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# A Statistical appendix

## A.1 Introduction

The aim of this appendix is to provide contextual information to aid the interpretation of performance indicators used in the Report. The inclusion of the appendix is partly a response to requests by Report users. A number of respondents to a feedback survey conducted in 1998 noted that more needs to be reported on the differences between jurisdictions and how they affect the interpretation placed on data (SRCSSP 1998). Most of the chapters of the Report use the population data from table A.1 for descriptive information (such as expenditure per person in the population) or performance indicators (such as participation rates for vocational education and training). Financial data (which are expressed in real dollars in the chapters) for all services (except health, and vocational education and training) are deflated by the gross domestic product deflator data from table A.18. The data source for most tables is the Australian Bureau of Statistics (ABS).

The appendix comprises four elements:

- a breakdown of Australia's population by age and sex, as at 30 June 2000 (A.2);
- descriptions of the broad characteristics of each jurisdiction (A.3–A.10);
- a set of source tables to assist comparison of performance across jurisdictions (available on the companion CD-ROM) (A.11); and
- a description of the statistical concepts used in the Report (A.12).

The descriptions of jurisdictions (based on data in the source tables) include the characteristics of age, gender, cultural heritage (such as Indigenous status and place of birth), population distribution, household structures and location, and level of income support. For some characteristics, the discussion is based on the same indicator across jurisdictions (for example, the proportion of Indigenous Australians in the population). For other characteristics, the discussion draws on noteworthy differences (for example, differences from the national level).

## A.2 A breakdown of Australia's population

Table A.1 Estimated residential population by age and sex, 30 June 2000<sup>a</sup>

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust<sup>b</sup></i>
<i>Number of people by sex and age</i>										
Females										
0–4 years	'000	210.3	146.7	117.6	61.4	45.2	14.9	10.3	8.5	615.0
5–9 years	'000	216.8	157.7	125.5	64.6	48.2	16.4	10.5	8.4	648.2
10–14 years	'000	214.9	156.6	123.9	67.2	48.8	16.8	10.7	7.6	646.7
15–19 years	'000	216.9	160.3	127.7	67.4	49.9	17.1	11.5	7.1	658.1
20–24 years	'000	219.7	169.1	125.3	68.5	48.0	14.5	13.1	7.8	665.9
25–29 years	'000	249.5	185.7	136.6	71.5	51.3	15.6	13.1	9.3	732.7
30–34 years	'000	238.4	183.8	130.5	69.7	52.5	16.1	12.2	8.9	712.1
35–39 years	'000	251.9	186.9	139.9	74.3	57.4	18.1	12.4	8.1	749.2
40–44 years	'000	242.2	179.8	134.1	72.8	57.1	18.1	12.4	7.1	723.7
45–49 years	'000	223.3	167.1	124.6	67.9	53.9	16.9	12.1	6.2	672.1
50–54 years	'000	204.5	153.2	114.9	59.1	50.4	15.6	10.8	5.0	613.6
55–59 years	'000	160.4	117.4	88.1	43.9	39.0	12.2	7.3	3.1	471.6
60–64 years	'000	134.0	99.2	69.3	35.7	33.0	10.5	5.2	1.8	388.7
65–69 years	'000	120.4	89.4	59.7	30.6	30.1	9.4	4.1	1.2	344.9
70 and over	'000	345.7	254.2	165.0	80.6	92.3	26.6	10.4	2.0	976.8
80 and over	'000	127.0	93.4	60.6	29.9	34.6	10.0	3.5	0.6	359.7
<b>Total<sup>c</sup></b>	<b>'000</b>	<b>3 248.9</b>	<b>2 407.0</b>	<b>1 782.6</b>	<b>935.2</b>	<b>757.0</b>	<b>238.8</b>	<b>156.1</b>	<b>92.1</b>	<b>9 619.2</b>
Males										
0–4 years	'000	220.9	156.0	123.3	65.2	47.3	15.7	10.5	9.1	648.1
5–9 years	'000	228.3	166.3	132.1	68.4	50.5	17.3	11.0	9.1	683.1
10–14 years	'000	225.5	163.9	131.0	71.0	51.5	17.6	11.1	8.2	680.0
15–19 years	'000	228.0	166.5	134.9	71.0	52.2	17.6	12.7	7.6	690.7
20–24 years	'000	227.7	176.8	129.5	72.2	50.6	15.1	14.3	9.0	695.2
25–29 years	'000	249.1	187.9	137.9	75.3	53.6	14.9	13.1	10.5	742.3
30–34 years	'000	238.2	180.9	129.9	71.3	53.5	15.1	11.8	9.5	710.4
35–39 years	'000	254.3	184.9	137.1	75.3	57.0	17.4	12.0	9.0	747.1
40–44 years	'000	243.5	177.4	133.4	73.7	56.2	17.7	11.6	8.0	721.6
45–49 years	'000	224.5	163.2	126.0	68.8	52.7	16.7	11.4	7.0	670.6
50–54 years	'000	211.9	153.2	119.7	63.2	50.3	15.8	11.1	6.2	631.5
55–59 years	'000	165.3	118.9	92.7	46.9	38.9	12.5	7.4	4.2	486.9
60–64 years	'000	134.6	97.6	72.6	36.8	31.9	10.3	5.3	2.5	391.7
65–69 years	'000	114.7	84.1	58.8	29.8	28.2	9.0	4.1	1.5	330.0
70 and over	'000	248.0	181.2	125.0	59.9	66.1	19.0	7.4	2.0	708.5
80 and over	'000	68.1	50.4	35.1	16.3	18.7	5.3	1.9	0.5	196.2
<b>Total<sup>c</sup></b>	<b>'000</b>	<b>3 214.6</b>	<b>2 358.9</b>	<b>1 783.7</b>	<b>948.6</b>	<b>740.6</b>	<b>231.5</b>	<b>154.8</b>	<b>103.3</b>	<b>9 537.8</b>

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Table A.1 (Continued)

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust<sup>b</sup></i>
Persons										
0–4 years	'000	431.2	302.7	240.9	126.6	92.5	30.6	20.8	17.6	1 263.1
5–9 years	'000	445.1	323.9	257.7	133.0	98.7	33.7	21.5	17.5	1 331.4
10–14 years	'000	440.4	320.5	254.9	138.3	100.3	34.4	21.8	15.8	1 326.7
15–19 years	'000	444.9	326.8	262.6	138.4	102.1	34.7	24.3	14.7	1 348.8
20–24 years	'000	447.4	345.9	254.8	140.6	98.6	29.5	27.4	16.8	1 361.1
25–29 years	'000	498.7	373.6	274.5	146.8	104.9	30.5	26.1	19.8	1 475.1
30–34 years	'000	476.6	364.7	260.3	141.0	106.0	31.2	24.0	18.4	1 422.5
35–39 years	'000	506.2	371.8	277.0	149.6	114.4	35.4	24.5	17.1	1 496.3
40–44 years	'000	485.6	357.2	267.5	146.5	113.3	35.8	24.1	15.0	1 445.3
45–49 years	'000	447.8	330.3	250.7	136.7	106.6	33.6	23.5	13.2	1 342.6
50–54 years	'000	416.4	306.5	234.6	122.3	100.7	31.3	21.9	11.1	1 245.1
55–59 years	'000	325.7	236.3	180.8	90.8	77.9	24.7	14.7	7.3	958.5
60–64 years	'000	268.6	196.9	141.9	72.4	65.0	20.8	10.4	4.4	780.4
65–69 years	'000	235.2	173.5	118.5	60.4	58.3	18.4	8.1	2.7	675.0
70 and over	'000	593.6	435.3	289.9	140.5	158.5	45.6	17.7	4.1	1 685.3
80 and over	'000	195.1	143.8	95.7	46.2	53.3	15.3	5.3	1.1	555.9
<b>Total<sup>c</sup></b>	<b>'000</b>	<b>6 463.5</b>	<b>4 765.93</b>	<b>566.4 1</b>	<b>883.9 1</b>	<b>497.6</b>	<b>470.4</b>	<b>310.8</b>	<b>195.5</b>	<b>19 157.0</b>
<i>Share of jurisdiction population by sex and age</i>										
Females										
0–4 years	%	6.5	6.1	6.6	6.6	6.0	6.3	6.6	9.2	6.4
5–9 years	%	6.7	6.6	7.0	6.9	6.4	6.9	6.7	9.1	6.7
10–14 years	%	6.6	6.5	6.9	7.2	6.4	7.0	6.8	8.3	6.7
15–19 years	%	6.7	6.7	7.2	7.2	6.6	7.2	7.4	7.7	6.8
20–24 years	%	6.8	7.0	7.0	7.3	6.3	6.1	8.4	8.5	6.9
25–29 years	%	7.7	7.7	7.7	7.6	6.8	6.5	8.4	10.1	7.6
30–34 years	%	7.3	7.6	7.3	7.5	6.9	6.7	7.8	9.6	7.4
35–39 years	%	7.8	7.8	7.8	7.9	7.6	7.6	8.0	8.8	7.8
40–44 years	%	7.5	7.5	7.5	7.8	7.5	7.6	8.0	7.7	7.5
45–49 years	%	6.9	6.9	7.0	7.3	7.1	7.1	7.7	6.7	7.0
50–54 years	%	6.3	6.4	6.4	6.3	6.7	6.5	7.0	5.4	6.4
55–59 years	%	4.9	4.9	4.9	4.7	5.2	5.1	4.7	3.4	4.9
60–64 years	%	4.1	4.1	3.9	3.8	4.4	4.4	3.3	2.0	4.0
65–69 years	%	3.7	3.7	3.3	3.3	4.0	3.9	2.6	1.3	3.6
70 and over	%	10.6	10.6	9.3	8.6	12.2	11.1	6.7	2.2	10.2
80 and over	%	3.9	3.9	3.4	3.2	4.6	4.2	2.2	0.7	3.7
<b>Total<sup>c</sup></b>	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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Table A.1 (Continued)

