarter	December Quarter	March Quarter	June Quarter	Year
	Dollars				
1975-76	148.10	163.70	154.40	167.60	158.50
1976-77	175.00	182.80	172.80	187.40	179.50
1977-78	195.90	199.40	190.20	203.90	197.40
1978-79	206.90	211.70	207.20	215.50	210.30
1979-80	223.50	230.10	229.50	238.90	230.50
1980-81	252.00				

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-period of October for each year since 1972.

**Average Weekly Earnings: Private and Government Employment
South Australia^(a)**

October	Adult Males			Junior Males	Adult Females	Junior Females
	Overtime (b)	Ordinary Time	Total			
Dollars						
1975	9·80	144·60	154·40	85·00	125·20	79·00
1976	12·50	166·30	178·80	97·60	151·10	96·70
1977	12·30	183·50	195·80	109·70	169·90	109·90
1978	14·50	194·90	209·50	115·50	178·70	116·30
1979	16·00	212·10	228·10	131·90	195·70	121·60

(a) Full-time employees other than managerial, executive, professional and higher supervisory staff.

(b) Average overtime for all employees in that category, whether or not they worked overtime.

The surveys were based on a sample selection of private employers subject to payroll tax and details of employees in non-government hospitals not subject to payroll tax, employees of Commonwealth and State Government departments, authorities and semi-government bodies and local government authorities. Employees in agriculture and domestic service were excluded as were those of religious, benevolent and similar organisations exempt from payroll tax.

As the estimates are based on a sample they may differ from the figures that would have been obtained from a full census of employers. For details of the standard errors involved and for more information on the survey, see *Earnings and Hours of Employees* (Catalogue No. 6304.0).

An indication of the likely distribution of earnings among employees is obtained from another employer based survey of Earnings and Hours of Employees. This survey is conducted in May of each year and a selected sample of employers complete individual returns for a random sample of their employees in accordance with instructions supplied by the Australian Bureau of Statistics.

The following table shows the estimated distribution of gross weekly earnings for a selected week in the month of May in 1978, 1979 and 1980. Earnings include one week's proportion of payments made other than on a weekly basis and excludes pay in advance, retrospective pay and annual or periodic bonuses.

Also shown are the mean and median earnings. The median earnings is the amount which divides the distribution into two equal groups, one having earnings above the median and the other having earnings below it.

The coverage of the sample of employers for this survey is similar to that of the survey conducted in October. For details of the standard errors involved and for more information on the survey, see *Earnings and Hours of Employees, Distribution and Composition* (Catalogue No. 6306.0).

Another indication of the likely distribution of earnings of all persons aged 15 years and over who were employed as wage or salary earners in their main job is obtained from the household based survey conducted in August in conjunction with the Labour Force Survey, see *Weekly Earnings of Employees (Distribution)* (Catalogue No. 6310.0).

Distribution of Average Weekly Earnings of Employees, South Australia

Weekly Earnings	Proportion of Employees					
	Males			Females		
	May 1978	May 1979	May 1980 ^p	May 1978	May 1979	May 1980 ^p
	Per cent					
Under \$40	4.9	{ 2.3 }	3.6	{ 7.4 }	5.9	{ 11.5 }
\$40 and under \$80 ..		{ 3.0 }		{ 10.0 }	9.3	
\$80 and under \$120	4.8	3.3	3.6	15.5	13.9	12.7
\$120 and under \$160	16.5	9.9	5.2	27.4	24.2	18.1
\$160 and under \$200	30.0	29.1	19.9	24.3	28.1	29.7
\$200 and under \$240	19.8	21.0	24.9		10.1	13.9
\$240 and under \$280	11.6	12.9	15.7	} 15.5	} 8.6	} 14.1
\$280 and under \$320	5.5	7.2	11.0			
\$320 and over	6.9	11.2	16.0			
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Dollars					
Median weekly earnings	191.10	204.10	227.10	146.90	155.40	171.00
Mean weekly earnings	201.70	216.90	241.00	142.90	152.40	168.80

HOURS OF WORK

The 40-hour week is generally the standard working week for employees under Commonwealth and State awards; however, the number of hours constituting a full week's work varies between occupations. Significant variations to this standard working week were achieved in the stevedoring industry during 1972 where a 70-hour fortnight has operated from June 1975. Certain Commonwealth 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 39.90 hours at 31 December 1978. 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 December 1978 was 39.77 hours. The weighted average figure for South Australian male employees has not changed significantly since 1953, nor for females since 1951. The normal working day in manual trades is of eight hours duration, and employees working beyond these hours are paid penalty rates.

The following table shows the relative distribution of employed civilian wage and salary earners in South Australia according to the number of hours worked in a specified week, as recorded in the August Labour Force Surveys. The distribution is based on actual hours worked, including overtime, rather than hours paid for, and is therefore affected by public holidays, leave, absenteeism, temporary absence from work because of sickness, accident and industrial disputes, and work stoppages caused by plant breakdowns and weather.

Employed Wage and Salary Earners: Hours Worked, South Australia ^(a)

August	Proportion who Worked the Following Hours in the Specified Week							Total
	0	1-29	30-34	35-39	40	41-48	49 and Over	
	Per cent							
1976	6.1	13.3	4.9	14.3	43.2	10.9	7.3	100.0
1977	4.6	15.1	4.3	15.2	42.5	10.6	7.7	100.0
1978	3.9	17.8	6.4	17.0	33.2	13.2	8.5	100.0
1979	4.6	18.0	6.6	15.0	33.6	13.8	8.5	100.0
1980	4.9	16.5	6.8	14.7	34.0	13.6	9.5	100.0

(a) Employed civilian population, fifteen years of age and over.

Overtime

Information about overtime hours worked is obtained monthly from a sample survey of employers which is conducted by telephone.

The surveys, which commenced in July 1979, are generally conducted in respect of the last week of the pay period ending on or before the third Friday of each month. However, in order to ensure that the survey timetable is met it is necessary to accept data for other periods from some respondents.

All employees in Commonwealth, State and local government employment are represented in the survey, but the private sector sample was selected from payroll taxpayers and the employees of employers not subject to payroll tax (excluding hospitals) are excluded. Also excluded are employees in agriculture and in private households employing staff, and members of permanent defence forces.

For the purposes of the survey, overtime is time worked in excess of award, standard or agreed hours of work for which payment is received. Excluded is any overtime for which employees would not receive payment, e.g. unpaid overtime worked by managerial, executive, etc. staff, normal shiftwork and standard hours paid for at penalty rates. Overtime hours represent the number of hours of overtime actually worked.

The results of the survey are subject to sampling variability, one measure of which is standard error. Standard errors of the differences between estimates are approximately the same as the standard errors of the estimates themselves. For further details see *Overtime, Australia* (Catalogue No. 6330.0).

Overtime, South Australia

Quarter	Average Weekly Overtime Hours				Proportion of Employees in the Survey Working Overtime	
	Per Employee in the Survey		Per Employee Working Overtime		Per Cent	Standard Error
	Hours	Standard Error	Hours	Standard Error		
1979:						
August	1.1	0.06	6.0	0.14	19.0	0.86
November	1.1	0.06	6.2	0.15	18.0	0.78
1980:						
February	1.0	0.07	5.7	0.18	17.2	0.81
May	1.0	0.07	6.0	0.19	16.5	0.81
August	0.9	0.06	5.6	0.18	16.6	0.79
November	1.0	0.06	6.1	0.17	17.3	0.76

HOLIDAYS AND LEAVE

Public Holidays

A number of days are observed each year throughout the State as public holidays and additional days may be proclaimed either on a State-wide basis or applicable to particular localities. Employees required to work on public holidays normally receive an extra day's pay and are paid at penalty rates. From 1971 authorised public holidays are:

- New Year's Day (1 January or the following Monday if that day falls on a Saturday or Sunday),
- Australia Day (first Monday after 25 January),
- Good Friday,
- Easter Saturday,
- Easter Monday,
- Anzac Day (25 April or the following Monday if 25 falls on a Sunday),
- Adelaide Cup Day (third Monday in May),
- Queen's Birthday (usually observed on a Monday early in June),
- Labour Day (second Monday in October),
- Christmas Day (25 December or the following Monday if 25 falls on a Saturday or Sunday), and
- Proclamation Day (28 December or the following Monday if 28 falls on a Saturday or Sunday).

The Holidays Act, 1910-1975 makes provision for other days to be proclaimed in lieu of the authorised holidays. Additional holidays may also be proclaimed.

Annual Leave

Under Commonwealth awards generally, four weeks annual recreation leave is granted to employees who have completed twelve months continuous service. Commonwealth public servants were granted four weeks annual recreation leave from 1 January 1973.

Under State awards the Commonwealth standard of four weeks annual recreation leave has generally been adopted. The State Industrial Commission is empowered to determine a general standard of annual leave for all employees not bound by an award although no such standard has yet been finally determined.

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.

Payment in lieu of annual leave or proportionate leave on termination of employment must be made to all employees, whether subject to an award or not, irrespective of the reason for, or manner of, termination of the employment.

Certain employees in special occupations or where regular shift work is involved *e.g.* police officers, nurses, etc., are entitled to annual recreation leave in excess of four weeks.

In 1973 the State Industrial Commission handed down a decision which enabled part-time workers, when taking annual leave, to be paid the normal weekly wage that they would have received had they been at work.

In addition to normal holiday pay many employees receive an annual leave bonus of 17.5 per cent of the payment they would have received had they not been on leave.

Officers of the South Australian and the Commonwealth Public Service receive a 17.5 per cent leave loading on their salary up to a maximum of average weekly earnings for the March quarter of the year ending in June in which the leave accrued (in the case of the South Australian Public Service) and the September quarter of the year ending in December in which the leave accrued in the case of the Commonwealth Public Service.

Sick Leave

The Industrial Conciliation and Arbitration Act, 1972-1979 provides that all full-time employees whether bound by an award or not, shall be eligible to receive annually not less than ten days cumulative sick leave on full pay. Most Commonwealth awards provide for two weeks sick leave a year.

Long Service Leave

In 1964 the Australian Conciliation and Arbitration Commission included, for the first time in a Commonwealth award, long service leave, granting employees in the graphic arts and metal trades industries leave on the basis of thirteen weeks for twenty years service in respect of employment before the date of the decision, and eight and two-thirds weeks in respect of each ten years of subsequent service; these provisions have been extended to many other Commonwealth 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.

Entitlement to long service leave also applies to casual employees provided that the service with the employer is continuous within the meaning of the Long Service Leave Act.

State and local government employees are in general entitled to ninety calendar days leave after ten years service which equates to 9 days leave per year, and Commonwealth Government employees to three months after ten years service. However, as from 1 July 1975, State public servants with over fifteen years continuous service accumulate long service leave benefits at the rate of 15 days leave per year for each year of service after the fifteenth. The long service leave provisions which apply to State public servants are also extended to teachers employed under the Education Act.

The various long service leave arrangements provide for additional *pro rata* periods of leave for service in excess of the minimum, and for *pro rata* payments for employees who have completed a specified term of service but who, through the termination of their services or through death, do not complete the full entitlement period.

Maternity Leave

Since 1973 the Commonwealth Public Service has provided maternity leave for its

female employees whether permanent or temporary. The current provision is for twelve weeks paid leave and up to fifty-two weeks leave in total in respect of each confinement. A qualifying period applies for the paid leave.

Maternity leave provisions also exist for female employees of the South Australian Public Service. The maximum special leave without pay is fifty-two weeks but leave on full pay to which the officer has an entitlement may be substituted for the special leave.

There are provisions in the Education Act for maternity leave for teachers in the South Australian Education Department with the maximum leave being fifty-eight weeks and the minimum fourteen weeks although these limits may be respectively extended or reduced in special circumstances. Leave is taken without pay except when long service credits are used.

Maternity leave provisions are inserted in some South Australian awards. The South Australian provisions are based on those granted in March 1979 by the Australian Conciliation and Arbitration Commission for Commonwealth awards. The provisions allow women employed full-time or part-time by a firm, and with not less than twelve months continuous service, to take a minimum of six weeks or a maximum of fifty-two weeks maternity leave. The leave is unpaid and seasonal and casual workers are not eligible.

7.4 INDUSTRIAL SAFETY

SAFETY REGULATIONS AND INSPECTION

General principles on safety, health and welfare applicable to all employed persons in industry (primary as well as secondary), commerce and in State Government are contained in the Industrial Safety, Health and Welfare Act, 1972-1978. It authorises the making of detailed provisions by regulations for different industries and different processes. The Act is progressively coming into operation for different industries as regulations are prepared. The Construction Safety Regulations, 1974-1977 were the first to be prepared and some of the most recent were the Pesticides (Safe Handling) Regulations, 1979.

At present most of the legislation directed at industrial safety is administered by the Department of Industrial Affairs and Employment, although other authorities hold responsibilities in certain fields.

Department of Industrial Affairs and Employment

The general working conditions in industrial premises (factories, shops, offices and warehouses) are regulated by the Industrial Safety Code Regulations and the Commercial Safety Code Regulations. Inspections are made by Departmental officers to ensure that the requirements of the Safety Regulations with respect to safeguarding of machinery, safety of processes, cleanliness and general working conditions on industrial premises are being observed.

The registration and inspection of steam boilers and other pressure vessels is provided for under the Boilers and Pressure Vessels Act, 1960-1978. The Lifts and Cranes Act, 1960-1978, 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, 1961-1976, and the Liquefied Petroleum Gas Act, 1960-1973, regulate the storage and carriage of these products.

Department of Mines and Energy

Regulations under the Mines and Works Inspection Act, 1920-1978 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 and camps must be maintained in safe condition with specific attention given to ventilation, sanitation, the use of explosives and the protection of the area amenity and environment. All mining operators are required to achieve some form of rehabilitation of areas disturbed by mining. The legislation includes operations conducted by local government authorities and road and rail construction authorities.

Officers of the Department inspect mines and quarries; ensure there is no undue impairment of the environment; check old workings; investigate mining accidents and complaints associated with mining activities and give advice to industry on matters pertaining to mining and explosives.

South Australian Health Commission

Health aspects of industrial safety are the responsibility of the Occupational Health Branch of the Health Commission. The Commission 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. Hazards investigated include chemicals and such physical agents as noise, heat and radiation, including the use of radio-active substances and irradiating apparatus for industrial, scientific, or medical purposes.

Department of Services and Supply (Chemistry Division)

The Explosives Act, 1936-1974 regulates the importation, manufacture, carriage, storage, and sale of explosives. The Chemistry Division is responsible for the maintenance of government magazines and the licensing and inspection of magazines. Vehicles used in the carriage of explosives are also licensed. Commercial explosives entering the State are inspected by the Division.

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 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.

WORKERS COMPENSATION

Legislation

Provisions describing assistance for workers sustaining personal injury out of or in the course of their employment are included in the Workers Compensation Act, 1971-1979. 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, travelling for a medical certificate or medical treatment while on compensation or travelling to seek or receive compensation.

An injury may be physical or mental, including diseases contracted and the aggravation or recurrence of an injury or disease and a 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. For full dependants, compensation will be an amount equal to the sum of the worker's earnings in the six years before the accident plus \$500 for each dependent child, with a minimum of \$8000 and a maximum of \$25 000 (plus \$500 per dependent child), as well as funeral expenses to a maximum of \$500. If the worker 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 the above maxima and minima. Where a worker dies leaving no dependants, compensation covering medical, funeral (\$500 maximum) and other expenses will be paid into the estate.

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 worker 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 worker providing the employer with a medical certificate and his declaration in the correct form stating that he believes himself entitled to compensation. Payments must be made to the worker on his usual pay days.

Provision is made for lump sum payments in lieu of weekly payments. Such payments are arranged by agreement or 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 or hearing loss, or no incapacity for work *e.g.* severe facial scarring.

In addition to other compensation reasonable medical, hospital, nursing, constant attendance, rehabilitation and ambulance expenses are paid and compensation is provided to \$150 for loss or damage to clothing and personal effects and \$300 for loss or damage to tools of trade.

Excluded from the scope of the Act are members of the crews of fishing vessels remunerated by a share in the profits or the gross earnings of the working of such vessels, certain persons who are contestants in sporting or athletic activities, service personnel and Commonwealth Government employees. Compensation for employees of the Commonwealth Government is provided by the *Compensation (Commonwealth Government Employees) Act 1971*.

Workers Compensation Insurance

The Workers 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, and any employer who can satisfy the Minister of Industrial Affairs of his ability to meet all probable claims and who is accordingly issued with a certificate of exemption.

During 1978-79, approximately 64 900 claims were lodged under the Workers Compensation Act, 1971-1974, and compensation payments totalling \$56.4 million were made for wages lost, hospital and medical expenses and lump sum settlements. Further details may be obtained from the bulletin *Industrial Accidents 1978-79* (Catalogue No. 6301.4) published by the South Australian Office of the Australian Bureau of Statistics.

INDUSTRIAL ACCIDENTS

The statistics set out in this section have been compiled from reports of workers compensation claims closed during the year ended 30 June 1979 and of unclosed claims of three years duration at 30 June 1979. Reports are submitted by insurance companies, self-insurers, and State Government departments, through the South Australian Department of Industrial Affairs and Employment.

For the purpose of this collection an 'industrial accident' is defined as a compensated work injury causing the absence of the injured person from work for one week or more but excluding disease cases (for which separate statistics are available) and accidents during journey or recess periods if the victim is not engaged in normal occupational duties. 'One week' is interpreted as one week of seven calendar or five working days.

Although the term 'industrial accident' is used, the statistics represent workers compensation claims finalised during the year ended 30 June 1979. The accidents, to which the claims refer, may have occurred in the year the claim was finalised or during any other year within the coverage of the current collection, *i.e.* within the previous three financial years. For accidents and diseases which occurred during the period 1 July 1975 to 30 June 1976 and for which the claims had still not been finalised by 30 June 1979, estimates of amounts yet to be paid and future time lost are included in the statistics: however, there is evidence that the timely reporting of such unclosed claims is incomplete.

Each original claim has been regarded as a separate accident and although reports have been received of re-opened claims, no details of these have been included in the tables.

Only persons within the coverage of the South Australian Workers Compensation Act, 1971-1979 are included. Notable exclusions are self-employed persons (although following a change in legislation persons supplying labour only in contracts have been included from 1 January 1974) and all Commonwealth Government officers and employees.

The exclusion of self-employed persons is likely to have considerable effect in industries where self-employment is significant (*e.g.* retail trade, rural industries). Because of the exclusion of Commonwealth Government employees, defence services and Government communications industry groups are not covered, while coverage is reduced in other industries (*e.g.* building and construction). Because of the movement of employees across State boundaries some reports received may refer to accidents occurring in States other than South Australia. The number of such reports is thought to be negligible.

Industrial accident statistics are industry classified by use of the 1969 Preliminary Edition of the *Australian Standard Industrial Classification* (ASIC).

**Non-fatal Accidents: Industry Groups, Number, Time Lost and Amount Paid
South Australia, 1978-79**

Industry	Accidents		Time Lost		Amount Paid (a)	
	Number	Percentage Of Total	Total	Average	Total	Average
			Weeks		\$'000	\$
Agriculture, forestry, fishing and hunting	732	6.1	3 884.4	5.3	1 145.2	1 564
Mining	92	0.8	736.8	8.0	266.2	2 893
Manufacturing:						
Food, beverages and tobacco	1 233	10.2	4 677.0	3.8	1 438.0	1 166

**Non-fatal Accidents: Industry Groups, Number, Time Lost and Amount Paid
South Australia, 1978-79 (continued)**

Industry	Accidents		Time Lost		Amount Paid (a)	
	Number	Percentage Of Total	Total	Average	Total	Average
			Weeks		\$'000	\$
Manufacturing (continued):						
Wood, wood products and furniture	293	2.4	1 657.2	5.7	550.9	1 880
Glass, clay and other non-metallic mineral products	276	2.3	2 294.2	8.3	784.6	2 843
Basic metal products ..	583	4.8	4 244.8	7.3	1 595.9	2 737
Fabricated metal products	608	5.0	3 414.4	5.6	1 029.5	1 693
Transport equipment ..	760	6.3	6 910.6	9.1	2 518.3	3 314
Other industrial mach- inery etc., and household appliances	536	4.4	3 543.2	6.6	1 275.1	2 379
Other	576	4.8	3 558.4	6.2	1 198.8	2 081
Total manufacturing	4 865	40.2	30 299.8	6.2	10 391.1	2 136
Electricity, gas and water	364	3.0	3 051.0	8.4	860.9	2 365
Construction	2 034	16.8	15 236.0	7.5	4 829.8	2 375
Wholesale and retail trade	1 519	12.6	7 085.8	4.7	1 972.2	1 298
Transport, storage and communication	771	6.4	4 231.0	5.5	1 140.5	1 479
Finance, insurance, real estate and business ser- vices	133	1.1	909.8	6.8	222.2	1 671
Public administration	173	1.4	908.6	5.3	263.4	1 523
Community services	892	7.4	7 976.2	8.9	2 233.4	2 504
Entertainment, recreation, restaurants, hotels and personal services	518	4.3	3 128.8	6.0	731.5	1 412
Total	12 093	100.0	77 448.2	6.4	24 056.4	1 989

(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.

Non-fatal Accidents: Industry Groups, Accident Factor, South Australia, 1978-79

Industry	Machinery, Vehicles	Falling, Stumbling, Slipping, Stepping On, Etc.	Handling	Objects Moving or	Other(a)	Total
				Falling		
Agriculture, forestry, fish- ing and hunting	168	156	155	39	214	732

Non-fatal Accidents: Industry Groups, Accident Factor, South Australia, 1978-79
(continued)

Industry	Machinery, Vehicles	Falling, Stumbling, Slipping, Stepping On, Etc.	Handling	Objects Moving or Falling		Total
				Falling	Other(a)	
Mining	25	22	20	9	16	92
Manufacturing	745	1 018	1 668	506	928	4 865
Electricity, gas and water	35	113	117	24	75	364
Construction	207	588	618	223	398	2 034
Wholesale and retail trade	150	388	536	125	320	1 519
Transport, storage and communication	136	235	214	79	107	771
Finance, insurance, real estate and business services	14	46	40	6	27	133
Public administration	19	54	56	13	31	173
Community services	58	278	315	40	201	892
Entertainment, recreation, restaurants, hotels and personal services	33	167	143	31	144	518
Total	1 590	3 065	3 882	1 095	2 461	12 093

(a) Includes electricity, explosions, hand tools, harmful substances etc.

The following table indicates the distribution of non-fatal accidents for 1978-79 by nature and location of injury.

Non-fatal Accidents: Nature and Location of Injury, South Australia, 1978-79

Nature of Injury	Head (Including Eye)	Neck and Spine	Trunk	Arm and Hand	Leg and Foot	Total (Including Other)
Lacerations	125	—	16	1 657	309	2 107
Foreign bodies	186	—	3	—	—	189
Burns and scalds	94	5	25	158	134	416
Fractures	29	36	94	580	397	1 136
Dislocations	—	85	7	40	14	146
Sprains, strains, hernias ...	—	613	3 130	1 146	1 096	5 986
Traumatic amputations ...	—	—	—	69	3	72
Concussion	93	—	—	—	—	93
Eucleation	—	—	—	—	—	—
Internal injury	—	—	13	—	—	13
Nerve injury	7	13	14	54	7	95
Other and unspecified	3	—	2	4	3	57
Total	617	790	3 642	4 319	2 679	12 093

Industrial Diseases

The International Labour Office distinguishes an occupational disease from a work injury in that it exhibits one or more of the following characteristics:

- (1) the slow and protracted nature of its cause;
- (2) its ascribability to repeated or 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;
- (3) indeterminateness of the time of its beginning due to its slow and insidious development;
- (4) 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 movement of a joint are treated as a disease.

Non-fatal Diseases: Number, Time Lost and Amount Paid, South Australia, 1978-79

Diseases	Number		Time Lost		Amount Paid	
	Males	Females	Males	Females	Males	Females
			Weeks		\$'000	
Infective and parasitic diseases	66	21	511.8	101.2	103.3	15.4
Diseases of the nervous system and sense organs	20	12	309.8	203.8	83.6	35.1
Diseases of the circulatory system:						
Arteriosclerosis and degenerative heart disease	15	1	512.0	116.8	107.5	10.1
Other	3	2	219.2	13.0	51.4	3.8
Diseases of respiratory system	7	1	351.6	3.6	92.2	0.4
Diseases of skin and cellular tissue:						
Occupational dermatitis	83	30	846.6	273.8	308.8	111.2
Other	25	3	349.0	35.4	137.1	7.9
Diseases of bone and organs of movement	63	31	722.4	600.2	201.8	178.2
Other	13	2	416.2	160.4	83.0	3.0
Total	295	103	4 238.6	1 508.2	1 168.7	365.1

Fatal Events

Problems of inadequate reporting are still evident in respect of fatal events. Recently investigations have been undertaken and a variety of sources of information examined. From these studies, a number of fatal events have been identified, but it is likely that not all those within the scope of the Workers Compensation Act have been counted. However, it is believed that most fatalities (particularly accident cases) which occurred during the period 1 July 1975 to 30 June 1979 have probably been isolated. The numbers, by year of occurrence (as distinct from year in which the claim was closed), are shown below and may be revised if additional cases come to notice.

Workers Compensation Claims: Fatal Events, South Australia

Year of Occurrence	Fatal Accidents	Fatal Diseases	Total Fatal Events
1975-76	16	16	32
1976-77	15	9	24
1977-78	9	6	15
1978-79	17	5	22

Further References

Additional information may be found in the bulletin *Industrial Accidents* (Catalogue No. 6301.4) published by the South Australian Office of the Australian Bureau of Statistics.

PART 8

PHYSICAL DEVELOPMENT

8.1 WATER SUPPLY AND SEWERAGE

WATER SUPPLY

Water conservation is of vital importance to South Australia as 96 per cent of the State receives less than 500 millimetres of rain a year, while high temperatures encourage a higher use of water and a high rate of evaporation causes heavy losses from reservoirs.

The Waterworks Act, 1932-1978 gives the Minister of Water Resources 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.

In 1973, the State Government announced its new water resources management policy. This statement embraced the same important principles contained in a document *Proposed National Approach to Water Resources Management*, being developed under the auspices of the Australian Water Resources Council and adopted by the Commonwealth and State Governments in 1976.

With the Water Resources Act coming into effect on 1 July 1976, the Control of Waters Act and Underground Preservation Act were repealed.

The Water Resources Act provides for the assessment, conservation, development

and management of the water resources of the State by the Minister of Water Resources and for the control and management of their utilisation, quality and other purposes.

Its provisions include the establishment of a South Australian Water Resources Council, Regional Water Resources Advisory Committees, the Water Resources Appeal Tribunal and a Well Drillers' Examination Committee. Six Regional Water Resources Advisory Committees, River Murray, Padthaway, Northern Adelaide Plains, Arid Areas, North Para and Angus-Bremer have been established.

The Water Conservation Act, 1936-1975 provides for the control of small reservoirs, bores, tanks etc. established in remote areas as emergency water supplies or to assist local development.

The following table gives details of water supplies in South Australia at 30 June for the three years to 1980.

Water Supplies, South Australia

At 30 June	Aggregate Capacity		
	1978	1979	1980
		Megalitres	
Adelaide Metropolitan reservoirs	188 680	209 440	208 840
Country reservoirs	34 310	34 310	34 290

It should be noted that storage includes service reservoirs, and that both natural and River Murray water are stored in Northern and Metropolitan Reservoirs. Capacities of Little Para Reservoir and Baroota Reservoir have been re-assessed owing to spillway modifications. The total length of water mains at 30 June 1980 was 22 869 kilometres.

Water Filtration

Adelaide's first Water Filtration Plant at Hope Valley began supplying filtered water to the Metropolitan Distribution System in November 1977. Since then, another plant at Anstey Hill has been commissioned and construction work has continued on both the Barossa and Little Para Water Filtration Plants.

DISTRIBUTION OF WATER RESOURCES

Drainage Systems

In agreement with the States, the Australian Water Resources Council has divided Australia into twelve surface water drainage divisions. The divisions which constitute major surface water resources for South Australia are the South Australian Gulf Drainage Division which lies wholly within the State and in which are located all important State reservoirs, and the Murray-Darling Division, of which only a part is located in South Australia, and the waters of which are allocated between this State, Victoria, and New South Wales in accordance with the terms of the River Murray Waters Agreement (see pages 347-9).

Part of the large Lake Eyre Drainage Division covers the northern and eastern areas of the State, but, although streams in the area may flood extensively on occasions, they are generally unreliable and significant only to the local pastoral industry. The section of the South-East Coast Drainage Division which intrudes into the south-east corner of South Australia has no good dam sites but a high rainfall in the area provides a good underground water resource of considerable importance to the State. Underground

resources on the seaward edge of the Western Plateau Division, which covers the south-western part of the State, are recharged also from local rainfall.

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, so that in all, the Division covers the whole perimeter of the South Australian gulfs. The individual river basins in this Division are all very small.

Most of the South Australian reservoirs are situated in this Division as can be seen from the map on page 340. The Little Para Dam, constructed on the Little Para River north of Adelaide at a cost of \$11 million, began service in January 1979. The capacity of this reservoir is 20 800 megalitres and the waterspread is 150 hectares. The following table shows the capacity, area at full supply level and the catchment area of the eleven largest reservoirs at 30 June 1980.

Major Reservoirs, South Australia, At 30 June 1980

Reservoir	Capacity	Area at Full Supply Level	Catchment Area
	Megalitres	Hectares	km ²
South Para	51 300	444	228
Mount Bold	47 300	308	388
Myponga	26 800	280	124
Kangaroo Creek	24 400	121	289
Little Para Dam	20 800	150	83
Millbrook	16 500	178	233
Happy Valley	12 700	188	451
Tod River	11 300	134	196
Bundaleer	6 370	85	1 671
Baroota	6 120	63	136
Warren	4 760	100	119

Rainfall in excess of 750 millimetres a year occurs only on a very small area in the Mount Lofty Ranges, while in the north-west of the Division the annual average is less than 150 millimetres. In the southern parts of the Division, average precipitation generally exceeds potential evaporation only from May to August, and over most of the Division monthly evaporation rates exceed rainfall throughout the year.

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.

After the major dam sites in the Mount Lofty Ranges had been developed because of the small size of the individual catchments in the Division, and the relatively low run-off and its high variability, it was found more economical to provide additional water to Adelaide and other high demand centres *via* pipelines from the River Murray. However, as demand continues to rise and problems with the quality of the River Murray water increase, attention is being re-directed to further development of streams within the Division.

The present average annual extraction of water by the Engineering and Water Supply Department from the Gulf Drainage Division is about 120 000 megalitres; private diversion may take a further 13 000 megalitres.

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 347-9), South Australia is entitled to 1 850 000 megalitres of water annually, subject to the declaration of restriction by the River Murray Commission. Losses by evaporation and seepage account for about 1 150 000 megalitres per annum. Over the past ten years, irrigation diversions have averaged 385 000 megalitres per annum and town, domestic, industrial and stock supplies have averaged 106 000 megalitres per annum. Town, domestic, industrial and stock supplies have been as high as 234 000 megalitres per annum.

Adelaide metropolitan water supplies are supplemented by River Murray water through the Mannum-Adelaide and Murray Bridge-Onkaparinga pipelines. The Morgan-Whyalla, Swan Reach-Stockwell and Taillem Bend-Keith pipelines provide the water supply for extensive country areas or augment local resources in these areas. The first water pumped through the Mannum-Adelaide Pipeline reached the metropolitan system in 1954. The water is drawn from the River at Mannum nearly 67 kilometres in a direct line from Adelaide, and is raised by three pumping stations a total of 457 metres to a 137 megalitre summit storage near Tungkillo. At first the water flowed into the Torrens and Onkaparinga Rivers and hence into the metropolitan system; later the pipeline was extended to a terminal storage near Modbury. The Mannum-Adelaide Pipeline is also connected to the Warren Reservoir on the South Para River and branches serve many country areas *en route*.

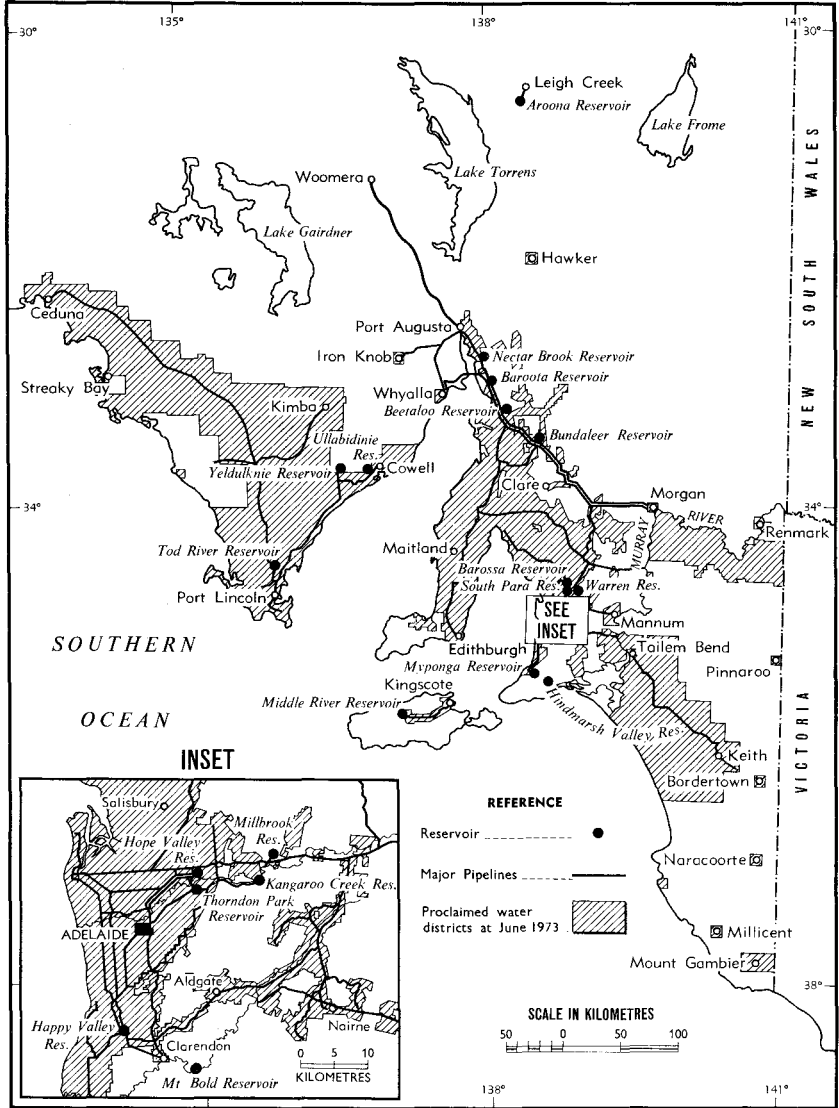
A second large pipeline to augment the metropolitan supply was completed in 1973. The pipeline extends for 48 kilometres from the River Murray near Murray Bridge to the River Onkaparinga near Hahndorf, and the water is distributed through the reservoirs on the latter stream. Three pumping stations lift the water 418 metres over the first 40 kilometres of the pipeline to a summit storage from which an 8-kilometre gravity section of the line discharges into the Onkaparinga. A branch main supplies the town of Murray Bridge and other branch mains supply areas in the Mount Lofty Ranges.

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. A 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.

PHYSICAL DEVELOPMENT

PORTION OF SOUTH AUSTRALIA
WATER SUPPLIES



Other Water Resources

Eyre Peninsula

Eyre Peninsula has no perennially flowing streams with the Tod River the only stream that can be relied upon in normal years to provide some flow of water. Underground basins, mainly in the southern portion of Eyre Peninsula provide most of the water supplies. Port Lincoln is supplied entirely with underground water available at shallow depth in the Lincoln Basin and Uley South Basin. The Uley-Wanilla Basin supplies Cleve and Cowell *via* the East Coast Main and also supplements the natural intake of the Tod Reservoir which was built in 1922 on a tributary of the Tod River.

A trunk main, 384 kilometres in length, from the Tod Reservoir to Ceduna and Thevenard was laid between 1923 and 1926 and a program of replacement and enlargement was completed in 1974. A 106-kilometre trunk main from Lock on the Tod Trunk Main supplies water to Kimba and intervening farmlands. This supply is augmented with water from the Polda underground basin.

South East

The hydrology of the South East covers a complex of surface and underground waters with up to 80 per cent of all water used derived from underground aquifers. The productivity of large areas of land has been greatly improved by the construction of a large drainage network as discussed on pages 348-9.

Eight Mile Creek to the east of Port MacDonnell carries a permanent natural overflow from the springs of the Ewen Ponds area and discharges 68 000 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 up to 650 000 megalitres could be used annually from the underground water resources of the region.

Other Underground Supplies

Many other areas of the State are dependent on underground supplies, particularly for stock drinking water. The aquifers of the North Adelaide Plains provide the major source of water for market gardens and related irrigation, but the demand level of 21 000 megalitres has been found to be beyond the permanent capability of the area. Usage is subject to Government control, and investigations on means of prolonging the life of the aquifers are in progress. Further discussion on underground water appears on pages 24-5.

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 1975-76 to 1979-80.

Adelaide Metropolitan Waterworks, South Australia

Particulars (a)	1975-76	1976-77	1977-78	1978-79	1979-80
Length of mains (kilometres)	7 049	7 268	7 470	7 555	7 630
Number of services	293 644	302 817	308 728	313 410	317 597
Revenue:					
Rates and excess water	28 771	33 602	38 462	43 960	47 045
Other	187	469	281	336	294
Total	28 957	34 071	38 743	44 296	47 339

Adelaide Metropolitan Waterworks, South Australia (continued)

Particulars (a)	1975-76	1976-77	1977-78	1978-79	1979-80
	\$'000				
Expenditure:					
Working expenses	15 295	20 842	25 960	24 673	26 300
Interest	10 279	12 004	14 632	15 750	17 594
Total	25 575	32 846	40 592	40 423	43 894
Surplus	3 383	1 225	-1 849	3 873	3 445

(a) Includes particulars relating to near country areas supplied by extensions of the Metropolitan distribution system.

Water Consumption

The following table gives details of water used during the year and storage capacity of major reservoirs at the end of the year for metropolitan and country districts for the years 1976-77 to 1979-80. The quantity of water pumped from the River Murray through the major pipelines is also shown.

Water Storage and Consumption, South Australia

Particulars	1976-77	1977-78	1978-79	1979-80
	Megalitres			
Capacity of major storages (at end of year):				
Adelaide metropolitan water supply (a)	188 680	188 680	209 440	208 840
Country water supply	34 860	34 860	34 860	34 290
Water consumption:				
Adelaide metropolitan water supply (b)	175 645	191 640	164 925	170 508
Country water supply (c)	84 192	86 946	80 322	80 322
Pumped from River Murray:				
Mannum-Adelaide Pipeline	78 602	91 179	50 568	42 215
Murray Bridge-Onkaparinga Pipeline	68 354	76 367	23 746	17 066
Morgan-Whyalla Pipeline	29 229	32 465	17 884	20 290
Other supply systems	24 220	29 123	14 533	17 603

(a) Includes storages on the Mannum-Adelaide and Murray Bridge-Onkaparinga Pipelines.

(b) Consumption within the Adelaide Statistical Division.

(c) Includes consumption in various areas outside of the Adelaide Statistical Division supplied from the Metropolitan distribution system.

WATER RATES AND CHARGES

Water rates are levied on all properties served from or abutting a water main except where specific exemption from rating applies or the property is in an area not subject to rating.

Amounts payable by individual ratepayers are determined by a base water rate on the annual value of a property and a water rate per kilolitre. Payment of the base rate on property permits use of a water allowance which is determined by dividing the sum involved by the water rate per kilolitre. Water used in excess of the allowance is charged at the rate per kilolitre.

Valuation equalisation was introduced in Metropolitan and Country Water Districts from 1 July 1975. This system provides for a more even distribution of rates and

properties of equal market value pay approximately the same base water rates irrespective of location or year of valuation. A minimum charge of \$36 is applicable.

In Country Lands Water District (farm lands) the current base water rate is 40 cents for each hectare located within 1.6 kilometres of a main. A minimum charge of \$36 is applicable.

The current water rate per kilolitre applicable in City, Township and Country Lands Water District is 24 cents per kilolitre. Where water is supplied to properties outside of proclaimed water districts or otherwise beyond ratable limits it is supplied by measure at the ruling rate per kilolitre.

Approved churches, charitable institutions and schools are exempted from payment of water rates on annual values and water is supplied to them by measure at concessional prices. A remission of up to 60 per cent of water rates, with a maximum of \$75 a year, is provided to eligible pensioners.

Services from mains to property boundaries are installed and maintained by the Engineering and Water Supply Department. Connection fees are uniform throughout the State and are currently \$100 for a 20 millimetre service and \$150 for a 25 millimetre service with commensurately higher fees for larger services.

SEWERAGE

ADMINISTRATION

Sewerage of cities and towns in South Australia is undertaken by the State Government under the authority of the Sewerage Act, 1929-1977. The Act is administered by the Engineering and Water Supply Department for the Minister of Water Resources and provides for water borne 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 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, 1934-1979 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 sewerage 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 proclaimed Adelaide Drainage Area at 30 June 1980 served an estimated population of 919 075 persons and covered 674 square kilometres of the Adelaide Plains between Darlington and Smithfield, the area between Port Noarlunga and Aberfoyle Park and portion of the Blackwood and 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 was put into service.

The Christies Beach Treatment Works began operating in August 1971, and will eventually serve the whole of the area between Coromandel Valley 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 large number of common effluent drainage systems have been installed in fringe areas by local government authorities and most of these have been, or are planned to be, connected to the sewerage systems. A charge for each house connected is levied against local government authorities whose common effluent drainage systems discharge to sewer mains. Property owners pay an annual rate for the service to the local government authority concerned.

The following table shows details of metropolitan sewers for the last five years.

Metropolitan Sewers, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Adelaide Drainage Area (km ²)	662	666	674	682	683
Length of sewers (km)	4 538	4 718	4 887	4 978	5 045
Number of connections	309 781	320 456	324 366	327 582	332 246
	\$'000				
Revenue:					
Rates	20 503	23 572	24 734	29 952	33 645
Other	81	148	590	465	421
Total	20 584	23 720	25 324	30 417	34 066
Expenditure:					
Working expenses	11 008	13 575	16 626	17 639	18 453
Interest	7 298	9 118	10 509	11 867	13 163
Total	18 306	22 693	27 135	29 506	31 616
Surplus	2 278	1 027	-1 811	911	2 450

COUNTRY SEWERAGE

At 30 June 1980 the drainage areas of country sewerage schemes constructed and operated by the Engineering and Water Supply Department totalled 137 square kilometres; the length of sewers laid was 828 kilometres and the number of connections totalled 36 964. Sewerage schemes are located at Angaston, Balhannah, Gawler, Gumeracha, Hahndorf, Lobethal, Mannum, Millicent, Mount Gambier, Murray Bridge, Myponga, Naracoorte, Oakbank, Port Augusta, Port Lincoln, Port Pirie, Stirling, Victor Harbor and Whyalla.

Construction of the Oakbank, Port Pirie, Port Augusta, Stirling and Victor Harbor sewerage systems is still in progress. In 1979-80, 29 kilometres of sewers and 1 647 new connections were laid in country drainage areas. In addition, the Engineering and Water Supply Department has constructed schemes at Mount Burr and Nangwarry townships for the Woods and Forests Department and numerous schemes to serve country hospitals, institutions etc., operated by other authorities.

Common effluent drainage schemes have been installed by local government authorities at Barmera, Berri, Birdwood, Bordertown, Burra, Clare, Cleve, Cobdogla, Crystal Brook, Cummins, Eudunda, Goolwa, Jamestown, Kadina, Kapunda, Kingscote, Lameeroo, Lock, Loxton, Lyndoch, Maitland, McLaren Vale, Meningie, Mount Barker, Mount Pleasant, Mount Torrens, Nuriootpa, Parndana, Penola, Pinnaroo, Renmark,

Riverton, Saddleworth, Tanunda, Tintinara, Waikerie, Wallaroo, Williamstown, Willunga, Woodside, and portion of Ardrossan, Port Augusta, Port Wakefield and Streaky Bay.

In addition to local authorities installing township schemes, the South Australian Housing Trust has provided Housing Trust home areas with small schemes. These have been installed at Quorn, Echunga and Kingscote. The small schemes at Kingscote and Wallaroo have now been incorporated in their respective township schemes.

The Australian National railways has provided schemes for settlements in the areas of Stirling North, Hesso and Pimba while the Department of Aboriginal Affairs has provided schemes at Point McLeay, Point Pearce, Nepabunna, Ernabella, Amata and Davenport Aboriginal reserves.

Construction of systems is currently being carried out at Ceduna and Kimba.

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 \$50 and \$75 for 100-millimetre and 150-millimetre sizes respectively.

Sewer rates are levied on properties connected to or abutting a sewer, with a minimum annual charge of \$36. Valuation equalisation, as applicable to water rating, applies also to sewer rating. A marginally higher rate is charged in country areas. A remission of up to 60 per cent of sewer rates to a maximum of \$75 is provided to eligible pensioners.

Rates levied by local government authorities on properties connected to common effluent schemes are usually proportionate to the costs and interest charges involved in the schemes.

STATE WATER LABORATORIES

The Engineering and Water Supply Department has the responsibility to control pollution of the State's water resources, to maintain public water supplies at an acceptable quality and to operate sewerage systems. For this purpose, the Department maintains the State Water Laboratories at Bolivar, where a staff of chemists, biologists and other scientists and technical personnel examine over 55 000 samples of water, effluent and industrial wastes each year. A more detailed discussion on these laboratories was included on pages 369-71 of the *South Australian Year Book* 1975.

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, but from 30 June 1978, the authority has been transferred to the Minister of Water Resources with the Engineering and Water Supply Department being the responsible administrative department. 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 1978-79, 373 700 megalitres of water were diverted from the River Murray in South Australia for irrigation purposes.

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, either on a measurement basis where meters have been installed, or on an hourly basis where channels are still utilised. The Renmark Irrigation Trust also supplies water on a volume basis to landholders in its district.

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 370 hectares at Mypolonga used for horticultural crops.

Irrigation Areas, South Australia

Area Irrigated	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
	Hectares					
Government controlled:						
War Service schemes						
(1939-45 War)	3 253	3 236	3 281	3 274	3 267	3 260
Other	12 850	12 722	12 600	12 454	12 474	12 493
Non-government:						
Trusts, boards and association						
areas	7 875	7 875	7 875	7 875	7 875	7 875
Private schemes	18 875	18 875	18 875	18 875	18 875	18 875

Further details of the 15 753 hectares irrigated in Government-controlled schemes in the year 1978-79 are shown in the next table.

Government Controlled Irrigation Areas: South Australia, 1978-79

Area Irrigated	Highland Areas		Reclaimed Areas	Total
	Surface Reticulation	Spray Irrigation		
	Hectares			
War Service schemes (1939-45 War)	1 416	1 844	—	3 260
Other	7 130	1 800	3 563	12 493
Total	8 546	3 644	3 563	15 753

THE RIVER MURRAY AGREEMENT

The *River Murray Waters Act* 1915 ratified an agreement between the Commonwealth 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. South Australia is responsible also for the control and operation of Lake Victoria storage and the section of the River Murray downstream of its inlet channel. This section of the river contains three locks. 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 Commonwealth, New South Wales and Victorian Parliaments in 1970 and an Act ratifying the agreement was passed in the South Australian Parliament in August 1971. In June 1974 the River Murray Commission accepted a tender for the construction of the Dartmouth Dam and appurtenant works. Fourteen million cubic metres of earth and rockfill material comprised the main embankment. The river diversion tunnel was plugged on 3 November 1977 and filling commenced at that time. The Dam was subsequently completed on 9 November 1979. South Australia's annual entitlement was increased from 1 550 to 1 850 gugalitres in accordance with the River Murray Waters Agreement.

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, drainage schemes have been constructed 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 District Council from funds provided by the State Government.

Following this early success the Government undertook the construction of further drains during the next ninety 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 request from landholders who agreed to repay the full cost to the Government over a period of forty-two years; *Scheme Act Drains* commenced in 1908, provided for the Government and the landholders to share the cost, the landholders share being repayable over forty-two years. After the Scheme Act Drains had been completed it was found that the cost exceeded the benefit derived, and subsequently, following a royal commission, the landholders' liability was reduced.

The passing of the South-Eastern Drainage Act Amendment Act, 1948 marked a new stage in the development of south-eastern drainage. Previously attention had been devoted to the construction of a system of drains removing large quantities of water from general areas and providing above all for the rapid removal of floodwaters. By 1948, 700 kilometres of drains had been constructed at a capital cost of \$1 441 752. However, in 1948, with the establishment of the Western Division Drainage Scheme, emphasis was placed on a complete drainage program as achieved by the earlier Millicent scheme. The Western Division Drainage Scheme, which aimed at the comprehensive drainage of 160 000 hectares of land between the Millicent and Kingston districts, has now been completed. In 1960 the Eastern Division Drainage Scheme, for the drainage of 300 000 hectares of flats lying between Kalangadoo and 65 kilometres north of Lucindale, was commenced and construction on this scheme was completed in November 1969, with some added minor work being undertaken in 1970 and 1972.

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 of existing drainage construction.

The Act was revised and substantially amended in June 1980. Drainage rates were abolished and drainage schemes in the area are now funded by the State Government. The Board's authority was also expanded to enable it to participate in water conservation and utilisation programs, including water diversions, restoration of wetlands, and the construction of weirs.

At 30 June 1980 approximately 1 450 kilometres of drains (excluding the Millicent scheme) had been constructed at a capital cost of \$19 222 000. These drains vary considerably in size from only a few metres to over 60 metres bottom width.

The Board now also maintains the Eight Mile Creek Drainage Scheme which is located 35 kilometres south of Mount Gambier near Port MacDonnell. Fifty kilometres of drains

remove excess spring and rain water from 16 660 hectares of peat land on which 32 dairy properties are situated.

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 700 bridges and other structures along the system.

The system is administered by the South-Eastern Drainage Board under the South-Eastern Drainage Act, 1931-1980.

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 government authorities who primarily are responsible for construction and maintenance works within their respective areas. However, there is provision in the Highways Act for the Commissioner of Highways to construct, reconstruct, and maintain important roads after due notice has been given, and in practice most of the roads carrying heavy traffic are constructed and maintained by the Highways Department. In areas outside the control of local government authorities roads are vested in the Minister of Local Government under the control and management of the Commissioner of Highways.

The National Association of Australian State Road Authorities (NAASRA) has defined a nine-level classification system which is used jointly by the Highways Department and the Bureau of Transport Economics for planning purposes. The Commonwealth Department of Transport has adopted a six-level system of road classification, based generally on the NAASRA system, for funding purposes.

The latter classification is used in the following table to show the length of roads, customarily used by the public, according to type of surface at 30 June 1980.

**Length of Roads: Type of Surface, South Australia
At 30 June 1980**

Class of Road	Type of Surface		Total
	Sealed	Unsealed	
Kilometres			
National roads (a):			
National highways (b)	1 663	935	2 598
Arterial roads (c):			
Rural	7 904	2 029	9 933
Urban	888	12	900
Local roads (d):			
Rural	3 268	77 760	81 028
Urban	4 617	1 457	6 074
Total	18 340	82 193	100 533

(a) Roads declared by the Commonwealth Minister for Transport to be national highways or commercial roads under the provisions of the *States Grants (Roads) Act 1977*.

(b) Selected roads linking Adelaide with other State capital cities including Darwin and Canberra.

(c) Roads declared by the Commonwealth Minister for Transport to be arterial roads under the provisions of the *States Grants (Roads) Act 1977*.

(d) Roads not included in above categories.

In closely settled areas, particularly in the metropolitan area and country towns, most roads are surfaced with bituminous concrete or by bituminous penetration of a macadam base. In rural districts where traffic is light, roads may be formed of natural materials or be only lightly gravelled but the more important country roads are constructed of gravel or crushed rock and are improved as traffic warrants, by the addition of a bituminous seal.

A continuous program of road improvement is carried out by reconstructing and widening arterial roads in the metropolitan area and the reconstruction, construction and sealing of important rural roads. Extensive road construction is carried out also in new housing development areas.

Ferry services across the River Murray are provided on a free and continuous basis and are under the control and management of the Commissioner of Highways. The Commissioner also operates a free ferry across Cooper Creek, on the Birdsville Track in the far north of the State, when the Creek is in flood.

ROAD FINANCE

For South Australia, the main sources of funds for road works in 1979-80 were:

- (1) the net proceeds of fees imposed by the State Government for the registration of motor vehicles and the licensing of drivers;
- (2) road charges received pursuant to the Road Maintenance (Contribution) Act;
- (3) the net collections from motor fuel licence fees levied pursuant to the Business Franchise (Petroleum Products) Act;
- (4) Commonwealth Government grants to the State pursuant to the *States Grants (Roads) Act 1977* and *Transport Planning and Research (Financial Assistance) Act 1977*; and
- (5) property rates and other levies imposed by municipal and district Councils.

Funds received from the first four sources were expended by the Commissioner of Highways on works authorised by the Minister of Transport. The Highways Act provides for fees received for vehicle registrations and drivers licences, less cost of collection, to be credited to the Highways Fund. The Fund is credited also with interest on and repayments of advances made to local government authorities for roadworks and for the purchase of machinery; special contributions from the State Transport Authority under the Highways Act; contributions from local government authorities towards the cost of lighting roads; licence fees collected under the Hawkers Act, 1934-1960; and other minor sundry receipts. The net receipts under the Business Franchise (Petroleum Products) Act are credited to the Highways Fund.

The Business Franchise (Petroleum Products) Act was introduced from 1 October 1979 to replace road maintenance charges by a business franchise fuel licensing system. Associated with the introduction of this legislation was a reduction in fees levied for motor vehicle registrations.

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. Approximate expenditure by State and local government authorities during each of the past five years was: 1975-76, \$90 million; 1976-77, \$105 million; 1977-78, \$114 million; 1978-79, \$126 million; and 1979-80, \$140 million. These figures include the cost of land purchased for new roads and for road widening and charges for depreciation of plant and machinery. 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, 1966-1978, which requires persons and authorities who subdivide land for housing to provide roads to certain specifications.

The following table shows Highways Department receipts and payments for the years 1976-77 to 1979-80.

Highways Department: South Australia, Receipts and Payments

Particulars	1976-77	1977-78	1978-79	1979-80
RECEIPTS (\$'000)				
Motor vehicle registrations, licences, fees, fines, etc.	40 081	39 848	42 352	35 339
Road maintenance charges	4 716	4 825	4 812	1 077
Business Franchise (Petroleum Products) licence fees	—	—	—	14 158
Commonwealth Government grants	39 359	40 749	43 442	46 791
Repayments of, and interest on, advances to local authorities	198	141	164	769
Other	484	881	1 526	664
Total	84 838	86 444	92 296	98 798
PAYMENTS (\$'000)				
Construction and reconstruction of roads, bridges, etc.	53 008	47 607	54 385	53 325
Maintenance of roads, bridges, etc.	19 998	21 750	24 430	26 932
Interest, debt redemption, etc.	770	806	808	809
Advances to local authorities	26	59	51	64
Net purchases of land, buildings, plant, equipment, materials, etc.	2 988	3 805	2 088	2 201
Other (a)	8 826	11 333	12 816	14 654
Total	85 616	85 360	94 578	97 985

(a) This includes provision for leave and plant overhauls which may be a negative figure in some years.

Commonwealth Government Road Grants

Road grants by the Commonwealth Government have been made to the States since 1923-24. The road grant arrangements for 1979-80 are contained in the *States Grants (Roads) Act 1977*. This Act provides financial assistance to the States for road works by way of non-repayable Section 96 grants for the three year period 1977-78 to 1979-80.

The road grant arrangements were initially determined by the Commonwealth Government after consideration of the former Commonwealth Bureau of Roads 'Report on Roads in Australia 1975'. In this report, the Bureau set out its assessment of the most appropriate road expenditure programs in each State for the years 1977-78 to 1980-81, and made recommendations regarding the level and distribution of Commonwealth Government road grants.

Although the Commonwealth Government was guided to a considerable extent by the program laid down in the Bureau report, the road grants program adopted differed significantly from that recommended by the Bureau. The Commonwealth Government decided that \$475 million would be made available to the States in 1977-78. The allocation to South Australia for 1977-78 was \$40.4 million or 8.5 per cent of the total States' allocation. The Commonwealth Government also gave an undertaking that it would increase the road grants to each State in 1978-79 and 1979-80 to maintain the real value at a level equivalent to that provided in 1977-78. Subsequently, the Commonwealth Government gave effect to this undertaking by increasing in 1978-79 the total grant payable to each State by 6.94 per cent and in 1979-80 by 7.5 per cent.

Under the *States Grants (Roads) Act 1977* the Commonwealth Government allocated grants to national roads and to roads other than national roads. The total 1979-80 allocation for national roads to all States was \$223.48 million. The allocation to South Australia was \$20.921 million or 9.4 per cent of the total States' allocation. The grants for national roads are provided to meet the approved construction and maintenance costs of declared national highways, including in South Australia the principal road links connecting Adelaide to Melbourne, Adelaide to Perth and Adelaide to Darwin. In addition, national road grants are provided to meet the approved construction costs of declared national commerce roads. National commerce roads are roads which facilitate or aid the development of trade or commerce with other countries or among the States.

For roads other than national roads the total 1979-80 Commonwealth Government grant allocation to all States was \$322.52 million. The allocation to South Australia was \$25.518 million or 7.9 per cent of the total States' allocation. These grants are provided for approved expenditures on rural arterial roads, rural local roads, minor traffic engineering and road safety improvements with respect to roads, urban arterial roads and urban local roads.

Under the *States Grants (Roads) Act 1977*, the Commonwealth Government also stipulated that, as a condition to the receipt of road grants, each State should meet from its own resources minimum annual road expenditure quotas. The 1979-80 quota for South Australia was \$42.761 million.

The following table shows Commonwealth Government road grant allocations and quotas for South Australia over the three year period 1977-78 to 1979-80.

Commonwealth Government Road Grants and Quotas: South Australia

Particulars	1977-78	1978-79	1979-80
			\$'000
National roads:			
National highways construction	15 000	16 133	17 340
National highways maintenance	1 900	2 032	2 184
National commerce construction	1 300	700	1 397
Total national roads	18 200	18 865	20 921
Roads other than national roads:			
Rural arterial construction	7 000	8 086	8 046
Rural local construction and maintenance ...	6 700	7 165	7 701
Milers (a)	1 700	1 818	1 954
Urban arterial construction	4 600	4 920	5 288
Urban local construction	2 200	2 353	2 529
Total other roads	22 200	24 342	25 518
Total roads	40 400	43 207	46 439
Quota (b)	37 200	39 785	42 761

(a) Minor traffic engineering and road safety improvements.

(b) To be met from State sources.

In addition to grants for the construction and maintenance of roads, the Commonwealth Government provides grants to the States for planning and research projects associated with transport by land of persons, or freight, or persons and freight. The grants for 1979-80 are contained in the *Transport Planning and Research (Financial*

Assistance) Act 1977. In 1977-78 the grants were provided to meet two-thirds of expenditure on approved programs of projects by the States, and in subsequent years for one-half of such expenditure. The total 1977-78 grant allocation to all States was \$8·924 million. The allocation to South Australia was \$698 000 or 7·8 per cent of the total States allocation. In 1978-79 the allocation to South Australia was \$469 000 and in 1979-80, \$504 000. Only a portion of the total Transport Planning and Research grant is spent on road related works. In 1977-78 the amount spent on road related works was \$292 000; in 1978-79, \$234 500; and in 1979-80, \$352 000.

ROADS ASSESSMENT

In June 1977 the Commonwealth Bureau of Roads and the Bureau of Transport Economics (established in 1970) were amalgamated to form a new Bureau of Transport Economics. The duties of this new body include evaluations of the Australian road situation, and the provision of advice and assistance to the Commonwealth Government in its consideration of financial assistance to the States for roads and road transport.

Pursuant to the above general road advisory functions, in September 1978 the Commonwealth Minister for Transport asked the Bureau to prepare a report on various aspects of road expenditure for the period 1974-75 to 1982-83. Earlier reports had been produced by the Commonwealth Bureau of Roads in 1969, 1973 and 1975.

The results of a number of special studies were drawn on, in the preparation of the Bureau report, and these included the 'Australian Road Survey 1977 Update' which was undertaken jointly by the National Association of Australian State Road Authorities and the Bureau of Transport Economics.

The Bureau completed its report 'An Assessment of the Australian Road System: 1979' in May 1979. The report differed from the previous Commonwealth Bureau of Roads reports. In particular, it did not make specific total funding recommendation, and it did not suggest what should be the future levels of Commonwealth, State and local government funding of road expenditure. However, the report did compare total road funding options on the basis of relative economic efficiency, for the period 1979-80 to 1982-83, and it also compared recent road expenditure levels and patterns to those assessed as economically warranted in previous road assessment studies. The results of the report will be taken into consideration, when the Commonwealth Government formulates the next roads grants legislation which will cover the period 1980-81 to 1984-85.

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.

One outcome of the Breuning Report was the appointment of a Director-General of Transport to advise the Minister on transport policy. In 1973 the Director-General submitted a report to the Minister, entitled *Public Transport in Metropolitan Adelaide*. The report contained a program of improvements to urban public transport ranging from specific projects to be executed in the near future to a broad program for up to thirty years in the future. A further report *Transport Policy and Planning in South Australia* was completed in December 1975. This report contained a review of progress in

transport policy and planning in South Australia. Its scope was limited to matters which have been of direct concern to the Director-General of Transport.

In 1976 the Department of Transport and the Highways Department jointly commissioned the Metropolitan Adelaide Data Base Study. The objectives of the study were the collection and assembly of up-to-date data sets describing current travel characteristics within Metropolitan Adelaide, and the development of a range of analytical models and procedures to enable the quantitative aspects of future transport planning for Adelaide to be undertaken on a sound basis. The study was completed in 1978.

A general objective of the Highways Department is to provide a safe, convenient and economic road system. In the planning of future road works the Department takes into account economic, social and environmental factors as well as energy issues.

During 1979-80 the Highways Department has been undertaking some extensive and important roadworks. The major work in the rural areas has been on the Stuart Highway between Port Augusta and the South Australia-Northern Territory Border, and on the Dukes Highway between the new Swanport Bridge and the South Australia-Victoria Border. These major projects will continue to gain momentum over the next few years.

In the urban area two significant projects have been completed. The first is the new Lonsdale Road which provides a high capacity north-south connection between the Noarlunga-Christies Beach area and Metropolitan Adelaide. The second is the Regency Road Overpass which relieves congestion on that road by eliminating the existing railway level crossing. The year also saw the completion of the duplication of the Cavan railway overpass which removed a serious bottleneck on the Port Wakefield Road.

RESEARCH

Because of the great area of South Australia and the wide variety of climate and soil, 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 as a national centre for road research information and for the correlation and co-ordination of road research activities.

8.4 RAILWAYS

Railway systems in South Australia are operated by both the Commonwealth and South Australian Governments. Management of the Australian National railways is vested in the Australian National Railways Commission.

In 1851 a 'Board of Undertakers' was appointed in connection with the construction of the Adelaide to Port Adelaide railway and in 1856 a Board of Railways Commissioners was appointed to control South Australian railway operations. This Board was abolished in 1859 and from then until 1887 control was vested in the Commissioner of Public Works. The South Australian Railways Commissioners Act of 1887 gave almost complete authority for management and administration to three Railways Commissioners, reserving (as in the past) financial control to Parliament. The powers of the three

Commissioners passed to one Commissioner in 1892. The South Australian Railways Commissioners Act, 1936-1975, under which the Commissioner was appointed for a period of seven years, incorporated many of the provisions of the 1887 Act, including those for financial control.

In August 1975 the State Government approved the transfer of non-urban railways to the Australian National Railways Commission, although the actual transfer did not become operative until 1 March 1978. For further details of the operation of railways in South Australia during the transfer period and after the transfer date see pages 485-6.

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 limesand.

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 Noarlunga Centre serves south-western suburbs and carries passenger traffic and goods traffic to Port Stanvac and Lonsdale. This line serves the rapidly expanding industrial and housing development along the coast south of Adelaide. The Port Adelaide line, its extensions to 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.

A more detailed historical survey on railways in South Australia was included on pages 263-6 of the *South Australian Year Book* 1966.

Standardisation of Rail Gauges

Narrow, standard, and broad gauge systems exist in South Australia. For many years railway administrators have been greatly concerned about the increased costs and decreased efficiency associated with the transhipment of goods and passengers and with the provision, maintenance and operation of different sets of rollingstock. During recent years 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.

Details of lines that were standardised before the transfer of the non-urban railways are shown on pages 347-8 of the *South Australian Year Book* 1978.

Following the amalgamation of the non-urban railways with the Australian National Railways Commission, steps were taken to initiate the Adelaide to Crystal Brook standardisation project. Due for completion in 1983-84, the project will link Adelaide to the standard gauge connection with Alice Springs, Sydney and Perth. Greatly improved transit times will enhance the potential of South Australian based manufacturing firms. Trains will commence operation on the line by August 1982.

Tarcoola-Alice Springs Railway

Construction of the 831 kilometres standard gauge line was completed a year ahead of schedule and within the budget of \$145 million. The line, which became fully operational in December 1980, provides a passenger service linking Adelaide and Alice Springs within twenty-four hours instead of nearly three days on the old line through Marree; reduction of time for freight train schedules has also been achieved.

Alice Springs-Darwin Railway

The Commonwealth Government has made provision for \$10 million to be spent on preliminary work over the next three years on the 1 500 kilometres Alice Springs to Darwin link. Work began early in 1981 and the project is expected to be completed by 1988.

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 the many seaports in South Australia, at present only sixteen are used by commercial shipping: nine 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 promenades and fishing purposes at fifty ports that are no longer used by commercial shipping and eighteen 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 Australian National railways operates the wharf at Port Augusta on behalf of the Commonwealth 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 the control of navigation within harbours and for all harbour facilities including lights, buoys, beacons, bulk loading plants and fishing boat accommodation. In addition he is responsible for the control of the competency of masters and others in charge of intrastate vessels and fishing vessels, and the seaworthiness and safety of such vessels. Relevant legislation includes the Harbors Act, 1936-1978, the Marine Act, 1936-1976, the Fisheries Act, 1971-1977 and the Boating Act 1974-1980.

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			
1975-76	80 388	10 705	9 065	4 661	13 726	-3 021
1976-77	87 343	12 751	11 142	5 839	16 981	-4 230
1977-78	93 316	13 955	12 643	6 576	19 219	-5 264
1978-79	96 278	17 448	13 463	7 238	20 701	-3 252
1979-80	99 381	23 057	15 372	7 476	22 848	+ 209

In 1979-80 the Department of Marine and Harbors handled 9 538 066 tonnes of cargo or approximately 52 per cent of the total tonnage of 18 182 262 tonnes passing through all the ports in South Australia; the balance, consisting mainly of bulk mineral shipments, being handled independently at the privately owned wharves.

HISTORICAL

For a detailed description of development in the nineteenth century see pages 270-1 of the *South Australian Year Book* 1966.

Trend of Development

As shipping has increased through growth in trade many wharves and jetties have been strengthened or replaced by better structures. To keep most harbours open for larger vessels it has been necessary to deepen and widen navigation channels, deepen existing berths and extend jetties into deeper water. An example of this type of project was the redevelopment of Thevenard harbour, completed in 1972, which entailed the dredging of a deeper channel and the reconstruction of the jetty so that bulk carriers twice the size of those previously accommodated could be fully loaded.

Since the establishment of new soldier settlements in the 1950s, shipping to and from Kangaroo Island has increased. Additional harbour facilities were made available with the provision of a trailership berth at Kingscote for the roll-on roll-off vessel *M. V. Troubridge* which went into service in November 1961. Trailership berths were also built at Port Adelaide and Port Lincoln.

A change in the pattern of intrastate shipping has occurred progressively since 1952 with the provision of bulk handling facilities for grain at major ports. 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.

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, involving extension of an existing jetty to provide two outer berths for loading grain ships and an inner berth for unloading phosphate-rock carriers, have been completed at Port Lincoln. The phosphate-rock berth is in operation and caters for ships up to 35 000 tonnes. The first conveyor loader system was commissioned in May 1977 and the first ship loaded grain on 26 May 1977. A second ship loader, commissioned in February 1978, doubled the input capacity to 4 000 tonnes an hour. The two grain berths cater for ships up to 60 000 tonnes but could be modified for ships of 100 000 tonnes. The overall cost of the whole project (including dredging) was almost \$13 million.

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, e.g. 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.

To ensure the future of Port Adelaide as a major port, a container berth, capable of accommodating the largest cellular container ships likely to serve Australia in the foreseeable future, has been established at Outer Harbor. The berth, channel and swinging basin are suitable for ships of 290 metres in length, 11 metres in working draft and a capacity of almost 3 000 containers. The approach channel has been deepened to a depth of 12.3 metres so that ships would not be delayed by tide movements. The berth was officially opened on 17 March 1977 and 28 vessels used the facilities during 1979-80.

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 operating 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.

AERODROMES

There were twenty-nine civil aerodromes in South Australia at 30 June 1980 including nine owned and operated by the Commonwealth Government and twenty licensed aerodromes owned and operated by local authorities or private interests. In addition there are numerous authorised landing and alighting areas which are fields prepared for the operation of aircraft but not open to public use. The Commonwealth Government specifications covering these fields are less exacting than those used in the development of government owned or licensed aerodromes.

Government and licensed aerodromes in South Australia are listed below.

<i>Government Owned</i>		
Adelaide	Leigh Creek	Parafield
Ceduna	Mount Gambier	Port Lincoln
Kingscote	Oodnadatta	Whyalla
<i>Licensed</i>		
Amata	Indulkana	Naracoorte
Cleve	Innaminka	Port Pirie
Cordillo Downs	Kimba	Renmark
Cowell	Loxton	Streaky Bay
Ernabella	Millicent	Tieyon
Fregon	Minnipa	Waikerie
Granite Downs	Mount Dare	

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, Canberra and Darwin and is the terminus of intrastate services.

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 Defence Research Centre, and the other at Salisbury (Edinburgh Airfield) which are used by aircraft associated with trials operations and by civil charter aircraft carrying passengers and freight. Edinburgh Airfield is also the base for a Royal Australian Air Force maritime squadron.

A joint Government Advisory Committee consisting of representatives from Commonwealth Government departments, South Australian Government departments and local government authorities recently considered future airport requirements for the Adelaide region.

Control of Aerodromes

At a conference of Commonwealth Ministers and State Premiers in May 1920, it was agreed that the Commonwealth should introduce a Bill to give effect to the Convention for the Regulation of Air Navigation signed in Paris on 13 October 1919. The *Air Navigation Act 1920*, under which a Controller of Civil Aviation was appointed as head of the Civil Aviation Branch which came under the jurisdiction of the Department of Defence, had three main objectives:

- (1) generally to regulate civil aviation activities in Australia;
- (2) to carry out the provisions of the Convention on Air Navigation signed in Paris;
- (3) to apply the principles of the Convention to domestic as well as international flying operations.

Regulations were drawn up under this Act to provide, *inter alia*, for the registration and periodic inspection of aircraft, licensing of aerodromes, examination and licensing of personnel engaged in flying and in upkeep of machines, control of aircraft movements, and the application of rules of the air.

The South Australian Parliament passed the Commonwealth Powers (Air Navigation) Act, 1921 in which it referred to the Commonwealth powers to make regulations in connection with international and interstate air navigation. The Air Navigation Act, 1937 provided for the application of the Commonwealth Air Navigation Regulations to and in relation to air navigation within the State of South Australia and repealed the earlier Act.

The Commonwealth civil aviation legislation at present includes the *Air Navigation Act 1920*, the *Australian National Airlines Act 1945* and several other Acts, while the State legislation in South Australia includes the 1937 Act and the Civil Aviation (Carriers' Liability) Act, 1962-1971.

Civil aviation administration was a separate department under the Minister for Civil Aviation from 1939 until 1 December 1973 when it was incorporated in the Department of Transport.

Historical

A description of early aerodromes in South Australia and development was included on pages 277-8 of the *South Australian Year Book 1966*: an article describing the first flight from England to Australia, in 1919, appeared on pages 334-5 of the *South Australian Year Book 1969*.

8.6 ELECTRICITY AND GAS

ELECTRICITY

In 1946 the Electricity Trust of South Australia (ETSA), a public corporation, acquired the assets of the Adelaide Electric Supply Company and since then the Trust has been responsible for electricity supply throughout most of the State. Over the years indigenous fuels—coal from Leigh Creek and natural gas from the north-east of the State—have largely supplanted imported fuels. A detailed description of the development of electricity supply was included on pages 278-81 of the *South Australian Year Book* 1966.

Power Generation

The Osborne 'A' station produced all of the requirements of the South Australian electricity network from 1923 until 1947 when the 'B' station commenced operations and the 'A' station was subsequently closed in 1968. At 30 June 1979 the remaining generating capacity at Osborne (excluding emergency generating plants) was 240 megawatts.

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 megawatts.

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 megawatt turbo-generators with associated boiler equipment. Stage 1 of Section 'B' comprising two 200 megawatt turbo-generators has been completed with the second unit coming into service in October 1976. Stage 2 of Section 'B' also has two 200 megawatt turbo-generators. The first has been operational since 1979, and the second since early 1981. The combined capacity of 'A' and 'B' sections of Torrens Island Power Station is 1 280 megawatts.

At the Dry Creek Power Station, three gas turbine generators each with a capacity of 52 megawatts have been installed to meet high load demands of short duration. Three 25 megawatt gas turbine generators have been erected at Snuggery in the South East. These generators are fuelled by distillate and the plant is normally operated by remote control from System Control Centre, Adelaide.

Electricity Generation, South Australia
Installed Capacity of Generating Plant in Power Stations at 30 June

Power Stations	1967	1970	1973	1976	1980
Electricity Trust:			Megawatts		
Osborne	312	240	240	240	240
Port Augusta	330	330	330	330	330
Torrens Island	120	360	480	480	1 080
Dry Creek .....	..	..	..	156	156
Mount Gambier	22	22	22	22	..
Port Lincoln	9	9	9	9	9
Snuggery .....	..	..	..	..	75
Total ETSA	793	961	1 081	1 237	1 890

To meet future demands, a power station comprising two 250 megawatt turbo-generators and boiler units is being constructed on a site immediately south of the existing station at Port Augusta. The boilers, specially designed to burn Leigh Creek coal, will be

fitted with electrostatic precipitators to reduce dust emission. The installation of sub-foundation piers and foundation work for the first boiler and main building are well advanced and components for the first boiler and generator are currently being fabricated.

The first unit is planned for operational service in 1984.

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.

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 six boilers at Torrens Island have been equipped to use natural gas or oil, or both fuels simultaneously. The Trust commenced using natural gas in 1969 and it uses more of this type of fuel for generation than any other electricity authority in Australia.

Because of the continuing reduction in wood waste supplies, the Trust ceased operating the Mount Gambier Power Station in October 1976 and arrangements were made for some of the plant to be taken over by the Woods and Forests Department to generate electricity for internal use.

Electricity Trust of South Australia, Fuels Consumed in Power Stations

Year	NSW Coal	Leigh Creek Coal	Tonnes				Natural Gas
			Oil	Wood (a)	Distillate	Millions of MJ	
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	
1975-76	—	1 869 073	84 183	125 375	—	36 663	
1978-79	—	1 603 257	70 314	—	2 008	52 858	
1979-80	—	1 672 199	45 404	—	585	54 381	

(a) Mill waste.

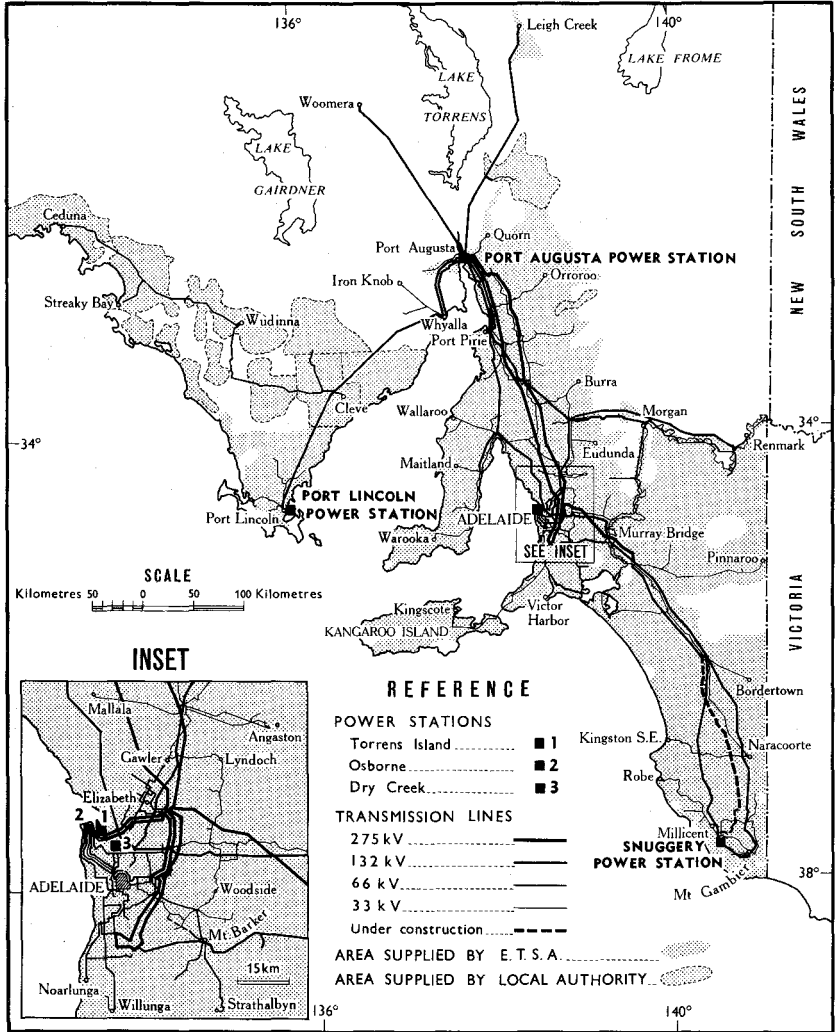
Transmission and Distribution

The Electricity Trust expanded its area of supply in the post-war years and this expansion required an extensive construction program of transmission and distribution lines. In the first ten years of the Trust's operations the length of transmission and distribution lines rose from 4 400 kilometres in 1946 to 12 800 kilometres in 1956. Expansion over the next ten years was equally as active primarily because of the construction of 13 600 kilometres of the single wire earth return system. This system allows supply in country areas where consumers are so scattered that supply by conventional methods would be impracticable. Most of the State is now covered by the Trust's system and expansion in recent years has been to meet the increased load on the 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 kV link power stations at Port Augusta and Torrens Island to a major substation at Para from which 275 kV connections radiate to Magill, Cherry Gardens and Happy Valley substations serving the Adelaide metropolitan area. A further 275 kV line has been built to Tailem Bend substation, which is the main supply point for the Lower Mallee and the South-East. One line from Port Augusta is tapped into a

SOUTH AUSTRALIA ELECTRICITY SUPPLY



substation at Brinkworth to reinforce distribution to the mid-north area of the State.

It is also planned that another 275 kV line will be constructed from the new Port Augusta power station to the Adelaide Metropolitan area.

**Electricity Trust of South Australia, Transmission Lines
At 30 June**

Rated Voltage Unit	1967	1970	1973	1976	1980
		Route Kilometres			
275 kV	595	716	745	846	893
132 kV	2 010	2 232	2 581	2 581	2 595
66 kV	750	832	1 246	1 328	1 627
33 kV	3 410	3 499	3 487	3 602	3 659
19 kV (SWER)(a)	13 591	17 083	18 694	19 734	20 417
11 and 7.6 kV	9 024	10 731	12 076	13 701	15 447
Total	29 380	35 093	38 830	41 792	44 638

(a) Single wire earth return system.

Two 132 kV lines extend from Port Augusta to Adelaide and further 132 kV lines extend to Port Lincoln, Woomera and Leigh Creek. Other 132 kV lines connect Adelaide and Mannum, Cherry Gardens and Mobilong, Mannum and Tailem Bend. Two lines connect Tailem Bend and Mount Gambier. A 132 kV substation is under construction at Blanche in the South East of the State to supply the increasing load required in that area.

About ninety per cent of new housing subdivisions are underground mains areas. In these sub-divisions 11 kV and low voltage lines are installed underground and developers pay the additional cost above that of conventional street mains. The Electricity Trust and local government authorities share the costs of conversion from overhead to underground reticulation in areas where aesthetic benefit to the general public would be gained.

During 1979-80 the Electricity Trust approved 7 new schemes recommended by its Electricity Reticulation Advisory Committee bringing the total number of schemes approved to fifty-three.

The total number of consumers supplied directly by the Electricity Trust at 30 June 1980 was 551 292. During the past ten years, the number of consumers has increased by 133 447 or 32 per cent. In addition the Electricity Trust supplies approximately 8 700 consumers through local government authorities, mainly on Eyre Peninsula, taking supply in bulk from the Trust.

In the next 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	1967	1970	1973	1976	1980
Residential	321 731	353 289	392 314	431 859	470 918
Commercial	38 949	41 772	43 738	45 828	50 434
Industrial	19 956	22 776	25 615	28 221	29 923
Bulk and traction	8	8	12	11	17
Total	380 644	417 845	461 679	505 919	551 292

The next table shows electricity sold by the Electricity Trust for the last five years.

Electricity Trust of South Australia, Sales of Electricity
Year Ended 30 June

Particulars	1976	1977	1978	1979	1980
			MW.h		
Residential	2 025 616	2 193 993	2 249 688	2 413 188	2 382 745
Industrial	1 537 180	1 656 323	1 737 863	1 884 600	1 989 503
Commercial	894 795	968 860	1 019 160	1 101 538	1 144 681
Bulk supply	80 124	67 280	72 620	89 449	90 876
Public lighting	34 837	36 163	38 664	40 694	42 544
Pumping for major water pipelines	138 138	333 628	393 212	177 213	148 123
Total	4 710 690	5 256 247	5 511 207	5 706 682	5 798 472

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	1980
Capital employed (\$m) (a)	5.4	6.0	19.4	40.0	51.7
Number of consumers (b)	61 207	84 629	121 720	186 670	257 516
Length of mains (km)	1 455	1 677	2 525	3 603	4 967

(a) Total assets less current liabilities.
(b) 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 was 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.

Port Pirie has been supplied with natural gas which followed the completion of a \$2.5 million pipeline in June 1976. Natural gas from the line is supplied direct to industry, including Broken Hill Associated Smelters, and to all domestic consumers since conversion of domestic appliances to natural gas was completed in October 1977.

Gas is reticulated through most of the Adelaide metropolitan area and Port Pirie. In addition liquefied petroleum gas is distributed by reticulation at Mount Gambier by the Mount Gambier Gas Company Ltd (acquired by the South Australian Gas Company in June 1977), at Whyalla by the South Australian Gas Company, and is available elsewhere as bottled gas.

An inter-connected system of high and intermediate pressure mains traverses the metropolitan area, extending south to Hackham, north-east to Tea Tree Gully and north to Gawler. The pressure in these mains is reduced by means of governors for distribution to consumers.

The conversion of the metropolitan distribution system to use straight natural gas brought a marked change in the Company's operations. The Company is now concerned largely with the distribution and marketing of gas, rather than manufacturing. Great emphasis is placed on marketing gas to industry, where as a cheap, non-polluting fuel it is able to compete successfully with other fuels. This has produced the situation where industrial gas sales made up 66 per cent of all gas sold in 1980 compared with 17 per cent in 1970.

At 30 June 1980 the Company was maintaining 4 710 kilometres of mains in the metropolitan area serving 212 807 consumers with natural gas. The Port Pirie system involves 103 kilometres of mains serving 4 377 consumers. A distribution system has also been developed in Whyalla over the past eight years, and at 30 June 1980 involved 54 kilometres of mains serving 2 291 consumers. The distribution system at Mount Gambier serves 3 041 consumers. An additional 35 000 customers are supplied with liquefied petroleum gas in bottles.

8.7 HOUSING AND BUILDING

HOUSING

A feature of housing development in South Australia has been the change from the use of stone to brick as the major building material. The familiar old-style stone houses are still to be seen in most of the 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 been determined largely 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 areas.

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'. A private dwelling is normally a house or flat but it can also be a tent, houseboat, or caravan (if standing on its own block of land) and not occupied by members of the same household resident in an adjacent dwelling. Non-private dwellings are hotels, hostels, hospitals, non-private boarding houses, gaols, religious and charitable institutions, defence establishments and other communal dwellings. A caravan in a caravan park (whether permanently or temporarily) is treated as part of a non-private dwelling, as are self-contained units provided by commercial enterprises such as hotels, motels or guest houses.

Dwelling counts from the eight censuses to 1976 are shown in the next table: figures for censuses before 1966 exclude dwellings occupied solely by full-blood Aboriginals.

Dwellings in South Australia, Censuses 1921 to 1976

Census	Occupied			Unoccupied	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
1976	390 514	1 739	392 253	39 768	432 021

Occupied Dwellings

The next table gives details from the 1976 Census of dwellings and their occupants,

according to the class of dwelling. Private dwellings were classified into the following five categories:

Self-contained Dwellings; include separate houses, semi-detached houses, terrace houses, self-contained flats, home units, villa units, town houses, which were completely closed off with their own cooking and bathing facilities;

Non-self-contained Dwellings; include non-self-contained flats, bedsitting rooms, non-self-contained part of a detached house;

Improvised Dwellings; include sheds, garages, humpies, occupied on a permanent or semi-permanent basis;

Mobile Dwellings; include caravans, houseboats, tents;

Private Boarding Houses; private dwellings where three or more boarders were enumerated.