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust<sup>b</sup></i>
<b>Males</b>										
0–4 years	%	6.9	6.6	6.9	6.9	6.4	6.8	6.8	8.8	6.8
5–9 years	%	7.1	7.0	7.4	7.2	6.8	7.5	7.1	8.8	7.2
10–14 years	%	7.0	6.9	7.3	7.5	7.0	7.6	7.2	7.9	7.1
15–19 years	%	7.1	7.1	7.6	7.5	7.0	7.6	8.2	7.4	7.2
20–24 years	%	7.1	7.5	7.3	7.6	6.8	6.5	9.3	8.7	7.3
25–29 years	%	7.8	8.0	7.7	7.9	7.2	6.4	8.4	10.1	7.8
30–34 years	%	7.4	7.7	7.3	7.5	7.2	6.5	7.6	9.2	7.4
35–39 years	%	7.9	7.8	7.7	7.9	7.7	7.5	7.8	8.7	7.8
40–44 years	%	7.6	7.5	7.5	7.8	7.6	7.6	7.5	7.7	7.6
45–49 years	%	7.0	6.9	7.1	7.3	7.1	7.2	7.4	6.8	7.0
50–54 years	%	6.6	6.5	6.7	6.7	6.8	6.8	7.2	6.0	6.6
55–59 years	%	5.1	5.0	5.2	4.9	5.3	5.4	4.8	4.1	5.1
60–64 years	%	4.2	4.1	4.1	3.9	4.3	4.5	3.4	2.4	4.1
65–69 years	%	3.6	3.6	3.3	3.1	3.8	3.9	2.6	1.4	3.5
70 and over	%	7.7	7.7	7.0	6.3	8.9	8.2	4.7	2.0	7.4
80 and over	%	2.1	2.1	2.0	1.7	2.5	2.3	1.2	0.4	2.1
<b>Total<sup>c</sup></b>	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Persons</b>										
0–4 years	%	6.7	6.4	6.8	6.7	6.2	6.5	6.7	9.0	6.6
5–9 years	%	6.9	6.8	7.2	7.1	6.6	7.2	6.9	8.9	6.9
10–14 years	%	6.8	6.7	7.1	7.3	6.7	7.3	7.0	8.1	6.9
15–19 years	%	6.9	6.9	7.4	7.3	6.8	7.4	7.8	7.5	7.0
20–24 years	%	6.9	7.3	7.1	7.5	6.6	6.3	8.8	8.6	7.1
25–29 years	%	7.7	7.8	7.7	7.8	7.0	6.5	8.4	10.1	7.7
30–34 years	%	7.4	7.7	7.3	7.5	7.1	6.6	7.7	9.4	7.4
35–39 years	%	7.8	7.8	7.8	7.9	7.6	7.5	7.9	8.8	7.8
40–44 years	%	7.5	7.5	7.5	7.8	7.6	7.6	7.7	7.7	7.5
45–49 years	%	6.9	6.9	7.0	7.3	7.1	7.1	7.5	6.8	7.0
50–54 years	%	6.4	6.4	6.6	6.5	6.7	6.7	7.1	5.7	6.5
55–59 years	%	5.0	5.0	5.1	4.8	5.2	5.3	4.7	3.8	5.0
60–64 years	%	4.2	4.1	4.0	3.8	4.3	4.4	3.4	2.2	4.1
65–69 years	%	3.6	3.6	3.3	3.2	3.9	3.9	2.6	1.4	3.5
70 and over	%	9.2	9.1	8.1	7.5	10.6	9.7	5.7	2.1	8.8
80 and over	%	3.0	3.0	2.7	2.5	3.6	3.3	1.7	0.6	2.9
<b>Total<sup>c</sup></b>	<b>%</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

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Table A.1 (Continued)

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust<sup>b</sup></i>
<i>Average annual growth rate by sex and age, 30 June 1993 to 30 June 2000</i>										
Females										
0–4 years	%	–0.3	–0.9	0.3	–	–0.9	–1.8	–1.1	0.1	–0.4
5–9 years	%	0.5	0.4	1.5	0.2	–0.3	–1.0	–0.7	1.5	0.5
10–14 years	%	0.5	0.5	0.9	1.1	–0.1	–0.8	–0.7	0.9	0.5
15–19 years	%	0.7	0.5	1.3	1.4	0.4	0.3	–0.9	1.4	0.8
20–24 years	%	–0.9	–1.0	–0.7	0.3	–1.9	–2.5	–1.8	–0.7	–0.9
25–29 years	%	1.4	0.7	1.9	1.4	–0.7	–0.9	0.6	1.2	1.1
30–34 years	%	–0.6	–0.1	0.1	–0.2	–1.7	–2.5	–0.9	1.0	–0.4
35–39 years	%	1.0	0.9	1.9	1.0	0.1	–0.4	–0.3	1.6	1.0
40–44 years	%	1.4	1.2	2.0	1.6	0.7	0.7	–0.3	1.7	1.4
45–49 years	%	1.5	1.6	2.2	2.7	1.1	1.2	0.9	2.9	1.7
50–54 years	%	4.0	4.2	5.2	5.0	4.3	3.7	5.6	6.2	4.4
55–59 years	%	2.5	2.4	4.3	3.2	2.3	2.3	4.5	6.3	2.9
60–64 years	%	0.8	0.9	2.2	2.0	0.6	0.9	3.0	3.7	1.2
65–69 years	%	–0.8	–0.5	0.3	0.7	–1.3	–0.3	0.6	3.1	–0.4
70 and over	%	2.0	2.1	2.7	2.5	1.9	1.7	3.9	4.5	2.2
80 and over	%	2.8	2.5	3.6	2.8	2.8	3.1	5.3	7.5	2.9
<b>Total<sup>c</sup></b>	<b>%</b>	<b>0.9</b>	<b>0.9</b>	<b>1.6</b>	<b>1.4</b>	<b>0.3</b>	<b>–</b>	<b>0.4</b>	<b>1.6</b>	<b>1.0</b>
Males										
0–4 years	%	–0.3	–0.8	0.2	0.1	–1.0	–1.8	–1.2	0.3	–0.4
5–9 years	%	0.6	0.5	1.4	0.3	–0.4	–0.8	–0.5	1.5	0.6
10–14 years	%	0.4	0.5	0.8	1.0	–	–0.7	–0.8	1.3	0.5
15–19 years	%	0.8	0.3	1.5	1.3	0.3	0.1	–	1.0	0.8
20–24 years	%	–0.9	–0.6	–0.6	0.4	–1.8	–2.3	–0.8	0.8	–0.7
25–29 years	%	1.3	1.1	1.8	1.8	–0.4	–1.1	0.8	2.3	1.2
30–34 years	%	–0.8	–0.2	0.2	–0.1	–1.4	–2.8	–1.1	0.9	–0.5
35–39 years	%	1.1	0.9	1.7	1.2	0.1	–0.7	–0.1	1.8	1.0
40–44 years	%	1.4	1.3	1.7	1.5	0.6	0.3	–0.6	1.5	1.3
45–49 years	%	1.1	1.1	1.7	1.8	0.7	0.7	–0.1	2.0	1.2
50–54 years	%	3.9	3.8	4.9	4.9	4.0	3.3	5.2	4.8	4.2
55–59 years	%	2.8	2.5	4.3	3.6	2.5	2.6	3.8	6.0	3.1
60–64 years	%	1.1	0.9	2.7	2.2	0.3	0.8	3.2	4.8	1.4
65–69 years	%	–0.4	–0.2	0.6	0.8	–1.3	–0.2	1.8	2.3	–0.1
70 and over	%	2.8	2.9	3.3	3.2	2.7	2.2	4.6	6.4	2.9
80 and over	%	3.9	3.3	4.4	2.9	3.8	2.9	6.3	7.1	3.7
<b>Total<sup>c</sup></b>	<b>%</b>	<b>0.9</b>	<b>0.9</b>	<b>1.6</b>	<b>1.5</b>	<b>0.3</b>	<b>–0.1</b>	<b>0.5</b>	<b>1.8</b>	<b>1.0</b>

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Table A.1 (Continued)

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust<sup>b</sup></i>
Persons										
0–4 years	%	–0.3	–0.8	0.3	–	–1.0	–1.8	–1.1	0.2	–0.4
5–9 years	%	0.5	0.5	1.4	0.3	–0.3	–0.9	–0.6	1.5	0.5
10–14 years	%	0.5	0.5	0.8	1.0	–0.1	–0.7	–0.7	1.1	0.5
15–19 years	%	0.8	0.4	1.4	1.3	0.3	0.2	–0.5	1.2	0.8
20–24 years	%	–0.9	–0.8	–0.7	0.4	–1.8	–2.4	–1.3	0.1	–0.8
25–29 years	%	1.3	0.9	1.8	1.6	–0.5	–1.0	0.7	1.8	1.1
30–34 years	%	–0.7	–0.2	0.1	–0.2	–1.6	–2.6	–1.0	0.9	–0.5
35–39 years	%	1.1	0.9	1.8	1.1	0.1	–0.5	–0.2	1.7	1.0
40–44 years	%	1.4	1.2	1.8	1.6	0.7	0.5	–0.4	1.6	1.3
45–49 years	%	1.3	1.3	1.9	2.3	0.9	0.9	0.4	2.4	1.5
50–54 years	%	3.9	4.0	5.0	5.0	4.1	3.5	5.4	5.4	4.3
55–59 years	%	2.7	2.5	4.3	3.4	2.4	2.5	4.2	6.1	3.0
60–64 years	%	1.0	0.9	2.4	2.1	0.5	0.9	3.1	4.3	1.3
65–69 years	%	–0.6	–0.3	0.4	0.8	–1.3	–0.3	1.2	2.7	–0.3
70 and over	%	2.3	2.4	2.9	2.8	2.2	1.9	4.2	5.4	2.5
80 and over	%	3.2	2.8	3.9	2.9	3.1	3.0	5.6	7.4	3.2
<b>Total<sup>c</sup></b>	<b>%</b>	<b>0.9</b>	<b>0.9</b>	<b>1.6</b>	<b>1.5</b>	<b>0.3</b>	<b>–0.1</b>	<b>0.4</b>	<b>1.7</b>	<b>1.0</b>

<sup>a</sup> Totals may not add as a result of rounding. <sup>b</sup> Includes other Territories <sup>c</sup> The population totals for States and Territories and Australia (which are based on ABS estimates for June 2000) differ from the respective totals in tables A.2, A.3 and A.4 (which are based on August 1996 ABS Census of Population and Housing data). The estimated data were adjusted for interstate visitors on census night. The descriptors and indicators in the chapters of the Report use population data from this table. – Nil or rounded to zero.

Source: ABS (2001a).

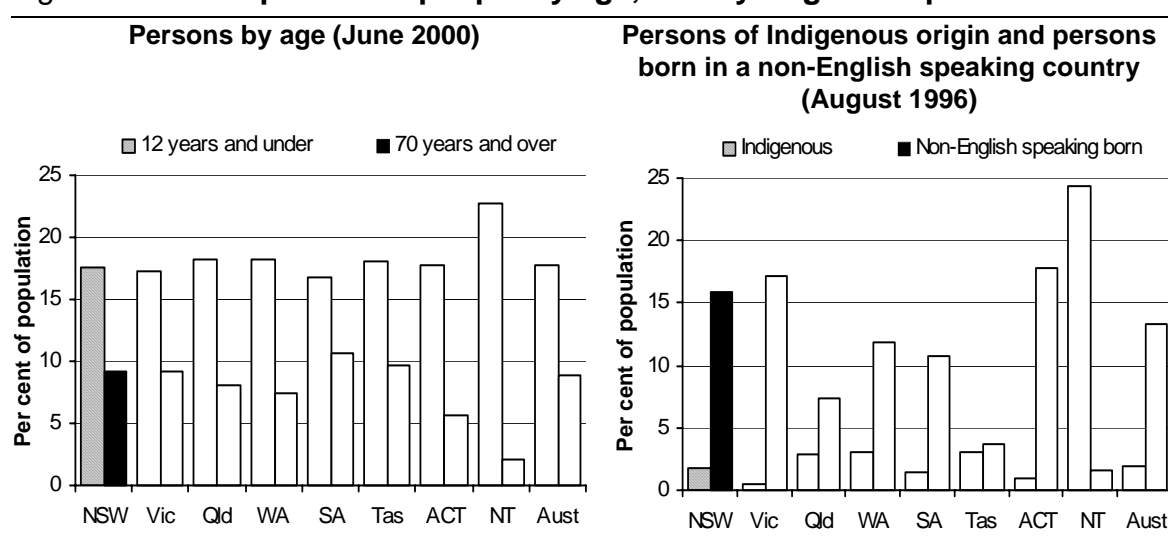
## A.3 Profile of New South Wales



At June 2000, NSW represented 33.7 per cent of Australia's population. The proportion of the NSW population aged 70 years and over was 9.2 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 17.7 per cent compared with the national average of 17.7 per cent (figure A.1). The average annual increase in the number of people aged 70 years and over was 2.3 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 1.7 per cent of NSW' population were Indigenous. This was slightly below the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in NSW people born in Australia accounted for 73.3 per cent of the population. The proportion of NSW' population born in non-English speaking countries was 15.8 per cent. This was higher than the Australia-wide proportion (13.3 per cent) (figure A.1).

Figure A.1 Proportion of people by age, and by origin and place of birth



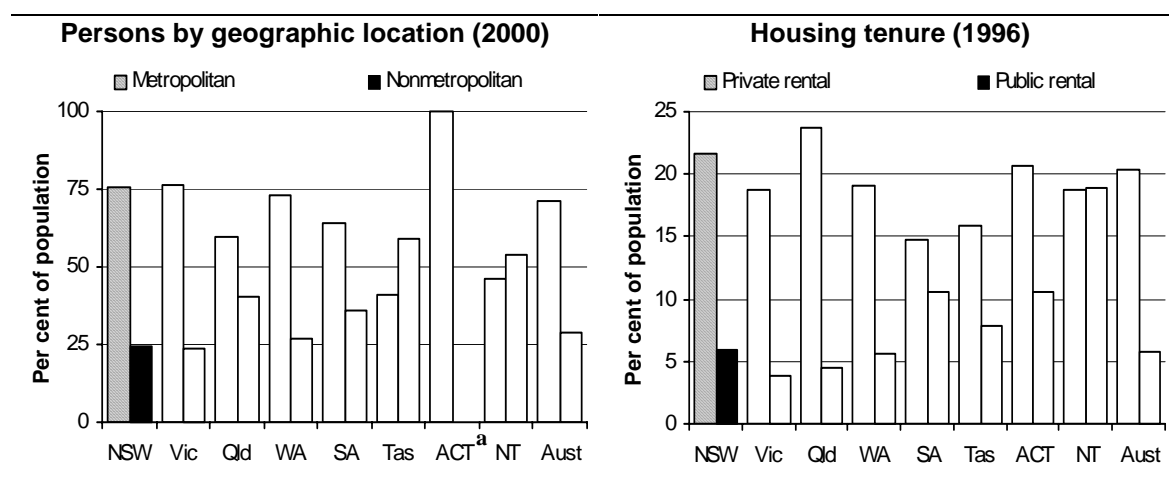
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in NSW was 33.6 per cent. The majority of these families were couples (83.6 per cent). The average family size in NSW was 3.1 people, which was the same as the national average. Of all NSW

couples with dependants, 57.9 per cent were couples where both members of the couple were employed. This proportion was higher than the national average of 56.3 per cent (table A.7).

In June 2000, 75.9 per cent of NSW' population resided in metropolitan areas; this proportion was higher than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (24.1 per cent) was lower than the national average (29.1 per cent) (figure A.2). In 1996, the proportion of people in NSW who owned a home (67.7 per cent) was lower than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.2.

**Figure A.2 Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

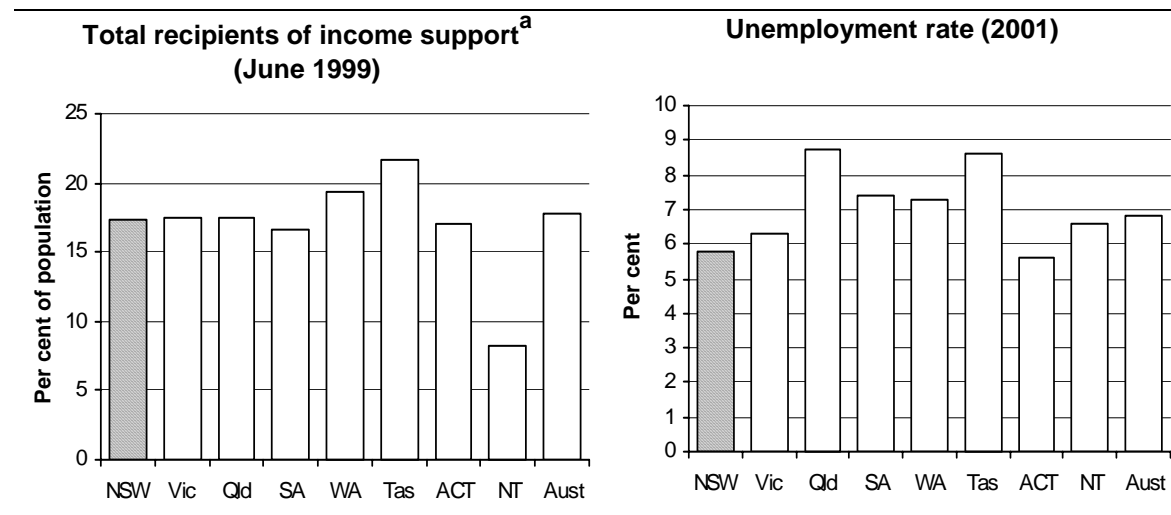
Sources: tables A.6 and A.8.

In 1999, 17.5 per cent of people in NSW received some form of income support, compared with 17.9 per cent of the Australian population (figure A.3). This can be broken down further, with 3.5 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 9.1 per cent receiving an age pension (the national average was 9.0 per cent), 3.0 per cent receiving a disability support pension (the national average was 3.0 per cent) and 2.0 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in NSW at June 2001 was 5.8 per cent compared with the national average of 6.8 per cent (figure A.3). The workforce participation rate for NSW during 2001 was 62.5 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for NSW was 35.7 per cent of the gross national product and reflected a 3.7 per cent growth compared with the previous year's (table A.17).

**Figure A.3 Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.

Sources: tables A.10 and A.14.

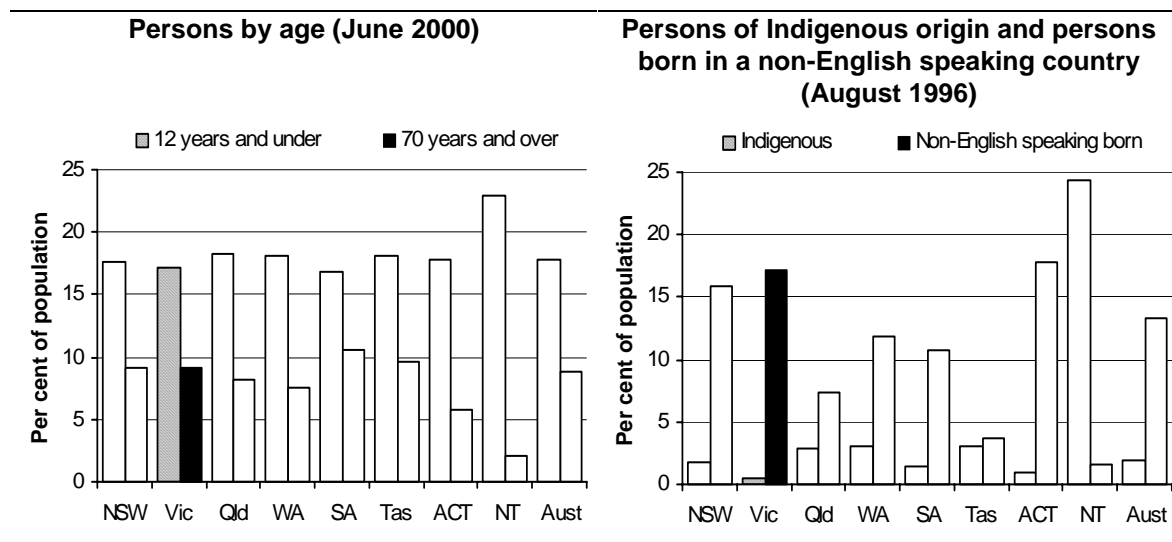
## A.4 Profile of Victoria



At June 2000, Victoria represented 24.9 per cent of Australia's population. The proportion of the Victorian population aged 70 years and over was 9.1 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 17.2 per cent compared with the national average of 17.7 per cent (figure A.4). The average annual increase in the number of people aged 70 years and over was 2.4 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 0.5 per cent of Victoria's population were Indigenous. This was below the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in Victoria people born in Australia accounted for 72.8 per cent of the population. The proportion of Victoria's population born in non-English speaking countries was 17.1 per cent. This was higher than the Australia-wide proportion (13.3 per cent) (figure A.4).