Dwellings and Number of Inmates by Clas of Dwelling, South Australia, Census 1976

Class of Dwelling	Dwellings		Persons	
	Number	Proportion of Total	Number	Proportion of Total
		Per cent		Per cent
Private dwellings:				
Self-contained	383 806	88.8	1 183 275	95.1
Non-self-contained	3 812	0.9	8 792	0.7
Improvised	1 662	0.4	4 761	0.4
Mobile	1 132	0.3	2 741	0.2
Private boarding houses	102	0.0	427	0.0
Total occupied private dwellings	390 514	90.4	1 199 996	96.4
Non-private dwellings	1 739	0.4	43 149	3.5
Total occupied dwellings	392 253	90.8	1 243 145	99.9
Campers out, migratory	—	—	1 610	0.1
Unoccupied private dwellings ..	39 768	9.2	—	—
Total dwellings and population ...	432 021	100.0	1 244 755	100.0

The classification of different types of dwellings changed between the 1971 and 1976 Censuses. Intercensal comparisons are therefore restricted to total dwellings only, and should not be applied to individual categories.

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. At the 1976 Census the percentage of persons enumerated in non-private dwellings had decreased further to 3.5 while private dwellings had increased to 96.4.

Occupied Private Dwellings

There were 342 064 occupied private dwellings at 30 June 1971 and by 30 June 1976 this number had increased to 390 514. Characteristics of these dwellings are shown in the tables which follow. The columns headed 'Separate Self-contained Dwellings' refer to those dwellings which were described by the householder as being self-contained (see definition above) and also stated as not being attached to any other dwelling.

The number of rooms includes kitchen and enclosed sleep-out, but does not include bathroom, toilet, pantry, laundry or storerooms or halls. A combined living-dining room was counted as one room.

**Occupied Private Dwellings by Number of Rooms, South Australia
Censuses 1971 and 1976**

Number of Rooms per Dwelling	30 June 1971		30 June 1976		
	Total	Separate Self- contained Dwellings	Other	Total	Proportion of Total
					Per cent
1	3 636	126	1 182	1 308	0.3
2	7 496	820	3 758	4 578	1.2
3	19 637	2 938	13 770	16 708	4.3
4	46 756	19 240	29 706	48 946	12.5
5	160 110	110 660	31 056	141 716	36.3
6	69 289	95 010	8 814	103 824	26.6
7	22 786	40 532	2 318	42 850	11.0
8 and over	12 354	23 932	1 580	25 512	6.5
Not stated	—	938	4 134	5 072	1.3
Total	342 064	294 196	96 318	390 514	100.0
Average number of rooms per dwelling(a) ..	5.1	5.7	4.2	5.4	..

(a) Excludes 'Not stated'.

The largest increase in the five-year period was in six-roomed dwellings. In 1971 six-roomed dwellings were 20.3 per cent of all occupied dwellings; by 1976 this percentage had increased to 26.6. The total increase in private dwellings was 48 450 and 34 535 of these were six-roomed dwellings.

The following table gives details of occupied private dwellings by the type of occupancy. The proportion of dwellings owned, or being purchased by instalments, remained fairly constant at approximately 68 per cent between the 1971 and 1976 Censuses. This can be compared with an increase of 9.6 per cent over the same period in the number of dwellings being rented.

**Occupied Private Dwellings by Nature of Occupancy, South Australia
Censuses 1971 and 1976**

Nature of Occupancy	30 June 1971		30 June 1976	
	Total	Proportion of Total	Total	Proportion of Total
		Per cent		Per cent
Owner	233 715	68.3	114 710	29.4
Purchaser			148 352	38.0
Owner/Purchaser undefined	<i>n.a.</i>	<i>n.a.</i>	1 114	0.3
Tenant of Housing Trust	34 174	10.0	36 224	9.3
Tenant, other	59 640	17.4	66 598	17.1
Other	9 131	2.7	17 992	4.6
Not stated	5 404	1.6	5 524	1.4
Total	342 064	100.0	390 514	100.0

At the 1976 Census, occupants purchasing their dwelling were asked to identify the source of the mortgage(s) or contract(s) of sale on the dwelling. The following table summarises the results. Note that the column headed 'Additional Mortgages' can include a dwelling more than once, for dwellings which had three or more mortgages, thereby affecting to some degree the figures in the column 'All Mortgages'.

**Mortgages by Source for Occupied Private Dwellings Being Purchased
South Australia, 30 June 1976**

Source of Mortgage	Number of Mortgages			Proportion of Total
	First Mortgage	Additional Mortgages	All Mortgages	
Trading bank	27 712	3 248	30 960	Per cent 17·4
Savings bank	59 638	3 234	62 872	35·4
Building Society	10 840	648	11 488	6·5
Housing Trust	7 438	5 038	12 476	7·0
Other	41 410	16 796	58 206	32·7
Not stated	1 314	530	1 844	1·0
Total	148 352	29 494	177 846	100·0

The following table gives details of occupied private dwellings by material of outer walls.

**Occupied Private Dwellings by Material of Outer Walls, South Australia
Censuses 1971 and 1976**

Material of Outer Walls	30 June 1971	30 June 1976		
	Total	Separate Self-contained Dwelling	Other	Total
Brick, brick veneer	228 789	189 282	68 800	258 082
Stone	56 679	48 214	10 624	58 838
Concrete, cement block ...	10 154	14 846	7 268	22 114
Timber, weatherboard	13 833	9 906	936	10 842
Metal	7 785	4 870	1 558	6 428
Fibro-cement, asbestos	23 128	25 948	2 542	28 490
Other	1 696	262	338	600
Not stated	—	868	4 252	5 120
Total	342 064	294 196	96 318	390 514

At the 1971 Census 67 per cent of all occupied private dwellings had outer walls of brick or brick veneer as compared with 66 per cent at the 1976 Census. Dwellings of stone walls decreased from 17 per cent of all occupied private dwellings in 1971 to 15 per cent in 1976.

At the 1976 Census occupants of private dwellings were asked what type of fuel or

power was used for the purposes of cooking, lighting, living room heating and bathroom water heating. The next table summarises the results for South Australia.

**Occupied Private Dwellings by Power or Fuel Used, South Australia
30 June 1976**

Power or Fuel Used	Purpose			
	Cooking	Lighting	Living Room Heating	Bathroom Water Heating
Coal, coke or briquettes ...	474	—	2 502	558
Wood	10 322	—	39 900	8 330
Electricity	200 432	377 006	141 092	216 712
Gas	172 590	884	82 524	145 598
Oil, kerosene	1 036	374	100 276	1 438
Solar energy	20	—	158	374
Other	50	166	3 226	614
No fuel used	94	62	3 106	2 028
Not stated	5 496	12 022	17 730	14 862
Total	390 514	390 514	390 514	390 514

At the 1966, 1971 and 1976 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 Dwellings by Number of Motor Vehicles, South Australia
Censuses 1966, 1971 and 1976**

Number of Vehicles	1966		1971		1976	
	Dwellings	Proportion of Total	Dwellings	Proportion of Total	Dwellings	Proportion of Total
		Per cent		Per cent		Per cent
No vehicles	58 264	19.4	56 964	16.7	52 306	13.4
One vehicle	155 999	52.0	173 834	50.8	184 214	47.2
Two vehicles	58 880	19.6	78 907	23.1	108 262	27.7
Three or more vehicles	20 967	7.0	27 338	8.0	36 528	9.4
Not stated	5 823	1.9	5 021	1.5	9 204	2.4
Total	299 933	100.0	342 064	100.0	390 514	100.0

BUILDING

BUILDING CONTROL

The Building Act, 1923-1965 (the repealed Act) 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, 1970-1976 has brought each area of a local government municipality or district within the State under its provisions. However, the Act provides that any council to the area of which, or portion of the area of which, the repealed Act did not apply may petition the Governor for a proclamation that the Act (or any specified portion of the Act) shall not apply within

its area or portion of its area. In local government areas outside the jurisdiction of the Act certain provisions under the Local Government Act, 1934-1979 apply.

Persons wishing to erect or alter buildings on land within an area to which the Building Act applies are required to submit to a building surveyor appointed by the local government authority technical details, particulars, plans, drawings and specifications of the work proposed and to receive written approval before commencing operations. Authorities concern themselves with such things as location of buildings, the material used, the height of ceilings and the provision of ventilation and drainage. They have the power to disapprove building work only where such work does not comply with the requirements of the Building Regulations, 1973-1980, subject to a right of appeal to building referees. Following the approval of the building work, local government building inspectors normally visit the construction site to inspect footings and foundations and may visit the site at other times to check that the requirements of the regulations and any council conditions are being complied with.

In addition to administering the general site and structural requirements of the Act, councils could, under the repealed Act, make by-laws prescribing, *inter alia*, the minimum size of building allotments (which may have been higher than those prescribed in the Act), the minimum sizes of houses, etc. One of the most important by-laws enabled the defining of 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 were designated as commercial or industrial zones.

In all local government areas which are subject to an authorised development plan under the Planning and Development Act, 1966-1978, the provisions of the above by-laws have no effect and are invalid. During 1971 the Builders Licensing Act, 1967-1976 came into force with provisions for the licensing of builders. The Builders Licensing Board of South Australia was established under the Builders Licensing Act, 1967-1976 to issue, subject to the provisions of the Act, general builders' licences, provisional general builders' licences and restricted builders' licences to applicants.

BUILDING OPERATIONS

Details of building operations in South Australia are compiled from returns collected from all builders of new dwellings and new other building valued at \$10 000 and over. 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 other than dwellings are included with new buildings but those to dwellings are shown as a separate item.

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 next table shows the value of new building, and alterations and additions valued at \$10 000 and over on completion for which approval was given during 1978-79 and 1979-80.

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 been started in areas outside building control and details of contracts let or expenditure authorised by government and semi-government authorities.

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.

Building Approvals, South Australia

Type of Building	1978-79			1979-80		
	Private	Govt	Total	Private	Govt	Total
	\$'000					
New houses	181 448	29 326	210 774	196 837	40 325	237 162
New other dwellings	18 397	6 788	25 185	20 379	12 839	33 216
Alterations and additions to dwellings (a)	21 951	122	22 074	27 967	888	28 855
Hotels, etc.	7 387	923	8 310	12 051	14	12 065
Shops	55 776	199	55 974	33 476	749	34 225
Factories	25 675	10 146	35 821	17 142	3 202	20 345
Offices	24 861	8 147	33 008	22 973	35 551	58 524
Other business premises	14 290	682	14 972	16 632	6 426	23 057
Education	5 519	23 061	28 580	3 200	42 064	45 264
Religion	2 901	—	2 901	3 444	—	3 444
Health	3 679	6 916	10 595	7 957	7 795	15 752
Entertainment, recreation	11 777	2 731	14 509	15 030	3 871	18 901
Miscellaneous	8 681	16 863	25 544	11 156	5 189	16 342
Total value of building	382 342	105 905	488 246	388 244	158 912	547 156

(a) Valued at \$10 000 and over.

Buildings Under Construction

At the end of 1979-80 new buildings with an anticipated value when completed of \$282 690 000 were in the process of construction, with work done on these buildings valued at \$148 602 000. There were 2 558 houses and 954 other dwellings in the course of construction, having an anticipated value when completed of \$117 680 000.

Value of Work Done

One of the measures of building activity is that of value of work done, *i.e.* of work actually carried out on buildings during the period. Information on the value of work done on owner-built houses is not collected; however, an estimate based on the value of houses commenced, completed and under construction is calculated and this amounted to \$56.1 million, \$56.2 million and \$45.0 million in the years 1977-78, 1978-79 and 1979-80 respectively. The estimated values of work done on owner-built houses are included in the following table.

Buildings: Value of Work Done South Australia

Type of Building	1975-76	1976-77	1977-78	1978-79	1979-80
	\$'000				
Houses	244 471	325 272	254 831	213 937	227 887
Other dwellings	61 130	68 137	50 226	37 582	37 767
Total dwellings	305 600	393 409	305 057	251 519	265 654
Alterations and additions to dwellings	7 178	15 087	19 226	20 796	25 501
Hotels, etc.	5 613	4 275	9 372	6 558	13 956
Shops	12 820	15 140	25 732	45 600	44 868
Factories	21 795	35 699	26 457	21 205	25 700
Other business premises	39 890	39 895	51 364	43 709	50 239
Education	15 694	23 048	13 941	14 589	26 211
Religion	48 176	37 550	51 165	55 160	36 871
Health	1 658	3 538	4 060	2 447	2 263
Entertainment, recreation	24 055	31 907	29 847	28 398	19 709
Miscellaneous	11 053	11 613	10 323	17 606	19 412
Total buildings	5 560	9 358	12 940	17 051	22 121
Total buildings	499 091	620 519	559 483	524 637	552 505

Buildings Commenced

A building is regarded as having been commenced when expenditure on building work is first reported. In the following table, commencements during 1978-79 and 1979-80 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.

Buildings Commenced, South Australia^(a)

Type of Building	1978-79			1979-80		
	Private	Govt	Total	Private	Govt	Total
	\$'000					
New houses	180 226	19 528	199 754	190 520	34 682	225 202
New other dwellings	19 907	11 985	31 892	21 583	13 879	35 461
Alterations and additions to dwellings (b)	20 494	178	20 672	25 390	111	25 502
Hotels, etc.	8 112	43	8 155	10 879	875	11 754
Shops	27 620	76	27 695	34 131	1 976	36 108
Factories	13 212	8 219	21 431	17 165	3 892	21 056
Offices	25 211	10 663	35 874	21 526	24 873	46 399
Other business premises	13 419	5 143	18 562	15 456	7 079	22 535
Education	6 902	45 824	52 726	4 138	24 191	28 329
Religion	1 962	—	1 962	2 681	—	2 681
Health	3 583	18 247	21 830	9 679	7 757	17 436
Entertainment, recreation	6 119	12 724	18 843	16 221	5 200	21 421
Miscellaneous	3 796	15 168	18 963	9 425	8 887	18 313
Total value of buildings	330 562	147 798	478 360	378 794	133 403	512 197

(a) Anticipated completion value.

(b) Valued at \$10 000 and over.

Buildings Completed

Details of buildings completed and new dwellings completed for the years 1975-76 to 1979-80 are given in the next two tables. A building is regarded as having been completed when it is reported as completed or in the case of owner-builders is reported as completed or substantially completed and occupied.

Number of New Dwellings Completed, South Australia

Type of Dwelling	1975-76	1976-77	1977-78	1978-79	1979-80
Private:					
Contract-built houses	7 520	9 548	5 977	4 142	4 601
Owner-built houses(a)	922	1 026	1 410	1 350	1 233
Total houses	8 442	10 574	7 387	5 492	5 834
Other dwellings	3 254	2 597	1 974	968	1 044
Total private dwellings	11 696	13 171	9 361	6 460	6 878
Government:					
Houses	1 479	1 538	1 609	1 316	817
Other dwellings	778	678	707	621	610
Total government dwellings	2 257	2 216	2 316	1 937	1 427
Total all dwellings	13 953	15 387	11 677	8 397	8 305

(a) Owner-built houses are houses erected without services of contractor for whole job.

Buildings Completed, South Australia

Year	Number of Dwellings		Value of Building				Total
	Houses	Other Dwellings	Houses	Other Dwellings	Alterations and Additions to Dwellings	Other	
					\$'000		
1975-76	9 921	4 032	221 287	61 462	6 813	189 216	478 778
1976-77	12 112	3 275	322 569	64 921	14 016	197 437	598 943
1977-78	8 996	2 681	272 770	59 797	19 414	245 245	597 226
1978-79	6 808	1 589	221 273	38 822	20 279	231 821	512 196
1979-80	6 651	1 654	226 291	40 008	25 099	297 634	589 033

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 Buildings Other Than Dwellings Completed, South Australia

Type of Building	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Hotels, etc.	5 118	4 850	7 484	7 479	12 496
Shops	14 468	10 879	20 040	25 710	64 153
Factories	19 619	35 211	33 091	21 681	29 659
Offices	34 471	47 196	45 900	52 416	46 485
Other business premises	15 829	23 761	16 963	13 203	25 118
Education	67 628	37 007	43 875	58 645	38 704
Religion	1 639	3 202	4 313	2 545	2 085
Health	16 234	12 126	52 513	23 074	35 779
Entertainment, recreation	8 256	14 371	9 925	13 748	18 333
Miscellaneous	5 951	8 832	11 141	13 319	24 825
Total	189 216	197 437	245 245	231 821	297 634

New Houses—Material of Outer Walls

In the next table new houses are classified by 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				
1975-76	4 072	116 145	5 522	122 232	1 654	27 187	239	4 646
1976-77	3 298	113 083	5 941	155 811	1 597	30 915	281	6 209
1977-78	2 399	92 554	3 803	107 641	1 176	24 194	273	7 162
1978-79	2 004	82 902	2 897	89 430	932	21 017	250	6 405
1979-80	2 043	88 299	3 207	101 320	1 254	31 099	149	4 483
				COMPLETED				
1975-76	3 690	98 214	4 452	93 929	1 549	24 929	230	4 219
1976-77	3 716	120 848	6 506	164 579	1 633	31 399	257	5 742
1977-78	2 801	107 034	4 609	131 178	1 335	27 997	251	6 560
1978-79	2 068	86 816	3 465	104 402	1 016	22 912	259	7 144
1979-80	2 277	97 814	3 139	98 581	1 063	24 859	172	5 037

A plentiful supply of clay and building stone together with a paucity of suitable timbers in South Australia resulted in more houses being built of solid construction than brick veneer or other construction until 1974-75. In 1979-80 brick veneer houses constituted 48 per cent of commencements. Although a large proportion of brick veneer houses are built by the South Australian Housing Trust a wider acceptance of this type of construction is indicated by the increasing number being erected by private contractors.

Location of New Dwellings

In recent years the greatest development has occurred in the local government areas of Noarlunga, Salisbury and Tea Tree Gully; during the five years 1975-76 to 1979-80, new dwellings in these areas accounted for 29 per cent of the total State completions. Of the country local government areas, Port Augusta recorded the greatest number of completions in 1979-80.

Location of New Dwellings Completed, South Australia ^(a)

Local Government Area	1975-76	1976-77	1977-78	1978-79	1979-80
Burnside (C)	263	159	167	107	98
Campbelltown (C)	486	553	303	173	257
Elizabeth (C)	171	212	282	291	111
Enfield (C)	158	123	130	80	54
Henley and Grange (C)	84	100	60	55	22
Marion (C)	457	790	597	354	363
Meadows (DC)	495	804	515	566	444
Mitcham (C)	347	504	338	194	193
Mount Barker (DC)	187	243	165	154	149
Mount Gambier (C)	195	270	154	91	105
Munno Para (DC)	271	286	641	543	252
Murray Bridge (DC) ^(b)	253	189	155	112	118
Noarlunga (C)	1 640	1 851	1 236	706	496
Payneham (C)	180	53	74	59	36
Port Adelaide (C)	263	399	279	120	137
Port Augusta (C)	116	158	217	141	150
Port Elliot and Goolwa (DC)	156	173	160	140	141
Port Lincoln (C)	117	106	83	48	53
Salisbury (C)	1 567	1 621	1 074	525	781
Stirling (DC)	212	275	222	187	178
Tea Tree Gully (C)	1 254	1 573	951	643	815
Unley (C)	266	186	234	108	85
Victor Harbor (DC) ^(c)	77	122	151	107	106
West Torrens (C)	292	155	145	74	105
Whyalla (C)	267	276	14	27	29
Willunga (DC)	184	381	212	143	97
Woodville (C)	1 154	873	608	459	328
Other ^(d)	2 851	3 010	2 550	2 190	2 602
Total State	13 963	15 445	11 717	8 397	8 305

^(a) Dwelling units comprise houses and other dwellings plus dwellings attached to other new buildings.

^(b) Includes Mobilong (DC) and Murray Bridge (M) before amalgamation on 4 April 1977.

^(c) Includes Encounter Bay (DC) and Victor Harbor (M) before amalgamation in October 1975.

^(d) Includes unincorporated areas.

(C) Municipality with city status (M) Municipality (DC) District Council

THE SOUTH AUSTRALIAN HOUSING TRUST

The South Australian Housing Trust was established under the South Australian

Housing Trust Act, 1936. In 1940, when the Housing Improvement Act was assented to, the Trust became the housing authority to administer the Act and the Trust's powers were extended.

Founded to provide low income housing and to house workers near places of employment, the Trust has developed and changed throughout its history to meet changing needs. In the late 1940s the Trust's prime concern became the alleviation of the housing shortage. In the 1950s and early 1960s the Trust was a total development authority, fostering both industrial development and new areas of residential settlement. More recently, the Trust has again concentrated on meeting housing needs including the development of new forms of housing and housing assistance.

Rental Dwellings

By 30 June 1980 the Trust rental stock comprised 42 115 rental dwellings. This total consisted of 28 367 attached houses, 2 456 flats, 7 259 single unit houses, 2 382 pensioner cottage flats all built by the Trust and 1 645 existing dwellings purchased and 6 houses leased from the private sector.

Rents of five roomed (three bedrooms) semi-detached bungalows ranged from \$27.50 per week for houses of the older type; to \$28.50 per week for the newer type houses. Single unit rents ranged between \$33.00 and \$43.00 per week. Two bedroomed villa flats were let at \$33.50 per week whilst the weekly rentals of two or three storey flats in the Adelaide metropolitan area ranged from \$29.50 for one bedroomed flats to \$31.50 for two bedroomed flats. With few exceptions, rentals for attached, one and two storey maisonettes and town houses with three bedrooms ranged between \$32.50 and \$42.00 per week.

The exceptions were town houses at West Lakes, Hackney, Kent Town and in the City of Adelaide where rents range from \$43.50 for two bedrooms to \$79.50 for three bedrooms and a family room.

A record total of 10 258 applications for rental accommodation were registered during 1979-80 compared with 9 403 the previous year.

The total waiting list at 30 June 1980 had reached 18 615. The majority of these applicants are people experiencing a combination of financial hardship and social disadvantages; lone parents, the elderly, the disabled and the unemployed. More than half the applicants for Trust rental accommodation in 1979-80 had no form of employment at the time of application.

To assist those who have difficulty in meeting the rent required, the Trust has developed a rent reduction scheme. At 30 June 1980, 35.43 per cent of the Trust's tenants were paying reduced rents. Calculated on rent reductions at the last week of June 1980 the rent foregone in a full year would be \$7.52 million.

Housing for Aborigines

The Trust, in association with the Aboriginal Housing Board of South Australia administers the Aboriginal Funded Program, to supply much needed, special housing assistance to Aboriginal families throughout the State. The scheme maintains a high percentage of Aboriginal involvement at every level of the program.

Housing Management Committees comprising elected Aborigines are established in nine regions of the State and assist with the allocation of houses and tenancy matters.

Representation from these committees, together with several government departments and agencies, form the Aboriginal Housing Board which considers policy, programming and the financial aspects of the Funded Program. The Trust believes this co-operative arrangement ensures that Aboriginal needs and desires are effectively expressed and met.

The 1979-80 year saw a number of changes in Aboriginal housing, particularly in relation to funding. Apart from \$2.09 million advanced through the States Grants (Aboriginal Assistance) Housing Agreement, a further \$1.5 million was made available for Aboriginal housing within the Commonwealth State Housing Agreement. This effectively provided \$3.59 million for the housing of families through the Aboriginal Funded Program. In addition, many Aboriginal families were housed through the Trust's general program.

Housing for the Aged

In 1953 the Trust began building cottage flats for pensioners and elderly people. By 30 June 1980 the Trust had let 2 382 cottage flats and built 892 for charitable and non-profit organisations. The Trust rents for pensioners were \$7.50 per week for a one bedroomed cottage flat and \$12.50 per week for a two person cottage flat.

The rents of all Trust accommodation occupied by the aged are heavily subsidised and the growing proportion of the elderly in the community has major financial as well as social implications for the Trust.

Purchase of Houses for Rental Purposes

In the year ended 30 June 1980 the Trust purchased a further 343 older houses making a total of 1 645 acquired since 1972. After renovation these houses are let to applicants whose circumstances particularly require they live in inner, stable suburbs with established services such as public transport, kindergartens, schools, medical, para-medical and other support services.

Special Purpose Housing

The Trust continued in 1979-80 to provide rental accommodation to various public, private and voluntary organisations whose work caters for the needs of some of the disadvantaged members of the community; in particular, the handicapped, the aged and women with dependent children.

Priority Housing Assistance

There were 800 requests for assistance under the Trust's Priority Referral Scheme in the year 1979-80. These were received from the Department for Community Welfare and other agencies: public, private and voluntary.

Of the 800 referrals received, 544 (68 per cent) were afforded a priority in housing, each submission having been considered on its merits.

Dwellings for Sale

The Trust began building houses for sale in 1946; this program is designed to meet the needs of the middle-lower income groups of the community and the prices range from \$31 800 to \$36 000. Included in a typical purchase price are a three bedroomed house, land, fencing, concrete drives and paving, connections to mains, sewer, gas and electricity, road charges, transfer costs, stamp duty, ceiling insulation, hot water service, stove, kitchen exhaust fan, built-in kitchen cupboards and linen press. During 1979-80 the Trust sold 831 houses.

As in the case of Trust rental housing, all its purchase houses are built by private enterprise building contractors under Trust architectural supervision.

Tenants of Trust double unit and other attached rental accommodation who have been

in occupation for ten years may purchase the house. In the case of single units the qualifying period is one year.

Details of dwellings completed by the Trust since its inception, both for rental and sale, are given in the following table.

South Australian Housing Trust, Number of Dwellings Completed

Period	Dwellings				Total
	Single Units	Attached Houses	Cottage Flats	Flats	
1937-75	(a) 46 408	26 250	2 524	2 231	77 413
1975-76	1 506	630	56	84	2 276
1976-77	1 473	505	135	31	2 144
1977-78	1 752	121	199	123	2 195
1978-79	1 596	210	68	54	1 928
1979-80	938	117	292	61	1 408
Total	53 673	27 833	3 274	2 584	87 364

(a) Includes 2 909 emergency and temporary dwellings (which have since been removed) and 1 234 rural and soldier settlers dwellings.

Industrial and Commercial Properties

The Trust is involved in the construction of industrial and commercial properties to assist in the State's development. The construction or purchase of factories by the Trust requires the recommendation of the Industries Development Committee and the consent of the Governor. The factories are usually leased with an option to purchase.

During 1979-80 the Trust approved the construction of factory extensions amounting to about 10 500 square metres in Elizabeth and Salisbury South. In addition the trust purchased factory premises of some 10 000 square metres at Kilkenny.

To meet the demand for smaller factory premises the Trust built thirteen leasehold factory units at Salisbury South with a total lease area of approximately 2 600 square metres.

Industrial Estates have been developed by the Trust at Lonsdale, Salisbury South, Elizabeth West, Holden Hill, Port Augusta, Murray Bridge and Mount Gambier.

Since the opening of Colonnades in October 1979 the Noarlunga Centre has developed into an impressive city centre, offering extensive commercial and community facilities. During the year the Municipal Centre was extended, a multi-level office building was completed and construction began on the Noarlunga Community College.

At 30 June 1980 the number of shops let by the Trust was 397.

Sub-standard Housing

To regulate the rents for sub-standard housing the Housing Improvement Act, 1940-1978 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.

The Act provides that before the Trust declares any house to be sub-standard, it must notify the owner of its intention to do so and then allow a period of time for the necessary improvements to be made. If the house is subsequently found to remain in a

sub-standard condition, a maximum rent fixation is made and then strictly controlled for such time as the house remains in a sub-standard classification.

In 1979-80 the Trust inspected 6 122 houses, issued notices under the Housing Improvement Act in respect of 421 properties, fixed maximum rents on 241 houses and revised maximum rents on a further 237 houses.

HOUSING AGREEMENTS

Several Housing Agreements between the Commonwealth and the State have operated over the years and details of the earlier legislation were included on pages 374-5 of the *South Australian Year Book 1978*.

In terms of current Commonwealth legislation, the *Housing Assistance Act 1978*, the Commonwealth advanced to the State during 1979-80 a total of \$23 984 000, of which \$9 million was made available to the South Australian Housing Trust for housing purposes and the balance of \$14 984 000 to Home Purchase Assistance Account. Advances made under the Agreement will be repaid over fifty-three years at concessional rates of interest, 4.5 per cent per annum for funds directed to home purchase assistance and 5.0 per cent per annum for rental housing.

Advances for Housing, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
	\$'000				
Advances for year:					
Housing Trust	33 560	33 560	34 810	22 565	9 000
Home builders accounts (a)	22 800	22 800	23 650	24 803	14 984
Total	56 360	56 360	58 460	47 368	23 984
Liability at end of year (b):					
Housing Trust	225 531	259 226	293 110	313 144	319 420
Home builders accounts	173 351	194 896	217 127	240 336	253 536
Total	398 882	454 122	510 237	553 480	572 956

(a) From 1978-79, the Home Purchase Assistance Account.

(b) Under Housing Agreements only.

HOME SAVINGS GRANT SCHEME

The Commonwealth Government's Home Savings Grant Scheme, introduced in January 1977, is administered by the Department of Housing and Construction.

The Scheme provides tax-free grants of up to \$2 000 to assist first home buyers who are Australian citizens or have a right of permanent residence in Australia provided they have held savings in an acceptable form for at least three years prior to buying or building the home. Lesser grants are payable for savings over one or two completed years. Grants are made on the basis of \$1 for each \$3 saved during the period.

Acceptable forms of savings include savings banks accounts, fixed deposits with trading banks, savings with registered building societies and credit unions, and payments made for land on which the house is being built.

A grant may be made for a new or an established house, home unit or flat in the city or the country.

A value limit applies to homes acquired after 24 May 1979. For homes acquired from 25 May 1979 to 18 August 1980 the limit is \$35 000-\$40 000; for homes acquired from 19 August 1980 to 30 September 1980 the limit is \$45 000-\$55 000 and from 1 October 1980 the limit is \$60 000-\$70 000.

The grant reduces progressively within these limits, cutting out completely at the upper limit. A full grant, depending on the amount saved, is payable for homes valued at less than the relevant value limit range. The value applies to land, dwelling and any other improvements on the land.

People eligible for the grant may also qualify for a Family Bonus. A Family Bonus of \$500 is payable for families with one dependent child and \$1 000 for families with two or more dependent children at the date of contracting to buy or build the home; or as an owner builder, the date on which construction commenced. A dependent child includes a student aged 16 to 25 years.

Application forms are issued by banks, building societies, credit unions or the Department of Housing and Construction.

DEFENCE SERVICE HOMES SCHEME

The *Defence Service Homes Act 1918* assists certain former and serving members of the Defence Force to acquire a home on concessional terms.

The Defence Service Homes Corporation is, subject to the direction of the Minister for Veterans' Affairs, responsible for the administration of the Defence Service Homes Act.

Persons eligible for assistance under the Act include members of the Australian forces and nursing services enlisted or appointed for or employed on active service outside Australia or on a ship of war during the 1914-18 and 1939-45 Wars; persons who served in the operations in Korea or Malaya or who have served on 'special service' as defined in the *Repatriation (Special Overseas Service) Act 1962*; and members of the Defence Force who serve on continuous full-time service and national servicemen whose periods of service ended not earlier than 7 December 1972 and who meet certain prescribed conditions. The categories of eligible persons also include the widows and, in some circumstances, the widowed mothers of eligible persons, and persons domiciled in Australia and employed in certain sea-going service during the 1914-18 and 1939-45 Wars.

Defence Service Homes Scheme, South Australia ^(a)

Year	Activities During Year			Number of Loan Accounts at 30 June
	Loans Granted	Capital Expenditure	Loan Repayments	
		\$'000	\$'000	
1975-76	753	10 615	6 401	16 809
1976-77	598	9 248	6 173	16 582
1977-78	582	9 769	5 068	16 456
1978-79	559	7 992	6 578	16 131
1979-80	450	6 235	7 361	15 600

(a) Includes Northern Territory.

The following loan conditions have applied since 20 August 1980. The maximum loan available is \$25 000 and the interest rate is 3·75 per cent for the first \$12 000 lent, 7·25 per cent on the balance of the loan above \$12 000, but not in excess of \$15 000, and 10 per cent on the balance above \$15 000. The maximum repayment period permitted by the Act is 45 years or, in the case of the widow or widowed mother of an eligible person, 50 years. Normally however, the repayment period is limited to 32 years.

Since the inception of the Defence Service Homes Scheme in 1919, 357 543 loans have been granted to persons eligible for assistance under the Act. All figures shown include homes which were provided originally under the Housing Agreements with the States, and taken over in accordance with those agreements.

HOUSING LOANS INSURANCE CORPORATION

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act 1965* to administer the Commonwealth Government's Housing Loans Insurance Scheme under which approved lenders may be insured against losses arising from the making of housing loans. The Corporation consists of a Chairman (who is also Managing Director) and a Deputy Chairman, who are full-time members, and three part-time members, all of whom are appointed by the Governor-General.

An amendment to the Act in 1977 broadened the scope of the Corporation's activities so that loans for the purchase of vacant land and commercial housing propositions are insurable as well as loans for the purchase or construction of homes for owner occupancy.

Owner occupancy loans are insurable without limit on loan amount, interest rate or term. Loans for the purchase of vacant land are insurable where the borrower intends to erect his home at a later date. In the commercial field, loans for rental housing ranging from single houses or home units to multi-storey structures together with loans for the purchase and development of land and the building of project housing (including home units) are acceptable.

A once only premium is charged by the Corporation at the time the loan is made. The premium is payable by the borrower but lenders may agree to add it to the amount of the loan for repayment by the borrower over the period of the loan. With owner occupancy loans comprising 94 per cent and 95 per cent of the valuation of a home the premium is 1·4 per cent of the amount of the loan. Loans from 95 per cent to 100 per cent of valuation carry a loading of 10 per cent on the maximum 1·4 per cent rate. On loans less than 94 per cent of valuation, the premium falls progressively down to 0·25 per cent on loans of less than 76 per cent of valuation except that a concessional premium of 0·1 per cent is applicable where the loan is less than 76 per cent of valuation and relates to an owner occupied home. Premium rates for the purchase of vacant land are the same as for home ownership.

The Corporation will insure a loan made to enable a borrower to buy or build a house, to buy a home unit, or to discharge an existing mortgage. Loans for alterations and extensions and loans to meet expenses of providing or improving lighting, sewerage, drainage, fences, roads, etc. are also insurable. In addition to loans secured by a registered first mortgage, there is provision for the insurance of second mortgage loans and cover is available for amortised, fixed term or five-year loans.

Further References

Additional information may be found in the following publications:

South Australian Office

8701.4 *Building Statistics: Building Approvals*

Central Office

8702.0 *Building Approvals, Australia*

8704.0 *Building Operations, Australia*

8705.0 *Building Statistics*

PART 9

PRODUCTION

9.1 RURAL INDUSTRIES

South Australia has a semi-arid Mediterranean type climate with mild and humid winters and hot and dry summers. Cereal production and livestock are the main components of agriculture.

The State can be divided into three main zones based on rainfall. The dry inland area is known as the pastoral zone with the main activity being low intensity grazing of livestock. In the cereal zone of intermediate rainfall, major production is of cereal and livestock products. The higher southern rainfall zone has a more reliable growing season and farming is based on higher intensity grazing of sheep and cattle. Areas adjacent to the River Murray are devoted mainly to horticulture and viticulture.

RURAL INDUSTRY ORGANISATIONS

The South Australian Department of Agriculture provides advisory, regulatory and research services to all farming industries in this State. These services are complemented by educational and research organisations (see Part 6.2 Education and Part 6.3 Scientific and Research Organisations) and private firms which also provide expertise in the field of agriculture. Other organisations, many established by State or Commonwealth legislation, also influence the State's rural industries. The following table gives details on some of these bodies.

Rural Industry Organisations and Major Activities, South Australia

Organisation	Activities
Australian Wheat Board	Sole authority for receipt and marketing of wheat.
Australian Barley Board	Provides a marketing system for barley and oats.
South Australian Co-operative Bulk Handling Ltd	Bulk handles all wheat, barley and oats in South Australia.
Australian Wool Corporation	Controls marketing of wool in Australia and overseas.
Australian Meat and Livestock Corporation	Promotes the sale of meat and livestock in Australia and overseas.
South Australian Potato Board	} Regulate marketing and pricing of their respective products.
Dried Fruits Board	
Citrus Industry Organisation Committee of SA	
South Australian Egg Board	
Metropolitan Milk Board	} Regulate production and marketing of their respective products in the Adelaide metropolitan area.
South Australian Meat Corporation	

RURAL INDUSTRY ASSISTANCE

Details of financial assistance provided to the rural sector by the State Government are given in Part 4.2 Land Settlement Schemes.

RURAL STATISTICS

Most rural statistics are prepared from the annual Agricultural Census in which returns are collected from rural establishments. 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, growers are asked to estimate production or provide details at a later date *via* supplementary collections (*e.g.* main crop potatoes and grapes). An owner or occupier who works more than one rural establishment is normally required to report details for each. However, where they are near to one another and are in effect worked as one, a composite return is obtained, and is treated as covering a single rural establishment in the district in which the main farm is situated.

In recent years, the ABS has been gradually excluding from the statistics those establishments whose contribution to agricultural production is small. While this has resulted in changes to the number of establishments appearing in publications the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with small scale operations may be affected to a greater extent.

From 1980, establishments with agricultural activity have been included in the statistics if the enterprises operating the establishments had or were expected to have estimated value of agricultural operations of \$1 500 or more during the current season.

The number and area of rural establishments in each statistical division for the past two years are shown in the following table.

Rural Establishments: Statistical Divisions, South Australia

Statistical Division	Establishments		Area of Establishments	
	1978-79	1979-80	1978-79	1979-80
	Number		'000 hectares	
Adelaide	2 006	2 269	66	68
Outer Adelaide	4 585	5 161	937	961
Yorke and Lower North	3 148	3 265	1 884	1 906
Murray Lands	4 831	5 014	3 729	3 771
South East	3 423	3 560	1 812	1 812
Eyre	2 113	2 137	5 385	5 460
Northern	1 711	1 771	48 842	48 809
Total	(a) 22 022	23 177	62 655	62 786

(a) Beekeepers without a fixed land-base are included in the total but not allocated to any specific Statistical Division.

Integrated Agricultural Register

In 1975 additional information was sought to assess structural details of the agricultural industry in Australia to enable compatibility and comparisons with other industries through financial data. Resulting from this need was the formulation of the Integrated Agricultural Register (IAR) which is used to compile details of the structure of economic units engaged in agriculture.

The economic units defined in the IAR are similar to those used for other industries, namely the enterprise and the establishment. The identification of these units within the agricultural sector has allowed the production of more meaningful statistics of economic size, legal status and industry classification. It has also provided some insight into the activities of agricultural enterprises in other sectors of the economy and the activities of non-agricultural enterprises in the agricultural sector.

The enterprise is that unit comprising all operations in Australia of a single operating legal entity. An agricultural enterprise is an enterprise mainly engaged in agricultural activities. The estimated value of operations of these enterprises includes the estimated value of non-agricultural operations.

The establishment is the smallest economic unit in the system, covering all operations carried out by one enterprise at a single physical location. For the agricultural sector a physical location has been interpreted to mean each individual agricultural holding. However, where two or more holdings in the one State are operated under one management and one set of accounts, the holdings are combined to form one establishment. An agricultural establishment is an establishment which is engaged mainly in agricultural activities. The estimated value of operations of these establishments includes the estimated value of non-agricultural operations.

The following table shows the number of agricultural enterprises in South Australia cross-classified by industry and estimated value of operations. Further details are contained in the publication *Agricultural Sector, Part 1—Structure of Operating Units* (Catalogue No. 7102.0) published by ABS.

**Agricultural Enterprises: Industry and Estimated Value of Operations, South Australia
1978-79**

ASIC Code (a)	Industry of Enterprise	Estimated Value of Operations (\$'000)					Total Enter- prises
		2-19	20-49	50-99	100-199	200 and more	
0124	Poultry for meat	12	22	10	4	1	49
0125	Poultry for eggs	25	31	26	22	19	123
0134	Grapes	1 106	524	62	5	1	1 698
0136	Orchard and other fruit	738	623	215	60	18	1 654
0143	Potatoes	39	37	34	28	8	146
0144	Vegetables (except potatoes)	560	285	91	50	24	1 010
0181	Cereal grains (incl. oilseeds n.e.c.)	520	1 032	1 086	519	95	3 252
0182	Sheep—cereal grains	777	2 158	1 349	286	28	4 598
0183	Meat cattle—cereal grains	68	72	45	18	2	205
0184	Sheep—meat cattle	363	468	269	114	38	1 252
0185	Sheep	872	748	363	100	23	2 106
0186	Meat cattle	742	143	61	24	38	1 008
0187	Milk cattle	648	660	129	18	—	1 455
0188	Pigs	181	101	54	13	10	359
0195	Nurseries	11	30	31	15	12	99
0196	Agriculture n.e.c.	327	28	13	6	3	377
Total (ASIC Code 01)		6 989	6 962	3 838	1 282	320	19 391

(a) ASIC Code 1978 edition.

Agricultural Finance Survey

Estimates of the financial performance of the rural sector of the economy are derived from information obtained in the Agricultural Finance Survey. Before 1977-78 this was an annual collection, but is currently a triennial collection which samples a representative cross-section of all agricultural enterprises in Australia.

Since 1976-77 the Agricultural Finance Survey has been conducted using a single (field) phase sample of approximately 3 500 enterprises throughout Australia, the interviews with selected businesses being carried out by trained ABS interviewers over a six-month enumeration period.

Financial Estimates of Agricultural Enterprises: South Australia

Items	1976-77		1977-78	
	\$m	SE%	\$m	SE%
Sales from crops	258.8	4	187.0	5
Sales from livestock	150.9	5	156.0	5
Sales from livestock products	175.6	5	170.4	4
Turnover	607.9	2	530.3	3
Purchases and selected expenses	259.7	3	266.9	3
Value added	327.8	4	234.7	6
Adjusted value added	293.6	4	198.8	6
Gross operating surplus	245.5	5	142.6	9
Cash operating surplus	246.2	4	149.0	8
Total net capital expenditure	80.2	8	69.0	9
Gross indebtedness	306.0	9	323.5	8

The above table contains estimates of selected financial aggregates of South Australian agricultural enterprises for the years 1976-77 and 1977-78; the associated standard error (SE) for each estimate is also given, being a measure of the sampling error resulting from the use of sampling techniques as opposed to undertaking a complete census. More detailed information both on the statistics shown and the terms used are contained

in the publication *Agricultural Sector, Part IV—Financial Statistics* (Catalogue No. 7507.0) published by the Australian Statistician.

Caution should be exercised when making comparisons between estimates derived from the Agricultural Finance Survey and those compiled annually by ABS in its Value of Agricultural Production series. Some of the major reasons for differences between the estimates are as follows:

- (1) to enable a comparison to be made with statistics produced for other sectors of the economy, the Survey is conducted on an integrated basis which excludes from the survey enterprises which undertake some agricultural activity but their predominant activity is non-agricultural;
- (2) the Value of Agricultural production estimates measure the income accruing from production for a particular year irrespective of whether the total production has been marketed or not. The Survey on the other hand operates generally on a cash basis recognising income only when payment has been received;
- (3) the Survey includes only the value for crops sold, whereas the Value of Agricultural production estimates include the value of crops and seed produced and consumed on the farm.

LAND UTILISATION

Most of the land area of South Australia is arid or semi-arid and cannot be used for crop production. This severe natural limitation means that even with modern farming methods only 6 million of 63 million hectares in rural establishments are devoted to cropping or permanent improved pasture.

As shown in the following table the area under crop in recent years has varied between 2.0 and 3.0 million hectares. Most of this is planted to cereals for the production of grain, hay and forage and about 54 000 hectares are used for the production of fruit and vegetables.

Land Utilisation of Rural Establishments, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
	'000 hectares				
Area used for:					
Crops (a)	2 116	2 036	2 565	2 827	2 771
Sown pastures;					
Lucerne	174	140	107	77	63
Lucerne based	679	689	640	558	502
Clovers, grasses and medics	2 736	2 655	2 502	2 641	2 646
Balance of holdings (b)	57 873	57 531	56 680	56 552	56 804
Total area of holdings	63 577	63 052	62 494	62 655	62 786

(a) Excludes duplication on account of area double cropped. Excludes pastures harvested for hay and seed which have been included in 'Area used for sown pastures'.

(b) Used for grazing, lying idle, etc.

The cereals—wheat, barley and oats—sown for grain account for about 92 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	1975-76	1976-77	1977-78	1978-79	1979-80
	'000 hectares				
Cereals for grain:					
Wheat	958.5	839.1	1 090.0	1 295.3	1 424.2
Barley	832.0	855.4	1 073.4	1 091.1	983.6
Oats	119.0	116.7	130.0	170.5	129.0
Rye	7.8	12.7	23.0	37.7	17.9
Crops for hay:					
Oaten	34.4	40.9	41.3	52.5	35.4
Other	16.7	20.0	21.6	20.9	13.2
Crops for green forage	54.8	58.8	74.8	43.4	44.3
Vegetables:					
Potatoes	2.8	3.2	3.6	3.6	3.5
Tomatoes	0.4	0.4	0.4	0.4	0.4
Other	6.2	6.2	4.3	6.0	3.4
Fruit:					
Orchards	16.5	15.8	15.7	15.7	15.7
Vineyards	31.2	31.2	31.5	31.3	30.7
Other crops	35.3	36.0	55.0	58.4	70.1
Total area of crops	2 115.7	2 036.5	2 564.6	2 826.7	2 771.6

IRRIGATED CULTURE

The following table shows the area of all irrigated culture in South Australia for the seasons 1972-73 to 1978-79. Of the areas shown below, about 55 per cent of both orchards and vineyards and about 15 per cent of pastures are in the River Murray irrigation areas listed in the table on page 389.

Area Under Irrigated Culture, South Australia

Season	Orchards	Vineyards	Vegetables	Other Crops	Pasture	Total
	Hectares					
1972-73	13 126	17 160	6 248	2 028	44 586	83 148
1973-74	13 211	16 973	5 599	1 434	42 960	80 177
1974-75	13 263	17 987	5 888	2 396	39 414	78 948
1975-76	13 132	18 387	5 601	2 205	38 569	77 894
1978-79(a)	12 338	18 892	6 409	4 571	36 176	78 386

(a) Irrigation details now collected triennially.

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.

River Murray Irrigation Areas: Area of Pasture and Area and Production of Vineyards and Orchards, 1979-80^(a)

Irrigation Area	Area			Production				
	Pasture (b)	Vineyards		Orchards	Vineyards		Orchards	
		Bearing	Not Bearing		Total Grapes Produced	Grapes used for Wine	Oranges	Peaches
Hectares				Tonnes				
Upper Murray:								
Berri	40	2 019	91	1 080	31 341	27 385	12 150	1 564
Cadell	—	128	7	162	1 226	970	1 547	57
Cobdogla	25	558	19	18	11 476	10 680	133	n.p.
Cooltong	47	186	4	263	4 057	3 932	5 896	15
Holder	—	117	20	111	2 287	2 227	2 275	9
Loveday	25	871	21	101	17 136	16 067	1 136	n.p.
Loxton	—	1 559	55	1 107	28 810	26 757	29 359	700
Moorook	—	176	8	165	2 593	2 418	2 489	42
Nookamka	—	670	23	48	13 035	12 072	491	9
Ral Ral	56	306	14	116	3 819	3 057	125	577
Renmark	127	1 982	117	1 475	28 189	23 575	12 199	5 506
Sunlands	—	45	n.p.	561	1 299	1 299	18 751	29
Waikerie	11	622	26	889	11 936	11 513	15 865	1 157
Other	59	348	n.p.	824	5 714	5 061	16 340	1 228
Total	390	9 587	434	6 920	162 918	147 012	118 755	10 905
Lower Murray:								
Cowirra	337	—	—	—	—	—	—	—
Jervois	2 197	—	—	n.p.	—	—	—	—
Monteith	514	—	—	—	—	—	—	—
Mypolonga	672	n.p.	—	n.p.	—	—	5 883	278
Neeta	361	—	—	—	—	—	—	—
Pompoota	456	—	—	—	—	—	—	—
Other	700	—	—	—	—	—	—	—
Total	5 237	n.p.	—	395	—	—	5 883	278

(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 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 pastures.

FERTILISERS
Principal Crops and Pasture Fertilised, South Australia, 1979

Type of Crop	Area Fertilised	Fertiliser Used			
		Super-phosphate	Other	Total	Per Hectare
	'000 hectares				
Wheat	1 325	157 379	12 829	170 208	128.46
Pasture	1 811	230 113	8 898	239 011	131.98
All other crops (a)	n.a.	146 483	35 714	182 197	n.a.
Total	n.a.	533 975	57 441	591 416	n.a.

(a) Includes other cereals (barley, oats, rye), vegetables, fruit trees and vines and unspecified crops.

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.

Use of Artificial Fertilisers: Statistical Divisions, South Australia, 1979

Statistical Division	Wheat			Pastures	
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Area Fertilised	Fertiliser Used
	'000 ha	Per cent	Tonnes	'000 ha	Tonnes
Adelaide	2	8.77	243	9	1 538
Outer Adelaide	40	26.38	5 668	307	44 929
Yorke and Lower North	229	37.13	33 137	133	15 715
Murray Lands	270	44.22	27 198	247	30 148
South East	36	24.77	5 176	904	122 886
Eyre	608	60.98	82 869	167	18 761
Northern	141	60.40	15 917	44	5 034
Total	1 325	47.80	170 208	1 811	239 011

Use of Artificial Fertilisers, South Australia

Year	Wheat			Pastures	
	Area Fertilised	Proportion of Total Area Cropped	Fertiliser Used	Area Fertilised	Fertiliser Used
	'000 ha	Per cent	Tonnes	'000 ha	Tonnes
1975	864	40.81	114 345	1 133	146 995
1976	780	38.32	103 195	1 408	174 937
1977	1 022	39.87	123 339	1 607	204 468
1978	1 233	43.62	144 479	1 614	206 805
1979	1 325	47.80	170 208	1 811	239 011

CEREALS

WHEAT

Wheat has always been a crop of major importance to the economy of this State. South Australia produced 15 per cent of the Australian wheat production in 1979-80 compared with 12 per cent in 1978-79.

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 legumes in the rotation. The average yield per hectare for the 1979-80 season was a record 1.65 tonnes, surpassing the previous high of 1.61 tonnes in 1978-79. Production of wheat in 1979-80 was a record 2 349 000 tonnes, while the previous high of 2 263 000 tonnes was set in 1968-69.

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, Yorke and Lower North, Murray Lands and Northern Divisions. These districts accounted for about 94 per cent of the area sown in 1979-80.

Wheat Sown for Grain: Area and Production, Statistical Divisions, South Australia

Statistical Division	Area		Production	
	1978-79	1979-80	1978-79	1979-80
	'000 hectares		Tonnes	
Adelaide	1	2	1 988	2 269
Outer Adelaide	37	42	68 746	75 681
Yorke and Lower North	231	246	418 353	491 545
Murray Lands	254	290	295 298	363 201
South East	29	40	74 168	98 552
Eyre	601	649	957 835	1 002 967
Northern	142	155	269 341	314 479
Total	1 295	1 424	2 085 729	2 348 694

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. The South Australian Advisory Committee on Wheat Quality was established in 1962. Recommendation or approval of wheat varieties is decided each year by the Committee which brings together relevant available information on breeding, testing, commercial production, handling and end usage of wheat and more particularly of specific varieties. The Department of Agriculture and the Australian Wheat Board encourage growers to produce wheat with uniform characteristics in both the Hard class and Australian Standard White (ASW) class and this can be done more successfully if only a few of the best varieties are grown by the farmers.

The leading varieties of wheat sown for all purposes in 1978-79, and for the two previous years are shown in the following table.

Principal Varieties of Wheat Sown, South Australia

Variety	Area			Proportion of Total Area		
	1976-77	1977-78	1978-79	1976-77	1977-78	1978-79
	'000 hectares			Per cent		
Condor	81	134	169	9.5	12.1	12.9
Dirk	23	25	25	2.7	2.2	1.9
Eagle	113	91	77	13.3	8.2	5.9
Egret	12	23	28	1.4	2.0	2.2
Festiguay	56	73	88	6.5	6.6	6.7
Halberd	310	427	514	36.3	38.4	39.3
Kite	78	114	143	9.2	10.3	11.0
Oxley	1	12	40	0.2	1.0	3.0
Sabre	12	24	31	1.4	2.2	2.3
Other	167	189	193	19.6	17.0	14.8
Total area	853	1 111	1 308	100.0	100.0	100.0

The Advisory Committee has divided the State into seven wheat growing zones and each year recommends to farmers 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. For 1978-79, Halberd was the main variety recommended for ASW wheat and Condor was the most widely grown of the hard wheats.

Marketing

Australian Wheat Board

The Board has legislative powers over the receipt and disposal of all wheat and wheat products. Under the stabilisation plan the Board is the sole authority for marketing wheat in Australia and for marketing wheat and flour for export.

In its first full season, 1939-40, the Wheat Board received 5.3 million tonnes. Deliveries to the Board in 1979-80 totalled 15.3 million tonnes. A record delivery of 17 million tonnes was made during 1978-79, the previous record delivery being 14 million tonnes during 1968-69.

Deliveries to the Australian Wheat Board^(a)

Season	South Australia	Australia	Season	South Australia	Australia
	'000 tonnes			'000 tonnes	
1970-71	681	6 936	1975-76	1 042	11 247
1971-72	1 306	7 665	1976-77	725	10 932
1972-73	711	5 438	1977-78	416	8 542
1973-74	1 672	11 199	1978-79	1 976	17 448
1974-75	1 377	10 704	1979-80	2 231	15 327

(a) Mostly in bulk, but includes weight of bags where used.

During the year ended 30 November 1980 total exports of wheat (including wheat equivalent of flour and wheat products) were 13.1 million tonnes.

Bulk Handling

The South Australian Co-operative Bulk Handling Ltd, is the sole bulk grain handling authority in this State, and is owned, financed and controlled by the growers.

The bulk handling operations of the State have been divided into seven divisions—Arrossan, Port Giles, Wallaroo, Thevenard, Port Lincoln, Port Pirie and Port Adelaide—each of which provides a terminal port as a shipping outlet for the country silos within the division. The following table shows the total bulk capacity, expressed in tonnes of wheat, of the respective divisions.

Bulk Handling Capacity, South Australia, 31 December 1980^(a)

Division	Permanent	Temporary	Total
	'000 tonnes		
Arrossan	241.8	—	241.8
Port Adelaide	1 084.8	64.6	1 149.4
Port Giles	164.1	—	164.1
Port Lincoln	904.8	95.4	1 000.2
Port Pirie	442.9	75.9	518.8
Thevenard	394.2	75.3	469.5
Wallaroo	441.4	—	441.4
Total	3 674.0	311.2	3 985.2

(a) Includes current contracts let.

The system by which payments are made to growers changed from the 1975-76 season. Previously growers forwarded claim forms through the bulk handling authority, after the delivery of wheat. Now a claim form containing the pre-harvest information required by the Board is forwarded by each grower. The form enables the prompt payment of the first advance, on a fortnightly basis after 1 December throughout the harvest period, by directly crediting the net payments to growers' individual bank accounts.

Under the system of pooling wheat, the cost of handling wheat by the Co-operative is reimbursed by the Wheat Board.

Grading of Wheat

To aid the Wheat Board in the marketing of wheat each season, a separate standard sample is determined for the various classes of exportable wheat produced in each State. Samples of the various classes of wheat are then packed in sealed bags and forwarded by the Wheat Board to the potential purchasers of Australian wheat.

In South Australia, the classes of wheat for which official standards are declared each season are South Australian Hard and Australian Standard White (SA). An official standard sample will also be determined for the class known as General Purpose in seasons when sufficient is available for export.

Test weights of the standard samples for the three classes of wheat segregated in season 1979-80 were declared as follows:

Class of Wheat	Kilograms per Hectolitre
ASW	77.1
Hard	79.5
General Purpose	<i>n.a.</i>

The segregation of South Australian wheat into classes was first introduced in the 1957-58 season when wheat was separated into a Semi-hard wheat class (after 1966 called Hard wheat) and into what, up to that time, was the long established FAQ (Fair Average Quality) class. This has been done in each season since 1957-58.

Prices

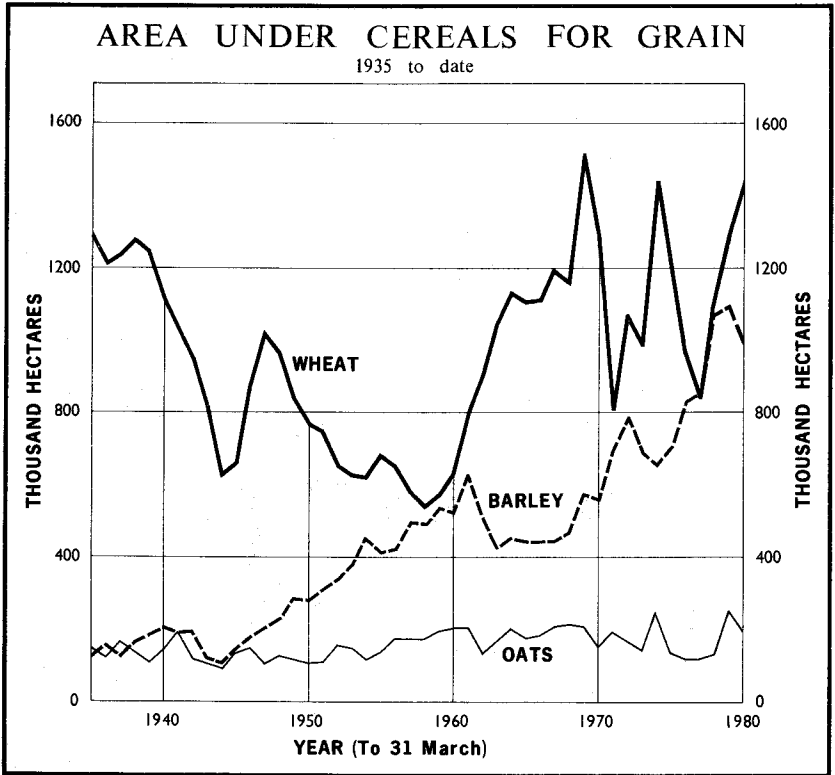
The following table shows the trend in export and domestic prices of Australian wheat for the years 1975-76 to 1979-80. The export prices shown in the table are the basic selling prices for ASW bulk wheat f.o.b., terminal ports.

Export and Domestic Prices of Australian Wheat

Year	Export Price per Tonne (a)	Home Price per Tonne
	\$	\$
1975-76	106.39	..
From 1/12/75 .....	..	98.70
From 4/5/76 .....	..	99.32
1976-77	96.79	105.40
1977-78	116.48	111.16
1978-79	137.62	116.61
1979-80	153.19	130.78

(a) Based on the average of the daily quoted price, year ended November.

The following graph illustrates variations in areas sown to the major cereal crops in South Australia since 1935.



BARLEY

Production

In 1979-80 the area sown to barley for grain in South Australia represented 40 per cent of the Australian total and yielded 42 per cent of the grain produced. Of the area sown for grain in South Australia, 99 per cent was 2-row barley, reflecting the suitability of certain areas of the State for the production of high quality malting barley. For malting purposes a plump mellow grain with fine skin coverings is required, and this can best be obtained when the ripening period is somewhat prolonged by cool conditions, without high temperature or drying winds.

Total area sown to barley in 1979-80 was 996 000 hectares, 984 000 hectares being sown for grain. Production in 1979-80 was a record 1 528 000 tonnes. The previous highest production of 1 423 000 tonnes was achieved in 1978-79.

Area and Production of Barley for Grain: Statistical Divisions, South Australia

Statistical Division	Area		Production	
	1978-79	1979-80	1978-79	1979-80
	'000 hectares		'000 tonnes	
Adelaide	4	4	6	6
Outer Adelaide	61	55	90	82
Yorke and Lower North	328	313	500	622
Murray Lands	265	235	221	270
South East	44	36	61	49
Eyre	313	280	425	395
Northern	76	61	119	103
Total	1 091	984	1 423	1 528

Unlike wheat, barley growing has nearly always been confined to very suitable districts resulting in high and remarkably stable yields, the record yield being 1.62 tonnes per hectare in 1974-75.

Yorke Peninsula is the major barley-producing district in South Australia. In the 1979-80 season this area contributed approximately 30 per cent of the total crop. It has an ideal climate for barley growing as the moisture-laden breezes off the gulfs on either side retard ripening.

Varieties

The most widely grown barley variety before 1970-71 was Prior, which for the three seasons ended 1969-70 averaged about 60 per cent of the total area sown. Another variety, known as Noyep, is similar to Prior but is earlier maturing and is suitable to areas where a sudden cut-off in spring rainfall is experienced.

The malting variety, Clipper, was released in South Australia to replace Prior in 1968. Reported area sown to Clipper in the 1970-71 season was 330 000 hectares, in the 1971-72 season 512 000 hectares and in the 1978-79 season 666 000 hectares. The variety has greater straw strength, is 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 1978-79 Clipper was the most widely grown variety, accounting for 60 per cent of the total area sown to barley. The percentage sown to Prior and Noyep was 3 and 1 per cent respectively. Another variety, Ketch, was released in 1970. The proportion sown to Ketch in 1978-79 was approximately 4 per cent.

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 1979-80 season the Board received a record total of 1 886 000 tonnes, the previous record was 1 420 000 tonnes in 1975-76. Since 1966-67 receipts of bulk barley have been greater than receipts of bagged barley.

For marketing purposes all barley is classified on sample before delivery. Classification is firstly by row variety and secondly by quality. With the wide acceptance of Clipper barley as the prime malting variety, the Board renumbered its barley standards for South Australia for season 1975-76 and subsequent seasons to South Australian Clipper Barley Nos. 1 and 2 Grade, South Australian Two Row Barley Nos. 3 and 4 Grade, and South Australian Six Row Barley Feed Grade.

PRODUCTION

Australian Barley Board Receivals, South Australia

Season	2-Row				6-Row	Total
	No. 1 Grade	No. 2 Grade	No. 3 Grade	No. 4 Grade	Feed	
	'000 tonnes					
1975-76	116	270	603	6	10	1 006
1976-77	82	213	502	9	5	812
1977-78	10	67	398	8	1	484
1978-79	117	325	861	28	9	1 340
1979-80	195	451	783	23	4	1 456

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 the seasons 1977-78 to 1979-80 are shown below.

Price per Tonne of Barley for Home Consumption

Season	No. 1 Grade	No. 2 Grade	No. 3 Grade	No. 4 Grade	
Bagged Barley		Dollars			
1977-78:					
3 year Contract	—	—	96·90	95·00	
Other	114·00	111·00	102·00	100·00	
1978-79:					
3 year Contract	—	—	85·50	83·60	
Other	116·50	113·50	90·00	88·00	
1979-80:					
3 year Contract	—	—	111·15	109·25	
Other	127·78	124·78	117·00	115·00	

OATS

The following table shows details of oats sown in recent years.

Oats, South Australia

Season	Area Sown for			Total Area	Production	
	Grain	Hay	Forage		Grain	Hay
	'000 hectares				'000 tonnes	
1975-76	119	34	41	195	107	99
1976-77	117	41	40	198	90	114
1977-78	130	41	41	212	55	75
1978-79	171	52	29	252	177	163
1979-80	129	35	32	196	144	119

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 1978-79, 76 per cent of the total area of oats was sown in four varieties—Swan, 131 000 hectares; Avon, 32 000 hectares; West, 17 000 hectares; and Kherson, 13 000 hectares.

RYE

Rye is a minor crop, but it has been used to control sand drift and particularly to 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 while some grain is produced on a number of farms. Although most grain is used for stock feed, varying quantities are exported in different years for milling. Rye hay is of poor nutritional quality and only a few hundred tonnes are produced each year.

In 1979-80, 18 000 hectares of rye for grain yielded 4 000 tonnes. The record production, set in 1978-79, is 17 000 tonnes from 38 000 hectares.

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)						
1975-76	34	10	25	7	83	159
1976-77	41	11	25	9	79	164
1977-78	41	12	20	10	55	138
1978-79	52	11	16	9	131	219
1979-80	35	8	14	6	97	160
PRODUCTION ('000 tonnes)						
1975-76	99	30	101	16	260	506
1976-77	114	27	99	20	252	512
1977-78	75	20	70	15	146	326
1978-79	163	34	67	22	380	666
1979-80	119	24	58	15	294	509

Between 20 000 and 50 000 tonnes of silage are produced in most years and in certain areas this is an important supplementary stock food; in 1979-80 production was 16 000 tonnes.

OILSEEDS

In recent years there has been a significant increase in the area sown to oilseeds. These have proved an alternative to wheat, wool and meat production and are mainly grown under contract to processors and stockfeed manufacturers. The seed is crushed to yield oils which have both domestic and industrial applications and the high protein meal by-product is used for the manufacture of stockfeeds. Details of area and production of selected oilseeds since 1975-76 are shown in the following table.

Selected Oilseed Crops: Area and Production, South Australia

Season	Linseed	Rapeseed	Safflower	Sunflower
		AREA (Hectares)		
1975-76	1 868	3 567	880	3 966
1976-77	2 613	3 767	528	4 426
1977-78	3 759	9 794	893	9 501
1978-79	1 079	11 655	1 084	11 206
1979-80	1 338	12 213	580	7 841
		PRODUCTION (Tonnes)		
1975-76	1 608	4 093	583	3 853
1976-77	3 202	5 425	302	4 357
1977-78	2 221	9 895	783	9 499
1978-79	1 174	13 825	922	9 814
1979-80	1 915	15 599	487	8 540

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 with easy access to the Adelaide market.

Of the total area of approximately 10 000 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. Over 1 000 hectares are cultivated in the South East Division, mainly potatoes. An area of some 90 hectares in Northern Division (mainly on the coastal plains near Port Pirie) is used for the production of peas, potatoes and early tomatoes for Adelaide and for export to the Melbourne market. Approximately 1 600 hectares along the River Murray are devoted to production of potatoes, 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 and reached a record of 26 tonnes per hectare in 1976-77; in 1979-80 the average yield was 22 tonnes per hectare. The improvement is largely because of better quality seed, improved fertilisers and advances in pest and disease control.

The Adelaide plains produce most of the South Australian tomatoes which are grown in glasshouses. Significant quantities, mostly for canning and juice production in local factories, are now grown in the Upper Murray irrigation areas. In recent years, high yields have resulted from the introduction of new varieties.

Vegetables for Human Consumption, South Australia

Vegetable	Area		Production	
	1978-79	1979-80	1978-79	1979-80
	Hectares		Tonnes	
Beans	29	33	161	170
Cabbages	242	255	8 554	9 597
Carrots	373	359	10 998	9 171
Cauliflowers	286	275	12 230	12 385
Celery	85	88	4 886	5 070
Lettuce	244	275	3 905	4 221
Melons	161	143	1 905	1 976
Onions	881	963	27 377	30 292
Peas	2 296	107	11 758	252
Potatoes	3 582	3 474	89 399	91 535
Pumpkins	415	418	5 995	6 151
Sweet corn	631	100	8 058	1 013
Tomatoes	432	440	16 015	15 313
Turnips	72	68	915	956
Other	292	293	..	..
Total	10 021	7 291	..	..

GRAPES

Approximately 45 per cent of Australia's vineyard area is located in South Australia where the bulk of the grapes are used for winemaking. In 1979-80 South Australia produced 235 million litres of wine and 4 056 tonnes of dried vine fruit representing 58·0 per cent and 3·4 per cent respectively of total Australian production. The following table shows the area and production of vineyards in South Australia for the seasons 1975-76 to 1979-80.

Area and Production of Vineyards, South Australia

Season	Vines		Production of Grapes for		
	Bearing Age	Not yet Bearing	Wine	Table	Drying
	Hectares		Tonnes		
1975-76	27 278	3 883	256 583	962	12 183
1976-77	27 858	3 387	280 109	1 440	11 950
1977-78	28 443	3 100	269 449	2 358	24 576
1978-79	28 844	2 433	279 129	2 152	16 922
1979-80	28 509	2 225	308 475	2 690	14 744

The area planted to vines at harvest 1980 was 30 734 hectares, 809 hectares below the record area of 31 543 hectares at 31 March 1978. Total production in 1979-80 was a record 325 909 tonnes. The previous record of 298 203 tonnes was achieved in 1978-79.

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. The balance of the crop is processed by proprietary

wineries which purchase grapes from the growers. Minimum prices, according to variety, are determined by a committee of which the Prices Commissioner is chairman. The proprietary wineries also purchase a large proportion of the wine, brandy and spirits made by co-operatives.

The following table shows the area, production and utilisation of grapes for the seasons 1975-76 to 1979-80.

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	
1975-76	31 161	269 728	213 863	1 357	1 639	280
1976-77	31 244	293 489	229 973	2 217	1 011	260
1977-78	31 543	296 383	203 219	1 745	4 243	421
1978-79	31 277	298 203	202 050	1 840	2 350	422
1979-80	30 734	325 909	234 547	2 030	1 730	295

(a) Excludes grape spirit added.

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 401) 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 River Murray to the east.

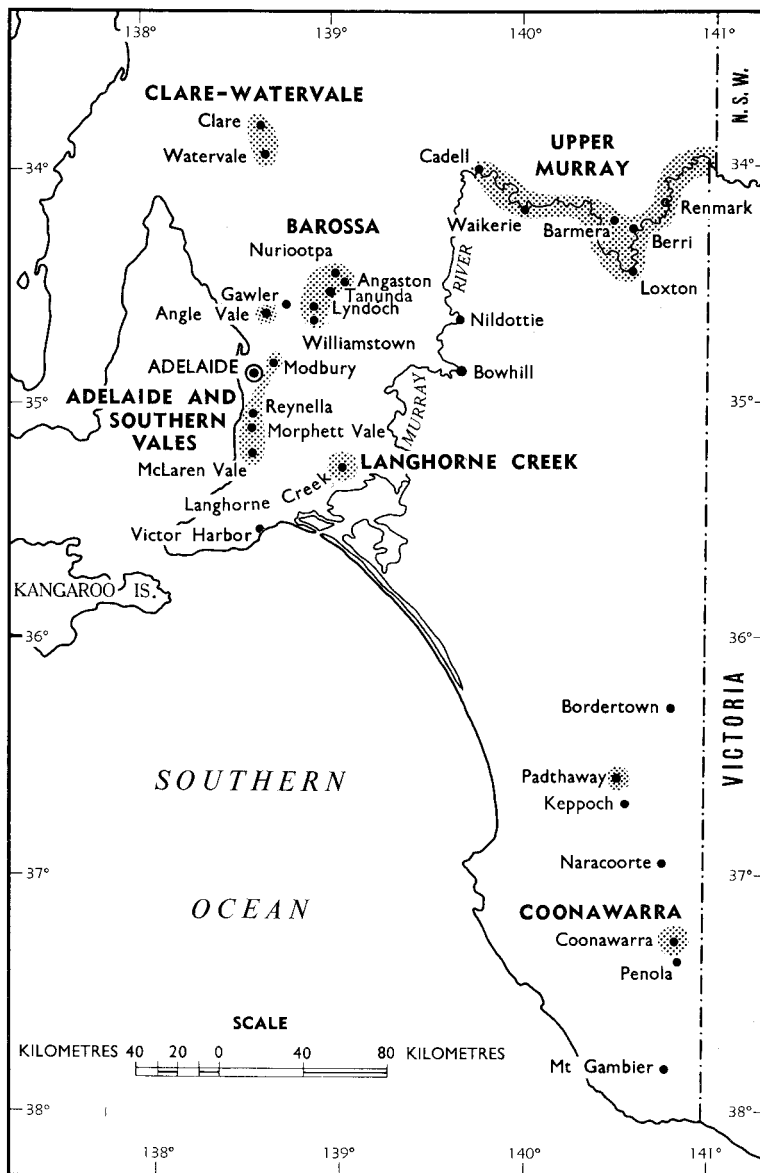
Supplementary irrigation is carried out in some grape growing districts which have not been officially designated as irrigation areas, especially Langhorne Creek and Coonawarra where approximately 50 to 60 per cent of all grapes are under irrigation. The other areas are mainly dependent on winter rainfall stored in the sub-soil by careful dry-farming methods to be used during the summer growing season of the vine—the yields in the non-irrigated districts are more variable than the Upper Murray irrigation areas.

District average yields in the irrigated areas are 18 to 20 tonnes per hectare although individual vineyard yields of 40 to 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.

Grape Varieties

The tremendous upsurge in tablewine sales in Australia over the last decade coupled with weakening export markets for dried vine fruits has caused a major shift in the types of grapes grown in South Australia. Areas of Sultana and Waltham Cross, the principal drying varieties have declined overall and the majority of those now grown are used for winemaking rather than for drying. Areas of Muscat Gordo Blanco, which can be used for both drying or winemaking, have remained relatively constant while large areas of specialised wine varieties like Shiraz, Cabernet Sauvignon, Grenache (red wine grapes) and Rhine Riesling (white wine) have been planted in all grape growing districts.

PORTION OF SOUTH AUSTRALIA GRAPE GROWING DISTRICTS



Principal Varieties of Vine, South Australia

Variety	March 1977	March 1978	March 1979	March 1980
	Hectares			
Cabernet Sauvignon	2 441	2 457	2 417	2 294
Crouchen (a)	966	990	1 006	964
Doradillo	1 751	1 731	1 628	1 538
Grenache	5 097	4 961	4 727	4 408
Mataro	1 597	1 552	1 455	1 284
Muscat Gordo Blanco	2 032	2 103	2 136	2 190
Palomino	2 410	2 334	2 289	2 173
Common Palomino				
Pedro Ximenez				
Rhine Riesling	2 565	2 841	3 010	3 286
Shiraz	5 546	5 583	5 455	5 245
Sultana	2 643	2 638	2 574	2 576
Other	4 196	4 353	4 580	4 776
Total	31 244	31 543	31 277	30 734

(a) Previously called Clare Riesling.

ORCHARD FRUIT

A wide 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 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 approximately 15 per cent of total citrus production in 1978-79.

Citrus Fruit: Trees and Production, South Australia

Season	Oranges			Lemons and Limes		Grape- fruit	Total Citrus
	Navel	Valencia	Other	Mandarins			
	TREES OF BEARING AGE ('000)						
1975-76	520	797	10	87	68	52	1 534
1976-77	499	781	10	92	63	55	1 500
1977-78	504	783	11	101	62	63	1 524
1978-79	496	785	8	106	63	72	1 531
1979-80	502	818	7	116	(a)	(a)	1 580
	PRODUCTION (Tonnes)						
1975-76	54 812	87 778	1 019	7 151	3 619	7 066	161 445
1976-77	49 737	73 872	606	8 100	4 251	8 118	144 684
1977-78	49 961	87 468	881	9 655	4 162	8 155	160 283
1978-79	54 904	85 820	675	10 571	5 189	8 436	165 594
1979-80	55 879	98 558	697	10 128	(a)	(a)	n.a.

(a) Data collected separately for mandarins and grapefruit.

Citrus growing is concentrated in the irrigation settlements of the Upper Murray where approximately 80 per cent of the total crop is produced. The industry has shown great

expansion in the last decade; in 1978-79 a record production of 165 594 tonnes was achieved. The previous record production of 161 445 tonnes was obtained in 1975-76.

Apple growing is the principal non-citrus fruit industry and is concentrated in the Adelaide Hills. A record production of 33 000 tonnes was achieved in 1940-41, while production in 1979-80 was 17 420 tonnes.

Pears are grown in the Adelaide Hills, in the Barossa Valley and on the Murray irrigation settlements. The yield from the 1970-71 harvest was a record 13 000 tonnes from 636 hectares. Production in 1979-80 was 7 111 tonnes.

The stone fruits industry became important following development of the irrigation schemes. Production of peaches has shown the greatest increase: the 1951-52 yield of 3 000 tonnes from 835 hectares was typical for the crop until that time, but by 1966-67 the yield was a record 29 000 tonnes from 1 924 hectares. In the same period production of apricots rose from 11 000 to 28 000 tonnes. South Australia is the major apricot-producing State, with the greater part of the crop being dried and much of the remainder being canned.

Cherries, plums and prunes, and almonds are the most important of the remaining crops.

Non-citrus Orchard Fruit: Trees and Production, South Australia

Season	Apples	Apricots	Cherries	Peaches	Pears	Plums and Prunes
TREES OF BEARING AGE ('000)						
1975-76	473	332	42	300	145	58
1976-77	453	323	39	274	130	54
1977-78	445	320	41	244	126	58
1978-79	446	318	40	234	120	56
1979-80	433	316	38	229	112	<i>n.a.</i>
PRODUCTION (Tonnes)						
1975-76	19 302	12 184	741	20 108	9 235	1 879
1976-77	18 315	14 209	693	16 284	6 812	1 485
1977-78	17 085	14 679	1 003	16 624	8 041	1 795
1978-79	20 092	16 499	792	14 536	7 120	1 860
1979-80	17 420	14 701	485	14 132	7 111	<i>n.a.</i>

The Upper Murray irrigation areas and the Barossa Valley of South Australia account for almost the entire Australian production of dried apricots, peaches, pears and nectarines. A small proportion of the Australian production of dried prunes is produced in the Barossa Valley and in the Noarlunga district.

OTHER CROPS

Other crops cultivated in South Australia include field peas, nursery products, cut flowers, pasture seeds, vegetable seeds and chicory.

In 1979-80, 31 217 hectares of field peas were grown for grain yielding 37 999 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 1979-80 season 63 per cent of the 1 410 000 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.

VALUE OF AGRICULTURAL PRODUCTION

The value of agricultural production may be expressed in terms of gross value and local value. 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 of the principal market. Local value equals the gross value of production less marketing costs.

VALUE AND PRICES OF CROPS

The gross value of crops (including pastures) for South Australia in the 1979-80 season was \$793 180 000.

In the following table gross values of principal crops for the seasons 1974-75 to 1979-80 are shown.

Gross Value of Principal Crops, South Australia

Commodity	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80 ^p
	\$'000					
Cereals:						
Wheat	163 922	118 063	73 726	50 349	265 159	358 170
Barley	119 305	105 865	93 807	50 553	118 303	192 512
Oats	7 832	6 485	5 698	4 075	9 976	11 455
Rye	116	270	566	647	1 220	421
Crops for hay	5 944	5 115	6 015	6 659	6 969	4 503
Lupins for grain	375	993	915	568	1 106	1 988
Rapeseed	405	592	963	1 817	2 765	3 185
Sunflower	578	698	1 188	2 147	2 316	1 786
Field peas	1 873	1 907	1 488	1 153	4 479	5 506
Orchard and berry fruit:						
Citrus	14 865	16 806	20 480	26 670	30 470	31 969
Apples	7 975	5 550	8 892	7 371	9 729	7 819
Apricots	4 016	4 500	6 776	7 215	8 864	8 985
Peaches	6 635	4 968	5 128	4 567	4 484	4 541
Other	6 727	7 378	7 753	9 971	9 988	11 297
Vine fruit:						
Wine grapes	33 802	35 988	37 593	36 729	40 923	53 924
Table grapes	654	443	739	1 224	1 601	2 188
Dried currants, raisins, etc.	3 046	1 768	2 958	6 000	4 423	5 741
Vegetables:						
Potatoes	9 285	9 966	10 997	10 443	14 684	15 686
Tomatoes	7 865	10 528	8 540	9 803	9 963	8 318
Other	18 074	19 641	20 651	26 735	30 822	25 015
Other crops	5 056	4 881	5 540	8 649	13 281	14 809
Total crops (excluding pastures)	418 350	362 405	320 413	273 345	591 526	769 819

Gross Value of Principal Crops, South Australia (continued)

Commodity	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80 ^p
	\$'000					
Pastures:						
Pasture seed	5 092	4 066	3 328	3 729	5 493	8 641
Pastures cut for hay	9 014	6 590	6 657	12 696	12 594	14 720
Total pastures	14 106	10 657	9 985	16 425	18 087	23 361
Gross value of crops	432 455	373 062	330 398	289 769	609 613	793 180

Market prices of principal crops grown in South Australia for the years 1974-75 to 1979-80 are set out in the following table.

Prices of Principal Crops, South Australia

Commodity	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80 ^p
	Dollars per tonne					
Cereals:						
Wheat (a)	111.21	104.46	90.36	102.20	127.83	154.06
Barley (a)	106.11	98.14	106.52	88.37	83.95	126.61
Oats	74.10	65.20	71.90	88.49	67.61	86.57
Rye	75.41	100.00	123.17	116.79	74.67	91.00
Fruit:						
Apples	386.00	310.00	540.00	476.00	540.00	500.00
Apricots	541.00	411.00	518.00	563.00	612.00	804.00
Peaches	672.00	637.00	681.00	638.00	867.50	1 071.00
Pears	320.00	407.00	460.00	476.00	460.00	499.00
Oranges;						
Navel (a)	96.91	97.00	146.12	180.47	188.97	197.00
Other (a)	105.14	105.00	141.92	149.75	179.94	170.40
Grapes;						
Table	471.00	461.00	513.00	519.00	743.75	809.00
Wine (b)	124.27	140.26	134.21	136.31	146.61	169.72
Vegetables:						
Potatoes (a)	131.40	138.95	131.79	115.64	164.26	167.64
Onions	201.00	253.00	226.00	214.67	235.33	220.50
Tomatoes;						
Glasshouse	563.00	709.00	615.00	777.00	819.00	678.00
Other	289.00	569.00	481.00	517.00	373.00	567.00

(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.

Cattle numbers reached their highest peak of 1 891 000 in 1975-76, but have dropped in the following years to nearly half that number. In 1977-78 sheep numbers fell to their lowest level for nearly twenty years, but since then have steadily recovered to over sixteen million in 1980.

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 dingoes (native dogs).

PASTURES

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. 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 the annual, wimmera rye grass is most widely used in the medium to low rainfall areas. The naturalised annual grasses which occur over the whole of the State contribute substantially to total pasture production.

There has been a significant increase in the area of sown pastures over the past twenty years. Area under pasture for the years 1975-76 to 1979-80 is shown for statistical divisions in the table below.

Area Under Pasture: Statistical Divisions, South Australia^(a)

Statistical Division	1975-76	1976-77	1977-78	1978-79	1979-80
	'000 hectares				
Adelaide	22	19	15	16	14
Outer Adelaide	403	376	368	371	358
Yorke and Lower North	275	279	242	262	241
Murray Lands	827	813	723	728	695
South East	1 289	1 263	1 239	1 231	1 205
Eyre	671	638	575	585	614
Northern	102	97	88	84	84
Total	3 589	3 484	3 249	3 276	3 211

(a) Lucerne, clovers (all kinds), rye grasses (all kinds), cocksfoot, paspalum, phalaris, primrose, sudan and veldt.

SHEEP

Numbers and Distribution

At 31 March 1970 a record number of 19 747 000 sheep were being maintained in South Australia but drought conditions reduced the number to 16 046 000 at 31 March 1980.

The next table shows the total number of sheep in statistical divisions at 31 March for the years 1976 to 1980.

Sheep Numbers: Statistical Divisions, South Australia, At 31 March

Statistical Division	1976	1977	1978	1979	1980
	'000				
Adelaide	108	76	159	60	64
Outer Adelaide	1 956	1 723	1 676	1 781	1 912
Yorke and Lower North	2 580	2 097	1 919	2 146	2 354
Murray Lands	2 363	1 994	1 885	2 001	2 127
South East	4 281	3 936	3 942	4 135	4 347
Eyre	2 606	2 199	1 902	2 050	2 246
Northern	3 384	3 108	2 591	2 767	2 997
Total	17 279	15 132	14 073	14 940	16 046

Breeds of Sheep

The predominant breed in South Australia is the Merino which accounts for 85 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.

Breeds of Sheep, South Australia, At 31 March

Breed	1970	1971	1974	1977	1980
	'000				
Merino	16 749.3	16 304.1	14 212.0	13 174.3	13 590.9
Corriedale	973.1	940.6	646.2	557.1	607.2
Dorset Horn	} 67.4	77.9	{ 46.5	45.6	95.4
Poll Dorset .....						{ 35.0	58.3	132.7
Border Leicester	29.6	27.7	25.8	108.8	119.0
Polwarth	139.6	147.6	137.3	120.0	131.3
Romney Marsh	21.1	17.6	11.4	18.4	31.4
Ryeland	6.7	5.7	4.0	6.2	4.2
Southdown	4.9	4.7	3.1	2.3	1.9
Suffolk	14.9	18.4	19.0	23.9	41.0
Other	3.8	4.3	7.7	9.6	17.0
Merino-Comeback	168.4	214.7	133.6	73.5	156.9
Crossbred	1 568.3	1 402.6	1 149.3	934.2	1 117.3
Total	19 747.1	19 165.8	16 430.9	15 132.3	16 046.3

Of the remaining recognised breeds, the Australasian breeds, Corriedale and Polwarth, are most important, with Poll Dorset numbers increasing dramatically. The Corriedale and Polwarth are dual purpose sheep breeds 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 breed 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,

Sheep and Lambs Shorn: Wool-clip and Average Fleeceweight, South Australia

Classification	1975-76	1976-77	1977-78	1978-79	1979-80
NUMBER SHORN ('000)					
Sheep	15 355	14 645	13 499	12 960	13 421
Lambs	4 394	3 275	3 200	3 314	4 129
Total	19 748	17 920	16 699	16 273	17 550
WOOL-CLIP ('000 kg)					
Sheep	84 148	82 181	73 571	73 319	79 249
Lambs	7 663	5 835	5 392	6 011	7 862
Crutchings	4 413	4 302	3 925	3 801	4 094
Total	96 224	92 317	82 888	83 131	91 205
AVERAGE FLEECEWEIGHT (kg) (a)					
Sheep	5.77	5.91	5.74	5.95	6.21
Sheep and lambs	4.87	5.15	4.96	5.11	5.20

(a) Includes crutchings.