Figure A.4 Population of people by age, and by origin and place of birth



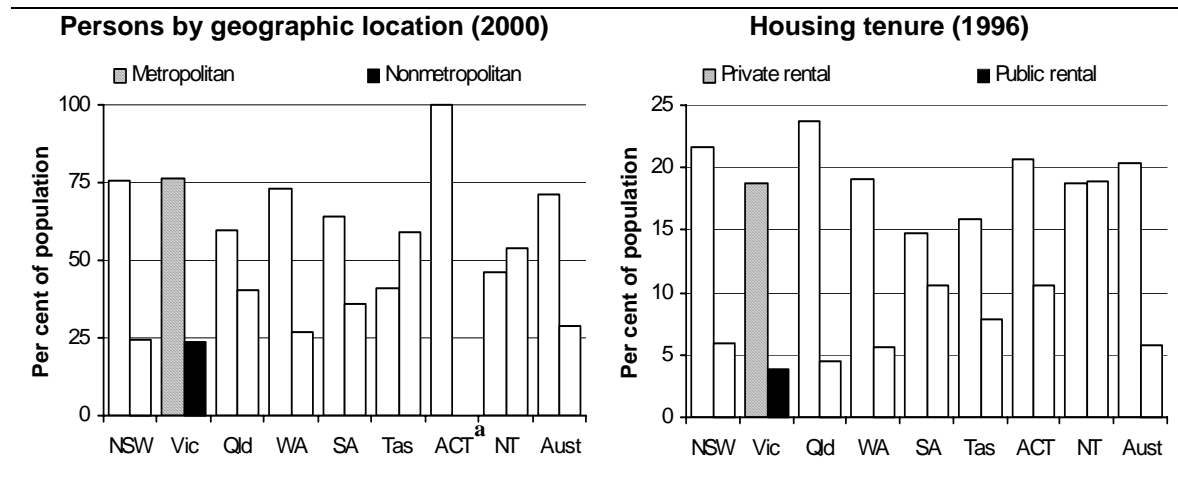
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in Victoria was 25.0 per cent. The majority of these families were couples (83.4 per cent). The average family size in Victoria was 3.1 people, which was the same as the national average. Of all Victorian couples with dependants, 56.4 per cent were couples

where both members of the couple were employed. This proportion was slightly higher than the national average of 56.3 per cent (table A.7).

In June 2000, 76.0 per cent of Victoria's population resided in metropolitan areas; this proportion was higher than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (24.0 per cent) was lower than the national average (29.1 per cent) (figure A.5). In 1996, the proportion of people in Victoria who owned a home (73.6 per cent) was higher than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.5.

**Figure A.5 Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

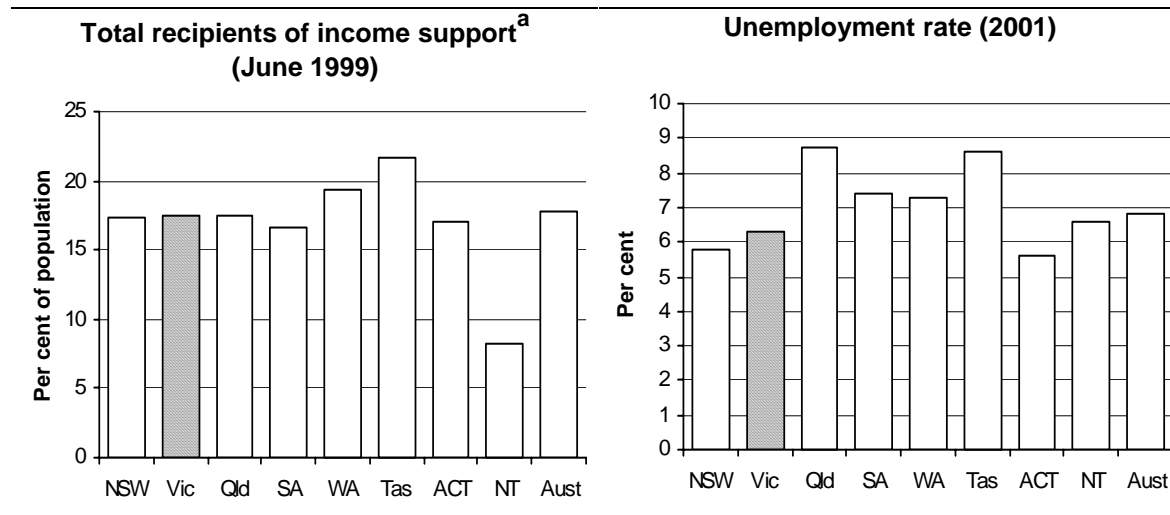
Sources: tables A.6 and A.8.

In 1999, 17.6 per cent of people in Victoria received some form of income support, compared with 17.9 per cent of the Australian population (figure A.6). This can be broken down further, with 3.6 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 9.3 per cent receiving an age pension (the national average was 9.0 per cent), 2.9 per cent receiving a disability support pension (the national average was 3.0 per cent) and 1.8 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in Victoria at June 2001 was 6.3 per cent compared with the national average of 6.8 per cent (figure A.6). The workforce participation rate for Victoria during 2001 was 63.8 per cent which was the same as the national rate (table A.16).

During 1999-2000, the real gross state product for Victoria was 25.4 per cent of the gross national product and reflected a 4.6 per cent growth compared with the previous year's (table A.17).

Figure A.6 **Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.

Sources: tables A.10 and A.14.

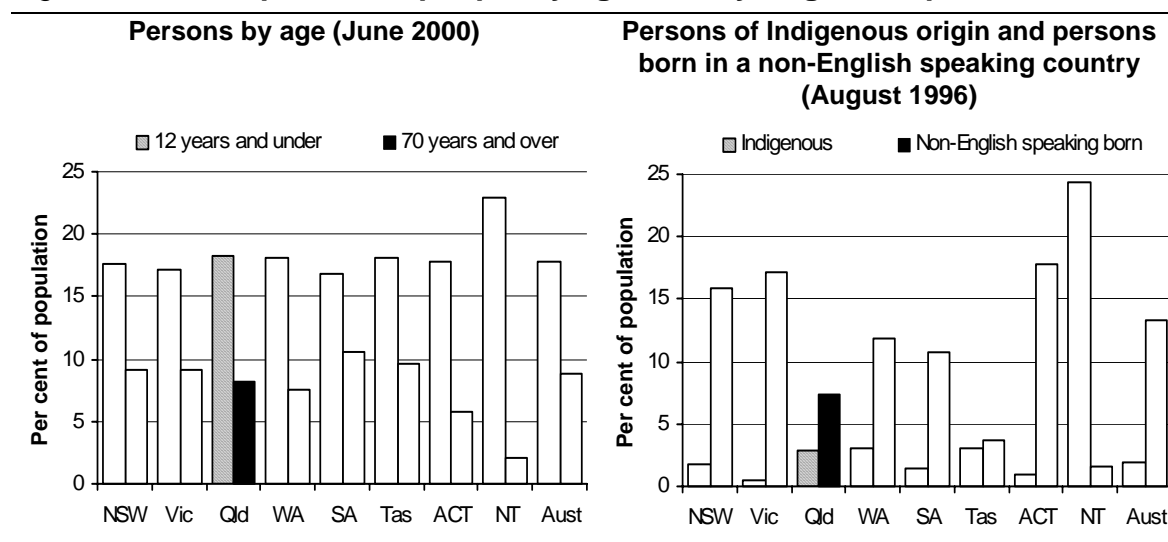
## A.5 Profile of Queensland



At June 2000, Queensland represented 18.6 per cent of Australia's population. The proportion of the Queensland population aged 70 years and over was 8.1 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 18.3 per cent compared with the national average of 17.7 per cent (figure A.7). The average annual increase in the number of people aged 70 years and over was 2.9 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 2.9 per cent of Queensland's population were Indigenous. This was above the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in Queensland people born in Australia accounted for 79.6 per cent of the population. The proportion of Queensland's population born in non-English speaking countries was 7.3 per cent. This was lower than the Australia-wide proportion (13.3 per cent) (figure A.7).

Figure A.7 Proportion of people by age, and by origin and place of birth



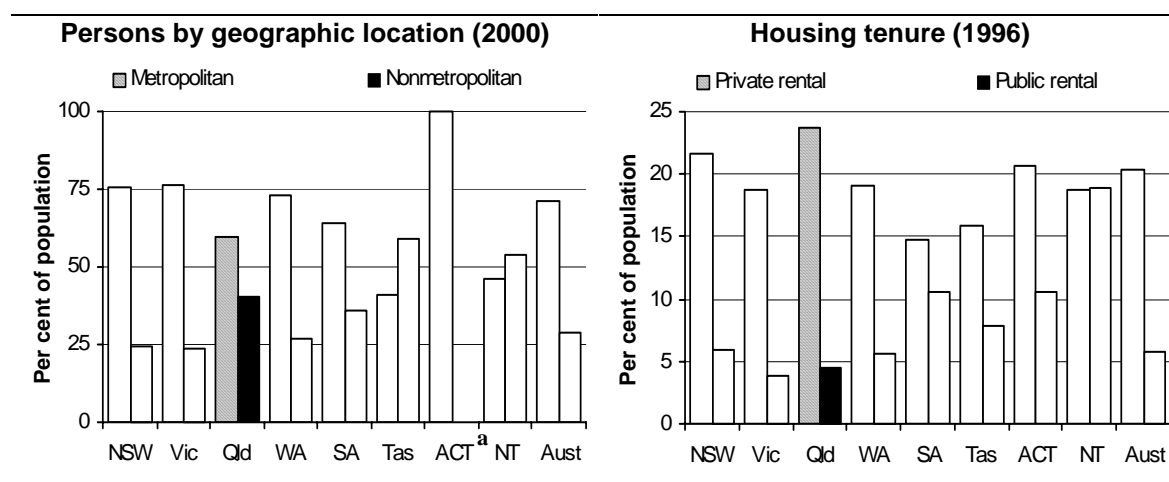
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in Queensland was 18.7 per cent. The majority of these families were couples (83.2 per cent). The average family size in Queensland was 3.0 people, which was slightly below the

national average (3.1). Of all Queensland couples with dependants, 53.9 per cent were couples where both members of the couple were employed. This proportion was lower than the national average of 56.3 per cent (table A.7).

In June 2000, 59.4 per cent of Queensland's population resided in metropolitan areas; this proportion was lower than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (40.6 per cent) was higher than the national average (29.1 per cent) (figure A.8). In 1996, the proportion of people in Queensland who owned a home (65.9 per cent) was lower than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.8.

**Figure A.8 Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

Sources: tables A.6 and A.8.

In 1999, 17.8 per cent of people in Queensland received some form of income support, compared with 17.9 per cent of the Australian population (figure A.9). This can be broken down further, with 4.3 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 8.1 per cent receiving an age pension (the national average was 9.0 per cent), 3.0 per cent receiving a disability support pension (the national average was 3.0 per cent) and 2.3 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly trend of unemployment in Queensland at June 2001 was 8.7 per cent compared with the national average of 6.8 per cent (figure A.9). The workforce participation rate for Queensland during 2001 was 65.2 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for Queensland was 16.7 per cent of the gross national product and reflected a 6.3 per cent growth compared with the previous year's (table A.17).

Figure A.9 **Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.  
Sources: tables A.10 and A.14.

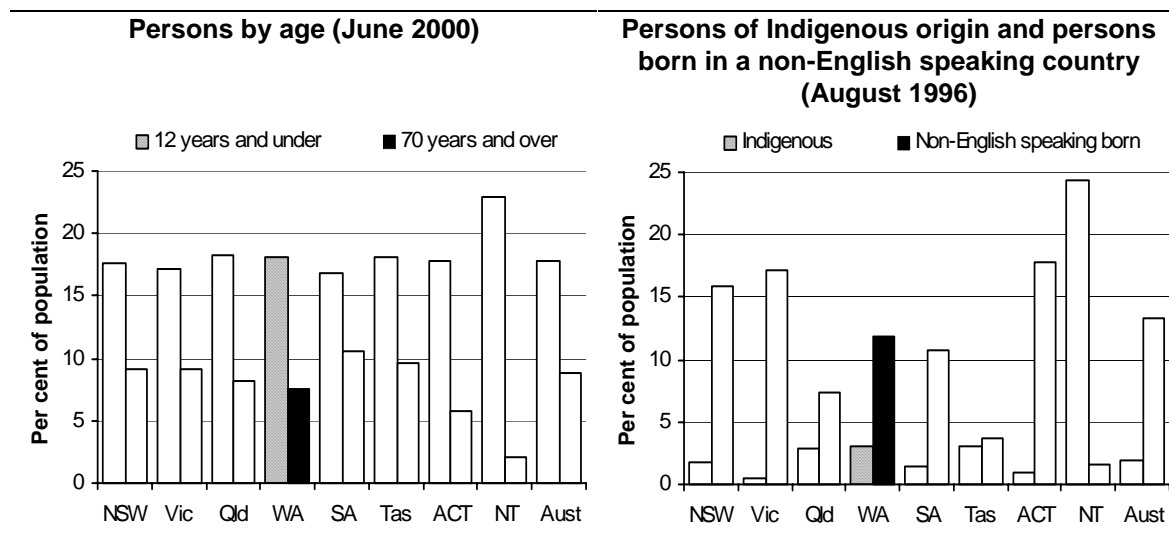
## A.6 Profile of Western Australia



At June 2000, WA represented 9.8 per cent of Australia's population. The proportion of the WA population aged 70 years and over was 7.5 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 18.2 per cent compared with the national average of 17.7 per cent (figure A.10). The average annual increase in the number of people aged 70 years and over was 2.8 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 3.0 per cent of WA's population were Indigenous. This was higher than the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in WA people born in Australia accounted for 68.8 per cent of the population. The proportion of WA's population born in non-English speaking countries was 11.9 per cent. This was lower than the Australia-wide proportion (13.3 per cent) (figure A.10).

Figure A.10 Proportion of people by age, and by origin and place of birth



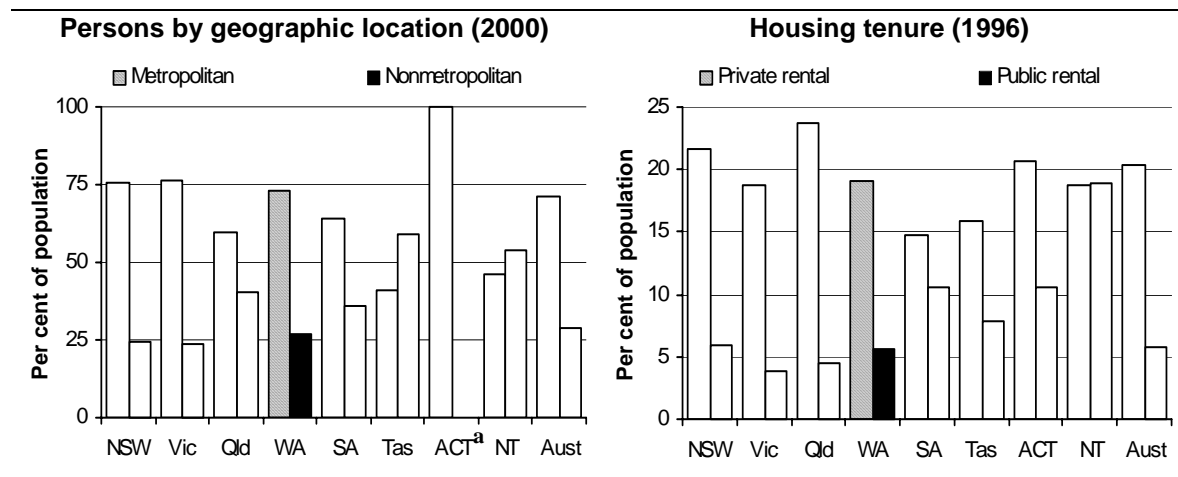
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in WA was 9.7 per cent. The majority of these families were couples (83.7 per cent). The average family size in WA was 3.1 people, which was the same as the national average. Of all WA couples with dependants, 56.6 per cent were couples where both members of the

couple were employed. This proportion was higher than the national average of 56.3 per cent (table A.7).

In June 2000, 73.3 per cent of WA's population resided in metropolitan areas; this proportion was higher than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (26.7 per cent) was lower than the national average (29.1 per cent) (figure A.11). In 1996, the proportion of people in WA who owned a home (69.3 per cent) was higher than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.11.

**Figure A.11 Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

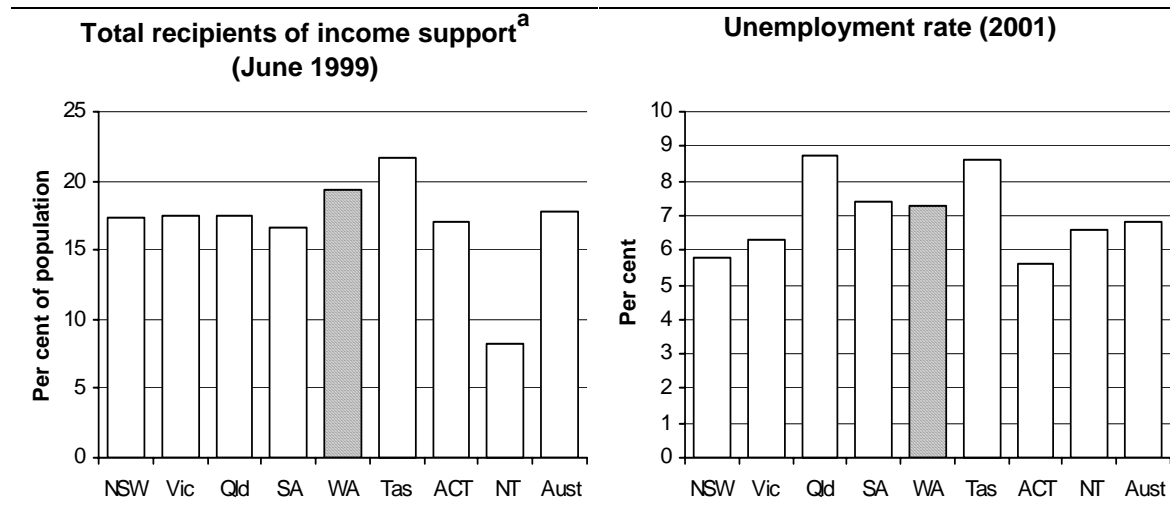
Sources: tables A.6 and A.8.