The total wool-clip, including crutchings, exceeded 100 million kg for the first time in 1966-67. Approximately 85 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 6.39 kg a head being achieved in 1974-75. 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 1979-80 by statistical divisions is given in the next table. This shows the high average fleeceweight obtained in the northern pastoral areas. The relatively light average fleece obtained in the South East Division is explained partly by the lower proportion of Merino sheep in the area (at 31 March 1980 only 68 per cent of total sheep in the South East Division were Merinos, compared with a total State figure of 85 per cent), but more importantly by the lighter wool quality of the smaller framed sheep in this area.

Sheep and Lambs Shorn: Wool-clip and Average Fleeceweight, Statistical Divisions South Australia, 1979-80

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	125	9	133	378	16	413	3.18	3.10
Outer Adelaide	1 640	451	2 090	9 336	805	10 597	5.97	5.07
Yorke and Lower North	1 953	589	2 542	11 940	1 122	13 667	6.42	5.38
Murray Lands	1 770	600	2 370	11 038	1 080	12 708	6.57	5.36
South East	3 768	1 152	4 920	20 836	2 145	24 003	5.80	4.88
Eyre	1 812	535	2 347	10 568	862	11 981	6.14	5.11
Northern	2 354	793	3 147	15 153	1 832	17 836	6.80	5.67
Total	13 421	4 129	17 550	79 249	7 862	91 205	6.21	5.20

(a) Includes crutchings.

WOOL INDUSTRY

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.

From 1965-66 to 1975-76, wool production exceeded 100 million kg each year. In the past two years with improved seasonal conditions flock members have increased and total wool production has risen from 87 million kg in 1977-78 to over 95 million kg in 1979-80. Wool prices have varied markedly resulting in the gross value of production being as low as \$65 million in 1970-71 and as high as \$187 million in 1979-80.

Wool Production and Value, South Australia

Season	Production			Value of Wool Production
	Shorn Wool	Other (a)	Total	
		'000 kg		\$'000
1975-76	96 224	5 688	101 912	119 179
1976-77	92 317	6 125	98 442	155 293
1977-78	82 888	4 205	87 092	149 768
1978-79	83 131	4 224	87 355	162 349
1979-80	91 205	4 254	95 459	187 807

(a) Includes fellmongered wool, dead wool and wool exported on skins.

Wool Quality and Marketing

For many years approximately 9 per cent of the wool grown in South Australia was sold outside the auction system. This percentage reached 19 per cent in 1972-73, fell to 14 per cent in 1973-74, recovered to 22 per cent in 1976-77 and is now approximately 20 per cent. Of the South Australian wool passing through the auction system approximately 80 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 is tested to give measures of average fibre diameter (mean micron), 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 the Objective Measurement system 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.

Quality Analysis of Greasy Wool Sold at Auction in South Australia

Mean Micron Classification	1976-77	1977-78	1978-79	1979-80
	Per cent			
20 and finer	4.1	6.0	2.9	1.8
21	14.0	18.3	9.2	4.9
22	21.7	25.0	23.3	15.6
23	26.4	22.7	20.6	18.3
24	14.4	11.9	18.8	22.9
25	7.8	5.6	10.4	14.9
26	4.4	3.1	5.2	9.0
27 to 38	} 5.6	5.6	7.0	11.3
Coarser				
Oddments	1.6	1.8	2.6	1.5
Total	100.0	100.0	100.0	100.0

The incidence of vegetable matter reduces the yield of all wool types. If the extent of vegetable fault is greater than 14 per cent of the wool's greasy weight the wool has to be treated by the carbonising process. In most seasons approximately 70 per cent of South Australian wool is free of, or contains only light burr and seed; almost 15 per cent contains medium or heavy burr and seed and some 10 per cent is carbonising wool.

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	Carbonising Wool	Combing Oddments	Total
Percentage of Total Number of Bales							
1975-76	37.0	31.8	12.7	3.1	13.6	1.8	100.0
1976-77	37.8	31.7	13.4	2.8	12.7	1.6	100.0
1977-78	44.2	32.1	9.1	1.6	11.2	1.8	100.0
1978-79	39.3	32.6	13.6	2.4	9.5	2.6	100.0
1979-80	32.3	37.5	14.5	4.0	10.2	1.5	100.0

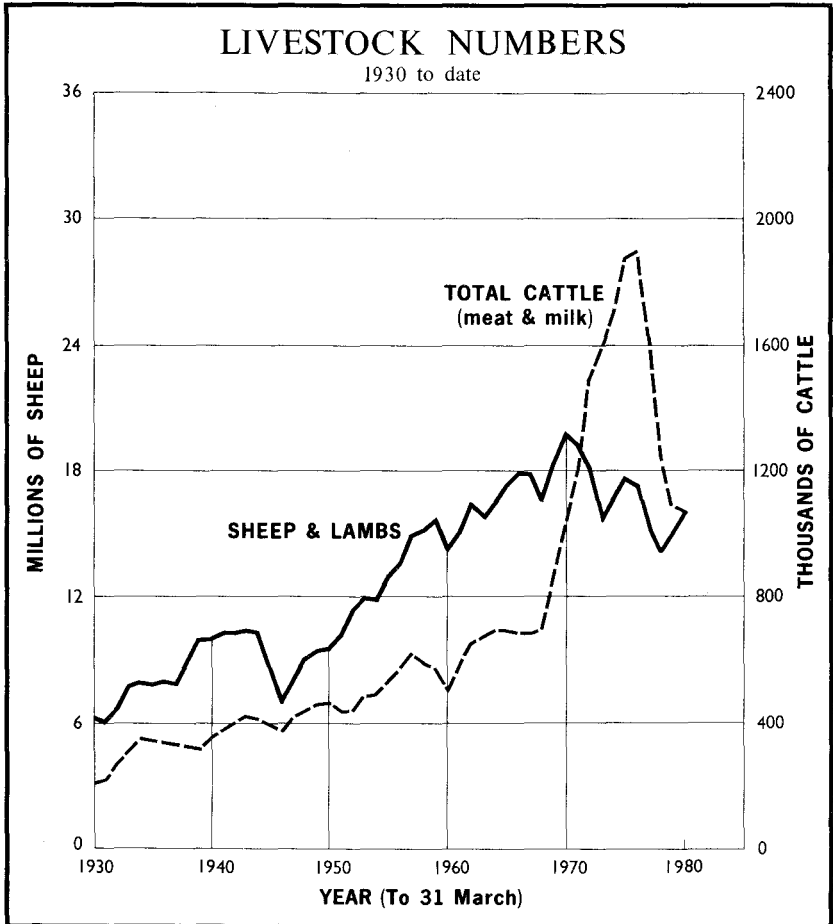
Details relating to Adelaide wool sales during the past five seasons are shown in the following table.

Adelaide Wool Sales

Season	Wool Sold (Scoured and Greasy)		Amount Realised	Average Price Per kg (Greasy)	In Store at End of Season
	Bales	Weight			
	Number	'000 kg	\$'000	Cents	Bales
1975-76	517 176	77 810	104 626	134.46	17 079
1976-77	482 682	73 652	127 705	173.39	13 582
1977-78	397 183	62 755	112 350	179.03	6 829
1978-79	383 352	62 386	120 813	193.65	10 138
1979-80	420 974	69 575	156 239	224.56	16 414

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 1979-80 the average price for wool sold at auctions in Australia was 243.57 cents per kg greasy, compared with 224.56 cents per kg in South Australia.



CATTLE

In comparison with other States, cattle grazing is not a major industry in South Australia. Of the cattle in Australia at 31 March 1980 just over 4 per cent of those used

mainly for meat production and about 6 per cent of those for milk production were in South Australia. At 31 March 1980 the total number of cattle in South Australia was 1 067 000.

**Cattle Numbers: Statistical Divisions, South Australia
At 31 March 1980**

Classification	Statistical Division						Total	
	Adelaide	Outer Adelaide	Yorke and Lower North	Murray Lands	South East	Eyre		Northern
	'000							
Cattle for milk production:								
Bulls (a)	0.1	1.1	0.2	0.4	0.7	—	—	2.4
Cows	3.5	48.2	3.9	21.8	23.0	0.7	1.1	102.2
Heifers	0.9	12.1	1.0	4.6	5.8	0.2	0.3	24.8
Calves under one year	0.7	10.4	1.1	5.3	5.0	0.2	0.3	23.0
House cows	0.1	0.7	0.8	0.7	0.8	0.9	0.4	4.4
Total	5.4	72.4	7.0	32.7	35.3	2.1	2.1	156.9
Cattle for meat production:								
Bulls (a)	0.2	2.6	1.3	1.8	9.8	1.0	4.8	21.5
Cows and heifers	5.8	56.7	21.9	45.4	221.9	20.2	122.3	494.2
Calves under one year	3.2	30.5	12.7	30.9	115.2	12.2	62.1	266.8
Other cattle	1.0	9.3	4.1	7.3	63.3	1.8	41.0	127.6
Total	10.2	99.0	40.0	85.4	410.1	35.2	230.2	910.1
Total cattle	15.5	171.5	47.0	118.1	445.3	37.3	232.3	1 067.0

(a) Used or intended for service.

Cattle for Meat Production

Numbers of cattle for meat production have increased in South Australia. At 31 March 1964, 424 000 cattle for 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 1969, 631 000 cattle were reported for meat production on 8 706 rural establishments. The number at 31 March 1976 had risen to 1 683 000 cattle, but since then numbers have declined significantly and at 31 March 1980 there were 910 000 cattle for meat production.

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. In recent years several European breeds have been introduced, most notably the Charolais.

Cattle for Milk Production

From March 1964 to March 1968 the total number of cattle for milk production declined by 39 000 to 231 000. A further decline in total numbers began in 1972-73 and the total number at March 1980 was 157 000. 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.

The Adelaide Hills district, comprising the Mount Lofty Ranges and areas as far south as Cape Jervis and Encounter Bay, embraces some of the best dairy land in the State and includes most of the properties devoted specifically to dairy farming. Of the breeds used mainly for milk production, Friesians and Jerseys predominate, with Guernseys, Australian Illawarra Shorthorn, Ayrshires and their crosses in use to a lesser extent.

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 area has a very high carrying capacity of predominantly Friesian cattle.

The Lakes District owes much to the barrages across the mouth of the Murray which have helped to maintain the waters of Lake Alexandrina and Lake Albert in a reasonably fresh state. These have greatly contributed to the improvement of the productivity of this area and also have had the effect of maintaining a greater control over the level of the water in the river, thereby greatly facilitating irrigation of the reclaimed swamps upstream. The cattle for milk production are principally Jersey breed.

The most important dairying area not serving the Adelaide market 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. Most breeds are well represented in the district, the Jersey and Friesian being slightly more popular than other breeds.

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, butter 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 1979-80 and earlier seasons.

Production and Utilisation of Milk, South Australia

Year	Total Milk Produced	Butter (a)	Factory Cheese (b)	Milk Used for		Other Purposes
				Home Consumption		
				Milk Board Area	Outside Milk Board Area	
				'000 litres		
1975-76	397 500	64 947	192 166	90 868	39 501	10 018
1976-77	354 912	56 112	157 951	91 225	39 656	9 968
1977-78	316 681	51 136	128 960	92 213	40 085	(c) 4 288
1978-79	321 199	45 995	140 504	91 068	39 587	4 044
1979-80	331 345	46 292	150 738	90 858	39 496	3 962

(a) Includes farm production of butter until 1976-77.

(b) Factory production accounts for virtually all cheese produced.

(c) From 1977-78 other processing milk only; not comparable with previous years.

PIGS

In South Australia pigs were normally kept as a sideline on mixed farms or in conjunction with dairy cattle but the trend is towards specialising in pigs.

There have been substantial fluctuations in the pig population from year to year induced by the exceptional variability of prices. Until 1979 the numbers generally declined. The total number exceeded 200 000 for the first time in 1966 and has continued to exceed that number in subsequent years. Of the 398 000 pigs at 31 March 1980, approximately 58 per cent were in Outer Adelaide, and Yorke and Lower North Divisions. The principal breeds in South Australia are Large White, Berkshire, Landrace and Tamworth.

The following table shows the number of pigs on rural establishments at 31 March for the last five years.

Pig Numbers, South Australia

At 31 March	Boars	Breeding Sows	All Other	Total
1976	4 533	42 259	279 132	325 924
1977	4 376	41 431	270 700	316 507
1978	3 897	39 763	267 286	310 946
1979	3 946	42 727	283 743	330 416
1980	4 362	51 888	341 455	397 705

In the following table, rural establishments with pigs at 31 March 1979 are classified according to the size of the pig herd and the number of breeding sows. Of the 22 022 establishments of all types, 3 065 carried pigs.

Rural Establishments Classified to Number of Breeding Sows and Size of Pig Herd
South Australia, 1978-79^(a)

Number of Breeding Sows	Size of Pig Herd (Numbers)					Establishments with Breeding Sows
	1-9	10-19	20-49	50-99	100 and Over	
1-4	240	224	259	16	3	742
5-9	35	65	332	188	12	632
10-19	—	21	86	268	161	536
20-49	—	—	7	34	286	327
50-99	—	—	—	2	92	94
100 and over	—	—	—	—	45	45
Total	275	310	684	508	599	2 376

(a) Excludes 689 establishments with pig herds which carried no breeding sows.

MEAT PRODUCTION AND MARKETING

South Australia is a relatively small meat producer, providing approximately 8 per cent of total Australian production. The following table shows the number of livestock slaughtered for human consumption (including exports) and the production of meat during the last five years. Slaughtering and meat production on rural establishments 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		
1975-76	549	3 561	342	92 012	62 971	19 264	174 247
1976-77	656	3 426	344	110 058	60 472	19 455	189 985
1977-78	744	3 240	376	125 011	56 796	21 334	203 141
1978-79	658	2 523	402	116 500	47 766	24 145	188 411
1979-80	502	3 451	472	90 643	64 259	28 751	183 653

Livestock, Average Prices at Adelaide Market

Class of Stock	1975	1976	1977	1978	1979	1980
	Dollars					
Fat cattle:						
Bullocks and steers;						
Prime, medium ...	82.55	111.73	132.88	208.63	422.85	405.43
Useful	40.58	41.59	55.10	83.52	208.95	<i>n.a.</i>
Steers, 250-300 kg medium	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	405.43
Cows;						
Prime, medium ...	53.73	85.87	109.25	156.83	342.70	<i>n.a.</i>
Good	34.93	43.97	61.31	105.64	229.05	255.97
160-250 kg medium	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	286.42
Calves;						
Prime vealers	31.10	33.46	44.71	76.47	155.23	172.00
Good	23.91	23.08	30.08	57.73	97.86	107.78
Fat sheep:						
Merino wether;						
Prime	6.17	9.05	13.98	16.84	21.44	24.48
Medium	3.90	5.31	8.96	14.12	20.40	<i>n.a.</i>
Wethers over 22 kg medium	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	24.01
Lambs;						
Prime, medium ...	9.56	10.83	14.82	17.42	23.68	24.32
Good	6.00	6.21	9.98	13.16	20.74	<i>n.a.</i>
Young 16-19 kg medium	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	24.45
Pigs:						
Choppers	125.87	123.69	111.39	142.46	203.92	144.44
Baconers	69.04	68.95	67.45	76.74	98.52	91.08
Porkers	40.56	42.12	40.83	46.23	62.96	55.64

On 1 December 1979 new livestock descriptions were introduced in South Australia which are standardised with other States (in particular New South Wales, Victoria and Western Australia) to allow more precise comparisons between markets in other States, and with other markets in South Australia. These descriptions are based on carcass classifications developed for cattle, sheep and lambs by the Australian Meat and

Livestock Corporation. The new descriptions are categorised on the basis of sex and age, then subdivided into carcass weight, and then further divided on the basis of fatness using visual estimates of fat depth at the 10/11 rib position ranging from Very Lean to Very Fat. In the table above which shows average market prices of some of the principal classes of livestock, the discontinued descriptions (Prime, medium; Useful; Good etc.) have been estimated for 1980 to allow comparison of prices between the old and new descriptions over the years shown. No changes to classification of calves and pigs have been made.

GROSS VALUE OF LIVESTOCK PRODUCTS AND SLAUGHTERINGS

Gross value is the value placed on recorded production at the wholesale prices realised in principal markets. The following table shows for the past five years the gross value of livestock products, and livestock slaughterings and disposals.

Gross Value of Livestock Products and Livestock Slaughterings and Disposal South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80 ^p
	LIVESTOCK PRODUCTS (\$'000)				
Wool	131 865	153 550	145 277	161 985	210 248
Whole milk used for:					
Butter	2 581	2 619	2 834	2 745	2 791
Cheese	11 603	10 188	11 044	13 126	16 389
Human consumption and other purposes ..	15 986	17 629	20 415	21 536	23 494
Eggs	13 618	14 702	17 351	17 825	20 564
Honey and beeswax	2 067	1 670	3 298	2 262	3 961
Total livestock products	177 720	200 357	200 220	219 480	277 446
	LIVESTOCK SLAUGHTERINGS AND DISPOSALS (\$'000)				
Cattle and calves	63 539	99 363	98 197	142 852	107 488
Sheep and lambs	25 832	39 546	64 261	56 365	108 749
Pigs	21 562	21 850	23 459	29 543	36 390
Poultry	15 158	18 089	22 673	24 617	30 312
Total livestock slaugh- terings and disposals	126 091	178 848	208 589	253 376	282 939

OTHER RURAL INDUSTRIES

Poultry Farming

Poultry farming is a specialised and distinct industry and it is from the specialised hatcheries and chicken raising establishments 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, scientifically bred for rapid weight gain and 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. Particular concentrations of growers are at Murray Bridge and Gawler, with some broiler growers established in the Adelaide Hills.

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.

The annual average egg production controlled by the South Australian Egg Board was 10.1 million dozen in the five years ended 1965-66, 15.4 million dozen over the next five years and 19.6 million dozen in the five years ended 1975-76. 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.

Poultry Numbers and Egg Production, South Australia, ^(a) At 31 March

Particulars	1976	1977	1978	1979	1980
	'000				
Hens and pullets	1 410	1 255	1 448	1 512	1 529
Other fowls and chickens	2 976	2 708	2 737	2 957	3 267
Ducks	18	10	9	9	10
Turkeys	12	9	7	5	9
Egg production (b)	204 878	186 042	203 028	205 573	210 723

(a) Excludes poultry kept in backyards.

(b) Recorded by the South Australian Egg Board. Year ended 30 June.

Broiler Industry

The broiler industry in South Australia has grown rapidly during the past 20 years, annual production increasing from about half a million birds in 1959 to approximately 23 million birds at the present time. Broilers are specially bred meat strain birds of either sex, that are slaughtered between eight and ten weeks of age at a live weight of approximately 1.5 kg. This rapid growth and efficient conversion of feed to meat has been achieved by extensive breeding programs; the use of specially prepared high protein and energy value poultry feeds; growth promotion and disease control drugs; and by the development of enclosed, factory-like broiler houses, with controlled temperature, ventilation and light, conducive to fast growth. The following table shows the number of eggs set and chicks hatched 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					
1975-76	21 884	4 585	17 789	52	1 833	12
1976-77	22 506	4 057	19 167	40	1 558	n.p.
1977-78	24 182	4 038	20 117	36	1 431	n.p.
1978-79	26 005	3 909	21 362	74	1 535	22
1979-80	31 130	4 084	26 141	83	1 476	n.p.

(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 54 000 in 1975-76; 45 000 in 1976-77; 26 000 in 1977-78; 21 000 in 1978-79 and 29 000 in 1979-80.

(d) Details of meat strain chicks for breeding purposes are not available for publication.

The following table shows details of poultry slaughtered for human consumption for the last five years.

Poultry Slaughtered for Human Consumption
South Australia^(a)

Period	Chickens (Broilers, Fryers or Roasters)				Turkeys	Total
	Hens and Stags	Ducks and Drakes				
NUMBER SLAUGHTERED ('000)						
1975-76	16 177	432	21	7	16 637	
1976-77	17 251	466	12	5	17 734	
1977-78	19 452	421	16	4	19 894	
1978-79	19 867	465	26	5	20 363	
1979-80	22 937	451	23	12	23 423	
DRESSED WEIGHT OF POULTRY SLAUGHTERED (Tonnes)(b)						
1975-76	18 064	661	40	28	18 793	
1976-77	19 243	761	25	19	20 048	
1977-78	21 892	722	33	21	22 667	
1978-79	22 351	801	46	33	23 230	
1979-80	25 943	739	41	62	26 786	

(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 1979-80 there were 438 beekeepers with forty 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
1975-76	482	83 870	16 107	4 592	55	80
1976-77	455	75 155	23 128	2 787	37	58
1977-78	433	78 907	14 020	4 316	55	81
1978-79	433	72 775	20 172	3 048	42	62
1979-80	438	81 459	15 827	5 098	63	98

(a) Excludes particulars for producers having less than forty hives.

Further References

Additional information may be found in the following publications:

South Australian Office

7103.4 *Agriculture: General Summary*

7104.4 *Crops and Livestock in Hundreds within Counties*

- 7202.4 *Livestock and Livestock Products*
- 7304.4 *Cereals*
- 7401.4 *Machinery on Rural Holdings*
- 7503.4 *Value of Agricultural Commodities Produced*

Central Office

- 7203.0 *Livestock Statistics*
- 7205.0 *Meat Statistics*
- 7208.0 *Milk Statistics*
- 7212.0 *Wool Statistics*
- 7214.0 *Beekeeping*
- 7303.0 *Fruit Statistics*
- 7310.0 *Viticulture*
- 7503.0 *Value of Agricultural Commodities Produced*

9.2 MINING, FORESTRY AND FISHERIES

MINING

South Australia has a well developed mineral industry and in recent years natural gas has surpassed iron ore as 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 \$220 million in 1979-80.

MINING ADMINISTRATION

The Mining Act, 1971-1978 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, 1920-1978.

The Petroleum Act, 1940-1981 and the Petroleum (Submerged Lands) Act, 1967-1974 provide for the control of petroleum exploration and the production, conservation and distribution of petroleum by pipeline.

The administration of these Acts is the responsibility of the Minister of Mines and Energy and the Director-General of Mines and Energy. The principal functions of the Department of Mines and Energy 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) the testing and treatment of minerals, generally in arrangement with the Australian Mineral Development Laboratories;
- (v) control of mining and rehabilitation;
- (vi) co-ordinating State Government activities and formulating policy advice in the discovery, assessment and development of all energy resources within the State.

MINERAL INDUSTRY STATISTICS

A mining establishment is one predominantly engaged in an activity specified in Division B of the Australian Standard Industrial Classification (ASIC). The ASIC defines 'mining' as including the extraction of minerals occurring naturally as solids such as coal and ores, liquids such as crude petroleum, or gases such as natural gas, by such processes as underground mining, open-cut extraction methods, quarrying, operation of wells or evaporation pans, dredging or recovery from ore dumps or tailings. Establishments mainly engaged in dressing or beneficiating ores or other minerals by crushing, milling, screening, washing, flotation or other, including chemical beneficiation processes, or mainly engaged in briquetting or iron ore pelletising are included because the processes are generally carried out at or near mine sites as an integral part of mining operations. Natural gas absorption and purifying plants are also included.

Excluded are establishments mainly engaged in refining or smelting, or in the manufacture of products of mineral origin.

The following two tables detail mining establishments operations in South Australia for 1978-79 classified according to industry subdivision.

**Mining Establishments: Summary of Operations by Industry Subdivision
South Australia, 1978-79**

Industry Subdivision	ASIC Code (a)	Number of Establishments Operating at 30 June 1979	Persons Employed (b)			Wages and Salaries
			Males	Females	Total	
						\$ million
Metallic minerals	11	5	1 465	180	1 645	22.2
Coal	12	1				
Crude petroleum including natural gas	13	1	751	69	820	9.1
Construction materials	14	63				
Other non-metallic minerals	15	48	360	9	369	4.3
Total mining, excluding services to mining		118	2 576	258	2 834	35.6

(a) Australian Standard Industrial Classification 1978 edition.

(b) At 30 June 1979; includes working proprietors.

**Mining Establishments: Turnover and Value Added by Industry Subdivision
South Australia, 1978-79**

Industry Subdivision	ASIC Code (a)	Turnover	Stocks at 30 June		Purchases, Transfers in and Selected Expenses (b)	Value Added (b)
			1978	1979		
						\$ million
Metallic minerals	11	148.0	22.6	18.7	63.5	80.5
Coal	12					
Crude petroleum including natural gas	13	27.7	2.4	2.5	9.8	18.1
Construction materials	14					
Other non-metallic minerals	15	28.1	3.4	3.4	17.5	10.5
Total mining, excluding services to mining		203.9	28.5	24.6	90.8	109.1

(a) Australian Standard Industrial Classification 1978 edition.

(b) From 1978-79 method of calculating Value Added has been changed to include 'Rent, leasing and hiring expenses', which is now included in Purchases, Transfers in and Selected Expenses.

Statistics on the operations of establishments in Division B are collected each year in the mining census, which since 1968-69 has been conducted on an integrated basis with other economic censuses.

Metallic minerals (copper and iron ore being the major industries), coal and natural gas operations accounted for 57 per cent of mining employment. Construction materials (building stone, gravel, sand and road materials) industries employed 29 per cent of total mining employment.

MINERAL COMMODITY STATISTICS

Mineral commodity statistics published in the *South Australian Year Book* are those recorded by the Director-General of Mines and Energy. The quantity and value of production of the major minerals for the years ended 30 June 1979 and 1980 are listed in the following table.

Mining and Quarrying Production, South Australia^(a)

Mineral	Unit of Quantity	Quantity		Value (b)	
		1978-79	1979-80	1978-79	1979-80
				\$'000	
Metallic:					
Copper				16 495	20 816
Iron ore	'000 tonnes	2 705	2 700	24 028	24 076
Other				45	88
Non-metallic:					
Barite	'000 tonnes	13	9	515	473
Kaolin	'000 tonnes	9	9	197	194
Coal	'000 tonnes	1 514	1 723	11 266	17 600
Dolomite	'000 tonnes	666	723	1 477	1 630
Gypsum	'000 tonnes	656	800	2 613	2 918
Limestone	'000 tonnes	2 042	2 133	3 926	3 608
Opal (c)				30 000	50 650
Salt	'000 tonnes	634	799	2 410	3 005
Talc, soapstone	'000 tonnes	15	16	445	524
Other				731	813
Construction material quarrying	'000 tonnes	9 702	8 807	22 800	23 045
Natural sand products	'000 tonnes	2 373	2 468	6 422	6 297
Natural clay products	'000 tonnes	1 788	3 282	2 293	3 111
Natural gas (d)	millions of m ³	2 860	3 430	48 529	65 128
Total				174 192	223 977

(a) Quantities disposed of as recorded by the Director-General of Mines and Energy.

(b) Ex-mine site.

(c) Estimated.

(d) Value at Moomba plant outlet.

Details of mining of individual minerals are given below. Reference should also be made to Part 1.3 which contains particulars of the location of mineral resources.

Iron Ore

The only 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 (BHP)—in 1979-80 production was 2.7 million tonnes.

Copper

Copper mining was very important in the early days of the settlement of South Australia. The rich discoveries at Kapunda in 1842, Burra in 1845, and Wallaroo-Moonta in 1859-60 came at a time when the colony's development was stagnating and severe financial difficulties were being encountered. Many small copper mines, scattered throughout the central metalliferous areas, were also opened but most of the mines only lasted until the richer secondary copper cut out at depths mostly less than 150 metres.

From 1842 to 1923, when the great Wallaroo-Moonta mines closed, copper was by far the State's most important mining produce. The copper products accounted for over eighty per cent of the State's recorded mineral production (construction materials were not recorded and so not included). The copper products sold during this period contained 450 000 tonnes of copper metal and were worth \$33 million giving an average of \$72 per tonne of copper in the products.

During the next forty-five years (1924-1968), until the commencement of the mining boom, copper production was very small and intermittent with a production of only 5 600 tonnes of copper in the mineral products.

The renewed interest in copper mining during the boom led to the discovery of new, but lower grade, ore bodies at the old copper fields of Kanmantoo and Mount Gunson, and the working of remnant low-grade ore at Burra. These deposits are worked by open-cut methods which can produce much larger tonnages than the underground methods used to produce most of South Australia's copper during the earlier period of copper mining.

There were only two copper producers in 1979-80 because the continued low world copper prices had caused the closure of the smaller producers and Kanmantoo mine which is being run on a care and maintenance basis until world copper demand increases. In 1979-80 the Mount Gunson and Burra mines together produced 14 183 tonnes of copper in concentrates and copper oxide. This was 4 per cent lower than the output of 14 784 tonnes of copper for 1978-79.

Seventy-nine per cent of the production came from the Mount Gunson mine which sells copper sulphide flotation concentrates to Japanese smelters. Adelaide and Wallaroo Fertilizers Ltd at Burra uses the ammonia leaching process to produce high quality black copper oxide of seventy-seven per cent grade copper which is sold direct to industry in Australia and overseas.

The ex-mine site value of the copper products sold in 1979-80 was \$20.8 million.

Zinc

In South Australia the only production of zinc comes from a high grade (about forty per cent zinc) deposit of zinc silicate found at Puttapa near Beltana in the Flinders Ranges. Several other smaller occurrences of this unusual zinc ore have been found in this part of the State but they are not being mined at present. The deposit is of high enough grade not to need concentration but is mined, crushed, and then sent to various markets in Europe, Africa and to Risdon in Tasmania with small amounts going direct to the Australian fertiliser industry for use as trace element supply for zinc deficient soils.

The plant at Puttapa has been placed on a care and maintenance basis with sales from stockpiles. In 1979-80 no sales were negotiated.

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 also 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 9 405 tonnes in 1979-80.

The company operating the Oraparinna Mine in the Flinders Ranges is the major Australian producer of barite. In recent years it has been the main supplier of high grade ore for industrial use.

Gypsum

South Australian deposits contain by far the largest part of Australian reserves of gypsum. The deposits in general have been formed in coastal basins cut off from the ocean, giving rise to extensive deposits of rock gypsum. The most important coastal deposits are found at Lake MacDonnell and on Kangaroo Island. Inland deposits mainly of seed gypsum occur at Moonabie, Lake Fowler, Cooke Plains and along the Murray River. The gypsum deposits have been worked extensively over the past fifty years to provide the bulk of Australasian requirements for the plaster industry and for portland cement manufacture. In 1979-80 production was almost 800 000 tonnes.

Reserves of high grade gypsum at Lake MacDonnell have been proved by the Department of Mines and Energy to exceed 500 million tonnes, sufficient to meet Australasian requirements for the plaster industry and for portland cement for many years. The port of Thevenard, 55 kilometres from the deposit by rail, has been deepened to accommodate larger ships of up to 20 000 tonnes capacity.

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.

There was 798 000 tonnes of salt produced in 1979-80. 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.

Opal

The estimated value of raw opal production in 1979-80 was \$50 million, a 67 per cent increase on 1978-79. In terms of value it was the second most important mineral produced in South Australia during 1979-80. Overseas exports of opal from South Australia during 1979-80 were estimated at \$15 million.

In spite of the value of opal being won at present, opal mining remains a small scale operation at Andamooka and Coober Pedy. The distances from Port Augusta to Andamooka and from Port Augusta to Coober Pedy are 290 and 630 kilometres respectively.

Mining at both centres is relatively shallow, rarely exceeding 30 metres.

Talc

The principal occurrences of talc are to be found at Mount Fitton in the northern Flinders Ranges and in the Gumeracha and Lyndoch districts. From these sources 15 000

tonnes were mined in 1979-80. The Mount Fitton talc is of a particularly high grade, and is in demand for use by the cosmetics industry. Lower grade material is used in the rubber, paint, and ceramics industries.

Coal

South Australia is deficient in accessible 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 and Energy 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. Changing economic conditions have caused these estimates to be revised to 150 million tonnes and 280 million tonnes respectively, of which approximately 39 million tonnes has been mined to date by open-cut methods. Combined mining development of the Telford Basin at Leigh Creek requires the relocation of Leigh Creek township which is almost completed.

Coal production in 1979-80 was approximately 1.7 million tonnes. Almost the entire production is railed to Port Augusta for use in power generation.

Natural Gas

The natural gas production in 1979-80 was 3 430 million cubic metres valued at the plant outlet at \$65 million, a twenty per cent increase in volume and a thirty-three per cent increase in value to production in 1978-79.

Limestone and Dolomite

The combined quantity of limestone and dolomite extracted for use in industry (*i.e.*, excluding road stone, etc.) each year is approximately 2.5 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; and limestone at Klein Point for the cement industry. Details of limestone production for the years 1976-77 to 1979-80 are given in the following table.

Limestone Production, South Australia
(Excluding Limestone Used as Building Stone, Road Materials, Etc.)

Classification	1976-77	1977-78	1978-79	1979-80
	'000 tonnes			
Flux	298	342	534	457
Cement	957	1 059	1 044	1 139
Chemical	420	437	418	491
Other	51	51	46	47
Total	1 726	1 888	2 042	2 133

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.

Details of natural clay products for the years 1978-79 and 1979-80 are given in the following table.

Clay Production, South Australia

Classification	Quantity		Value	
	1978-79	1979-80	1978-79	1979-80
	'000 tonnes		\$'000	
Cement shale	89	27	..	54
Coloured shale	447	474	..	1 021
Fire clay	38	7	..	19
Red plastic clay	28	8	..	17
Rubble	963	2 394	..	1 205
White plastic clay	63	94	..	282
White shale	154	277	..	513
Other	6	—	..	—
Total	1 788	3 282	2 293	3 111

Because of the scarcity of local timber supplies, softwood 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 Department of Mines and Energy, 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.

Construction Material Quarrying

Post-war industrial expansion, accompanied by extensive housing programs and highway construction, has resulted in a rapidly increasing demand for construction materials. Production of aggregate, sand and roadstone (including all building stone) was 8.8 million tonnes in 1979-80 compared with 2.2 million tonnes in 1947.

Construction Materials, South Australia

Type of Material	Quantity		Value	
	1978-79	1979-80	1978-79	1979-80
	'000 tonnes		\$'000	
Dimension (building) stone	30	32	748	862
Dolomite/Limestone	4 780	5 319	10 756	12 110
Quartzite/Sandstone	3 236	2 671	9 977	8 775
Other	1 657	785	1 321	1 299
Total	9 702	8 807	22 802	23 045

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 Jones Hill in the northern Flinders Ranges. Both areas supply paving slate and a large quantity is dressed and polished for use in billiard

tables. A quantity of paving material is also being obtained from Wistow near Mount Barker.

Details of dimension (building) stone for the years 1978-79 and 1979-80 are given in the following table.

Dimension (Building) Stone, South Australia

Type of Stone	Quantity		Value	
	1978-79	1979-80	1978-79	1979-80
	'000 tonnes		\$'000	
Dolomite/Limestone	20	21	..	245
Granite	3	3	..	374
Quartzite/Sandstone	1	2	..	33
Slate	6	6	..	209
Total	30	32	748	862

MINERAL DEVELOPMENTS

As a result of the continuing growth in demand for natural gas in the Sydney region and, to a lesser extent, the Adelaide region, development of Cooper Basin reserves has also increased. The Namur and Della fields have been added to the gathering system with a total of 90 wells now equipped and connected for production. Compressors have been installed to boost production from the Moomba and Big Lake fields, in addition to Gidgealpa, where they have been operating for a number of years. Installation of back up units has been completed for the first six stations on the Moomba-Adelaide pipeline and one has been commissioned for the No. 7 station, near Booborowie.

Development drilling has been carried out in the Della field. Rearrangement of some sections of the Moomba gas processing plant to improve flexibility and reliability has continued and some supporting facilities have been upgraded. The producing consortium has announced its intention to develop the liquid petroleum resources and to this end, development drilling has commenced in the Patchawarra Central, Tirrawarra, Moonari and Fly Lake fields. Several additional small oil accumulations have recently been discovered, mainly in Mesozoic sediments.

Indications of a dramatic upturn in mineral exploration became evident in late 1976 with the announcement by Western Mining Corporation Ltd of a major copper and uranium discovery with significant contents of gold and rare earths at Roxby Downs, 260 kilometres north of Port Augusta and west of Andamooka. This has stimulated interest in the entire area of the Stuart Shelf and has resulted in a large number of applications for exploration licences.

Coal investigations by private companies increased during 1978-79 and resulted in the discovery of brown coal in drilling operations by Western Mining Corporation Ltd (WMC) near Kingston (SE). These discoveries are additional to coal finds by WMC in the Victorian portion of the Otway Basin. Their significance is being assessed. The assessment of the deeper Leigh Creek coal resources has been completed and mining is planned there until at least the year 2005.

The excavation of the Wakefield brown coal deposit by means of a trial pit designed to procure a 300 tonne sample for testing, has been completed near the Bowmans railway station.

The Department of Mines and Energy has continued an extensive coal exploration program in search of steaming coal for future power generation.

Testing by Utah Development of the Lake Phillipson coal deposits (found originally in 1905) has indicated that the total recoverable quantity could exceed 2 000 million tonnes. These deposits of medium to low grade steam coal, which have a marginally higher calorific value than Leigh Creek coal, are located about ninety kilometres south of Coober Pedy and near the Tarcoola-Alice Springs railway.

Uranium is associated with the newly discovered copper deposits at Roxby Downs. Other small deposits of uranium in the Lake Frome area have been examined to determine if recovery is possible by *in situ* leaching.

At 30 June 1980, 211 exploration licences were current, involving fifty-five companies. The total area held under licence was approximately 224 000 square kilometres.

The Australian Mineral Foundation Inc., established at Frewville four kilometres to the east of the centre of Adelaide, provides 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 Department of Mines and Energy spent approximately \$7.2 million in 1979-80 (\$7.0 million in 1978-79) on geological and other investigations, drilling and mineral research work to assist the State's mineral industry.

The following table shows details of private mineral exploration, other than petroleum, in South Australia for 1977-78 and 1978-79.

Private Mineral Exploration (Other than Petroleum), South Australia^(a)

Particulars	Unit	On Current Producing Leases		On Other Areas		Total Private Exploration	
		1977-78	1978-79	1977-78	1978-79	1977-78	1978-79
Depth drilled:							
Core	'000 m	—	—	22	26	22	26
Non-core	'000 m	—	—	122	135	122	135
Total depth drilled	'000 m	—	—	144	161	144	161
Expenditure:							
Drilling:							
Core	\$'000	—	—	1 347	1 563	1 347	1 563
Non-core	\$'000	—	<i>n.p.</i>	1 633	<i>n.p.</i>	1 633	1 540
Total drilling	\$'000	—	<i>n.p.</i>	2 980	<i>n.p.</i>	2 980	3 103
Other	\$'000	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	6 361	7 405
Total expendi- ture	\$'000	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	<i>n.p.</i>	9 341	10 508

(a) Excludes exploration for water and all development work. Excludes details of exploration by business undertakings operated by State and local government authorities.

Details of private petroleum exploration and development for South Australia are shown in the following table for the years 1976 to 1979.

Private Petroleum Exploration and Development, South Australia^(a)

Particulars	Unit	1976	1977	1978	1979
Wells drilled (b)	No.	3	5	8	5
Depth drilled	'000 m	6.2	11.8	20.3	14.3
Expenditure:					
Private sources (c)	\$'000	5 257	5 714	8 096	1 054.2

(a) Figures obtained from Bureau of Mineral Resources, Geology and Geophysics.

(b) Number of wells reaching total depth during year.

(c) Includes payments under the *Petroleum Search Subsidy Act 1959*.

FORESTRY

There are an estimated six million hectares of land classified as wooded in South Australia, but much of this is too small or scattered to be of current economic value for wood production or is better retained in its present form for environment protection reasons. Some 780 000 hectares carry 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 and conservation of indigenous plants and animals.

Certain areas have been set aside as State forest reserves, the total area thus reserved at 30 June 1980 being 133 012 hectares. In addition the Woods and Forests Department is responsible for 2 176 hectares of reservoir lands, of which 1 143 are planted with pines.

In recent years the total area reserved has varied little, mainly because of the increasing unavailability of land. The net increase over the last five years was 2 588 hectares. During the same period the area under plantation on Forest Reserves increased by only 649 hectares because of a fire at Caroline which destroyed about 3 000 hectares of planted pines.

A more detailed history of forestry development in South Australia was included on pages 432-4 of the *South Australian Year Book 1970*.

Indigenous Forests

The natural forests of South Australia consist of eucalypt hardwoods restricted principally to the Mount Lofty Ranges, the lower Flinders Ranges, the southern portion of Eyre Peninsula, and the South East. A few species are of commercial value and these are used to a limited extent for the production of poles, posts, rails and sleepers.

Some areas of forest reserves not planted with conifers are maintained under native hardwoods but it is unlikely that further hardwood plantations will be established for timber purposes.

Plantations

Seedlings raised in nurseries are planted out in the forest at densities of 1 700-2 200 trees to the hectare. A series of thinnings, starting when the trees are about 20 metres high, reduces density to about 150 trees to the hectare by about age forty. These thinnings are carried out on a commercial basis and make the major contribution to present timber and pulpwood output. The final felling age is aimed at forty to fifty years although for management purposes some earlier felling has been made in the past. Trees of the same age may vary in height; on some sites trees reach 20 metres after ten years of growth, but on other sites this may not be reached until after twenty years of growth.

State Forests, South Australia
Area Planted During 1979 and Net Area of Plantations at 30 June 1980

Location	Planted during 1979			Plantations at 30 June 1980		
	Softwoods		Hard-woods	Softwoods		Hard-woods
	<i>Pinus Radiata</i>	Other Pinus		<i>Pinus Radiata</i>	Other Pinus	
Hectares						
Northern Region;						
Bundaleer	—	—	—	1 363.9	35.8	196.5
Wirrabara	41.2	—	—	2 057.6	69.0	39.6
Other forests	—	—	—	—	—	146.6
Total Northern	41.2	—	—	3 421.5	104.8	382.7
Central Region;						
Mount Crawford	111.1	—	—	6 030.5	362.2	41.7
Kuitpo	45.7	—	—	2 232.8	371.4	114.0
Blackwood	—	—	—	7.4	—	—
Second Valley	44.9	—	—	1 829.1	162.9	27.4
Total Central	201.7	—	—	10 099.8	896.5	183.1
Riverland Region;						
Parilla	—	—	—	—	6.1	48.6
Total Riverland	—	—	—	—	6.1	48.6
South Eastern Region;						
Penola	188.4	—	—	12 291.1	1 879.8	1.2
Comaum	7.3	—	—	2 975.6	302.8	6.4
Mount Burr	260.4	—	—	9 329.0	556.4	76.8
Noolook	163.8	—	—	3 481.4	4.0	—
Mount Gambier	268.8	—	—	7 094.7	693.9	7.7
Kongorong	—	—	—	1 328.3	6.3	—
Tantanoola	111.6	—	—	7 781.4	982.9	6.3
Caroline	185.4	—	—	4 318.5	176.5	3.9
Myora	66.0	—	—	5 794.3	215.2	—
Cave Range	—	—	—	206.9	105.2	—
Total SE	1 251.7	—	—	54 601.2	4 923.0	102.3
Western Region;						
Wanilla	—	—	6.4	46.6	24.7	352.0
Waterworks reserves	—	—	—	1 016.5	126.0	3.6
Total State forests ...	1 494.6	—	6.4	69 185.6	6 081.1	1 072.3

Exotic softwoods accounted for approximately 98 per cent of the planted forest area at 30 June 1980. As can be seen from the accompanying table, the majority of the planted forest is in the Lower South East. The 625 mm rainfall line roughly divides the South

East in two; the Lower South East, with an annual rainfall in excess of 625 mm is quite suitable for commercial forestry, but the Upper South East is not.

The previous table clearly illustrates the predominant importance of one species, *Pinus radiata*, in the composition of South Australian forests. Areas of other species are now minor, although over a hundred species have been tried in earlier years.

FOREST ADMINISTRATION

State Forests

State forests are administered by the Woods and Forests Department which is responsible for the establishment, maintenance and exploitation of State forests, including the management of forest reserves and operation of mills for processing timber produced by those 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 \$66 551 400 at 30 June 1980 of which \$32 077 200 was timber and land at net cost. The present value of the State-owned pine forests is approximately \$180 000 000 at current royalty rates.

PRODUCTION

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. For many years thinnings have provided the bulk of the logs produced but with the increasing age of the plantations the quantity of logs coming from final fellings is rising. In 1979-80 approximately forty-one per cent of total log production was from final fellings (Woods and Forests Department only). 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.

The following table gives the quantity of forest logs used during the years 1975-76 to 1979-80.

Forest Log Usage, South Australia

Year	Cubic Metres	
	Softwoods	Hardwoods
1975-76	953 704	6 746
1976-77	987 983	3 878
1977-78	973 683	2 602
1978-79	933 065	4 396
1979-80	(a) 901 214	(b)

(a) Woods and Forests only.

(b) Minor usage no longer included.

EMPLOYMENT

The number of persons directly employed by the Woods and Forests Department in forestry activity in recent years is given in the following table. The Department also employs 875 persons in milling activities.

The extraction of timber from State forests is carried out by contractors.

State Forestry Employees, South Australia
At 30 June

Classification	1975	1976	1977	1978	1979	1980
Professional staff:						
Foresters	53	49	49	51	50	48
Other	26	28	27	29	24	34
Non-professional field staff	38	42	42	44	39	41
Clerical staff	122	132	131	138	141	135
Labour (silvicultural forest works, etc.)	314	305	262	278	298	252
Total	553	556	511	540	552	510

RESEARCH AND ADVISORY SERVICES

The virtual dependence of the South Australian forestry industry on a single species necessitates continued research into the maintenance and improvement of *Pinus radiata* resources, as well as into forestry in general.

The Woods and Forests Department maintains its own research facilities and works very closely with the South Australian Regional Station of the Division of Forest Research of the Commonwealth Scientific and Industrial Research Organization (CSIRO) at Mount Gambier. Certain aspects of forestry research are also undertaken by the Soils Division of CSIRO, the Waite Agricultural Research Institute, the University of Adelaide, the Flinders University and the Department of Forestry of the Australian National University.

Research activities aimed at an expansion of forestry production include the development of fertiliser use, both to stimulate growth and to bring into production land previously considered unsuitable, and the improvement of planting stock through selective breeding. Silvicultural research is concerned with the maintenance of soil fertility and with combating various diseases and pests. Permanent sample plots are maintained in departmental forests for research into various aspects of forest yield and management.

The Woods and Forests Department provides an advisory service in arboriculture and distributes, through its nurseries at Murray Bridge, Belair and Berri, a wide variety of trees suitable for planting in various climatic and soil conditions.

FOREST PROTECTION

The hot dry summer conditions normal to the State require forest management to take considerable precautions and to maintain constant vigilance against forest fire. The clearing of undergrowth, the maintenance of fire-breaks, the manning of observation towers and the constant readiness of fire fighting units are all an integral part of forestry practice.

Other protective measures include spraying to prevent plant disorders, measures to control insect pests in the forest, and the eradication of the various weeds and pests which threaten young plants.

Since the discovery of the Sirex wood wasp in Victorian forests in 1961 constant watch has been maintained for any sign of this pest in South Australian pine forests, and the State has contributed to development of biological control measures.

FISHERIES

Commercial fishing is undertaken along the entire South Australian coastline with the exception of the unpopulated area west of Fowlers Bay. In the sheltered waters of the Gulfs, the Coorong and the West Coast bays, operators take prawns or various scale fish species while in deeper waters tuna and shark are sought. Rock lobster is taken along the more exposed parts of the coast, while abalone is dived for in most areas. Inland a small quantity of freshwater fish is caught on the River Murray and the associated lakes each year.

In terms of value of production, the most important species are prawns and rock lobster, with tuna, abalone, shark and whiting also making significant contributions. In terms of employment, however, the general marine scale fishery is by far the most significant.

FISHING VESSELS

A wide range of vessels operates in the various fisheries. Vessels exceeding 15 metres in length are engaged primarily in tuna poling and prawn trawling while the majority of vessels in the 9 metres to 15 metres range are used for rock lobster fishing. Abalone divers generally operate from small aluminium or fibreglass boats between 5 metres and 9 metres in length, but the majority of the smaller boats are engaged in the in-shore general scale fishery.

Details of the number of boats engaged in commercial fishing activities are shown in the following table.

Fishing: Boats Engaged, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Boats engaged:					
Under 6 metres	1 000	1 077	1 226	1 351	1 345
6 metres and under 9	292	307	292	315	310
9 metres and under 12	167	178	168	168	172
12 metres and under 15	109	116	116	114	118
15 metres and under 18	42	46	49	50	58
18 metres and under 21	22	23	23	23	23
21 metres and over	18	17	18	17	38
Total	1 650	1 764	1 892	2 038	2 064

ADMINISTRATION

Exploitation of the State's fish resources is controlled by three Acts, the South Australian Fisheries Act, 1971-1977, the Commonwealth *Fisheries Act* 1952 and the *Continental Shelf (Living Natural Resources) Act* 1968.

Under the State Act, which is administered by the Department of Fisheries, provision is made for the licensing of fishermen and the registration of boats and gear. Control of fishing activity is maintained by licensing, zoning and species restrictions, the establishment of size limits, closed areas and closed seasons, the regulation of amount and type of gear, the prohibition of the use of explosive or noxious substances in any waters and the establishment of aquatic resources.

PRODUCTION

Fish

The major marine species taken in South Australian waters are tuna, shark, Australian salmon, whiting, snapper and garfish. The catches of these and other significant commercial species are given in the following table.

Fish: Production by Species, South Australia
Estimated Live Weight

Species	1975-76	1976-77	1977-78	1978-79	1979-80
	'000 kg				
Marine:					
Australian salmon	680	1 099	1 169	450	681
Bream (black)	18	16	12	31	73
Garfish	463	354	318	341	463
Mullet	427	349	274	291	282
Mulloway	67	113	72	73	44
Ruff	227	284	354	249	316
Shark	1 546	944	1 055	1 087	1 098
Short finned pike	118	128	131	114	141
Snapper	307	333	385	342	362
Tuna	7 530	8 941	4 992	4 845	7 180
Whiting	991	796	831	794	795
Other marine species	133	323	346	163	123
Total	12 507	13 680	9 939	8 780	11 558
Freshwater:					
Golden perch (callop)	188	119	74	111	61
Murray cod	5	3	6	9	8
Bony bream	51	65	82	136	273
European carp	325	266	207	437	443
Catfish	7	8	3	3	1
Other freshwater species	45	16	7	9	12
Total	621	476	379	705	798
Total fish production	13 128	14 156	10 318	9 484	12 355

Tuna are taken in the waters west and south of Eyre Peninsula and Kangaroo Island. Occasional catches are taken beyond the continental shelf. Although other methods have been attempted, the most successful technique to date for taking tuna 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 or Streaky Bay although occasional landings have been made at Port Adelaide.

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 lobster ports and Port Adelaide, Port Lincoln and Streaky Bay. Shark are taken by long line and mesh netting.

Operators using purse-seine nets fish for salmon off lower Eyre Peninsula and around Kangaroo Island. 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 taken using hauling nets. Of other species, mullet and snapper are regarded highly as table fish. Mullet 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 120 commercial fishermen are engaged in fishing on the River Murray and Lakes area. These are 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.

Gross value of production for 1979-80 of the major marine species are as follows:

	\$'000
Tuna	5 960
Whiting	2 869
Snapper	535
Garfish	848
Australian salmon	341
Shark	1 134
All other	520
	12 207

Crustaceans

The prawn trawling is undertaken in Spencer and St Vincent Gulfs, Investigator Strait and on the West Coast of the State. Since 1975-76 it has been South Australia's most valuable single fishery.

Prawn Production, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Estimated gross weight ('000 kg)	2 579	2 842	2 276	2 459	2 445
Value (\$'000)	7 762	9 513	6 313	11 511	10 264

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.

To prevent over exploitation, both the rock lobster and prawn fisheries are 'limited entry' fisheries with constraints being placed on the number and size of vessels that may fish and the type of gear or number of units of gear that can be used.

Rock Lobster Production, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Estimated gross weight (^{'000} kg)	2 228	1 906	1 912	1 920	1 971
Value (\$ ^{'000})	6 351	6 611	7 307	8 160	9 410

Molluscs

Abalone is by far the most important mollusc taken in South Australia and is 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 off the South East coast.

The abalone fishery is also subject to licence limitation with each diver having an authority to take abalone on his commercial fishing licence.

Abalone Production, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
Gross (in shell) weight (^{'000} kg)	616	675	770	843	789
Value (\$ ^{'000})	846	1 533	1 337	1 462	2 134

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.

At present several private consortiums are interested in farming the Pacific oyster. This oyster was introduced into the State in September 1969 from Tasmania. Farms have been established in seawater ponds at Dry Creek, 28 kilometres north of Adelaide, at Coffin Bay and near Edithburgh. The Dry Creek farm in February 1977 began marketing oysters and is currently developing a local oyster hatchery.

MARKETING AND PROCESSING

Marketing and processing arrangements vary according to the species. Tuna is normally landed at Port Lincoln and then canned for local consumption or frozen for export, although some of the catch is road freighted to interstate canneries. 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 are 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, the largest of the latter being 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 markets fish for both members and non-members.

RESEARCH

The realisation that research is essential for effective fisheries management has promoted several research programs. Scallop, squid, tuna and abalone resources are being investigated by joint Commonwealth and State Government research groups consisting of the Division of Fisheries and Oceanography of the Commonwealth Scientific and Industrial Research Organization (CSIRO), the Fisheries Division of the Commonwealth Department of Primary Industry, and the Fisheries Departments of New South Wales, Victoria, Tasmania and South Australia. In addition, the State Fisheries Department is conducting rock lobster, prawn, yabbie, blue crab, abalone, freshwater fish, squid, whiting, snapper and oyster research programs including tagging, stock sampling, and market measuring. The Department also undertakes research into aspects of its fisheries management programmes.

The State Government has financed exploratory deep-water trawling for gemfish in the South East. It also owns a twenty-three metre fisheries research vessel, the *Joseph Verco* which has assisted in studies of prawns, rock lobster, blue swimming crabs, scale fish and abalone.

A number of exploratory squid operations were carried out in 1978-79 and 1979-80 on a joint venture basis by local processing companies and foreign vessel operators under the auspices of the Commonwealth, South Australian, Victorian and Tasmanian Governments. The aim was to establish the viability of a deep sea squid fishery off the South East coast of Australia. No such operations are being carried out in 1980-81 because of the low catches in 1979-80.

To encourage fisheries research, the Commonwealth and State Governments established a joint fisheries Research and Development Fund in 1966 while the Commonwealth Government established the Fishing Industry Research Trust Account in 1969. The latter makes available from Commonwealth Government revenue an amount equal to that collected from the fishing industry by the State fisheries authorities and is used to finance worthwhile research projects.

Conservation

The importance of protecting the marine and freshwater environment against pollution and other man-caused degradation is recognised in Section 56 of the Fisheries Act, 1971-1977 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, and generally for protecting fish and the spawn against destruction or injury by the discharge, placing or flow of any such matter into waters.

The State Department of Fisheries has pioneered, in Australia, the concept of marine national parks and has created a number of aquatic reserves to protect seal colonies, mangrove communities and areas of scientific and educational interest. Mangrove communities and allied samphire flats have received particular attention because of their recently recognised contribution to the productivity of the near-shore marine environment. All mangroves in South Australia are fully protected.

9.3 MANUFACTURING

DEVELOPMENT

Early factory production was oriented 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 1842 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 did not fully recover for 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 of 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 predominantly a primary producing State, but since then a rapid growth in the relative contribution of secondary industry to total production has taken place. Development in the 1930s coincided with Government action which reduced company taxation and wharfage charges, and provided for a program of low-cost housing. The needs of war provided a further stimulus to the industrialisation process during the 1940s but it is since the 1939-45 War that the most impressive development has taken place.

Extensive development has occurred particularly in the consumer durable industries (e.g. motor vehicles, electrical and household appliances) and these industries now employ a significant proportion of the State's labour force. Major improvements also have been made in the State's energy sources with the development of the Port Augusta and Torrens Island Power Stations and the Port Stanvac Oil Refinery, and the introduction of natural gas as a fuel.

ASSISTANCE TO INDUSTRY

Director of State Development

Assistance to firms contemplating location or expansion in South Australia is co-ordinated through the Director of State Development (within the Premier's Department), who ensures that potential investors receive speedy and co-ordinated service. The Director of State Development works in close co-operation with the various State Departments involved in development matters, including Marine and Harbors, Mines and Energy, Woods and Forests, and in particular with the Department of Trade and Industry.

Department of Trade and Industry

The Department of Trade and Industry (formerly Department of Economic Development) is responsible for assisting in the formulation and implementation of Government policy on industrial and commercial development, with the objective of achieving a maximum sustainable level of employment by:

- (1) the development of existing industries; and
- (2) the attraction of new industries, especially to complement the existing industry structure.

The Department locates potential investors and negotiates to secure industrial development projects for the State. It also has the responsibility for promoting South Australia as a location for industrial and commercial developments, and, in conjunction with the Director of State Development, for promoting trade in goods, services and technology by South Australian industry. This includes the organisation of South Australian representation at appropriate trade fairs and exhibitions both interstate and overseas.

The Commercial Division of the Department incorporates the Small Business Advisory Unit, which provides a co-ordinated assistance service for small businesses by counselling those with financial and other management problems. The Division also administers the Government's financial incentive schemes, advises industry on financial and mercantile matters, and undertakes viability studies of firms seeking financial and/or other assistance.

The Research and Planning Division is responsible for reviewing the impact of State Government development and decentralisation policies and Commonwealth Government policies on industry and especially to draw attention to constraints to industrial development. The Division also conducts studies of industry sectors to identify areas where structural change is needed or where there is scope for growth.

The South Australian Agent-General and his trade officers in London actively seek joint venture and manufacture under licence proposals, which are directed to local companies who have indicated an interest in diversifying their product range. The Department has representatives in Sydney, Tokyo, Hong Kong and Singapore to assist industry with trading and investment matters in those areas.

South Australian Development Corporation

The South Australian Development Corporation, established under the Industries Development Act, 1941-1978, commenced operations in 1971-72.

The objectives of the Corporation are to promote and to develop the State's industries through the provision of financial assistance. The Corporation offers loans of up to \$1 million to eligible firms on specified terms and conditions. It can also participate in the equity structure of a firm and make grants where appropriate.

Before granting assistance to any person under the Act, the Corporation must satisfy the Treasurer:

- (1) that except in the case of assistance proposed to be granted in respect of an overseas industry, the assistance sought by the applicant is not obtainable by him in the ordinary course of business upon reasonable terms and conditions otherwise than from the Corporation;
- (2) that there is reasonable prospect that the industry in respect of which the assistance is given will be profitable; and
- (3) that it is in the public interest that the assistance be given.

Other Assistance

Other specific forms of financial assistance made available to industry by the State Government include payroll tax rebates, relocation grants, consultancy grants and assistance in the provision of services such as roads, water, electricity and transport. The South Australian Housing Trust makes serviced land available on industrial estates at cost, and may construct factories, either for sale or annual rental with option to purchase, throughout the State.

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 manufacturing 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 manufacturing. 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 manufacturing establishments.

Thus, manufacturing industry statistics collected for the 1968-69 Census and subsequent censuses are not comparable with figures obtained from previous censuses. A more detailed explanation of these changes was included on pages 440-4 of the *South Australian Year Book* 1972.

Also, from 1974-75, detailed statistics have not been collected from single establishment enterprises employing fewer than four persons as their contribution to statistical aggregates other than the number of establishments is only marginal. In 1978-79 there were 859 establishments employing fewer than four persons.

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, 1934-1979, 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 Trades 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. Excessive noise from industrial premises is regulated under the Noise Control Act, 1976-1977. Protection against health hazards is provided under the Health Act, 1935-1980.

CLASSIFICATION OF MANUFACTURING ESTABLISHMENTS

The Australian Standard Industrial Classification (ASIC) described in the publication *Australian Standard Industrial Classification, Volume 1* (Catalogue No. 1201.0) classifies the industries in the economy for statistical purposes, thus permitting the scope of the different economic censuses to be specified without gaps or overlapping between them.

As from the 1977-78 Census, statistics of manufacturing establishments are based on the 1978 Edition of the Classification.

In order to provide a link between past and future series a summary of operations table has been published in the bulletin *Manufacturing Establishments, Details of Operations by Industry Class* (Catalogue No. 8203.0) with data classified according to the 1969 Edition of ASIC. This bulletin also contains an explanation of the main changes in industrial classification at the ASIC sub-divisional level.

STRUCTURE AND LOCATION OF SECONDARY INDUSTRY

Industrialisation since the 1939-45 War, to a considerable extent, has evolved around three major industrial groups. The motor vehicle, the electrical goods and the household

appliance industries, together with their peripheral suppliers of components and services, have accounted for much of the post-war expansion. These industries are located in, or near Adelaide. In fact the tendency for manufacturing industries, particularly those supplying consumer goods, to congregate near their market, has resulted in a heavy concentration of South Australian secondary industries in or near Adelaide.

The following tables based on the 1978 Edition of ASIC show this concentration of manufacturing activity in the Adelaide Statistical Division.

Manufacturing Establishments: Summary of Operations, Adelaide Statistical Division and South Australia, 1978-79^(a)

Item	Unit	Adelaide Statistical Division	South Australia	ASD as percentage of SA
Number of establishments at 30 June	number	1 686	2 119	Per cent 80
Persons employed:				
Males	number	66 070	82 635	80
Females	number	19 844	23 667	84
Wages and salaries	\$'000	847 481	1 052 020	81
Turnover	\$'000	3 344 043	4 536 354	74
Value added	\$'000	1 435 699	1 851 438	78

(a) Excludes single establishment enterprises employing fewer than four persons.

Manufacturing Establishments: Summary of Manufacturing Operations by Statistical Division, 1978-79^(a)

Statistical Division	Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Adelaide	1 686	85 914	847 481	3 344 043	1 435 699
Outer Adelaide	116	3 622	31 089	216 389	76 294
Yorke and Lower North	46	745	5 735	35 824	14 980
Murray Lands	83	2 814	25 118	176 298	52 908
South East	87	4 568	44 137	206 345	83 397
Eyre	33	671	5 264	42 152	10 231
Northern	68	7 968	93 197	515 303	177 929
Total State	2 119	106 302	1 052 020	4 536 354	1 851 438

(a) Excludes single establishment enterprises employing fewer than four persons.

A summary of manufacturing operations by industry subdivision within the Adelaide Statistical Division is detailed below and the distribution of activity between this Division and the rest of the State can be seen by comparing this and the subsequent table.

Manufacturing Establishments: Summary of Operations by Industry Subdivision Adelaide Statistical Division, 1978-79^(a)

Industry Subdivision	Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number		\$'000		
Food, beverages and tobacco	168	10 067	95 899	508 055	198 074
Textiles	34	n.a.	n.a.	n.a.	n.a.
Clothing and footwear	66	3 427	28 177	88 967	49 624
Wood, wood products and furniture	264	5 583	45 972	186 807	79 713
Paper, paper products, printing and publishing	151	5 933	57 783	190 141	103 945
Chemical, petroleum and coal products	42	n.a.	n.a.	n.a.	n.a.
Non-metallic mineral products	98	3 170	36 355	168 149	72 662

**Manufacturing Establishments: Summary of Operations by Industry Subdivision
Adelaide Statistical Division, 1978-79^(a) (continued)**

Industry Subdivision	Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Basic metal products	33	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Fabricated metal products	306	8 310	74 408	313 163	131 857
Transport equipment	99	19 455	204 114	722 046	289 726
Other machinery and equipment	261	16 364	160 194	547 282	248 263
Miscellaneous manufacturing	164	5 777	55 414	210 986	95 226
Total manufacturing	1 686	85 914	847 481	3 344 043	1 435 699

(a) Excludes single establishment enterprises employing fewer than four persons.

Generally, industrial plants outside the Adelaide Statistical Division are located near raw materials sources of supply. At country centres there are either meat slaughtering, dairy produce or fish processing factories processing regional produce for local and export markets. There are exceptions to this, including the production of agricultural machinery at Mannum, woollen mills at Lobethal, clothing production at Mount Gambier and heavy engineering at Whyalla. 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 Riverland, the wineries and distilleries of the Barossa Valley and the Riverland, and various dairy produce factories and fish processing plants.

In the following table details of manufacturing establishments for 1978-79 are classified according to industry subdivision.

**Manufacturing Establishments: Summary of Operations by Industry Subdivision
South Australia, 1978-79^(a)**

Industry Subdivision	Establishments at 30 June	Average Persons Employed	Wages and Salaries	Turnover	Value Added
	Number			\$'000	
Food, beverages and tobacco	372	16 977	155 549	942 567	332 539
Textiles	36	2 616	25 488	120 942	45 030
Clothing and footwear	70	3 669	30 002	91 465	51 471
Wood, wood products and furniture	311	7 932	68 345	282 236	114 800
Paper, paper products, printing and publishing	188	7 284	71 895	255 869	136 596
Chemical, petroleum and coal products	48	2 819	33 234	176 574	75 735
Non-metallic mineral products	140	3 634	41 597	200 312	86 325
Basic metal products	36	9 084	108 197	589 720	206 891
Fabricated metal products	348	8 990	80 268	338 339	142 147
Transport equipment	112	20 245	213 970	747 477	301 373
Other machinery and equipment	283	17 030	165 968	566 218	258 212
Miscellaneous manufacturing	175	6 022	57 509	224 636	100 318
Total manufacturing	2 119	106 302	1 052 020	4 536 354	1 851 438

(a) Excludes single establishment enterprises employing fewer than four persons.

Transport equipment accounted for 16 per cent of value added while fabricated metal products, machinery and equipment etc., accounted for 22 per cent. Employment in these industries was 19 per cent and 24 per cent respectively of the total manufacturing

employment. Also of considerable importance to South Australia are the food and drink industries (18 per cent of value added, 16 per cent of employment) particularly milk processing and winemaking.

Although there were 2 119 establishments operating at 30 June 1979 only 199 or 9.4 per cent had an employment in excess of 100 persons while 915 establishments, or 43.2 per cent of the total, employed less than 10 persons. The 32 largest establishments employed 40 125 persons or 37.7 per cent of the total.

The importance of manufacturing industry in South Australia relative to Australia as a whole can be gauged from the following comparison.

**Manufacturing Establishments: Summary of Operations, South Australia and Australia
1978-79^(a)**

Item	Unit	South Australia	Australia	South Australia as a percentage of Australia
Number of establishments at 30 June	number	2 119	26 312	Per cent 8.1
Average employment:				
Males	number	82 635	852 982	9.7
Females	number	23 667	290 909	8.1
Wages and salaries	\$'000	1 052 020	11 966 355	8.8
Turnover	\$'000	4 536 354	55 211 286	8.2
Stocks, closing	\$'000	857 591	9 299 600	9.2
Value added	\$'000	1 851 438	22 230 122	8.3
Fixed capital expenditure	\$'000	195 953	2 262 809	8.7

(a) Excludes single establishment enterprises employing fewer than four persons.

In the following table manufacturing establishments are grouped according to the number of persons employed.

**Manufacturing Establishments: Selected Variables by Size of Establishment
South Australia, 30 June 1979^(a)**

Size of Establishment (Average Employment)	Establish- ments	Persons Employed	Turnover	Value Added
		Number		\$'000
Fewer than 10	915	5 296	185 254	73 736
10 but fewer than 20	439	6 085	223 109	92 556
20 but fewer than 50	416	12 555	555 969	215 516
50 but fewer than 100	150	10 763	525 720	199 607
100 but fewer than 200	121	17 215	707 434	303 331
200 but fewer than 500	46	13 119	638 950	281 156
500 or more	32	40 125	1 668 677	679 635

(a) Excludes single establishment enterprises employing fewer than four persons.

Details of persons employed and distribution of employment in manufacturing establishments for 1978-79 are given in the following tables. Females constituted 22.3 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.

**Manufacturing Establishments: Average Number of Persons Employed, South Australia
1978-79^(a)**

Industry Subdivision	Males	Females	Total	Percentage of Total Employment
				Per cent
Food, beverages and tobacco	11 852	5 125	16 977	16.0
Textiles	1 525	1 091	2 616	2.5
Clothing and footwear	1 030	2 639	3 669	3.4
Wood, wood products and furniture	6 772	1 160	7 932	7.5
Paper, paper products, printing and publishing	5 399	1 885	7 284	6.8
Chemical, petroleum and coal products	2 356	463	2 819	2.7
Non-metallic mineral products	3 324	310	3 634	3.4
Basic metal products	8 398	686	9 084	8.5
Fabricated metal products	7 258	1 732	8 990	8.5
Transport equipment	18 207	2 038	20 245	19.0
Other machinery and equipment	12 452	4 578	17 030	16.0
Miscellaneous manufacturing	4 062	1 960	6 022	5.7
Total manufacturing	82 635	23 667	106 302	100.0

(a) Excludes single establishments employing fewer than four persons.

**Manufacturing Establishments: Average Number of Persons Employed by Type of
Employment, South Australia, 1978-79^(a)**

Industry Subdivision	Working Proprietors	Employees	Total
Food, beverages and tobacco	193	16 784	16 977
Textiles	5	2 611	2 616
Clothing and footwear	32	3 637	3 669
Wood, wood products and furniture	248	7 684	7 932
Paper, paper products, printing and publishing	116	7 168	7 284
Chemical, petroleum and coal products	—	2 819	2 819
Non-metallic mineral products	29	3 605	3 634
Basic metal products	11	9 073	9 084
Fabricated metal products	159	8 831	8 990
Transport equipment	41	20 204	20 245
Other machinery and equipment	82	16 948	17 030
Miscellaneous manufacturing	91	5 931	6 022
Total manufacturing	1 007	105 295	106 302

(a) Excludes single establishment enterprises employing fewer than four persons.

WAGES AND SALARIES

The following table shows wages and salaries paid classified by industry subdivision and based on 1978 Edition of ASIC. Wages and salaries paid to administrative, office, sales and distribution employees were 29 per cent of total wages paid, but in the food, beverages and tobacco, paper and paper products, printing and publishing, and chemical, petroleum and coal products industries a much higher component was paid to these employees.

Manufacturing Establishments: Wages and Salaries, South Australia, 1978-79^(a)

Industry Subdivision	Wages and Salaries Paid to		
	Administrative, Office, Sales and Distribution Employees	Production and All Other Workers	All Employees
		\$'000	
Food, beverages and tobacco	50 654	104 895	155 549
Textiles	4 991	20 497	25 488
Clothing and footwear	6 013	23 989	30 002
Wood, wood products and furniture	17 928	50 416	68 345
Paper, paper products, printing and publishing	27 619	44 276	71 895
Chemical, petroleum and coal products	14 465	18 769	33 234
Non-metallic mineral products	12 710	28 887	41 597
Basic metal products	31 561	76 636	108 197
Fabricated metal products	26 936	53 332	80 268
Transport equipment	54 687	159 283	213 970
Other machinery and equipment	46 923	119 045	165 968
Miscellaneous manufacturing	14 634	42 875	57 509
Total manufacturing	309 121	742 899	1 052 020

(a) Excludes single establishment enterprises employing fewer than four persons.

SELECTED FACTORY PRODUCTS

The factory products listed in this section are not necessarily the principal items 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.

Selected Articles Produced: South Australia^(a)

Item	Units of Quantity	1977-78			1978-79		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
Aerated and carbonated waters	'000 l	109 275	109 429	\$'000 32 346	105 967	105 933	\$'000 34 522
Barrels, kegs, vats, drums and tanks .....	..	..	..	5 804	..	..	5 897
Blinds and awnings:							
Metal venetian .....	..	..	..	749	..	..	837
Outdoor, canvas .....	..	..	..	1 882	..	..	1 702
Outdoor, metal .....	..	..	..	1 249	..	..	1 171
Brandy	'000 lal	2 582	2 178	5 390	2 139	2 116	5 841
Bread, total value .....	..	..	..	40 065	..	..	42 996
Bricks, clay	'000	161 971	153 062	19 445	138 669	138 270	19 229
Cakes, pastry, pies and puddings (not canned) .....	..	..	..	30 717	..	..	33 617
Cheese (excluding pro- cessed cheese)	'000 kg	15 363	15 761	n.a.	17 399	16 625	n.a.
Cheese, total value .....	..	..	..	17 586	..	..	19 334
Chickens	'000 kg	21 694	21 182	30 818	22 220	22 053	34 887
Flour, white	tonnes	89 160	90 321	16 057	77 092	74 221	14 341

Selected Articles Produced: South Australia^(a) (continued)

Item	Units of Quantity	1977-78			1978-79		
		Production	Sales and Transfers		Production	Sales and Transfers	
		Quantity	Quantity	Value	Quantity	Quantity	Value
				\$'000			\$'000
Fluorescent light fittings				7 187			5 537
Fruit, crystallised and glacé	'000 kg	1 108	926	2 223	844	886	2 336
Furniture:							
Sheet metal				9 956			9 557
Wooden				41 852			45 489
Gloves, work	doz.						
	pairs	24 779	32 005	586	29 828	28 948	996
Ice	tonnes	14 106	14 106	501	12 417	12 413	442
Ice cream	'000 l	11 588	11 935	5 594	12 120	11 939	6 267
Machinery:							
Conveyors, appliances and parts				6 077			6 034
Hoists, cranes, lifting machinery				2 293			3 216
Mining and drilling				7 546			11 055
Pumping				5 583			10 283
Mattresses, innerspring	number	59 090	58 637	3 365	59 466	59 531	3 999
Milk, liquid whole, packed	'000 l		96 270	24 678		110 433	32 579
Newspapers and periodicals printed and published				17 238			18 373
Paints:							
Architectural and decorative:							
Primers and undercoats	'000 l	661	643	1 171	695	676	1 223
Finishing coats	'000 l	3 623	3 680	6 816	4 267	4 139	7 990
Ready-mixed concrete	m ³	1 078 295	1 078 295	38 095	987 583	987 583	39 458
Smallgoods				16 798			21 740
Steel, fabricated constructional	tonnes	39 690	37 503	26 636	33 556	31 743	24 762
Tallow, inedible	'000 kg	27 150	27 658	9 278	27 112	28 492	11 307
Tarpaulins				478			477
Tents, flies and marquees				739			542
Window frames, aluminium				12 921			14 489
Wine:							
Fortified	'000 l	24 949	35 354	30 885	33 266	43 522	36 682
Unfortified	'000 l	113 904	110 433	89 115	135 048	144 335	113 636

(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. The classification used is based on the 1978 Edition of ASIC.

Meat and Abattoir By-products

Most of the abattoirs in South Australia are located in country areas but the two largest establishments are within the Adelaide Statistical Division. Details of country butchers who slaughter livestock mainly for sale in their own retail shops are not included.

Meat and Abattoir By-products, South Australia, 1978-79^(a)

Statistical Division	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number			\$'000		
Adelaide	11	1 711	15 679	53 055	86 476	32 767
Other	20	1 444	13 035	73 607	92 150	20 244
Total	31	3 155	28 714	126 661	178 627	53 011

(a) Excludes single establishment enterprises employing fewer than four persons.

Wood and Wood Products

The major activities in this sector of manufacturing are log sawmilling, resawn and dressed timber and joinery and wooden structural fittings industries. In 1978-79 wood and wood products industries accounted for 5.2 per cent of manufacturing employment in South Australia.

Wood and Wood Products, South Australia, 1978-79^(a)

Statistical Division	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number			\$'000		
Adelaide	156	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other	45	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Total	201	5 543	49 250	132 999	213 008	82 492

(a) Excludes single establishment enterprises employing fewer than four persons.

Printing and Allied Industries

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 Government Printing Division of the Department of Services and Supply, are also incorporated in the following table.

Printing and Allied Industries, South Australia, 1978-79^(a)

Statistical Division	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number			\$'000		
Adelaide	136	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other	32	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Total	168	5 304	51 143	60 130	149 874	90 432

(a) Excludes single establishment enterprises employing fewer than four persons.

Cement and Concrete Products

There are two firms producing cement at three locations in South Australia. One firm produces cement at two locations, one at Birkenhead and the other at Angaston. The Angaston cement plant, based on the limestone deposits, is an example of a manufacturing location being established near the source of the raw material. In 1978-79, 51 plants produced ready-mixed concrete, of which 26 were in the Adelaide Statistical Division and 25 were in country areas. Two firms produce concrete pipes at five separate locations of which two are in the country.

Cement and Concrete Products, South Australia, 1978-79^(a)

Statistical Divisions	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number			\$'000		
Adelaide	55	1 173	14 224	54 401	80 282	26 029
Other	34	353	4 478	17 293	29 988	12 546
Total	89	1 526	18 702	71 694	110 270	38 575

(a) Excludes single establishment enterprises employing fewer than four persons.

Basic Iron and Steel

In 1941 a blast furnace was installed at Whyalla to utilise the iron ore from the Middleback Ranges. The ore is transported by rail a distance of 55 kilometres to Whyalla. Before 1965 Whyalla was the major source of Australia's foundry iron but this changed in 1965 when the Basic Oxygen Steelmaking plant began producing steel.

There are a number of large pipe and tube making firms located in and near Adelaide. These firms accounted for slightly less than 20 per cent of the Australian output of ferrous pipes, tubes and fittings.

Transport Equipment (Motor Vehicles and Parts)

The largest single industry in South Australia and a major contributor to industrial growth since 1945 is the motor vehicle industry. However, as there are only a few firms engaged in motor vehicle production, no detailed figures are published for confidentiality reasons.

Immediately after the 1939-45 War, General Motors-Holden Pty Ltd prepared for the production of an Australian-built car, and volume production commenced in 1948. A number of major increases in productive capacity have been made by this firm involving not only considerable expansion at the Woodville site but also the establishment of a plant at Elizabeth.

Tonsley Park has become the centre of manufacturing operations for Mitsubishi Motors Australia Limited (formerly Chrysler Australia Ltd) and in July 1967 the company expanded its operations to include a large foundry and engine plant at Lonsdale, near Port Stanvac.

These large motor vehicle plants in turn absorb the products of many establishments producing vehicle components. Other manufacturers produce omnibus and commercial vehicle bodies, fork lift trucks, garage equipment, trailers, caravans, and a wide range of vehicle accessories.

In 1978-79 establishments mainly engaged in the manufacture of motor vehicles and parts contributed 16.5 per cent of South Australia's total employment in manufacturing. It should be noted that this figure understates the importance of the motor vehicle industry to South Australia as some firms involved in the manufacture of components and accessories are classified to other industries. (For example, firms making rubber components for the motor industry are considered to be in the rubber industry.)

Transport Equipment (Motor Vehicles and Parts), South Australia, 1978-79^(a)

Statistical Division	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number				\$'000	
Adelaide	71	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other	4	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Total	75	17 554	185 589	389 855	684 349	269 636

(a) Excludes single establishment enterprises employing fewer than four persons.

Transport Equipment (Other than Motor Vehicles)

In 1978-79 the transport equipment (other than motor vehicles) industries accounted for 2.5 per cent of the employment in manufacturing in South Australia.

Motor vehicles and parts and other transport equipment together accounted for 19 per cent of total South Australian manufacturing employment.

Transport Equipment (Other than Motor Vehicles), South Australia, 1978-79^(a)

Statistical Division	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number			\$'000		
Adelaide	28	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other	9	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Total	37	2 691	28 381	23 990	63 127	31 737

(a) Excludes single establishment enterprises employing fewer than four persons.

Appliances and Electrical Equipment

For many years South Australia has been one of the leading States in the production of the larger household appliances, including refrigerators, washing machines and stoves. These items constitute a significant part of the total activity shown in the next table. Also represented are manufacturers of radio and television components, water-heating systems, batteries and other electrical machinery and equipment.

This group of industries is the second most important in the State and in 1978-79 employed nearly 10 per cent of total manufacturing employment in South Australia.

Appliances and Electrical Equipment, South Australia, 1978-79^(a)

Statistical Division	Establishments	Persons Employed	Wages and Salaries	Purchases, Etc.	Turnover	Value Added
	Number			\$'000		
Adelaide	86	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Other	1	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Total	87	10 525	103 477	214 473	369 146	153 773

(a) Excludes single establishment enterprises employing fewer than four persons.

Further References

Additional information may be found in the following publications:

South Australian Office

- 8202.4 *Manufacturing Establishments: Details of Operations*
- 8203.4 *Manufacturing Establishments: Small Area Statistics*
- 8204.4 *Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size*

Central Office

- 8202.0 *Manufacturing Establishments, Summary of Operations by Industry Class*
- 8203.0 *Manufacturing Establishments, Details of Operations by Industry Class*
- 8204.0 *Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size, Australia*

PART 10

COMMERCE

10.1 INTERNAL TRADE

Extensive statistics of retail trade have been collected and published over many years but the first full census of wholesale trade was conducted as part of the integrated Economic Censuses of 1968-69 which was discussed in detail on pages 446-57 of the *South Australian Year Book* 1971.

RETAIL TRADE

A Census of Retail Establishments and Selected Service Establishments for the year ended 30 June 1974 was conducted primarily to provide the necessary data to update the sample for the quarterly survey of retail sales. The census included all establishments classified to retail trade in Subdivision 48 of the Australian Standard Industrial Classification (ASIC) with the exception of bread and milk vendors, footwear repairers and door to door salesmen. In addition the census included service establishments classified as cafes and restaurants; licensed hotels, motels and wine saloons; licensed clubs and hairdressers and beauty salons.

The definition of retail trade adopted in the 1973-74 Retail Census was the same as that used in previous censuses *i.e.* the sale of new and used goods to the final consumer for household and personal purposes.

For further information and detailed tables relating to the 1973-74 Retail Census, reference should be made to the *South Australian Year Book 1978*, pages 457-9 and the bulletin *Census of Retail Establishments and Selected Service Establishments, 1973-74* (Catalogue No. 8601.4).

**Retail and Selected Service Establishments: Summary of Operations
by Industry Group, South Australia, 1973-74**

Industry Group	Establishments at End of June	Employment at End of June		Wages and Salaries	Retail Sales	Turnover (a)
		Males	Females			
		Number			\$'000	
Retail establishments:						
Department, variety and general stores	221	4 031	9 539	41 345	265 836	278 172
Food stores	4 263	8 349	12 584	35 367	445 255	450 206
Clothing, fabric and furniture stores	1 397	2 651	4 066	17 755	151 385	153 143
Household appliance and hardware stores	823	2 458	1 618	13 226	93 547	113 980
Motor vehicle dealers, petrol and tyre retailers	2 648	14 563	3 845	60 610	460 663	605 582
Other retailers	1 838	2 716	3 850	13 834	109 358	112 676
Total retail establishments ...	11 190	34 768	35 502	182 137	1 526 044	1 713 759
Selected service establishments:						
Restaurants and licensed hotels	881	5 948	8 178	39 043	117 934	169 640
Licensed clubs	161	849	650	3 656	9 521	13 486
Hairdressing and beauty salons	948	510	2 435	4 414	907	11 787
Total selected service establishments	1 990	7 307	11 263	47 113	128 362	194 913
Total retail and selected service establishments	13 180	42 075	46 765	229 250	1 654 406	1 908 672

(a) Sales of goods (retail and wholesale) and other operating revenue.

A comparison of retail trading in South Australia and in Australia during 1973-74 is shown in the following table. In this and in the earlier table showing employment and wages, employment figures include working proprietors but wages exclude the drawings of working proprietors.

Retail and Selected Service Establishments: South Australia and Australia, 1973-74

Particulars	South Australia	Australia
	Number	
Establishments operating at 30 June 1974	13 180	151 120
Persons employed at 30 June 1974	88 840	984 964
	\$ million	
Wages and salaries	229.3	2 739.0
Retail sales	1 654.4	19 070.7
Wholesale sales	84.2	1 403.2
Other operating revenue	170.1	2 259.8
Turnover	1 908.7	22 733.7

The value of sales of the commodity items collected in the 1973-74 Census are shown in the following table. Many establishments reported takings in more than one commodity item so that the number of establishments showing sales for individual items will exceed the total number of retail and selected service establishments.

**Retail and Selected Service Establishments: Sales by Commodity Group, South Australia
1973-74**

Commodity Item	Number of Establishments	Retail Sales of Goods		
		Total	Sales Per Establishment	Sales Per Head of Population
		\$'000	\$	\$
Groceries, other food items, etc.:				
Groceries	2 802	192 949	68 860	159·4
Fresh meat	1 163	80 819	69 490	66·7
Confectionery, ice cream, soft drinks, etc.	3 516	50 154	14 260	41·4
Other food	3 006	79 966	26 600	66·0
Beer, wine and spirits, cigarettes, etc.:				
Beer, wine and spirits	1 033	127 317	123 250	105·2
Cigarettes and other tobacco products	4 827	50 218	10 400	41·5
Fabrics, clothing and footwear:				
Clothing and drapery	1 733	200 292	115 580	165·4
Footwear	763	33 575	44 000	27·7
Hardware:				
Domestic hardware, china, glassware, jewellery, watches and clocks (including garden equipment)	1 453	48 084	33 090	39·7
Household appliances:				
Radios, radiograms, tape recorders, television sets and accessories, musical instruments, records, sheet music, etc.	580	39 072	67 370	32·3
Domestic refrigerators and freezers, washing machines, stoves, household heating appliances and other household appliances (including bottled liquid petroleum gas)	543	56 384	103 840	46·6
Furniture and floor coverings:				
Furniture, mattresses, blinds, etc. (including installation and repairs)	364	45 609	125 300	37·7
Floor coverings, carpets, lino, etc., (including laying of floor coverings)	354	32 754	92 530	27·1
Motor vehicles, petrol, boats, caravans, etc.:				
New motor vehicles, new and used motor cycles, boats and caravans	486	193 634	398 424	159·9
Used motor vehicles	572	113 443	198 327	93·7
New and used parts and accessories, petrol, oils, tyres, batteries, etc.	1 970	150 857	76 577	124·6
Miscellaneous:				
Cosmetics, perfumes, toilet preparations	1 774	24 129	13 600	19·9
Prescription and patent medicines and therapeutic appliances	836	35 387	42 330	29·2
Books, stationery, newspapers, etc.	1 735	37 737	21 750	31·2
Goods not included above	2 191	62 022	28 310	51·2
Total retail sales .....	..	1 654 406	..	1 366·4

A Census of Retail and Selected Service Establishments, which was conducted for the year ended 30 June 1980, will meet many important requirements for detailed up-to-date information about the retail sector of the economy and will also provide essential data necessary for continuation of the sample surveys of retail establishments. The results of this census are expected to become progressively available during the first half of 1982.