In 1999, 15.5 per cent of people in WA received some form of income support, compared with 17.9 per cent of the Australian population (figure A.12). This can be broken down further with 3.4 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 7.5 per cent receiving an age pension (the national average was 9.0 per cent), 2.6 per cent receiving a disability support pension (the national average was 3.0 per cent) and 2.1 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in WA at June 2001 was 7.3 per cent compared with the national average of 6.8 per cent (figure A.12). The workforce participation rate for WA during 2001 was 67.1 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for WA was 10.7 per cent of the gross national product and reflected a 4.6 per cent growth compared with the previous year's (table A.17).

Figure A.12 **Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.  
Sources: tables A.10 and A.14.

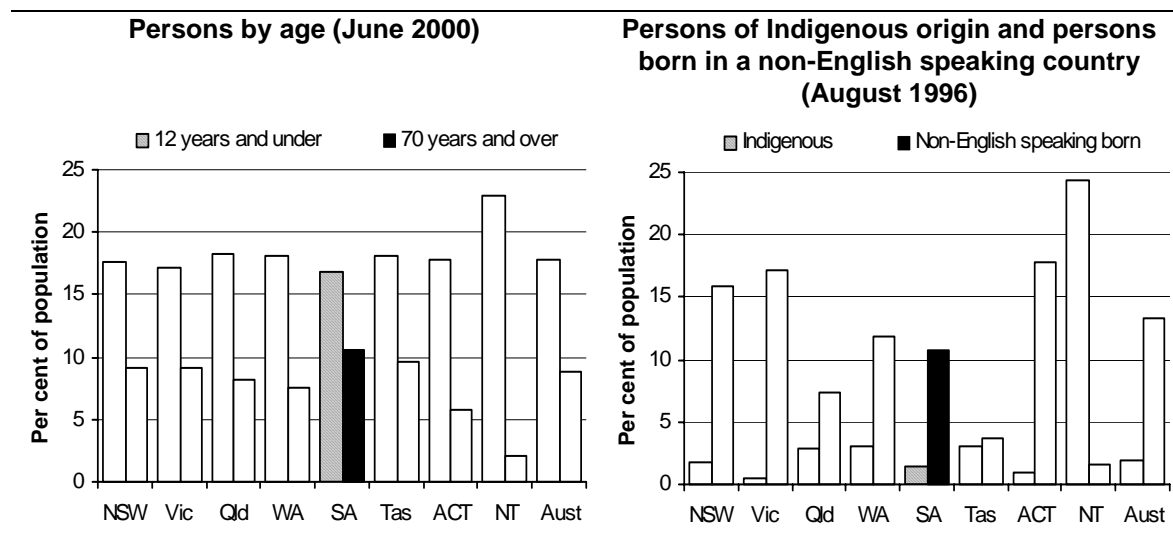
## A.7 Profile of South Australia



At June 2000, SA represented 7.8 per cent of Australia's population. The proportion of the SA population aged 70 years and over was 10.6 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 16.8 per cent compared with the national average of 17.7 per cent (figure A.13). The average annual increase in the number of people aged 70 years and over was 2.2 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 1.4 per cent of SA's population were Indigenous. This was below the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in SA people born in Australia accounted for 75.8 per cent of the population. The proportion of SA's population born in non-English speaking countries was 10.7 per cent. This was lower than the Australia-wide proportion (13.3 per cent) (figure A.13).

Figure A.13 Proportion of people by age, and by origin and place of birth



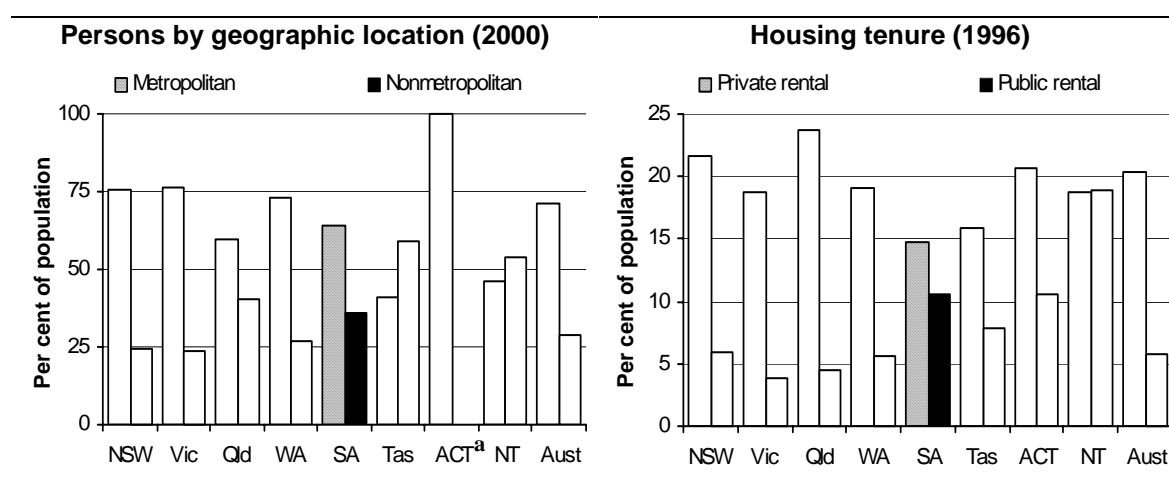
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in SA was 8.1 per cent. The majority of these families were couples (83.2 per cent). The average family size in SA was 2.9 people, which was the smaller than the national average (3.1). Of all SA couples with dependants, 52.1 per cent were couples where both members of the

couple were employed. This proportion was lower than the national average of 56.3 per cent (table A.7).

In June 2000, 64.3 per cent of SA's population resided in metropolitan areas; this proportion was lower than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (35.7 per cent) was higher than the national average (29.1 per cent) (figure A.14). In 1996, the proportion of people in SA who owned a home (69.9 per cent) was higher than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.14.

**Figure A.14 Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

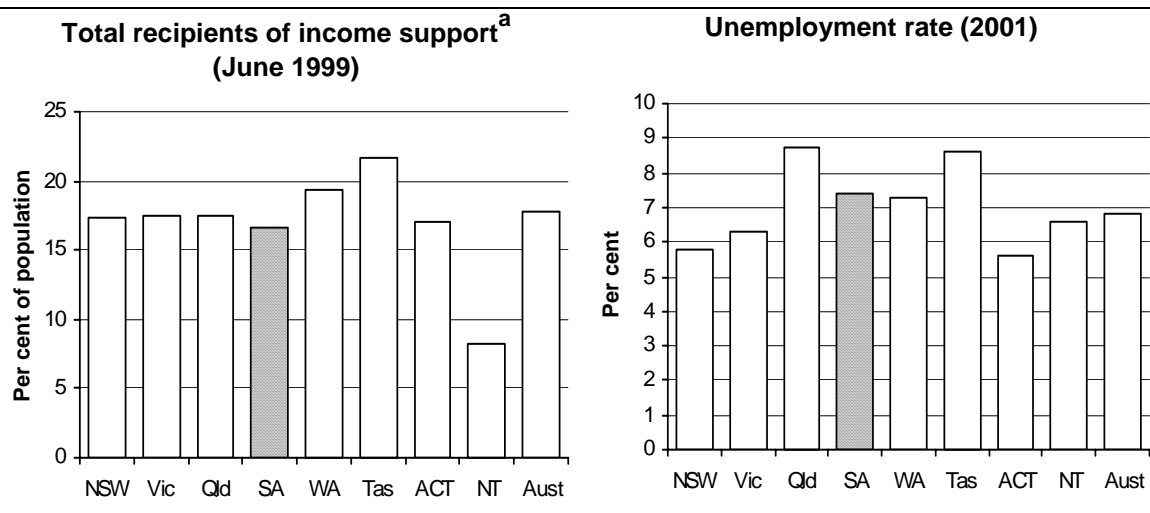
Sources: tables A.6 and A.8.

In 1999, 21.0 per cent of people in SA received some form of income support, compared with 17.9 per cent of the Australian population (figure A.15). This can be broken down further with 4.2 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 11.0 per cent receiving an age pension (the national average was 9.0 per cent), 3.7 per cent receiving a disability support pension (the national average was 3.0 per cent) and 2.1 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in SA at June 2001 was 7.4 per cent compared with the national average of 6.8 per cent (figure A.15). The workforce participation rate for SA during 2001 was 60.2 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for SA was 6.7 per cent of the gross national product and reflected a 3.5 per cent growth compared with the previous year's (table A.17).

Figure A.15 **Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.

Sources: tables A.10 and A.14.

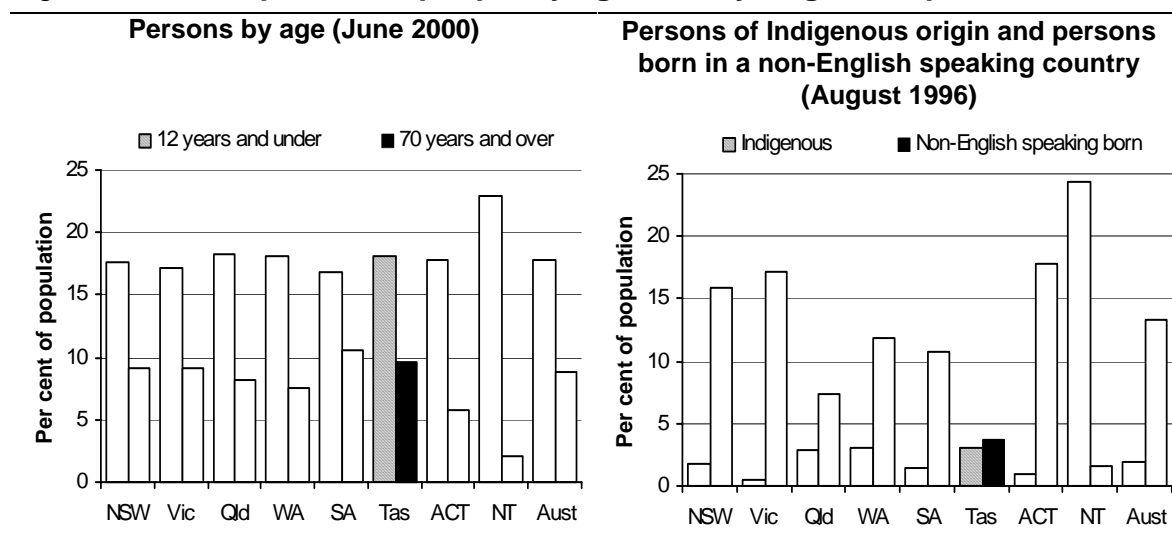
## A.8 Profile of Tasmania



At June 2000, Tasmania represented 2.5 per cent of Australia's population. The proportion of the Tasmania population aged 70 years and over was 9.7 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 18.0 per cent compared with the national average of 17.7 per cent (figure A.16). The average annual increase in the number of people aged 70 years and over was 1.9 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 3.1 per cent of Tasmania's population were Indigenous. This was higher than the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in Tasmania people born in Australia accounted for 86.3 per cent of the population. The proportion of Tasmania's population born in non-English speaking countries was 3.7 per cent. This was lower than the Australia-wide proportion (13.3 per cent) (figure A.16).