Surveys of Retail Establishments

During periods between censuses, estimates of the value of retail sales are calculated from returns received from a sample of retail establishments covering businesses which account for approximately 45 per cent of all retail sales in Australia.

The following table shows the value of retail sales of goods in South Australia in broad commodity groups for the 1973-74 Census, and retail survey estimates for the years 1977-78 to 1979-80. Retail sales of motor vehicles and parts, petrol, etc., and of delivered milk and bread are excluded.

Value of Retail Sales: Commodity Groups, South Australia

Commodity Group	Value of Retail Sales of Goods			
	1973-74	1977-78	1978-79	1979-80
		\$ million		
Groceries	192.9	405.5	447.2	478.8
Butchers meat	80.8	128.0	141.5	169.3
Other food	130.1	226.5	251.1	272.9
Total food and groceries	403.9	760.0	839.8	921.0
Beer, wine and spirits	127.3	229.0	255.8	286.0
Clothing, drapery, etc.	200.3	337.5	359.8	377.2
Footwear	33.6	57.9	63.3	69.7
Hardware, china, etc.	48.1	86.4	96.3	107.6
Electrical goods	95.5	185.8	192.5	197.0
Furniture and floor coverings	78.4	125.8	129.8	139.2
Chemist goods	59.5	106.7	111.6	118.6
Newspapers, books and stationery	37.7	76.6	84.8	87.0
Other goods	112.2	193.2	208.6	225.0
Total	1 196.5	2 158.9	2 342.3	2 528.3

WHOLESALE TRADE

The term wholesale trade was used in the wholesale census in the broad sense to include the resale (by agents or principals) of new or used goods to retailers or other wholesalers or to institutional (including government), professional or other business users (including farmers and builders). The more important types of business engaged in wholesale trade are wholesale merchants, who take title to the goods they sell; manufacturers sales branches; commission agents, including import and export agents and purchasing agents; petroleum products distributors; and co-operative and marketing boards engaged in marketing farm products.

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.

INTERSTATE TRADE

Although a wide range of statistics of production, domestic sales and overseas trade in goods have been prepared for many years, knowledge of trading patterns in the South Australian economy was deficient because of the absence of statistics of the interstate trade undertaken by businesses in this State.

In order to overcome this deficiency, a survey of interstate trade in merchandise was undertaken in respect of the year ended 30 June 1979.

The survey results are shown in the following three tables.

Value of Interstate Trade by Commodity, South Australia, 1978-79

Commodity Group	Exports		Imports	
	\$m	SE%	\$m	SE%
Livestock	29.6	(-)	61.0	(-)
Food	264.3	(15.3)	213.7	(17.8)
Beverages	143.8	(10.7)	16.5	(20.1)
Tobacco and tobacco products	18.1	(27.1)	144.8	(47.0)
Animal and vegetable oils and fats	0.5	(24.4)	10.1	(19.4)
Mineral fuels, lubricants and related products	95.6	(0.5)	192.6	(7.7)
Chemicals and chemical products	72.4	(3.3)	349.6	(23.3)
Other crude materials (inedible)	115.7	(21.3)	211.2	(1.1)
Leather, rubber, wood and paper products	191.4	(3.9)	163.4	(16.6)
Clothing and footwear	79.8	(9.9)	236.7	(21.4)
Textile yarn, fabrics and related products n.e.c.	52.3	(4.7)	113.8	(25.6)
Metal products	435.1	(2.4)	353.9	(7.4)
Transport equipment	501.4	(2.3)	314.1	(23.1)
Other machinery and equipment	515.3	(8.0)	389.3	(11.9)
Sanitary, plumbing, heating, lighting and furniture	42.0	(8.0)	30.6	(33.5)
Non-metallic mineral manufactures n.e.c.	35.7	(10.6)	29.6	(17.9)
Other manufactured goods	81.9	(12.9)	156.2	(14.0)
Total	2 675.0	(2.8)	2 987.0	(5.5)

Value of Interstate Trade by Industry, South Australia, 1978-79

Industry	Exports		Imports	
	\$m	SE%	\$m	SE%
Mining	16.5	(2.6)	4.2	(1.5)
Manufacturing	2 116.6	(1.9)	1 054.1	(1.6)
Wholesale trade	418.4	(8.6)	1 370.1	(9.7)
Other	123.4	(36.3)	558.6	(15.3)
Total	2 675.0	(2.8)	2 987.0	(5.5)

Value of Interstate Trade by Destination/Origin, South Australia, 1978-79

Destination/Origin	Exports		Imports	
	\$m	SE%	\$m	SE%
New South Wales (incl. ACT)	834.8	(2.7)	1 288.2	(8.3)
Victoria	967.4	(3.4)	1 375.9	(8.0)
Queensland	279.6	(3.2)	74.1	(7.1)
Western Australia	244.7	(3.2)	68.5	(6.1)
Tasmania	49.4	(6.6)	19.1	(4.2)
Northern Territory	98.3	(10.1)	28.6	(6.6)
Overseas via interstate ports	200.6	(17.7)	132.7	(23.1)
Total	2 675.0	(2.8)	2 987.0	(5.5)

The estimates contained in these tables, being derived from a sample survey, may differ from the results which would have been obtained from a census of all businesses. A measure of the likely difference is given by the standard error of each estimate. There are about two chances in three that a sample estimate will differ from the figures that would have been obtained from a complete enumeration by less than one standard error, and about nineteen chances in twenty that the difference will be less than two standard errors.

For example, the 1978-79 estimate of the total value of South Australia's Interstate export trade of \$2 675.0 million has a standard error of 2.8 per cent (\$74.9 million). There are two chances in three that a complete enumeration would give an estimate in the range of \$2 600.1 million and \$2 749.9 million and nineteen chances in twenty that the estimate would be in the range of \$2 525.2 million and \$2 824.8 million.

This investigation showed that manufacturing industries are significant net interstate exporters, while the service industries, particularly wholesale and retail trade, are net interstate importers. The estimates shown for trade in commodities reflect the importance of beverage production and processed metal products (including machinery and equipment) to the State's economy. Significant imports have been recorded for tobacco products, mineral fuels, chemicals and clothing.

As expected the more populous States, New South Wales and Victoria, are the most important suppliers of imports to South Australia and provide the markets for exports.

Further information may be obtained from the bulletin *Interstate Trade 1978-79* (Catalogue No. 8502.4).

TOURIST ACCOMMODATION

The importance of tourism is recognised by a wide cross section of the community and this has caused a demand for comprehensive statistics on the industry. To satisfy requests from various organisations expressing a need for statistics on tourism the Bureau conducted a Census of Tourist Accommodation Establishments for the year ended 30 June 1974 to identify and measure the amount, type and location of accommodation available.

The census covered establishments classified as hotels, motels and guest houses providing predominantly short-term accommodation (for periods of less than two months) to the general public. Caravan parks were also included. Establishments which had nil takings from accommodation, or in which the number of short-term guests was less than long-term guests, were excluded.

In addition to type of establishment and type of guest, information was sought on the capacity of accommodation with and without facilities, *i.e.* rooms with private bath/shower and toilet, employment, wages, takings from accommodation, meals and liquor sales. Details collected for caravan parks included the number of sites, on-site vans and cabins. The various items of data were tabulated for regions within the State and information for some items, depending on the number of establishments operating, is available for individual local government areas.

To support the census information, a series of tourist accommodation surveys was introduced in September quarter 1975 to provide an indication of the utilisation of accommodation available by measuring occupancy rates. The surveys include establishments which provide accommodation predominantly to short-term visitors and calculates occupancy rates as the proportion of guest rooms or sites occupied to the number of rooms or sites available for accommodating paying guests. Establishments in the surveys are grouped into three categories—licensed hotels with facilities *i.e.* bath or shower and toilet in most guest rooms; licensed or unlicensed motels, private hotels or guest houses with facilities; and caravan parks with powered sites for caravans, and

toilet, shower and laundry facilities available for guests. Caravan parks were included in the surveys from the September quarter 1977. Excluded at that time were licensed hotels, private hotels and guest houses without facilities.

Census of Tourist Accommodation: South Australia, 1973-74

Size of Establishment (Guest Rooms)	Establishments	Guest Rooms		Employment at End of June		Wages and Salaries	Takings from Accommodation
		With all Facilities	Other	Full-time	Other		
Number							
\$'000							
LICENSED HOTELS							
1-15	367	500	2 243	2 343	3 101	15 646	1 914
16-25	56	314	772	594	659	4 103	1 196
26 and over	40	1 344	506	823	928	6 042	3 937
Total	463	2 158	3 521	3 760	4 688	25 791	7 047
LICENSED MOTELS							
1-15	7	71	7	20	29	72	158
16-25	15	275	34	55	131	385	710
26 and over	37	1 680	36	657	497	3 529	6 699
Total	59	2 026	77	732	657	3 986	7 567
UNLICENSED MOTELS							
1-15	36	373	—	77	74	141	712
16-25	17	323	8	50	72	272	771
26 and over	16	548	47	71	133	533	1 631
Total	69	1 244	55	198	279	946	3 114
PRIVATE HOTELS AND GUEST HOUSES							
1-15	22	29	169	38	30	56	161
16-25	6	—	116	10	5	11	69
26 and over	8	26	389	35	42	207	432
Total	36	55	674	83	77	274	662
TOTAL ESTABLISHMENTS							
1-15	432	973	2 419	2 478	3 234	15 916	2 946
16-25	94	912	930	709	867	4 772	2 746
26 and over	101	3 598	978	1 586	1 600	10 310	12 698
Total	627	5 483	4 327	4 773	5 701	30 998	18 390

The number of establishments identified in the survey is determined by the nature of the services and facilities provided, and 10 licensed hotels with facilities, 146 motels and 153 caravan parks were included in June 1980. The following table shows occupancy rates and takings from accommodation from June quarter 1979 to June quarter 1980.

Tourist Accommodation Survey, South Australia

Particulars	Unit	Quarter				
		June 1979	Sept. 1979	Dec. 1979	Mar. 1980	June 1980
LICENSED HOTELS WITH FACILITIES						
Room occupancy rate	%	46.7	45.5	43.8	46.9	46.4
Takings	\$'000	2 543	2 624	2 578	2 908	2 960
MOTELS ETC. WITH FACILITIES						
Room occupancy rate	%	57.8	53.3	55.7	61.7	58.5
Takings	\$'000	4 969	4 752	5 040	6 034	5 739
CARAVAN PARKS						
Site occupancy rate	%	17.3	12.3	17.1	25.9	16.9
Takings	\$'000	1 249	943	1 383	1 934	1 311

Information on Accommodation Establishments has also been collected in conjunction with the Census of Retail and Selected Service Establishments for the year ended 30 June 1980.

Further References

Additional information may be found in the following publications:

South Australian Office

- 8502-4 *Interstate Trade*
- 8601-4 *Census of Retail Establishments and Selected Service Establishments*
- 8602-4 *Census of Wholesale Establishments*
- 8603-4 *Tourist Accommodation*
- 8604-4 *Census of Tourist Accommodation Establishments*

Central Office

- 8635-0 *Tourist Accommodation*

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 Commonwealth 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 Commonwealth 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 (Anti-Dumping) Act. The Customs Act is the administrative Act under which the Bureau of Customs of the Department of Business and Consumer Affairs 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 (Anti-Dumping) 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.

Preferential rates apply to certain goods being the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand, Papua New Guinea, declared preference countries and developing countries where specified in the schedules to the Customs

Tariff. At present the preference countries are comprised mainly of members of the British Commonwealth of Nations and most of the United Kingdom's dependencies.

General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular tariff classification.

By-laws

Under certain Customs by-laws, goods may be admitted free of duty or at rates of duty lower than those normally applicable. A pre-requisite for such 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 (Anti-Dumping) Act 1975* 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

The effects of the world wide recession in the early 1970s have necessitated the imposition of quota controls over particular commodities to protect employment and investment in some important Australian industries.

The decision to impose import controls either in the form of import licensing or tariff quotas is made by the Commonwealth Government based on the recommendations of the body inquiring into the industry; usually the Industries Assistance Commission but if the matter is urgent, the Temporary Assistance Authority. The Standing Committee on Industries Assistance (SCIA) also examines the reports and provides advice to the Government before a decision is made.

Both forms of control are usually applied on a global basis and are intended to provide short term assistance to an industry but there are significant differences in their application.

Licensing is a non tariff form of protection that imposes an absolute restriction on the quantity, weight or value (as appropriate) of the goods that may be imported in a certain period. Goods imported without a licence cannot be entered for home consumption and may be subject to seizure as prohibited imports.

The legal basis for import licensing is the Customs (Import Licensing) Regulations prescribed under the Customs Act.

In respect of goods subject to tariff quotas By-laws are made pursuant to Section 271 of the Customs Act and Ministerial Determinations are issued pursuant to Section 273 of the Customs Act. These provide for goods to be imported and cleared for home consumption at normal rates of customs duty up to a ceiling level specified by the Government for a particular period. Additional temporary (or penalty) duties are applied to goods entered for home consumption outside the quota arrangements.

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* and the *Therapeutic Goods Act 1966*.

Export Controls

Under Section 112 of the Customs Act the export of goods from Australia may be prohibited absolutely, prohibited to a specific place, or prohibited unless prescribed conditions or restrictions are observed.

The *Banking Act 1959* 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 ASSISTANCE TO INDUSTRIES

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 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 responsible for the Industries Assistance Commission is currently the Minister for Business and Consumer Affairs.

Under the Industries Assistance Commission 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 Commonwealth Government or for increase, reduction or withdrawal of such assistance before such action is taken.

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 (Anti-Dumping) Act 1975*.

Temporary Assistance Authority

Under the *Industries Assistance Commission Act 1973* the Minister for Business and Consumer Affairs may request the Temporary Assistance Authority to inquire and report as to whether urgent action is necessary to provide assistance to an Australian industry which is experiencing difficulties because of import competition. The Temporary Assistance Authority's report must be submitted to the Minister within forty-five days of the making of the request. Short term assistance provided following a report of the Temporary Assistance Authority may be subject to review by either the Temporary Assistance Authority or the Industries Assistance Commission, depending upon circumstances.

ENCOURAGEMENT OF OVERSEAS TRADE

Trade Commissioner Service

The Trade Commissioner Service has its statutory base in the *Trade Commissioners Act 1933*. The function of the Service is the promotion of Australia's commercial interests overseas. In pursuing this objective, one of the most important tasks for a Trade Commissioner is to provide the marketing information for Australian exporters to enable them to exploit commercial opportunities in overseas markets.

The Service comprises 167 Trade Commissioners and Assistant Trade Commissioners who serve at 55 posts in 46 countries.

Australian exporters and export organisations are provided with the following facilities:

- surveys of market prospects;
- advice on selling and advertising methods;
- introduction to buyers and agents;
- reports on the standing of overseas firms;
- advice and assistance to business visitors;
- help in organising and carrying through trade missions, trade displays, newspaper supplements and other promotional and publicity activity;
- information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods and services.

Trade Commissioners are also required to service the market information requirements and other needs of Government departments and agencies including the Departments of Primary Industry, Business and Consumer Affairs, National Development and Energy, Transport, Industry and Commerce, the Export Finance and Insurance Corporation and the Australian Overseas Projects Corporation.

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 Market Development Grants

The Export Development Grants Board administers two Acts of the Commonwealth Parliament, namely, the *Export Market Development Grants Act 1974*, as amended and the *Export Expansion Grants Act 1978*, which are operative until 30 June 1982.

The Export Market Development Grants Scheme aims to encourage Australian exporters to seek out and develop overseas markets for goods, services, industrial property rights, and expertise. The Act was amended in 1978 to extend the Scheme to cover promotion of eligible internal services, and promotion to overseas residents of eligible tourist services supplied by the Australian travel and tourist industry.

The Export Expansion Grants Scheme provides taxable cash grants based on the increase in exports in the grant year over the average annual exports in the three immediately preceding years in respect of specified eligible goods, services, expertise and industrial property rights.

Export Finance and Insurance Corporation

The Export Finance and Insurance Corporation is a statutory Corporation established by the Commonwealth Government to provide Australian exporters with a specialised range of insurance, guarantee indemnity and finance facilities not normally available from commercial sources.

Since its inception, the Corporation has progressively expanded the range of facilities it offers exporters, and has assumed an increasingly important role in the development of Australian exports. The Corporation's facilities support approximately ten per cent of Australian exports and have proved a most valuable aid to Australia's export industries and companies investing overseas.

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 Hong Kong, Singapore and Tokyo to investigate trade opportunities in these areas.

TRADE AGREEMENTS

Multilateral Agreements

The General Agreement on Tariffs and Trade (GATT), which came into force on 1 January 1948, is a multilateral trade agreement designed to facilitate trading relations and improve trading opportunities between participating countries by reducing tariff and other barriers to the free exchange of goods, and providing rules for the conduct of international trade. The Agreement includes a framework within which negotiations can be held to further reduce barriers to trade, and a structure for embodying the results of such negotiations in a legal instrument.

Australia is one of the original Contracting Parties to the GATT. At 15 February 1980, there were eighty-five contracting parties to the Agreement, two countries which had provisionally acceded (*i.e.* they participated in the GATT but had not yet contracted to it), and thirty countries which applied the provisions of the Agreement on a *de facto* basis, having formerly been colonies of contracting parties to the GATT. These 117 countries account for approximately 85 per cent of world trade.

There have been seven major rounds of multilateral tariff negotiations under the provisions of the Agreement, and a number of smaller scale negotiations preceding the accession of individual countries. As a result, the tariff rates for a great many items entering into world commerce have been reduced and/or bound against increase.

The Tokyo Round of Multilateral Trade Negotiations (MTN), the seventh under the auspices of the GATT, were inaugurated at a meeting of Ministers in Tokyo in September 1973. Almost one hundred countries (both members and non-members of GATT) participated in the negotiations which were substantively concluded during 1979. Fourteen agreements or understandings which aim at liberalising and stabilising international trade in both industrial and agricultural products were finalised in the Tokyo Round. The subjects covered were subsidies and countervailing duties; government procurement; customs valuation; standards; import licensing; anti-dumping; trade in civil aircraft; reciprocity; more favourable treatment and fuller participation for developing countries; trade measures for balance of payments purposes; safeguard action for development purposes; notification, consultation, dispute settlement and surveillance; export restrictions; arrangements relating to bovine meat and dairy products.

Most of the developed-country participants in the negotiations had indicated, by February 1980, that they would accede to the various arrangements. The question of Australia's position was still under consideration.

Within the context of the MTN, various participants have held bilateral negotiations with the aim of exchanging tariff and access concessions. Australia has concluded bilateral agreements with the USA, EEC, Japan and Canada which, *inter alia*, provide for better access of Australian beef, dairy products and wool.

Bilateral Agreements

Agreements, most of which provide for the exchange of most-favoured-nation (MFN) treatment in trade matters, are in force between Australia and the following countries:

South Africa	(1932)	Czechoslovakia	(1972)
Switzerland	(1938)	Indonesia	(1972)
Greece	(1940)	China	(1973)
Japan	(1957)	USSR	(1973)
Yugoslavia	(1970)	Bulgaria	(1974)

Iran	(1974)	German Democratic	
Vietnam	(1974)	Republic	(1977)
Hungary	(1974)	Brazil	(1978)
Republic of Korea	(1975)	Poland	(1978)
Philippines	(1975)	Bahrain	(1979)
Romania	(1975)	Thailand	(1979)
India	(1976)		

In addition, 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.

There are also agreements establishing free trade areas between Australia and New Zealand (NAFTA) and between Australia and Papua New Guinea (PATCRA).

Details of these agreements are contained in various issues of the *Year Book Australia*.

METHOD OF RECORDING IMPORTS AND EXPORTS

Overseas trade statistics are compiled by the Australian Bureau of Statistics from documentation submitted by exporters and importers, or their agents, to the Bureau of Customs as required by the Customs Act.

Exports

In general, 'State' overseas export statistics until 1977-78 were compiled on the basis of the State in which the appropriate export documentation was lodged with the Bureau of Customs. While at one time this was generally synonymous with the State of origin of the goods, the advent of containerisation and centralisation of company accounts had resulted in a drift sufficient to make 'lodgment' a meaningless concept upon which to base State statistics, particularly in the case of South Australia where a considerable volume of goods are transported by road or rail to Melbourne for export shipment.

The ABS has changed the basis of recording State details in Australian export statistics from 'State of Lodgment' (of export documents) to 'State of Origin' (of exported goods). State of origin is defined as the State in which the final stage of production or manufacture occurs. This new recording base became operative from 1 July 1978 so that 1978-79 and 1979-80 statistics in the following export tables are therefore on a 'State of Origin' basis. Caution should be exercised when making comparisons with earlier periods as it has not been possible to change this data to a 'State of Origin' basis.

A 'State of Final Shipment' recording base has simultaneously been developed by ABS. The table on page 468 shows for comparative purposes, South Australian exports (principal commodity groups) by both 'State of Final Shipment' and by 'State of Origin'.

Imports

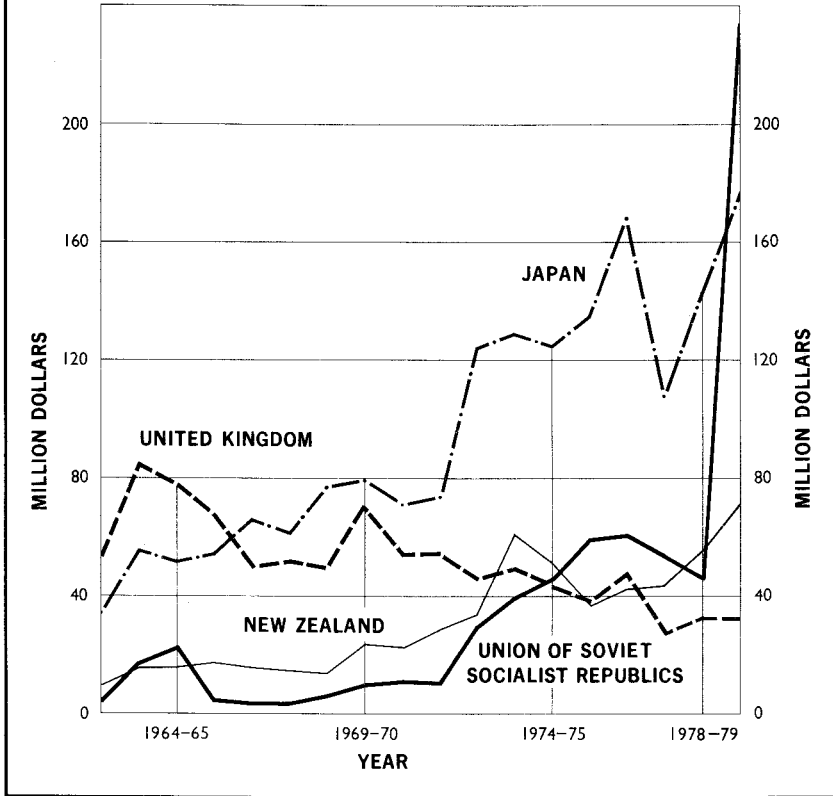
Imports continue to be collected and published on a 'State of Lodgment of Import Documents' basis and there is no break in the series. Imports do not provide a record of the overseas goods used or consumed in South Australia, as some of the goods pass subsequently to other Australian States and, more commonly, some goods imported through other States pass into South Australia.

Commodity Classification

From 1 July 1978, exports and imports have been classified according to the new

OVERSEAS EXPORTS FOUR PRINCIPAL COUNTRIES

SOUTH AUSTRALIA 1961-62 TO 1979-80



Australian Export Commodity Classification (AECC) and Australian Import Commodity Classification (AICC) which is based on the United Nations' Standard International Trade Classification, Revision 2 (SITC R2).

Valuation

Exports

Goods sold to overseas buyers before export are valued at the f.o.b. Australian port of shipment equivalent of the actual price paid to the exporter. Goods shipped on consignment are valued at the f.o.b. Australian port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which they are despatched for sale.

Imports

The recorded value is the value for duty for Customs purposes (VFD). On 1 July 1976, Australia adopted the internationally recognised Brussels Definition of Value (BDV) on a free-on-board (f.o.b.) basis (*i.e.* charges and expenses involved in delivering the goods from the place of exportation to the place of introduction in Australia, are excluded).

The value for duty is based on the normal price (*i.e.* the price the goods would fetch at the time when duty becomes payable on a sale in the open market between a buyer and a seller independent of each other). In practice, the basis for valuation is generally taken to be the invoice price subject to certain safeguards and adjustments where necessary.

Inclusions and Exclusions

Export tabulations do not include the value of stores loaded on foreign operated aircraft and ships (*e.g.* aircraft fuel, bunker oil, food and drink for passengers and crew, and ship's fittings installed on overseas-owned ships in Australian ports). The value of stores loaded on overseas operated vessels and aircraft in South Australia amounted to \$21.07 million in 1979-80. From 1 July 1976, for both imports and exports, the value recorded for each item includes the value of the outside package (containers, crates, etc.). 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.

OVERSEAS TRADE OF SOUTH AUSTRALIA**EXPORTS**

The total value of exports of goods of South Australian origin during 1979-80 was \$1 599.2 million. This far exceeded any previous export figure, the most significant factor being exceptionally high exports of wheat and barley following two record harvests. Greatly increased export values of lead also contributed significantly to the high figure, together with higher exports of live sheep, lamb and mutton and wool.

Overseas Exports from South Australia, Principal Commodities

Commodity	1975-76	1976-77	1977-78	1978-79(a)	1979-80
	QUANTITY				
Live sheep and lambs ('000)	430	862	1 957	1 069	1 821
Beef, veal, lamb and mutton (tonnes)	34 278	47 562	35 402	65 238	60 657
Wheat (tonnes)	810 603	636 769	470 148	825 503	2 471 101
Barley (tonnes)	922 220	835 401	423 452	846 020	1 590 723
Wool:					
Greasy (tonnes)	73 437	84 892	52 175	60 214	64 582
Other (tonnes) (b)	7 304	6 081	3 059	6 230	7 825
Ores and concentrates:					
Iron ('000 tonnes)	1 119	809	344	215	285
Lead and lead alloys, unworked (tonnes)	146 634	137 228	141 409	161 060	174 681
Iron and steel; blooms, billets etc. (tonnes)	466 123	535 816	336 951	399 750	145 433
	VALUE (\$'000)				
Live sheep and lambs	3 873	12 178	39 380	25 398	49 370
Beef, veal, lamb and mutton	22 494	34 305	34 994	85 630	98 633
Wheat	98 978	77 900	48 361	100 221	375 695
Barley	90 290	88 072	39 512	71 470	191 806
Wool:					
Greasy	99 438	154 752	104 628	127 138	156 199
Other (b)	16 122	17 786	9 889	19 872	27 546
Ores and concentrates:					
Iron	15 165	13 562	7 010	3 708	4 242
Lead and lead alloys, unworked	37 112	58 063	73 894	108 127	180 458
Iron and steel; blooms, billets etc.	46 081	55 612	39 211	62 207	26 899

(a) From 1978-79 export statistics are on a 'State of Origin' basis. For further details see page 462.

(b) From 1978-79 wool tops are excluded.

Although exports of manufactured goods have generally been increasing, the bulk of exports is still of goods usually classified as primary products. In 1979-80 the 'Crude materials, inedible' group accounted for \$270.6 million, or 16.9 per cent of exports (including wool \$183.7 million, 11.5 per cent), and the 'Food and live animals' group accounted for \$814.3 million or 50.9 per cent.

Overseas Exports from South Australia, Principal Commodity Groups

Commodity Group	1976-77	1977-78	1978-79(a)	1979-80
	\$'000			
Food and live animals chiefly for food:				
Live animals chiefly for food	12 844	40 272	25 876	51 285
Meat and meat preparations	36 486	38 734	90 653	107 324
Dairy products and birds' eggs	6 323	5 479	6 410	8 966
Fish and fish preparations	20 662	14 212	27 258	36 497
Cereals and cereal preparations	178 260	96 878	179 211	582 573
Vegetables and fruit	8 866	8 113	14 053	23 540
Sugar, sugar preparations and honey	531	259	939	1 253
Feeding-stuff for animals	2 941	4 735	2 163	2 593
Other	60	44	37	240
Beverages and tobacco	3 044	2 642	3 685	4 844
Crude materials, inedible (except fuels):				
Hides, skins and fur skins, raw	19 196	13 817	21 095	19 050
Textile fibres and their wastes (b)	172 670	114 630	147 125	183 837
Crude fertilisers and crude minerals	2 263	3 014	3 278	4 044
Metalliferous ores and metal scrap	82 557	69 039	35 616	57 261
Other	3 529	3 137	4 501	6 448
Mineral fuels, lubricants and related materials	17 779	28 014	24 041	39 665
Animal and vegetable oils, fats and waxes	6 104	8 446	10 668	7 571
Chemicals and related products, n.e.c.	679	1 049	843	13 049
Manufactured goods classified chiefly by material:				
Textile yarn, fabrics and made-up articles (c)	853	611	12 450	19 938
Non-metallic mineral manufactures, n.e.c.	11 833	6 146	14 259	12 475
Iron and steel	61 078	46 811	88 575	69 394
Non-ferrous metals	84 602	97 103	130 692	226 852
Manufactures of metals, n.e.c.	7 758	12 142	4 110	5 388
Other	1 220	1 057	5 019	11 982
Machinery and transport equipment:				
Machinery	19 031	21 586	21 642	30 711
Transport equipment	15 765	16 063	26 739	25 450
Miscellaneous manufactured articles	10 839	6 530	15 242	17 160
Commodities and transactions, n.e.c.	2 099	1 324	6 574	29 811
Total exports	789 872	661 887	922 754	1 599 199

(a) From 1978-79 export statistics are on a 'State of Origin' basis. (b) From 1978-79 wool tops are excluded. (c) From 1978-79 wool tops are included.

The following table shows the value of exports by commodity groups to principal countries for the year 1979-80.

Overseas Exports from South Australia to Principal Countries Commodity Groups, 1979-80

Commodity Group	China (excl. Taiwan Province)	Iraq	Japan	USA	USSR	Total (a)
	\$'000					
Food and live animals chiefly for food:						
Live animals chiefly for food	—	—	44	—	—	51 285
Meat and meat preparations	—	—	10 964	39 744	11 119	107 324
Dairy products and birds' eggs	—	—	5 514	—	—	8 966
Fish and fish preparations	—	—	17 112	6 998	—	36 497
Cereals and cereal preparations	72 890	63 984	37 241	11	157 070	582 573
Vegetables and fruit	—	237	2 437	1 189	—	23 540
Sugar, sugar preparations and honey	—	—	14	2	—	1 253
Feeding-stuff for animals	—	—	348	9	—	2 593
Other	—	—	11	—	—	240
Beverages and tobacco	20	—	141	406	5	4 844

**Overseas Exports from South Australia to Principal Countries
Commodity Groups, 1979-80 (continued)**

Commodity Group	China (excl. Taiwan Province)	Iraq	Japan	USA	USSR	Total (a)
\$'000						
Crude materials, inedible (except fuels):						
Hides, skins and fur skins, raw	40	—	723	191	—	19 050
Textile fibres and their wastes	2 563	22	27 242	2 651	64 890	183 837
Crude fertilisers and crude minerals	—	—	70	27	—	4 044
Metalliferous ores and metal scrap	—	—	26 782	2 682	—	57 261
Other	—	231	258	164	—	6 448
Mineral fuels, lubricants and related materials	—	—	1 174	4 659	—	39 665
Animal and vegetable oils, fats and waxes	2 981	756	296	28	—	7 571
Chemicals and related products, n.e.c.	—	—	19	66	—	13 049
Manufactured goods classified chiefly by material:						
Textile yarn, fabrics, made-up articles	111	2 148	697	533	—	19 938
Non-metallic mineral manufactures, n.e.c.	—	—	440	4 893	—	12 475
Iron and steel	1 318	—	8 470	—	—	69 394
Non-ferrous metals	24 039	—	32 091	26 317	—	226 852
Manufactures of metal, n.e.c.	—	—	84	2 520	—	5 388
Other	293	—	26	119	—	11 982
Machinery and transport equipment:						
Machinery	—	1 120	52	2 904	—	30 711
Transport equipment	—	—	3 030	2 991	1	25 450
Miscellaneous manufactured articles	9	438	590	3 961	—	17 160
Commodities and transactions, n.e.c.	41	3 163	73	53	11	29 811
Total exports	104 304	72 098	175 944	103 120	233 095	1 599 199

(a) To all countries.

The following table shows the value of exports to principal countries. Japan replaced United Kingdom as South Australia's principal export market in 1966-67 and retained that position until 1978-79. In 1979-80 Japan took goods valued at \$175.9 million, 11 per cent of total exports, compared with \$140.1 million (15.2 per cent) in 1978-79. USSR was the principal export market in 1979-80 (\$233.1 million, 14.6 per cent).

Overseas Exports from South Australia, Principal Countries

Country of Consignment	1975-76	1976-77	1977-78	1978-79(a)	1979-80
\$'000					
Belgium-Luxembourg	28 856	21 371	3 488	3 534	19 760
China:					
Excluding Taiwan Province	8 784	7 277	16 764	29 058	104 304
Taiwan Province only	15 212	17 988	15 330	33 165	37 373
Egypt, Arab Republic of	19 477	7 481	14 352	10 885	33 659
France	14 694	19 797	15 733	16 869	18 278
Germany, Federal Republic of	33 114	51 474	21 653	24 698	24 055
Hong Kong	14 746	19 662	10 321	32 423	39 658
India	15 689	16 705	22 985	23 896	45 575
Indonesia	12 062	9 334	11 322	11 386	31 009
Iran	15 736	33 704	53 024	48 236	52 097
Iraq	13 967	15 582	7 047	44 277	72 098
Italy	15 026	28 600	13 132	39 290	55 550
Japan	134 881	168 293	107 307	140 056	175 944
Korea, Republic of	4 214	7 254	12 712	32 478	21 521
Malaysia	7 856	8 849	5 803	12 360	40 724
New Zealand	37 050	42 145	43 020	52 940	70 637
Saudi Arabia	389	5 966	18 221	17 350	58 915
Singapore, Republic of	10 227	6 051	13 217	13 451	43 409
United Kingdom	38 728	47 348	27 160	31 847	32 185
United States of America	24 351	32 963	41 360	84 539	103 120
USSR	58 959	60 627	53 870	45 695	233 095
Other	161 011	161 401	134 066	174 321	286 233
Total	685 029	789 872	661 887	922 754	1 599 199

(a) From 1978-79 export statistics are on a 'State of Origin' basis.

Exports of Wool

In 1979-80 the major export markets for South Australian wool were USSR (\$64.9 million, 35.3 per cent) and Japan (\$27.2 million, 14.8 per cent).

Overseas Exports of Wool from South Australia

Country of Consignment	1975-76	1976-77	1977-78	1978-79(a)(b)	1979-80
			\$'000		
Belgium-Luxembourg	2 124	3 206	2 228	1 976	4 562
France	7 230	8 807	4 315	5 397	5 417
Germany, Federal					
Republic of	7 487	13 925	7 179	8 535	9 359
Italy	8 869	9 250	2 657	9 080	12 561
Japan	30 635	30 460	15 392	26 999	27 242
Netherlands	2 837	3 820	683	930	1 357
Poland	3 908	6 623	2 617	4 611	4 978
United Kingdom	4 144	10 522	2 104	4 976	6 538
USSR	21 532	47 538	43 886	42 139	64 890
Yugoslavia	2 016	4 403	5 595	10 661	8 660
Other	24 778	33 984	27 861	31 706	38 181
Total	115 560	172 538	114 517	147 010	183 745

(a) From 1978-79 export statistics are on a 'State of Origin' basis.

(b) From 1978-79 wool tops are excluded.

Exports of Wheat

The total value of wheat exported from South Australia in 1979-80, \$375.7 million, was far in excess of any previously recorded value. Two record harvests in succession were experienced by South Australia for the seasons 1978-79 and 1979-80.

Overseas Exports of Wheat from South Australia

Country of Consignment	1975-76	1976-77	1977-78	1978-79(a)	1979-80
			\$'000		
China:					
Excl. Taiwan Province ...	7 868	3 605	10 879	10 626	70 046
Taiwan Province only	—	—	—	—	—
Egypt, Arab Republic of	16 495	1 485	2 801	4 107	17 720
Iraq	13 891	14 983	4 562	33 947	63 890
Korea, Democratic People's					
Republic of	2 119	6 184	6 294	13 312	15 789
New Zealand	8 110	—	—	3 913	8 172
Sri Lanka	10 299	11 429	7 518	8 884	7 954
USSR	13 193	4 007	3 312	2 134	91 344
Vietnam,					
Socialist Republic of	4 663	6 615	—	6 998	13 537
Yemen, Arab Republic of ..	3 377	4 043	—	—	13 288
Yemen, Democratic					
Republic of	—	8 444	3 172	7 676	7 831
Zambia	3 535	5 559	4 373	4 371	—
Other	15 428	11 546	5 450	4 253	66 124
Total	98 978	77 900	48 361	100 221	375 695

(a) From 1978-79 export statistics are on a 'State of Origin' basis.

Value of Exports by 'State of Final Shipment' and by 'State of Origin'

The following table shows a comparison between the two methods of compiling State export statistics (refer to explanatory notes on page 462). The net increases, within certain limitations, represent the excess of the value of South Australian produced goods which are shipped for overseas export through ports in other States (principally the Port of Melbourne), over goods produced in other States which are shipped through South Australian ports.

Overseas Exports from South Australia Principal Commodity Groups, 1979-80

Commodity Group	State of Shipment	State of Origin	Net Difference
		\$'000	
Food and live animals chiefly for food:			
Live animals chiefly for food	61 718	51 285	-10 433
Meat and meat preparations	42 638	107 324	64 686
Dairy products and birds' eggs	1 247	8 966	7 719
Fish and fish preparations	1 932	36 497	34 565
Cereals and cereal preparations	571 448	582 573	11 125
Vegetables and fruit	8 936	23 540	14 604
Sugar, sugar preparations and honey	331	1 253	922
Feeding-stuff for animals	2 013	2 593	580
Other	147	241	94
Beverages and tobacco:			
Wine and spirituous liquors	1 007	4 731	3 724
Other	56	113	57
Crude materials, inedible (except fuels):			
Hides, skins and fur skins, raw	7 001	19 050	12 049
Textile fibres and their wastes	80 550	183 837	103 287
Crude fertilisers and crude minerals	2 460	4 044	1 584
Metalliferous ores and metal scrap	93 882	57 261	-36 621
Other	2 593	6 448	3 855
Mineral fuels, lubricants and related materials:			
Petroleum and petroleum products	35 873	35 608	-265
Other	2 883	4 057	1 174
Animal and vegetable oils, fats and waxes:			
Animal oils and fats	7 278	7 459	181
Other	33	112	79
Chemicals and related products, n.e.c.	12 290	13 049	759
Manufactured goods classified chiefly by material:			
Textile yarn, fabrics, etc.	3 374	19 938	16 564
Non-metallic mineral manufactures, n.e.c.	5 165	12 475	7 310
Iron and steel	63 865	69 394	5 529
Non-ferrous metals	161 614	226 852	65 238
Manufactures of metal, n.e.c.	903	5 388	4 485
Other	2 092	11 982	9 890
Machinery and transport equipment:			
Machinery	11 499	30 711	19 212
Transport equipment	8 300	25 450	17 150
Miscellaneous manufactured articles	1 788	17 160	15 372
Commodities and transactions, n.e.c.	5 496	29 811	24 315
Total exports	1 200 413	1 599 199	398 786

IMPORTS

The total value of overseas imports passing through Customs recording points in South Australia during 1979-80 was \$882.5 million, \$16.9 million greater than the level of 1978-79.

Decreases in imports of machinery and transport equipment were offset by a large increase in the value of imported mineral fuels and lubricants, which in 1979-80 accounted for 35.2 per cent of total imports.

Overseas Imports to South Australia, Principal Commodity Groups

Commodity Group	1976-77	1977-78	1978-79	1979-80
			\$'000	
Food and live animals chiefly for food	17 778	18 207	16 530	18 810
Beverages and tobacco	2 675	2 533	3 265	3 877
Crude materials, inedible (except fuels):				
Cork and wood	24 433	16 379	19 454	22 331
Crude fertilisers and crude minerals	14 937	12 819	20 782	15 856
Other	4 951	5 850	7 338	9 535
Mineral fuels, lubricants and related materials	155 077	181 455	200 285	310 655
Animal and vegetable oils, fats and waxes	1 016	1 166	475	565
Chemicals and related products, n.e.c.				
Organic chemicals			6 372	8 271
Inorganic chemicals			2 771	3 813
Artificial resins and plastic materials, and cellulose esters and ethers	23 814	27 164	8 464	9 211
Other			10 845	12 925
Manufactured goods classified chiefly by material:				
Rubber manufactures	10 045	9 011	11 789	14 458
Paper, paperboard and manufactures thereof	17 019	16 177	20 301	22 759
Textile yarn, fabrics and made-up articles	25 440	23 770	27 052	40 442
Non-metallic mineral manufactures, n.e.c.	18 854	11 701	13 223	15 729
Iron and steel	18 755	19 726	24 263	20 678
Non-ferrous metals	2 759	2 043	8 874	3 114
Manufactures of metal, n.e.c.	10 747	10 484	15 272	18 856
Other	6 682	6 011	6 789	8 106
Machinery and transport equipment:				
Power generating machinery and equipment			25 120	26 285
Machinery specialised for particular industries			42 698	40 348
Metalworking machinery			7 596	5 511
General industrial machinery and equipment, n.e.c.			32 676	31 194
Office machines and ADP equipment	127 970	125 786	3 297	2 935
Telecommunications and sound recording reproducing apparatus and equipment			10 896	11 919
Electrical machinery, apparatus and appliances, n.e.c.			29 462	27 051
Road vehicles	99 464	90 197	112 921	100 768
Other transport equipment			124 629	11 734
Miscellaneous manufactured articles:				
Footwear, articles of apparel and clothing accessories	7 913	7 581	6 770	6 838
Professional, scientific and controlling instruments; photographic and optical goods, clocks and watches	6 798	7 061	10 545	12 596
Other	26 993	29 032	30 394	36 174
Commodities and transactions, n.e.c.	5 190	4 413	4 405	9 112
Total	629 309	628 568	865 554	882 457

Overseas Imports to South Australia, Principal Countries

Country of Origin	1975-76	1976-77	1977-78	1978-79	1979-80
Canada	11 237	19 690	17 714	18 164	23 180
China:			\$'000		
Excluding Taiwan Province	1 882	2 888	2 940	3 069	4 507
Taiwan Province only	5 787	8 856	8 737	10 628	15 011
France	9 816	9 858	7 528	9 089	8 904
Germany, Federal Republic of	23 509	32 118	32 751	43 757	38 775
Hong Kong	6 058	8 807	7 381	8 237	12 756
Italy	9 872	25 935	13 930	19 014	19 531
Japan	93 097	139 884	136 985	164 210	152 196
Malaysia	6 103	8 631	7 159	15 998	19 791
New Zealand	8 815	14 888	13 988	13 276	15 316
Saudi Arabia	105 758	126 123	174 679	185 918	293 045
United Kingdom	55 843	53 599	55 637	58 370	63 317
United States of America	74 430	84 208	78 382	231 518	115 482
Other	89 269	93 824	70 757	84 306	100 646
Total	501 476	629 309	628 568	865 554	882 457

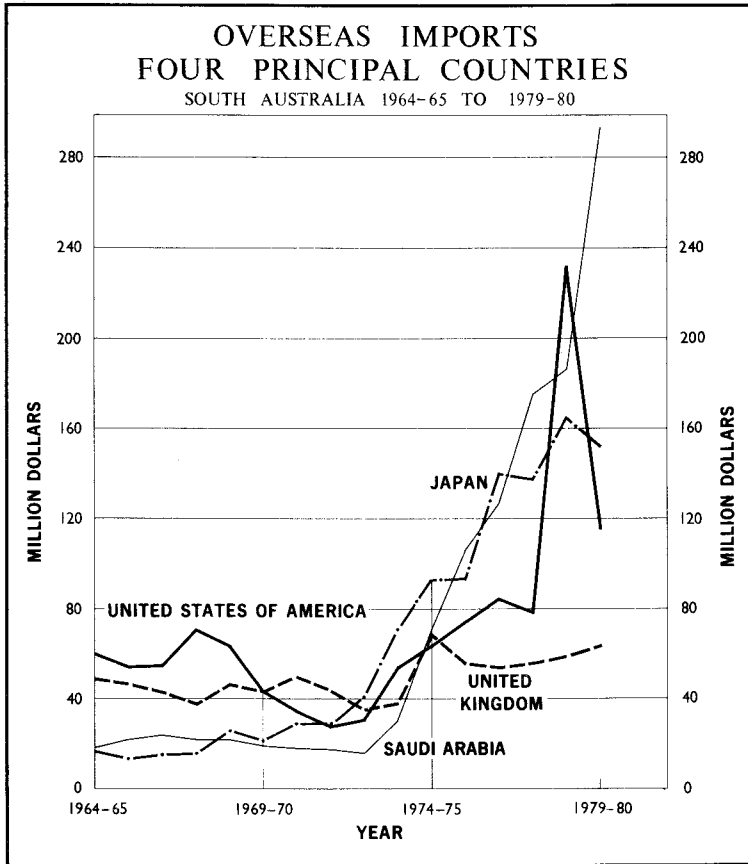
The proportions of imports obtained from the major sources have changed considerably in the years since the 1939-45 War *e.g.* in 1953-54 Japan supplied only 0.46 per cent of the total value of imports into South Australia but in 1979-80 accounted for 17.2 per cent; United Kingdom which supplied over half the imports in 1953-54 accounted for only 7.2 per cent in 1979-80. Saudi Arabia was the major source of imports into South Australia in 1979-80 with \$293.0 million, representing one-third of the total value of imports. Japan (\$152.2 million) and USA (\$115.5 million) were the second and third largest sources of imports.

The following table shows, by commodity groups, the imports from principal countries during the year 1979-80.

Overseas Imports to South Australia from Principal Countries Commodity Groups, 1979-80

Commodity Group	Germany, Federal Republic of	Japan	Saudi Arabia	United Kingdom	USA	Total (a)
			\$'000			
Food and live animals chiefly for food	432	664	—	1 754	809	18 810
Beverages and tobacco	42	—	—	1 917	3	3 877
Crude materials, inedible (except fuels):						
Cork and wood	39	—	—	—	3 684	22 331
Crude fertilisers and crude minerals	1	474	—	57	1 230	15 856
Other	454	36	—	97	1 919	9 535
Mineral fuels, lubricants and related materials	130	216	293 045	474	522	310 655
Animal and vegetable oils, fats and waxes	—	1	—	—	11	565
Chemicals and related products, <i>n.e.c.</i> :						
Organic chemicals	590	1 742	—	528	3 746	8 271
Inorganic chemicals	511	694	—	515	483	3 813
Artificial resins and plastic materials, and cellulose esters and ethers	935	1 448	—	1 272	3 129	9 211
Other	2 182	277	—	2 958	4 935	12 925
Manufactured goods classified chiefly by materials:						
Rubber manufactures	616	5 090	—	2 380	2 005	14 458
Paper, paperboard and manufactures thereof	1 135	1 624	—	1 270	1 903	22 759
Textile yarn, fabrics and made-up articles	538	4 603	—	2 090	10 535	40 442
Non-metallic mineral manufactures, <i>n.e.c.</i>	886	3 812	—	1 588	1 745	15 729
Iron and steel	235	15 101	—	1 198	911	20 678
Non-ferrous metals	547	198	—	331	1 122	3 114
Manufactures of metal, <i>n.e.c.</i>	2 761	2 407	—	3 917	3 303	18 856
Other	61	35	—	477	591	8 106
Machinery and transport equipment:						
Power generating machinery and equipment	1 219	1 811	—	9 226	12 063	26 285
Machinery specialised for particular industries	4 664	5 831	—	3 053	18 965	40 348
Metalworking machinery	178	1 762	—	694	844	5 511
General industrial machinery and equipment, <i>n.e.c.</i>	3 981	3 122	—	4 087	8 860	31 994
Office machines and ADP equipment	8	1 086	—	64	1 723	2 935
Telecommunications and sound recording/ reproducing apparatus and equipment	1 123	8 229	—	420	891	11 919
Electrical machinery, apparatus and appliances, <i>n.e.c.</i>	4 752	5 663	—	3 658	5 841	27 051
Road vehicles	6 905	73 481	—	2 344	5 288	100 768
Other transport equipment	249	6 548	—	3 148	861	11 734
Miscellaneous manufactured articles	2 651	6 076	—	13 375	13 356	55 608
Commodities and transactions, <i>n.e.c.</i>	949	167	—	424	4 203	9 112
Total	38 775	152 196	293 045	63 317	115 482	882 457

(a) From all sources.



TRADE AT PRINCIPAL PORTS

About 98 per cent of imports are unloaded at Port Adelaide and Port Stanvac but the proportion of exports loaded there is much lower—in 1979-80 it was approximately 43 per cent. Exports from Port Pirie principally comprise pig-lead, concentrates and ores (the produce of Broken Hill), wheat and barley. Shipments of wheat and barley constitute the major part of exports from Port Lincoln, Wallaroo, Ardrossan, Thevenard and Port Giles.

It should be noted that all export statistics before 1978-79 are by 'State of Lodgment' of documents whereas the 1978-79 and 1979-80 export figures in the following table are shown as 'State of Final Shipment'. Therefore there is a significant break in series with Port Adelaide figures being particularly affected. For further details on the change of basis of recording export statistics *see* page 462.

Value of Overseas Trade: Principal Ports, South Australia

Port	1975-76	1976-77	1977-78	1978-79	1979-80
IMPORTS (\$'000)					
Port Adelaide (a)	365 785	484 642	446 018	654 050	567 722
Port Lincoln	3 739	3 490	1 993	3 862	5 713
Port Pirie	2 274	691	9	6 758	5
Port Stanvac	111 100	129 014	174 679	193 159	301 266
Thevenard	—	—	—	—	—
Wallaroo	—	4 442	2 096	4 057	1 553
Whyalla	18 578	7 030	3 771	3 669	6 200
Total	501 476	629 309	628 568	865 554	882 457
EXPORTS (\$'000)					
Ardrossan	2 539	10 428	6 873	7 314	51 795
Port Adelaide (a)	372 564	467 363	403 918	275 341	471 622
Port Augusta	—	—	444	1 168	2
Port Giles (b)	3 082	10 282	4 311	6 634	21 167
Port Lincoln	58 120	54 236	28 997	47 322	142 650
Port Pirie	109 370	112 416	118 049	147 233	259 533
Port Stanvac	7 374	15 738	25 736	24 079	39 246
Thevenard	17 160	7 514	7 498	31 566	70 945
Wallaroo	51 292	37 764	12 193	28 656	74 532
Whyalla	63 528	74 131	53 868	89 533	68 922
Total	685 029	789 872	661 887	658 847	1 200 413

(a) Includes 'Parcels Post, Adelaide'; Adelaide Airport; Stenhouse Bay and Woomera.

(b) Includes Edithburgh.

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 1977-78 to 1979-80.

Customs and Excise: Gross Revenue, South Australia

Customs Tariff and Excise Tariff Item	1977-78	1978-79	1979-80
CUSTOMS			
		\$'000	
Live animals; animal products	39	42	53
Vegetable products	19	19	33
Animal and vegetable oils and fats	76	1	9
Prepared foodstuffs; beverages; vinegar; tobacco:			
Spirituous and alcoholic preparations	7 745	10 119	11 683
Tobacco, cigarettes, etc.	956	1 010	1 015
Other	495	501	708
Automotive spirit and other mineral products	1 004	146	156
Chemicals and products thereof	295	440	908
Plastics, resins, rubber and manufactures thereof	3 519	4 527	5 131
Hides, skins, leather and articles thereof	360	349	435
Wood and articles thereof	1 803	1 872	2 497

Customs and Excise: Gross Revenue, South Australia (continued)

Customs Tariff and Excise Tariff Item	1977-78	1978-79	1979-80
CUSTOMS (cont.)		\$'000	
Paper-making material; paper and paper manufactures	850	1 161	1 224
Textiles and textile articles	5 564	5 796	7 204
Footwear, headgear, umbrellas, etc.	595	741	611
Articles of stone, cement, ceramics, glass, etc.	1 146	1 141	1 607
Pearls, precious stones and metals, imitation jewellery, coin, etc.	459	536	387
Base metals and articles thereof	3 147	3 706	4 027
Electrical and mechanical machines and machinery ...	11 929	13 147	14 957
Transport equipment and parts thereof	19 419	20 620	21 873
Optical, surgical and scientific instruments, etc.	1 102	900	1 039
Arms and ammunition and parts thereof	17	29	25
Miscellaneous manufactured articles	1 469	1 711	1 823
Works of art, antiques, etc.	4	4	5
Other customs revenue	—	8	8
Primage	436	427	309
Total gross customs and primage duties	62 447	68 955	77 727
EXCISE			
Petroleum products	68 261	72 844	70 603
Spirits	13 138	16 894	15 819
Tobacco, cigars and cigarettes	53 776	63 132	67 605
Other	56 211	71 729	70 507
Total gross excise duties	191 386	224 599	224 534
Total gross customs, primage and excise revenue	253 833	293 554	302 260

Further References

Additional information may be found in the following publications:

South Australian Office

- 5402·4 *Overseas Trade*
- 5403·4 *Exports*
- 5404·4 *Imports*

Central Office

- 5409·0 *Overseas Trade, Part 1: Exports and Imports*
- 5410·0 *Overseas Trade, Part 2: Comparative and Summary Tables*
- 5411·0 *Australian Exports, Country by Commodity*
- 5413·0 *Australian Imports, Country by Commodity*

10.3 PRICES

MEASUREMENTS OF PRICE MOVEMENTS

The prices of a wide range of commodities and services are recorded at regular

intervals by the Australian Statistician for the purpose of compiling various price indexes or for publication of series showing actual price levels.

Price indexes aim to measure the degree of change in price levels, or more specifically the proportionate change in the aggregate price, of specified quantities and qualities of a list of selected items. These indexes measure changes through time and it is traditional for presentation purposes to select a certain year, known as the base year, to equate the average aggregate price (of the list of items) in that year to 100 or some other suitable number, and to adjust other years on a proportionate basis.

When index numbers for different places are compared (*e.g.* Consumer Price Index, Capital Cities) the only legitimate comparison is the relative change *i.e.* that prices increased or decreased more in one place than another; even when a common base year is used the actual levels of prices, equated to 100 in each case, may differ substantially from place to place; in addition, selected items, qualities or weights may differ from place to place.

In constructing a price index it is necessary to limit attention to a selected list of items because it would clearly be impossible to determine at regular intervals the price of all items entering into a given field of expenditure (*e.g.* household expenditure in the case of the Consumer Price Index). The list of items selected must be as representative as possible of the field to be covered and consist of items for which price variations can be ascertained accurately at regular intervals. Each item must be assigned a relative importance (weight) in approximate proportion to actual expenditures on that item within the total field of expenditure being considered. Particular care must be taken to detect, assess, and make allowance for changes in quality of selected items.

Over time it becomes necessary to substitute new grades, qualities or types of articles for those formerly used as indicators of price movements in an effort to keep an index representative of current patterns of expenditure. These substitutions can normally be achieved without invalidating the index. From time to time major changes in the overall pattern of expenditure are noted, and in the past these have prompted the abandonment of an existing index in favour of a different index, the composition and weighting of which were more representative of expenditure at that time.

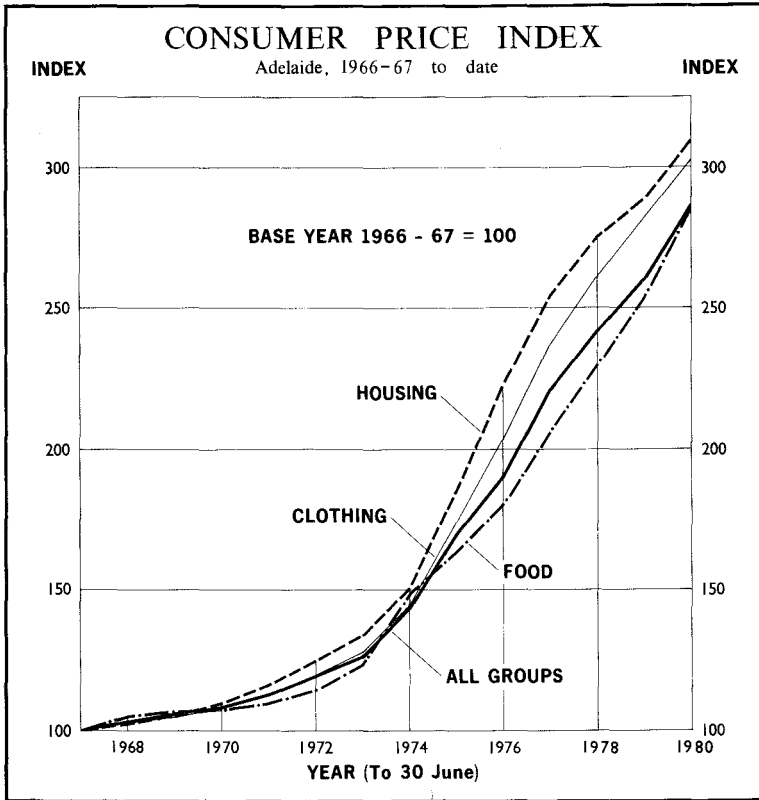
RETAIL PRICE INDEXES

A brief historical review of early price indexes was included on page 494 of the *South Australian Year Book* 1970. Details of movements in the 'C' Series Index from 1901 to 1959 are shown in the Statistical Summary Appendix A.

Consumer Price Index

The Consumer Price Index (CPI) is a chain of 'fixed weight aggregative' linked indexes with significant changes in composition and weighting effected at regular short intervals. Links have previously been effected at June quarter 1952, June quarter 1956, March quarter 1960, December quarter 1963, December quarter 1968 and December quarter 1973 with a minor link at September quarter 1974. A further link in the series was made at September quarter 1976.

During each period between links the weighting pattern remains unchanged. At times of linking the weighting pattern is brought up-to-date and the content of the Index is reviewed. Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new combinations and lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the Index.



There are no ideal points of time for linking the various series since, particularly in times of disparate and large price movements, the application of different weights to the same price series over the same periods of time would cause differences in aggregative changes. The ninth series was introduced from September quarter 1976, the earliest possible stage following availability of detailed data from the Household Expenditure Survey 1974-75.

The structure of the new series is derived from this survey. This enables the Index to be related more specifically to a 'target group' of the population (see next paragraph) and to have appropriate separate weighting patterns for each of the seven cities for which index numbers are compiled. The ninth series measures variations in retail prices for goods and services representing more than 90 per cent of defined household expenditure by the target group.

The target group for the ninth CPI series comprises metropolitan wage and salary earner households with total income of more than the minimum adult wage but excluding the top ten per cent of such households. 'Metropolitan wage and salary earner households' are those households (as defined in the Household Expenditure Survey) which

derive at least seventy-five per cent of total income from wages and salaries. The minimum adult wage is that for each capital city separately. The 'top ten per cent' of households excluded were those whose incomes are more than the ninth decile of the population of wage and salary earner households in all metropolitan areas combined.

This target group was determined as a suitable current basis which was also in keeping with the past general description of the CPI as a measure of variations in prices of goods and services as affecting a high proportion of the expenditure of wage earner households in the aggregate. A special tabulation from the Household Expenditure Survey 1974-75 for households within this target group supplied the basic weighting pattern for the Index. The households included had average weekly total household incomes which ranged from approximately \$60 to \$370 in 1974-75.

The structure of the Index after the eighth link is shown in the following table which describes the weights of the groups into which the Index has been subdivided in the form of percentages contributed by each group to the total Index aggregate for September quarter 1976. These percentages indicate the relative influence given to the various components in measuring the degree of price change from September quarter 1976 (*i.e.* from the beginning of the new linked series). These proportions represent the amounts of expenditure shown by the 1974-75 Household Expenditure Survey (for the target group) revalued at the price levels of March quarter 1978.

**Consumer Price Index: Six State Capital Cities Combined Composition
March Quarter 1978**

Group	Percentage Contribution to Total Index Aggre- gate (a)
Food	20·839
Clothing	10·280
Housing	13·258
Household equipment and operation	14·170
Transportation	17·761
Health and personal care	6·625
Recreation	7·719
Tobacco and alcohol	9·348
All Groups	100·000

(a) Percentage contributions shown are in proportion to expenditure in 1974-75 valued at relevant prices of March quarter 1978.

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* (Catalogue No. 6402.0) published by the Australian Statistician.

The wide range of commodities and services in the Consumer Price Index are arranged in eight 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
Base Year: 1966-67 = 100.0^(a)

Quarter	Food	Clothing	Housing	Household Equipment and Operation	Trans- portation	Tobacco and Alcohol	Health and Personal Care	Recrea- tion	All Groups
1978:									
March	229.7	262.6	277.4	208.1	236.4	234.7	328.2	114.9	243.1
June	236.9	269.9	279.1	211.9	240.3	236.1	332.3	116.6	247.6
September	242.7	273.2	279.6	214.4	246.5	237.6	354.7	118.6	252.6
December	248.7	280.2	288.3	217.2	253.9	272.8	282.1	121.6	256.9
1979:									
March	254.8	283.3	291.3	222.2	259.2	273.4	285.3	123.6	261.3
June	265.6	291.5	295.1	224.6	269.3	275.2	287.1	126.4	267.9
September	274.1	294.6	297.6	229.9	277.2	276.7	291.2	127.1	273.3
December	280.3	299.9	306.5	237.4	286.9	283.3	350.8	129.8	283.6
1980:									
March	289.2	301.7	312.8	243.5	289.2	283.7	356.5	134.4	288.9
June	298.4	311.2	319.7	248.4	300.3	291.3	362.3	138.6	297.3
September	303.8	314.4	325.0	257.1	296.9	299.4	367.8	139.7	301.3
December	309.8	321.8	333.6	264.0	303.0	299.3	372.4	143.1	307.4

(a) For 'Health and Personal Care' group index, base period December quarter 1968 = 100.0 and for 'Recreation' group index, base period September quarter 1976 = 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
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	119.9	122.4	119.4
1972-73	133.9	127.2	128.6	126.5	127.3	126.7	129.8	126.3
1973-74	151.3	144.0	146.1	143.9	140.6	142.6	146.6	142.8
1974-75	176.1	167.9	168.7	169.7	166.1	166.7	171.1	164.9
1975-76	199.0	189.5	190.9	190.5	189.6	190.0	193.3	187.3
1976-77	223.4	216.6	218.0	220.1	219.4	217.7	220.0	212.9
1977-78	243.2	238.2	238.4	241.8	243.1	239.1	241.0	232.3
1978-79	264.4	256.8	258.0	259.7	262.8	257.7	260.7	251.1
1979-80	292.4	282.5	283.0	285.8	287.4	284.0	287.2	278.0

(a) Base year 1966-67 = 100.0.

Household Expenditure Surveys

During the financial years 1974-75 and 1975-76, the Australian Bureau of Statistics conducted two surveys in order to obtain information about the expenditure patterns of private households. Apart from limited attempts in 1910-11 and 1913 to assess the spending patterns of Australian households, these surveys were the first official collections of household expenditure statistics conducted in this country.

The collection of data relating to expenditure at the household level is important in providing information for use in improving the representativeness of the items and the weighting pattern used to compile the Consumer Price Index.

The 1975-76 survey sampled 5 869 households in all regions of Australia. Only private dwellings were sampled, including houses, home units, flats, caravans, tents and any other structures being used as private places of residence at the time of the survey. Hotels, boarding houses, institutions, etc. were defined as special dwellings outside the scope of the survey.

Information was collected on a household basis rather than for selected individuals in the population, because many items of expenditure such as food, accommodation and household goods and appliances relate to the household as a unit.

All categories of households (or persons) in selected private dwellings were included in the survey except: (a) foreign diplomats and their staff; (b) foreign servicemen and their families stationed in Australia; (c) persons from overseas countries touring or holidaying in Australia; (d) visitors staying with the household for less than six weeks after the initial interview (four weeks in the 1974-75 survey); (e) usual residents absent at the time of the initial interview and not returning within seven days; and (f) usual residents who were going away during the first half of the diary keeping and not returning before the end of diary keeping.

Each household was asked for details of large or infrequent items of expenditure (e.g. purchase of vehicles and property, and the payment of household bills such as electricity and gas) and for details of income from all sources. In addition, a diary was provided to each household member aged 15 years or more, in which they were requested to record, on a daily basis, a description and value of all items purchased over the following two weeks. Because of anticipated differences in spending patterns in rural areas compared with metropolitan and other urban areas, members of rural households selected in the 1975-76 survey were issued with four-week diaries.

In the lower income ranges, average expenditure exceeded average income as defined (this does not imply that all households in the lower income ranges have expenditure which exceeds income), while in the higher income ranges average income substantially exceeded average expenditure (see above). It should be noted that some households will have financed some items of expenditure from savings and from other sources such as loans, receipts of maturing insurance policies, gifts, windfall gains and profits from the sale of assets which are not included as income as defined for the survey. In addition, some households classified to the lower income ranges may have had lower than usual income during the data reference period, while still maintaining their normal level of expenditure. For the medium and higher income ranges, income tax payments (included in other payments) are a large part of the difference between income and expenditure as defined.

The larger items of average weekly household expenditure in 1975-76 were transport and communication (\$32.42), food (\$31.93), and current housing costs (\$19.80).

Household Expenditure by Household Income, South Australia, 1975-76

Particulars	Weekly Household Income						All Households
	Under \$80	\$80-\$139	\$140-\$199	\$200-\$259	\$260-\$339	\$340 or more	
Number of households in sample ...	104	85	107	96	81	77	550
Estimated total number of households in population ('000)	64.3	53.3	71.0	69.6	58.8	57.6	374.6
Average number of persons per household	1.64	2.23	3.16	3.01	3.36	3.75	2.86
Average age of household head (yrs)	62.32	49.38	41.01	40.83	38.42	43.61	45.82
Average weekly household income (\$)	54.16	112.05	168.24	227.50	291.79	468.62	217.27

Household Expenditure by Household Income, South Australia, 1975-76 (continued)

Particulars	Weekly Household Income						All Households
	Under \$80	\$80-\$139	\$140-\$199	\$200-\$259	\$260-\$339	\$340 or more	
	Average Weekly Household Expenditure (\$)						
Commodity or service:							
Current housing cost (a)	7-51	13-15	17-28	22-37	26-60	32-38	19-80
Fuel and power	2-15	2-53	4-69	3-63	3-02	4-32	3-43
Food	17-06	21-36	32-02	33-74	38-84	48-97	31-93
Bread, cakes and cereals	2-44	2-45	4-03	3-80	4-26	4-65	3-62
Meat and fish	4-45	5-14	7-29	7-51	7-96	10-88	7-20
Dairy products, oils and fats ...	2-81	3-56	5-08	4-70	4-68	6-30	4-53
Fruit and vegetables	2-68	2-89	4-38	4-27	4-55	6-57	4-22
Other food	4-68	7-32	11-24	13-47	17-38	20-58	12-37
Alcohol and tobacco	1-86	7-96	7-87	9-06	12-20	17-01	9-16
Clothing and footwear	4-74	7-02	10-25	15-91	18-90	29-60	14-23
Household equipment and operation	6-07	9-13	11-96	21-69	30-64	24-70	17-25
Medical care and health expenses	2-14	4-73	5-93	5-48	5-23	8-84	5-36
Transport and communication ...	14-19	26-08	27-67	31-68	48-61	48-84	32-42
Recreation and education	3-65	8-19	13-82	20-61	30-32	27-70	17-26
Miscellaneous goods and services	5-48	9-13	10-16	16-02	17-36	27-07	14-03
Total expenditure	64-84	109-29	141-94	180-20	231-73	269-43	164-87
Selected other payments (b)	8-64	14-96	26-22	49-52	56-69	97-54	41-68

- (a) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature.
- (b) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings, are offset against payments.

Further details on methodology and definitions may be obtained from the bulletin *Household Expenditure Survey 1974-75*, Bulletin 1, 'An Outline of Concepts, Methodology and Procedures' (Catalogue No. 6507.0).

OTHER PRICE INDEXES

At December 1980 the following indexes covering non-retail sectors of the economy had been prepared and published by the Australian Statistician:

Export Price Index,

Price Index of Electrical Installation Materials (final issue January 1981),

Price Index of Metallic Materials Used in the Manufacture of Fabricated Metal Products,

Price Index of Copper Materials Used in the Manufacture of Electrical Equipment,

Price Index of Materials Used in Manufacturing Industry,

Price Index of Articles Produced by Manufacturing Industry,

Price Index of Materials Used in House Building,

Price Index of Materials Used in Building Other than House Building.

Separate State figures are published for the latter two indexes, and these are further explained below. Details of the other indexes are available in bulletins published by the Australian Statistician and, in addition, a brief explanation of the Price Index of Articles Produced by Manufacturing Industry was included in the *South Australian Year Book 1977*.

Price Index of Materials Used in House Building

This Index was introduced in November 1970. It measures changes in prices of selected materials used in the construction of houses. 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 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.

Prices are collected at the mid-point of the month to which the Index refers, or as near thereto as practicable. They relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in house building.

Further information concerning the method of compiling the Index, as well as more detailed group index numbers and the separate weighting patterns for the six State capital cities may be found in the publication *Price Index of Materials Used in House Building* (Catalogue No. 6408.0). A full description of the Index is also given in the *Labour Report* No. 58, 1973, and the *Year Book Australia*.

The following 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.

Price Index of Materials Used in House Building
(Base of each Index: 1966-67 = 100.0)

Group	Adelaide			Weighted Average Six State Capital Cities		
	1977-78	1978-79	1979-80	1977-78	1978-79	1979-80
Concrete, etc.	245.5	262.2	321.4	239.0	255.5	292.8
Cement products	303.0	323.9	361.2	284.6	303.8	336.3
Clay bricks, tiles, etc.	251.0	276.5	323.3	245.8	262.2	294.8
Timber, board, etc.	314.2	339.5	398.1	275.0	290.8	331.5
Steel products	284.2	301.8	339.6	287.7	307.6	341.0
Other metal products	212.0	229.0	263.3	220.1	239.7	281.7
Plumbing fixtures, etc.	237.3	246.2	288.1	239.1	244.1	278.1
Electrical installation materials	203.7	226.1	261.0	215.5	240.0	282.1
Installed appliances	204.4	218.0	244.2	193.3	202.9	217.6
Plaster and plaster products	201.7	220.3	243.1	191.8	204.3	222.8
Miscellaneous materials	248.4	267.3	297.9	230.4	248.2	278.2
All Groups	270.7	292.1	338.5	252.0	268.1	302.9

The 'All Groups' index for Adelaide and each of the other State capitals is shown in the following table. 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.

Price Index of Materials Used in House Building
All Groups, State Capital Cities
(Base of each Index: 1966-67 = 100.0)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
1975-76	211.1	200.1	218.5	222.5	201.9	209.2	208.1
1976-77	234.5	223.6	243.5	250.7	229.8	235.1	232.9
1977-78	254.0	238.6	265.1	270.7	253.4	256.7	252.0
1978-79	272.7	251.4	281.3	292.1	268.2	273.6	268.1
1979-80	309.5	283.4	315.0	338.5	299.4	304.2	302.9

Price Index of Materials Used in Building Other than House Building

This Index was introduced in April 1969. It 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. Thus the reference base of the Index is the year 1966-67 = 100·0. The weighting base corresponds broadly with the reference base, but does not exactly coincide because of the nature of the data from which the weights were derived. The composition and weighting of the index has been reviewed and a new series from 1979-80 is available.

Prices are collected at the mid-point of the month to which the Index refers, or as near thereto as practicable. They relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building.

The 'All Groups' index for Adelaide and each of the other State capitals is shown in the following table. 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.

Price Index of Materials Used in Building Other than House Building
All Groups, State Capital Cities
 (Base of each Index: 1966-67 = 100·0)

Year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Weighted Average Six State Capital Cities
1975-76	199·0	209·4	216·3	210·4	208·3	210·4	206·2
1976-77	221·5	234·8	241·2	234·3	235·4	234·8	230·3
1977-78	239·9	254·4	260·9	254·2	258·3	253·7	249·7
1978-79	259·2	271·4	278·6	274·4	276·8	270·5	268·1
1979-80	293·4	306·6	313·4	314·3	309·7	301·8	303·0

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		
	1977-78	1978-79	1979-80	1977-78	1978-79	1979-80
Concrete, etc.	232·2	250·0	311·6	235·3	254·8	294·1
Cement products	291·8	314·7	352·2	268·4	285·2	319·0
Bricks, stone, etc.	264·3	286·5	330·3	241·0	256·6	289·0
Timber, joinery, etc.	291·0	312·0	351·7	263·2	278·8	313·2
Steel and iron products	271·9	289·6	325·0	273·4	291·9	325·1
Aluminium products	223·3	244·9	284·1	230·8	244·6	280·5
Other metal products	202·4	236·3	301·9	198·1	228·4	285·3
Plumbing fixtures	270·8	271·2	319·0	263·7	260·2	299·6
Miscellaneous materials	224·4	241·7	272·8	221·9	234·2	262·4
Electrical installation materials	215·3	242·6	285·4	215·3	242·6	285·4
Mechanical services components	247·0	267·8	297·6	247·2	268·2	298·2
Special purpose index (a)	259·6	278·9	320·2	253·9	270·9	305·7
All Groups	254·2	274·4	314·3	249·7	268·1	303·0

(a) All groups excluding electrical installation materials and mechanical services components.

Further information on the method of compiling the Index may be found in the publication *Price Index of Materials Used in Building Other than House Building*

(Catalogue No. 6407.0). A full description of the Index is in *Labour Report* No. 58, 1973.

COMMODITY PRICES

Retail Prices of Food

The next table shows the average retail prices of selected food items in Adelaide during recent years. Items included are those which are considered identical or sufficiently comparable from place to place to warrant publication of comparative prices.

Average Retail Prices of Selected Food and Grocery Items, Adelaide

Item	Unit	1977	1978	1979	1980
		Cents			
Milk, bottled, delivered	600 ml	20.4	22.4	24.3	26.5
Cheese, processed	250 g	50.1	55.8	58.0	65.3
Butter	500 g	86.4	90.0	93.5	103.8
Bread, white loaf, sliced, supermarket sales	680 g	54.0	55.0	58.5	63.3
Biscuits, dry	225 g	38.3	41.5	44.3	50.5
Breakfast cereal, corn based	500 g	64.1	68.8	73.3	83.8
Flour, self-raising	1 kg	38.8	41.8	44.0	48.5
Rice	500 g	33.4	36.3	36.8	35.8
Beef:					
Rib (without bone)	1 kg	211.4	251.5	387.3	413.8
Rump steak	1 kg	351.0	406.0	592.8	691.0
Corned silverside	1 kg	221.0	268.5	408.3	463.3
Sausages	1 kg	113.3	126.8	189.0	232.8
Lamb:					
Leg	1 kg	237.2	270.0	308.8	346.0
Loin chops	1 kg	280.2	325.0	372.8	414.0
Forequarter chops	1 kg	240.8	283.0	328.8	355.0
Pork:					
Leg	1 kg	339.7	358.8	412.8	428.3
Chops	1 kg	345.3	359.8	433.5	464.0
Chicken, frozen	1 kg	184.3	196.0	212.8	228.0
Bacon, middle rashers, pre-packed	250 g	113.9	122.5	142.5	157.5
Salmon, imported pink	220 g	97.4	97.3	104.0	121.8
Potatoes	1 kg	29.4	37.0	44.3	47.5
Onions	1 kg	41.0	45.8	49.3	45.3
Peaches, canned	825 g	60.9	63.3	69.3	71.3
Peas, frozen	500 g	61.0	61.0	62.3	67.3
Eggs (55 grams)	doz.	113.6	118.8	123.8	139.3
Sugar	2 kg	59.6	67.5	82.0	91.0
Tea	250 g	81.9	82.5	74.0	71.8
Coffee, instant, jar	150 g	277.4	285.3	259.3	290.0
Tomato sauce	300 ml	36.1	38.8	40.8	45.3
Margarine, poly-unsaturated	500 g	86.2	79.0	86.0	93.0
Baby food, canned	125 g	16.7	18.8	21.0	23.3

Other Commodity Prices

South Australian prices of agricultural products are shown in the table on page 405, 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 Commonwealth 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 Commonwealth 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 Commonwealth Government price regulation orders altered in accordance with the State Act.

Under the provisions of the Prices Act, 1948-1980 the South Australian Department of Public and Consumer Affairs 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. The list of goods subject to price control was reduced following a review in 1979-80.

The Commonwealth 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.

The Prices Justification Tribunal was established in August 1973 under the provisions of the *Prices Justification Act 1973*. The Tribunal is a fully discretionary body appointed under the Act to consider the justification for proposed price increases put to it by companies subject to the Act. It is not a price regulating authority.

The Tribunal consists of a Chairman and such number of other members as are from time to time appointed in accordance with the Act. The Office of the Prices Justification Tribunal consists of persons appointed or employed under the *Public Service Act 1922*.

Further information on the Prices Justification Tribunal is contained in its Annual Reports to Parliament and pages 312-13 of the *Year Book Australia*, No. 61, 1975-76.

RENT CONTROL

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 in turn has been repealed and incorporated into the Residential Tenancies Act, which came into operation in December 1978. The Residential Tenancies Act introduced a general regulation of all aspects of the relationship between landlords and tenants. Administered by the Commissioner for Consumer Affairs, the Act established a Residential Tenancies Tribunal with exclusive jurisdiction

to hear and determine a wide range of landlord and tenant disputes and empowered the Commissioner to investigate and report on all matters affecting the parties to residential tenancy agreements.

The Act also codified the existing common law of landlord and tenant by implying certain terms in all residential tenancy agreements. It proscribed undesirable practices by the creation of a range of offences and established prescribed procedures and forms covering the commencement, due performance and termination of agreements.

All security bonds received in tenancy agreements must be paid to the Tribunal and lodged in the Residential Tenancies Fund.

Sub-standard Housing

To regulate the rents for sub-standard housing the Housing Improvement Act, 1940-1978 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.

The Act provides that before the Trust declares any house to be sub-standard, it must notify the owner of its intention to do so and then allow a period of time for the necessary improvements to be made. If the house is subsequently found to remain in a sub-standard condition, a maximum rent fixation is made and then strictly controlled for such time as the house remains in a sub-standard classification.

In 1979-80 the Trust inspected 2 769 houses, commenced proceedings under the Housing Improvement Act on 421 of these, and fixed maximum rents on 478 houses.

Further References

Additional information may be found in the following publications:

Central Office

- 6402.0 *Consumer Price Index, Monthly Food Group Index, Six State Capital Cities and Canberra*
 6407.0 *Price Index of Materials Used in Building other than House Building*
 6408.0 *Price Index of Materials Used in House Building*
 6507.0 *Household Expenditure Survey 1974-75, Bulletin No. 1*

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)	1 206	1 410	737	2 047	2 721	..	3 169
Rail	1 620	1 656	777	2 643	2 655	..	..
Sea .....	..	1 833	949	2 761	(b) 2 509	1 436	(c) 5 799
Air	988	1 196	660	1 967	2 216	1 283	2 766

(a) In some cases shorter but less popular routes are available. (b) To Fremantle. (c) Via Fremantle.

TRANSPORT CONTROL AND OPERATIONS

STATE TRANSPORT AUTHORITY

The State Transport Authority is constituted as a corporate body under the State Transport Authority Act, 1974-1978. The functions of the Authority described in the Act include the following:

- (a) to co-ordinate all systems of public transport within the State;
- (b) to recommend to the Minister the manner and means by which the powers and functions of any prescribed body, in relation to public transport within the State, may be assumed by the Authority;
- (c) until a recommendation referred to in (b) above has been given effect to, to control and direct the activities of any prescribed body in relation to public transport within the State.

Subsequently, the South Australian Railways, the Municipal Tramways Trust and the Transport Control Board were determined to be prescribed bodies.

A recommendation as to the manner and means by which the Authority could assume the powers and functions of the prescribed bodies was made to the State Minister of Transport and given effect in legislation by the State Parliament. Under the new legislation, which was proclaimed in December 1975, the abovementioned prescribed bodies were dissolved and the assets, powers and functions of each were transferred to the Authority. An additional function was also conferred on the Authority of ensuring, as far as practicable, that adequate public transport services are provided within the State. The Authority, through its direct control of State-operated services and its regulatory control of privately-operated bus services, is empowered to co-ordinate public transport services in the State and ensure the optimum utilisation of the transport resources available.

From July 1975, by virtue of the Railways (Transfer Agreement) Act, 1975 and the Railways Agreement (South Australia) Act, 1975, the Australian National Railways Commission acquired the non-metropolitan portion of the South Australian Railways, *i.e.* the country and interstate passenger services and all freight services, subject to a number of conditions and controls exercised by the State. Facilities within the metropolitan area concerned with the handling of freight and the servicing and repair of rollingstock also became the property of the Commission. The State Transport Authority's railway system extends generally from Adelaide to the extremities of the metropolitan area at Outer Harbour, North Gawler, Belair and Noarlunga and includes interconnecting loops and branch lines. Under the terms of the Act the Commission and the Authority have the right to run their rollingstock over the railways of each other and the Commission is required to make available to the Authority, so far as is practicable, such numbers of employees as are agreed from time to time for work on the State metropolitan railway system. Separate agreements have been made between the two organisations which detail the terms and conditions of these arrangements.

The Authority continued to operate the South Australian non-metropolitan railways on behalf of the Commission until 1 March 1978, when management responsibility was transferred to the Commission. On the same date the former Rail Division and Bus and Tram Division of the Authority were merged, allowing the Authority to operate metropolitan public transport services as an integrated organisation.

The following table lists selected non-financial details for the years 1978-79 and 1979-80.

State Transport Authority: Selected Non-financial Details

Particulars	Unit	1978-79	1979-80
Total passengers carried	'000	70 526	73 210
Traffic kilometres (bus and tram)	'000 km	36 699	36 713
Train kilometres run	'000 km	3 950	3 968
Total route kilometres:			
Bus and tram	km	912·73	955·33
Rail	km	142·38	141·12
Personnel employed at 30 June (a)	No.	3 730	3 643
Rollingstock:			
Buses	No.	834	820
Tramcars	No.	26	26
Rail power cars	No.	110	116
Rail trailer cars	No.	24	24

(a) Includes staff made available by the Australian National Railways Commission—1 275 at 30 June 1979 and 1 156 at 30 June 1980.

From the beginning of the financial year 1978-79 State Transport Authority accounts are prepared on a combined basis with no financial differentiation between rail, bus and tram operations. However, non-financial data is collected for each transport mode.

The following summary shows details of income and working expenses for the year ended 30 June 1980.

State Transport Authority: Income and Working Expenses, 1979-80

	\$'000	
Income:		
Traffic receipts	20 258	
Sundry receipts	3 635	
Interest on investments	3 050	
Total income		26 943
Operating cost:		
Traffic operation	29 158	
Maintenance	17 754	
General expenses	12 022	
Fuel, oil and power	4 454	
Depreciation	5 280	
Interest on loans	5 724	
Total operating cost		74 392
Excess of operating cost over Income		47 449
Contributions from South Australian		
Government		49 752
Net surplus		2 303

METROPOLITAN PRIVATE MOTOR BUS SERVICES

Before 1974 there were several private bus route services licensed to operate in the Adelaide metropolitan area. In 1972-73, these services carried 16·6 million passengers. The transfer of most of these services to the State Transport Authority commenced in February 1974 and by 30 June 1979 only two private bus services were licensed to operate wholly within the metropolitan area. These two services operate over a total route length of 79 kilometres.

ROAD PASSENGER TRANSPORT CONTROL

Private Services

The control of road passenger transport is vested in the State Transport Authority in accordance with the provisions of the State Transport Authority Act, 1974-1978. The Authority, through its direct control of State operated services and its regulatory control of privately operated bus services, is empowered to co-ordinate public transport services in the State and ensure optimum utilisation of the transport resources available.

Private operations are regulated *via* a licensing system which includes the issuing of licences authorising route service, tour and charter, community bus, school children and other special categories. Route service licences have a currency of seven years, with other licences having varied tenures ranging from single trip periods up to twelve months.

At 30 June 1980, current route service licences numbered twenty-eight. During the year ended 30 June 1980, 110 charter licences, 208 school children and handicapped children licences, nine workmens licences, thirty-two special tourist licences and three regular tourist licences were issued. In addition, four interstate services were licensed to carry passengers in remote areas where alternative services were not available. Other licences issued during the period (*i.e.* authorising shoppers services, airline ground services and miscellaneous operations) totalled twenty-four.

Country Town Bus Services

Commencing in May 1975, the State Government offered financial assistance through local government, to urban bus services outside the metropolitan area. Under the new arrangement, financial responsibility for the provision of bus services is vested in the local government authority, but the State Government contributes two-thirds of the operating loss.

Councils have the option of acquiring local bus fleets, or arranging for a local bus proprietor to provide the bus service under contract. In the case of the contract system, the fare revenue is retained by the local government authority and the contractor is paid an agreed sum per kilometre to operate buses on routes and timetables determined by a three-man management committee. The committee consists in each case of an elected Council representative, the Town Clerk or his deputy, and a representative of the State Government.

Contract services are operated in Port Pirie, Port Augusta, Port Lincoln and Mount Gambier. In Whyalla, the City Council has purchased the assets of the former bus proprietor, and since 30 October 1975, the bus service has been municipally owned and operated.

Interstate and Country Services

Regular interstate coach services and special tours operate to all States. In addition, a network of bus route services operates on radial routes from Adelaide to all parts of the State. These services are provided by eleven private companies, under licence to the State Transport Authority and are operated from two adjacent terminals situated in Franklin Street, Adelaide. The services operate over a total route length of 7 874 kilometres.

Intrastate passenger route services on all routes are controlled by the State Transport Authority. Generally, pick-up and set down rights on the routes are non-competitive with rail services or with other route service operations. The Authority also regulates tour and charter operations within the State.

TAXI-CABS

The Metropolitan Taxi-Cab Act, 1956-1978, administered by the Metropolitan Taxi-Cab Board, is the governing legislation providing for the control of taxi-cabs within the Metropolitan Planning Area as defined by Section 5(1) of the Planning and Development Act, 1966-1978, together with the whole of 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: all taxi-cabs are examined for roadworthiness, and all meters are checked and tested twice a year on the Board's premises by mechanics employed by the Board. 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 December 1980 the rates were one dollar for 'flag fall' and the first 135 metres, then 5 cents each additional 135 metres. For journeys which extend beyond the Metropolitan Planning Area radius contract rates not to exceed 27 cents per outward and return kilometre are charged. From 8 p.m. to 6 a.m. Monday to Friday and from 8 p.m. Saturday to 6 a.m. Monday and on public holidays there is a 20 cent surcharge per journey.

Licences issued at 30 June 1980 include taxi-cabs, white plates (*i.e.* restricted) 250; green plates 593; hire cars 48; and funeral cars 10. Drivers licences current totalled 2 410.

Taxi licence fees are \$50 a year and private hire licence fees are \$35. Revenue received by the Board during 1979-80 was \$46 420 from taxi licences, \$2 119 from hire car licences and \$28 366 from drivers licences. Total revenue from all sources was \$169 265, and expenditure was \$175 115.

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, 1959-1978.

The present legislation for the control of road traffic in South Australia is set out in the Road Traffic Act, 1961-1979 and the Motor Vehicles Act, 1959-1978.

Registration of Motor Vehicles

Under the provisions of the Motor Vehicles Act, 1959-1978 all motor vehicles, unless specifically exempted, must be registered with the Registrar of Motor Vehicles at the Motor Registration Division of the Department of Transport before being driven on any 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 caravan or a trailer;

but does not include a vehicle run upon a railway or tramway or a mobile machine controlled and guided by a person walking.

Permits to use vehicles, without registration, between farm blocks may be granted by the Registrar. A fourteen-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, except in those places where a branch of the Motor Registration Division is in operation.

Registration fees vary according to the power-mass (PM) of the vehicle; this is calculated by a formula which takes into account the diameter of the cylinders, the number of pistons and the vehicle's mass in kilograms. A special formula applies for vehicles fitted with non-piston engines. Fees for trailers and caravans are based on unladen mass and vehicles fitted with solid rubber or metal tyres are subject to higher rates.

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 who, as holders of State Concession Cards or pensioner entitlement cards, are entitled to travel on public transport in South Australia at reduced fares. Vehicles used solely for interstate trade can be registered for \$5 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.

New Motor Vehicle Registration

New motor vehicle registrations during the financial years 1975-76 to 1979-80 are shown in the following table.

New Motor Vehicle Registrations, South Australia^(a)

Type of Vehicle	1975-76	1976-77	1977-78	1978-79	1979-80
Cars	40 485	37 230	32 976	33 285	31 546
Station wagons	6 571	7 317	5 998	6 459	6 526
Utilities (b)	4 074	3 638	2 916	2 575	2 643
Panel vans (c)	3 204	3 156	2 917	2 209	2 100
Trucks (d)	3 695	4 148	3 643	3 043	3 201
Other truck type vehicles (e)	36	366	282	224	155
Buses	342	315	434	405	206
Motor cycles	7 052	6 081	4 313	3 699	5 518
Total	65 459	62 251	53 479	51 899	51 895

(a) Includes Commonwealth Government owned vehicles except defence services vehicles. (b) Includes utilities and trucks with carrying capacity under 1 tonne. From 1 July 1976 includes only vehicles described as utilities on registration documents. (c) Includes panel vans and trucks with carrying capacity under 1 tonne and ambulances and hearses. From 1 July 1976 includes only vehicles described as panel vans on registration documents; ambulances and hearses are included with other truck type vehicles. (d) Includes utilities, panel vans and trucks with carrying capacity over 1 tonne. From 1 July 1976 includes only vehicles described as trucks on registration documents. (e) Includes those truck type vehicles not designed for freight carrying *e.g.* tow trucks and fire engines. From 1 July 1976 includes ambulances and hearses.

Motor Vehicles on Register

The following table shows the number of motor vehicles on the register at 30 June from 1976 to 1980.

Motor Vehicles on Register, South Australia^(a)
At 30 June

Type of Vehicle	1976	1977	1978	1979	1980
			'000		
Cars	429.3	447.5	458.5	465.5	476.7
Station wagons	71.8	74.4	75.5	76.4	78.2
Commercial vehicles	107.3	114.9	116.9	117.7	119.5
Motor cycles	32.6	31.2	30.5	29.7	33.7
Total on register	641.0	668.0	681.3	689.3	708.1
			Persons		
Population per vehicle	1.97	1.91	1.89	1.88	1.83
			'000		
Tractors, plant, equipment	7.8	7.8	7.6	7.1	6.4
Trailers and caravans	138.3	148.6	151.8	155.8	158.1
Traders plates	3.1	3.2	3.5	3.1	3.0

(a) Includes Commonwealth Government owned vehicles except defence services vehicles.

Drivers Licences

From 19 March 1979, 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 mass of which (excluding the mass of any trailer) does not exceed 3 000 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 4A: to drive any motor cycle up to 250 cubic centimetres engine capacity;
- 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 learners 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 Motor Registration Division examiner. As from 1 June 1980 learner drivers who pass the practical driving test are issued with a licence, for one year, for the class of vehicle in which the test was passed, endorsed with probationary conditions. These conditions are:

- (1) must clearly display 'P' plates to the front and rear of the vehicle (rear only for motor cycles),
- (2) must not drive a motor vehicle on a road in any part of the State at a speed exceeding 80 kilometres per hour.

The same speed limitation applies to holders of learners permits.

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.

Drivers attract demerit points for contravention of various sections of the Road Traffic Act. The offences that attract points have been carefully selected with a view towards road safety. Points allotted range from 6 for serious offences down to 1 for minor offences.

In 1980 warning notices were sent to 26 834 drivers who had accumulated six or more points in the previous three years and 2 994 drivers with twelve or more demerit points had their drivers licence suspended for a period of three months.

Before July 1976, licences were issued for a period of one year: from July 1976 three-year licences were introduced initially on a staggered basis so that some drivers were issued with one-year licences (\$6), some with two-year licences (\$12) and some with three-year licences (\$18). From July 1977 all drivers were issued with three-year licences except those aged 70 years and over who will have to continue renewing their licences annually subject to passing the required tests. The fee for a learner's permit is \$3. Licences and permits are not issued to persons under sixteen years of age.

In 1961 licences for motor driving instructors were introduced and are compulsory where instruction is given for reward. The licence fee is \$20 for a period of three years.

Drivers and riders licences current at 31 December 1980 totalled 751 458. 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 licence fees totalled \$43 189 700 in 1979-80 compared with \$49 591 000 in 1978-79. The decrease was mainly due to the adjustment in registration fees on and from 3 October 1979, following the abolition of Road Maintenance Charges on 1 July 1979 and the introduction on 1 October 1979 of a fuel levy payable by all motorists. Registration fees were adjusted as follows:

- non-commercial vehicles and motor cycles reduced from 3 October 1979 by approximately 30 per cent;

- light commercial vehicles (up to 1.78 tonnes) reduced from 3 October 1979 by approximately 20 per cent;

- medium commercial vehicles (1.78 to 3 tonnes) reduced from 3 October 1979 by approximately 15 per cent;

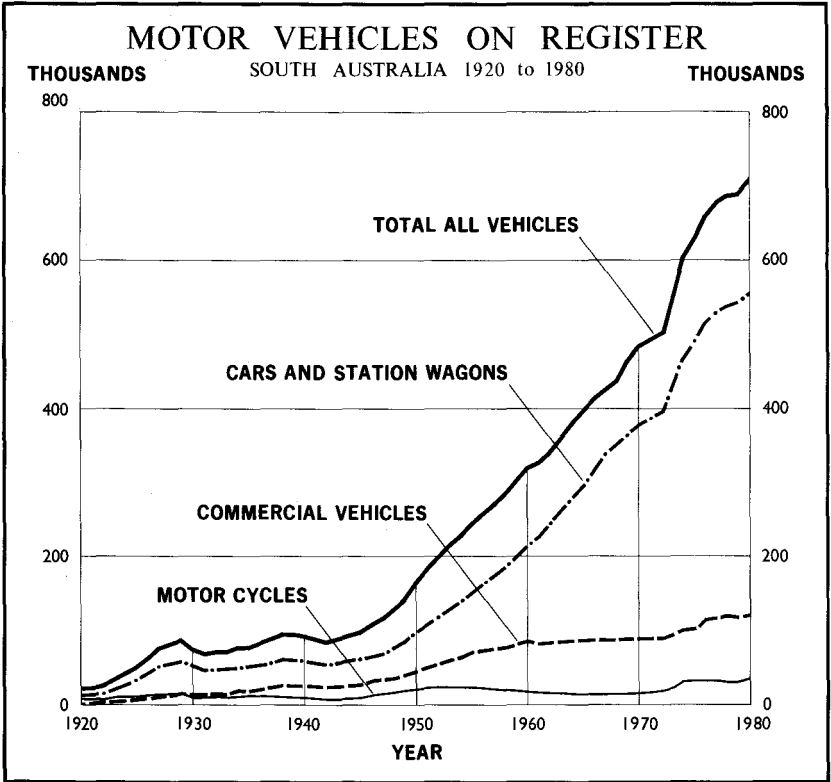
- heavy commercial vehicles (3-5 tonnes) reduced from 9 January 1980 by approximately 15 per cent;

- extra heavy commercial vehicles (over 5 tonnes) increased from 3 October 1979 by approximately 10 per cent.

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 Department and Motor Registration Division of the Department of Transport, the balance is paid into the Highways Fund.

Third Party Insurance

Under the Motor Vehicles Act, 1959-1980 every motor vehicle driven on a road, unless specifically exempted, must be covered by an insurance policy. This policy insures the owner of the motor vehicle and any other person who at any time drives the vehicle in respect of all liability that may be incurred 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 the State Government Insurance Commission, which is now the only approved third party insurer. Liabilities of the insurer, 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 recover by action against a nominal defendant appointed by the Minister of Transport and published in the Government Gazette. Payment by the nominal defendant is out of money contributed by the Commission.

A person claiming damages in respect of death or bodily injury caused by negligence in the use of an uninsured motor vehicle on a road may bring an action for the recovery of those damages against the nominal defendant. 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 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 determines what premiums for third party insurance are fair and reasonable.

From 4 July 1979, premiums for private and business cars in metropolitan and country areas were increased by \$7 to \$105. Premiums for goods-carrying vehicles in the metropolitan area were increased by \$9 to \$126 while those in country areas were increased by \$6 to \$82. Premiums for primary producers' trucks in the metropolitan area were increased by \$3 to \$45 and those in country areas were increased by \$2 to \$23. Premiums for taxis in the metropolitan area were increased by \$28 to \$406. Premiums for omnibuses in the metropolitan area were increased by \$26 to \$370 while those in country areas were increased by \$5 to \$67. Premiums for omnibuses not used for hire, fare or reward, in the metropolitan area were increased by \$8 to \$111 while those in country areas were increased by \$4 to \$59. Premiums for other miscellaneous vehicles such as ambulances, tow trucks, mobile cranes, hearses, etc., in the metropolitan area were increased by \$5 to \$74 and those in country areas were increased by \$2 to \$30. Premiums for motor cycles with an engine capacity exceeding 250 cc in the metropolitan area were increased by \$10 to \$141 and those in the country areas were increased by \$5 to \$66. Premiums for motor cycles with an engine capacity not exceeding 250 cc in the metropolitan area were increased by \$4 to \$52 while those in the country areas were increased by \$1 to \$18.

Road Traffic Board

The Road Traffic Board of South Australia, set up in 1960 under the provisions of the Road Traffic Board Act, 1960, is now constituted under the Road Traffic Act, 1961-1979; 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 to be taken to prevent road traffic accidents;
- (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.

Motor Vehicle Usage

In September 1979 a sample survey of motor vehicle usage during the year ended 30 September 1979 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 Commonwealth Government and State motor vehicle registration authorities; it was then stratified on the basis of vehicle type, trucks being further stratified by tare weight and number of axles.

Of the vehicles selected for the sample, seventy-five per cent were trucks, utilities and panel vans; eighteen per cent cars, station wagons and motor cycles; and seven per cent buses and minibuses. The emphasis on 'commercial' vehicles was necessary because of the diverse usage characteristics of commercial vehicles and because a major interest of users is in road freight transport.

Questionnaires were dispatched in September 1979 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.

Motor Vehicle Usage: Average Annual Distance Travelled, South Australia, 1979

Type of Vehicle	Average Annual Distance Travelled		Average Annual Distance Travelled for Business Purposes	
	'000 km	SE %	'000 km	SE %
Cars and station wagons	14.9	(2.6)	10.6	(8.8)
Utilities and panel vans	16.4	(5.0)	13.5	(6.7)
Trucks:				
Rigid:				
Tare weight,				
Under 3 tonnes	12.7	(4.9)	12.5	(5.1)
3 and under 4 tonnes	10.6	(4.3)	10.5	(4.2)
4 tonnes and over	17.3	(3.5)	17.1	(3.6)
Articulated:				
Tare weight,				
Under 9 tonnes	18.4	(3.4)	18.7	(3.4)
9 and under 11 tonnes	51.9	(2.8)	51.7	(2.8)
11 tonnes and over	95.0	(2.9)	95.0	(2.9)
Other truck type vehicles	14.1	(13.5)	14.3	(22.7)
Motor cycles	6.6	(7.8)	3.9	(17.1)

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.

The following table shows details of average annual fuel consumption for South Australia.

Motor Vehicle Usage: Average Rate of Fuel Consumption, South Australia, 1979

Type of Vehicle	Average Rate of Fuel Consumption			
	Petrol		Diesel	
	litres per 100 km	SE %	litres per 100 km	SE %
Cars and station wagons	12.5	(1.0)	9.0	..
Utilities and panel vans	14.9	(3.4)	11.5	(22.5)
Trucks:				
Rigid:				
2 axles	26.0	(1.7)	27.7	(2.4)
3 axles	50.6	(6.9)	38.5	(3.0)
More than 3 axles	26.7	(13.0)	42.6	(6.2)
Axles not stated	17.5	(32.3)	..	..
Articulated:				
Less than 5 axles	47.1	(3.1)	43.8	(1.1)
5 axles	46.8	(8.8)	52.1	(1.2)
6 axles	100.0	..	60.4	(2.6)
More than 6 axles .....	..	..	88.9	(13.9)
Axles not stated	47.3	(0.9)	..	..
Motor cycles	5.8	(3.1)	..	..

Additional details relating to South Australia and Australia are shown in the bulletin *Survey of Motor Vehicle Usage, Twelve Months Ended 30 September 1979* (Catalogue No. 9208.0).

Census of Motor Vehicles

A census of motor vehicles on the register in Australia at 30 September 1979 was completed during 1980; details relating to South Australia are shown in the bulletin *Motor Vehicle Census, 30 September 1979* (Catalogue No. 9301.4).

The following table classifies motor vehicles on register by type of vehicle and year of model at 30 September 1979.

**Motor Vehicles on Register: Type of Vehicle and Year of Model, South Australia
30 September 1979^(a)**

Year of Model	Type of Vehicle							Total (b)
	Motor Cars	Station Wagons	Utilities	Panel Vans	Trucks	Other Truck Type Vehicles	Buses	
	'000							
Before 1962	15.4	1.2	2.4	0.6	5.5	0.6	0.1	25.7
1962-1964	27.3	6.6	2.8	1.0	3.5	0.3	0.2	41.7
1965-1967	45.9	9.4	5.0	1.6	4.2	0.4	0.2	66.6
1968	22.5	3.7	2.1	0.7	1.8	0.2	0.1	31.0
1969	25.7	3.9	2.2	0.8	2.1	0.2	0.3	35.3
1970	29.3	4.1	2.5	1.0	2.1	0.3	0.2	39.3
1971	29.9	4.0	2.1	1.2	1.8	0.3	0.3	39.6
1972	29.3	3.9	2.6	1.2	2.0	0.3	0.2	39.5
1973	35.5	4.6	3.0	1.6	2.6	0.4	0.2	47.8
1974	38.6	5.5	3.5	2.0	2.6	0.4	0.2	52.9
1975	39.7	5.8	3.1	2.5	2.9	0.5	0.2	54.7
1976	39.5	7.1	3.5	3.0	3.7	0.5	0.3	57.8
1977	32.7	6.1	2.9	2.8	3.5	0.4	0.5	48.9
1978	32.0	5.8	2.6	2.5	3.2	0.3	0.3	46.9
1979	24.2	4.7	1.8	1.4	1.9	0.1	0.2	34.2
Total (c) ..	467.4	76.4	42.0	23.8	43.2	5.0	3.6	691.8

(a) Includes Commonwealth Government owned vehicles except defence services vehicles.

(b) Includes 30 380 motor cycles.

(c) Includes vehicles for which year of model is unknown.

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 1980 warning notices were sent to 26 834 drivers who had accumulated six or more demerit points and 2 994 drivers with twelve or more demerit points had their driving licences suspended.

Regulations under the Road Traffic Act require that any modification to a motor vehicle with a gross vehicle mass less than 4.5 tonnes (motor cycles excepted) must meet certain standards and that approval of the Road Traffic Board is necessary before certain types of modifications can be made.

All motor vehicles manufactured on or after 1 May 1971, must have affixed a compliance plate showing that the vehicle has been approved by the Australian Motor

Vehicle Certification Board in regard to compliance with Australian Design Rules for Motor Vehicle Safety applicable to the year of manufacture. Road Traffic Board exemption from this requirement is limited to immigrants or local residents returning from overseas with a vehicle they wish to register privately in this State.

Following an amendment to the Road Traffic Act, a different interpretation of 'STOP' signs became operative on 1 March 1975. Under this legislation, a driver facing a 'STOP' sign must give way to all traffic whether it is coming from the left or from the right. Previously, drivers had to give way only to the traffic from the right. The legislation conforms with the National Traffic Code. Similar legislation is in force in most States.

In July 1975, a system of 'priority' roads was introduced in the State. Initially the main arterial roads in the Metropolitan area were proclaimed 'priority' roads; this will be progressively extended to national highways and rural arterial traffic routes.

'STOP' and 'GIVE WAY' signs are used to control side street traffic. A heavy broken white line across the mouth of the side street warns the motorists that the arterial road traffic has priority over traffic entering from the left or right.

The Road Traffic Act now requires a seat belt to be worn by the driver and passenger of a motor vehicle where seat belts are fitted irrespective of the year of manufacture of the vehicle. An amendment to the Act, which came into operation on 1 March 1977, greatly strengthened the penalty provisions of the Act. The penalties are classified into (a) general penalty offences which included the majority of offences and carry a maximum penalty of \$300 and (b) special penalty offences which deal with the more serious offences (e.g. a driver convicted on a drink-driving offence for the first time can face the following charges (i) disqualification from holding a drivers licence for not less than six months and (ii) a fine of not less than \$300 and not more than \$600 or imprisonment for not more than three months).

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 \$300.

For the purpose of these statistics, a road traffic accident is defined as an accident which occurs because of the presence of a moving vehicle on a road or other public thoroughfare (e.g. public car park, beach) and which involves property damage exceeding \$300 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 following table shows summary details of road traffic accidents for the years 1976 to 1979. During 1979 the total number of recorded road traffic accidents decreased by 0·3

per cent (from 35 042 in 1978 to 34 942 in 1979). The number of accidents which resulted in casualties increased by about 1.2 per cent (from 11 209 in 1978 to 11 338 in 1979).

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
1976	29 932	8 090	307	11 082	4 661	48	1 726	2 372	24	878
1977	33 098	7 922	306	10 781	4 956	46	1 614	2 592	24	844
1978	35 042	8 160	291	11 209	5 142	43	1 645	2 721	23	870
1979	34 942	8 359	309	11 338	5 060	45	1 642	2 702	24	877

(a) 'Motor vehicles on register' is the mean number for each year; includes Commonwealth Government owned vehicles except defence services vehicles; excludes road tractors and trailers.

The likelihood of sustaining serious injury when involved in an accident is almost ten times higher for motor cycle riders than for drivers of motor vehicles: 72 per cent of motor cycle riders involved in accidents received medical or hospital treatment compared with 7 per cent of drivers of other vehicles. In the following table, the types of road users killed and injured are shown according to age groups for 1979.

Road Traffic Accidents: Age Groups of Casualties, South Australia, 1979

Age Group of Casualty (Years)	Drivers of Motor Vehicles	Motor Cyclists	Pedal Cyclists	Passengers	Pedestrians	All Other	Total
PERSONS KILLED							
Under 5	—	—	—	5	3	—	8
5-16	5	3	6	11	5	—	30
17-20	21	19	1	19	2	—	62
21-29	37	17	—	25	3	—	82
30-39	21	3	—	9	7	—	40
40-49	11	—	—	5	5	—	21
50-59	12	—	—	3	9	—	24
60 and over	10	1	2	14	15	—	42
Total	117	43	9	91	49	—	309
PERSONS INJURED							
Under 5	—	—	1	190	48	—	239
5-16	157	149	297	805	254	3	1 665
17-20	1 037	526	62	758	78	4	2 465
21-29	1 279	475	87	622	102	1	2 566
30-39	746	114	39	247	52	—	1 198
40-49	510	31	22	180	41	—	784
50-59	418	22	32	170	59	2	703
60 and over	344	6	27	251	117	—	745
Not stated	187	85	39	594	68	—	973
Total	4 678	1 408	606	3 817	819	10	11 338

Drivers (including motor cyclists) under twenty-one years of age, representing only 12

per cent of licence holders at 30 June 1979, accounted for 21 per cent of drivers involved in accidents, 30 per cent of drivers killed and 31 per cent of drivers injured during 1979. For drivers aged twenty-one to twenty-nine years involvements were 24 per cent, deaths 34 per cent and injuries 29 per cent while their representation in the driving population was 24 per cent. Pedestrians sixty years and over accounted for 14 per cent of pedestrians involved, 13 per cent of pedestrians injured and 29 per cent of pedestrians killed.

The following table shows casualties by type of road user in each of the five years to 1979. 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	Passengers	Pedestrians	All Other	Total
PERSONS KILLED							
1975	136	30	14	98	61	—	339
1976	116	41	9	86	55	—	307
1977	108	42	9	96	51	—	306
1978	119	33	6	81	52	—	291
1979	117	43	9	91	49	—	309
PERSONS INJURED							
1975	4 663	1 738	529	4 209	876	5	12 020
1976	4 249	1 622	566	3 846	792	7	11 082
1977	4 140	1 625	554	3 646	810	6	10 781
1978	4 612	1 403	553	3 828	804	9	11 209
1979	4 678	1 408	606	3 817	819	10	11 338

Details of road traffic accidents for 1979 according to time and day of occurrence are shown in the next table. More accidents occurred on Fridays (6 365 accidents) and Saturdays (5 687) 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 Saturdays (56) and Sundays (60).

Road Traffic Accidents: Day of Week and Time of Occurrence South Australia, 1979

Time of Occurrence	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	
TOTAL ACCIDENTS									
After: Midnight	Until:								
2 a.m.	2 a.m.	91	102	90	131	199	596	700	1 909
4 a.m.	4 a.m.	37	42	29	50	51	197	252	658
6 a.m.	6 a.m.	18	36	22	33	39	75	88	311
8 a.m.	8 a.m.	329	337	293	353	360	128	68	1 868
10 a.m.	10 a.m.	572	594	564	579	608	395	162	3 474
12 noon	12 noon	515	426	445	492	559	833	387	3 657
2 p.m.	2 p.m.	481	506	499	509	628	617	468	3 708
4 p.m.	4 p.m.	627	635	671	653	845	559	555	4 545
6 p.m.	6 p.m.	920	959	1 005	1 136	1 285	679	637	6 621
8 p.m.	8 p.m.	432	418	541	611	785	695	399	3 881
10 p.m.	10 p.m.	235	246	257	378	485	412	254	2 267
Midnight	Midnight	155	191	221	293	521	501	161	2 043
Total		4 412	4 492	4 637	5 218	6 365	5 687	4 131	34 942

**Road Traffic Accidents: Day of Week and Time of Occurrence
South Australia, 1979 (continued)**

Time of Occurrence	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
PERSONS KILLED								
After: Until:								
Midnight 2 a.m.	2	3	5	4	2	12	17	45
2 a.m. 4 a.m.	3	1	—	2	1	3	8	18
4 a.m. 6 a.m.	2	1	1	2	—	2	3	11
6 a.m. 8 a.m.	2	3	—	—	1	1	2	9
8 a.m. 10 a.m.	5	2	2	—	—	—	1	10
10 a.m. 12 noon	2	3	1	3	1	1	2	13
12 noon 2 p.m.	1	1	—	4	3	1	5	15
2 p.m. 4 p.m.	2	5	5	4	3	6	2	27
4 p.m. 6 p.m.	6	6	1	7	11	9	11	51
6 p.m. 8 p.m.	3	5	7	6	14	10	5	50
8 p.m. 10 p.m.	6	2	1	3	4	8	3	27
10 p.m. Midnight	4	1	3	6	15	3	1	33
Total	38	33	26	41	55	56	60	309

PERSONS INJURED								
After: Until:								
Midnight 2 a.m.	44	45	35	59	95	266	326	870
2 a.m. 4 a.m.	16	19	10	14	21	75	123	278
4 a.m. 6 a.m.	6	15	4	11	17	27	48	128
6 a.m. 8 a.m.	122	107	92	118	119	52	28	638
8 a.m. 10 a.m.	136	140	136	141	147	113	61	874
10 a.m. 12 noon	129	101	93	124	125	206	142	920
12 noon 2 p.m.	133	131	116	164	161	182	166	1 053
2 p.m. 4 p.m.	172	218	226	212	228	218	212	1 486
4 p.m. 6 p.m.	303	263	269	319	311	268	259	1 992
6 p.m. 8 p.m.	160	147	200	199	254	273	196	1 429
8 p.m. 10 p.m.	97	59	89	113	180	170	104	812
10 p.m. Midnight	84	83	90	92	217	211	81	858
Total	1 402	1 328	1 360	1 566	1 875	2 061	1 746	11 338

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.

**Accidents and Casualties: Time of Day, Fatality and Injury Rates
South Australia, 1979**

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.	1 909	45	870	2.4	45.6
2 a.m. 4 a.m.	658	18	278	2.7	42.2
4 a.m. 6 a.m.	311	11	128	3.5	41.2
6 a.m. 8 a.m.	1 868	9	638	0.5	34.2
8 a.m. 10 a.m.	3 474	10	874	0.3	25.2
10 a.m. 12 noon	3 657	13	920	0.4	25.2
12 noon 2 p.m.	3 708	15	1 053	0.4	28.4
2 p.m. 4 p.m.	4 545	27	1 486	0.6	32.7
4 p.m. 6 p.m.	6 621	51	1 992	0.8	30.1
6 p.m. 8 p.m.	3 881	50	1 429	1.3	36.8
8 p.m. 10 p.m.	2 267	27	812	1.2	35.8
10 p.m. Midnight	2 043	33	858	1.6	42.0
Total	34 942	309	11 338	0.9	32.4

The following table shows the nature of accidents which occurred in 1979. Collisions between vehicles accounted for 70 per cent of all accidents and 40 per cent of deaths, while vehicles overturning or leaving the road and vehicles colliding with pedestrians accounted for 7 per cent and 2 per cent of all accidents respectively. Vehicles overturning or leaving the road and vehicles colliding with pedestrians each accounted for 30 and 15 per cent of deaths respectively.

Road Traffic Accidents: Nature, South Australia, 1979

Nature of Accidents	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
Collisions between vehicles (a):				
Head on	741	342	46	626
Rear end	9 426	1 561	10	2 031
Right angles	10 302	2 519	59	3 693
Other	3 909	541	10	694
Vehicles:				
Overturning or leaving road (b)	2 395	1 154	92	1 566
Colliding with;				
Fixed object	3 297	926	35	1 262
Parked vehicle	3 545	337	7	451
Pedestrian	817	816	48	824
Other (c)	280	52	1	65
Passenger accidents	69	68	1	72
Other	161	43	—	54
Total	34 942	8 359	309	11 338

(a) Includes trains at railway level crossings, trams and vehicles stopped on carriageway.

(b) Includes collisions subsequent to vehicles leaving carriageway.

(c) Includes collisions with non-ridden animals, parked trailers, etc.

**Road Traffic Accidents: Features of Roadways on which Accidents Occurred
South Australia, 1979**

Features of Roadway	Total Accidents Reported	Accidents Involving Casualties	Persons Killed	Persons Injured
Intersection:				
Controlled	10 536	2 252	32	3 163
Uncontrolled	6 584	1 764	48	2 433
Other than intersections:				
Straight road	13 224	3 219	132	4 150
Bend or curve	2 244	764	71	1 124
Railway level crossing;				
Controlled	94	28	7	27
Uncontrolled	61	29	3	45
Other location	2 199	303	16	396
Total	34 942	8 359	309	11 338

During 1979 there were 17 120 accidents at intersections (49 per cent of accidents reported) and approximately one-half of the total number of injuries occurred at

intersections. However, of the 309 road deaths, 43 per cent were on straight roads compared with 26 per cent at intersections: a further 23 per cent of deaths occurred on bends or curves.

The following table shows the age group and sex of persons holding drivers licences and permits at 30 June 1979 and involvements in accidents during 1979 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 distances driven, times of day into which driving may be concentrated or traffic conditions during those times.

The following additional limitations should be observed when interpreting the figures.

- (i) All figures include permit holders; the accident involvement of permit holders, who are permitted to drive a vehicle only when accompanied by a fully licensed driver, appears, from an examination of the relevant data, to be significantly lower than that of fully licensed drivers. At 1 July 1979, there were 15 095 permit holders; of these 6 049 or 40 per cent were aged 16 years and 11 545 or 76 per cent of the total were aged 20 years or less: thus if permit holders and their involvements in accidents were excluded from the table, it could be expected that the involvement rates in the lower age groups would be higher than those shown.
- (ii) The number of involvements with ages not stated is high; and their age distribution, if known, might be different from that of known cases.

Road Traffic Accidents: Age and Sex of Licensed Drivers and of Drivers and Riders Involved in Accidents, South Australia, 1979^(a)

Age (Years)	Licensed Drivers Riders and Permit Holders at 30 June 1979 (b)		Accident Involvement of Drivers and Riders (c)		Accident Involvement Rate per 100 Licensed Drivers and Riders	
	Males	Females	Males	Females	Males	Females
Under 20	41 697	27 229	8 819	2 364	21.2	8.7
20-24	57 487	44 156	8 117	2 914	14.1	6.6
25-29	55 564	45 009	5 229	2 177	9.4	4.8
30-34	51 261	41 017	4 193	1 863	8.2	4.5
35-39	39 584	30 309	3 022	1 416	7.6	4.7
40-44	34 466	24 498	2 678	1 057	7.8	4.3
45-49	33 012	21 161	2 537	856	7.7	4.0
50-54	35 361	21 158	2 494	789	7.1	3.7
55-59	31 187	18 150	2 095	603	6.7	3.3
60-64	23 516	12 658	1 369	339	5.8	2.7
65-69	19 124	9 178	908	274	4.7	3.0
70-74	10 641	4 142	567	166	5.3	4.0
75-79	5 168	1 746	317	94	6.1	5.4
80 and over	2 282	627	153	47	6.7	7.5
Not stated	—	—	6 048	1 551	—	—
Total	440 350	301 038	48 548	16 510	11.0	5.5

(a) Includes both licensed riders and permit holders.

(b) Details provided by Motor Registration Division, Department of Transport.

(c) Drivers and riders involved in more than one accident during the year are included once for each accident.

SHIPPING

Control of Shipping

The Commonwealth 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* 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*, the *Seamen's Compensation Act 1911*, the *Seamen's War Pensions and Allowance Act 1940*, the *Australian Coastal Shipping Commission Act 1966*, the *Australian Coastal Shipping Agreement Act 1956* and the *Stevedoring Industry Act 1956*.

Shipping in South Australia is controlled by the *Navigation Act 1912* and, where this does not apply, by the Harbors Act, 1936-1978 and the Marine Act, 1936-1976. 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.

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 will 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.

The following table shows the number of vessels on the South Australian Register at 31 December 1980.

**Shipping, Vessels on South Australian Register
At 31 December 1980**

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	121	5 625	2 553	147	2 433	2 060	—	—	—
50-99	40	4 209	2 834	4	601	171	1	83	75
100-199	11	2 474	1 727	2	678	313	1	179	179
200-499	—	—	—	—	—	—	1	319	319
500-999	5	6 417	3 466	—	—	—	1	762	760
1 000-2 999	2	5 333	2 370	—	—	—	—	—	—
3 000 and over	—	—	—	—	—	—	—	—	—
Total	179	24 058	12 950	153	3 712	2 544	4	1 343	1 333

Registration of Motor Boats

The Boating Act, 1974-1978 gives power to the South Australian Minister of Marine to regulate boating and other activities within South Australian waters. The main provisions of the Act refer to the registration of motor boats and the licensing of motor boat operators.

Any boat that is propelled by an engine, whether or not that engine is the main means of propulsion, must be registered and have its registration number displayed on the hull. The registration number consists of two letters followed by two digits and the letter 'S' denoting South Australia. From 1 March 1981 the annual registration fee is \$12. A registration must be renewed annually, but, for a boat that is less than 3.048 metres in length and powered with an engine that develops less than 5 horsepower, a renewal fee is not required. At 30 June 1980 there were 39 425 motor boats registered.

Only persons, sixteen years of age or older, may be issued with a motor boat operators licence which remains in force without renewal unless cancelled or suspended under the Act or voluntarily surrendered. A person aged between twelve and sixteen years may be issued a permit to operate a motor boat subject to certain restrictions. At 30 June 1980 there were 68 244 licenced operators of motor boats. The other main provisions of the Act deal with unseaworthy boats, wrecks and abandoned boats, speed restrictions, rules for water skiing, reckless and dangerous operation, and the reporting of accidents.

Details of the minimum safety equipment required to be carried in a motor boat are listed in the Act's Regulations; these vary according to the length of the motor boat and whether it operates in in-shore or off-shore waters.

Shipping Search and Rescue

The Shipping Search and Rescue organisation (SAR), administered by the Department of Transport, co-ordinates the marine search and rescue operations for which the Commonwealth Government is responsible. The SAR also co-operates with the appropriate authorities in other marine emergencies.

The table below shows arrivals of overseas vessels at individual Customs ports in South Australia.

Shipping: Overseas Vessels Entered at Customs Ports, South Australia, 1978-79

Port	Overseas via Ports in Same State		Overseas via Interstate Ports		Overseas Direct		Total	
	Number	Gross Tonnage	Number	Gross Tonnage	Number	Gross Tonnage	Number	Gross Tonnage
Ardrossan	10	'000 66	1	'000 4	3	'000 19	14	'000 89
Ballast Head	—	—	2	4	—	—	2	4
Port Adelaide (a)	45	426	345	1 085	132	761	522	2 272
Port Giles	11	98	2	21	—	—	13	119
Port Lincoln	30	250	12	116	24	235	66	601
Port Pirie	27	150	47	253	37	266	111	669
Port Stanvac	5	36	12	125	28	1 006	45	1 168
Rapid Bay	—	—	1	5	—	—	1	5
Thevenard	8	36	12	55	20	139	40	230
Wallaroo	18	146	5	41	16	147	39	334
Whyalla	2	12	19	174	15	136	36	322

(a) Inner and outer harbour.

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. The following tables relate to vessels which were classified as overseas vessels.

The next table shows arrivals of vessels exceeding 200 net tons at selected Customs ports, according to country of registration of the vessels.

Shipping: Country of Registration, Vessels Entered at Selected Customs Ports
South Australia^(a)

Customs Port	Country of Registration	Vessels		Net Tonnage	
		1977-78	1978-79	1977-78	1978-79
Ardrossan	Australia	58	3	252 794	11 370
	Other countries	12	11	64 541	77 144
	Total	70	14	317 335	88 514
Port Adelaide	Australia	571	12	1 008 638	68 523
	Greece	20	31	149 760	272 854
	India	19	18	92 444	95 812
	Japan	56	80	288 872	455 627
	Liberia	56	47	389 712	382 979
	Norway	16	13	156 124	155 300
	Panama	73	75	348 354	392 275
	Singapore	53	54	232 301	258 090
	United Kingdom	101	34	394 451	328 136
	USSR	43	40	155 851	165 197
	Other countries	141	124	855 900	885 043
Total	1 149	528	4 072 407	3 459 836	
Port Lincoln	Australia	68	—	199 125	—
	Greece	3	9	23 057	85 069
	Liberia	4	16	19 325	174 963
	United Kingdom	10	12	95 152	120 743
	Other countries	36	31	261 110	239 425
	Total	121	68	597 769	620 200
Port Pirie	Australia	51	—	371 192	—
	Greece	8	10	67 768	85 405
	India	19	22	90 246	121 177
	United Kingdom	17	15	115 496	110 378
	USSR	7	6	27 053	21 952
	Other countries	45	58	284 283	330 080
	Total	147	111	956 038	668 992
Port Stanvac	Australia	44	—	484 304	—
	Liberia	16	19	529 702	692 797
	United Kingdom	3	5	27 753	78 194
	Other countries	32	21	695 464	396 671
Total	95	45	1 737 223	1 167 662	
Thevenard	Australia	41	4	177 170	24 336
	Panama	4	11	11 060	41 332
	United Kingdom	7	4	62 250	31 705
	Other countries	4	22	17 870	138 626
Total	56	41	268 350	235 999	
Whyalla	Australia	121	2	621 828	18 290
	Liberia	7	6	80 452	65 099
	United Kingdom	15	6	119 609	56 728
	Other countries	38	24	424 271	204 842
Total	181	38	1 246 160	344 959	

(a) From 1978-79 includes only overseas ships.

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	1975-76	1976-77	1977-78	1978-79	1979-80
	'000 tonnes				
American River	41	45	32	29	34
Ardrossan	744	596	653	722	1 096
Ballast Head	193	174	153	170	168
Kingscote	188	97	114	114	102
Klein Point	605	643	736	732	781
Port Adelaide	3 640	3 123	3 176	3 635	4 081
Port Giles	145	102	40	68	183
Port Lincoln	783	617	491	759	1 239
Port Pirie	1 318	1 082	1 147	1 335	1 496
Port Stanvac	3 719	2 953	3 185	3 275	3 521
Proper Bay	33	23	19	21	64
Rapid Bay	228	267	309	436	366
Thevenard	630	609	589	787	1 110
Wallaroo	385	127	151	410	512
Whyalla	5 538	4 027	3 108	3 643	3 429
Total	18 190	14 483	13 904	16 138	18 182

Total cargo handled at major ports in South Australia increased from 16 138 000 tonnes in 1978-79 to 18 182 000 tonnes in 1979-80, an increase of 2 044 000 tonnes (12·7 per cent). Ballast Head, Kingscote, Rapid Bay and Whyalla recorded small decreases in the amount of cargo handled, all other ports recorded significant increases in the amount of cargo handled for 1979-80.

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 an overseas vessel into and out of a port except for naval vessels, yachts and other craft used for pleasure, foreign fishing vessels that neither load nor discharge cargo and vessels not exceeding 200 net tons.

Cargo is recorded in terms of either units of weight or units of volume depending on the basis on which freight is charged. The statistics show separate figures for cargo recorded in tonnes weight and cargo recorded in cubic metres. The aggregates for weight and volume cargo are not added to a figure for total cargo because they are unlike quantities, and comparisons of total cargo between ports, trade routes or periods of time could be affected by variations in the cargo mix and in the basis on which freight is charged.

The following figures show, for the years 1977-78 and 1978-79, 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—	1977-78		1978-79	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA	41 311	5 197	108 052	2 451
Canada	179	2 429	499	1 017
Central America	59	15	—	—
Bermuda and Caribbean Area	5	10	—	2 524
South America	—	—	66 468	39
Europe (excluding USSR):				
North-western, Central and Baltic;				
United Kingdom	65 900	—	112 442	435
Other	254 150	1 706	232 283	2 517
Southern Area	54 068	435	79 652	425
USSR (in Europe and Asia)	91 035	150	52 604	—
Africa	129 050	21 875	143 413	24 265
Asia (excluding USSR)	2 101 204	553 040	2 793 031	436 622
Papua and New Guinea, New Zealand and Pacific Islands	174 267	33 589	254 746	1 317
Indian Ocean Islands and Antarctica	1 459	—	1 161	450
Total cargo loaded	2 912 687	618 446	3 844 351	472 062

Shipping: Cargo Discharged in South Australia, Trade Area of Origin

Cargo Discharged from Ports in—	1977-78		1978-79	
	Tonnes Weight	Cubic Metres	Tonnes Weight	Cubic Metres
North America and Hawaiian Islands:				
Northern Area;				
USA	21 586	15 502	63 412	28 962
Canada	65 846	39 981	96 673	42 919
Central America	—	—	—	—
Bermuda and Caribbean Area	300	—	1 620	—
South America	—	—	—	—
Europe (excluding USSR):				
North-western, Central and Baltic;				
United Kingdom	4 732	1 987	1 682	1 051
Other	17 340	34 277	7 840	39 026
Southern Area	7 169	6 381	16 523	7 702
USSR (in Europe and Asia)	—	13	20	—
Africa	33 048	1 574	1 554	2 396
Asia (excluding USSR)	2 288 643	196 581	2 250 927	239 445
Papua and New Guinea, New Zealand and Pacific Islands	127 679	18 913	318 725	4 126
Indian Ocean Islands and Antarctica	120 809	237	94 822	—
Total cargo discharged	2 687 152	315 446	2 853 798	365 627

Distances to Overseas Ports

Distances in kilometres 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 484.

Distances from Port Adelaide to Principal Overseas Ports

Port Adelaide to:	Kilometres	Port Adelaide to:	Kilometres
<i>Africa;</i>		<i>North America;</i>	
Cape Town	10 377	<i>East Coast,</i>	
<i>Asia;</i>		Baltimore	(a) 23 135
Colombo	7 982		(c) 19 059
Djakarta	5 643	Montreal	(a) 23 541
Hong Kong	8 856		(c) 21 368
Singapore	6 510	New York	(a) 22 961
Yokohama	9 780		(c) 19 200
<i>Europe;</i>		<i>West Coast,</i>	
Liverpool	(a) 21 630	San Francisco	13 653
	(b) 19 774	Vancouver	14 357
London	(a) 21 705		
	(b) 19 839	<i>Central America;</i>	
Marseilles	(a) 21 144	Panama	15 385
	(b) 16 688	<i>South America;</i>	
Naples	(a) 21 663	<i>East Coast,</i>	
	(b) 15 940	Buenos Aires	(d) 14 388
<i>New Zealand;</i>		Rio de Janeiro	(d) 15 901
Auckland	3 769	<i>West Coast,</i>	
Wellington	3 482	Valparaiso	12 353

(a) Via Cape Town. (b) Via Suez Canal. (c) Via Panama Canal. (d) Via Cape Horn.

CIVIL AVIATION**Control of Civil Aviation**

In Australia, civil aviation is subject to the Commonwealth *Air Navigation Act 1920* 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 Commonwealth 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, flying training schools, and the rules of the air. The Department is responsible for the provision and operation of air traffic services and rescue and fire fighting services and has assumed responsibility for co-ordination of search and rescue operations. It is also responsible for the prevention of undesirable effects of air traffic on the environment and of unlawful interference with aircraft and aviation facilities.

Under the *Australian National Airlines Act 1945* the Australian National Airlines Commission was established and empowered to operate Commonwealth Government owned air services. The Commission operates under the name Trans-Australia Airlines.

The *Civil Aviation Agreement Act 1952* ratified an agreement between the Commonwealth 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 Commonwealth Parliament passed the *Airlines Equipment Act 1958* and this provided for further financial assistance to both airlines for the purchase of new aircraft and empowered the Commonwealth 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*, amended by the 1961 Act, is now cited as the *Airlines Agreement Act 1952*.

For reference to international agreements on civil aviation see the *Year Book Australia* No. 48, and for references to international organisations see *Year Book Australia* No. 37.

Aircraft on Register

The total number of aircraft listed at 30 June 1979 on the Australian register was 5 997. 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				
	1976	1977	1978	1979	1980
Regular public transport (a)	9	9	9	9	7
Private	272	327	370	413	481
Charter	123	131	151	163	168
Other (b)	114	127	133	142	142
Total	518	594	663	727	798

(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, Canberra and Darwin.

Adelaide is also the terminus for intrastate services. Regular connections are made to various centres in the State by Ansett Airlines of South Australia and other approved commuter operators.

Since 1966-67, when the Commonwealth 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 are 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*.

Civil Aviation Accidents

During 1978-79 there were two civil aviation accidents involving casualties in South Australia and these resulted in the death of one person.

The table below shows the details of civil aviation accidents involving casualties during the ten year period 1970-71 to 1979-80. There were no accidents involving regular public transport during this period.

Civil Aviation Accidents Involving Casualties, South Australia, 1970-71 to 1979-80^(a)

Class of Operation	No. of Accidents	Persons Killed	Persons Injured
Charter	4	15	2
Training	3	—	3
Private	21	45	3
Gliding	9	4	5
Other	2	2	2
Total	39	66	15

(a) Excludes parachutists killed or injured on contact with earth after an uninterrupted fall.

Passengers and Freight Carried

The number of passengers and the tonnage of freight carried on civil airlines and commuter services in South Australia are shown in the following tables.

Commuter Passenger, Freight and Aircraft Movements, South Australia, 1978-79

Airport	Passengers	Freight (Tonnes)	Aircraft Movements
Adelaide (a)	65 400	178	15 716
American River	4 593	6	2 177
Ceduna	1 231	—	306
Coober Pedy	5 133	37	1 406
Kingscote	9 760	—	2 253
Leigh Creek	3 629	63	2 532
Mount Gambier	4 104	21	1 151
Parndana	5 494	2	1 748
Penneshaw	5 133	10	1 514
Port Augusta	2 612	9	3 770
Port Lincoln	9 667	11	2 030
Renmark (a)	2 700	10	669
Whyalla	2 394	—	844
Woomera	1 810	6	838

(a) Figures contain estimates.

Principal Airports, South Australia
Passengers, Freight and Aircraft Movements

Airport	1975-76	1976-77	1977-78	1978-79	1979-80
PASSENGERS (a)					
Adelaide (b) (c)	1 454 917	1 607 238	1 761 932	1 801 084	1 931 395
Kingscote	58 887	51 963	65 072	65 242	62 906
Port Lincoln	65 498	63 628	69 731	69 354	65 040
Woomera	8 876	5 872	4 777	3 953	(f)
Whyalla	42 939	37 173	42 621	43 980	44 514
Mount Gambier	33 748	33 620	31 433	39 779	39 428
FREIGHT—TONNES (d)					
Adelaide (b) (c)	16 390	18 849	19 841	21 539	21 206
Kingscote	133	117	142	128	139
Port Lincoln	130	134	144	145	168
Woomera	64	35	20	16	(f)
Whyalla	108	95	86	80	76
Mount Gambier	102	100	90	89	68
AIRCRAFT MOVEMENTS (e)					
Adelaide (c)	23 978	24 354	32 288	25 863	25 889
Kingscote	2 239	1 898	2 108	2 175	2 089
Port Lincoln	2 332	2 220	2 374	2 422	2 336
Woomera	361	<i>n.a.</i>	188	152	(f)
Whyalla	1 540	1 396	1 496	1 449	1 518
Mount Gambier	1 753	1 592	1 300	1 734	1 858

(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. (f) Ceased April 1979.

10.5 COMMUNICATION

As a result of Federation all the former colonial post and telegraph services were taken over by the Commonwealth Government on 1 March 1901 and until 1 July 1975 were controlled, pursuant to the provisions of the *Post and Telegraph Act 1901*, by the Postmaster-General through the Postmaster-General's Department. A detailed history of Posts, Telegraphs and Telephones was included on pages 469-70 of the *South Australian Year Book 1967*.

In February 1973 a Commission was established to conduct an inquiry into what changes, if any, should be made in the organisation, administration and operations of postal and telecommunication services. In their Report, presented in April 1974, the Commissioners recommended establishment of separate postal and telecommunication corporations independent of the jurisdiction of the Public Service Board.

As a result of the Government's acceptance of this recommendation the Australian Telecommunications Commission and the Australian Postal Commission took over from the Australian Post Office on 1 July 1975 under the provisions of the *Telecommunications Act 1975*, the *Postal Services Act 1975*, and the *Postal and Telecommunications Commissions (Transitional Provisions) Act 1975*.

POSTAL SERVICES

The Australian Postal Commission, trading as Australia Post, was formed on 1 July 1975, to provide Australia's postal services.

During 1980 both the Overnight Parcel Service and International Priority Paid Service were extended. Continuing improvements were made to mail flows in South Australia and the Northern Territory with particular attention being paid to country mail services.

Intercapital mails despatches from Darwin were improved with the introduction of a Sunday despatch significantly improving service standards for mail posted at weekends. The number of airmail despatches from Alice Springs to Sydney, Brisbane, Canberra and Melbourne were also increased improving service standards for some mail by up to 24 hours.

Surface mail arrangements between Adelaide and the Northern Territory were further improved with the introduction of a four times weekly road mail service on the Alice Springs-Darwin section of the route. The new service improved service standards to Alice Springs, Tennant Creek, Katherine and Darwin, as well as to six non-official Post Offices and 38 private/community bag holders *en route*.

Mail services to several South Australian country centres were also improved with the introduction of, or the expansion of, airmail contracts. Included among the improved services was a new twice weekly air service between Streaky Bay and Adelaide; a third airmail service between Ceduna and Adelaide and a second airmail despatch between Oodnadatta and Adelaide.

Philatelic facilities were made available at several more centres in 1980. Full facilities are now provided at Victor Harbor and Salisbury and limited facilities at Naracoorte, Oaklands Park and Port Adelaide.

During the year Australia Post introduced Community Mail Agencies to some rural communities that are too small to support a post office. Two of these agencies were established in South Australia.

Details of post offices for the years 1976 to 1980 are given in the following table.

Post Offices: South Australia and Northern Territory, Number at 30 June

Particulars	1976	1977	1978	1979	1980
Post Offices:					
Official	171	171	169	166	164
Non-official	569	556	552	535	506
Total	740	727	721	701	670

Non-official post offices are conducted by persons who are not employed under the *Postal Services Act 1975* 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.

At 30 June 1980, there were 4 043 persons employed in postal services in South Australia and Northern Territory including 3 120 official staff employed under the *Postal Services Act 1975* and 676 non-official staff. In addition there were 247 mail contractors who held mail service contracts with Australia Post.

The Australia Post financial statements are prepared on an accrual accounting basis and in accordance with accounting principles generally applied in commercial practice. Gross postage receipts collected in South Australia and Northern Territory by Australia Post during 1979-80 totalled \$47.4 million including \$26.7 million from postage stamps, \$10.5 million from postal debtors and \$5.6 million from franking machines.

Postal Articles Handled

Details of articles handled by post offices in South Australia and the Northern Territory during the years 1975-76 to 1979-80 are shown in the following table.

Postal Articles Handled, South Australia and Northern Territory

Year	Standard Articles (a)	Non-standard Articles (a)	Parcels (b)	Registered Articles	All Articles
'000					
Posted for delivery:					
Within Australia;					
1975-76	156 073	20 989	1 362	438	178 862
1976-77	150 738	18 873	1 322	363	171 296
1977-78	156 052	17 517	1 784	412	175 765
1978-79	172 208	19 677	1 570	342	193 797
1979-80	177 539	20 067	1 812	324	199 742
Beyond Australia;					
1975-76	8 408	365	68	67	8 908
1976-77	9 688	370	73	62	10 193
1977-78	6 497	398	73	56	7 024
1978-79	5 863	385	78	64	6 390
1979-80	8 710	332	78	67	9 187
Received from beyond Australia:					
1975-76	5 975	1 840	224	33	8 072
1976-77	6 582	1 679	225	35	8 521
1977-78	5 802	1 634	95	34	7 565
1978-79	5 700	1 541	95	29	7 365
1979-80	5 913	1 442	90	26	7 471

(a) Includes Certified and Messenger Delivery mail. (b) Includes registered parcels.

Postal Money Orders

In November 1977 a new money transfer service called Postal Money Orders was introduced. This service replaced the Money Order and Postal Order services previously operated by Australia Post.

The combined value of money orders and postal orders issued in 1944-45 amounted to \$4 929 000; in 1979-80 the value of postal money orders issued was \$49 856 506.

The combined value of money orders and postal orders paid in 1944-45 amounted to \$4 067 000; in 1979-80 the value of postal money orders paid was \$44 026 263.

**Postal Money Orders Issued and Paid
South Australia and Northern Territory^(a)**

Year	Issued		Paid	
	Number	Value	Number	Value
	'000	\$'000	'000	\$'000
1975-76	1 592	25 621	1 268	21 709
1976-77	1 210	25 195	931	22 087
1977-78	981	30 138	766	27 350
1978-79	1 034	39 225	785	35 479
1979-80	1 144	49 857	895	44 026

(a) Before November 1977 includes combined Money Order and Postal Order services.

TELECOMMUNICATION SERVICES

The Australian Telecommunications Commission (Telecom Australia) has responsibility for telecommunication services within Australia. On commencement the Commission had approximately 3.5 million telephone subscribers, net assets of \$4 000 million, a staff of 88 600 and a projected budget for 1975-76 of \$1 900 million.

During 1979-80 there was a considerable growth in the provision of services *e.g.* the telephone network increased by seven per cent, telex by fourteen per cent and 'Datel' by thirty-two per cent. By June 1980 the Commission in conjunction with the Overseas Telecommunications Commission had provided International Subscriber Dialling (ISD), to more than one hundred destinations.

Cash receipts of Telecom Australia in South Australia and Northern Territory amounted to \$213.1 million during 1979-80 including \$200.9 million from telephone services, and \$7.8 million from telegraph services. Cash payments for the same period amounted to \$192.3 million including \$122.4 million for salaries and wages.

At 30 June 1980 there were 9 056 staff employed by Telecom Australia in South Australia and the Northern Territory including 8 306 permanent officers *i.e.* those employees whose employment is governed by the *Telecommunications Services Act 1975*. In addition there were 93 contract staff.

Telegraph System

Australia's telegraph service, known as TRESS (Teleprinter Reperator Switching System) was first introduced in South Australia in 1959, before being extended to the other States. This system, using teleprinters and automatic switching apparatus, has eliminated the intermediate handling of telegraph traffic, resulting in greater speed and economy.

Another telegraph service known as TELEX has been available in South Australia since 1957. TELEX is a telecommunications system, similar to the telephone network, using teleprinter machines and providing a printed record of every message. Subscribers are provided with a teleprinter in their own premises and may be connected through the teleprinter exchange with other subscribers anywhere in Australia and in more than 100 overseas countries. At 18 June 1980 there were 3 224 subscribers in South Australia.

The number of telegrams despatched and received, and some information on the operations of TELEX during the years 1975-76 to 1979-80, are shown below.

Telegraph Services, South Australia and Northern Territory

Year	Telegrams		Teleprinter Exchange	
	Despatched within Australia	Despatched beyond Australia	Subscribers	Number of Calls (a)
	'000	'000	Number	'000
1975-76	1 420	146	1 890	3 682
1976-77	1 158	137	2 157	3 879
1977-78	970	127	2 479	4 178
1978-79	712	109	2 833	4 680
1979-80	555	94	3 224	5 216

(a) Includes official Post Office traffic.

The Telecom Australia picturegram service is used to send and receive photographs to

and from other parts of Australia and overseas. Photographs of documents, X-rays, and other matter capable of being photographed can be transmitted by this service.

Telecom Australia also provides a Datel service for the transmission of digital data between computer systems over private lines or the ordinary telephone network. The data are converted into a form suitable for transmission over a telephone type circuit by a 'modulator/demodulator' unit known as a 'Modem'. Before data are presented to the computer or terminal they are restored to their original form.

Telephone Services

Telecom Australia provides subscriber services, trunk line circuits and automatic telephone exchanges. There has been a continuous growth in these facilities and at 30 June 1980 there were 4 226 trunk line channels and 415 country automatic telephone exchanges in the State. There are sixty automatic exchanges in the Adelaide Telephone District. At 30 June 1980 the normal charges for selected telephone services were as follows.

Installation charge for a new telephone service is \$120 reduced to \$60 where an existing subscriber moves to other premises anywhere in Australia. If a telephone instrument and line are already *in situ* at the new address, the connection fee is further reduced to \$10. Annual rental charges are based on the facilities provided; where continuous exchange facilities exist the charge for a non-business service is \$85 or in the case of pensioners \$56.66, paid half-yearly in advance. The corresponding rental charges to subscribers with non-continuous exchanges are \$40 and \$26.66 respectively. Annual rental charges for continuous exchange and non-continuous exchange business services are \$120 and \$50 respectively. Approximately 99 per cent of subscribers now have continuous service.

Private calls between subscribers within a single telephone zone, and between subscribers in adjoining zones, are charged at a 'local call' rate of 9 cents per call. The corresponding charge for calls from public telephones is 10 cents. Trunk call rates, which vary according to duration and distances, are charged for calls between non-adjointing telephone zones: lower rates are charged for calls between 6 p.m. and 9 p.m.; between 9 p.m. and 8 a.m.; 12.30 p.m. and 1.30 p.m. Monday to Saturday; and in addition between 8 a.m. and 6 p.m. on Sundays.

A Telecom Australia 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 30 June 1980 STD facilities were available to approximately 337 000 subscribers in the Adelaide Telephone District for two-way contact with selected exchanges in New South Wales, Victoria, Queensland, Western Australia and Tasmania.

Telephone Services, South Australia and Northern Territory

At 30 June	Telephone Exchanges	Telephone Services					Trunk Line Channels in Service (a)	
		Ordinary Exchange	Duplex	Party Line	Private Branch Exchange	Public Telephones		Total
1976	667	289 875	2	804	41 128	3 139	334 948	3 031
1977	667	317 270	2	714	40 184	3 164	361 334	3 367
1978	664	346 211	—	642	40 875	3 124	390 852	3 586
1979	642	368 673	—	534	48 498	3 166	420 871	4 211
1980	628	407 632	—	476	38 457	3 159	449 724	4 226

(a) Excludes trunk junctions.

All metropolitan and outer metropolitan services are operated through automatic exchanges, whereas at 30 June 1980, 104 000 country and Northern Territory services were automatic and 8 700 services were manually operated. Metropolitan and outer metropolitan services totalled approximately 337 100 and of these 259 200 were non-business. In the country, business telephone services accounted for a larger share (about forty-one per cent) of services.

RADIO AND TELEVISION SERVICES

On 1 July 1975 Telecom Australia took over certain broadcasting responsibilities which had been vested in the former Postmaster-General's Department, under the *Broadcasting and Television Act 1942*. Telecom Australia is now required to provide and operate for the purposes of broadcasting and televising programs of the Australian Broadcasting Commission (ABC) the following:

- (1) transmitting stations (including translator stations) for the National and Radio Australia services;
- (2) interconnection facilities to connect each studio of the ABC to its appropriate local transmitting station;
- (3) technical equipment for the reception of broadcasting transmissions from other countries for re-broadcast by the ABC.

Details of radio and television stations licensed in South Australia at 30 June in the years 1976 to 1980 are shown in the following table.

Radio and Television Stations, South Australia, At 30 June^(a)

Radio Communication Stations	1976	1977	1978	1979	1980
Broadcasting:					
National	10	11	11	11	11
Commercial	9	9	9	9	9
Public (b)	1	1	1	1	3
Television:					
National	6	7	7	7	7
Commercial	5	6	6	6	6
Transmitting and receiving:					
Fixed;					
Outpost	218	223	208	211	190
Other	196	219	300	354	350
Land;					
Aeronautical	39	42	50	50	55
Base stations for mobile services	1 632	1 819	1 912	1 995	2 085
Coast	26	26	26	29	30
Experimental	79	82	110	106	105
Repeater	1	1	1	1	1
Mobile	20 922	23 413	43 777	45 671	33 778
Space services	1	1	1	1	1
Amateur	795	874	1 054	1 324	1 558
Receiving only:					
Fixed	22	22	22	21	43
Mobile	24	31	33	33	61
Total stations	23 986	26 787	47 528	49 830	38 293

(a) Excludes stations in Northern Territory.

(b) Includes University of Adelaide station SUV.

Telecom Australia is currently operating all transmitting station and program link facilities associated with the ABC's broadcasting services *i.e.* medium frequency, high frequency inland, frequency modulation (FM), Television and Radio Australia (International). In addition, Telecom Australia is the construction authority for all new transmitting facilities required for these services.

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.

The latest commercial television station, based at Loxton, was opened on 27 November 1976.

The first four stations of the National FM Broadcasting network began transmission on 24 January 1976. The high power stereo transmissions which serve Sydney, Melbourne, Canberra and Adelaide originate from the Australian Broadcasting Commission's Adelaide studios and are relayed over specially prepared lines.

There are five National and five Commercial television translator stations operated in South Australia.

The six country translator stations are located at Bordertown, Keith, Cowell and Port Lincoln (one national station at each location) and one commercial station at Cowell and Port Lincoln. These have been in operation since 1976. The four Adelaide translator stations servicing the Adelaide Foothills area, comprise one National and three Commercial stations. They commenced operations in April 1980.

Further information on radio and television services is contained in Part 6.4 Culture and Recreation.

OVERSEAS TELECOMMUNICATIONS SERVICES

The Overseas Telecommunications Commission (Australia), established by the *Overseas Telecommunications Act 1946*, is a Commonwealth statutory authority responsible for the establishment, maintenance, operation and development of all public telecommunications services between Australia and other countries, between Australia and its external territories and with ships at sea.

All communications into and out of Australia are transmitted by way of a complementary system of undersea coaxial cables, communications satellites and high-frequency radio.

In co-operation with Telecom and communications carriers in other countries, OTC provides International Subscriber Dialling (ISD). Other international telephone, telegram, facsimile, phototelegram, TELEX, leased circuit, audio broadcast and data transmission services are available to countries throughout the world by means of submarine cables, communication satellites and, in a decreasing number of cases, short-wave radio. Television relay is provided to and from countries with access to satellite communications facilities.

OTC operates 15 coast radio stations for communication with ships at sea in Australian waters, and to provide high-frequency radio services with ships in any part of the world. It also has five satellite earth stations in Australia. Those at Carnarvon in Western Australia and Moree in New South Wales operate through the INTELSAT Pacific Ocean satellites to Pacific region countries. The two earth stations at Ceduna in South Australia operate through INTELSAT's Indian Ocean satellites to Asia, Europe and Africa.

PART 11

PUBLIC FINANCE

11.1 STRUCTURE OF PUBLIC FINANCE

The collection of public revenue and the expenditure of public money in South Australia are the responsibility of four groups of authorities: (i) Commonwealth Government; (ii) South Australian Government; (iii) State public corporations; and (iv) local government.

The power to raise revenue from taxation is vested in the various governments and authorities by Acts of Parliament. Other revenue comes from the proceeds of the sale of goods and services to the public and to other governments and authorities. A major proportion of the revenue of the State Government, and a smaller proportion of the revenue of local government authorities and some public corporations is derived from grants from other levels of government. A further source of funds is the loan market; government securities are issued for loan raisings in Australia and overseas.

Authorisation for expenditure by Commonwealth 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, 1934-1979 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 Commonwealth Government expenditures are included.

Commonwealth Government Transactions

Reference is made to the revenue and expenditure of the Commonwealth 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 Commonwealth Government within South Australia. A more detailed analysis of Commonwealth Government finance may be obtained from the *Year Book 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 Government grants are also handled through these accounts.

State Government Budget receipts include (in addition to loan raisings) taxation, proceeds of sale of goods and services by trading undertakings, some of the grants made by the Commonwealth 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, transactions for roadworks are handled through the Highways Fund and transactions relating to forest operations are included in the Woods and Forests Working Account.

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 1980

Sources and Nature of Funds	\$'000
Public Debt:	
Securities current at 1 July 1979	1 702 221
New Loans raised during 1979-80	189 062
	<hr/>
Less: Securities redeemed and converted	1 891 283
	109 683
	<hr/>
Public Debt at 30 June 1980	1 781 600
Other interest bearing indebtedness:	
Trust Fund balances	21 731
Liabilities to Commonwealth Government;	
Housing Agreements	572 956
Other	171 298
Non-interest bearing indebtedness:	
Trust Fund balances	89 092
Departmental balances and other funds	134 123
	<hr/>
	2 770 800
	<hr/>

Government of South Australia, Sources and Disposal of Funds at 30 June 1980 (continued)
\$'000

Disposal of Funds		
Loan Account:		
Total of Loan Works at 1 July 1979	1 700 165	
Payments during 1979-80	226 065	
		1 926 230
<i>Less:</i> Repayments	48 800	
Securities cancelled	27 682	
Other credits (a)	69 625	
		146 107
Loan Works Account balances at 30 June 1980		1 780 123
Consolidated Revenue Account:		
Deficit at 1 July 1979	—	
Receipts for Year	1 384 589	
Payments for Year	1 384 589	
		—
Surplus for Year		—
Deficit/surplus at 30 June 1980		—
Rural Industry Assistance Agreement:		
Advances to primary producers		27 752
Housing Agreements:		
Advances to SA Housing Trust	319 420	
Advances to Home Builders Accounts	213 869	
		533 289
Water Treatment Agreement:		
Advances to Adelaide Water Treatment Scheme Fund		22 764
Land Acquisition:		
Advances to SA Land Commission		80 809
Other Agreements		132 679
Cash at bank and short-term deposits		193 384
		<u>2 770 800</u>

(a) Comprises Capital Works Grant, in lieu of loan raising.

Public Corporation Accounts

Most of the details included under this classification are based on annual reports of the Auditor-General 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 are based on annual statements prepared on an income and expenditure (accrual) basis in accordance with the 'Local Government Accounting Regulations, 1979'. 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.

The tables which follow show figures on a consolidated net basis for State and local government and public corporations in South Australia for the four years to 1978-79. 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.

State and Local Government Authorities and Public Corporations South Australia, Receipts and Financing Items

Particulars	1975-76	1976-77	1977-78	1978-79
	\$ million			
Receipts:				
Taxes, fees, fines, etc.	366.4	424.6	444.9	482.2
Income from public enterprises	59.5	54.2	48.8	47.1
Property income;				
Interest	40.1	54.1	60.4	69.0
Land rent, royalties	6.2	7.4	8.7	9.4
Total property income	46.3	61.5	69.1	78.4
Grants from the Commonwealth				
Government:				
For current purposes	607.3	674.5	800.3	860.5
For capital purposes	164.9	161.9	161.1	154.5
Total receipts	1 244.4	1 376.7	1 524.2	1 622.8
Financing items:				
Net borrowing;				
Local authority and public corporation securities	43.5	53.0	62.0	68.9
Other general government securities	5.1	7.5	17.3	16.5
Net advances from the Commonwealth Government;				
For loan works purposes	92.8	99.0	103.4	101.5
Other	93.7	75.6	88.6	60.5
Net receipts of private trust funds	6.3	9.9	10.1	13.9
Reduction in;				
Cash and bank balances	-81.1	-21.2	51.5	-46.9
Security holdings	-1.6	2.1	-11.5	-9.6
Other funds available (including errors and omissions)	38.0	37.8	43.4	90.4
Total financing items	196.8	273.8	364.9	295.2
Total funds available	1 441.1	1 650.5	1 889.1	1 918.0

State and Local Government Authorities and Public Corporations
South Australia, Outlay

Particulars	1975-76	1976-77	1977-78	1978-79
			\$ million	
Final consumption expenditure	724.7	887.8	1 037.4	1 112.3
Gross capital formation:				
Increase in stocks	1.4	3.9	4.7	—0.1
Expenditure on new fixed assets	471.2	487.7	512.3	485.0
Expenditure on existing assets (net)	32.1	36.0	25.7	24.6
Total gross capital formation	504.7	527.7	542.7	509.4
Transfer payments:				
Interest	139.3	164.9	193.5	213.0
Transfer to persons	18.1	17.5	18.3	20.0
Subsidies	4.3	3.8	5.1	6.8
Grants for private capital purposes	4.9	6.4	9.5	7.2
Total transfer payments	166.5	192.5	226.3	246.9
Net advances:				
To the private sector	8.5	11.6	48.0	13.7
To public financial enterprises	36.7	30.9	34.7	35.7
Total net advances	45.2	42.5	82.7	49.3
Total outlay	1 441.1	1 650.5	1 889.1	1 918.0
Current outlay	886.4	1 073.9	1 254.2	1 352.0
Capital outlay	554.8	576.5	634.9	565.9

Further References

Additional information may be found in the following publications:

South Australian Office

5501.4 *Public Finance*

Central Office

5504.0 *State and Local Government Finance, Australia*

11.2 COMMONWEALTH-STATE GOVERNMENTS FINANCIAL RELATIONS

The Commonwealth of Australia Constitution Act and the 1927 Financial Agreement represent significant events in Commonwealth-State financial relations. Under the former, the States surrendered the right to levy customs and excise duties which passed exclusively to the Commonwealth and under the latter, the Commonwealth became the borrowing agent for the States. Further details appear on page 537 of the *South Australian Year Book 1972*.

Since Federation the Commonwealth has made payments of various descriptions to the States. Before the 1939-45 War, Commonwealth payments 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 Commonwealth 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 Commonwealth 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 Commonwealth in matters which were previously considered to be the sole responsibility of the States; and the effects of the introduction and continuation of uniform tax and of other changes on the basic allocation of financial resources between the Commonwealth and the States.

There are various ways of classifying Commonwealth 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 Commonwealth; 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 Commonwealth 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 Commonwealth appointed the Grants Commission, of three members, to inquire into and report upon claims made by any State for a grant of financial assistance and any matters relevant thereto. From 1933 to 30 June 1959 applications were lodged by each of the three States already mentioned. South Australia ceased to be a claimant State from 1 July 1959; and at the Premiers' Conference in June 1968, following a request from Western Australia, it was agreed that (subject to certain considerations) claims by Western Australia would cease after payments in respect of 1967-68 leaving Tasmania as the only claimant State during 1968-69 and 1969-70. Following the Premiers' Conference in June 1970 the Government of South Australia decided to again submit a claim; it did this on 6 July 1970. On 30 September 1971 Queensland also made application for a special grant. In 1974, following the Commonwealth's agreement to provide additional financial assistance, Tasmania withdrew from the special grants system. In June 1975, as part of the agreement to transfer its non-metropolitan railway network to the Commonwealth, South Australia again withdrew from the special grants system. On 30 June 1978 Tasmania applied for a special grant in respect of 1977-78 but subsequently withdrew its application.

PERSONAL INCOME TAX SHARING ENTITLEMENT

Financial assistance grants, formerly called tax reimbursement grants, made up the bulk of the assistance provided for general revenue purposes before 1976-77 and were determined annually on the basis of an agreed formula. From 1976-77 the financial assistance grants were replaced by personal income tax sharing arrangements.

The income tax sharing arrangements with the States have been introduced in two stages. Under Stage 1, which commenced in 1976-77, the States receive a specified proportion of the net income tax collections made under the *States (Personal Income Tax Sharing) Act 1976*. Under Stage 2, in addition to the personal income tax imposed by the Commonwealth, each State has the right to impose a surcharge or grant a rebate on personal income tax in its State. The Commonwealth remains the sole collecting and administrative authority for all personal income tax. Relevant legislation is the *Income Tax (Arrangements with the States) Act 1978*.

Under the *States (Personal Income Tax Sharing) Act 1976*, the States were entitled to receive in respect of 1976-77, 33·6 per cent of net personal income tax collections in the year, in respect of 1977-78 a fixed amount of \$4 336·1 million and in respect of each subsequent year 39·87 per cent of collections in the preceding year. This is subject to the guarantee that the State's Stage 1 entitlements in any year are not less, in absolute terms, than in the previous year and that, in the years 1976-77 to 1979-80, their entitlements will not be less in a year than the amount which would have been yielded in that year by the financial assistance grant formula as laid down in the *States Grants Act 1973*. For 1980-81 the States are guaranteed that their entitlements will not be less in real terms than in 1979-80.

A periodic review of relativities between all States is planned with the first review to be made before 30 June 1981: the same timing applies to the periodic review of the tax sharing arrangements as a whole.

SPECIAL REVENUE ASSISTANCE

From time to time the Commonwealth has provided general revenue assistance to the States in addition to that payable under the personal income tax sharing entitlements or by way of special grants recommended by the Grants Commission.

A Premiers' Conference was held in February 1975 to discuss special revenue assistance for 1974-75. The Commonwealth agreed to provide the States with an additional \$60 million of which South Australia received \$6·6 million. As part of arrangements for the transfer of the non-metropolitan railway system of South Australia and the railway system of Tasmania to the Commonwealth, payments classified as special revenue assistance were made to the two States during 1974-75. South Australia received \$10 million and Tasmania \$5 million. No such grants have been made since 1974-75.

CAPITAL GRANTS

At the June 1970 Premiers' Conference the Commonwealth undertook to provide a portion of the State's Loan Council programs in the form of capital grants. As a result of the *States Grants (Capital Assistance) Act 1970*, the Commonwealth distributed \$200 million to the States in 1970-71 in the same proportions as their borrowing programs.

The 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.

These grants continued in the following years but from 1975-76 the capital grants have constituted one-third of each State's total Loan Council Program. During 1979-80, the Commonwealth paid grants totalling \$415 million to the States, including \$54·1 million to South Australia.

OTHER FINANCIAL ASSISTANCE

In addition to grants under the Financial Agreement, special grants recommended by the Grants Commission, personal income tax sharing entitlements, special revenue assistance and capital grants, the Commonwealth makes payments to the States for many specific purposes, some details of which are given in this section.

Figures in the following table are those which have been published in the latest issue of the budget paper 'Payments to or for the States, the Northern Territory and Local Government Authorities' and show the general pattern of Commonwealth Government

payments to or for the State of South Australia for 1979-80 and four earlier years. Some amounts shown are repayable to the Commonwealth Government but repayable advances for war service land settlement are not included.

Commonwealth Payments To or For the States, South Australia

Particulars	1969-70	1976-77	1977-78	1978-79	1979-80
			\$'000		
Personal income tax sharing entitlements	125 706	433 200	507 761	559 841	630 392
Special grants	—	—	—	—	—
Special revenue assistance	1 690	—	—	—	—
Loan Council borrowings	82 670	118 637	124 569	124 569	108 165
Capital grants	—	59 318	62 284	62 284	54 083
SPECIFIC PURPOSES PAYMENTS: RECURRENT PURPOSES (\$'000)					
Sinking fund on State Debt	3 053	3 911	4 191	4 483	4 771
Schools	759	35 038	38 566	39 746	44 714
Technical and further education	—	4 502	4 737	5 116	6 661
Universities	4 964	51 000	56 872	57 917	63 161
Colleges of advanced education	1 361	38 221	41 724	42 477	46 612
Pre-schools and child care	—	5 601	6 184	5 588	5 766
School dental scheme	—	3 099	3 686	2 814	3 433
Public hospitals running costs	—	69 394	101 659	104 287	110 207
Employment grants	—	—	—	—	—
Regional employment development scheme	—	—	—	—	—
Aboriginal advancement	—	2 515	3 045	3 404	3 724
Assistance for Local Government ...	—	11 925	14 220	15 433	19 072
Other	3 325	15 821	16 978	18 504	16 961
Total recurrent purposes ...	13 462	241 026	291 861	299 769	325 082
SPECIFIC PURPOSE PAYMENTS: CAPITAL PURPOSES (\$'000)					
Schools	1 830	14 672	17 069	16 178	14 821
Technical and further education	807	2 320	4 837	6 901	8 697
Colleges of advanced education	3 062	4 276	8 457	5 177	4 666
Universities	1 506	6 427	6 634	6 439	3 482
Hospitals	—	13 000	5 120	—	—
Rural adjustment scheme	—	—	6 985	4 738	2 554
Aboriginal advancement	488	3 339	1 807	2 291	2 231
Housing	21 250	56 360	58 460	47 368	23 984
Growth centres	—	980	1 088	1 201	1 311
Land acquisition	—	10 352	11 507	6 712	7 329
Sewerage	—	1 002	—	—	—
Rural reconstruction	—	2 781	400	—	—
Natural disaster relief	—	—	12 132	4 929	—270
Urban water supply	—	9 175	6 000	4 490	2 555
Roads	21 000	38 800	40 400	43 207	46 439
Railway projects	12 212	700	—	—	—
Urban public transport	—	4 420	3 790	4 110	4 000
Other	3 851	12 681	8 636	5 037	16 424
Total capital purposes	66 006	181 285	193 322	158 779	138 223

Schools

The Commonwealth has been providing assistance for schools in the States since 1964-65 when it provided grants for science laboratories and equipment.

The range of assistance has been progressively extended and grants are being made for both government and non-government schools according to the following categories: general recurrent grants, general building grants, and grants for science laboratories and equipment, libraries, schools for the handicapped, disadvantaged schools, migrant children, teacher development, innovatory projects and information programs.

The Schools Commission, established by the *Schools Commission Act 1973*, administers these programs of assistance.

From 1977 the fixed triennial system of the past was converted to a three-year rolling program. Under these arrangements a total of \$741.1 million (at estimated June 1980 prices) is expected to be provided in 1981 as the base program of assistance to the States for schools.

Universities

Grants to the States for recurrent expenditure of universities commenced in 1951-52; similar grants for capital works and equipment for universities were introduced in 1958. From 1 January 1974 the Commonwealth assumed full financial responsibility for universities.

The *Tertiary Education Commission Act 1977* established the Tertiary Education Commission as a replacement for the Universities Commission, the Commission on Advanced Education and the Technical and Further Education Commission. From 1977 the fixed triennial system of the past was converted to a three-year rolling program. On this basis the financial assistance to the States for universities in 1981 is \$722.2 million (at estimated June 1980 prices).

Colleges of Advanced Education

Grants to the States for colleges of advanced education commenced in March 1965. These grants were initially for capital purposes but at the start of the 1967-69 triennium were extended to cover recurrent grants. Total grants for the three calendar years 1973 to 1975 were set at \$798.7 million. This estimate took into consideration the decisions of the Commonwealth to accept full financial responsibility for tertiary education and the abolition of tuition fees from 1 January 1974.

With the replacement of the fixed triennial system by the three-year rolling program, assistance in 1981 is \$507.0 million (at estimated June 1980 prices).

Public Hospitals Running Costs

The *Health Insurance Act 1973* authorised the Commonwealth to enter into agreements with the States 'for the provision of hospital services' by the States. Payments to the States under this Act were suspended in May 1976 following legal advice that the agreements negotiated with the States were invalid. As an interim measure, until new cost-sharing arrangements were negotiated with the States, the *States Grants (Hospitals Operating Costs) Act 1976* was passed; this Act authorised payments of up to \$315 million to the States to meet 50 per cent of net operating costs of hospitals incurred before 1 October 1976.

New cost-sharing arrangements under the *Health Insurance Act 1973* became effective on 1 October 1976. The main change from the previous arrangements is that the Commonwealth now meets 50 per cent of budgets as approved by the Commonwealth and State Health Ministers. Total payments to the States in 1979-80 were \$1 119.2 million, of which South Australia received \$110.2 million.

School Dental Scheme

In 1973, agreement was reached between the Commonwealth and the States in respect of a program to provide an Australia-wide School Dental Service. The capital and operating costs of training facilities for dental therapists and capital costs of school dental clinics were borne in full by the Commonwealth, while operation costs of the clinics were shared between the Commonwealth and the States on a \$3 for \$1 basis. From 1 July 1978, under the terms of a revised agreement, the Commonwealth pays 50 per cent of the capital costs of all new facilities, 50 per cent of the operating costs of the training centres and 50 per cent of the operating costs of the school clinics.

During 1979-80 South Australia was granted \$3.6 million of a total payment to all States of \$22.8 million.

Housing

Under successive arrangements between the Commonwealth and the States financial assistance has been made available to the States in one form or another since 1945-46 for the provision of housing, including assistance with home ownership, for families of low or moderate means.

Under the *Housing Assistance Act 1978* three-year Housing Agreements were executed with the States to cover the period from 1978-79 to 1980-81. Advances are repayable over 53 years, as under earlier Agreements and concessional rates of interest apply—4.5 per cent per annum for funds directed to home purchase assistance and 5 per cent per annum for rental housing.

Total payments made during 1979-80 were \$265.5 million with South Australia receiving \$12.8 million in the form of grants (including pensioner housing grants of \$2.9 million and \$1.5 million for Aboriginal rental housing), and \$24.0 million in the form of advances.

Land Acquisition

The *Land Commissions (Financial Assistance) Act 1973* authorised the provision of financial assistance to the States in respect of expenditure by approved State authorities on programs of land acquisition. South Australia was the first State to accept the principles of the Land Commission program and the South Australian Lands Commission began operating in 1973-74.

With the discharge of remaining commitments in 1977-78, this program came to an end. However, interest is being capitalised on advances in a similar manner as for growth centres.

Rural Adjustment

The *States Grants (Rural Adjustment) Act 1976* provides for the Commonwealth to make available assistance for the purposes of a Rural Adjustment Scheme that embraces debt reconstruction, farm build-up, farm improvement, carry-on finance, rehabilitation and household support. The scheme replaced the Rural Reconstruction Scheme, the Dairy Adjustment Program and the program of Carry-on Assistance to the Beef Industry, all of which were terminated on 31 December 1976. Wine-grape producers became eligible in 1978-79 for carry-on finance assistance.

Assistance given by the Commonwealth during 1979-80 was \$15.1 million with South Australia receiving \$2.6 million including \$2.0 million in the form of loans.

Natural Disaster Relief

Before 1971 State Governments were generally expected to contribute on a \$1 for a \$1 basis in meeting relief expenditure. This was changed in 1971 so that, for major disasters,

the Commonwealth met all expenditures by a State in excess of a certain base amount set for that State. From 1978-79, above-base expenditures will be financed on a \$3 Commonwealth: \$1 State basis. The expenditures predominately are in the form of repayable advances.

During 1979-80 total assistance to the States was \$15·8 million. During 1979-80 South Australia had no Natural Disaster Relief but repaid \$0·3 million of grants received in previous years and \$1·5 million repayment of advances.

Urban Water Supply

Payments amounting to \$35·4 million have been provided to South Australia since 1974-75 under the *Urban and Regional Development (Financial Assistance) Act 1974* to assist construction associated with the Adelaide water treatment scheme; of this amount, \$2·6 million was paid in 1979-80.

Roads

Grants for road works have been made since 1923, and from 1931 to 1958 were based on a percentage of Commonwealth petrol taxation. A new scheme of assistance to the States for roads was established by the *Commonwealth Aid Roads Act 1959* in which the Commonwealth undertook to provide assistance for five-year periods.

Over the period 1977-78 to 1979-80 the arrangements for providing assistance to the States for roads are embodied primarily in the *States Grants (Roads) Act 1977*. The arrangements initially were determined by the Commonwealth Government after consideration of a 'Report on Roads in Australia 1975' by the former Commonwealth Bureau of Roads.

Road grants in 1979-80 totalled \$546 million with South Australia receiving \$46·4 million.

Urban Public Transport

Since 1973-74 the Commonwealth has provided assistance to the States to meet certain costs of approved urban public transport projects. The current program of assistance is provided under the *States Grants (Urban Public Transport) Act 1978*.

During 1979-80 assistance of \$42·1 million was made available to the States with South Australia receiving \$4·0 million.

Assistance for Local Government

In 1973, new legislation passed by the Commonwealth Parliament laid down procedures for regional organisations of local government to apply for financial assistance from the Commonwealth. As a result of evidence placed before the Commonwealth Grants Commission, total grants of \$56·3 million in 1974-75 were recommended to be paid to local government authorities throughout Australia. South Australian authorities received \$4·8 million.