Figure A.16 Proportion of people by age, and by origin and place of birth



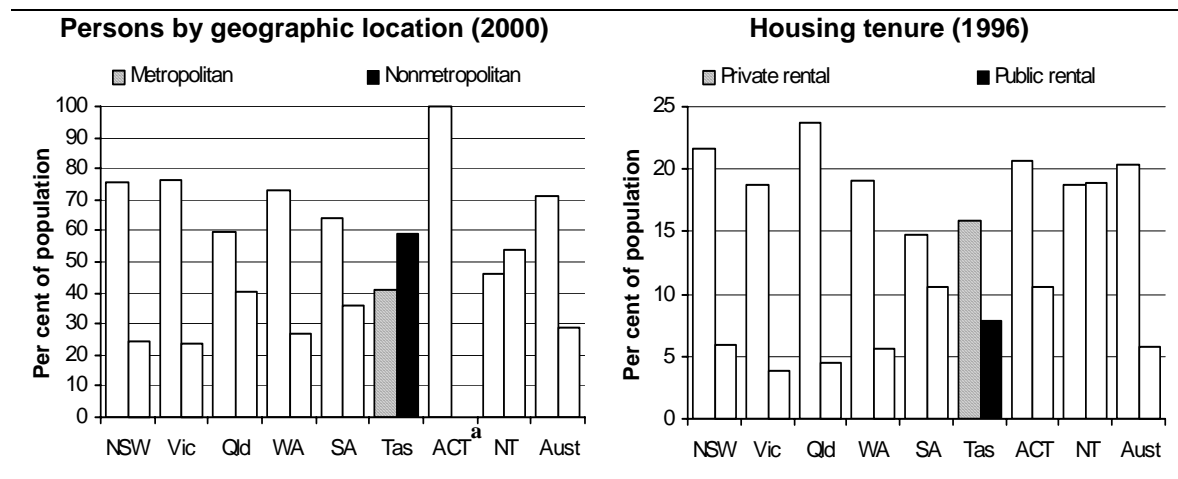
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in Tasmania was 2.6 per cent. The majority of these families were couples (83.2 per cent). The average family size in Tasmania was 3.0 people, which was slightly lower than the

national average (3.1 per cent). Of all Tasmanian couples with dependants, 52.5 per cent were couples where both members of the couple were employed. This proportion was lower than the national average of 56.3 per cent (table A.7).

In June 2000, 41.3 per cent of Tasmania's population resided in metropolitan areas; this proportion was lower than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (58.7 per cent) was higher than the national average (29.1 per cent) (figure A.17). In 1996, the proportion of people in Tasmania who owned a home (71.8 per cent) was higher than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.17.

Figure A.17 **Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

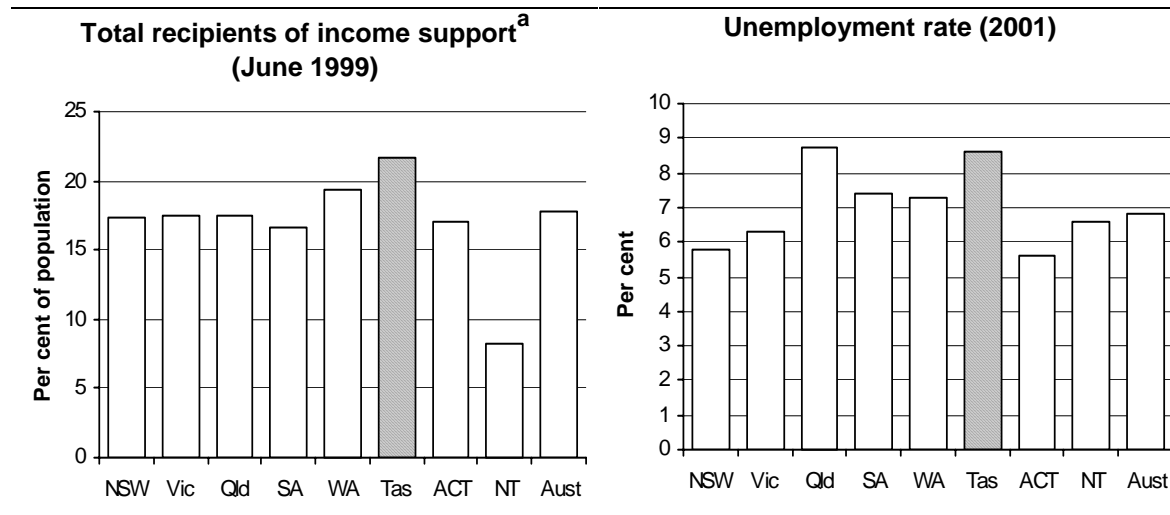
Sources: tables A.6 and A.8.

In 1999, 21.7 per cent of people in Tasmania received some form of income support, compared with 17.9 per cent of the Australian population (figure A.18). This can be broken down further with 5.2 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 9.8 per cent receiving an age pension (the national average was 9.0 per cent), 4.3 per cent receiving a disability support pension (the national average was 3.0 per cent) and 2.4 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in Tasmania at June 2001 was 8.7 per cent compared with the national average of 6.8 per cent (figure A.18). The workforce participation rate for Tasmania during 2001 was 58.5 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for Tasmania was 1.8 per cent of the gross national product and reflected a 1.1 per cent growth compared with the previous year's (table A.17).

Figure A.18 **Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.

Sources: tables A.10 and A.14.

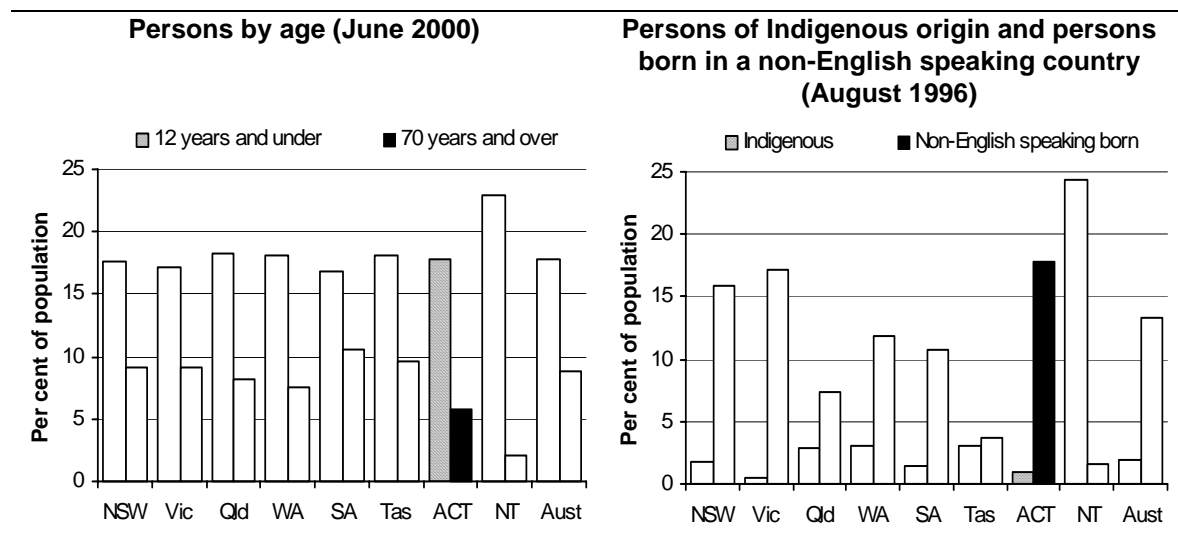
## A.9 Profile of the Australian Capital Territory



At June 2000, the ACT represented 1.6 per cent of Australia's population. The proportion of the ACT population aged 70 years and over was 5.7 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 17.8 per cent compared with the national average of 17.7 per cent (figure A.19). The average annual increase in the number of people aged 70 years and over was 4.2 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 1.0 per cent of the ACT's population were Indigenous. This was lower than the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in the ACT people born in Australia accounted for 74.7 per cent of the population. The proportion of the ACT's population born in non-English speaking countries was 17.8 per cent. This was higher than the Australia-wide proportion (13.3 per cent) (figure A.19).