As part of the new personal income tax sharing arrangements between the Commonwealth and the States introduced at the beginning of 1976-77, a new agreement was reached for general assistance to local government authorities; this provided that local government authorities throughout Australia would receive 1·52 per cent of net personal income tax in each year. Amendments to the *Local Government (Personal Income Tax Sharing) Act 1976* have increased the entitlement to 1·75 per cent for 1979-80 and 2 per cent for 1980-81. From 1976-77 the Commonwealth Grants Commission has recommended the grant to be paid to each State for assistance to local government authorities

in that State. State Grants Commissions subsequently apportion this among separate authorities with consideration to a *per capita* element and a needs element.

Assistance of \$221.7 million was made available in 1979-80 with South Australia receiving \$19.1 million.

11.3 STATE GOVERNMENT FINANCE

State Government accounting in South Australia is on a 'cash' basis, revenue not being brought to account until received and expenditure until the actual disbursement is made. Receipts and payments fall into five main divisions, namely the Consolidated Revenue Account and Loan Account (which together constitute the budget sector), Special Commonwealth 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, personal income tax sharing arrangements (originally entitled financial assistance grants) and some other Commonwealth 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 education, health, social security and welfare and other services, operation of business undertakings and development of State resources. The resultant balance represents the State's surplus or deficit on revenue for the year.

Consolidated Revenue Account, South Australia

Particulars	1939-40	1949-50	1959-60	1969-70	1979-80
			\$'000		
Receipts	25 511	58 721	160 555	338 498	1 384 589
Payments	25 837	59 100	161 177	335 578	(a) 1 384 589
Surplus (+) or deficit (—):					
Current year	—325	—379	—622	+2 920	..
Cumulative	+1 999	+3 215	—3 376	—4 579	..

Per Head of Population

			Dollars		
Receipts	42.72	85.50	171.99	293.06	1 068.21
Payments	43.28	86.05	172.65	290.53	1 068.21

(a) Includes \$15 542 583 transferred to Loan Account to supplement capital programs.

Receipts

The receipts for the financial years 1976-77 to 1979-80 are shown in the following table.

Consolidated Revenue Account: Receipts, South Australia

Source	1976-77	1977-78	1978-79	1979-80
			\$'000	
Net taxation (a)	314 280	323 502	342 307	369 183
Business undertakings (b)	88 983	103 067	119 278	135 629

Consolidated Revenue Account: Receipts, South Australia (continued)

Source	1976-77	1977-78	1978-79	1979-80
Territorial: Land sales, rents, etc.	4 236	5 238	5 787	7 118
Other:				
Interest and exchange	57 096	60 735	65 243	67 014
Fees, fines, rents, etc.	244 159	(c)161 529	170 841	173 845
Commonwealth grants	465 271	513 125	561 249	631 800
Total	1 174 025	1 167 196	1 264 705	1 384 589

Per Head of Population

	Dollars			
Net taxation(a)	247·70	252·09	265·23	284·83
Business undertakings	70·13	80·31	92·42	104·64
Territorial: Land sales, rents, etc.	3·34	4·08	4·48	5·49
Other:				
Interest and exchange	45·00	47·33	50·55	51·70
Fees, fines, rents, etc.	192·43	125·86	132·37	134·12
Commonwealth grants	366·70	399·85	434·88	487·43
Total	925·30	909·53	979·93	1 068·21

Proportion of Total Receipts

	Per cent			
Net taxation(a)	26·77	27·72	27·07	26·66
Business undertakings	7·58	8·83	9·43	9·80
Territorial: Land sales, rents, etc.	0·36	0·45	0·46	0·51
Other:				
Interest and exchange	4·86	5·20	5·16	4·84
Fees, fines, rents, etc.	20·80	13·84	13·51	12·56
Commonwealth grants	39·63	43·96	44·38	45·63
Total	100·00	100·00	100·00	100·00

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) For details see table on page 533.

(c) From 1977-78 excludes the activities of the South Australian Health Commission.

Receipts and Outlay

The following two tables present a summary of transactions from Consolidated Revenue Account. The purpose classification shown is based on the purposes of government recommended in the United Nations System of National Accounts. It is intended to bring together outlays with similar objectives to reveal more fully the broad purposes of public sector spending. The distinction between receipts and outlay corresponds to that embodied in the economic type classification which is designed to categorise transactions in a way which facilitates a study of the impact of government transactions on the economy. 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 *State and Local Government Finance, Australia, 1978-79* (Catalogue No. 5504.0) published by the Australian Statistician.

Consolidated Revenue Account: Receipts and Outlay, South Australia, 1978-79

Purpose	Outlay (a) (b)				Total Receipts (a)
	Purchases of Goods and Services	Current Grants to Private Non-profit Organisations	Less Charges for Goods and Services Supplied	Total (Including Other)	
	\$'000				
General public services:					
General administration n.e.c.	58 846	46	13 145	46 881	8 677
Law, order and public safety	93 035	480	9 421	89 386	10 352
Other general public services	—	38	—	38	—
Education	369 473	11 785	2 678	395 374	37 492
Health (c)	17 724	9 305	8 444	177 634	19 475
Social security and welfare	16 534	2 896	1 011	48 689	5 485
Housing and community amenities:					
Housing	648	—	101	3 110	116
Community and regional development	4 093	27	37	4 264	34
Protection of the environment	20 361	187	33 833	—12 578	—
Community amenities n.e.c.	219	—	16	203	—
Recreation and related cultural services	13 809	2 666	1 433	27 644	107
Economic services:					
General administration, regulation and research	16 163	69	3 973	12 425	1 347
Agriculture, forestry and fishing	27 839	67	3 828	26 660	7 229
Mining, manufacturing and construction	7 445	74	675	10 030	4 731
Electricity, gas and water	37 353	—	63 232	—24 006	—
Transport and communication:					
Rail	1 302	—	—	1 304	—
Road	709	—	—	40 882	—
Sea	12 894	—	17 933	—4 685	—
Urban transit systems	—	—	—	44 200	—
Other transport and communication	197	9	—	206	—
Other economic services	4 950	476	634	7 262	11 434
Other purposes	—	—	—	(d)202 935	(e)997 832
Total	703 594	28 125	160 394	1 097 858	1 104 311

(a) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay.

(b) Incorporates receipts and operating expenses of public trading enterprises (business undertakings).

(c) Net cost to the State only. Excludes grants from Commonwealth Government.

(d) Includes interest of \$148 505 000.

(e) Includes general purpose inter-authority transfers from the Commonwealth of \$561 249 000. Also includes taxation.

Space limits the information which can be given for separate receipts and outlay items. Other significant outlay items and their values for 1978-79 are: interest (\$148 505 000), repayments of Commonwealth advances (\$22 684 000), intra-sector transfers (\$186 601 000) and inter-fund transfers (\$67 893 000). Major receipt items and their values for 1978-79 are: general purpose inter-authority transfers (\$561 249 000), interest (\$60 177 000), taxation (\$342 307 000) and inter-fund transfers (\$81 116 000). Details for 1975-76 include the effects of the introduction of Medibank and the non-payment of a State Treasury grant to cover the deficit of railway operations.

Consolidated Revenue Account: Outlay, South Australia^(a)

Purpose	1975-76	1976-77	1977-78	1978-79
	\$'000			
General public services:				
General administration n.e.c.	34 573	39 806	45 631	46 881
Law, order and public safety	55 519	68 904	81 331	89 386
Other general public services	19	23	19	38
Education	272 453	329 549	365 575	395 374
Health (b)	173 571	234 220	165 970	177 634
Social security and welfare	40 406	35 340	57 613	48 689

Consolidated Revenue Account: Outlay, South Australia^(a) (continued)

Purpose	1975-76	1976-77	1977-78	1978-79
	\$'000			
Housing and community amenities:				
Housing	12 751	12 192	3 422	3 110
Community and regional development	1 837	2 511	3 086	4 264
Protection of the environment	-10 432	-10 621	-9 190	-12 578
Community amenities n.e.c.	185	183	197	203
Recreation and related cultural services	14 968	17 044	23 920	27 644
Economic services:				
General administration, regulation and research	7 056	9 688	11 239	12 425
Agriculture, forestry and fishing	14 419	21 406	23 969	26 660
Mining, manufacturing and construction	6 555	7 818	10 902	10 030
Electricity, gas and water	-11 118	-11 572	-13 258	-24 006
Transport and communication;				
Rail	9 750	48 379	18 957	(c)
Road	28 893	38 836	38 799	40 882
Sea	-2 629	-2 536	-1 443	-4 685
Urban transit systems	29 371	12 040	18 413	45 504
Other transport and communication	274	338	461	206
Other economic services	15 010	23 219	8 665	7 262
Other purposes	134 034	158 597	194 460	202 935
Total	827 465	1 035 364	1 048 738	1 097 858

(a) Charges for goods and services supplied have been excluded from receipts and deducted in calculating outlay. Incorporates receipts and operating expenses of public trading enterprises (business undertakings).

(b) From 1977-78, principally the net cost to the State of the South Australian Health Commission.

(c) Not available from 1978-79, included with Urban Transit Systems.

Taxation

Until the introduction of the uniform income tax scheme in 1942-43, income tax was the major source of taxation receipts in South Australia. Receipts from this form of taxation for the years 1939-40 to 1941-42 were \$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 receipts from taxation. The major forms of taxation then left to the State were payroll tax, motor tax, succession and stamp duties, and land tax, but legislative changes in 1980 have subsequently reduced the levels of succession duties, land tax, and gift duties. 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 Commonwealth Government has sole taxing authority, e.g. customs and excise duties and sales tax. Before 1942 the Commonwealth levied income tax in addition to that imposed by the States but since the commencement of uniform taxation the Commonwealth has been the sole levier of income tax. Commencing in 1977-78, under the new personal income tax-sharing arrangements, each State will have the right to impose a surcharge or grant a rebate on personal income tax in its State. Any State surcharges or rebates will be collected or paid by the Commonwealth on behalf of the States. Total taxation collected by the Commonwealth in South Australia far exceeds State 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 540.

Consolidated Revenue Account: Receipts from Taxation, South Australia^(a)

Tax	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Land tax	19 547	18 348	19 614	22 001	21 249
Succession duty	19 077	18 905	17 166	16 096	17 678
Gift duty	1 445	1 649	1 520	1 322	842
Racing tax	2 735	3 051	3 225	3 134	3 044
Motor tax	32 206	45 835	46 590	49 589	43 187
Stamp duties (b)	64 459	78 391	76 224	83 047	86 735
Payroll tax	100 506	114 989	120 730	123 084	134 088
ETSA levy	5 810	6 956	8 001	9 144	10 323
Business franchises	11 636	8 777	9 097	12 035	26 304
Licences:					
Liquor	7 424	8 630	10 941	11 197	12 434
Other	2 534	2 894	2 884	3 011	3 822
Court fees and fines	4 940	5 481	7 148	8 226	9 051
Other	440	375	362	421	426
Total	272 760	314 280	323 502	342 307	369 183

Proportion of Total Taxation

	Per cent				
Land tax	7.17	5.84	6.06	6.43	5.76
Succession duty	6.99	6.02	5.31	4.70	4.79
Gift duty	0.53	0.52	0.47	0.39	0.23
Racing tax	1.00	0.97	1.00	0.92	0.82
Motor tax	11.81	14.59	14.40	14.49	11.70
Stamp duties (b)	23.63	24.94	23.56	24.26	23.49
Payroll tax	36.85	36.59	37.33	35.96	36.32
ETSA levy	2.13	2.21	2.47	2.67	2.80
Business franchises	4.27	2.79	2.81	3.52	7.12
Licences:					
Liquor	2.72	2.75	3.38	3.27	3.37
Other	0.93	0.92	0.89	0.88	1.04
Court fees and fines	1.81	1.74	2.21	2.40	2.45
Other	0.16	0.12	0.11	0.12	0.11
Total	100.00	100.00	100.00	100.00	100.00

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Excludes stamp duty on third party insurance.

Business Undertakings, Receipts

Business undertakings (also entitled public trading enterprises) supply such services as sewerage, water supply, harbour facilities, etc. The State Supply Division operated, until 9 March 1977, the Port Lincoln abattoirs treating lambs, pigs and cattle for export or local consumption. On 9 March 1977 the Port Lincoln abattoirs were transferred to the South Australian Meat Corporation (SAMCOR). Receipts from business undertakings for the financial year 1979-80 were \$135 676 000. Total receipts from business undertak-

ings during each of the last four years and their contribution to total Consolidated Revenue are shown on pages 528-9. A dissection of receipts from business undertakings is given in the following table.

Receipts from Business Undertakings, South Australia^(a)

Undertaking	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Railways (b)	48 567	—	—	—	—
Marine and harbours	10 705	12 751	13 955	17 448	23 058
Waterworks	39 250	44 156	53 063	61 323	64 871
Sewers	22 408	25 884	27 701	33 346	37 557
State Supply	1 530	1 480	—	—	—
Woods and forests (c)	2 616	2 500	4 000	2 800	6 000
Savings Bank of SA (c)	360	1 159	2 732	2 672	2 613
State Bank of SA (c)	1 462	1 096	1 661	1 745	1 577
Total	126 897	89 026	103 112	119 334	135 676

(a) Receipts into Consolidated Revenue but excluding recoveries of interest and sinking fund.

(b) From 1976-77 the net result of the STA is incorporated in Consolidated Revenue expenditure by way of a contribution towards deficit.

(c) Contribution to Consolidated Revenue from surplus earned.

Business Undertakings, Payments

Details of the payments of business undertakings for the years 1975-76 to 1979-80 are given in the next table. Payments in respect of interest and sinking fund have not been taken into account in deriving these figures.

Business Undertakings: Payments, South Australia^(a)

Undertaking	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Railways (b)	88 376	—	—	—	—
Marine and harbours	8 214	10 278	12 190	12 894	14 719
Waterworks	24 920	32 464	39 803	37 338	40 561
Sewers	10 675	12 869	15 726	17 107	18 234
State Supply	2 101	2 029	—	—	—
Total	134 286	57 640	67 719	67 339	73 514

(a) Excludes interest and sinking fund.

(b) From 1976-77 the net result of the STA is incorporated in Consolidated Revenue expenditure by way of a contribution towards deficit.

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. Section 35 of the Public Finance Act also authorises the State Treasurer to credit specific purpose Commonwealth grants to a suitable trust fund. At 30 June 1980 trust fund accounts showed a credit balance of \$110 823 000, representing approximately 4.3 per cent of the indebtedness of the South Australian Government.

LOAN ACCOUNT

This account records the capitalised payments for construction or acquisition of assets such as schools, reservoirs, hospitals, forests, plant and stores; advances to public authorities; and for primary production and housing. During recent years some capital grants (e.g. for housing) have also been made from loan funds.

State borrowing programs are subject to consideration and agreement at meetings of the Australian Loan Council. Funds are raised by the sale of Commonwealth 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 Commonwealth Governments to the National Debt Commission. Gross payments for these accounts for the years 1975-76 to 1979-80 are shown in the next table.

Loan Account: Gross Payments, South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
	\$'000				
Advances to public authorities:					
Electricity Trust	5 000	6 000	—	3 500	—
Monarto Development					
Commission	1 200	—	—	100	—
Pipelines Authority	—	—	—	—	—
SA Development					
Corporation	—	500	600	2 000	1 000
SA Land Commission	—	1 900	—	—	—
SA Teacher Housing					
Authority	—	1 218	900	925	1 000
State Bank of SA	13 500	2 800	5 000	255	2 000
State Transport Authority	16 292	11 508	8 540	7 000	17 000
Other	790	784	709	551	4 529
Advances to primary pro-					
ducers	2 911	2 489	2 186	3 424	3 450
Afforestation	5 797	6 643	7 990	6 620	4 385
Recreation and Sport	946	1 050	1 199	1 337	1 490
Community health	2 011	919	1 099	709	332
Government buildings:					
Hospitals	31 875	29 720	24 479	15 199	10 238
Schools	48 050	40 481	43 800	39 667	33 572
Other	30 076	37 677	42 435	44 382	31 473
Marine and harbours	8 617	8 705	8 126	5 954	5 469
Housing	13 016	9 015	4 005	10 500	31 500
Land improvement	6 170	5 409	5 319	989	1 281
Non-government hospitals ...	11 998	12 337	9 444	9 800	6 018
National reserves	2 128	1 250	1 280	1 420	1 193
River Murray					
improvements	2 923	6 751	7 814	2 673	2 884
School buses	1 144	1 579	1 771	1 903	1 473
Waterworks and sewers	62 175	64 336	67 559	64 920	56 948
Other	4 973	8 054	8 931	13 993	8 830
Total	271 592	261 125	253 186	237 821	226 065

The following table shows payments from loan fund accounts for the year ended 30 June 1980 together with credits and net balances.

Loan Account
Gross Payments, Credits, and Net Balances, South Australia, 1979-80

Particulars	Payments	Credits			Net Aggregate Balance at 30 June 1980
		Repay- ments	Other (a)	Total	
					\$'000
Advances to public authorities:					
Electricity Trust (b)	—	—	2 512	2 512	167 561
Monarto Development					
Commission	—	—	286	286	2 488
Pipelines Authority	—	—	—	—	10 500
SA Development					
Corporation	1 000	1 000	—	1 000	2 600
SA Land Commission ..	—	—	—	—	3 484
SA Teacher Housing					
Authority	1 000	—	—	—	4 043
State Bank of SA	2 000	—	181	181	36 090
State Transport					
Authority	17 000	—	642	642	77 006
Other	4 529	43	41	84	11 967
Advances to primary					
producers	3 450	2 396	—	2 396	15 756
Afforestation	4 385	3 232	—	3 232	28 404
Recreation and Sport	1 490	—	1 490	1 490	—
Community health	332	33	—	33	2 196
Government buildings:					
Hospitals	10 238	387	11 165	11 552	61 261
Schools	33 572	13 937	28 702	42 639	112 291
Other	31 473	10 439	3 323	13 762	236 931
Marine and harbours	5 469	896	1 514	2 410	99 592
Housing	31 500	191	10 821	11 012	153 382
Land improvement	1 281	45	1 274	1 319	26 574
Non-government hospitals	6 018	—	6 018	6 018	—
National reserves	1 193	15	1 178	1 193	—
River Murray					
improvements	2 884	—	8 015	8 015	1 186
School buses	1 473	—	145	145	7 035
Waterworks and sewers ...	56 948	15 094	8 690	23 784	689 313
Other	8 830	1 092	11 310	12 402	30 463
Total	226 065	48 800	97 307	146 107	1 780 123

(a) Includes securities redeemed and cancelled by the National Debt Commission on account of South Australia (\$27 682 000) and capital works grants from the Commonwealth (\$54 083 000).

(b) Includes Leigh Creek Coal Fund.

SPECIAL COMMONWEALTH ADVANCES

Pursuant to agreements with the States, the Commonwealth has made sums available to the State for various purposes. These advances are not subject to sinking fund conditions but are repayable by annual instalments in terms of the respective agreements. Details of Commonwealth advances, repayments and interest on these advances for the years 1975-76 to 1979-80 are shown in the following table.

As a result of the transfer of the South Australian non-metropolitan railway system, \$124 000 000 of State debt was taken over by the Commonwealth.

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 Commonwealth and State Governments. It consists of the Prime Minister of Australia, or another Minister nominated by him, as chairman, and the State Premiers, or Ministers nominated by them.

Each year, the Loan Council examines the loan programs of the Commonwealth and State Governments and determines the total amount to be borrowed during the year. Borrowings by the Commonwealth for defence purposes are not subject to decisions of the Loan Council.

Subject to the decisions of the Loan Council the Commonwealth 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 Commonwealth 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 Commonwealth 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 Commonwealth 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 Commonwealth 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 Commonwealth 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 Commonwealth Government securities on terms approved by the Loan Council.

Since 1936 the Australian Loan Council has, by the consent of its members, exercised substantial control over the limits of borrowing by local government and public corporations. The Loan Council determines maximum interest rates and other terms and conditions of loans raised by authorities and also approves annual overall programs for 'larger' authorities (for 1979-80 those borrowing more than \$1.2 million in the year).

Loan Council approval may be given to overseas borrowing under the normal semi-government borrowing program where it can be demonstrated that the program cannot be raised in Australia on satisfactory terms because of domestic market conditions.

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 Commonwealth 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 Commonwealth and 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 Commonwealth 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 1978-79 and 1979-80 are given in the following table. Corresponding figures for all States are also stated.

National Debt Sinking Fund

Particulars	1978-79		1979-80	
	South Australia	All States	South Australia	All States
\$'000				
Receipts:				
Contributions by Commonwealth	4 483	35 959	4 771	38 148
Contributions by State	18 168	146 180	19 404	155 565
Interest on the temporary investments of State funds during the year	451	3 130	242	1 497
Total receipts	23 102	185 269	24 417	195 210
Expenditure:				
Redemptions and repurchases:				
In Australia	24 500	181 773	28 364	212 408
In London	1 866	26 877	—	117
In New York	885	8 108	632	6 043
In Canada	96	711	33	246
In Netherlands	118	922	130	1 017
Total expenditure	27 465	218 391	29 159	219 831

The Public Debt

The following table gives details of the public debt and total indebtedness of South Australia at 30 June 1980 and for the four previous years.

Public Debt and Total Indebtedness, South Australia

At 30 June	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
1976	1 394 702	1 105·50	523 152	38 307	1 956 161	1 550·54
1977	1 495 737	1 171·47	601 152	24 350	2 121 240	1 661·37
1978	1 605 834	1 247·15	675 065	21 941	2 302 840	1 788·47
1979	1 702 221	1 318·84	745 758	49 671	2 497 651	1 930·48
1980	1 781 600	1 371·46	777 486	89 092	2 648 177	2 038·54

(a) Gross less securities held on these accounts.

The Loan Fund

A summary of loan raisings to finance State Government loan works in South Australia during 1979-80 is given in the following statement.

The Loan Fund, South Australia, 1979-80

	\$'000
(1) <i>Cash operations:</i>	
Balance at 30 June 1979	622
Receipts:	
New loan raising	108 494
Repayments	48 800
Capital works grant	54 083
Transfer from revenue account	15 543
	<hr/>
	226 920
Payments:	
Works and services	226 065
Transfer to Consolidated Revenue	—
	<hr/>
	226 065
Balance at 30 June 1980	<hr/> 1 477 <hr/>
(2) <i>Movement in public debt:</i>	
The public debt at 30 June 1979	1 702 221
Add: Face value of new loans raised;	
For cash	108 495
For conversion	80 567
	<hr/>
	1 891 283
Less: Face value of securities redeemed and cancelled by;	
National Debt Commission	29 116
Loans converted	80 567
	<hr/>
	109 683
The public debt at 30 June 1980	<hr/> 1 781 600 <hr/>

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 receipts and payments 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 \$82 482 000 at 30 June 1980.

STATE TAXATION

In addition to those items received into Consolidated Revenue Account the State Government receives certain items of taxation into other accounts. These, together with similar receipts by public corporations, constitute 'total taxation to other accounts' as recorded in the following table.

State Taxation, South Australia^(a)

Tax	1975-76	1976-77	1977-78	1978-79	1979-80
To Consolidated Revenue	272 760	314 280	\$'000 323 502	342 307	369 183
To other accounts:					
Road maintenance charges	4 243	4 716	4 825	4 812	1 077
Lottery tax	4 978	5 661	7 861	14 384	16 021
Racing taxes	7 122	8 160	8 315	8 035	8 882
Stamp duty	2 072	2 101	2 162	2 289	2 339
Fire insurance contributions(b)	6 212	9 043	8 270	9 644	11 079
Reserves contributions(c)	1 165	1 169	967	607	461
Other	1 175	1 566	1 451	3 264	4 833
Total to other accounts	26 968	32 416	33 851	43 035	44 692
Total taxation	299 728	346 696	357 353	385 342	413 875
Per head of population	238.54	273.25	Dollars 278.46	298.58	319.30

(a) Some items and amounts differ slightly from State Treasury classifications.

(b) Levy on insurance companies.

(c) Paid to State Planning Authority under Planning and Development Act and Real Property Act.

Further References

Additional information may be found in the following publications:

South Australian Office

5501.4 *Public Finance*

Central Office

5504.0 *State and Local Government Finance, Australia*

11.4 PUBLIC CORPORATION FINANCE

For the purpose of determining the scope of public corporation finance statistics, a public corporation is defined as a body (other than a local government authority) 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.

Many public corporations produce annual reports reviewing their activities and most of them publish financial statements. A consolidated tabulation of statistics covering outlay and receipts and financing items of public corporations in South Australia is published in the bulletin *Public Finance*.

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.

Business Undertakings

Some public corporations are classified as business undertakings because they seek to cover a substantial part of their cost by selling goods and services to the public. The following tables show revenue and expenditure of some of those business undertakings. 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^(a)

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Income	130 401	153 950	179 682	204 135	230 361
Operating expenses	108 017	128 635	144 936	169 858	197 261
Surplus on operating	22 384	25 315	34 746	34 277	33 100
Debenture interest	22 136	24 791	28 213	32 398	36 904
Extraordinary items	—	—	2 010	1 000	1 500
Net surplus	248	524	4 523	879	—5 304
Capital indebtedness	353 759	371 932	401 317	442 778	481 913

(a) Includes Leigh Creek Coal Fund.

Savings Bank of South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Income	68 096	78 040	87 396	96 028	108 812
Management expenses, etc.	22 859	25 301	30 447	34 494	41 349
Interest on customers' deposits	42 716	47 074	51 403	56 108	61 795
Net profit	2 520	5 665	5 546	5 426	5 668
Depositors' balances (a)	776 473	842 842	919 756	1 023 805	1 101 884

(a) At end of period. Figures include deposit stock.

Pipelines Authority of South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Income	24 493	34 102	43 407	47 864	54 888
Operating expenditure	19 321	28 911	36 717	40 568	48 080
Surplus on operating	5 172	5 191	6 690	7 296	6 808
Interest on loan capital	4 105	4 706	5 644	6 525	5 994
Net surplus	1 067	486	1 046	771	814
Capital indebtedness	59 190	63 892	64 379	64 591	73 983

South Australian Housing Trust

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Income	36 897	44 836	53 908	60 311	65 922
Expenditure	19 921	26 565	34 620	39 831	42 733
Surplus on operating	16 976	18 271	19 288	20 480	23 189
Interest on loan capital	14 487	15 863	20 056	23 732	25 591
Extraordinary items	—	—	84	188	5 421
Net surplus	2 489	2 408	—852	—3 440	—7 823
Capital indebtedness	407 977	452 299	495 267	528 291	557 705

State Bank of South Australia

Particulars	1975-76	1976-77	1977-78	1978-79	1979-80
			\$'000		
Income	23 166	30 200	35 369	42 826	51 998
Management expenses, etc. Interest on customers' deposits	5 083	5 632	6 390	8 418	10 523
Interest on advances from the Treasurer of SA	4 788	7 955	9 926	13 040	15 606
	11 104	13 291	15 564	18 214	22 021
Net profit	2 191	3 323	3 489	3 154	3 846
Capital indebtedness	238 066	267 588	301 222	360 080	388 874

South Australian Meat Corporation^(a)

Particulars	1975-76	1976-77	1977-78	1978-79 ^(b)	1979-80
			\$'000		
Income	19 495	24 521	35 905	20 300	22 554
Operating expenses	18 301	25 248	39 185	21 736	22 861
Surplus on operating	1 194	—727	—3 280	—1 436	—307
Interest	619	1 716	2 080	2 714	2 748
Net deficit	575	—2 443	—5 360	—4 150	—3 055
Capital indebtedness	16 323	18 608	21 301	23 100	23 199

(a) From 9 March 1977 includes the operations of Port Lincoln Division.

(b) During 1978-79 the Corporation ceased purchasing and billing livestock on its own account.

State Transport Authority^(a)

Particulars	1978-79	1979-80
	\$'000	
Income	24 550	26 943
Operating expenses	66 264	68 668
Deficit on operating	41 714	41 725
Interest charges	4 779	5 724
Deficit	46 493	47 449
Grant from State Government	44 200	49 752
Net Surplus	—2 293	2 303
Capital indebtedness	62 613	80 126

(a) Includes the Bus and Tram, Metropolitan Rail, Head Office and Regulation Branch operations. Comparable figures for 1977-78 are not available as the Authority was not able to differentiate between the metropolitan and non-metropolitan rail operations.

GRANTS FROM STATE GOVERNMENT

The following table shows grants to a number of public corporations during each of the five years ended 30 June 1979.

Public Corporations: Grants From State Government, South Australia

Public Corporation	1974-75	1975-76	1976-77	1977-78	1978-79
	\$'000				
Adelaide Festival Centre Trust	—	579	177	1 546	1 596
Coast Protection Board (a)	280	245	272	368	430
Fire Brigades Board	772	1 024	1 545	1 391	1 640
Institute of Medical and Veterinary Science	5 392	1 010	1 120	2 306	2 581
Kindergarten Union	—	7 221	9 135	9 385	10 052
State Transport Authority:					
Bus and Tram Division	5 900	28 800	12 040	18 413	} 44 200
Rail Division (b)	—	—	48 377	18 542	
SA Film Corporation	530	687	781	1 220	1 406
SA Institute of Technology	579	561	718	766	775
SA Theatre Company	466	498	647	850	927
SA Health Commission (c)	—	—	—	—	129 787
Subsidised hospitals	4 213	10 664	8 643	10 861	36 101
Other (d)	3 293	17 037	9 406	9 548	8 809
Total	21 425	68 326	92 861	75 196	238 304

(a) Includes advances from State Loan Fund that are cleared of liability by allocations from Commonwealth capital works grants.

(b) Before July 1976 all transactions of the Railways were part of Consolidated Revenue Account.

(c) From 1978-79, the South Australian Health Commission is analysed as a public corporation.

(d) Includes non-repayable advances made to the Housing Trust (\$10 000 000 in 1975-76) and the Pipelines Authority (\$5 000 000 in 1976-77).

Grants from Consolidated Revenue Account 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. The table excludes grants to universities, colleges of advanced education and hospitals other than subsidised hospitals, as for the purpose of Public Finance statistics these amounts are considered to be final expenditure.

LOAN RAISINGS AND DEBT OUTSTANDING

Details of public corporation loan raisings and debt outstanding are included in the following tables. 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 1978 and debt outstanding at 30 June 1977 and 1978.

Public Corporations: New Money Loan Raisings and Funds Provided for Redemption of Debt, South Australia, 1977-78

Activity	New Loan Raisings in Australia			Funds for Redemption of Debt (a)		
	From Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000					
Abattoirs	—	2 700	2 700	42	259	302
Banking	40 782	—	40 782	4 917	2 230	7 147
Buses and trams	—	1 000	1 000	1 650	3	1 653
Community and regional development	6 000	2 800	8 800	3 541	165	3 706
Electricity supply	—	35 468	35 468	2 202	3 905	6 106
Gas pipelines	—	3 025	3 025	1 875	662	2 537
Housing	36 128	15 700	51 828	7 439	1 404	8 844
Other	4 705	11 865	16 570	1 344	861	2 204
Total	87 615	72 558	160 173	23 010	9 489	32 499

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds.

Public Corporations: Debt Outstanding, South Australia

Activity	Debt in Australia at					
	30 June 1977			30 June 1978		
	To Government Lenders	Other	Total	To Government Lenders	Other	Total
	\$'000					
Abattoirs	1 815	16 812	18 628	1 773	19 227	21 001
Banking	263 748	3 840	267 588	299 612	1 610	301 222
Buses and trams	21 931	—	21 931	20 281	997	21 278
Community and regional development ...	66 577	17 018	83 594	69 036	19 653	88 689
Electricity supply	172 152	199 937	372 090	169 981	231 466	401 446
Gas pipelines	16 125	47 767	63 892	14 250	50 129	64 379
Housing	353 308	102 187	455 495	380 778	114 504	495 283
Other	4 808	28 464	33 273	9 389	43 075	52 463
Total debt	900 465	416 026	1 316 490	965 100	480 661	1 445 761
	Annual Interest Payable (\$'000)					
Total interest	46 845	33 147	79 992	50 109	40 694	90 803

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 or district council area) and the members of which are elected by persons enrolled as electors for the House of Assembly in respect of an address within the area, or who are ratepayers in respect of ratable property within the area. A body corporate is enrolled under the name of a nominated agent;
- (ii) an authority created or acquired by a local government authority (as defined above) or by two or more local government authorities (in South Australia an authority established under Part XIX or Section 666(c) of the Local Government Act, 1934-1980).

REVENUE AND EXPENDITURE

The expenditure of moneys by local government bodies is authorised by the Local Government Act, 1934-1980. 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 five per cent of the capital value of the land, or 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 outgoing; 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.

Rating of Properties

A council may declare general or differential rates on properties in its area. Special rates may be levied for street watering or other purposes.

Revenue Transactions

The following tables show revenue transactions for local government authorities for 1978-79 prepared on an accrual basis.

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Income
South Australia, 1978-79

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Taxation:			
Rates;			
Declared for year	68 696	25 886	94 582
Fines on overdue rates	464	214	678
<i>Ex gratia</i> payments in lieu of rates	170	95	265
Total rates	69 330	26 196	95 525
Licences and permits;			
Building	1 616	387	2 003
Dog	165	87	252
Other	178	45	224
Total licences and permits	1 960	519	2 479
Total taxation	71 290	26 714	98 004
Public works:			
Reimbursements for roadworks;			
State Government (b)	1 294	486	1 780
Ratepayers (moieties)	814	368	1 182
Other	1 920	601	2 521
Sewerage and effluent drainage	621	1 257	1 878
Stormwater drains	187	553	740
Total public works	4 836	3 265	8 101

**Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Income
South Australia, 1978-79 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
			\$'000
Public services and council properties:			
Care of aged persons	906	328	1 234
Child care centres	29	156	185
Commercial properties n.e.c.	254	574	828
Fire protection	169	364	533
Foreshore	224	310	534
Halls and theatres	1 665	252	1 917
Hospitals and health (including cemeteries)	256	275	531
Houses	1 192	263	1 456
Libraries	963	353	1 316
Parks, gardens, recreation, etc.	3 716	2 604	6 320
Sanitation and garbage	414	236	649
Swimming pools	479	173	652
Tourism	112	283	395
Traffic and parking	4 439	72	4 511
Other	3 302	2 260	5 562
Total council properties	18 120	8 503	26 623
Government grants for roadworks:			
Grants(c)	2 463	4 485	6 948
Reimbursements(d)	800	2 900	3 700
Total Government grants for road- works	3 263	7 385	10 648
Other income:			
Fines (mainly traffic and parking)	1 830	19	1 849
Grants Commission grants	8 394	7 039	15 433
Interest	3 454	797	4 251
Reimbursements for private works	792	1 414	2 206
Sale of council properties	108	95	203
Other	1 506	689	2 195
Total other income	16 083	10 053	26 136
Total income	113 405	55 366	168 771

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Light.

(b) Mainly reinstatements.

(c) Other grants and subsidies are included under respective functional headings above.

(d) For work done on behalf of Highways Department.

Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Expenditure
South Australia, 1978-79

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
General administration	10 931	6 616	17 547
Debt services:			
Interest;			
On loans	6 729	2 033	8 762
On overdraft	62	105	167
Principal redeemed	5 157	2 616	7 773
Total debt services	11 948	4 754	16 702
Public works:			
Roads, streets and bridges;			
Construction	12 566	11 097	23 662
Maintenance	11 948	9 113	21 061
Sewerage and effluent drains;			
Construction	8	940	948
Maintenance	278	275	553
Contributions to stormwater drainage schemes(b)	2 133	207	2 340
Net plant expenditure	-636	826	190
Other	97	8	105
Total public works	26 394	22 466	48 860
Public services and council properties:			
Current;			
Building Act	1 663	422	2 086
Bus services	60	545	605
Care of aged persons	961	99	1 059
Child care centres	—	134	134
Commercial properties <i>n.e.c.</i>	121	494	615
Fire protection	1 596	718	2 314
Halls and theatres	1 861	514	2 375
Hospitals and health (including cemeteries, etc.)	4 311	1 893	6 204
Houses	974	221	1 195
Libraries	2 768	626	3 393
Markets	223	—	223
Parks, gardens, recreation, etc.	12 740	4 745	17 485
Sanitation and garbage	6 139	1 624	7 763
Street cleaning	1 007	78	1 085
Street lighting	2 352	608	2 960
Swimming pools	939	303	1 242
Tourism	185	364	549
Town planning	1 764	264	2 028
Traffic and parking	4 098	129	4 227
Vermin control	14	186	200
Weed control	221	857	1 078
Other	1 757	1 253	3 011

**Local Government Authorities
General Fund, Reserve Fund and Government Grants Fund, Expenditure
South Australia, 1978-79 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Public services and council properties: (continued)			
Capital (c):			
Land and buildings,			
Care of aged persons	332	205	537
Child care centres	5	14	19
Council properties and depots	1 193	322	1 515
Halls and theatres	880	374	1 253
Houses	448	130	578
Parks, gardens, recreation, etc.	2 177	672	2 849
Traffic and parking	42	10	52
Other	1 300	877	2 178
Plant and machinery,			
Roadmaking	2 538	1 856	4 394
Other	722	287	1 009
Other assets	770	192	962
Total public services and council properties	56 161	21 016	77 177
Other expenditure:			
Cost of private works	919	1 108	2 027
Donations to charitable organisations, clubs etc.	216	203	419
Unallocated indirect expenditure	3 015	1 920	4 935
Other	359	461	820
Total other expenditure	4 510	3 692	8 202
Total expenditure	109 944	58 544	168 488

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Light.

(b) Expenditures in respect of South-Western Suburbs Drainage Scheme are included under debt services above.

(c) These values are understated to the extent that some councils report expenditures net of trade-ins.

Government Grants

Local government authorities receive general purpose and specific purpose grants from the Commonwealth and State Governments. Some Commonwealth grants are paid direct to local government authorities while the remainder are paid to the State Government for transfer to the relevant authorities.

The following table shows Commonwealth grants paid direct to local government authorities for the last three years.

Commonwealth Grants Paid Direct to Local Government Authorities

Grant	1977-78	1978-79	1979-80
		\$'000	
Aged or disabled persons homes	310	116	165
Child care and pre-schools	286	720	221
Aboriginal advancement	136	201	<i>n.y.a.</i>
Aerodrome local ownership plan	37	208	116
Community Youth Support Scheme	113	171	216
Nursing homes	318	381	420
Community arts activities	3	8	19
Total	1 203	1 805	<i>n.y.a.</i>

Details of the amounts transferred by the State Government during the last three years are given in the following table. These grants are included with the grants to State and local government authorities shown on page 524.

Commonwealth Grants Transferred by the State Government to Local Government Authorities

Grant	1977-78	1978-79	1979-80
		\$'000	
Senior citizens centres	372	445	585
National Estate	16	34	46
Capital assistance for leisure facilities	86	—	—
Grants Commission	14 220	15 433	19 002
Childrens services	4	34	98
Roads assistance	3 948	5 971	6 353
Community health	23	12	17
Total	18 669	21 929	26 101

The State Government also makes various grants to local government authorities. Details of these grants made over the last three years are shown in the following table.

State Government Grants Paid to Local Government Authorities

Grant	1977-78	1978-79	1979-80
		\$'000	
Civil defence	17	42	52
Libraries	689	1 254	924
Urban stormwater drainage	1 025	827	1 103
Urban effluent drainage	1 724	916	2 000
Public parks and parklands maintenance	650	449	660
Fire protection	272	97	—
Unemployment relief	9 903	3 636	1 696
Tourism	496	500	480
Sporting and recreation facilities	490	1 032	940
Senior citizens centres	22	72	32
Rundle Street Mall	18	9	—
Festival Theatre	89	23	—

State Government Grants Paid to Local Government Authorities (continued)

Grant	1977-78	1978-79	1979-80
		\$'000	
Debt Servicing (Festival Theatre)	148	148	148
Provision for the arts	14	13	66
Bicycle tracks	96	82	100
Vertebrate pest control	65	62	67
Community bus services	—	91	94
Clearing of sand drifts	—	209	—
Total	15 718	9 462	8 362

LOAN FUND INCOME AND EXPENDITURE

The following table shows the major items of loan fund income and expenditure for 1978-79 prepared on an accrual basis.

Local Government Authorities: Loan Fund Income and Expenditure
South Australia, 1978-79

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
		\$'000	
Income:			
Loans raised	14 135	9 281	23 416
Other	835	3	839
Total income	14 970	9 284	24 255
Expenditure:			
Public works;			
Roads, streets and bridges,			
Construction	5 095	1 268	6 363
Maintenance	57	22	79
Stormwater drains	1 565	92	1 657
Sewerage and effluent drains	—	251	251
Total public works	6 717	1 633	8 350
Construction or purchase of assets;			
Land and buildings,			
Halls and theatres	238	235	473
Houses	120	5	125
Offices and depots	1 476	84	1 560
Parks, gardens, recreation, etc.	2 343	812	3 155
Traffic and parking	837	—	837
Other	438	1 063	1 501
Plant and machinery,			
Roadmaking	155	2 774	2 929
Other	8	102	110
Other assets	51	327	378

**Local Government Authorities: Loan Fund Income and Expenditure
South Australia, 1978-79 (continued)**

Particulars	Adelaide Statistical Division (a)	Other Areas	Total
Expenditure: (continued)			
Total construction or purchase of assets	5 666	5 401	11 067
Total expenditure	12 383	7 034	19 417

(a) Adjusted to include the whole of Meadows and Willunga District Council areas and to exclude the whole of Light.

The principal source of income was from new money loan raisings (\$23 416 000), while the major expenditure items were the construction of roads, streets and bridges (\$6 363 000) and parks, gardens and reserves (\$3 155 000).

LOAN RAISINGS AND DEBT OUTSTANDING

Local government authorities loan raisings and debts outstanding are shown in the following tables. The definitions of 'new loans raised' and 'debt', given on page 544 under 'Loan Raisings and Debt Outstanding', also apply to the statistics in this section.

The table below shows new money loan raisings and funds provided for redemption of debt for the years 1968-69 to 1977-78.

**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		
1968-69	470	7 455	7 925	905	2 068	2 973
1969-70	504	9 430	9 934	822	2 481	3 303
1970-71	939	10 338	11 277	671	2 851	3 522
1971-72	328	10 111	10 439	537	3 409	3 946
1972-73	290	9 546	9 836	520	3 809	4 329
1973-74	30	10 815	10 845	367	3 971	4 338
1974-75	40	13 979	14 019	335	4 476	4 811
1975-76	140	16 807	16 947	265	5 191	5 456
1976-77	149	20 843	20 992	206	5 873	6 079
1977-78	123	19 569	19 692	176	6 758	6 934

(a) Includes amounts credited to Sinking Funds and excludes amounts redeemed from Sinking Funds: both these figures are small in South Australia.

The following table for local government authorities shows total debt outstanding and annual interest payable on this debt for the years 1968-69 to 1977-78.

**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		
1968-69	6 956	47 479	54 435	316	2 645	2 961
1969-70	6 637	54 389	61 025	290	3 106	3 396
1970-71	6 914	62 198	69 112	304	3 719	4 023
1971-72	6 798	69 007	75 806	300	4 240	4 539
1972-73	6 581	74 951	81 535	289	4 627	4 915
1973-74	4 639	82 119	86 758	203	5 261	5 465
1974-75	2 652	91 953	94 605	111	6 395	6 506
1975-76	2 520	104 111	106 631	121	7 848	7 969
1976-77	2 466	119 526	121 993	133	9 711	9 845
1977-78	2 462	131 936	134 398	133	11 153	11 286

BUSINESS UNDERTAKINGS

Some local government authorities operate electricity undertakings and quarries. Expenditure by authorities for goods and services supplied by their business undertakings are included both in expenditures from general, etc. funds and in income.

**Local Government Authorities: Business Undertakings, Income and Expenditure
South Australia, 1978-79**

		\$'000
Current account transactions (a):		
Electricity undertakings;		
Current income,		
Electricity sales	2 350	
Other	1 179	
Total current income		3 529
Current expenditure,		
Generation and distribution	1 586	
Purchase of electricity	817	
Debt services,		
Interest	314	
Principal redeemed	316	
Administration and other	880	
Total current expenditure		3 913
Deficit		384
Quarries;		
Current income	88	
Current expenditure	388	
Deficit		300
Deficit (all undertakings)		684

(a) Transactions relating to construction or purchase of capital assets are not taken into account in arriving at surplus or deficit.

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, 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 into 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 financial mechanism for the functioning of the economy. They include life insurance and general insurance offices 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 Commonwealth 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 subsidies 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 the 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, 1978-79

	\$m		\$m
Wages, salaries and supplements	55 505	Final consumption expenditure:	
Gross operating surplus:		Private	61 380
Trading enterprises;		Government	16 744
Companies	10 992	Gross fixed capital expenditure:	
Unincorporated enterprises	13 231	Private	14 475
Dwellings owned by persons	7 155	Public enterprises	4 460
Public enterprises	2 379	General government	3 845
Financial enterprises	2 189	Increase in stocks	990
Less Imputed bank service		Statistical discrepancy	143
charge	2 383		
		Gross National Expenditure	102 037
Gross Domestic Product at		Exports of goods and services ...	16 403
Factor Cost	89 068		
Indirect taxes less subsidies	12 138	National turnover of goods	
		and services	118 440
		Less Imports of goods and	
		services	17 234
Gross Domestic Product	101 206	Expenditure on Gross Domestic	
		Product	101 206

National Income and Outlay Account, 1978-79

	\$m		\$m
Final consumption expenditure:		Wages, salaries and supplements	55 505
Private	61 380	Net operating surplus	26 686
Government	16 744		
Saving	14 489	Domestic factor incomes	82 191
		Less Net income paid overseas	1 329
		Indirect taxes	12 703
		Less Subsidies	565
		National Income	93 000
		Less Net transfers to overseas ...	501
		Withholding taxes	114
Disposal of Income	92 613	National Disposable Income	92 613

Overseas Transactions Account, 1978-79

	\$m		\$m
Exports of goods and services ...	16 403	Imports of goods and services	17 234
Property income from overseas	263	Property income to overseas	1 592
Transfers from overseas:		Transfer to overseas:	
Personal	412	Personal	398
Withholding Taxes	114	General government	515
		Net lending to overseas	-2 547
Current receipts from overseas	17 192	Use of current receipts	17 192

National Capital Account, 1978-79

	\$m		\$m
Gross fixed capital expenditure:		Depreciation allowances	6 877
Private:		Saving:	
Dwellings	4 020	Increase in income tax pro-	
Other building and construc-		visions	355
tion	2 532	Undistributed (company)	
All other	7 923	income	1 610
Public enterprises	4 460	Retained income of public	
General Government	3 845	financial enterprises	58
Increase in stocks:		Household saving	10 683
Farm and miscellaneous	895	General government surplus	
Private non-farm	95	on current transactions	1 783
Statistical discrepancy	143	General government grants for	
Net lending to overseas	-2 547	private capital purposes	—
Gross accumulation	21 366	Finance of gross accumulation	21 366

The next three tables give details for South Australia of farm income, household income, and private final consumption expenditure respectively for the years 1974-75 to 1978-79.

Farm Income, South Australia^(a)

Particulars	1974-75	1975-76	1976-77	1977-78	1978-79
	\$ million				
Gross value of farm production:					
Wool (including skin wool)	122	132	154	145	162
Livestock slaughterings	113	136	203	239	342
Wheat	164	118	74	50	263
Other grain crops	128	113	100	56	127
Other crops	141	142	157	185	217
Other livestock products	49	47	47	57	60
Total	717	688	735	732	1 171
Less Stock valuation adjustments ...	-13	-10	-12	2	
Less Production costs other than wages and depreciation:					
Marketing costs	58	59	64	63	436
Seed and fodder	59	55	59	73	
Other costs	154	181	192	205	

Farm Income, South Australia^(a) (continued)

Particulars	1974-75	1975-76	1976-77	1977-78	1978-79
			\$ million		
Gross farm product at factor cost ...	459	403	432	384	735
Indirect taxes less subsidies	35	40	45	33	41
Gross farm product at market prices	494	443	477	415	776
Less Depreciation	55	60	73	82	} 227
Wages, net rent and interest paid and third party insurance transfers	108	116	110	118	
Indirect taxes less subsidies	35	40	45	31		41
Farm income	296	227	249	184	508

(a) Includes Northern Territory.

Household Income, South Australia^(a)

Particulars	1974-75	1975-76	1976-77	1977-78	1978-79
			\$ million		
Wages, salaries and supplements	3 490	3 994	4 564	4 937	5 260
Income of farm unincorporated enterprises	293	215	239	174	483
Income of other unincorporated enterprises	340	419	476	522	570
Income from dwellings	99	167	222	292	360
Transfers from general government	443	597	724	834	946
All other income	515	573	656	771	870
Total household income	5 180	5 965	6 881	7 530	8 489
Less					
Income tax paid	710	866	1 038	1 117	<i>n.y.a.</i>
Other direct taxes, fees, fines, etc.	50	60	73	74	<i>n.y.a.</i>
Consumer debt interest	} 74	89	100	118	<i>n.y.a.</i>
Transfers overseas					
Household disposable income	4 346	4 950	5 670	6 221	<i>n.y.a.</i>

(a) Includes Northern Territory.

Private Final Consumption Expenditure, South Australia^(a)

Particulars	1974-75	1975-76	1976-77	1977-78	1978-79
			\$ million		
Food	600	714	842	946	994
Cigarettes and tobacco	90	108	123	121	133
Alcoholic drinks	181	232	256	275	305
Clothing, etc.	295	347	399	425	459
Health	220	277	311	345	376
Rent	404	542	668	799	915
Gas, electricity, fuel	63	76	90	104	122
Household durables	351	445	496	464	503
Newspapers, books, etc.	53	65	77	88	96
All other goods <i>n.e.i.</i>	150	184	209	231	278
Travel and communication	520	624	691	735	832
All other services	386	454	527	588	642
Total	3 313	4 068	4 689	5 121	5 655

(a) Includes Northern Territory.

Further References

Additional information may be found in the following publications:

South Australian Office

5501.4 *Public Finance*

Central Office

5204.0 *Australian National Accounts*

PART 12

PRIVATE FINANCE

12.1 BANKING AND CURRENCY

BANKING

The banking system in Australia comprises a central bank (the Reserve Bank of Australia); twelve trading banks (one owned by the Commonwealth Government, three by State Governments, and eight privately owned); the Commonwealth Development Bank and the Australian Resources Development Bank Ltd (specialist banks, owned respectively by the Commonwealth Government and a consortium of the six major trading banks), the Primary Industry Bank of Australia Ltd, and twelve savings banks of which one is owned by the Commonwealth Government and three by State Governments, two are trustee savings banks, and six are associated with privately owned trading banks.

LEGISLATION

Under Section 51 of the Constitution Act the Commonwealth 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, providing for the constitution and management of the Reserve Bank and the management of the Australian note issue;

- (b) the *Commonwealth Banks Act 1959*, providing for the constitution and management of the Commonwealth Banking Corporation; and
- (c) the *Banking Act 1959*, providing for the regulation of banking and the protection of the currency and public credit of Australia.

The *Banking Act 1959* applies to all banks operating in Australia or its Territories, except State banks trading in their own State. 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 provide machinery for the control of foreign exchange.

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, 1925-1978 and the Savings Bank of South Australia Act, 1929-1978.

RESERVE BANK OF AUSTRALIA

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 Commonwealth and some of the States. Liabilities and assets of each department of the Reserve Bank, taken from their Reports and Financial Statements, are shown in the table below.

Reserve Bank of Australia, Liabilities and Assets at 30 June 1980

Particulars	Central Bank Department	Note Issue Department	Rural Credits Department	Total (a)
LIABILITIES (\$'000)				
Capital	40 000	—	9 428	49 428
Reserves	1 668 598	2 279 831	63 915	4 012 344
Special Reserve:				
International Monetary Fund				
Special Drawing Rights	389 572	—	—	389 572
Notes on issue	—	4 549 279	—	4 549 279
Deposits:				
Statutory reserve deposits ...	1 376 089	—	—	1 376 089
Other trading banks deposits	9 570	—	—	9 570
Savings bank deposits	553 331	—	—	553 331
Other deposits	1 747 525	—	17 461	(a) 937 707
Other liabilities	108 743	17 723	162 771	(a) 129 816
Total	5 893 428	6 846 833	253 575	(a) 12 007 136
ASSETS (\$'000)				
Gold and foreign exchange (b) ...	2 859 441	2 644 818	—	5 504 259
Australian Government securities	1 908 120	3 289 511	—	5 197 631
Other assets	1 125 867	912 504	253 575	(a) 1 305 246
Total	5 893 428	6 846 833	253 575	(a) 12 007 136

(a) Inter-departmental accounts totalling \$986 700 000 have been offset in totals.

(b) Includes IMF Special Drawing Rights.

The policy of the Reserve Bank is determined by a Board consisting of the Governor of the Reserve Bank (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Further details of the activities of the Reserve Bank are given in the *Year Book Australia*.

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 Commonwealth 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 Commonwealth 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 1977 to 1980 were \$406, \$458, \$482 and \$526 million respectively. Of the last mentioned amount, \$61.7 million was advanced in South Australia.

At 30 June 1980 the capital of the Commonwealth Development Bank was \$61.7 million.

AUSTRALIAN RESOURCES DEVELOPMENT BANK LIMITED

This corporation was formed by the major trading banks with the support of the Reserve Bank and was given bank status by an amendment to the Banking Act in 1967. It provides finance for the development of Australia's natural resources mainly in the form of refinanced trading bank loans but also by direct lending and equity participation. Other services offered to intending developers include the organising of consortia financing, assessments of feasibility and independent verification of reserves. The averages of weekly figures for loans and advances outstanding (including refinanced loans) for the month of June in the years 1977 to 1980 were \$592, \$660, \$643 and \$743 million respectively. This finance is provided from the Australian capital market (mainly in the form of public issues of transferable deposits) and from subordinated loans by the shareholding banks and the Reserve Bank of Australia. Overseas borrowing remains a minor source of funds.

Authorised capital of the Bank is \$20 million of which \$11 million had been issued as fully paid capital at 30 September 1980. 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.

THE PRIMARY INDUSTRY BANK OF AUSTRALIA LIMITED

The Primary Industry Bank of Australia Limited commenced operations on 22 September 1978 under the authority of the *Primary Industry Bank Act 1977*. The Bank has also been brought within the scope of the *Banking Act 1959* including those provisions relating to the protection of depositors, advances policy, control of interest rates, furnishing of statistics, and alterations in the structure and ownership of the Bank.

The main objective of the Bank is to facilitate the provision of loans to primary producers for longer terms than are otherwise generally available. The Bank's role is restricted to refinancing loans made by banks and other financial institutions with terms of eight years or more but not exceeding thirty years.

The initial equity capital of the Bank is \$5 625 000 consisting of nine shares of \$625 000. Eight shares are held by the Australian Government and the seven major trading banks while the ninth share is held equally by the four State banks.

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 1980 they accounted for approximately 87 per cent of all general trading bank assets in Australia.

The group 'other trading banks' consist 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. The Australia and New Zealand Banking Group Ltd effectively took over the operations of The Bank of Adelaide from 1 October 1980.

Pursuant to the State Advances Act of 1895 the State Bank of South Australia commenced business in 1896. The original Act directed that advances were to be made on first mortgage to farmers, other primary producers and local government authorities. The State Bank Act, 1925 repealed the State Advances Act, and enlarged the scope of the activities of the Bank by making provision for loans on overdraft and all business of general banking. The State Bank also administers the following Acts on behalf of the State:

- Advances to Settlers Act, 1930-1972;
- Loans to Producers Act, 1927-1980;
- Loans for Fencing and Water Piping Act, 1938-1975;
- Student Hostels (Advances) Act, 1961.

The State Bank of South Australia does not operate branches or agencies outside the State.

Assets

Under the provisions of the *Banking Act 1959* all trading banks (except State banks trading in their own State) have limitations on their portfolio of assets. These banks are required to maintain a fixed percentage of total deposits as a Statutory Reserve Deposit (SRD) with the Reserve Bank. The SRD ratio for major trading banks which had been 6 per cent from 6 December 1979, changed to 7 per cent from 18 December 1980.

The major trading banks are also required by agreement to hold a certain percentage of total deposits in the form of liquid assets or government securities. This minimum LGS ratio which had remained at 18 per cent from 1962 was changed temporarily to 23 per cent in February 1976 but reverted to 18 per cent on 1 April 1977.

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 1980.

Trading Banks: Assets Within Australia, June 1980^(a)

Assets	Major Trading Banks	Other Trading Banks	All Trading Banks
		\$'000	
Gold, bullion and Australian notes	442 794	28 685	471 479
Cash with Reserve Bank	13 303	789	14 092
Commonwealth public securities:			
Commonwealth Government and State	3 832 492	468 409	4 300 901
Local authorities and public corporations	102 538	102 592	205 130
Statutory Reserve Deposit Account with Reserve Bank	1 356 104	29 511	1 385 615
Loans to authorised dealers in short-term money market	324 861	59 463	384 324
Other loans, advances and bills discounted	17 514 076	2 887 971	20 402 047
Bank premises, furniture and sites	441 321	106 181	547 502
Other assets	5 732 425	632 173	6 364 597
Total assets	29 759 914	4 315 774	34 075 687

(a) Excludes inter-branch accounts and contingencies.

Branches and Agencies

Of the twelve 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
Bank of New South Wales
Commercial Bank of Australia Ltd
Commercial Banking Company of Sydney Ltd
National Bank of Australasia Ltd
Banque Nationale de Paris

Trading Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1978	1979	1980	1978	1979	1980
Commonwealth Trading Bank	66	69	72	30	28	27
State Bank of South Australia	36	37	40	18	18	17
Private banks	361	360	359	86	83	83
Total—Metropolitan area (a)	262	264	270	41	40	41
Country	201	202	201	93	89	86
Total State	463	466	471	134	129	127

(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.

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^(a)

Year	Depositors Balances			Loans, Advances, and Bills Discounted (b)	Debits to Customer Accounts (c)	Proportion to Total Deposits	
	Bearing Interest	Not Bearing Interest	Total			Deposits Bearing Interest	Loans, Advances, and Bills Discounted (b)
			\$'000				Per cent
1976	822 826	391 662	1 214 488	914 300	677 192	67·8	75·3
1977	886 175	414 707	1 300 883	1 146 860	790 080	68·1	88·2
1978	871 839	429 677	1 301 516	1 370 681	848 596	67·0	105·3
1979	944 182	492 777	1 436 958	1 642 474	924 668	65·7	114·3
1980	1 105 581	546 384	1 651 965	1 938 335	1 021 644	66·9	117·3

(a) Average of weekly figures for month of June.

(b) Excludes loans to authorised dealers in the short-term money market.

(c) Includes the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank.

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 and the Banque Nationale de Paris. Advances are classified according to type of borrower in July of each year from 1976 to 1980.

**Major Trading Banks, South Australia and Northern Territory
Advances to Resident Borrowers by Type of Borrower^(a)
(At Second Wednesday in July)**

Classification	1976	1977	1978	1979	1980
	\$ million				
Business advances:					
Agriculture, grazing and dairying (b)	108·8	122·9	157·8	202·9	250·7
Manufacturing	67·0	93·1	94·0	105·9	126·0
Transport, storage and communication	13·0	16·7	17·9	18·6	22·5
Finance	19·1	27·4	32·6	32·8	46·8
Commerce:					
Retail trade	51·9	66·1	82·3	102·2	119·3
Wholesale trade (c)	28·4	37·6	36·1	49·7	50·4
Total commerce	80·2	103·6	118·4	151·9	169·7
Building and construction	25·4	38·3	44·1	47·9	47·9
Other business	96·4	109·9	126·9	150·4	185·8
Unclassified	11·2	15·4	13·6	18·4	19·3
Total business advances ...	421·1	527·4	605·4	728·9	868·6
Distribution of business advances:					
To companies	225·8	298·4	319·0	384·1	425·2
Other	195·3	228·9	286·4	344·7	443·4
Advances to public authorities	3·1	2·1	4·6	5·8	3·1
Personal advances:					
Building or purchasing own home	52·8	60·8	69·6	78·5	80·3
Other	202·3	286·6	369·3	445·6	521·4
Total personal advances ...	255·1	347·4	438·9	524·0	601·7
Advances to non-profit organisations	4·5	5·6	6·9	7·0	12·0
Total advances to resident borrowers	683·7	882·5	1 055·7	1 265·7	1 485·3

(a) Covers advances by the Commonwealth Trading Bank and all private trading banks, but excludes advances by the State Bank of South Australia and the Banque Nationale de Paris. 'Resident borrowers' comprise all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia.

(b) Includes farm development loan component.

(c) 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.

SAVINGS BANKS

Development of Savings Banks

The prime object of the foundation of savings banks in Australia was the encouragement of thrift. Generally, depositors cannot operate on their savings accounts by means of cheques, although most savings banks extend this facility to non-profit organisations

such as friendly, co-operative and charitable societies. In addition the Savings Bank of South Australia is one of only two banks in Australia which pays interest on personal cheque accounts. Savings accounts have the advantages that deposits may be withdrawn on demand and that depositors receive interest on their minimum monthly balances. No charge is made by the banks for keeping these accounts or the cheque accounts of some non-profit organisations. However, early in 1970 concessions relating to charges and interest on trading accounts were withdrawn from hospital and medical benefit organisations, building societies, credit unions and investment clubs.

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.

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 seven banks listed below:

Government;

Commonwealth Savings Bank of Australia

Savings Bank of South Australia

Private;

Australia and New Zealand 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

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 1980 there were 157 branches, 626 agencies and 840 school bank agencies within South Australia. The Savings Bank of South Australia has agent banks to act for it in other Australian States and has conducted its own office in Pall Mall, London, since September 1975.

The total of depositors balances at 30 June 1980 amounted to more than \$1 101 million. During 1979-80, the Bank made loans exceeding \$130.0 million to depositors for housing, for rural development and for institutional and other purposes, and at 30 June 1980 the total of such loans outstanding was over \$526 million.

Savings Bank of South Australia, Summary of Business

Year	Operative Accounts	Cash Turnover (a)	Depositors Balances (b)	Loans (b) (c)	Government Securities Held (b) (d)
	No.	\$m		\$'000	
1975-76	1 074 646	3 821	776 473	457 096	176 578
1976-77	1 078 799	4 224	842 842	533 707	184 344
1977-78	1 078 864	5 344	919 756	613 114	184 124
1978-79	1 086 560	6 277	1 023 805	707 623	172 308
1979-80	1 087 878	7 560	1 101 884	789 680	159 588

(a) Sum of deposits and withdrawals; includes some duplication from amounts transferred by depositors from one type of account to another. (b) At end of year, as published in the Bank's Annual Report. (c) Includes loans guaranteed by South Australian Government and to statutory and local government bodies. (d) Commonwealth Government Securities only.

Branches and Agencies

The increase in number of branches of savings banks in recent years is due mainly to the increase in branches of private banks in the metropolitan area. However, the number of agencies of savings banks has decreased each year since 1968.

Savings Banks: Branches and Agencies at 30 June, South Australia

Bank	Branches			Agencies		
	1978	1979	1980	1978	1979	1980
Commonwealth Savings Bank	82	83	84	617	619	596
Savings Bank of South Australia	145	151	157	639	624	626
Private banks	360	358	358	458	429	396
Total—Metropolitan area (a)	348	352	361	1 125	1 081	992
Country	239	240	238	589	591	626
Total State	587	592	599	1 714	1 672	1 618

(a) As determined by individual banks for administrative purposes.

School Banking

Special banking facilities for school children were introduced into South Australia with the inauguration of the School Banking Department of the Savings Bank of South Australia on 28 April 1908. The Commonwealth Savings Bank of Australia and some private banks provide similar services at some private schools. However, the Savings Bank of South Australia has sole access to State schools, and retains a major share of school banking business. With a view to encouraging thrift in school children, deposits as small as ten cents are accepted.

Details of school banking in this State are as follows:

	Agencies	Operative Accounts '000	Depositors Balances \$ '000
30 June 1976	881	153	4 095
1977	877	149	4 366
1978	880	146	4 651
1979	879	141	4 902
1980	914	136	4 982

Assets

Under the provisions of the *Banking Act 1959* all savings banks (except State banks trading in their own State) are required to maintain in prescribed investments an amount that together with cash on hand in Australia is not less than the amount on deposit in Australia with the savings bank. These prescribed investments include deposits with the Reserve Bank, deposits with or loans to other banks, Commonwealth Government or State securities, loans for housing, loans to authorised dealers in the short-term money market and loans to the Australian Banks Export Refinance Corporation Ltd.

A further limitation on the portfolio of assets held by savings banks is that they are required to hold in cash and other prescribed assets, funds equivalent to 45 per cent of depositors balances. Within this amount, funds equivalent to 7.5 per cent of depositors balances must be held in deposits with the Reserve Bank and in Treasury notes. The ratio was previously 50 per cent but was varied by an amendment to the Banking (Savings Bank) Regulations on 27 May 1977.

Deposits

The total of depositors balances in savings banks per head of population has for this State been consistently well above the Australian average.

The following table shows details of savings banks accounts and deposits for South Australia and Australia at 30 June for the years 1976 to 1980.

Savings Banks: Accounts and Deposits, South Australia and Australia

At 30 June	South Australia			Australia		
	Operative Accounts (a)	Depositors Balances	Deposits per Head of Population	Operative Accounts (a)	Depositors Balances	Deposits per Head of Population
	'000	\$m	\$	'000	\$m	\$
1976	2 049	1 617·3	1 282	20 171	14 822·5	1 065
1977	2 108	1 780·8	1 395	20 667	16 365·3	1 163
1978	2 131	1 945·3	1 511	21 024	18 046·3	1 267
1979	2 163	2 138·3	1 653	21 423	19 832·5	1 380
1980	2 178	2 276·9	1 753	21 861	21 260·9	1 460

(a) Excludes school bank and inoperative accounts.

The next table gives an indication of the amount of business conducted by savings banks during each of the last five years.

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						
1975-76	1 394·6	3 754·0	3 612·5	81·2	222·8	1 617·3
1976-77	1 617·3	4 324·9	4 254·8	93·4	163·5	1 780·8
1977-78	1 780·8	5 036·3	4 974·3	102·5	164·5	1 945·3
1978-79	1 945·3	5 754·5	5 672·4	110·9	193·0	2 138·3
1979-80	2 138·3	6 620·7	6 604·4	122·4	138·6	2 276·9

(a) Includes inter-branch transfers.

Savings Bank Deposits, South Australia

At 30 June	Commonwealth Savings Bank	Savings Bank of South Australia	Private Savings Banks	Total
\$million				
1976	374·4	776·5	466·5	1 617·3
1977	412·0	842·8	526·1	1 780·8
1978	452·0	919·8	573·7	1 945·3
1979	486·5	1 023·8	628·1	2 138·3
1980	511·6	1 101·9	663·5	2 276·9

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 48 per cent in 1980. During that time the private banks have increased their share from less than 12 per cent to approximately 29 per cent.

CURRENCY

Under the Commonwealth Constitution the control of currency, coinage and legal tender in Australia is vested in the Commonwealth.

The Commonwealth 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.

Notes in circulation are of the denominations \$1, \$2, \$5, \$10, \$20, and \$50. Coins in circulation are 1 cent and 2 cent (bronze) and 5, 10, 20 and 50 cents (cupro-nickel).

Notes in Circulation, Australia

Denomination	Last Wednesday in June				
	1976	1977	1978	1979	1980
			\$million		
\$1	53·6	57·4	60·8	64·7	68·6
\$2	127·8	133·0	136·0	140·6	145·1
\$5	116·4	121·8	126·7	135·5	143·2
\$10	655·2	628·8	604·5	582·4	567·6
\$20	1 334·6	1 489·0	1 620·5	1 756·4	1 903·9
\$50	633·8	860·8	1 121·7	1 427·7	1 757·8
Total	2 921·4	3 290·8	3 670·2	4 107·4	4 586·1
Notes held by:					
Banks	352·5	378·1	413·1	451·1	500·9
Public	2 568·9	2 912·8	3 257·1	3 656·3	4 085·2

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. Special 50 cent coins were issued in 1970 to commemorate the two-hundredth anniversary of Captain James Cook's discovery of the east coast of Australia, and in 1977 to commemorate the twenty-fifth anniversary of Queen Elizabeth's accession to the throne.

More complete details of Australian currency, including historical references, were included on pages 552-6 of the *South Australian Year Book* 1968.

Further References

Further information may be found in the following publications:

South Australian Office

5603.4 *Private Finance*

Central Office

5602.0 *Savings Banks, Australia*

- 5603.0 *Major Trading Banks, Australia*
5605.0 *Banking*

12.2 INSURANCE

LIFE INSURANCE

The activities of life insurance companies operating in South Australia have been regulated by Commonwealth legislation since 1945. Under the *Life Insurance Act 1945*, 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 Commonwealth Treasurer. The Act is administered by the Insurance Commissioner who has wide powers of inquiry into the activities of any registered company.

Each company must establish at least one statutory fund and all moneys received in respect of life insurance business must be paid to, and form part of, the assets of these funds. An actuarial investigation must be conducted at least once every five years, with the distribution of shareholders dividends and policy holders bonuses subject to sufficient surplus being revealed by such investigation. All premiums must be actuarially approved and the Commissioner has powers to suppress policies or proposals which he deems misleading.

Companies are required to furnish to the Commissioner certain accounting reports and statistical returns and it is from these returns that the statistical details in this section are obtained.

The individual returns cover operations for the accounting year ending in the calendar year shown. For a majority of companies the closing date is 31 December, but a number balance earlier in the year.

In accordance with the *Life Insurance Act 1945*, businesses are required to maintain separate registers for Ordinary, Industrial and Superannuation classes of insurance business. With the consent of the Life Insurance Commissioner, however, transfers between registers can occur. As the significance of industrial insurance has been declining, and as more business have been declining, and as more businesses have been transferring it to the Ordinary registers only a few businesses now maintain registers of industrial insurance. In order to preserve the confidentiality of these businesses' operations it has become necessary to combine the details of ordinary and industrial business in this publication.

During 1978, there were thirty-nine companies conducting ordinary and industrial life insurance business in South Australia; thirty-four also undertook superannuation business, *i.e.* the issuing of policies to the trustees of funds established for the provision of superannuation or retirement benefits.

With the passing of the State Government Insurance Commission Act Amendment Act, 1977, the Commission, which from 1972 has been undertaking general insurance business, was empowered to enter the life insurance field and it began accepting life insurance business on 1 March 1978.

Policies Existing

There has been a rapid growth in life insurance business since the end of 1945 when, for policies existing, the sum insured plus bonus additions amounted to \$130 million; by 1956 the \$500 million mark was reached and by 1978 the figure was \$7 590 million.

The next table illustrates the growth in life insurance business over the last ten years.

Life Insurance: Policies Existing, South Australia

Year	Ordinary			Industrial (a)			Superannuation		
	Policies	Sum Insured	Annual Premiums	Policies	Sum Insured	Annual Premiums	Policies	Sum Insured	Annual Premiums
	No.	\$'000	\$'000	No.	\$'000	\$'000	No.	\$'000	\$'000
1969	523 417	1 588 831	41 321	257 049	101 077	4 163	48 453	341 571	11 588
1970	550 226	1 802 721	46 011	253 464	111 065	4 493	49 784	399 458	13 347
1971	580 218	2 073 174	51 801	249 993	123 800	4 894	51 275	470 677	15 882
1972	608 290	2 374 762	58 022	241 651	135 827	5 263	52 875	542 580	17 921
1973	642 956	2 757 993	63 221	237 018	149 526	5 756	52 292	658 235	20 543
1974	657 011	3 150 075	68 845	224 517	157 078	5 901	54 059	868 020	25 992
1975	667 507	3 653 848	74 707	210 213	161 548	5 984	55 320	1 112 366	33 494
1976	666 013	4 130 495	78 574	194 363	165 528	6 043	56 861	1 370 496	40 537
1977	657 077	4 582 356	80 947	180 003	165 752	6 003	61 450	1 622 228	46 679
1978	804 784	5 210 393	87 995	(b)	(b)	(b)	51 100	1 839 963	51 154

(a) Includes industrial business for the Northern Territory.

(b) Industrial included with Ordinary.

In the following table, the distinction between endowment insurance and an endowment policy is that endowment insurance provides for the payment of the sum insured upon the insured person reaching a specified age or upon his prior death, whereas the sum insured under an endowment policy is paid only upon the insured person reaching the specified age.

Life Insurance: Policies Existing, South Australia, 1978

Type of Policy	Ordinary and Industrial (a)		Superannuation	
	Sum Insured	Annual Premiums	Sum Insured	Annual Premiums
	\$'000			
Whole life insurances	2 840 457	49 705	231 537	5 547
Endowment insurances	670 571	27 892	342 759	12 960
Other insurances	1 681 523	9 207	1 248 942	31 837
Endowment	17 842	1 191	16 724	810
Total	5 210 393	87 995	1 839 963	51 154

(a) Includes industrial business for the Northern Territory.

New Policies

During 1978 a total of 56 741 new life insurance policies, with a sum insured of \$1 328 572 082, were issued in South Australia. The value, *i.e.*, sum insured, of new policies has increased continuously since 1945.

The number and value of new policies issued during the five years to 1978 are shown in the next table.

Life Insurance: New Policies Issued, South Australia

Class of Business	1974	1975	1976	1977	1978
	NUMBER				
Ordinary and Industrial (a)	67 292	62 788	58 291	52 691	50 512
Superannuation	8 706	9 858	9 904	9 565	6 229
Total	75 998	72 646	68 195	62 256	56 741

Life Insurance: New Policies Issued, South Australia (continued)

Class of Business	1974	1975	1976	1977	1978
	SUM INSURED (\$'000)				
Ordinary and Industrial (a) ..	608 765	736 224	810 604	857 215	938 998
Superannuation	300 011	359 673	390 160	416 690	389 575
Total	908 775	1 095 897	1 200 765	1 273 906	1 328 572

(a) Includes industrial business for the Northern Territory.

Annual premiums on new policies issued in 1978 amounted to \$21 593 277 and of this amount \$4 449 373 was for endowment insurances and \$7 209 211 for whole of life insurances. Details of sum insured and premiums payable for the various types of policy issued in 1978 are shown in the following table.

Life Insurance: New Policies Issued, South Australia, 1978

Type of Policy	Ordinary and Industrial (a)		Superannuation	
	Sum Insured	Annual Premiums	Sum Insured	Annual Premiums
	\$'000			
Whole life insurances	378 287	6 359	36 503	851
Endowment insurances	61 647	1 907	70 626	2 542
Other insurances	498 452	2 740	278 604	7 015
Endowment	612	29	3 842	152
Total	938 998	11 034	389 575	10 559

(a) Includes industrial business for the Northern Territory.

Annuity Business

Life insurance companies also issued annuity policies but this form of business is at present a relatively minor aspect of life insurance activity. In 1978 there were 157 policies in existence with total annuities per annum of \$69 627.

Policies Discontinued

The following table gives details of policies discontinued according to reason for discontinuance. Policies discontinued or reduced includes policies matured, surrendered or forfeited. In addition, this item includes transfers to and from registers within and between States and Territories and between Australia and overseas and revaluations of sums insured under existing policies. These transfers and revaluations may result in either negative or positive changes to values in the 'policies discontinued' item.

Life Insurance: Policies Discontinued or Reduced, South Australia, 1978

Cause	Ordinary and Industrial (a)		Superannuation	
	Policies	Sum Insured	Policies	Sum Insured
	No.	\$'000	No.	\$'000
Death	3 445	8 947	151	3 126
Maturity	21 419	18 377	950	12 182

Life Insurance: Policies Discontinued or Reduced, South Australia, 1978 (continued)

Cause	Ordinary and Industrial (a)		Superannuation	
	Policies	Sum Insured	Policies	Sum Insured
	No.	\$'000	No.	\$'000
Surrender	46 396	319 849	4 034	138 805
Forfeiture	12 482	169 332	578	15 045
Transfer	825	4 724	611	7 915
Other	—1 759	—45 251	10 255	—5 233
Total	82 808	475 978	16 579	171 840

(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			
1974	100 290	12 528	23 219	22 869	121	196	58 933
1975	114 824	14 296	24 599	27 776	86	395	67 152
1976	124 781	14 358	26 602	31 448	85	369	72 862
1977	135 553	16 368	31 627	34 992	66	539	83 592
1978	143 205	17 874	35 175	42 245	59	581	95 935

(a) Includes 'Other'.

Loans Outstanding

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

Loans	1974	1975	1976	1977	1978
			\$'000		
Loans on:					
Mortgage of real estate Policies;	83 150	84 969	85 926	87 581	84 771
Advance of premiums	4 729	5 070	5 579	5 413	4 701
Other	22 093	22 352	22 738	23 979	25 496
Other	2 618	2 209	2 231	2 125	3 552
Total	112 591	114 600	116 474	119 098	118 519

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 workers compensation, is carried by the Government Insurance Fund which is administered by the Government Insurance Office. In addition, the State Bank of South Australia insures certain properties on which it has provided mortgage finance.

A number of Commonwealth Government instrumentalities also are engaged in insurance in South Australia, notably in respect of housing loans and export payments, but these activities are not included in South Australian statistics.

Companies, persons or firms of persons carrying on general insurance business are required under the Stamp Duties Act, 1923-1980 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, 1936-1976 insurance companies contribute approximately 75 per cent of the cost of maintaining the services of the Fire Brigades Board.

Insurance for workers compensation and motor vehicle third party risks is compulsory under State legislation. Employers, unless specifically exempted, are required under the Workers Compensation Act, 1971-1979 to effect an insurance cover providing compensation for workers suffering injuries in the course of their employment. Details of workers compensation provisions are given in Part 7.4.

Under the Motor Vehicles Act, 1959-1980 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.

Legislation affecting all insurance companies operating in Australia is embodied in the *Insurance Act 1973* which seeks to ensure the continued financial stability of these companies. This Act is concerned only with the solvency of all companies engaged in insurance business and not with contractual arrangements between policy holders and insurers or with the rate of premiums charged. It also provides for the continuation of the provisions of the State Acts referred to above. The *Insurance (Deposits) Act 1932* ceased to exist on 1 August 1979 and deposits lodged with the Commonwealth Treasurer under that Act were returned to all currently authorised insurers. However, deposits being retained for a number of companies in liquidation, will be returned at a later stage of their liquidation.

The statistics in this section are compiled from returns covering transactions of the State Government Insurance Commission, the Government Insurance Fund, State Bank and approximately 100 companies and company groups 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 details of claims and premiums relating to general insurance undertaken by authorised insurers and government instrumentalities for the years 1977-78 to 1979-80.

The first table shows details of claims which comprise payments made during the year, plus the estimated amount of outstanding claims at the end of the year, less the estimated amount of outstanding claims at the beginning of the year.

General Insurance: Claims, South Australia

Class of Business	1977-78	1978-79	1979-80
		\$'000	
Fire (including sprinkler leakage)	4 572	10 196	13 653
Loss of profits	1	620	950
Crop (including hailstone)	561	1 202	11 461
Houseowners and householders	10 913	15 047	23 639
Contractors risks	747	429	666
Marine hull:			
Private pleasure craft	1 079	574	520
Other	423	1 251	1 210
Marine cargo	2 117	2 499	3 818
Aviation hull/cargo	16	5	40
Motor vehicle (including motor cycles)	36 597	44 025	47 109
Compulsory third party (motor vehicles)	74 523	79 041	94 029
Employers liability	47 083	41 566	46 673
Public liability	2 496	1 975	3 744
Product liability	151	76	70
Professional indemnity	106	235	256
Loan, mortgage and lease	<i>n.a.</i>	602	359
Burglary	1 385	1 917	2 203
All risks/baggage	1 350	1 656	2 343
Boiler/engineering/machinery breakdown	741	1 229	1 877
Plate glass	627	833	973
Guarantee	<i>n.a.</i>	40	59
Livestock	420	393	420
Personal accident	3 303	3 663	3 996
Other	1 666	2 395	3 119
Total	191 254	211 469	263 387

The next table shows premiums earned by the insurers. 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.

General Insurance: Premiums, South Australia

Class of Business	1977-78	1978-79	1979-80
		\$'000	
Fire (including sprinkler leakage)	17 093	14 988	16 120
Loss of profits	2 592	1 828	2 122
Crop (including hailstone)	606	1 959	2 668
Houseowners and householders	20 555	23 037	26 056
Contractors risks	833	1 052	639
Marine hull:			
Private pleasure craft	938	846	927
Other	610	1 083	1 234
Marine cargo	3 403	3 527	5 032

General Insurance: Premiums, South Australia (continued)

Class of Business	1977-78	1978-79	1979-80
		\$'000	
Aviation hull/cargo	28	28	49
Motor vehicle (including motor cycles)	60 395	62 301	63 401
Compulsory third party (motor vehicles)	60 476	65 386	72 802
Employers liability	73 465	60 650	59 125
Public liability	4 905	5 105	5 457
Product liability	195	222	279
Professional indemnity	300	343	449
Loan, mortgage and lease	233	449	815
Burglary	2 199	2 210	2 496
All risks/baggage	1 953	2 451	3 084
Boiler/engineering/machinery breakdown	2 258	2 477	2 928
Plate glass	858	1 072	1 107
Guarantee	124	232	197
Livestock	478	392	525
Personal accident	6 604	6 762	7 141
Other	5 493	5 957	8 344
Total	266 594	264 357	282 997

Details of brokers have been excluded from the above tables: in many instances brokers have no knowledge of claims made by the insured on overseas insurers in respect of business placed through them. Because of this, no details of claims were collected from brokers for 1978-79 and 1979-80. Data for 1977-78 have been adjusted to exclude details of claims for brokers for that year. For 1978-79 and 1979-80, premium details for brokers have been collected on an Australia-wide basis, although previously details were collected on a State basis. Accordingly, the data series on premiums by State for 1977-78 have been adjusted to exclude details for brokers.

Further References

Additional information may be found in the following publications:

South Australian Office

5603.4 *Private Finance*

Central Office

5620.0 *General Insurance*

5622.0 *Life Insurance*

12.3 OTHER PRIVATE FINANCE**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 act as agents for the investing public.

The Exchange operates under a set of rules 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. 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.

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 1980, the Stock Exchange of Adelaide Limited had 1 080 companies on its Official List with a total equity market capitalisation (*i.e.* total market value of ordinary shares) of \$45 666 million. The face value of other listed securities at 30 June 1980 was Commonwealth Government loans \$16 450 million, public corporation loans \$3 507 million, debentures \$2 675 million and unsecured notes \$203 million.

The figures in the following table have been supplied by the Stock Exchange.

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.

Stock Exchange of Adelaide, Recorded Turnover of Securities

Particulars	Year Ended 30 June				
	1976	1977	1978	1979	1980
	TRANSACTIONS ('000)				
Shares, Commonwealth Government loans, public corporation loans, debentures and unsecured notes	35	38	41	50	87
	NUMBER OF SHARES ('000)				
Shares:					
Industrial	19 521	21 274	27 454	30 263	40 677
Mining and oil	11 558	12 460	22 874	33 240	66 675
Total shares	31 079	33 734	50 328	63 503	107 352
	MARKET VALUE (\$'000)				
Shares:					
Industrial	21 066	22 477	30 549	38 807	63 502
Mining and oil	7 674	9 350	10 569	18 290	61 440
Total shares	28 740	31 827	41 118	57 097	124 942
	\$'000				
Commonwealth Government loans, public corporation loans, debentures and unsecured notes:					
Face value	2 224	1 959	2 377	<i>n.a.</i>	<i>n.a.</i>
Market value	1 902	1 665	2 184	3 130	3 650

BUILDING SOCIETIES

The operations of building societies in South Australia are regulated by the Building Societies Act, 1975-1981 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 terminating (Starr-Bowkett) societies.

Permanent societies are organisations which have rules or regulations that do not specify that they are to terminate on a specific date or when a specific object is achieved. They operate on a co-operative basis by borrowing predominantly from their members and providing finance to their members and other persons principally in the form of housing loans. 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. Detailed statistics on the operations generally of permanent building societies are available in the monthly bulletin *Permanent Building Societies: Housing Finance for Owner Occupation* (Catalogue No. 5610.0) and the annual bulletin *Permanent Building Societies: Assets, Liabilities, Income and Expenditure* (Catalogue No. 5632.0).

The statistics below summarise information collected from the nine permanent building societies balancing within the 1978-79 and 1979-80 financial years.

Permanent Building Societies: Liabilities and Assets, South Australia^(a)

Liabilities	1978-79	1979-80	Assets	1978-79	1979-80
	\$'000			\$'000	
Share capital and reserves:			Amount owing on loans	350 775	445 803
Withdrawable shares	414 335	524 304	Cash on hand	158	1 973
Reserves:			Deposits with:		
Statutory	—	—	Banks	26 261	27 813
Other (b)	6 156	6 941	Other	5 313	6 771
Deposits	12 280	14 112	Bills, bonds and other securities	54 909	64 707
Loans	20 704	19 836	Accounts receivable	1 958	3 241
Accounts payable	1 332	3 101	Physical assets	16 247	1 449
Other liabilities (c)	1 454	2 181	Other assets	640	18 718
Total liabilities	456 261	570 475	Total assets	456 261	570 475

(a) At the balance dates of societies within the financial year shown.

(b) Includes accumulated surplus, general, capital and other reserves.

(c) Includes non-withdrawable shares.

Permanent Building Societies: Income and Expenditure, South Australia

Expenditure	1978-79	1979-80	Income	1978-79	1979-80
	\$'000			\$'000	
Interest on:			Interest from:		
Shares	32 591	50 565	Loans	33 405	53 058
Deposits	972	1 431	Deposits	3 563	4 549
Loans	926	1 186	Income from holdings of securities	5 213	7 239
Wages and salaries	3 768	5 591	Other income	1 922	3 217
Administrative expenses (a)	2 060	3 618			
Other expenditure	2 828	4 144			
Total expenditure	43 145	66 535	Total income	44 103	68 063

(a) Includes Permanent Building Society Association costs, advertising, bank charges and other administrative expenses.

Terminating (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. There were thirteen terminating building societies operating in South Australia in 1978-79, and twelve in 1979-80. The statistics which follow summarise information collected from these societies. More

detailed description and dissection of these statistics may be found in the bulletin *Terminating Building Societies: Assets, Liabilities, Income and Expenditure* (Catalogue No. 5633.0).

Terminating Building Societies: Liabilities and Assets, South Australia^(a)

Liabilities	1978-79	1979-80	Assets	1978-79	1979-80
	\$'000			\$'000	
Share capital (b)	1 588	1 570	Amount owing on loans (b)	1 655	1 652
Accumulated funds (c)	226	178	Cash on hand and current accounts at banks	116	46
Other liabilities	28	16	Deposits with:		
			Banks	63	59
			Other	5	2
			Physical assets	1	1
			Other assets	2	3
Total liabilities	1 842	1 763	Total assets	1 842	1 763

(a) At the balance dates of societies within the financial year shown.

(b) Borrowing members' subscriptions have been offset against 'Amount owing on loans'.

(c) Includes accumulated surpluses and deficits.

Terminating Building Societies: Income and Expenditure, South Australia

Expenditure	1978-79	1979-80	Income	1978-79	1979-80
	\$'000			\$'000	
Interest paid on borrowing members' subscriptions	—	—	Interest on:	—	—
Interest on loans from:			Loans to members	—	—
Banks	—	—	Other	—	—
Other	—	—	Management fees	17	13
Salaries and secretarial fees	19	17	Other income	34	17
Other expenditure	44	22			
Total expenditure	63	39	Total income	51	30

CO-OPERATIVE CREDIT SOCIETIES

Co-operative credit societies are registered under the Credit Unions Act, 1976-1980 which is administered by the Registrar of Credit Unions. Before 28 April 1977, when the Credit Unions Act, 1976-1980 was proclaimed, these societies were registered under the Industrial and Provident Societies Act, 1923-1974.

The societies included in this collection, which began in 1970-71, are mainly credit unions or savings and loan societies. A credit union is defined as an organisation that:

(a) is registered under the Credit Unions Act, 1976-1980; and

(b) operates on a co-operative basis by predominantly borrowing from and providing finance to its own members.

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.

More detailed description and dissection of these statistics may be found in the annual bulletin *Credit Unions: Assets, Liabilities, Income and Expenditure* (Catalogue No. 5618.0).

Co-operative Credit Societies, South Australia

Particulars	1977-78	1978-79	1979-80
		Number	
Societies	32	30	30
Members	78 616	88 582	103 003
		\$'000	
Income:			
Interest on loans to members	9 594	12 859	17 418
Other	1 475	2 270	2 230
Total	11 069	15 129	19 644
Expenditure:			
Interest on deposits	6 572	9 358	12 459
Other (a)	3 748	4 699	6 108
Total	10 319	14 056	18 569
Assets:			
Loans to members	82 657	113 120	146 099
Cash in hand and at bank	3 343	1 665	1 709
Deposits with Credit Union Associations and Leagues	6 182	10 123	14 870
Investments	3 863	4 505	3 352
Other	2 362	4 407	6 194
Total	98 408	133 821	172 225
Liabilities:			
Share capital	699	790	848
Reserves and accumulated profits	867	2 350	3 372
Deposits	93 754	124 660	159 568
Current accounts	608	674	724
Loans (b)	1 972	4 331	6 637
Other	508	1 014	1 075
Total	98 408	133 821	172 225

(a) Includes interest on loans, salaries and wages, administrative expenses, bad debts and provision for doubtful debts. (b) Includes loans from Credit Union Leagues or Associations.

INSTALMENT CREDIT FOR RETAIL SALES

Instalment credit for retail sales is defined as covering all schemes under which repayment is made by regular predetermined instalments, such as time payment, budget accounts and certain personal loans. Credit schemes which do not involve repayment by regular predetermined instalments, lay-bys and all credit transactions related mainly to the financing of 'producer' type goods such as plant, machinery and motor vehicles normally used for commercial purposes are excluded from the following statistics. Also excluded are the financing of sales of land and buildings, property improvements, services such as repair work and travel facilities, and rental and leasing schemes.

Legislation controlling instalment credit schemes in South Australia is embodied in the Consumer Transactions Act, 1972-1980 and the Consumer Credit Act, 1972-1980, both effective from 1 November 1973. Since that date, it has not been possible to enter into a hire-purchase agreement in South Australia.

The Consumer Transactions Act repealed the Hire-Purchase Agreements Act, 1960-

1971 and originated 'consumer contracts', 'consumer credit contracts' and 'consumer mortgages'. Generally consumer contracts and consumer credit contracts refer to the purchase by an individual of goods or services, where their price and the principal amount of credit extended does not exceed \$10 000. 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 Consumer Credit Act repealed the Money-lenders Act and established a Credit Tribunal to which, in certain circumstances, consumers may apply for relief from the terms of a contract. The Tribunal also acts as licensing authority for those persons and corporations deemed to be credit providers under the Act and controls the conditions of operation of 'revolving charge accounts'. Information to be included in a credit contract, including the credit charge, is specified in detail by the Act.

Details of instalment credit provided by businesses (other than banks, credit unions and insurance companies) during the years 1977-78 to 1979-80 are given in the following tables. In each of these tables the motor vehicle group includes new and used motor cars, motor cycles, caravans, motor parts and accessories. Included in household and personal goods are furniture and furnishings, domestic refrigerators, electrical goods, musical instruments, bicycles, and other household and personal goods.

Instalment Credit for Retail Sales, South Australia^(a)

Year	Amount Financed (b)						Balances Outstanding at End of Period (d) (e)	
	Motor Vehicles, etc. (c)		Household and Personal Goods		Total		Finance Companies	Other Businesses
	Finance Companies	Other Businesses	Finance Companies	Other Businesses	Finance Companies	Other Businesses	Finance Companies	Other Businesses
	\$ million							
1977-78	113.7	0.2	14.8	36.4	128.5	36.6	263.3	27.7
1978-79	108.2	0.2	15.3	41.4	123.5	41.6	253.9	32.9
1979-80	99.4	0.2	17.9	46.4	117.3	46.6	247.4	33.5

(a) Before 1978-79 the figures relate only to finance companies or other businesses which individually or as a group of related finance companies or other businesses respectively had balances outstanding on an Australia-wide basis of \$500 000 or more on all types of finance agreements. From 1978-79 the statistics of finance companies relate only to finance companies with equivalent balances outstanding of \$5 million or more.

(b) Excludes hiring charges, interest and insurance.

(c) Excludes motor vehicles normally used for commercial purposes.

(d) Includes hiring charges, interest and insurance.

(e) Includes Northern Territory.

Instalment Credit for Retail Sales, Motor Vehicles Etc., South Australia^(a)

Year	Cars and Station Wagons				Other Amount Financed (b)
	Number Financed		Amount Financed (b)		
	New	Used	New	Used	
	'000		\$ million		
1977-78	7.4	24.0	33.4	66.6	13.9
1978-79	6.3	21.8	29.8	66.9	11.8
1979-80	5.2	21.1	27.4	63.1	9.2

(a) Refer footnote (a) of previous table. (b) Excludes hiring charges, interest and insurance.

FINANCE COMPANIES

In the following tables a finance company is defined as an incorporated company mainly engaged in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: instalment credit for retail sales, personal loans, wholesale finance, factoring, other consumer and commercial loans, financial leasing of business plant and equipment and bills of exchange. A company is mainly engaged in providing these credit facilities if 50 per cent or more of its assets consist of balances outstanding with respect to these types of financing, or if 50 per cent or more of its income is derived from such types of financing. Special classes of financial institutions such as unincorporated businesses, banks, life and general insurance companies, authorised dealers in the short-term money market, money market corporations (merchant banks), pastoral finance companies, investment companies, unit trusts, land trusts, mutual funds and management companies for such trusts and funds, pension and superannuation funds, building societies and friendly societies and credit unions are excluded.

Comprehensive information on the transactions of finance companies is available in the monthly bulletin *Finance Companies, Australia* (Catalogue No. 5614.0).

Finance Companies: Summary, South Australia

Particulars	1977-78	1978-79(a)	1979-80
			\$ million
Amount financed	832.5	820.3	766.0
Collections and other liquidations (b)	1 048.8	1 100.0	1 027.2
Balances outstanding at end of period (b)	969.6	937.1	910.8
Leasing of business plant and equipment:			
Value of goods newly leased during period (c)	148.0	167.3	184.6
Value of all leasing agreements at end of period (b) (d)	317.8	405.4	483.8

(a) Before 1978-79 the statistics relate only to finance companies which individually or as a group of related finance companies had balances outstanding on an Australia-wide basis of \$500 000 or more in the prescribed types of financial agreements. From 1978-79 the statistics relate only to finance companies with equivalent balances outstanding of \$5 million or more.

(b) Includes Northern Territory.

(c) Includes Northern Territory to June 1978.

(d) Basis of valuation is 'gross receivables'.

Finance agreements may be classified according to the purpose of the loan. The comments below are offered to clarify the content of various items in the table which follows:

- (1) instalment credit for retail sales is defined in the same way as in the previous section (see pages 581-2);
- (2) personal loans include all loans to persons in their private capacity, other than loans classified as instalment credit or finance for housing and includes loans to persons for alterations or additions, estimated to cost less than \$10 000 to existing dwelling units;
- (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 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, estimated to cost \$10 000 or more to existing dwelling units, and finance for the purchase of residential blocks of land;

(5) other commercial loans include loans for the purpose of developing a tract of land into residential blocks, construction other than housing and financing of sales of 'producer' type goods.

The following table shows amount financed and balances outstanding classified according to the purpose of the loan for the years 1977-78 to 1979-80.

Finance Companies: Amount Financed and Balances Outstanding Classified by Type of Finance Agreement, South Australia

Particulars	1977-78	1978-79(a)	1979-80
	\$ million		
Amount financed during year:			
Instalment credit for retail sales and personal loans (b)	186.6	179.3	173.1
Finance for housing	140.2	89.5	58.0
Wholesale finance (c) (d)	448.0	487.6	472.4
Other commercial loans	81.8	101.1	102.9
Leasing of business plant and equipment (e)	148.0	167.3	184.6
Total amount financed (f)	980.6	987.7	950.6
Balances outstanding at 30 June (c):			
Instalment credit for retail sales and personal loans	358.3	344.7	338.6
Finance for housing	330.3	285.6	245.4
Wholesale finance	94.1	113.0	112.8
Other commercial loans	186.8	193.8	213.9
Leasing of business plant and equipment (g)	317.8	405.4	483.8
Total balances outstanding	1 287.4	1 342.5	1 394.6

(a) Refer footnote (a) of previous table.

(b) Personal loans include Northern Territory.

(c) Includes Northern Territory.

(d) Includes factoring of trade debts.

(e) Includes Northern Territory to June 1978.

(f) Excludes amount financed for wholesale finance and personal loans in Northern Territory.

(g) Basis of valuation is 'gross receivables'.

FINANCIAL CORPORATIONS ACT

The *Financial Corporations Act* 1974 enables the Reserve Bank to examine and regulate the business activities of non-bank financial intermediaries (finance companies, building societies, credit unions, etc.) and large retailers which finance their sales by instalment credit schemes.

In order to perform its monitoring and control function, the Reserve Bank is empowered by the Act to collect monthly information from each of the larger financial corporations (assets in excess of \$5 million) and from the larger retailers (balances outstanding in excess of \$5 million on instalment credit for retail sales agreements). Other financial corporations with total assets in excess of \$1 million are also required to submit information at less frequent intervals.

HOUSING FINANCE FOR OWNER OCCUPATION

A monthly statistical series was introduced in October 1975 to provide information on finance (secured by mortgage or other security, including secured personal loans and

contracts of sale) approved by significant lenders to individuals for the construction or purchase of dwellings for owner occupation. Also included is housing finance provided to employees by lenders covered in the collection.

The types of lenders included in these statistics are trading and savings banks, permanent and terminating (Starr-Bowkett) building societies, finance companies, government housing authorities and other government departments, insurance companies and credit unions. A lender is significant if over a financial year it approves loans to individuals for housing finance for owner occupation in excess of \$250 000 or if at the end of a financial year it has balances outstanding on such loans exceeding \$2 million.

Purchase of newly erected dwellings represents the purchase of dwellings which have been completed or will be completed within a period of twelve months preceding the date of purchase and where the purchaser is, or will be, the first occupant.

Purchase of established dwellings represents the purchase of dwellings which have been completed for a period of greater than twelve months preceding the date of purchase or, if completed within twelve months, where the purchaser is not the original occupant.

The term *dwelling* includes houses and other dwellings where the latter is defined as a self-contained dwelling unit other than a house. (Examples of *other dwellings* are flats, home units, semi-detached cottages, villa units and town houses.)

The term *number of dwelling units* refers to the number of houses and other dwellings for which loans secured by contract of sale or first mortgage only have been approved.

Comprehensive statistics on housing finance for owner occupation are available in the monthly bulletin *Housing Finance for Owner Occupation* (Catalogue No. 5609.0).

Housing Finance for Owner Occupation, South Australia

Period	Loans Approved for		Cancellations of Loans Previously Approved	Loans Advanced (a)	Loans Approved but not Advanced (a)
	Construction or Purchase of Dwellings	Alterations and Additions			
			\$'000		
1977-78	537 986	27 817	23 691	435 325	68 779
1978-79	572 077	32 057	23 051	464 146	69 696
1979-80	555 991	31 182	18 382	442 446	80 318

(a) Excludes trading banks.

Housing Finance for Owner Occupation: Number of Dwelling Units for which Loans were Approved to Individuals by Type of Lender, South Australia

Period	Banks		Permanent Building Societies(a)	Finance Companies	Government <i>n.e.i.</i>	Other	Total
	Savings	Trading					
	CONSTRUCTION OF DWELLINGS						
1977-78	1 566	891	253	558	80	550	3 898
1978-79	1 599	826	323	364	56	361	3 529
1979-80	1 754	1 110	342	242	34	233	3 715
	PURCHASE OF NEWLY ERECTED DWELLINGS						
1977-78	1 732	2 538	717	301	651	418	6 357
1978-79	1 382	1 900	348	207	422	465	4 724
1979-80	768	986	233	111	153	282	2 533
	PURCHASE OF ESTABLISHED DWELLINGS						
1977-78	7 019	2 048	2 934	706	585	403	13 695
1978-79	7 896	2 161	4 009	623	562	674	15 925
1979-80	7 828	2 697	4 397	328	438	1 097	16 785
	TOTAL						
1977-78	10 317	5 477	3 904	1 565	1 316	1 371	23 950
1978-79	10 877	4 887	4 680	1 194	1 040	1 500	24 178
1979-80	10 350	4 793	4 972	681	625	1 612	23 033

(a) Includes terminating (Starr-Bowkett) societies.

Housing Finance for Owner Occupation: Value of Loans Approved to Individuals by Type of Lender, South Australia

Period	Banks		Permanent Building Societies (a)	Finance Companies	Government n.e.i.	Other	Total
	Savings	Trading					
CONSTRUCTION OF DWELLINGS							
\$'000							
1977-78	35 156	15 965	7 954	19 652	1 294	12 471	92 492
1978-79	38 232	19 522	9 558	13 524	948	8 097	89 881
1979-80	44 833	27 743	10 945	9 435	569	5 519	99 044
PURCHASE OF NEWLY ERECTED DWELLINGS							
\$'000							
1977-78	37 796	47 785	19 526	17 660	18 402	8 870	150 039
1978-79	31 343	42 983	10 329	6 978	13 224	11 679	116 536
1979-80	19 383	24 771	6 642	3 691	2 813	7 268	64 568
PURCHASE OF ESTABLISHED DWELLINGS							
\$'000							
1977-78	139 131	36 184	71 988	28 349	10 072	9 731	295 455
1978-79	170 112	40 515	103 442	23 990	14 765	12 836	365 660
1979-80	176 295	56 152	118 410	11 158	10 310	20 054	392 379
TOTAL							
\$'000							
1977-78	212 083	99 934	99 468	65 661	29 768	31 072	537 986
1978-79	239 687	103 020	123 329	44 492	28 937	32 612	572 077
1979-80	240 511	108 666	135 997	24 284	13 692	32 841	555 991

(a) Includes terminating (Starr-Bowkett) societies.

Further References

Additional information may be found in the following publications:

South Australian Office

5603.4 *Private Finance*

Central Office

5609.0 *Housing Finance for Owner Occupation*

5614.0 *Finance Companies, Australia*

5618.0 *Credit Unions: Assets, Liabilities, Income and Expenditure*

5631.0 *Instalment Credit for Retail Sales*

5632.0 *Permanent Building Societies: Assets, Liabilities, Income and Expenditure*

REGIONAL STUDIES

LOWER NORTH

The study region is the Lower North Subdivision of the Yorke and Lower North Statistical Division and comprises the district councils of Balaklava, Blyth, Burra Burra, Clare, Eudunda, Owen, Port Wakefield, Redhill, Riverton, Robertstown, Saddleworth and Auburn, Snowtown and Spalding—the location and boundaries of the subdivision are shown on the map on page 588.

At 30 June 1980 the estimated population of the Lower North was 19 100 persons. The Lower North covers an area of 10 547·9 square kilometres.

Physical Features

The main topographical features of the subdivision are the Hummock-Barunga Range in the west, the North Mount Lofty Range, parallel to it and further east, and, from north to south, the Broughton, Wakefield and Gilbert rivers. The Hutt and Hill are lesser streams near Clare.

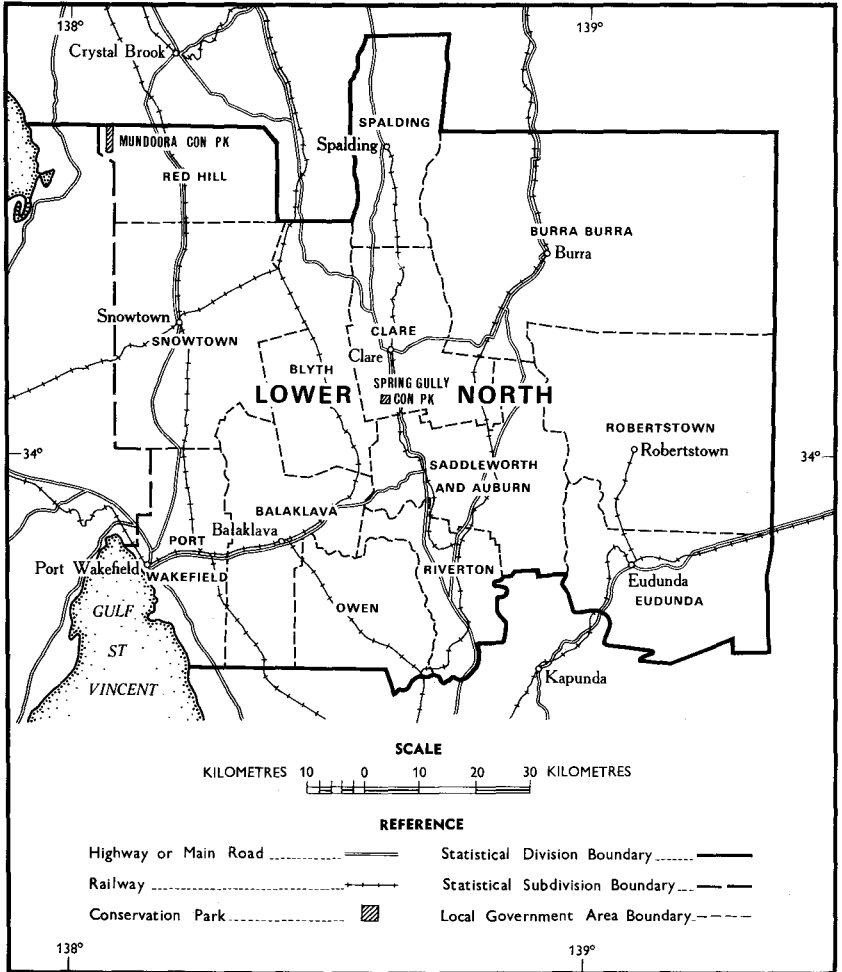
The coastline at Port Wakefield is swampy and for the most part the water is shallow. Throughout the area wide alluvial basins alternate with low rounded ridges running north and south.

The highest elevation is Mount Cone near Burra, 793 metres, and the only body of water of substantial size within the subdivision is the salt lake, Bumbunga, fifty kilometres north of Port Wakefield.

Climate and Meteorology

The climate of the Lower North Region of South Australia is strongly influenced by

LOWER NORTH STATISTICAL DIVISION



the northern Mount Lofty Ranges which have the effect of increasing rainfall and providing a cooler climate over the higher parts of the region.

Most of the region has a temperate climate with warm dry summers and cool wet winters. However, the plains to the west and east of the ranges have a semi-arid climate with hot summers and cool winters.

Rainfall

The northern Mount Lofty Ranges have a dominating effect on the distribution of rainfall across the Lower North Statistical Subdivision. Average annual rainfall increases from less than 350 millimetres around Port Wakefield and Redhill to more than 600 millimetres in the Clare-Watervale area. To the east of the ranges the average annual rainfall decreases rapidly to less than 250 millimetres.

As with most parts of southern South Australia this region has a winter rainfall maximum with approximately 35 per cent of the annual average being recorded in that season, compared with 15 per cent in summer. About 23 and 27 per cent of annual rainfall is recorded in Autumn and Spring respectively. Monthly and annual average rainfall totals for selected stations are listed, together with average number of days of rain in the following table.

Average Rainfall and Days of Rain: Selected Stations, Lower North

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
AVERAGE RAINFALL (MILLIMETRES)													
Balaklava	19	20	18	35	45	45	43	44	40	36	24	21	390
Burra (Kooringa)	19	21	20	31	51	55	55	56	50	43	26	24	451
Clare	26	25	25	48	75	80	81	79	72	57	36	29	633
Eudunda	20	23	20	33	48	51	50	56	47	40	29	25	442
Koolunga	18	21	16	29	44	47	45	47	41	37	25	22	392
Manoora	19	20	20	35	56	56	57	64	56	47	29	26	485
Port Wakefield	17	20	20	30	38	38	36	36	32	30	20	17	334
Redhill	17	20	18	32	49	54	51	52	44	38	26	21	422
Robertstown	16	21	15	21	36	37	35	43	39	33	22	21	339
Snowtown	19	20	17	31	46	51	48	51	42	37	24	20	406
Spalding	19	22	17	27	50	52	53	56	51	43	30	25	445
Sutherlands	15	20	16	18	30	30	28	32	29	28	20	19	285
Watervale	26	26	27	52	76	83	81	86	73	59	40	32	661
Worlds End	16	20	14	18	32	33	33	38	35	29	20	21	309
AVERAGE NUMBER OF DAYS OF RAIN													
Balaklava	3	2	3	5	10	10	10	12	9	7	4	3	78
Burra (Kooringa)	2	2	3	5	10	11	12	13	9	9	4	3	83
Clare	4	4	5	8	12	14	15	15	13	11	7	5	113
Eudunda	4	4	5	8	11	13	14	14	12	10	6	5	106
Koolunga	3	3	3	5	9	10	12	11	10	8	5	4	83
Manoora	4	3	4	7	11	12	13	13	11	9	6	5	98
Port Wakefield	3	3	4	7	10	11	11	12	10	8	5	4	88
Redhill	4	4	4	7	10	11	14	13	9	9	6	4	95
Robertstown	3	3	3	5	7	8	10	11	8	7	5	3	73
Snowtown	3	3	4	7	11	12	13	13	11	9	6	4	96
Spalding	3	3	3	6	8	10	12	12	9	7	5	4	82
Sutherlands	2	2	2	4	6	7	8	8	7	5	4	3	58
Watervale	4	4	5	8	11	11	14	14	11	10	8	5	105
Worlds End	3	3	3	5	6	7	9	9	7	6	4	3	65

Rainfall during the period November to March is normally too low to be of any benefit for agricultural purposes. The first effective rains usually occur during April or May and continue through to September or October. Most of the western area of the Lower North has an agricultural growing season of between 5 and 6 months. The growing season increases to between 6 and 7 months over the ranges with the wetter area around Clare exceeding 7 months. To the east of the ranges the period decreases rapidly to less than 4 months.

Temperature

Average maximum and minimum temperatures recorded at Clare, Eudunda and Snowtown are shown in the following table.

Average Temperatures at Selected Stations, Lower North

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
MAXIMUM TEMPERATURE (° Celsius)													
Clare	29.4	29.1	26.2	21.3	16.9	13.8	12.9	14.5	17.3	20.8	24.6	27.5	21.2
Eudunda	28.6	28.4	25.1	21.1	16.5	13.7	13.2	14.0	16.2	20.2	23.6	26.4	20.6
Snowtown	31.0	30.5	28.1	23.4	19.2	16.0	15.3	16.6	19.5	23.1	26.6	29.2	23.3
MINIMUM TEMPERATURE (° Celsius)													
Clare	13.7	13.8	11.5	8.3	5.8	4.3	3.3	3.9	5.1	7.4	9.9	12.1	8.5
Eudunda	14.0	14.6	12.4	10.0	7.4	5.6	5.1	5.2	6.0	8.1	9.7	12.1	9.2
Snowtown	14.5	14.6	12.7	9.9	7.7	5.9	5.2	5.5	6.6	8.6	10.9	13.1	9.6

Average daily maximum temperatures range from 26°C to 31°C in the summer, with the highest temperatures being recorded on the lower parts of the region to the west and east of the ranges. An extreme temperature of over 46°C has been recorded at Snowtown. During the winter, average maximum temperatures range from 13°C to 17°C.

Mean daily minimum temperatures range from 12°C to 15°C in Summer and 3°C to 7°C in winter. Extreme minimum temperatures of less than -4°C have been recorded.

Frosts

Light frosts are often experienced between April and October but may occur as early as March or as late as December. Heavy frosts are generally confined to the period between May and September.

Winds

In summer the prevailing wind direction at 9 a.m. is from South-east to South turning more South-westerly by 3 p.m. A strong sea breeze, particularly about the south-western part of the region is a feature of the wind regime during this season.

During winter the prevailing wind direction is North to North-westerly at 9 a.m. and North-westerly at 3 p.m.

Evaporation

Annual evaporation, as recorded by a Class A Pan fitted with a birdguard, ranges from more than 2 000 millimetres per year over the western plains to about 1 700 millimetres in the ranges.

Snow, Thunder, Hail and Fog

During winter, snow is occasionally reported along the hills in the north of the region, particularly around Burra, but it usually melts very rapidly.

Thunderstorms and hail can be experienced at any time of the year, but while thunderstorms are more frequent between October and March, hail is most often reported during the winter months.

Fogs generally occur between April and October and are most frequent about the higher parts of the region.

Soils

In Australia, the maintenance of soil fertility calls for continual vigilance, not only in regard to the nutrient supply itself, *e.g.* as fertilisers, but also because physical soil properties, overlooked in the past, can be improved to increase the soils moisture supply to the plant. The soils of the Lower North are no exception. Studies of soil physical properties could prove as profitable as elsewhere in Australia.

The Lower North soils may be placed in four main groups. The most extensive are the various duplex soils; that is, soils with a clay subsoil below loamy sand, sandy loam,

loam or clay loam surface soil of variable thickness. Soils with similar surface textures, but underlain by weathering rock and or calcrete (hardened lime) form a group of shallow (less than 50 cm thick), often stony soils that vary from red-brown to dark grey and from acidic to alkaline types. The latter often contain free lime, as do the soils in which deep cracks open up during dry periods, especially in summer. These 'cracking clay' soils are among the best cereal growing soils in the area. Various calcareous earths and associated dune sands are prominent in the western and south-western parts of the area.

All these soils owe their presence to the different kinds of rocks found in the area, and to the geological events that shaped the present landscapes. Thus the main central and eastern parts of the Lower North sit astride north-south trending, sub-parallel hilly ridges of harder rocks, alternating with broad valleys of softer rocks. The most common soils are hard and red duplex soils. They include soils like the Urrbrae loam of the Waite Agricultural Research Institute, the original red-brown earth, and others like the Balalie loam of the Jamestown area. Although similar in colour and texture, their detailed structure and consistence differ because of the sodicity of the latter soil. Sodicity which is caused by the presence of sodium (one of the components of common salt) on the clay colloid, makes them harsher soils. Amelioration by gypsum treatment has resulted in improved yields elsewhere. These hard red duplex soils range over the entire landscape from the ridge and hill slopes to the valley bottoms where they have the deepest profiles and are often associated with cracking clay soils. Soil depth progressively diminishes from valley bottom to upper hill and ridge slopes where the shallowest profiles occur, usually associated in complex soil patterns with a variety of shallow soils overlying country rocks and or calcrete. In such situations, soil depth controls moisture supply that in years of low rainfall can become critical. Improved crop yield can be achieved by breaking up thin calcrete pans to allow plant roots to penetrate to greater depth.

Two steep hilly areas with narrower valleys, lacking the sub-parallelism of the surrounding ridge and valley lands are found between Clare and Watervale, and also east of Saddleworth. The most common soils therein, are hard yellow duplex soils (their clay subsoils are not red, but are mottled mainly in yellow-brown and yellow-grey). Many are liable to seasonal waterlogging due to the relative impermeability of their sodic subsoils. Correction of this physical problem by ripping of subsoils and gypsum placement therein greatly improves plant growth.

The calcareous earths and their associated sand dune soils are found mainly in the western part of the Lower North in the Bumbunga basin and in the south-western part, the Mallala plain, where it borders Gulf St Vincent. These calcareous earths contain large amounts of calcium carbonate (lime); up to ten per cent in surface soils, and sixty per cent in subsoils. Some is hardened to calcrete or may be stony and rubbly. Some are either saline within the profile or else in the sediment below. Like most Australian soils they are low in phosphorus, nitrogen, and micro-nutrient elements. However, the effect of the calcium carbonate, particularly that present in the clay fraction, on plant nutrition is not understood. Physically they are easy soils to cultivate, but those on the more exposed sites, such as dune crests are prone to severe wind erosion. The calcareous earths in the Mallala plain are often associated with areas of sodic, hard red duplex soils.

Vegetation

The Lower North Statistical Subdivision has been extensively cleared and cultivated for crops and pastures since early in the State's history. Consequently, the natural vegetation that occurs is scattered in remnants throughout the area.

The coastal vegetation consists largely of low samphire shrublands (*Halosarcia* spp., *Atriplex paludosa*) with mangroves (*Avicennia marina* var. *resinifera*) at the head of Gulf St Vincent. Samphire shrubland is also found around the salt lake at Bumbunga and

consists mainly of *Halosarcia halocnemoides* and *Salicornia quinqueflora-Suaeda australis* associations.

The Gulf plains contain remnants of the once widespread red mallee-yorrell (*Eucalyptus socialis-E. gracilis*) association, with some mallee box (*E. porosa*) on the plain and peppermint box (*E. odorata*) on the hills and lower slopes.

The red mallee-yorrell association is also found in the Mount Lofty Ranges together with native cypress pine (*Callitris preissii*), dry land tea-tree (*Melaleuca lanceolata*) and South Australian blue gum (*E. leucoxylon*). At Penwortham, near Clare is a reserve containing a stand of red stringybark (*E. macrorhyncha*), a tiny remnant of wetter forests and the only stand of these trees now known in South Australia.

The intramontane areas of the Ranges have pockets of chenopod shrubland.

Around Yacka, westward along the Broughton River in the northwest of the region, introduced willows and the river red gum (*E. camaldulensis*) are found. Sheoak (*Casuarina stricta*, *C. cristata*) and peppermint box (*E. odorata*) are also common.

The Bald Hill Range is covered by open tussock shrubland with irongrass (*Lomandra dura*, *L. effusa*) and has never been forested.

East of Burra and the Ranges the vegetation takes on the character of the Murray mallee areas. South Australian blue gum (*E. leucoxylon*), saltbush (*Atriplex* spp.), wattles (*Acacia* spp.), black oak (*C. cristata*) and false sandalwood (*Myoporum platycarpum*) form an open scrub.

There are pine plantations (*Pinus radiata*) near Clare, and in the region to the north-east of Clare. Apart from cultivated croplands, much of the area consists of open savannah with an understorey of exotic and native pastures.

Fauna

The Lower North region contains a variety of habitats ranging from mangroves and samphire shrubland on the coast, agricultural plains, and dry sclerophyll in the northern Mount Lofty Ranges, to mallee scrubland east of the Ranges. All areas have been affected by the pastoral and agricultural activities of man. Only pockets of undisturbed natural vegetation remain, to which much of the native fauna is confined.

Amphibians are represented by frogs of the genus *Limnodynastes* and the short-legged toadlet (*Pseudophryne bibroni*), which occur in the Ranges. In moister areas occurs a species of tree frog (*Litoria ewingi*), while the water-holding frog (*Neobatrachus pictus*) inhabits the drier areas, aestivating through dry periods buried beneath the soil.

A variety of small lizards of the Skink family are common in the region, as are representatives of the Gecko family. Lizards whose limbs have become reduced or vestigial so that they resemble small snakes are also found in the area. Three lizards are often seen because of their conspicuous size, these being the stumpy-tail lizard (*Trochodyosaurus rugosus*), the blue-tongue lizard (*Tiliqua scincoides*) and the bearded dragon (*Amphibolurus barbatus*). The most commonly encountered snake is the brown snake (*Pseudonaja textilis*).

A large number of bird species inhabits the area, and the following provides only a very general summary. The swampy areas along Gulf St Vincent provide a habitat for waders, plovers, sandpipers, cormorants, egrets and gulls. The parrot family is well represented throughout the region, with the galah (*Cacatua roseicapillus*) and the Adelaide rosella (*Platycercus adelaidae*) being two of the commoner species. The galah has become more numerous since European settlement because cleared land and cultivated crops provide a suitable habitat and a good food source.

Raptors are represented by species of kite, falcon and hawk, and the wedge-tailed eagle (*Aquila audax*) is frequently seen.

Owls and frogmouths are more often heard than seen because of their nocturnal habits.

Many smaller birds are confined to the pockets of remaining scrub and include species of honeyeater, wren, finch and robin.

Birds commonly seen throughout the region are the crested pigeon (*Ocyphaps lophotes*), Australian magpie (*Gymnorhina tibicen hypoleuca*), white-winged chough (*Corcorax melanorhampus*), little raven (*Corvus mellori*), magpie lark (*Grallina cyanoleuca*), willy wagtail (*Rhipidura leucophrys*), and laughing kookaburra (*Dacelo novaeguineae*).

The blackbird (*Turdus merula*), English starling (*Sturnus vulgaris*) and house sparrow (*Passer domesticus*) are introduced species which have become well established in the region, and compete with native species for food and territory.

Of the mammals, one representative of the primitive, egg-laying monotremes, the echidna (*Tachyglossus aculeatus*), is found in the area. Of the marsupials, the common brushtail possum (*Trichosurus vulpecula*) is well known, as are the western grey kangaroo (*Macropus fuliginosus*) and the euro (*Macropus robustus*).

Two further marsupial species inhabit the area, but are not often seen because of their small size and nocturnal habits. These are the rat-tailed dunnart (*Sminthopsis crassicaudata*) and the western pigmy possum (*Cercartetus concinnus*).

Native placental mammals are represented by several species of bat.

Introduced mammals common in the area are pests of man and have contributed to a serious reduction in the variety and extent of native animals, either by competition for food and territory, as in the case of the rabbit (*Oryctolagus cuniculus*), or by predation, as in the case of the fox (*Vulpes vulpes*) and domestic cat (*Felis catus*). The black rat (*Rattus rattus*) and house mouse (*Mus musculus*) are two further introduced species established in the area. Periodic mice plagues occur in the region when food is particularly plentiful.

History

The Kurna aboriginal tribe inhabited the plains from Crystal Brook to Myponga before white settlement. It was believed to have numbered about 650 persons in 1836. Members of the tribe were nomadic, relying on gathering, hunting and fishing for subsistence.

The first Englishmen to sight the region's coast were led by Matthew Flinders. The *Investigator's* log for March 1802 contained an entry describing the '... Hummock Mount which stands upon a northern prolongation of the hills on the west side of the inlet and about eight miles from the water.' Flinders noted that he had '... named this inlet the Gulf of St Vincent'.

The South Australian Colonization Act was assented to in 1834. It authorised an attempt to settle South Australia providing that a proportion of the available land had been sold. The South Australian Company purchased more than half the land offered, and the first colonists arrived at Holdfast Bay in November of 1836.

The colonising company had wished for a community of small agricultural holdings, but there was no rural land surveyed before the initial settlers arrived, and pastoralists were the first entrepreneurs in the Lower North. The explorer Edward John Eyre, who in the previous year had driven sheep overland to Adelaide from New South Wales, travelled through the district in 1839 and named the Wakefield River.

In the same year, J. A. Horrocks settled at Penwortham, encouraging unemployed labourers from Adelaide and new immigrants to work for him as shepherds. James Masters held pasture land near Riverton from 1840, on an occupation licence, which

theoretically at least meant it could be resumed for agriculture. In 1845 the Bowman family took up land under squatters rights, to graze sheep in what is now the District Council of Port Wakefield.

Very soon minerals were discovered. Copper was mined at Kapunda from 1844. Francis S. Dutton, co-owner of the mine, also controlled the largest flock of sheep in South Australia at that time. In *South Australia and its Mines* Dutton described the slow passage of ore to the coast.

'the ore is all carted to (Port Adelaide) on these drays, holding two tons each and drawn in summer by six bullocks, during the wet weather eight. They reach Gawler Town the first night, eighteen miles: next day to the Dry Creek eighteen miles more, and the following day they are early at the Port.'

Forty miles north of Kapunda, in 1845, a shepherd named Pickitt found more copper at Burra Burra. In the first six years of production at this mine 80 000 tonnes of ore were raised. The transport problem recurred, and the general manager of the Patent Copper Company, which conducted the smelting operation across Burra Creek from the mine, organised the building of a bullock road to the coast. The construction of the first facilities for loading the raw material onto lighters and barges at Port Henry (Port Wakefield) was completed in 1848.

Where the bullock road crossed the hills new villages came to life. Mintaro and Watervale were settled in 1849, and Auburn and Leasingham in the following year. The road fell into disuse after 1857, when the ore could be shipped to the new railway terminus at Gawler. Balaklava, on the horse tramway between Port Wakefield and Hoyleton, was established in 1870, and in that year the northern railway was extended from Gawler to Burra.

John Ellis, from England by way of Singapore, was granted an occupation licence in 1845 to lease the area which appears on current maps as the Hundreds of Barunga and Cameron. In 1878 Snowtown was gazetted as a township at the end of a railway constructed to carry grain from the newly opened agricultural areas to the sea at Wallaroo. The pioneer squatters arrived at Redhill in 1845 and land was assumed legally through pastoral leases in 1851. J. B. Hughes of Bundaleer was the first settler north of the River Broughton in the Hundreds of Andrews and Reynolds, in 1841. The Hawker brothers of Bungaree were, a short while later, the earliest landholders in the area now known as the District Council of Clare.

Mintaro was given its name, meaning resting place, by Spanish speaking muleteers who carted copper ore from the Burra Mine to the ocean. Slate was discovered in the district in the 1850s and used locally for a variety of purposes, including roofs, wine vats, fences, floors and troughs. Mr Tomson Priest conducted operations for about thirty years, until a company was formed in 1893. The quarry, still being worked, is a landmark in the area.

While most of the land within the Lower North is occupied by farms and grazing properties, there are vineyards and orchards in the Hutt Valley close to Clare. In the 1890s ten tonnes of fruit each week were shipped to the Broken Hill mines.

Over the years there has been a change in emphasis in economic activity in some areas of the region. Up to 30 000 tonnes of salt has been taken in a year from Lake Bumbunga, and with new technology, mining recommenced at Burra in the early 1970s. Stone suitable for road construction is readily available in the area, and there is a regional network of roads directed towards Adelaide. This has tended to detract from the Lower North's importance as a site of markets for its own produce.

Water for domestic and industrial use is supplemented from the Murray River by way of the Morgan-Whyalla pipeline, and electricity is available from the Electricity Trust of

South Australia. At Bowmans the Trust has excavated a conical pit, 300 metres in diameter and 60 metres deep to provide a bulk coal sample for combustion testing and mining feasibility information.

Agricultural Development

Through the middle of the 1860s the colony experienced a burst of commercial activity. Between 1861 and 1863, 1 576 mining claims were made. There was an increase in immigration at the public's expense. The population nearly doubled in the ten years to 1866.

The expansion north of Adelaide was quickest. By 1866, outside of the metropolitan area, the only municipalities were at Gawler and Kapunda. There were already district councils at Clare and Upper Wakefield. Burra and Clare had Masonic lodges.

The records show that imports of hops and tobacco doubled from 1862 to 1867, and coffee trebled. At the same time exports increased rapidly. The quantity of copper metal carried from South Australia was improved by twenty per cent from 1862 to 1867. The export of wheat increased by forty per cent and copper ore by 250 per cent. The value of the colony's produce jumped by 50 per cent in the same period.

In 1865 the Surveyor General, George Goyder, mapped the southern limits of a severe drought which had begun the previous year. North of this line, he reported, the soils were capable of producing cereal crops, but the rainfall was unreliable. There were signs that the drought was having an effect on the pastoralists. Wool exports from Port Augusta declined by 75 per cent between 1863 and 1865. The farmers, now that the easily developed Adelaide Plains had been taken up, found themselves restricted by uncleared land and the sheep leases. Encouraged by rising grain yields and prices, they pressed for new land laws which would operate in their interests. In 1869 the Waste Lands Amendment Act, popularly known as the 'Strangways Act', was passed, making easier the selection of small farming blocks from land normally leased for grazing. In new 'Agricultural Areas' land could be purchased on a small deposit but the selector had to improve the holding and reside there until he had paid for it.

In 1869 nine new hundreds were proclaimed, opening a continuous arc of land from the Barunga Range north-eastward through the middle Broughton district and almost entirely within the boundary of the 'rainfall line' established by Goyder. Five of the hundreds were in the present Lower North Statistical Subdivision, the others adjacent and immediately north. Hopeful farmers soon pushed the agricultural districts past Clare but a series of severe droughts, in 1866, 1881, 1885 and 1888 re-established Goyder's Line as the limit of viable grain cropping.

To the west of the region, in the shadow of the Mount Lofty Ranges, are the district councils of Eudunda and Robertstown. The former was pioneered in the 1860s by Salesian farmers who had previously tended gardens and vineyards at Klemzig and in the Barossa Valley—they had emigrated from Germany to escape religious persecution. Eudunda is centred on the Hundred of Neales, which, in the South Australian Gazeteer of 1867 was described as '... a newly formed hundred, lying in the Northwest part of the County (Eyre) and containing only a small quantity of purchased land'.

When the copper mines at Kapunda closed down in the 1870s almost the only occupations in the district which returned a living wage were in agriculture. A decade later, with continuing droughts and wide depression, the farming industry there was in such a perilous state that many farmers turned to woodcarting.

The supply of wood soon exceeded local demand and some wood merchants began to barter their stock for groceries. In 1895 the Eudunda Farmers' Co-operative Society was formed, to put some order into storage of the wood. The purchase of a general store followed, and by the middle of the twentieth century the Co-operative conducted business at fifty branches, selling a wide range of farm and household goods.

Robertstown is situated in the Hundred of English, which, until 1865 was held by Frederick H. Dutton as part of his Emu Flats pastoral run. Auburn is the birthplace of the Australian author C. J. Dennis (*Songs of the Sentimental Bloke*). In 1866 the town was the commercial and administrative centre of a well populated district, with a steam-driven flour mill, a brewery, and a mechanics' institute.

The Lower North is important in the State's economy for the production of wheat, barley and oats. Wine grapes are grown in the Clare district and there are several locally produced high quality red and white wines. The Jesuit winery at Sevenhill was established in 1857 and is world famous for sacramental wines. Many farms have milking cows and there is sufficient concentration of these in County Stanley for a large dairy processing factory to be maintained at Clare. Cattle raised for meat are found throughout the Lower North with the majority in counties closest to the Adelaide market. Pigs are also common in these areas, with the largest herds in the southern hundreds.

Population

The population of Lower North Statistical Subdivision at 30 June 1980 was estimated at 19 100 representing 1.47 per cent of the State population.

The following table shows population figures since 1966 for Lower North and South Australia.

Population, Lower North and South Australia

Area	At 30 June				
	1966	1971(a)	1976(a)	1979	1980
Balaklava (DC)	1 950	1 800	1 950	2 000	2 050
Blyth (DC)	895	850	850	800	850
Burra Burra (DC) (b)	2 611	2 450	2 300	2 250	2 250
Clare (DC) (c)	3 500	3 450	3 550	3 650	3 700
Eudunda (DC)	1 537	1 350	1 400	1 400	1 400
Owen (DC)	1 355	1 200	1 250	1 250	1 250
Port Wakefield (DC)	1 020	1 000	950	1 000	1 000
Redhill (DC)	738	600	550	500	500
Riverton (DC)	1 449	1 400	1 400	1 400	1 400
Robertstown (DC)	1 148	800	800	750	750
Saddleshworth and Auburn (DC) (d) ..	2 240	2 050	2 050	2 050	2 050
Snowtown (DC)	1 694	1 550	1 450	1 450	1 450
Spalding (DC)	705	650	600	550	550
Total Lower North	20 842	19 200	19 050	19 000	19 100
SOUTH AUSTRALIA	1 091 875	1 185 300	1 261 600	1 293 800	1 299 100

(a) Census population adjusted for underenumeration.

(b) Burra (M) and Burra Burra (DC) amalgamated in April 1969.

(c) Clare (M) and Clare (DC) amalgamated in January 1969.

(d) Saddleshworth (DC) and Upper Wakefield (DC) amalgamated in July 1970.

The major urban centres in the Lower North include Clare (population 2 260 at 30 June 1976), Balaklava (1 237) and Burra (1 210).

The age distribution of the population in the Lower North and the State follows a similar pattern with no marked divergence except in the lowest (0-9 years) and highest (50 and over) age groups where the proportion for the Lower North is slightly higher than that for the State.

Age Distribution of Population: Lower North and South Australia, 30 June 1976

Age Group (Years)	Lower North		South Australia	
	Persons	Per Cent	Persons	Per Cent
0-9	3 408	18.1	213 520	17.2
10-19	3 372	18.0	233 935	18.8
20-29	2 623	14.0	206 364	16.6
30-39	2 147	11.4	155 109	12.5
40-49	1 994	10.6	137 415	11.0
50-59	2 124	11.3	131 238	10.5
60-69	1 684	9.0	95 377	7.7
70 and over	1 429	7.6	71 806	5.8
Total	18 782	100.0	1 244 760	100.0

In common with other areas outside Adelaide, the Lower North has a significantly lower proportion of overseas born persons than the State.

Birthplace of Population: Lower North and South Australia, 30 June 1976

Country of Birth	Lower North		South Australia	
	Persons	Per Cent	Persons	Per Cent
Australia	17 706	94.3	951 535	76.4
Overseas born:				
UK and Eire	716	3.8	157 882	12.7
Germany	68	0.4	15 393	1.2
Italy	27	0.1	31 943	2.6
Netherlands	74	0.4	10 741	0.9
Other Europe	77	0.4	53 302	4.3
Other	116	0.6	23 958	1.9
Total Overseas born	1 077	5.7	293 219	23.6
Total	18 782	100.0	1 244 760	100.0

Births and Deaths

The following two tables compare the number of births, birth rate, number of deaths and death rate in Lower North with those of the State.

Live Births: Number Registered and Rate
Lower North and South Australia

Year	Lower North		South Australia	
	No.	Rate (a)	No.	Rate (a)
1975	324	17.00	19 986	15.95
1976	295	15.50	18 947	15.02
1977	324	17.00	19 260	15.09
1978	298	15.68	18 558	14.41
1979	291	15.33	18 478	14.28

(a) Number of births per 1 000 mean population.

**Deaths: Number Registered and Rate
Lower North and South Australia**

Year	Lower North		South Australia	
	No.	Rate (a)	No.	Rate (a)
1975	200	10.50	9 947	7.94
1976	182	9.56	9 999	7.92
1977	180	9.45	9 784	7.66
1978	205	10.79	9 763	7.58
1979	182	9.59	9 661	7.46

(a) Number of deaths per 1 000 mean population.

Education

Schools

At 1 August 1980 the Education Department was responsible for seven primary schools, three secondary schools, two area schools and two rural schools in the Lower North Subdivision.

In addition to the Government schools, there is one Catholic and one Lutheran primary school in this region.

**Students at Government and Non-government Schools
Lower North at 1 July, 1980**

Category of School	Number of Students		
	Primary	Secondary	Total
Government	2 361	1 420	3 781
Non-government	212	—	212
Total	2 573	1 420	3 993

Libraries

Public libraries are located at Clare and Saddleworth. There are also community-school libraries at Balaklava, Burra and Eudunda. More libraries are planned in the future at Clare and in the Saddleworth district.

National Trust Museums and Historic Sites

The National Trust of South Australia, established by Act of Parliament in 1955, encourages the preservation of buildings of architectural and historic interest. It has four branches in the Lower North.

Soon after its establishment in 1973 the Auburn branch acquired the Court House and Police Station for use as a folk museum.

The Balaklava branch maintains an historical museum in Centenary Hall.

The Clare branch museum is located in the Court House and Police Station which was built in 1850, and used for a time as a Casualty Hospital, a name by which many residents still know it. The building and the hectare of land surrounding it are leased from the Clare District Council.

There are many early buildings in the Burra district. In Truro Street, Burra North, three police cells, stables for the troopers' horses and a courtyard with a house for the officer-in-charge were built about 1847, and dedicated to the Trust in 1976. In Market Square an old shop is now used as the Burra branch headquarters and museum. Tools, machinery, photographic and documentary material associated with the town's mining history are exhibited.

From 1845 to 1870 all mining at Burra was underground, but from then until 1877 an open cut mine operated. All the remaining buildings at that site are being preserved. Peacock's Chimney, the Burra Powder Magazine, and the original Bon Accord Mine buildings (a workshop, smithy, store-room, staff accommodation and mine manager's cottage) are all maintained by the Trust.

Many of the early Cornish miners excavated their houses in the soft clay of Burra Creek, and by 1849 some 2 000 people were living in these dugouts. A series of floods during the 1850s drove most of them out. In 1971 these few which remained were purchased by the Trust. Subsequent accommodation for the miners may be seen in Paxton Square, a three-sided complex of thirty-three two-roomed cottages built about 1856.

Expanding population made the Truro Street cells inadequate by 1855 and in the following year Redruth Gaol, the first built outside of Adelaide, was completed. It was closed in 1894, reopened in 1899 as a girls' reformatory and closed again in the 1920s. Since 1977, when this property was dedicated to the Trust, restoration has been carried out with the aid of government grants.

Martindale Hall at Mintaro and the homesteads at Bungaree near Clare and Princess Royal at Burra are of architectural significance.

Media

The Lower North has three newspapers. The *Balaklava Producer* circulates in the western portion of the district, and is distributed as far north as Snowtown and as far South as Mallala and Two Wells. The *Eudunda Courier* reports on happenings in the eastern sector of the Lower North, and the *Northern Argus* has been published at Clare since the latter half of the nineteenth century.

There are no radio or television stations located within the boundaries of the Lower North, but reception of broadcasts from several national and commercial stations is satisfactory throughout the district.

Two recent prize-winning motion pictures have been filmed in the area. The Redruth Gaol at Burra was used as a location for *Breaker Morant*, and several sequences of *Picnic at Hanging Rock* were taken at Martindale Hall, Mintaro.

National Parks and Wildlife Reserves

There are two Conservation Parks in the area. They are Spring Gully Conservation Park, in the Hundred of Clare (405 hectares), and Munderoo Conservation Park, in the Hundred of Munderoo (795 hectares).

In total these reserves account for less than 0.2 per cent of the land area of the Statistical Subdivision. This compares with 4.4 per cent of the total area of the State held in National Parks and Wildlife Service Reserves.

In addition to the paucity of dedicated conservation areas, there is also a comparative lack of Government forest areas and of uncleared native vegetation on private land. Many landholders have completely denuded their arable land of vegetation in attempts to obtain maximum production from the soil.

The small areas of uncleared vegetation and Government Reserves which do exist thus play an important role in relation to flora and fauna conservation in the region.

Spring Gully Conservation Park

This park is situated on a western ridge of the northern Mount Lofty Range, approximately 15 kilometres south of Clare, and preserves part of the only stand of red stringybark (*Eucalyptus macrorhyncha*) in South Australia.

The species is here considered to be a relic species left behind from a wetter period in history when it and other Eucalypt species were probably continuous with those of the east coast of the Australian continent. It now occurs over approximately 1 215 hectares of the Clare Hills west of Watervale, Penwortham and Sevenhill but the next nearest populations are as far away as Dubbo in New South Wales and on Cape Otway in Victoria.

The *E. macrorhyncha* dominated open forest association occurs mainly on the upper slopes of the park and from here park visitors may obtain fine views over the plains to the west. Blackboys (*Xanthorrhoea* spp) occur in more open areas and western grey kangaroos and euros are found in the ranges and also in southern cleared portions of the park, which provide interesting picnic areas.

Mundoora Conservation Park

Mundoora is an aboriginal word relating to the floods which used to occur relatively frequently along the Broughton River. The park, located on an undulating calcrete plain overlain by occasional stable dunes near Port Broughton, contains the last substantial area of mallee vegetation which was once common on the Northern Adelaide Plains and Yorke Peninsula.

The open-scrub association of *Eucalyptus socialis*, *E. gracilis* and *E. anceps* provides habitat for many mallee birds and reptiles as well as a few western grey kangaroos and euros. Birds observed breeding in the park include the wedge-tailed eagle, nankeen kestrel, galah, mulga parrot, barn owl, boobook owl and the yellow-tailed pardalote. In addition, two very old mounds of the mallee fowl can be found, although this species is now thought to be locally extinct.

There are no Historic Reserves or Prohibited Areas in the area registered under the Aboriginal and Historic Relics Preservation Act, 1965. There are, however, a number of Aboriginal sites in the region. These are recorded in the Register of Aboriginal Sites held by the Heritage Unit. The above Act is due to be repealed in the near future and will be replaced by the Aboriginal Heritage Act. Under this new Act all registered sites are afforded protection.

The majority of sites in the following list are engraving sites. As such they probably represent the southernmost hint of hard rock engravings in South Australia. Engravings are of reputed great antiquity and are most common in the area north of Port Augusta.

- Spalding (DC): Freshwater Creek engraving site;
13 kilometres north of Spalding on Freshwater Creek in a Water Reserve.
- Burra Burra (DC): Mullaby engraving site;
6 kilometres east of Burra on the Upper Stone Chimney Creek and just over 1.5 kilometres north of the Baldina Road.
Upper Baldina Creek engraving sites;
Approximately 8 kilometres north-east of Burra on Baldina Creek, Hundred of Kooringa, Section 149.

Iron Mine Church engraving site;

Approximately 12 kilometres west northwest of Burra and 1 kilometre north of the Primitive Methodist Chapel known as the Iron Mine Church.

Burra Aboriginal quarry;

25 kilometres east of Burra and some 450 metres south of the Road to Murbaby and Koomooloo.

Central Stone Chimney engraving site;

Approximately 6 kilometres east of Burra and 603 metres north of the Baldina Road, Hundred of Kooringa, Section 219.

Lower Stone Chimney Creek engraving site;

Approximately 11.5 kilometres east of Burra. Access from King's Stock Route, Hundred of Baldina, Section 98.

Stone Chimney (Deep) Creek main engraving site;

Approximately 9 kilometres east of Burra. Access from King's Stock Route, Hundred of Baldina, Section 101.

Redhill (DC):

Possible rock shelter adjacent to Port Broughton, approximately 7 kilometres west of Yacka and about 1 kilometre downstream from an area known locally as White Cliffs. Smoke blackening is not apparent, but a working core was noted on the floor of the shelter. Numerous flakes and geometric microliths and several 'Kartan' implements, have been found in this area.

Saddleworth and Auburn (DC): Koonowla Campsite;

5 kilometres south-east of Auburn on Koonowla property.

Port Wakefield (DC): Port Wakefield Campsite No. 1;

First line of sandhills south of Bowmans, 2 kilometres from the River Wakefield.

Bowmans Campsite No. 2;

First line of sandhills south of Bowmans, 2 kilometres from the River Wakefield.

Bowmans Campsite No. 3;

First line of sandhills, south of Bowmans, 2 kilometres from the River Wakefield.

Bowmans Campsite No. 4;

Approximately 0.5 kilometres east of Main Road, Port Wakefield on south bank of River Wakefield, mostly behind a boundary fence running parallel to the river.

Employment

The following table shows the industry of the employed population in Lower North and South Australia at the 1976 Census. Rural industries predominate in Lower North. Of the employed persons in Lower North, agriculture, forestry and fisheries accounted for 46.6 per cent of males and 43.0 per cent of females; proportions for the State were 8.9 per cent and 8.2 per cent respectively.

Industry of Employed Persons: Lower North and South Australia, 30 June 1976

Industry	Lower North		South Australia	
	Number	Per Cent	Number	Per Cent
MALES				
Agriculture, forestry, fishing etc.	2 495	46.6	31 051	8.9
Mining	79	1.5	3 123	0.9
Manufacturing	326	6.1	88 333	25.4
Electricity, gas and water	129	2.4	9 524	2.7
Construction	361	6.7	40 154	11.5
Wholesale and retail trade	732	13.7	59 120	17.0
Transport and storage	293	5.5	21 337	6.1
Communication	118	2.2	7 952	2.3
Finance, business services etc.	128	2.4	18 336	5.3
Public administration, defence	110	2.0	16 660	4.8
Community services	282	5.3	29 565	8.5
Entertainment, recreation	106	2.0	9 998	2.9
Other and not stated	195	3.6	13 174	3.8
Total employed males	5 353	100.0	348 327	100.0
FEMALES				
Agriculture, forestry, fishing etc.	1 466	43.0	16 402	8.2
Mining	6	0.2	342	0.2
Manufacturing	113	3.3	25 261	12.7
Electricity, gas and water	8	0.2	531	0.3
Construction	34	1.0	4 024	2.0
Wholesale and retail trade	425	12.5	41 602	20.9
Transport and storage	39	1.1	3 194	1.6
Communication	75	2.2	2 467	1.2
Finance, business services etc.	70	2.1	14 878	7.5
Public administration, defence	29	0.9	5 942	3.0
Community services	638	18.7	54 053	27.2
Entertainment, recreation	151	4.4	15 787	7.9
Other and not stated	356	10.4	14 529	7.3
Total employed females	3 408	100.0	199 008	100.0

In Lower North 69.4 per cent of persons aged 15 and over had an annual personal income of less than \$6 000 (compared to 59.3 per cent in South Australia) and 12.1 per cent had an annual personal income of more than \$9 000 (compared to 12.0 per cent for South Australia).

Annual Personal Income: Lower North and South Australia, 30 June 1976

Annual Personal Income	Lower North		South Australia	
	Persons	Per Cent	Persons	Per Cent
Nil	1 644	12.1	133 529	14.6
Less than \$1 500	1 202	8.9	67 986	7.4
\$1 500-\$2 000	1 420	10.5	72 525	7.9
Over \$2 000-\$3 000	1 713	12.6	87 203	9.5

Annual Personal Income: Lower North and South Australia, 30 June 1976 (continued)

Annual Personal Income	Lower North		South Australia	
	Persons	Per Cent	Persons	Per Cent
Over \$3 000-\$4 000	1 157	8.5	53 974	5.9
Over \$4 000-\$5 000	1 132	8.3	55 526	6.1
Over \$5 000-\$6 000	1 156	8.5	72 750	8.0
Over \$6 000-\$7 000	992	7.3	88 096	9.6
Over \$7 000-\$8 000	720	5.3	73 019	8.0
Over \$8 000-\$9 000	570	4.2	52 647	5.7
Over \$9 000-\$12 000	664	4.9	68 174	7.5
Over \$12 000-\$15 000	244	1.8	22 306	2.4
Over \$15 000-\$18 000	87	0.6	8 832	1.0
Over \$18 000	111	0.8	9 695	1.1
Not stated	762	5.6	48 608	5.3
Total Population aged 15 years and over	13 574	100.0	914 690	100.0

Health Facilities

In the Lower North there are public hospitals at Balaklava, Blyth, Burra, Clare, Eudunda, Riverton and Snowtown.

There are branches of the Red Cross Society in Auburn, Balaklava, Black Springs, Blyth, Brinkworth, Burra, Clare, Eudunda, Owen, Riverton, Saddleworth, Snowtown, Spalding and Steelton, and St John Ambulance centres are located at Balaklava, Burra, Clare, Eudunda and Snowtown.

The Mothers and Babies Health Association fulfils an important role in the community life of the region, particularly serving the more isolated areas. Centres are at Balaklava, Brinkworth, Burra, Clare, Eudunda, Riverton, Saddleworth, Snowtown and Spalding.

Welfare Facilities

The Department for Community Welfare provides welfare services to the region through its branch office at Clare.

Water Supply

The Lower North Statistical Subdivision is served by two Engineering and Water Supply Department Regions, which have their headquarters at Crystal Brook and Elizabeth respectively.

The water supply to this area has considerable flexibility, since piped water may be directed to different reservoirs when it is necessary to supplement natural intakes.

During summer, both the Warren and Barossa systems are augmented with water from the River Murray.

In 1902 the Bundaleer Reservoir near Spalding was completed and enabled reticulation to the towns and farming lands south of the reservoir and provided additional water to supplement the supplies from Beetaloo Reservoir to northern Yorke Peninsula.

The Bundaleer, Barossa and Warren systems comprised the main source of supply for the subdivision until the Morgan-Whyalla Pipeline was completed in 1944. This pipeline follows a route from Morgan through Hanson, Spalding, Nelshaby and Port Augusta to Whyalla. Because of an increased demand for water this pipeline was duplicated in 1967.

The Barossa Reservoir, also completed in 1902, was built to serve the area between

Gawler and Port Wakefield. It still serves this district, but today its principal importance is its operation as part of the system supplying the northern metropolitan area of Adelaide.

In 1916 the Warren Reservoir was constructed on the South Para River to supply towns and farmlands in the Barossa Valley and lower northern areas. From this reservoir the Warren Trunk Main extends northward to the Barossa Valley and westerly in a broad arc to terminate at a large service reservoir near Paskeville on Northern Yorke Peninsula. The trunk main feeds a distribution system with about 1 100 kilometres of mains to the Lower North and supplements supplies (most of which come from the Bundaleer Trunk Main) to 800 kilometres of mains on Yorke Peninsula, through the reservoir at Upper Paskeville. It is interconnected at various points with mains in the Bundaleer Reservoir System.

Source of supply for the Warren Reservoir was initially only the South Para River but in 1955 a supplementary source was provided by constructing a branch main from the Mannum-Adelaide Pipeline.

The reservoir can now be supplied with water in winter from the Swan Reach-Stockwell Pipeline, commissioned in 1969 to supplement supplies to the lower north of the State and to service townships and farming lands along its route.

Sewerage

Common effluent drainage schemes have been installed at Burra, Clare, Eudunda, Port Wakefield, Riverton and Saddleworth. The establishment of these schemes has eliminated septic tank effluent and sullage waste disposal problems, protected the town water supplies and improved environmental conditions in the townships.

The Central Board of Health has received applications for assistance to establish similar schemes at Balaklava, Blyth and Snowtown.

Electricity Supply

In 1922 the Adelaide Electric Supply Company Limited was empowered by State Parliament to extend its mains to any area within the State where profitable loads were available. The Company was permitted to extend its operations to country areas where there had been no supply or a supply restricted to township areas.

The Company extended its mains through Gawler and Owen and by August 1925 had reached Balaklava, where the electricity supply undertaking which had started in 1916 was purchased. Within two years the 33 kV transmission line was extended to Halbury, Blyth, Brinkworth, Yacka and Georgetown.

The Mid North Electricity Company Limited, inaugurated its supply at Clare in July 1925 and by 1927 energy was transmitted as far as Auburn, Eudunda, Marrabel, Mintaro, Riverton, Saddleworth, Sevenhill and Watervale. Supply was also offered to farmers en route. At this stage a total of 550 consumers were supplied with electricity for lighting but only 100 were supplied with electricity for power. Since lighting requires less energy than power a small plant (255 kW) was able to support a wide area of supply and a relatively large number of consumers.

The Burra Electric Supply Company began its supply in 1924 and continued operations until 1958 when the Trust took over some 284 consumers. About this time a 33 kV transmission line was built between Waterloo and Burra.

Independent supply at other locations within the area commenced in Hamley Bridge (1912), Snowtown (1922), Bute (1926), Redhill (1926), and Port Wakefield (1936).

The present transmission system comprises two 132 kV and two 275 kV lines between Port Augusta and Adelaide. The two systems pass through the Lower North and are

connected at Brinkworth Substation. The 132 kV lines pass through major substations at Brinkworth, Waterloo and South Hummocks and supply power to the load centres of the Lower North as well as facilitating the transmission of electricity to other areas of the State.

Minor substations have been built at Auburn, Blyth, Brinkworth, Balaklava, Burra, Clare, Collinsfield, Eudunda, Hamley Bridge, Marrabel, Robertstown, Spalding and along the Morgan-Whyalla Pipeline. These substations, together with the interconnecting 33 kV transmission lines supply the local distribution systems.

To extend its supply to the more remote rural consumers in the Lower North the Trust has used a low cost SWER (Single Wire Earth Return) system.

The Electricity Trust has a regional headquarters at Clare with local district depots serving the Lower North Statistical Subdivision at Burra, Riverton and Kadina. Regional Headquarters is responsible for the construction and maintenance of Trust mains and supply services to 20 000 consumers in the subdivision.

Housing

The number of the occupied private dwellings in the Lower North as a proportion of the State total has fallen from 1.9 per cent in 1966 to 1.5 per cent in 1976.

Occupied Private Dwellings, Lower North and South Australia

Area	Census 30 June		
	1966	1971	1976
Balaklava (DC)	581	574	636
Blyth (DC)	246	232	242
Burra Burra (DC) (a)	745	696	690
Clare (DC) (b)	994	1 001	1 084
Eudunda (DC)	427	404	432
Owen (DC)	399	390	422
Port Wakefield (DC)	261	265	286
Redhill (DC)	194	168	182
Riverton (DC)	409	398	416
Robertstown (DC)	285	236	244
Saddleworth and Auburn (DC) (c)	644	629	678
Snowtown (DC)	441	432	434
Spalding (DC)	190	180	170
Total Lower North	5 816	5 605	5 916
South Australia	299 630	342 064	390 514

(a) Burra (M) and Burra Burra (DC) amalgamated in April 1969.

(b) Clare (M) and Clare (DC) amalgamated in January 1969.

(c) Saddleworth (DC) and Upper Wakefield (DC) amalgamated in July 1970.

During 1979-80 there were 109 houses and 20 other dwellings completed in the Lower North. The comparable figures for 1978-79 were 98 and 11 respectively. During the year to June 1980 the South Australian Housing Trust completed three dwellings and at 30 June 1980 had eight dwellings under construction.

Rural Industries

Farming and grazing are the major industries in terms of numbers employed in this area. At the 1976 Census, 3 990 (45.5 per cent) of 8 761 employed persons described their

occupations as farmers, fishermen, hunters and timber getters, compared with a State average of 9.2 per cent. The incidence of primary industry employment varies between 27.2 per cent in the District Council of Clare and 72.6 per cent in the Redhill District Council area.

The contributions of the major sectors of rural industry to the total value of rural production for the area in 1979 were as follows: wheat \$35.5 million, barley \$14.5 million, wool \$14.5 million, sheep and lambs \$8.5 million, poultry \$4.7 million, cattle \$2.6 million, grapes \$2.2 million and oats \$1.6 million. This production was generated on 1 884 rural establishments with an overall area of 1 124 645 hectares.

The size of individual farms varies with the terrain. On the coastal plain the area of the average farm is around 600 hectares; east of the ranges the farms are bigger (about 1 900 hectares) and in the central highlands smaller farms predominate. The average size of farms has generally been increasing over time.

Average Size of Agricultural Establishments, Lower North

District Council	1975	1976	1977	1978	1979	1980
	HECTARES					
Balaklava	480	503	557	562	567	557
Blyth	454	459	456	471	479	469
Burra Burra	1 602	1 631	1 564	1 916	1 898	1 883
Clare	256	282	316	304	283	266
Eudunda	416	421	488	500	466	462
Owen	384	389	420	495	412	395
Port Wakefield	468	440	591	600	591	558
Redhill	507	517	553	575	581	560
Riverton	327	331	365	388	367	337
Robertstown	961	988	1 157	869	818	822
Saddleworth and Auburn ...	255	264	282	291	289	287
Snowtown	549	555	580	564	571	589
Spalding	618	626	654	613	603	628
Average Lower North	548	562	598	610	597	584

In those areas of the Lower North where red-brown earths are found most of the farms combine sheep and cereal grains.

These soils are hard setting, and if the rainfall is in excess of 400 millimetres and they are cultivated too frequently they lose their structure. They are liable to sheet erosion and guttering when left fallow and exposed to summer thunderstorms. The physical damage and loss of fertility caused by overcropping in earlier years is being overcome by contour banking and the establishment of subterranean clover pastures. The pastures are maintained for two to three years before the soil is used for two or three successive cereal crops.

On the loam and clay-loam soils with high calcium carbonate content, between Port Wakefield and Hamley Bridge, and on the Quondong plains this system of ley farming with alternate cycles of crops and pasture, as well as the use of phosphate fertilisers, has increased productivity dramatically, almost doubling the yields of wheat and barley in the last forty years.

On the other hand productivity has not increased to the same extent on the hard red duplex (red-brown) soils, which were originally among the most productive of the cereal growing soils.

Farmers are assured of adequate rainfall as the Lower North is within Goyder's 'Line of Rainfall'.

The statistical concept of Lower North is of recent origin (1976) and historical references, except in the case of the tables published with this article, are based on production in the counties of Stanley, Burra, Light and Gawler, which are partly contained in the new statistical subdivision.

Wheat

Each year about 1 400 Lower North growers produce 13-20 per cent of the State's wheat harvest in a region which varies between eleven and thirteen per cent of all land sown with wheat for grain in South Australia. Over time there has normally been a higher yield per hectare recorded in the Lower North Counties than for the State. Thirty per cent of the region is sown to wheat. The principal variety grown is Halberd.

Wheat for Grain, Lower North

Particulars	Unit	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
Area sown	hectares	143 473	124 555	104 466	126 939	149 709	154 239
Production	tonnes	200 232	194 811	131 932	100 510	278 711	301 954
Average yield per hectare	tonnes	1.4	1.56	1.26	0.79	1.86	1.96
Production as percentage of State	per cent	13.48	17.10	15.86	19.68	13.36	12.86

Barley

The Lower North produces about ten per cent of the State's barley. The area sown increased steadily from low war-time levels to reach a peak in 1961. It then dropped slightly, but increased dramatically in the late 1960s to double the area sown in the previous decade. Land on which farmers grew barley was only thirty per cent of that sown for wheat in the 1960s and although it exceeded eighty-four per cent in the late 1970s, has never equalled that sown to wheat.

Yields in the core county of Stanley have usually ranged among the top ten in the State. The 1 376 growers in 1979 favoured the variety Clipper, which accounted for 76 per cent of the total area sown. The most important barley growing districts in the region are Owen, Balaklava, Blyth, Snowtown and Redhill.

Barley for Grain, Lower North

Particulars	Unit	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
Area sown	hectares	71 240	85 524	84 659	107 122	108 746	97 608
Production	tonnes	129 735	136 368	90 520	66 422	174 135	166 428
Average yield per hectare	tonnes	1.82	1.59	1.07	0.62	1.60	1.71
Production as percentage of State	per cent	11.44	12.46	10.18	11.22	12.24	10.90

Oats

The level of oats production has not altered measurably for the past fifty years. However the 580 growers in this area currently contribute more than twelve per cent of the State's oats harvest and have at times provided up to twenty per cent. Production is concentrated in the Auburn, Clare and Burra districts.

Oats for Grain, Lower North

Particulars	Unit	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
Area sown	hectares	15 140	14 085	13 091	13 648	20 164	14 237
Production	tonnes	12 413	16 822	11 862	7 647	24 209	17 719
Average yield per hectare	tonnes	0.2	1.19	0.91	0.56	1.20	1.24
Production as percentage of State	per cent	11.12	15.68	13.14	13.81	13.70	12.30

Field Peas

The plains between Hamley Bridge and Eudunda are the main growing areas. In 1979, 144 growers, on 4 819 hectares produced fifteen per cent of the field peas grown for grain in South Australia. Peas are generally followed by wheat crops in rotation. Being a leguminous crop they are useful in restoring soil fertility.

Lucerne

Lucerne is grown for seed by sixty farmers on about 1 500 hectares, with an output of 143 tonnes in 1979. Pure lucerne hay, in 1979, 5 200 tonnes from 1 664 hectares, represents nine per cent of the State's hay harvest. It is widely grown on the red-brown earths, being cut for hay in November and allowed to recover for seed, which is harvested in March. The important lucerne growing area in the subdivision lies east of Riverton.

Sheep

In 1980 the number of ewes mated to merino rams represented eleven per cent of all ewes mated in this State. Merinos outnumbered other breeds in the ratio of five to one. The Lower North wool clip in the same year was 8 681 tonnes (from 1.6 million sheep) about 9.5 per cent of all wool shorn in South Australia.

Sheep Numbers by Generic Groups, Lower North at 31 March

Year	Rams	Ewes		Wethers	Lambs	Total
		Breeding	Other			
1975	26 327	841 673	82 338	321 363	416 508	1 688 209
1976	26 854	768 845	94 270	321 440	371 812	1 583 221
1977	24 666	686 760	75 133	276 174	228 395	1 291 128
1978	21 557	636 259	57 073	211 798	264 149	1 190 836
1979	24 634	713 940	52 131	246 366	306 982	1 344 053
1980	25 690	704 588	61 323	261 936	376 990	1 430 527

Sheep numbers have increased steadily since the early 1930s with a resulting growth in wool production.

Sheep and Lambs Shorn: Wool Clip and Average Weight per Fleece, Lower North

Particulars	Unit	1975	1976	1977	1978	1979	1980
Sheep and lambs shorn	'000	1 822	1 860	1 557	1 445	1 452	1 629
Wool clip	'000 kg	10 308	9 109	8 067	7 477	7 864	8 681
Average per fleece	kg	5.66	4.90	5.18	5.17	5.41	5.33
Wool clip share of State total	per cent	10.08	9.47	8.74	9.02	9.46	9.52

Merino Sheep Studs

South Australian Merinos cut nearly twenty per cent more wool than the national average. They were developed from New South Wales sheep bred from imported strains from Spain, Saxony, France and America.

The Lower North holds a key position for maintaining quality in the South Australian merino flocks. From about fifty studs come the progeny of medium and strong wool Merino Sheep renowned for large frames and heavy cutting fleeces.

The State's famous parent studs *Bungaree*, *Collinsville* and *Koonoona* breed sheep noted for their hardiness and strong constitution, with long stapled fleeces. They are also highly valued in the meat market.

Sheep based on the Collinsville bloodline are particularly suited to the dry pastoral and high rainfall country. Bungaree sheep thrive in low rainfall areas with a long summer drought, while the versatile Koonoona progeny are suited to both pastoral and agricultural regions.

South Australia's first sheep stud was established at Brinkworth in 1841. In those days the small-framed, wrinkly sheep produced about 1.8 kilograms to 2 kilograms of wool. Today's Merino cuts on average about three times that amount, with heavy cutting rams producing up to 22 kilograms of long stapled, top quality fleece.

In addition to local sales during the 1978-79 season, 9 546 South Australian stud rams were sold through stock agents at auctions to interstate buyers for a total which exceeded \$1 million. Since July 1979 it has also been possible to export rams overseas, following the lifting of a fifty year ban on this trade. This enables 300 rams to be exported from nominated auction sales annually. There are checks on the actual and potential effects on the local wool industry, and data is also collected on the overseas breeding performance of each ram exported.

A world record price of \$50 000 was paid at the 1980 Adelaide sales, for a two year old ram bred at Mount Bryan.

Cattle

Lower North dairy and beef cattle numbers do not feature significantly as a proportion of the respective State figures, but the number of beef cattle in the subdivision has trebled while dairy cattle numbers have halved during the last decade. Clare has the highest concentration of beef cattle, while Eudunda is the foremost district for dairy cattle in the area.

Cattle for Milk Production, Lower North

Year	Bulls	Cows	Heifers (one year and over)	Calves	Total (a)
1975	390	4 943	1 571	1 554	9 085
1976	312	5 025	1 327	1 497	8 783
1977	235	4 174	1 242	1 081	7 313
1978	190	3 613	1 070	864	6 332
1979	169	3 438	996	941	6 061
1980	153	3 184	880	871	5 570

(a) Includes house cows.

Cattle for Meat Production, Lower North

Year	Bulls	Cows	Calves	Total (a)
1975	1 935	30 690	17 204	55 702
1976	1 602	28 808	16 630	52 158
1977	1 206	19 034	10 989	34 683
1978	892	11 255	5 958	19 953
1979	829	10 350	5 099	18 479
1980	867	9 997	5 664	18 618

(a) Includes other cattle for meat production.

Pigs

This is an important local industry, with about thirteen per cent of the State's pig population in the area. Herds have trebled over the last twenty years.

Poultry

Chicken breeding for meat on the farmers' own account is relatively important, for the 3.6 million fowls disposed of during 1978-79 represented over 49 per cent of this category in South Australia. Owen is the centre for this industry.

Viticulture

The Lower North contains an important vine-growing district centred on the Clare-Watervale region, which is renowned as a source of red and white table wines. The district is a valley between 300 and 400 metres above sea level, bounded by rolling hills with some steep slopes on its edges. The annual rainfall is approximately 400-500 millimetres, which is slightly lower than that of the Barossa and Coonawarra districts, but nearly twice that of the Riverland. The soils are mainly heavy loams, with a calcareous subsoil in certain places. The climate of the area is warmer overall than the Barossa Valley and Coonawarra, but is somewhat cooler in winter.

The first vine cuttings were brought into the district as early as 1853. The Catholic Jesuit order established the monastery at Sevenhill and its members planted the first vines there in 1859. They later introduced some Tokay grapes and a type of Riesling still commonly known as Clare Riesling, although it has recently been identified as the variety Crouchen.

About 180 vineyards totalling nearly 2 000 hectares are located in this district. The average size of vineyards (13.54 hectares) is larger than the State average (10.14 hectares) and that of the Riverland (7.98 hectares) but is well below the extensive vineyards of the South East (58.46 hectares). The absence of land fragmentation and the lack of influence of post-war migration to this area characterises the industry's development which is based on 'old' settlers and large wineries. Significantly, the average size of vineyards in the County of Stanley has increased from 9.32 hectares in 1968 to 13.65 hectares in 1980. Another facet of the industry is the high proportion of non-bearing vineyards. With 8.19 per cent of State figures over the past twenty years, this area's proportion is higher than its share of bearing-age vineyards in State totals, which varied between 5.7 per cent in the same period.

Area of Vines and Production of Grapes, Lower North

Year	Area of Vines (Hectares)			Production of Grapes (Tonnes)	
	Bearing	Non-bearing	Grubbings	Winemaking	Drying & Table
1975	1 748	283	23	10 835	250
1976	1 796	324	38	9 963	160
1977	1 885	288	45	8 956	82
1978	1 976	325	58	9 073	90
1979	1 968	365	35	14 061	136
1980	1 937	419	30	14 729	62

The rate of expansion as shown in the table has always been higher in the Lower North than the average rate for South Australia, and such relatively high rates were main-

tained against the recent general downturn in other districts. Conversely the volume of production has always been lower than expected, given the area under vines in the region. With seven per cent by area of South Australia's vineyards the district's share of production totalled only 3.5 per cent of the corresponding State total. This implies a lower yield per hectare which may be due to the higher incidence of younger, poorer yielding vines or caused by the lower incidence of irrigation.

While the yields (in tonnes per hectare) in the Riverland for Crouchen, Pedro and Cabernet-Sauvignon were 21.26, 21.02 and 8.68 respectively in 1980, the corresponding figures for Clare was 8.62, 9.70 and 3.74 respectively.

Almost all grapes grown in the district are intended for winemaking, with less than one per cent used for drying or as table grapes. Most varieties are grown, with white varieties in the majority.

Some varieties are higher yielding than others. It is noteworthy that the lower yielding Rhine Riesling is the most widespread in the district, and also the one most favoured in new plantings.

Selected Rural Statistics: Lower North and South Australia, 1980

Particulars	Unit	Lower North	South Australia	Proportion
Rural establishments	number	1 957	23 155	8.45
Area of establishments	hectares	1 142 416	62 786 294	1.82
Sown pastures	hectares	153 453	3 400 197	4.51
Native pastures	hectares	177 222	1 514 825	11.70
Wheat, total area	hectares	156 325	1 432 656	10.91
Barley, total area	hectares	99 244	995 547	9.97
Oats, total area	hectares	20 558	196 415	10.47
Field peas, total area	hectares	4 884	32 034	15.25
Hay sold	tonnes	5 159	54 269	9.51
Vines, area	hectares	2 356	30 734	7.67
Grapes	tonnes	14 791	325 909	4.54
Fertiliser usage, weight	tonnes	43 734	591 416	7.39
Rams	number	25 690	223 086	11.52
Ewes, breeding	number	704 588	8 041 794	8.76
Lambs and hoggets	number	376 990	4 024 421	9.37
Wool shorn	kg	8 680 563	91 204 621	9.52
Dairy cattle	number	5 570	156 869	3.55
Beef cattle	number	18 618	910 129	2.05
Pigs, total	number	49 690	397 705	12.49
Poultry for egg production	number	193 965	1 529 351	12.68
Chicken for meat, own account	number	530 269	978 340	54.20
Horses	number	1 645	29 413	5.59
Goats	number	923	24 458	3.77
Bee-hives, total	number	10 644	97 087	10.96

Mining

The Burra Copper Mine closed in 1877 because of low copper prices and exhaustion of the high grade ore. Re-opened in 1969, it has been owned since 1978 by Adelaide and Wallaroo Fertilizers Ltd. It is expected that extraction from the mine will cease during 1981.

Mintaro Slate and Flagstone Ltd operates a slate quarry at a site from which high quality stone has been taken for over a century. The slate has been used to roof many houses in the district.

Manufacturing

At 30 June 1979 there were twenty-four manufacturing establishments in the Lower North Statistical Subdivision employing 431 persons, with a turnover of \$19.4 million during 1978-79.

Manufacturing Establishments: Summary of Operations
Lower North and South Australia, 1978-79^(a)

Particulars	Unit	Lower North	South Australia
Number of establishments	number	24	2 199
Employment (b):			
Males	number	314	82 635
Females	number	117	23 667
Persons	number	431	106 302
Wages and salaries (c)	\$'000	3 494	1 052 020
Turnover	\$'000	19 422	4 536 354
Stocks:			
Opening	\$'000	9 120	838 815
Closing	\$'000	9 492	857 591
Purchases, transfers in	\$'000	11 070	2 703 691
Value added	\$'000	8 724	1 851 438
Fixed capital expenditure	\$'000	1 063	195 953

(a) Excludes single establishment enterprises employing fewer than four persons.

(b) Includes working proprietors.

(c) Excludes drawings of working proprietors.

Winemaking is the largest single manufacturing activity carried out in the region. It is concentrated in the Clare Valley. At 30 June 1979 there were seven wineries operating in the area, employing 202 persons, with a turnover of \$12.7 million in the financial year. Other manufacturing establishments (with four or more employees) located in the area include four bakers, four makers of fabricated metal products, a milk processing factory, a flour mill and two animal and bird food makers.

There is a joinery and a ready-mixed concrete plant.

Transport

Roads

The Lower North has an extensive system of roads. It is traversed on the western side by the Port Wakefield-Port Augusta Road (part of National Highway 1) and on the eastern side by Highway 32 (the Barrier Highway). The Main North Road runs through the centre of the area. The length of roads in the Lower North at 30 June 1972 was 7 517 kilometres of which 718 kilometres were sealed.

Motor Bus Services

Several services operate from Adelaide to most of the towns in the area on a daily basis. Local feeder services operate to the remaining towns.

Railways

Four towns of moderate size are located on the Adelaide-Crystal Brook line and a further eight towns in the area are serviced by an extensive rail network. Silos are dispersed along the network's lines to facilitate the handling of grain, which is the major commodity transported on the system. A goods service operates over most of the network on a twice weekly schedule.

A combined rail and connecting bus service operates to the major towns on six days of each week.

Motor Vehicles

At 30 June 1979 there were approximately 12 000 motor vehicles registered in the Lower North subdivision, and of these more than half were private cars.

Postal and Telecommunications Services

Thirty-two towns in the Lower North have post offices with a continuous service and a further five have non-continuous service. Seventeen towns may be reached by telephone by way of the Subscriber Trunk Dialling (STD) system, and twenty-three have the manual service.

Retail Trade

At 30 June 1974 there were 238 retail establishments and ninety-seven selected service establishments operating in the Lower North. The number of retail and selected service establishments represented 2·2 per cent of the State total and 1·2 per cent of total retail sales.

**Retail and Selected Service Establishments:
Summary of Operations by Industry Group, Lower North, 1973-74**

Industry Group	Number of Establish- ments	Retail Sales	Turnover (a)
		\$'000	
Department, variety and general stores	19	1 670	1 785
Food stores	79	4 743	4 871
Clothing, fabric and furniture stores	22	1 682	1 686
Household appliance and hardware stores	20	1 222	1 742
Motor vehicle dealers, petrol and tyre retailers	72	7 023	8 803
Other retailers	26	1 118	1 139
Total retail establishments	238	17 460	20 030
Restaurants, licensed hotels and clubs	42	1 868	2 161
Hairdressing and beauty salons	11	3	76
Total selected service establishments	53	1 871	2 237
Total retail and selected service establishments	291	19 332	22 265

(a) Sales of goods (retail and wholesale) and all other operating revenue.

A Census of Retail and Selected Service Establishments was conducted at the end of the 1979-80 financial year.

Tourism

Tourist attractions in the subdivision include tours of the region's wineries in the Clare Valley, and historic buildings at Mintaro, Auburn and Burra. The masonry of some cottages, hotels, churches, engine-houses and ventilation shafts remains from old copper mining days in Burra, and several mining company cottages at Paxton Square in that town have been restored.

There are working displays of Clydesdale horses, and of merino sheep handling at Geralka Rural Farm near Spalding.

Auburn is the birthplace of the poet C. J. Dennis. The Clare Valley Wine Festival is held at Easter in alternate years.

At 30 June 1980 in the Lower North there were three licensed hotels with facilities and three licensed and unlicensed motels providing accommodation for visitors, with a total of sixty-four rooms. There were also twenty-eight hotels without private facilities in every room. Eight caravan parks provide accommodation of a predominantly short-term nature.

Sport and Recreation

Competitive sports popular in the area include cricket, tennis, bowls, Australian Rules football, swimming, basketball, net-ball, volleyball, golf, hockey, rifle shooting, softball, badminton and pigeon racing. The Marrabel Rodeo, held annually in October, attracts riders from other States and New Zealand.

Horseracing is conducted at Clare and Balaklava, and there are several bloodstock breeding farms in the district.

Each major town presents an agricultural and horticultural show, the oldest of which has been held at Clare since 1864.

The Clare Sports and Recreation complex, built during 1979-80 at a cost of over \$500 000, contains a stadium and three squash courts.

The South Australian Folk Federation held its three-day annual Festival at Burra in 1979 and at Clare in 1981.

APPENDIX A

STATISTICAL SUMMARY

In the next 21 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 1836-1961, 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 140 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 618) 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:

<i>n.a.</i>	not collected, not available for publication
—	nil
<i>p</i>	preliminary information subject to revision
<i>n.y.a.</i>	not yet available
———	break in continuity of figures

POPULATION ^(a)

Year	Population Estimate at 31 Dec.			Annual Population Growth			
	Males	Females	Persons	Recorded Natural Increase ^(b)	Rate of Natural Increase ^(c)	Total Increase	Rate of Population Growth
							Per cent
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	4 098	2.22
1876	116 894	107 666	224 560	4 674	21.51	14 484	6.89
1881	152 453	133 518	285 971	6 696	23.81	9 578	3.47
1886	160 814	145 896	306 710	6 943	22.54	-2 603	-0.84
1891	168 826	155 895	324 721	6 526	20.23	5 774	1.81
1896	179 024	173 043	352 067	5 974	16.95	99	0.03
1901	(d)180 440	(d)178 890	(d)359 330	(d)5 105	14.29	(d)2 080	0.58
1906	184 803	181 710	366 513	5 049	13.90	3 892	1.07
1911	214 061	205 331	419 392	7 019	17.05	12 530	3.08
1916 (e)	212 585	229 253	441 838	6 780	15.35	-4 147	-0.93
1921	251 170	250 572	501 742	6 992	14.07	10 736	2.19
1926	285 013	275 912	560 925	6 606	11.92	13 877	2.54
1931	289 397	287 682	577 079	4 191	7.28	2 612	0.45
1936	294 835	294 935	589 770	3 447	5.86	3 008	0.51
1941 (e)	301 645	304 721	606 366	4 677	7.78	7 310	1.22
1946 (e)	317 238	323 180	640 418	9 352	14.72	9 536	1.51
1951	375 188	368 597	743 785	10 279	14.03	20 942	2.90
1956	436 807	425 145	861 952	11 371	13.40	27 291	3.27
1961	494 600	484 800	979 400	14 584	15.03	22 400	2.68
1962	503 200	495 000	998 200	13 149	13.31	18 800	1.93
1963	514 700	507 700	1 022 400	13 185	13.05	24 200	2.42
1964	529 100	522 900	1 052 000	12 002	11.57	29 600	2.89
1965	544 300	538 700	1 083 000	12 146	11.38	31 000	2.95
1966	554 000	549 800	1 103 700	11 017	10.07	20 700	1.92
1967	559 300	556 700	1 115 900	11 315	10.19	12 200	1.10
1968	566 700	565 400	1 132 100	11 291	10.06	16 200	1.45
1969	574 700	574 700	1 149 400	12 640	11.09	17 200	1.52
1970	584 400	585 900	1 170 200	12 479	10.77	20 900	1.81
1971	597 100	598 300	1 195 400	13 310	11.32	25 200	1.63
1972	603 800	605 700	1 209 500	12 080	10.05	14 100	1.18
1973	612 800	614 500	1 227 200	10 572	8.68	17 700	1.46
1974	625 700	627 900	1 253 600	9 945	8.04	26 300	2.15
1975	628 000	629 300	1 257 300	10 039	8.01	3 700	0.30
1976	633 400	635 300	1 268 800	8 948	7.09	11 500	0.91
1977	640 800	643 000	1 283 800	9 476	7.42	15 100	1.19
1978	643 900	647 200	1 291 100	8 796	6.83	7 300	0.57
1979	646 900	649 400	1 296 300	8 817	6.82	5 100	0.45

(a) Figures before January 1962 exclude full-blood Aboriginals. Figures from 1971 have been adjusted to take account of underenumeration and a conceptual change in the measure of residency. (b) Births and deaths of full-blood Aboriginals, where identified in registration, have been excluded from natural increase figures before 1 January 1962. (c) Excess of births over deaths per 1 000 of mean population. (d) Northern Territory included before 1901, but subsequently excluded. (e) During the 1914-18 War, defence personnel leaving the State were treated as departures, but during the 1939-45 War they were retained in the population and troops of other States and countries were excluded.

DEMOGRAPHY

Year	Live Births		Infant Deaths (a)		Deaths		Rates from Principal Causes (b)		
	Number	Rate (b)	Number	Rate (c)	Number	Rate (b)	Rates from Principal Causes (b)		
							Diseases of the Heart	Cancer	Tuberculosis
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		0.05	0.98
1861	5 551	43.30	1 064	191.68	1 962	15.30		0.08	1.25
1866	6 782	41.06	1 385	204.22	2 753	16.67		0.16	1.25
1871	7 082	37.95	851	120.16	2 378	12.74		0.18	1.05
1876	8 224	37.84	1 228	149.32	3 550	16.34		0.35	1.22
1881	10 708	38.08	1 364	127.38	4 012	14.27		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	20 891	19.63	385	18.43	8 788	8.26	3.11	1.30	0.03
1966 (d)	20 362	18.61	364	17.88	9 345	8.54	3.22	1.32	0.02
1967	20 386	18.37	346	16.97	9 071	8.17	3.09	1.35	0.02
1968	21 207	18.89	345	16.27	9 916	8.83	3.29	1.41	0.02
1969	21 977	19.28	347	15.79	9 337	8.19	2.96	1.47	0.02
1970	22 617	19.52	367	16.23	10 138	8.75	3.20	1.43	0.01
1971	22 996	19.39	366	15.92	9 686	8.17	2.89	1.40	0.02
1972	21 844	18.17	367	16.80	9 764	8.12	2.94	1.46	0.01
1973	20 407	16.75	276	13.52	9 835	8.07	2.95	1.47	0.01
1974	20 181	16.33	312	15.46	10 236	8.29	2.96	1.49	0.01
1975	19 986	15.95	222	11.11	9 947	7.94	2.85	1.52	0.01
1976	18 947	15.02	276	14.57	9 999	7.92	2.91	1.45	0.00
1977	19 260	15.08	221	11.47	9 784	7.66	2.80	1.50	0.00
1978	18 558	14.41	227	12.23	9 763	7.58	2.80	1.54	0.00
1979	18 478	14.28	166	8.98	9 661	7.46	2.76	1.50	0.00

(a) Under one year of age from 1871, under two years of age in previous years.

(b) Rate per 1 000 of mean population. (c) Rate per 1 000 live births registered.

(d) Vital events of full-blood Aboriginals, where identified in registrations, were excluded before 1966.

SOCIAL DEVELOPMENT

Marriages and Divorces; Law and Order

Year	Marriages		Divorces (b)	Bank- ruptcies	Court Convictions		Police		
	Total	Rate (a)			Higher Courts (c)	Courts of Summary Juris- diction (d)	Active Strength	Net Expen- diture	
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	(e) 20 585	(e) 830	(e) 819	
1947	6 668	10.31	695	32	246	24 491	833		888
1948	6 704	10.14	630	32	185	24 164	869		1 052
1949	6 247	9.18	590	52	205	22 834	928		1 208
1950	6 585	9.28	661	44	207	25 496	942		1 398
1951	6 646	9.07	637	53	307	28 675	913		1 647
1952	6 241	8.27	581	76	328	27 432	952		2 073
1953	6 149	7.92	628	91	330	30 229	982		2 429
1954	6 190	7.77	594	89	312	25 482	986		2 617
1955	6 226	7.59	624	106	340	29 264	969		2 517
1956	6 277	7.40	567	150	362	28 221	1 018		3 060
1957	6 581	7.53	529	244	459	30 658	1 143		3 303
1958	6 505	7.25	483	278	457	32 621	1 183		3 677
1959	6 614	7.18	503	366	499	34 203	1 243		4 084
1960	6 607	6.99	610	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	694	114 499	1 881		10 621
1971	10 833	9.21	1 264	(f) 626	(f) 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	(g) 94 068	2 167		15 107
1974	10 769	8.84	1 561	373	906	93 037	2 264		19 334
1975	9 843	7.95	1 812	437	989	104 402	2 461		28 035
1976	10 902	8.64	(h) 6 142	351	1 080	95 758	2 548		37 488
1977	10 126	7.93	4 419	456	1 075	105 224	2 718		44 669
1978	9 800	7.61	3 805	673	1 258	105 413	2 879		53 456
1979	9 778	7.55	3 794	847	1 281	88 404	3 093		58 868

(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 from 1971. (g) Excludes juvenile offenders from 1973. (h) The Family Law Act 1975 repealing State legislation, came into operation throughout Australia in 1976.

SOCIAL DEVELOPMENT

Education

Year	Primary and Secondary					Tertiary		Further Course Enrolments
	Government Schools (a)		Non-government Schools			Uni- versities	Colleges of Advanced Education	
	Students		Students					
	No.	Primary	Secondary	No.	Primary	Secondary	Students (b)		Students
1851	115	3 031						
1856	147	6 516						
1861	219	10 711						
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	626	
1911	743	53 494	1 800	179	(c) 9 753	(c) 11 121	641	
1916	857	63 935	3 047	(d) 218	(d) 12 785	(d) 12 785	491	
1921	973	77 111	3 067	171	13 951	13 951	1 338	
1926	1 019	79 204	6 527	188	16 139	16 139	1 575	
1931	1 075	81 218	10 503	186	14 310	14 310	2 092	
1936	1 100	75 411	9 280	174	13 993	13 993	2 025	
1941	1 006	63 303	10 761	167	13 915	13 915	2 211	
1946	811	61 242	11 870	145	16 310	16 310	3 723	
1951	728	81 642	14 106	146	20 677	20 677	3 720	
1952	716	89 630	15 121	146	22 393	22 393	3 612	
1953	723	97 262	16 933	148	23 631	23 631	3 565	
1954	716	105 022	17 972	157	24 949	24 949	3 555	
1955	701	111 909	19 485	157	26 840	26 840	3 617	
1956	699	118 365	22 134	163	29 050	29 050	3 828	
1957	694	123 132	24 734	163	30 504	30 504	4 424	
1958	674	125 678	28 189	161	32 425	32 425	4 816	
1959	668	129 850	33 042	162	33 896	33 896	5 300	
1960	681	132 372	37 901	163	35 370	35 370	5 723	
1961	688	135 274	41 889	165	35 652	35 652	6 250	
1962	682	136 924	46 499	164	(e) 24 962	(e) 11 440	6 824	
1963	682	140 520	49 637	166	24 677	12 354	7 416	
1964	685	145 042	54 026	170	24 761	12 890	8 203	
1965	700	150 809	57 811	172	24 605	13 007	8 658	
1966	700	154 253	60 834	172	24 188	12 999	9 364	
1967	674	157 424	65 630	173	23 533	13 469	9 658	
1968	683	157 997	68 814	171	22 814	13 599	9 803	
1969	676	159 682	71 599	171	22 257	14 203	10 128	3 420
1970	681	156 922	71 866	170	22 464	14 642	10 176	3 443
1971	662	156 458	74 982	169	22 669	15 018	10 682	4 242
1972	(f) 615	154 886	77 926	163	22 232	15 233	11 124	(g) 4 291
1973	614	152 698	79 088	163	21 929	15 806	11 497	6 662
1974	613	152 901	79 578	157	22 399	16 494	12 264	12 163
1975	619	151 975	82 737	151	22 479	16 818	12 876	13 773
1976	625	151 499	82 115	147	22 177	17 122	13 493	14 560
1977	626	152 079	81 131	145	22 361	17 085	13 390	15 168
1978	628	149 964	80 491	151	22 353	17 088	12 904	15 996
1979	632	146 793	77 732	155	22 591	17 381	12 840	16 042
1980	638	142 290	76 392	159	23 347	17 769	12 677	16 596

(a) Net enrolment to 1969, thereafter at census date (at or about 1 August, until 1980 when it became 1 July. Includes Northern Territory before 1958. (b) Excludes students at Conservatorium of Music not also enrolled for degree or diploma subject. (c) On last school day. (d) Non-government schools compulsorily registered, previous years incomplete. From 1916 to 1961 net enrolment including Northern Territory. (e) From 1962 at census date (at or about 1 August). Excludes Northern Territory. (f) From 1972 includes only primary and secondary, before 1972 included technical institutions. (g) In approved courses at colleges of advanced education.

SOCIAL DEVELOPMENT

Health

Year	Recognised Hospitals				Mental Hospitals (a)		Medical Practitioners Registered	General Nurses Registered
	Number of Hospitals	Patients Treated	Revenue		Admissions During Year	Patients at end of Year		
			State Govt Aid	Total				
\$'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
1946	(b) 58	(b) 46 696	(b) 836	(b) 1 697	(b) 302	(b) 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	135 927	32 971	53 942	3 527	2 193	2 707	10 506
1972	68	147 058	29 671	53 750	3 602	2 159	3 054	11 201
1973	69	158 261	37 951	64 633	3 225	2 208	3 154	11 923
1974	70	164 797	53 893	85 255	3 309	2 123	3 348	12 717
1975	71	168 832	82 194	124 930	3 410	2 074	3 767	13 863
1976	73	179 733	73 910	164 292	3 665	1 769	4 531	14 976
1977	81	190 806	87 294	206 060	3 489	1 766	4 574	16 384
1978	81	202 802	102 371	250 131	3 648	1 670	4 783	17 653
1979	81	216 315	107 401	263 490	3 971	1 691	n. y. a.	n. y. a.
1980	81	220 138	108 433	269 662	n. y. a.	n. y. a.	n. y. a.	n. y. a.

(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	Pensions and Benefits Paid in South Australia by Commonwealth Government					Pensioners	
	Age and Invalid Pensions	Disability and Service Pensions (a)	Family Allowance (b)	National Health Services	Total (Includes Other)	Age an Invalid	Disability and Service (a)
						Number	
							\$'000
1915-16	544	20				10 993	794
1920-21	910	1 028			2 060	12 320	14 663
1925-26	1 404	978			2 496	14 098	16 144
1930-31	1 982	994			3 074	20 602	16 653
1931-32	1 878	908			2 848	21 897	15 801
1932-33	1 826	844			2 726	21 461	15 517
1933-34	1 896	854			2 804	22 805	15 352
1934-35	2 068	892			3 016	24 517	15 248
1935-36	2 298	942			3 298	26 134	15 997
1936-37	2 522	1 036			3 622	27 308	16 340
1937-38	2 868	1 076			4 010	28 039	16 865
1938-39	2 836	1 098			4 008	28 857	16 680
1939-40	2 908	1 104			4 086	29 521	16 145
1940-41	3 032	1 088			4 192	29 642	15 424
1941-42	3 274	1 108	1 720		6 162	28 422	15 296
1942-43	3 628	1 274	1 810		7 076	27 423	16 333
1943-44	3 688	1 654	1 908		8 076	27 530	18 472
1944-45	3 624	1 838	1 870		8 276	27 507	22 071
1945-46	4 670	2 272	2 854	244	11 262	29 512	30 687
1946-47	5 102	2 692	3 196	856	13 212	32 387	35 117
1947-48	6 284	3 046	3 212	770	14 708	34 229	38 505
1948-49	7 170	3 718	4 024	1 054	17 442	35 470	42 931
1949-50	7 888	4 178	4 938	1 220	19 966	36 524	47 303
1950-51	8 600	5 214	7 564	2 122	25 216	36 582	51 589
1951-52	10 360	6 442	8 298	3 554	30 532	37 363	54 758
1952-53	12 616	7 130	9 540	4 154	25 878	39 700	58 591
1953-54	14 150	7 686	9 154	4 880	38 202	42 216	61 039
1954-55	15 310	8 778	9 428	5 824	41 560	45 147	63 767
1955-56	17 718	9 074	10 998	6 140	46 322	47 754	66 535
1956-57	19 244	9 575	10 500	6 710	48 926	50 209	68 291
1957-58	21 432	10 664	10 860	7 704	54 256	52 699	69 852
1958-59	23 150	10 860	12 618	9 868	60 460	55 181	71 331
1959-60	26 366	12 697	11 794	11 977	66 157	57 336	72 013
1960-61	28 537	13 722	14 092	12 811	73 594	60 483	72 695
1961-62	32 844	14 241	12 671	14 567	80 283	64 374	74 454
1962-63	33 951	14 867	12 861	16 066	83 393	64 156	73 239
1963-64	36 120	16 224	15 916	17 080	91 514	65 573	72 518
1964-65	38 509	16 006	16 563	18 948	96 362	66 798	70 678
1965-66	39 691	17 692	16 988	21 254	102 661	67 999	68 439
1966-67	43 720	16 776	19 063	23 100	111 394	70 521	66 624
1967-68	46 711	17 252	17 835	25 448	116 625	74 016	65 078
1968-69	50 828	19 065	18 162	28 411	128 940	76 616	62 986
1969-70	58 720	19 435	20 287	33 476	145 857	85 076	61 928
1970-71	64 714	20 405	18 284	41 773	161 687	88 936	60 406
1971-72	76 545	22 493	19 766	50 587	189 255	92 771	58 682
1972-73	101 625	23 517	22 780	57 851	236 747	104 350	59 707
1973-74	131 771	31 350	20 098	66 005	291 823	116 117	59 522
1974-75	184 218	41 774	20 237	82 399	400 590	123 627	59 130
1975-76	234 266	49 377	22 896	223 151	632 412	130 229	59 536
1976-77	273 814	59 709	87 491	177 894	722 242	136 473	60 492
1977-78	333 579	72 018	90 483	204 412	871 650	141 941	61 642
1978-79	374 344	78 219	84 100	230 840	973 385	146 860	62 505
1979-80	418 769	89 073	97 481	229 853	1 062 830	150 599	65 109

(a) From 1974-75, war pensions known as disability pensions.

(b) Family allowance known as child endowment before 1975-76.

EMPLOYMENT AND UNEMPLOYMENT

Year	Civilian Employees (a)		Factory Employment (b)		Rural Employment (c)		Unemployed (d)		
	Males	Females	Males	Females	Males	Females	Number		Rate (e)
							Males	Females	Persons
									Per cent
									'000
1911			22.6	5.3					
1925-26			33.1	6.9	38.8	3.2			
1930-31			19.3	4.6	38.9	2.6			
1935-36			31.4	7.1	41.7	2.6			
1936-37			33.4	7.3	42.3	3.0			
1937-38			36.3	7.8	41.4	2.9			
1938-39			35.4	8.0	41.3	2.5			
1939-40			36.3	8.7	38.7	2.8			
1940-41			40.1	10.8	<i>n.a.</i>	<i>n.a.</i>			
1941-42			49.9	15.3	<i>n.a.</i>	<i>n.a.</i>			
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			
1946-47			56.7	14.0	38.1	5.0			
1947-48			59.1	14.3	38.1	5.8			
1948-49			60.9	14.9	38.1	5.5			
1949-50			63.1	15.3	38.6	7.0			
1950-51			66.8	16.2	36.9	6.1			
1951-52			68.0	15.9	37.4	4.7			
1952-53			67.1	13.4	38.3	5.0			
1953-54	178.6	55.7	70.7	14.8	37.8	5.6			
1954-55	183.9	60.1	73.7	15.9	37.6	5.0			
1955-56	194.0	64.0	76.1	16.4	37.3	4.7			
1956-57	193.3	64.1	75.5	16.4	36.4	3.9			
1957-58	194.4	65.9	75.9	16.6	35.2	2.7			
1958-59	201.1	68.4	77.4	16.7	35.0	3.6			
1959-60	206.4	72.6	81.3	17.7	33.8	2.6			
1960-61	207.5	72.3	81.9	18.1	34.0	2.3			
1961-62	211.2	76.7	81.8	17.3	33.7	2.1			
1962-63	219.6	80.9	86.7	18.6	33.3	1.9			
1963-64	229.4	86.0	90.9	19.9	33.2	1.4			
1964-65	239.9	93.4	94.7	21.5	32.6	1.3			
1965-66	(f)248.0	(f)113.3	96.2	22.1	32.1	1.0			
1966-67	251.1	117.3	96.1	22.1	31.3	0.8	5.3	7.0	2.6
1967-68	259.4	123.8	98.9	22.5	29.7	0.7	4.9	6.4	2.4
1968-69	266.9	129.4	(g)91.0	(g)22.1	29.4	0.6	4.9	6.2	2.3
1969-70	272.2	138.1	94.6	23.8	28.9	0.6	3.4	5.4	1.8
1970-71	277.3	144.7	<i>n.a.</i>	<i>n.a.</i>	28.2	0.5	4.0	5.0	1.8
1971-72	277.0	148.2	96.2	25.4	27.3	0.5	5.1	7.9	2.5
1972-73	284.3	158.0	95.6	25.8	27.1	0.4	7.5	9.6	3.2
1973-74	292.9	173.9	98.7	29.4	26.6	0.4	5.3	8.4	2.5
1974-75	293.1	172.3	(h)94.3	(h)27.0	26.6	0.3	5.8	10.0	2.8
1975-76	293.8	179.9	90.3	25.8	<i>n.a.</i>	<i>n.a.</i>	11.5	17.0	4.9
1976-77	290.3	180.9	89.9	25.5	<i>n.a.</i>	<i>n.a.</i>	11.0	13.7	4.2
1977-78	280.3	179.3	86.0	24.0	<i>n.a.</i>	<i>n.a.</i>	24.3	16.6	6.8
1978-79	280.9	180.0	82.6	23.7	<i>n.a.</i>	<i>n.a.</i>	23.9	20.6	7.5
1979-80	(i)275.2	(i)180.1	<i>n.y.a.</i>	<i>n.y.a.</i>	<i>n.a.</i>	<i>n.a.</i>	26.4	21.7	8.0

(a) At June; excludes employees in agriculture, defence forces and private domestic service. (b) Average employment including working proprietors during the year. (c) Permanent employees only. (d) From Labour Force Surveys for June from 1978; for August in earlier years. (e) Unemployment rate is the number unemployed as a proportion of the number in the labour force. (f) From June 1966 a new definition of Labour Force (affecting mainly females) was adopted. (g) Direct comparisons with figures for previous years are not possible because of changes in the scope of the census and in the census units. (h) From 1974-75 excludes single establishment enterprises employing fewer than four persons. (i) At April.

STATISTICAL SUMMARY

WAGES

Year	State Living Wage (a)		Federal Basic and Minimum Wage Rates (a) (d)		Minimum Weekly Wage Rates (b)		
	Males	Females	Males	Females	Males	Females	
			Dollars				
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	
1931	6-30	3-15	5-81		7-50	4-39	
1936	6-60	3-30	6-90		7-95	4-33	
1937	7-40	3-65	7-40		8-58	4-68	
1938	7-40	3-65	7-60		8-71	4-78	
1939	7-80	3-80	7-70		9-41	4-96	
1940	8-40	4-10	8-00		9-85	5-21	
1941	8-70	4-35	8-40		10-58	5-54	
1942	9-40	4-62	9-30		11-50	6-02	
1943	9-40	4-62	9-40		11-61	6-12	
1944	9-40	4-62	9-30		11-58	6-53	
1945	9-40	4-62	9-30		11-60	6-72	
1946	9-85	5-50	10-20		12-41	7-60	
1947	10-60	5-90	10-60		13-78	8-80	
1948	11-70	6-65	11-60		15-22	9-51	
1949	12-50	6-85	12-60		16-44	10-10	
1950	15-80	11-85	15-80	11-85	19-79	14-21	
1951	19-50	14-60	19-50	14-60	23-60	17-02	
1952	22-90	17-15	22-90	17-15	27-08	19-68	
1953	23-10	17-30	23-10	17-30	27-35	19-91	
1954	23-10	17-30	23-10	17-30	28-16	19-99	
1955	23-10	17-30	23-10	17-30	28-50	20-18	
1956	24-10	18-05	24-10	18-05	29-63	20-92	
1957	25-10	18-80	25-10	18-80	30-69	21-95	
1958	25-60	19-20	25-60	19-20	31-24	22-38	
1959	27-10	20-30	27-10	20-30	33-99	23-92	
1960	27-10	20-30	27-10	20-30	34-22	24-29	
1961	28-30	21-20	28-30	21-20	35-46	25-20	
1962	28-30	21-20	28-30	21-20	35-65	25-23	
1963	28-30	21-20	28-30	21-20	36-40	25-52	
1964	30-30	22-70	30-30	22-70	38-69	27-29	
1965	30-30	22-70	30-30	22-70	39-48	27-75	
1966	32-30	24-20	32-30	24-20	41-75	29-42	
1967	33-30	25-20	(c) 37-05		43-79	31-32	
1968	34-65	26-55	38-40		48-23	33-60	
1969	(d) 34-65	(d) 26-55	41-90		50-76	35-94	
1970	(d) 34-65	(d) 26-55	41-90		52-12	37-51	
1971	37-85	29-00	45-90		59-38	44-16	
1972	39-85	31-00	50-60		65-82	50-50	
1973	43-15	34-10	59-60		75-20	62-11	
1974	46-50	37-30	67-60	(e) 60-80	103-32	91-47	
1975	(f)	(f)	82-40		115-13	103-34	
1976	(f)	(f)	100-20		132-20	125-62	
1977	(f)	(f)	111-80		145-69	139-06	
1978	(f)	(f)	119-60		158-53	149-15	
1979	(f)	(f)	123-40		167-12	154-58	
1980	(f)	(f)	134-40		183-98	171-81	

(a) At end of year. (b) Adult rates, at end of year, for all industries excluding rural. (c) Provisions for minimum wages (for adult males only) were inserted in Commonwealth Awards in July 1966 and basic wages were replaced by the total wage concept in July 1967. (d) An economic loading of 3 per cent of the sum of the living wage plus margin was added to all award rates of pay from December 1969 to January 1971. (e) Between May 1974 and June 1975 the minimum wage for adult males was extended to adult females in three steps. (f) Increased to \$48.20 and \$38.60 for males and females respectively from May 1975 and abolished in September 1975, award rates thereafter being specified as total wages.

PRICES

Year	Retail Price Indexes: Adelaide						Agricultural Produce at Principal Markets		
	'C' Series (a)			Consumer (b)			Wheat (per tonne) (c)	Barley (per tonne)	Wool (per kg)
	Food and Groceries	Rent	All Groups	Food	Housing	All Groups			
							\$		Cents
1901	575								
1906	549								
1911	570						12.71	16.53	15.59
1916	835	573	798				17.45	14.33	19.78
1921	941	819	989				29.39	19.49	24.74
1926	1 045	927	1 026				22.82	17.64	27.45
1931	789	755	837				8.41	9.92	12.52
1936	798	795	839				14.07	9.83	21.89
1937	826	832	859				18.92	17.90	25.09
1938	861	868	888				13.08	15.52	20.72
1939	897	888	906				8.34	11.95	16.71
1940	900	892	936				14.92	15.61	21.94
1941	905	893	988				16.42	21.43	21.76
1942	1 046	893	1 075				16.76	14.64	21.58
1943	1 003	893	1 102				19.51	19.84	25.07
1944	993	892	1 098				22.71	19.05	24.96
1945	1 002	892	1 102				20.69	24.07	24.71
1946	1 006	894	1 120				29.47	27.91	24.78
1947	1 067	897	1 165				36.49	39.33	40.50
1948	1 230	903	1 277				56.70	74.30	65.92
1949	1 351	912	1 393	38.6	38.4	45.0	45.64	36.95	81.09
1950	1 494	929	1 521	41.7	40.0	48.4	52.98	49.69	106.13
1951	1 931	949	1 833	48.2	42.5	54.6	53.76	51.54	237.28
1952	2 380	1 055	2 159	62.5	47.6	66.8	60.63	71.74	118.54
1953	2 444	1 155	2 246	68.7	55.9	73.1	61.77	71.12	137.74
1954	2 525	1 174	2 277	71.2	61.5	74.7	53.35	44.84	138.18
1955	2 657	1 247	2 354	72.9	63.2	75.6	49.05	59.97	120.66
1956	2 871	1 358	2 466	76.2	67.6	78.1	49.60	46.74	103.57
1957	2 710	1 468	2 463	78.9	72.3	81.2	53.28	48.50	135.63
1958	2 768	1 592	2 536	76.9	74.9	81.8	53.50	52.38	103.09
1959	2 998	1 674	2 647	80.7	76.7	83.6	51.51	49.43	83.84
1960				84.6	78.3	86.2	53.83	44.53	98.88
1961				90.9	83.2	89.8	55.37	40.39	88.49
1962				87.7	85.9	89.5	55.70	49.43	91.69
1963				86.6	86.7	89.1	53.94	48.94	98.92
1964				88.8	88.7	90.2	52.65	49.12	119.53
1965				93.9	92.1	93.9	51.88	50.84	97.31
1966				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	Not calculated			107.1	109.3	108.2	51.88	36.82	75.02
1971				109.5	115.9	112.5	52.98	49.21	59.74
1972				113.6	124.4	119.2	55.26	40.96	72.21
1973				123.1	133.3	126.5	56.09	59.30	178.07
1974				148.3	150.6	143.9	103.20	87.59	176.54
1975				163.7	185.3	169.7	111.21	106.11	120.12
1976				180.6	222.1	190.5	104.46	98.14	134.46
1977				205.8	253.8	220.1	90.36	106.52	173.39
1978				229.7	275.1	241.8	102.20	88.37	179.03
1979				253.0	288.6	259.7	127.83	83.95	193.65
1980				285.5	297.2	285.8	p154.06	p126.61	244.56

(a) Base: Average all groups six capital cities 1923 to 1927 = 1 000.

(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		Evapora- tion	Sunshine	Temperature		
	Days of Rain	Total	Total	Total	Extreme Maximum	Extreme Minimum	Mean
	Days	mm	mm	Hours	°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	44·7	2·0	17·1
1891	113	356	1 322	2 753	39·3	2·3	16·8
1896	121	385	1 337	2 644	44·0	1·3	17·4
1901	124	457	1 494	2 523	43·3	1·8	17·5
1906	127	674	1 400	2 366	45·1	2·3	17·6
1911	127	407	1 233	2 415	39·3	1·6	17·2
1916	142	715	1 411	2 512	41·9	3·5	16·7
1921	100	575	1 478	2 658	43·1	2·8	18·2
1926	116	564	1 473	2 689	40·1	3·0	17·3
1931	145	565	1 517	2 534	45·9	3·1	16·8
1936	123	491	1 525	2 431	39·8	2·8	17·1
1941	126	573	1 604	2 472	43·3	3·3	16·9
1946	135	574	1 385	2 301	41·3	2·0	16·3
1947	145	556	1 573	2 311	40·7	3·3	16·9
1948	122	544	1 622	2 402	43·4	2·9	16·3
1949	119	463	1 492	2 318	38·0	2·6	15·8
1950	91	408	1 657	2 678	40·0	3·6	17·0
1951	135	646	1 645	2 339	40·5	2·6	16·9
1952	128	508	1 523	2 459	40·8	1·6	15·8
1953	121	508	1 712	2 585	41·3	3·9	16·6
1954	109	425	1 680	2 503	39·4	3·4	16·7
1955	134	624	1 677	2 396	42·8	3·6	16·7
1956	154	692	1 638	2 379	38·3	4·1	16·4
1957	110	424	1 736	2 673	40·9	3·4	16·8
1958	121	446	1 672	2 455	39·0	1·2	16·4
1959	88	288	1 750	2 592	43·3	3·1	17·3
1960	129	586	1 606	2 356	41·8	2·4	16·3
1961	122	379	<i>n. a.</i>	2 586	40·8	2·9	17·8
1962	125	456	<i>n. a.</i>	2 559	42·7	4·2	17·2
1963	118	621	1 620	2 369	39·9	3·3	17·0
1964	135	556	1 507	2 200	40·3	2·3	16·3
1965	111	339	1 648	2 439	38·8	2·6	17·3
1966	123	495	1 612	2 432	40·7	3·3	16·9
1967	89	257	1 939	2 841	39·0	3·9	17·3
1968	141	653	1 870	2 410	43·1	2·2	17·0
1969	112	525	1 783	2 665	41·1	3·9	16·7
1970	149	483	1 866	2 658	40·5	2·9	16·6
1971	147	672	1 813	2 624	39·6	4·2	17·1
1972	106	446	1 947	2 967	39·6	2·3	17·3
1973	129	675	1 740	2 686	40·5	3·7	17·7
1974	136	639	1 561	2 584	36·9	3·6	17·2
1975	142	522	1 635	2 596	41·2	3·8	17·4
1976	110	366	1 636	2 831	40·5	3·3	16·7
1977	117	400	1 665	2 876	40·3	3·6	17·2
1978 (a)	127	588	1 533	2 723	39·3	2·2	16·4
1979	137	661	1 557	2 702	42·0	3·0	17·2
1980	119	527	1 616	2 897	43·3	3·3	17·5

(a) Recorded at Bureau of Meteorology, Kent Town from 1978.

RURAL PRODUCTION

Land Cultivation

Year	Rural Establishments	Area of Rural Establishments	Area under Crop		Area of Pastures Top-dressed	Area Under Irrigation
			Fertilised	Total		
	No.			'000 hectares		
1841-42				3		
1846-47				14		
1851-52				33		
1856-57				82		
1861-62				162		
1866-67				245		
1871-72				339		
1876-77				497		
1881-82				873		
1886-87				925		
1891-92				780		
1896-97				830		
1901-02			335	905		
1906-07			629	873		
1911-12	27 120	47 012	1 010	1 200		
1916-17	29 278	52 475	1 156	1 468		
1921-22	29 693	54 311	1 197	1 367		9·1
1926-27	29 654	54 867	1 430	1 572	66	14·3
1931-32	30 648	52 354	1 705	2 112	56	17·3
1936-37	31 321	55 433	1 619	1 853	366	17·1
1941-42	30 565	58 936	1 409	1 609	427	18·5
1946-47	28 040	59 154	1 366	1 572	450	18·7
1947-48	27 597	57 624	1 367	1 559	563	17·2
1948-49	28 110	59 377	1 327	1 521	705	19·5
1949-50	27 900	59 312	1 263	1 464	725	19·9
1950-51	28 248	61 403	1 316	1 488	753	32·0
1951-52	28 698	61 425	1 284	1 496	870	23·6
1952-53	28 860	61 791	1 270	1 449	940	23·1
1953-54	29 220	60 830	1 350	1 529	1 144	25·1
1954-55	28 092	60 452	1 404	1 576	1 272	28·1
1955-56	28 585	60 689	1 378	1 607	1 416	28·7
1956-57	27 936	60 675	1 376	1 610	1 488	26·7
1957-58	27 971	61 530	1 401	1 581	1 621	32·9
1958-59	28 105	61 639	1 494	1 679	1 504	34·4
1959-60	28 527	62 903	1 489	1 643	1 405	40·8
1960-61	28 711	63 316	1 751	2 010	1 335	41·3
1961-62	28 886	63 494	1 644	1 825	1 450	43·9
1962-63	28 922	63 413	1 787	1 996	1 518	45·6
1963-64	28 711	64 307	1 938	2 177	1 616	47·7
1964-65	28 754	63 517	1 932	2 141	1 908	49·8
1965-66	28 759	64 505	1 971	2 142	2 061	52·1
1966-67	28 957	65 361	2 073	2 322	2 119	56·2
1967-68	29 058	65 059	2 037	2 270	2 076	70·1
1968-69	29 137	65 603	2 431	2 783	1 728	70·4
1969-70	29 035	65 839	2 138	2 407	2 008	75·3
1970-71	29 087	65 795	1 884	2 141	1 938	77·3
1971-72	29 095	65 146	2 113	2 478	1 822	76·1
1972-73	29 001	65 372	1 864	2 084	2 033	83·1
1973-74	28 738	64 843	2 146	2 451	2 425	80·2
1974-75	28 185	63 825	1 986	2 257	2 138	78·9
1975-76	(a) 25 143	63 577	1 821	2 116	1 133	77·9
1976-77	(a) 21 597	63 052	1 785	2 036	1 408	n.a.
1977-78	21 909	62 494	2 309	2 565	1 607	n.a.
1978-79	22 022	62 655	2 596	2 827	1 614	78·4
1979-80	23 155	62 786	n.a.	n.a.	1 811	n.a.

(a) Change in scope of the Agricultural Census. See Part 9.1.

RURAL PRODUCTION

Crop Areas and Yields

Year	Cereals for Grain						Hay (a)	Orchards (b) (c)	Vineyards (b)
	Wheat		Barley		Oats				
	Area	Yield per Hectare	Area	Yield per Hectare	Area	Yield per Hectare			
	'000 hectares	Tonnes	'000 hectares	Tonnes	'000 hectares	Tonnes			
1841-42	2	1.40	—	1.12	—	1.12			
1846-47	11	1.34	1	1.68	1	0.90			
1851-52	22	0.85	2	0.92	1	0.98			0.1
1856-57	66	1.68	3	1.19	1	0.90	9	0.4	0.3
1861-62	126	0.74	4	0.89	1	0.91	25	0.7	1.6
1866-67	186	0.96	5	1.13	2	1.00	45	0.9	2.6
1871-72	280	0.39	7	0.53	2	0.49	40	1.1	2.2
1876-77	439	0.36	4	0.60	1	0.48	37	1.3	1.8
1881-82	716	0.31	5	0.64	1	0.48	135	1.8	1.7
1886-87 (d) ...	797	0.37	7	0.73	3	0.56	128	n.a.	2.1
1891-92	628	0.28	5	0.52	5	0.29	123	3.6	5.0
1896-97	685	0.11	6	0.42	16	0.21	137	4.8	7.4
1901-02	706	0.31	6	0.88	14	0.61	150	6.6	8.4
1906-07	683	0.70	11	0.98	23	0.70	121	7.4	9.1
1911-12	887	0.62	17	0.97	44	0.56	211	9.4	9.7
1916-17	1 124	1.11	42	0.94	61	0.54	196	11.7	11.8
1921-22	965	0.70	69	1.08	51	0.46	226	13.1	16.8
1926-27	1 120	0.86	104	1.01	62	0.50	201	12.8	20.3
1931-32	1 648	0.79	98	1.06	84	0.50	218	11.8	21.2
1936-37	1 238	0.63	123	0.78	168	0.26	218	12.0	22.7
1941-42	941	0.88	194	1.37	118	0.58	226	12.0	23.5
1946-47	1 019	0.75	203	0.94	102	0.49	133	11.4	23.6
1951-52	653	1.14	337	1.13	157	0.63	104	11.9	24.8
1952-53	648	1.48	379	1.55	150	0.81	87	11.6	24.5
1953-54	619	1.34	454	1.42	113	0.69	106	12.0	25.1
1954-55	687	1.25	413	1.01	138	0.60	104	12.3	24.5
1955-56	651	1.21	422	1.32	172	0.77	132	13.4	24.2
1956-57	582	1.47	494	1.56	173	0.87	121	13.8	23.2
1957-58	539	0.75	490	0.81	173	0.36	118	14.3	23.2
1958-59	570	1.53	539	1.58	195	1.12	170	15.1	23.0
1959-60	627	0.52	522	0.52	205	0.22	99	15.1	23.0
1960-61	797	1.58	630	1.52	207	1.00	159	15.3	23.0
1961-62	902	1.02	514	0.94	131	0.61	84	15.6	23.4
1962-63	1 050	0.99	426	0.96	168	0.62	116	16.4	23.6
1963-64	1 134	1.30	455	1.21	203	0.82	145	16.9	23.7
1964-65	1 104	1.30	443	1.38	180	0.91	127	17.4	23.8
1965-66	1 111	0.98	444	0.94	184	0.55	121	17.8	23.8
1966-67	1 198	1.22	448	1.20	206	0.91	195	17.9	23.1
1967-68	1 159	0.63	468	0.60	212	0.28	174	18.3	23.5
1968-69	1 517	1.49	572	1.17	209	1.03	249	18.0	24.5
1969-70	1 299	1.24	560	1.23	150	0.80	155	18.1	26.2
1970-71	802	0.98	693	1.07	195	0.78	196	18.3	27.7
1971-72	1 069	1.32	784	1.34	169	0.98	245	17.2	28.8
1972-73	986	0.83	692	0.74	142	0.52	210	16.7	29.5
1973-74	1 432	1.25	627	1.26	152	0.93	268	16.9	29.6
1974-75	1 220	1.22	701	1.62	135	0.83	190	16.6	30.4
1975-76	958	1.19	832	1.32	119	0.90	159	16.5	31.2
1976-77	839	0.99	855	1.04	117	0.77	164	15.8	31.2
1977-78	1 090	0.47	1 073	0.55	130	0.43	138	15.7	31.5
1978-79	1 295	1.61	1 091	1.30	171	1.04	219	15.7	31.3
1979-80	1 424	1.65	984	1.55	129	1.12	160	15.7	30.7

(a) Wheaten only to 1906-07, thence all kinds.

(b) Bearing and non-bearing.

(c) From 1951-52, 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/l	'000		Number			
1841-42	250	21								
1846-47	491	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			
1931-32	6 609	265	128	30 400	227 309	1 379	81	1 820		420
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	n.a.	n.a.	n.a.
1942-43	10 371	424	185	49 277	357 323	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	577	191	84 297	366 415	3 278	283	27 288	13 280	7 344
1958-59	15 634	596	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	n.a.	n.a.
1972-73	15 651	1 583	148	106 006	424 265	4 549	384	37 258	n.a.	n.a.
1973-74	16 431	1 692	138	100 131	434 107	2 595	359	37 588	n.a.	n.a.
1974-75	17 621	1 869	142	107 452	426 371	2 984	465	38 355	n.a.	n.a.
1975-76	17 279	1 891	142	101 912	397 500	3 561	549	n.a.	n.a.	n.a.
1976-77	15 132	1 608	126	98 442	354 912	3 426	656	n.a.	n.a.	n.a.
1977-78	14 073	1 242	117	87 092	316 681	3 240	744	n.a.	n.a.	n.a.
1978-79	14 940	1 086	110	87 355	321 199	2 523	659	n.a.	n.a.	n.a.
1979-80	16 046	1 067	107	95 459	331 345	3 451	502	n.a.	n.a.	n.a.

MINING AND MANUFACTURING PRODUCTION

Year	Mining			Manufacturing (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
1946	—	138	1 847	6 101	2 395	51 203
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)2 994	(d)643 079
1970(e)	(f)249	2 155	7 425	104 195	2 977	714 579
1971	2 287	1 626	7 400	112 276	n.a.	n.a.
1972	2 819	1 536	6 301	111 623	2 979	802 975
1973	9 662	1 571	6 874	134 274	2 914	896 691
1974	8 830	1 494	6 065	131 446	2 984	1 109 748
1975	10 037	1 798	5 448	125 978	(g)2 131	(g)1 335 276
1976	18 433	1 819	4 479	131 903	2 287	1 485 686
1977	16 390	1 920	3 450	153 135	2 242	1 597 007
1978	11 975	1 757	2 189	144 573	2 170	1 672 200
1979	14 784	1 514	2 705	203 866	2 119	1 851 438

(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 439. (e) Year ended 30 June from 1970. (f) Metallic content from 1969-70. (g) From 1974-75 excludes single establishment enterprises employing fewer than four persons.

GROSS VALUE OF RURAL PRODUCTION

Year	Agricultural				Pastoral		Dairying	Total Rural Production
	Wheat	Barley	Vine and Orchard Fruit	Total	Wool (a)	Total		
	\$'000							
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
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	14 254	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	88 866	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	95 054	136 070	39 016	408 842
1969-70	82 332	23 724	43 330	184 284	91 224	148 939	40 834	386 041
1970-71	40 562	34 902	45 991	164 895	65 525	123 858	43 918	347 038
1971-72	76 381	40 295	49 753	213 206	85 701	153 068	47 262	430 704
1972-73	44 588	27 506	54 415	177 768	164 577	261 753	47 808	503 315
1973-74	196 444	68 276	52 347	392 747	173 180	<i>n.a.</i>	<i>n.a.</i>	772 523
1974-75	163 922	119 305	77 719	432 455	122 442	<i>n.a.</i>	<i>n.a.</i>	705 446
1975-76	118 063	105 865	77 401	373 062	131 865	<i>n.a.</i>	<i>n.a.</i>	676 873
1976-77	73 726	93 807	90 318	330 398	153 550	<i>n.a.</i>	<i>n.a.</i>	709 603
1977-78	50 349	50 553	99 747	289 769	145 277	<i>n.a.</i>	<i>n.a.</i>	698 578
1978-79	265 159	118 303	110 481	609 613	161 985	<i>n.a.</i>	<i>n.a.</i>	1 082 469
1979-80 ^p	358 170	192 512	126 464	793 180	210 248	<i>n.a.</i>	<i>n.a.</i>	1 353 565

(a) Shares of profits from sale of wool under war-time disposal schemes excluded.

TRADE

Overseas Exports

Year	Value of Exports				Proportion of Total Exports Classified by Principal Countries of Destination					Other Countries
	Total	Wheat and Flour	Barley	Wool	Japan	New Zealand	UK	USA		
				\$'000			Per cent			
1861	1 837	76		1 302		3.42	89.46		7.12	
1866	2 837	146		1 518		4.62	81.48	2.44	11.46	
1871	3 630	578		1 948		4.00	89.62	n.a.	6.38	
1876	5 928	2 146		2 884		1.96	89.58	0.07	8.39	
1881	6 311	1 846		3 496		0.71	82.03	—	17.26	
1886	5 877	420		3 508		0.69	86.90	0.04	12.37	
1891	11 197	2 728		3 776	0.01	0.29	80.82	0.90	17.98	
1896	8 111	222		3 038	1.38	0.48	36.39	0.28	41.47	
1901	8 866	2 232		2 208	0.07	0.65	51.62	0.10	47.56	
1906	13 742	4 780		3 360	—	0.26	51.68	0.24	47.82	
1911	20 350	7 671	2	4 007	0.04	0.17	45.96	0.13	53.70	
1920-21	35 339	28 675	1 175	6 035	—	1.11	59.40	1.16	38.33	
1925-26	38 900	14 825	275	8 865	6.88	1.70	51.94	1.16	38.32	
1930-31	20 123	6 078	685	3 006	2.38	0.81	54.11	0.79	41.91	
1935-36	30 762	9 020	707	7 561	6.66	2.05	67.44	1.11	22.74	
1940-41	26 393	8 617	226	6 656	5.29	3.46	50.46	15.48	25.31	
1941-42	29 624	3 863	338	11 596	1.01	3.39	32.02	34.14	29.44	
1942-43	18 847	4 085	122	6 843	—	10.61	45.27	15.12	29.00	
1943-44	31 170	10 504	410	8 509	—	9.18	40.36	8.61	41.85	
1944-45	38 334	13 175	115	8 376	—	6.30	42.34	13.18	38.18	
1945-46	40 307	7 407	718	14 917	—	4.95	25.45	26.43	43.17	
1946-47	65 023	12 304	2 998	16 095	0.01	5.37	39.47	8.86	46.29	
1947-48	105 805	24 507	16 030	25 608	—	4.44	39.01	8.51	48.04	
1948-49	138 866	38 990	11 952	40 619	0.07	2.31	44.37	8.04	45.21	
1949-50	127 864	23 227	10 564	49 621	2.95	6.38	42.42	7.63	40.62	
1950-51	215 348	36 852	14 662	109 900	5.90	2.39	39.58	14.41	37.72	
1951-52	194 501	42 155	18 035	65 806	4.60	7.26	39.36	14.65	34.13	
1952-53	245 897	36 062	30 975	87 135	8.17	3.32	45.12	12.93	30.46	
1953-54	220 498	30 518	24 465	78 817	6.35	5.80	41.66	10.57	35.62	
1954-55	190 158	24 075	15 794	69 195	5.05	6.59	40.78	11.57	36.01	
1955-56	195 332	26 266	14 069	70 063	6.71	7.47	38.70	10.71	36.41	
1956-57	245 848	32 558	18 535	98 924	13.62	7.40	31.73	13.09	34.16	
1957-58	199 764	24 868	17 183	73 082	11.23	7.85	31.50	9.32	40.10	
1958-59	181 831	23 656	20 404	63 208	13.25	7.86	34.81	8.50	35.58	
1959-60	181 652	19 028	12 251	74 830	12.91	4.30	32.08	7.91	42.80	
1960-61	198 557	36 598	19 219	64 328	18.11	5.60	27.55	4.71	44.03	
1961-62	243 975	47 819	23 422	83 107	14.80	4.14	25.83	8.56	46.67	
1962-63	212 945	32 603	6 968	83 400	16.45	4.57	25.87	8.69	44.42	
1963-64	322 159	76 337	13 828	107 398	17.59	4.83	26.63	5.99	44.96	
1964-65	302 242	53 256	15 247	92 535	17.22	5.06	25.82	7.49	44.41	
1965-66	296 276	45 864	7 050	94 486	18.38	5.89	22.81	10.37	42.55	
1966-67	325 170	55 675	13 056	98 013	20.43	4.69	15.46	8.85	50.57	
1967-68	282 767	31 432	2 321	77 008	21.81	5.05	18.20	11.03	43.91	
1968-69	300 934	27 421	11 683	84 747	25.52	4.55	16.46	9.78	43.69	
1969-70	417 030	59 457	16 133	81 797	19.02	5.58	17.03	9.41	48.96	
1970-71	393 737	83 629	23 670	62 828	18.07	5.66	13.70	6.39	56.18	
1971-72	394 064	64 599	35 652	68 189	18.64	7.21	13.83	5.84	54.48	
1972-73	521 720	48 684	17 250	149 956	23.89	6.41	8.84	7.47	53.39	
1973-74	662 881	103 168	40 790	153 202	19.47	9.18	7.44	4.23	59.68	
1974-75	764 410	174 405	99 517	93 273	16.35	6.73	5.71	2.61	68.60	
1975-76	685 029	109 526	90 290	115 560	19.69	5.41	5.65	3.55	65.70	
1976-77	789 872	84 884	88 072	172 538	21.31	5.33	5.99	4.17	63.20	
1977-78	661 887	51 915	39 512	114 517	16.21	6.50	4.10	6.25	66.94	
1978-79 (a)	922 754	101 750	71 470	147 010	15.18	5.74	3.45	9.16	66.47	
1979-80	1 599 199	376 726	191 806	183 745	11.00	4.42	2.01	6.45	76.12	

(a) From 1978-79 export statistics are by 'State of Origin'. Details for previous years are by 'State of Lodgment of Documents'.

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 (a)	Japan	UK	USA	Other	Total Excluding Motor Vehicles Etc.	Motor Vehicles Etc.
	\$'000		Per cent				\$ million	
1861	2 756	310		80.14	0.32	19.54		
1866	4 193	570		89.69	1.80	8.51		
1871	2 891	342		81.85	1.45	16.70		
1876	6 428	1 084		81.30	1.44	17.26		
1881	7 133	1 022		79.06	3.80	17.14		
1886	5 003	770	0.01	78.90	6.82	14.27		
1891	8 063	1 644	0.02	71.36	7.91	20.71		
1896	6 475	1 198	0.18	68.59	7.82	23.41		
1901	7 854	1 432	0.38	56.91	14.17	28.54		
1906	7 965	2 104	0.64	63.10	10.17	26.09		
1911	12 492	4 132	1.31	58.60	12.81	27.28		
1915-16	10 304	2 816	3.12	47.68	19.81	29.39		
1920-21	24 764	6 558	1.55	42.07	21.25	35.13		
1925-26	28 160	10 602	1.13	43.30	27.84	27.73		
1930-31	7 833	1 802	1.14	36.96	16.66	45.24		
1935-36	10 839	3 616	2.24	38.65	21.16	37.95		
1940-41	10 924	3 158	1.56	38.09	12.01	48.34		
1945-46	17 556	3 622	—	62.28	10.13	27.59		
1950-51	112 002	50 446	1.98	48.31	8.42	41.29		
1951-52	186 062	80 450	5.16	39.99	9.37	45.48		
1952-53	86 549	41 456	1.14	43.53	11.71	43.62	271.7	84.3
1953-54	102 945	47 142	0.46	50.63	8.93	39.98	294.4	97.6
1954-55	129 607	63 144	1.28	49.18	13.28	36.26	324.4	113.4
1955-56	125 504	64 656	3.18	49.17	11.70	35.95	347.8	123.6
1956-57	90 813	40 536	1.39	44.01	12.26	42.34	362.3	124.7
1957-58	94 205	40 792	1.85	46.37	11.91	39.87	367.2	125.4
1958-59	90 693	40 534	2.56	42.08	11.50	43.86	387.2	138.0
1959-60	119 493	57 962	2.69	43.89	12.15	41.27	436.6	160.2
1960-61	142 764	72 570	5.37	32.66	17.61	44.36	448.9	156.1
1961-62	103 386	46 774	3.28	31.95	21.87	42.90	451.6	143.1
1962-63	139 826	71 820	4.08	31.83	22.92	41.17	479.9	180.5
1963-64	179 651	94 302	4.72	24.75	30.63	39.90	525.3	212.5
1964-65	204 856	108 243	8.01	23.72	29.11	39.16	574.5	238.0
1965-66	198 156	103 032	6.84	23.32	27.25	42.59	602.0	220.4
1966-67	196 771	97 861	7.69	21.64	27.72	42.95	627.1	214.7
1967-68	215 619	113 215	7.16	17.29	32.71	42.84	663.6	242.0
1968-69	231 956	134 222	11.19	19.82	27.35	41.64	706.9	261.1
1969-70	201 223	98 204	10.77	21.49	21.50	46.23	762.3	285.7
1970-71	198 358	98 358	14.44	25.10	17.32	43.14	818.8	297.6
1971-72	189 748	83 083	15.08	22.83	14.48	47.61	890.9	322.5
1972-73	199 978	88 271	20.48	17.49	15.08	46.95	1 037.1	n.a.
1973-74	313 915	142 187	22.57	12.03	16.91	48.49	1 237.3	457.9
1974-75	482 077	216 355	19.17	14.20	13.10	53.53	1 503.3	n.a.
1975-76	501 476	203 407	18.57	11.14	14.84	55.45	1 781.1	n.a.
1976-77	629 309	259 693	22.23	8.52	13.38	55.87	2 025.4	n.a.
1977-78	628 568	248 236	21.79	8.85	12.47	56.89	2 162.7	n.a.
1978-79	865 554	437 704	18.97	6.74	26.75	47.54	2 344.7	n.a.
1979-80	882 457	300 393	17.25	7.18	13.09	62.48	2 528.3	n.a.

(a) Includes motor vehicles and other transport equipment.

TRANSPORT AND COMMUNICATION

Public Transport

Year	Railways			Buses and Trams (a)		Shipping (Entering SA) (b)
	Passengers Carried	Goods Carried	Revenue	Passengers Carried	Revenue	
	'000	'000 tonnes	\$'000	'000	\$'000	'000 net tonnes
1841						18
1846						25
1851						75
1856	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
1950-51	17 178	3 519	(c) 14 715	78 141	3 238	5 283
1955-56	16 434	4 436	26 662	63 515	(d) 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	13 320	5 820	35 332	41 680	7 304	9 957
1973-74	13 597	6 655	39 827	(e) 47 533	(e) 9 958	9 639
1974-75	12 697	6 783	48 315	58 298	13 427	9 743
1975-76 (f)	12 672	6 184	50 099	58 336	14 454	9 386
1976-77 (f)	12 866	6 442	54 685	58 129	16 782	8 043
1977-78	n.a.	n.a.	n.a.	57 354	16 073	n.a.
1978-79	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1979-80	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Buses and trams operated by Bus and Tram Division of the State Transport Authority. 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 1955-56.

(e) From March 1974 includes details of licensed private services taken over by the Bus and Tram Division.

(f) Includes country railways operated on behalf of the Commonwealth.

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 (c)	Tele- phone
	'000				Number		\$'000		
1851							14		
1856							18		
1861							33	15	
1866							56	24	
1871							58	22	
1876							114	64	
1881							166	123	
1886							214	160	
1891							227	201	
1896							250	242	
1901					1 831		282	263	
1906					2 510		342	182	61
1911					6 086		490	233	93
1916					10 184		484	277	212
1921					15 984		762	420	468
1931	(d) 45.1	(d) 12.1	(d) 67.3	106 053	39 552	32 075	879	282	1 168
1936	53.7	19.4	84.3	92 227	39 911	93 881	1 017	327	1 197
1941	54.5	24.4	86.2	122 280	47 962	136 457	1 252	458	1 522
1946	64.4	31.4	107.2	137 979	53 126	164 497	1 921	815	2 170
1947	67.4	34.7	115.2	149 304	56 449	180 371	1 989	875	2 345
1948	75.7	36.4	127.5	159 814	60 249	196 336	2 190	946	2 507
1949	84.3	40.7	143.5	172 063	64 008	211 436	2 345	848	2 761
1950	97.5	46.0	163.9	192 469	69 907	226 723	2 546	1 169	3 536
1951	108.9	51.2	183.6	215 157	74 457	243 019	2 938	1 550	4 271
1952	120.5	55.9	200.4	232 119	80 919	(e)207 527	3 872	1 818	5 588
1953	129.7	61.2	214.3	252 216	86 977	210 808	4 086	1 191	6 070
1954	139.7	64.6	226.9	265 727	93 104	218 745	4 311	1 112	6 728
1955	150.5	70.2	244.4	281 091	100 171	221 118	4 670	1 028	7 266
1956	161.4	73.2	257.5	299 158	107 649	228 625	5 033	1 075	8 067
1957	171.9	75.7	269.3	315 044	114 390	234 120	5 579	1 358	8 993
1958	184.3	77.8	283.0	328 833	122 311	238 916	5 877	1 385	9 950
1959	200.3	81.0	301.5	340 973	131 060	247 468	6 247	1 421	10 524
1960	214.9	84.1	318.3	369 584	138 019	249 148	7 359	1 487	12 793
1961	224.5	82.5	325.2	393 869	144 502	249 475	7 729	1 643	14 544
1962	238.9	82.5	338.1	397 803	152 785	249 673	7 761	1 434	15 604
1963	258.8	83.9	358.2	414 656	162 012	256 741	8 322	1 592	16 508
1964	280.1	86.3	380.5	427 717	173 314	266 027	8 709	1 852	19 181
1965	298.1	86.4	397.4	447 985	182 249	(f)269 040	9 312	2 187	23 038
1966	314.0	87.3	413.5	464 778	192 922	281 747	9 759	2 398	24 757
1967	327.7	87.1	427.6	481 496	203 191	278 069	10 117	2 521	26 990
1968	342.9	87.6	443.9	491 765	212 842	290 051	11 378	2 688	30 124
1969	364.7	89.6	468.2	513 687	224 174	297 877	(g) 13 211	(g) 1 606	(g) 34 523
1970	384.0	90.7	490.1	535 184	239 452	302 519	13 885	1 918	38 465
1971	400.8	91.5	510.3	550 745	251 330	310 485	15 847	1 988	43 333
1972	420.4	92.8	536.0	570 562	261 608	315 612	18 309	2 342	50 820
1973	445.4	97.9	572.4	592 481	278 687	332 411	19 227	2 569	58 306
1974	468.6	100.6	601.3	612 693	298 300	339 516	21 298	2 963	68 208
1975	491.5	104.0	628.9	637 248	311 804	(h)	25 128	3 581	83 406
1976	513.0	112.7	657.9	658 671	334 948	(h)	n.a.	n.a.	n.a.
1977	528.8	116.9	677.5	690 663	361 334	(h)	n.a.	n.a.	n.a.
1978	536.5	118.7	685.6	716 991	390 852	(h)	n.a.	n.a.	n.a.
1979	(i) 543.8	(i) 117.7	(i) 691.8	737 410	420 871	(h)	n.a.	n.a.	n.a.
1980	(j) 554.9	(j) 119.5	(j) 708.1	751 458	n.a.	(h)	n.a.	n.a.	n.a.

(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. (h) Abolished from 17 September 1974. (i) At Census 30 September 1979. (j) At 30 June.

PUBLIC FINANCE

Year	State Government					Local Government Revenue			
	Total Revenue	Expenditure		Public Debt		State Taxation (a)	From Rates	Government Grants	Total
		From Revenue	From Loan (Net)	Total	Per Head				
	\$'000	\$'000	\$'000	\$'000	\$	\$'000	\$'000	\$'000	\$'000
1840-41	51	180							
1845-46	95	77							
1850-51	445	367				202			
1855-56	960	1 160		590	5-50	326		54	114
1860-61	1 117	966		1 733	13-30	282	46	40	114
1865-66	1 900	2 130		1 551	9-20	478	60	60	162
1870-71	1 556	1 519		4 335	23-00	498	80	74	194
1875-76	2 640	2 647		7 674	34-20	920	118	80	286
1880-81	4 344	4 108		22 394	78-30	1 168	188	136	488
1885-86	4 558	4 767	2 800	36 680	118-60	1 603	208	108	502
1890-91	5 464	5 207	968	43 315	135-80	1 655	276	254	702
1895-96	5 043	5 019	886	48 433	137-60	1 600	264	194	652
1900-01	5 648	5 693	845	52 129	146-40	1 203	302	222	738
1905-06	5 612	5 437	900	60 165	165-80	735	348	198	740
1910-11	8 363	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	529	2 824
1940-41	25 849	26 015	2 548	219 599	365-30	6 883	1 851	577	3 170
1945-46	32 687	32 687	3 419	221 498	348-80	(c) 4 036	2 040	451	3 474
1950-51	67 344	66 885	33 871	296 776	405-20	8 104	3 830	1 963	7 579
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	663-20	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	67 649	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	7 653	54 886
1972-73	520 866	524 777	117 411	1 415 129	1 161-94	120 474	35 874	15 025	65 917
1973-74	641 967	645 368	107 566	1 481 337	1 198-30	156 903	42 202	10 508	67 682
1974-75	828 985	820 601	123 854	1 425 333	1 138-35	219 190	53 804	19 118	96 000
1975-76	1 036 985	1 034 698	160 602	1 349 702	1 105-50	272 760	65 670	33 551	123 287
1976-77	1 174 025	1 183 180	175 552	1 495 737	1 171-47	314 280	76 385	34 881	137 364
1977-78	1 167 196	1 192 063	171 329	1 605 834	1 247-15	323 502	85 680	38 052	156 074
1978-79	1 264 705	1 258 252	161 087	1 702 221	1 318-84	342 307	95 525	34 774	168 771
1979-80	1 384 589	1 384 589	149 584	1 781 600	1 371-46	369 183	n.y.a.	n.y.a.	n.y.a.

(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 Commonwealth Government. (c) Uniform taxation in force from 1941-42. (d) Excludes reimbursement for work done on behalf of Highways Department from 1961.

PRIVATE FINANCE

Year	Banking			Life Insurance		General Insurance Revenue (b)	Friendly Societies
	Trading Banks		Savings Bank Deposits at 30 June	New Policies Issued Sum Assured	Policies in Existence Sum Assured		
	Advances	Deposits					
				\$'000			Members
1846		183					
1851		426	29				
1856		1 419	106				
1861	2 864	1 480	243				
1866	6 240	2 803	499				
1871	5 715	3 043	982				
1876	9 449	6 632	1 703				
1881	13 483	9 885	2 499				
1886	19 226	9 924	3 306				
1891	16 297	15 550	4 316				
1896	9 470	15 343	5 673				
1901	8 546	13 437	7 591				
1906	10 612	15 598	9 534				
1911	16 970	22 257	14 872				
1916	20 325	27 264	20 070				65 540
1921	27 296	44 199	32 635	6 000	40 272	1 305	70 155
1926	31 672	51 574	43 558	9 341	60 244	2 045	77 791
1931	44 119	44 956	42 844	6 266	65 016	1 627	(c) 76 357
1936	43 760	52 399	50 617	10 791	75 984	1 859	71 658
1941	39 547	64 182	55 019	11 416	101 825	2 643	76 357
1946	31 560	93 397	131 729	22 805	147 230	2 705	80 419
1951	62 109	206 743	195 698	44 899	261 931	9 298	71 591
1952	89 163	214 630	207 452	48 475	298 494	12 370	67 563
1953	79 574	247 260	227 750	51 671	335 457	14 593	63 922
1954	95 968	250 802	245 898	59 540	377 093	16 165	61 345
1955	106 740	250 795	263 384	70 458	426 881	18 321	59 149
1956	108 515	241 044	271 512	75 301	477 554	20 590	57 216
1957	105 618	266 897	284 802	89 470	539 120	23 835	55 499
1958	125 971	262 700	297 716	94 137	599 723	24 656	54 181
1959	124 924	272 599	314 304	111 440	676 406	26 223	53 114
1960	149 172	265 498	331 996	131 951	756 581	27 975	52 239
1961	147 348	269 848	333 485	143 628	841 563	32 363	51 551
1962	(a)164 936	(a)276 750	361 980	157 636	955 426	33 740	51 198
1963	182 370	285 318	416 155	165 183	1 056 390	37 499	50 765
1964	202 360	323 858	475 803	197 790	1 161 986	41 695	50 946
1965	243 866	347 780	519 268	215 946	1 294 450	45 433	51 258
1966	273 916	365 466	558 857	239 250	1 439 083	50 121	51 109
1967	298 981	368 851	605 167	279 996	1 618 112	56 114	51 001
1968	345 315	388 772	643 690	301 602	1 807 040	59 981	51 070
1969	362 967	408 903	691 778	347 048	2 031 479	65 354	50 880
1970	390 932	423 410	733 100	437 699	2 313 244	70 640	50 796
1971	411 180	436 297	787 901	525 879	2 667 651	76 020	50 488
1972	448 164	474 192	874 138	586 663	3 053 169	89 173	50 077
1973	516 424	619 958	1 060 425	727 998	3 565 754	98 678	50 664
1974	671 782	815 622	1 174 813	908 775	4 175 174	127 473	50 779
1975	748 609	973 499	1 394 585	1 095 897	4 927 762	(d)187 316	49 888
1976	914 300	1 214 488	1 617 336	1 200 765	5 666 521	231 649	48 057
1977	1 149 413	1 300 883	1 780 841	1 273 906	6 370 336	267 640	45 815
1978	1 370 681	1 301 516	1 945 344	1 327 734	7 049 737	(e)266 594	43 051
1979	1 642 474	1 436 959	2 138 263	n.y.a.	n.y.a.	264 357	41 575
1980	1 938 335	1 651 965	2 276 896	n.y.a.	n.y.a.	282 997	n.a.

(a) Until 1961, average of balances at close of business on Wednesdays during the June quarter of the year stated. From 1962, average of weekly figures for the month of June of the year stated. (b) Year ended 30 June. (c) Membership at 30 June from 1932; previously 31 December. (d) From 1974-75 premium income only; details of interest, dividends and rent no longer available. (e) Details of brokers are excluded from 1977-78.

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 River 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 His Royal Highness Prince 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 Manufacturers 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 Commonwealth 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 Commonwealth Government commenced.
- 1910—Payment of invalid pensions by the Commonwealth 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 Commonwealth 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 transcontinental 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—Showgrounds 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 a Commonwealth Government writ against the State.

- 1927—Extension of the North-South railway commenced. The first train arrived at Renmark following the opening of the Paringa Bridge. The Duke and Duchess of York arrived in South Australia.
- 1929—The first air mail left Adelaide for Perth. The first train to Alice Springs left Adelaide. Compulsory military training abolished and replaced by a voluntary system. Electric tram service to Glenelg commenced.
- 1930—All officers of the South Australian Public Service over the age of sixty-five years were compulsorily retired. The South Australian basic wage was reduced by 18c to \$1.25 a day. Transport Control Board, State Finance Committee and Unemployed Relief Council established.
- 1931—City Bridge opened. Financial Plan formulated at the Premiers' Conference adopted and Financial Emergency Act passed. Federal basic wage reduced by 10 per cent for twelve months but was to be adjusted in accordance with a retail price index. State basic wage reduced from \$1.25 to \$1.05 a day. Basic wage for females reduced, first from \$3.95 to \$3.50 and later to \$3.15 a week.
- 1932—Boundaries and names of a number of local government areas changed and others abolished following the report of a commission.
- 1933—The Farmers Assistance Board, the Betting Control Board and the Metropolitan and Export Abattoirs Board established.
- 1934—Water restrictions in force from May until the following January.
- 1935—The Nomenclature Act of 1935 restored the former German names to a number of towns, the names of which had been changed in 1917.
- 1936—Centenary year of the State's foundation celebrated. Contract signed for the completion of Parliament House and the foundation stone laid by the Governor, Sir Winston Dugan.
- 1937—South Australian Housing Trust established. New Federal basic wage of \$7.40 per week, which incorporated a 'prosperity' loading, declared. First trolley bus service inaugurated. Mount Bold Reservoir with a capacity of 30 000 megalitres filled, almost doubling Adelaide's water storage. Schools closed and other precautions taken as a result of an epidemic of poliomyelitis.
- 1938—First South Australian Housing Trust dwelling completed.
- 1939—State's worst heat wave and disastrous bush fires experienced during the first two months of the year. Record high temperature of 47·6°C recorded in Adelaide. New Parliament House opened by His Excellency the Governor-General, Lord Gowrie.
- 1940—Goolwa Barrage completed at a cost of \$1 400 000. Birkenhead Bridge opened. A rapid development of secondary industry took place as munition annexes were added to existing factories and new factories were opened.
- 1941—Scriptural instruction in State schools commenced. First naval vessel built in South Australia launched. First blast furnace to be built at Whyalla went into operation. Child endowment payments inaugurated. Payroll 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 pension 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—Commonwealth Government munition factories leased to 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 Commonwealth 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 Commonwealth and South Australian Governments ratified an agreement for the standardisation of railway gauges.
- 1950—Petrol, butter and tea rationing discontinued. Federal free drugs scheme came into operation. Water restrictions imposed in December and remained in force until June 1951.
- 1951—Serious bush fires occurred in January. Wool prices reached a record high level. Distribution of free milk to school children introduced.
- 1952—The hospital benefits scheme came into operation. Price control on clothing removed in South Australia. Severe import restrictions gazetted. Installations for the bulk handling of grain opened at Ardrossan. Compulsory chest X-rays introduced.

- 1953—Remaining controls on building removed. Port Pirie became the first country town to be proclaimed a city. The medical benefits scheme came into operation. Automatic quarterly cost-of-living adjustments to the basic wage discontinued. Size of the State Cabinet increased from six to eight Ministers.
- 1954—A severe earthquake occurred in Adelaide on 1 March. Her Majesty Queen Elizabeth II visited South Australia. First unit of Port Augusta power station opened. Construction of dwellings in Elizabeth commenced. Water from the River Murray pumped into metropolitan reservoirs through the Mannun pipeline.
- 1955—Adelaide Airport at West Beach opened. The new satellite town at Elizabeth officially opened.
- 1956—River Murray flooded for several months and caused considerable damage in irrigation and reclaimed areas. Town Planning Committee established. Atomic device exploded at Maralinga. Salk Poliomyelitis vaccination program commenced.
- 1957—Centenary of responsible government in South Australia celebrated. Long service leave legislation passed by the South Australian Parliament.
- 1958—Visit of Queen Elizabeth, the Queen Mother, to South Australia. Introduction of parking meters to Adelaide. South Para Reservoir opened and connected to Adelaide water supply. Final run by a street tram in Adelaide, following conversion to diesel bus transport.
- 1959—South Australia ceased to be a claimant State for special grants from Grants Commission. Full-scale television transmission commenced. Sir Thomas Playford created record term as Premier in a British country (26 years 125 days). Aborigines became eligible for age, invalid and widows pensions.
- 1960—First Adelaide Festival of Arts held (March 12-26). Completion of second unit and formal opening of Thomas Playford power station at Port Augusta.
- 1961—First United Kingdom Trade Commissioner appointed to South Australia. Compulsory driving tests introduced. The trailer ship *Troubridge* made its first run from Port Adelaide to Kingscote and Port Lincoln. Sturt's Desert Pea declared State's official floral emblem.
- 1962—Myponga Reservoir completed and linked to Happy Valley Reservoir. Duplication of Morgan-Whyalla pipeline commenced.
- 1963—Population of the State passed 1 000 000 mark. Port Stanvac oil refinery 'on stream'. School leaving age increased to fifteen years. Three weeks annual leave for employees governed by State awards and determinations introduced. First direct dialling for an overseas telephone call from South Australia. Major gas flow from Gidgealpa No. 2 well. Royal visit by Her Majesty, Queen Elizabeth II.
- 1964—Work commenced on conversion of Port Pirie-Broken Hill railway to standard gauge. First gas from Port Stanvac refinery piped for use in Adelaide's gas supply. Record wind gust (148 km/h) 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 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. New outlet tunnel 2 700 metres long from Happy Valley Reservoir completed. ELDO rocket Europa-1 launched at Woomera.
- 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, R. S. Hall sworn in. Four weeks leave for State Government employees introduced. 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. 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**—Abortion law reformed in South Australia. First direct telecast from England to Australia *via* satellite. Hairy-nosed wombat adopted as State's faunal emblem.
- 1971**—Fluoridation of Adelaide water supply commenced. Age of majority reduced from twenty-one to eighteen. Commonwealth Government transferred power to levy payroll tax to the States. Daylight saving introduced in South Australia for the first time since the 1939-45 War. 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**—New Stirling to Verdun freeway opened. New laws regulating door-to-door selling and used car dealing introduced. University of Adelaide's educational radio station VL5UV commenced broadcasting. Weather temperature reports changed to degrees Celsius. Daylight saving re-introduced for 1972-73 and subsequent summers. South Australian Film Corporation commenced operation. South Australia's first Ombudsman appointed.
- 1973**—New long service leave provision for three months leave after ten years service came into force. New \$11 million hospital opened at Modbury. 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. \$6.6 million Adelaide Festival Theatre opened by the Prime Minister. Legislation enacted for adult

franchise and proportional representation for the Legislative Council. Compulsory blood tests for road accident victims introduced. \$50 note issued for the first time. Bill passed in State Parliament for extensive improvement in workers compensation benefits.

1974—World Gliding Championships held at Waikerie. H.R.H. Prince Philip, the Duke of Edinburgh, visited South Australia. University of Adelaide celebrated its centenary. Prime Minister opened \$4·8 million Australian Broadcasting Commission complex at Collinswood. First match held at the new South Australian National Football League headquarters at West Lakes. Conversion of road signs to metric measurements undertaken. Judgment handed down making four weeks annual leave standard for workers under State awards. State primary schools began a new program of continuous admission of children on their fifth birthday. Playhouse, Space and Amphitheatre at the Adelaide Festival Centre opened. Legislation allowing hotel trading to 12 midnight on Fridays and Saturdays came into force.

1975—Phase I of \$54 million Flinders Medical Centre opened. Transmission of television in colour commenced. International Equestrian Exposition 1975 held in Adelaide and attended by Her Royal Highness, Princess Anne. State Election held on 12 July, after the Legislative Council failed to pass the Railways (Transfer Agreement) Bill; the Dunstan ALP Government was returned with a reduced majority and the Bill was subsequently passed. Medibank commenced operations in South Australia. Legislation for the redistribution of House of Assembly electoral boundaries passed by the Legislative Council.

1976—FM radio broadcasting began in South Australia. Rail track to Christie Downs opened. \$6·25 million Regency Park centre for treatment and care of physically handicapped children opened. A new commercial radio station (5AA) went to air, Adelaide's first for forty-six years. A new political party, the New Liberal Movement formed. Sir Douglas Nicholls appointed as Governor of South Australia from 1 December 1976. Sections on the new coastal route of the Eyre Highway opened. Smoking banned on buses operated by the Bus and Tram Division of the State Transport Authority. Plans announced for on-the-spot fines of \$20 for littering. Price control on petrol removed for a six-month trial period. Thirty-three metropolitan and fourteen country seats formed in the redistribution of House of Assembly electorates by the Electoral Boundaries Commission. Date stamping regulations for all short-life perishable foods approved by Executive Council. Rundle Mall commissioned by the Premier on 1 September. A total eclipse of the Sun occurred in parts of South Australia on 23 October. Large deposits of copper ore discovered at Roxby Downs near Andamooka. Legislation passed making rape within marriage a criminal offence. Capital punishment abolished in South Australia.

1977—Her Majesty Queen Elizabeth II and the Duke of Edinburgh visited South Australia. \$5·8 million Southern Plaza at the Adelaide Festival Centre officially opened by Her Majesty Queen Elizabeth II. The German vessel *Visurgis* became the first container ship to use the new container terminal at Outer Harbor. South Australia's first million dollar lottery, the Celebration Lottery, drawn by the Lotteries Commission. A major deposit of sub-bituminous coal discovered near Lock. The State's new beverage container deposit legislation came into operation. The South Australian Health Commission came into operation. Keith Seaman sworn in as the new Governor of South Australia.

Adelaide's first water filtration plant at Hope Valley commenced operations. Legislation passed for the control of domestic and industrial noise. Late night shopping in city and suburbs commenced.

1978—A Royal Commission held into the dismissal of Police Commissioner Salisbury. The last ship to be built at Whyalla shipyards, the *Denis O'Malley*, was launched. Adelaide tramways held centenary celebrations. Lotteries Commission introduced Instant Money Game with prizes of up to \$10 000. South Australian Heritage Committee was formed.

1979—A new public transport zone-fare system introduced. D. A. Dunstan, the State's second longest serving Premier resigned for health reasons. Adelaide's unemployment levels highest in Australia in March—8·9 per cent of the workforce. Santos legislation passed, limiting maximum permissible single shareholdings to 15 per cent. State elections held; D. O. Tonkin, new Liberal Premier, sworn in. Adelaide television station NWS9 sold to New South Wales interests. Merger of Bank of Adelaide with ANZ Banking Group approved. Charles Moore retail group ceased operating in South Australia.

1980—Norwood by-election, ordered by Court of Disputed Returns, won by ALP candidate G. Crafter. Bushfire destroyed 35 houses in Adelaide Hills, causing \$6 million damage. First of State Transport Authority's new series 2000 railcars began service. Mitsubishi Motor Corp. purchased control of Chrysler Australia Ltd. New slogan 'The Festival State' for South Australian motor vehicle number-plates. Constitutional Museum opened. H.R.H. Princess Alexandra and her husband, Mr Angus Ogilvy, visited South Australia. The Tarcoola-Alice Springs rail link opened. A bronze statue of Queen Adelaide presented to Adelaide City Council.

1981—By-election for Federal seat of Boothby, made vacant by the appointment of Mr J. McLeay as Consul-General in Los Angeles, won by Mr R. Steele Hall (Liberal). On February 15, Adelaide had its hottest day since 1948. Temperature reached 43·4°C. Mr I. B. C. Wilson MHR for Sturt, appointed Minister for Home Affairs and Environment. H.R.H. Prince Charles visited South Australia. On June 1, Adelaide recorded its lowest barometric pressure ever (979 millibars).

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Spiders and other Arachnids of South Australia; 1979, 29-43.
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AUSTRALIAN BUREAU OF STATISTICS
SOUTH AUSTRALIAN PUBLICATIONS⁽¹⁾

Cat. No.	Publication	Latest issue at 31 August 1981	Month of Issue
GENERAL			
1201.4	Causes of Death Certification irr	1979	Apr. 1980
1301.4	South Australian Year Book (\$12.00 plus postage) a	1980	Nov. 1980
1302.4	Pocket Year Book of South Australia (\$1.60 plus postage) a	1981	Apr. 1981
1303.4	Monthly Summary of Statistics m	Aug. 1981	Aug. 1981
1304.4	Divisional Statistics irr	1979	Aug. 1979
POPULATION AND VITAL STATISTICS			
3201.4	Population and Dwellings in Local Government Areas hy	June 1980	June 1981
3202.4	Population Estimates, Local Government Areas irr	June 1976	May 1978
3203.4	Projections of the Population of South Australia irr	1978-2011	July 1979
3301.4	Births a	1979	May 1980
3302.4	Deaths a	1979	Nov. 1980
3303.4	Perinatal Deaths a	1979	Aug. 1980
3304.4	Marriages a	1979	Mar. 1980
3305.4	Divorces a	1979	Sept. 1980
SOCIAL STATISTICS			
4201.4	Schools: Preliminary a	1980	Dec. 1980
4202.4	Schools a	1980	May 1981
4301.4	Survey of the Use of Health Services irr	1971	Dec. 1972
4302.4	Hospital Morbidity a	1979	July 1981
4303.4	The Dental Health of South Australians irr	Oct. 1980	Aug. 1981
4401.4	Day Care Centres and Pre-school Centres a	1980	Nov. 1980
4501.4	Higher Criminal Courts a	1979	May 1981
OVERSEAS TRADE			
5402.4	Overseas Trade q	Mar. Qtr 1981	Aug. 1981
5403.4	Exports a	1976-77	May 1979
5404.4	Imports a	1976-77	May 1979
PUBLIC FINANCE			
5501.4	Public Finance a	1978-79	Apr. 1981
PRIVATE FINANCE			
5603.4	Private Finance a†	1979-80	July 1981
LABOUR FORCE			
6201.4	Labour Force q	May Qtr 1981	Aug. 1981
EMPLOYMENT CONDITIONS			
6301.4	Industrial Accidents a	1978-79	Mar. 1981
RURAL			
7103.4	Agriculture: General Summary a	1979-80	June 1981
7104.4	Crops and Livestock in Hundreds within Counties a	1979-80	May 1981
7202.4	Livestock and Livestock Products a	1979-80	Dec. 1980
7203.4	Chicken Hatchings and Poultry Slaughtering m†	Apr. 1981	July 1981
7303.4	Nursery and Flower Production irr	1977-78	Mar. 1979
7304.4	Cereals a	1979-80	Jan. 1981
7306.4	Surplus Grapes irr	1977-78	Nov. 1978
7401.4	Machinery on Rural Holdings irr	1974-75	Feb. 1976
7402.4	Grain and Seed Harvesters on Rural Holdings irr	1969-70	Oct. 1971
7403.4	Tractors on Rural Holdings irr	1968-69	Apr. 1970
7404.4	Irrigation irr	1978-79	Aug. 1980
7501.4	Value of Agricultural Commodities Produced (First Estimates) a†	1980-81	July 1981
7502.4	Value of Agricultural Commodities Produced (Second Estimates) a†	1979-80	Feb. 1981
7503.4	Value of Agricultural Commodities Produced a	1979-80	Aug. 1981

SOUTH AUSTRALIAN PUBLICATIONS (continued)

Cat. No.	Publication	Latest issue at 31 August 1981	Month of Issue
MANUFACTURING AND MINING			
8202.4	Manufacturing Establishments: Details of Operations by Industry Class a	1978-79	Oct. 1980
8203.4	Manufacturing Establishments: Small Area Statistics a	1978-79	Jan. 1981
8204.4	Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size a	1978-79	Sept. 1980
8207.4	Domestic Appliance and Energy Usage irr	Apr. 1979	Sept. 1979
8208.4	Domestic Appliance and Energy Usage—A Technical Analysis irr	Apr. 1979	Dec. 1980
INTERNAL TRADE			
8502.4	Interstate Trade irr	1978-79	Apr. 1980
8601.4	Census of Retail Establishments and Selected Service Establishments irr	1973-74	Dec. 1975
8602.4	Census of Wholesale Establishments irr	1968-69	Oct. 1973
8603.4	Tourist Accommodation q	Mar. Qtr 1981	July 1981
8604.4	Census of Tourist Accommodation Establishments irr	1973-74	Feb. 1976
BUILDING			
8701.4	Building Statistics: Building Approvals m	June 1981	Aug. 1981
8705.4	The Housing Intentions of South Australians irr	Nov. 1979	June 1980
8707.4	Building Commencements: New Dwellings q	July-Sept. 1980	July 1981
8708.4	Building Activity q	Sept. and Dec. Qtrs 1980	Aug. 1981
TRANSPORT AND COMMUNICATION			
9102.4	Transport and Communication a†	1978-79	Aug. 1980
9301.4	Motor Vehicle Census irr	1979	July 1980
9401.4	Road Traffic Accidents q	Mar. Qtr 1980	Feb. 1981

(1) Publication available free of charge unless a price is given.

Frequency of issue is indicated as follows:

m	monthly	a	annually
q	quarterly	irr	irregularly
hy	half-yearly		

† ceased publication with issue shown