Figure A.19 Proportion of people by age, and by origin and place of birth



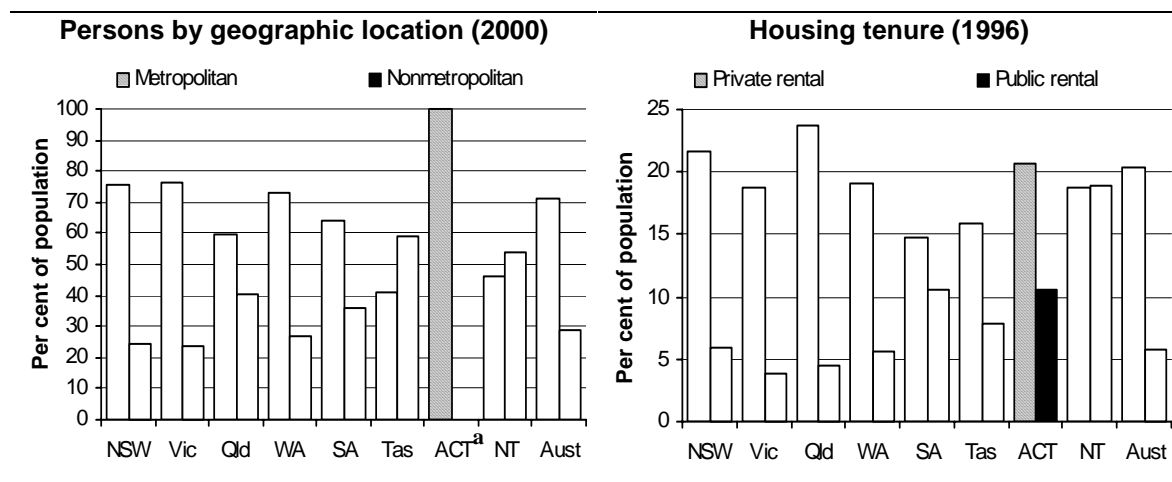
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in ACT was 1.6 per cent. The majority of these families were couples (80.0 per cent). The average family size in the ACT was 3.0 people, which was slightly smaller than the national average

(3.1 per cent). Of all ACT couples with dependants, 72.7 per cent were couples where both members of the couple were employed. This proportion was higher than the national average of 56.3 per cent (table A.7).

In June 2000, 100.0 per cent of the ACT's population resided in metropolitan areas; this proportion was higher than the national average (70.9 per cent) (figure A.20). In 1996, the proportion of people in the ACT who owned a home (65.7 per cent) was lower than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.20.

**Figure A.20 Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

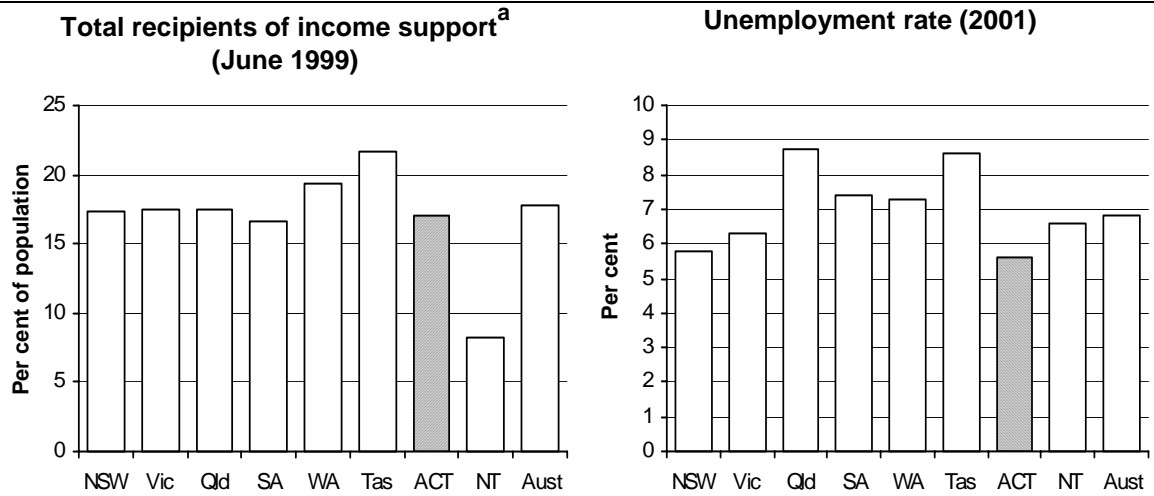
Sources: tables A.6 and A.8.

In 1999, 10.8 per cent of people in the ACT received some form of income support, compared with 17.9 per cent of the Australian population (figure A.21). This can be broken down further with 2.7 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 4.6 per cent receiving an age pension (the national average was 9.0 per cent), 1.8 per cent receiving a disability support pension (the national average was 3.0 per cent) and 1.7 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in the ACT at June 2001 was 5.5 per cent compared with the national average of 6.8 per cent (figure A.21). The workforce participation rate for the ACT during 2001 was 72.5 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for the ACT was 2.0 per cent of the gross national product and reflected a 4.9 per cent growth compared with the previous year's (table A.17).

Figure A.21 Persons receiving income support and unemployment rate



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.

Sources: tables A.10 and A.14.

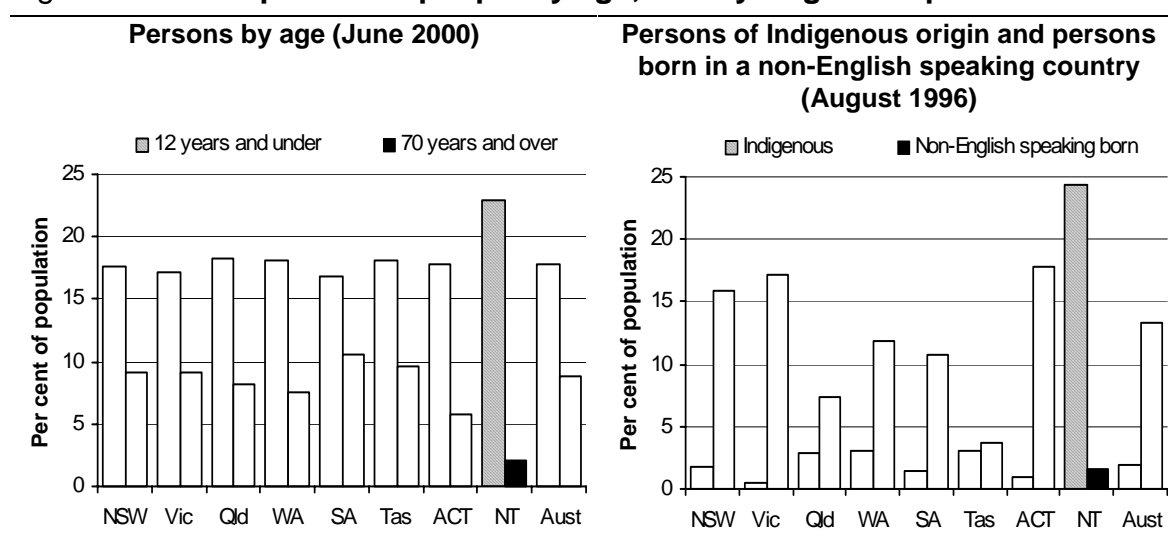
## A.10 Profile of the Northern Territory



At June 2000, the NT represented 1.0 per cent of Australia's population. The proportion of the NT population aged 70 years and over was 2.1 per cent compared with the Australian average of 8.8 per cent. The proportion aged under 12 years was 22.9 per cent compared with the national average of 17.7 per cent (figure A.22). The average annual increase in the number of people aged 70 years and over was 5.4 per cent in the seven years to 1999-2000 compared with 2.5 per cent for all of Australia (table A.1).

In 1996, 24.3 per cent of the NT's population were Indigenous. This was higher than the total Australian representation rate (2.0 per cent). In 1996, people born in Australia accounted for 74.5 per cent of Australia's population, while in the NT people born in Australia accounted for 78.8 per cent of the population. The proportion of the NT's population born in non-English speaking countries was 1.6 per cent. This was lower than the Australia-wide proportion (13.3 per cent) (figure A.22).

Figure A.22 Proportion of people by age, and by origin and place of birth



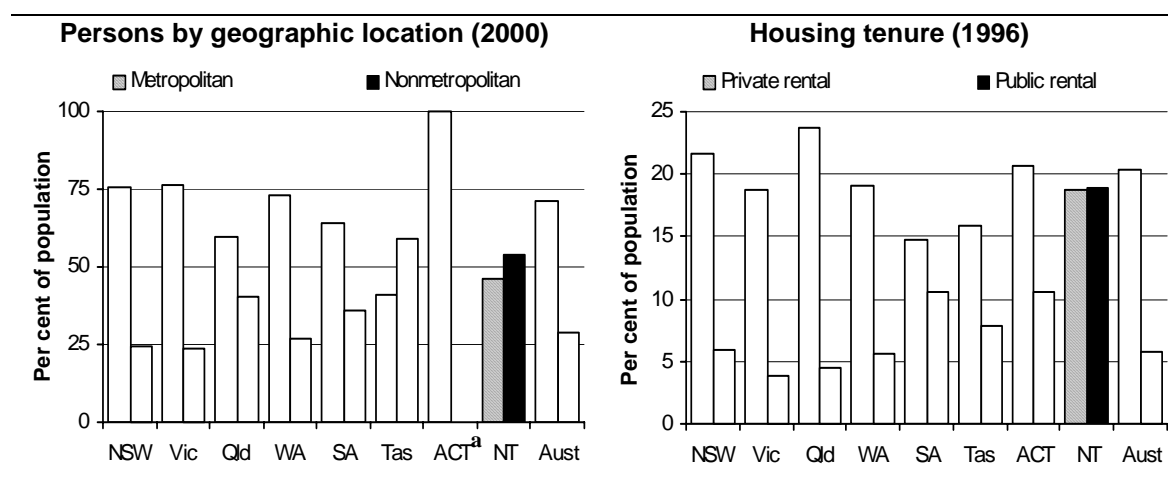
Sources: tables A.1, A.3 and A.5.

In 1996, the proportion of all Australian families located in the NT was 0.7 per cent. The majority of these families were couples (80.6 per cent). The average family size in NT was 3.2 people, which was slightly larger than the national average

(3.1 per cent). Of all NT couples with dependants, 61.7 per cent were couples where both members of the couple were employed. This proportion was higher than the national average of 56.3 per cent (table A.7).

In June 2000, 46.1 per cent of the NT's population resided in metropolitan areas; this proportion was lower than the national average (70.9 per cent). The proportion who lived in nonmetropolitan areas (53.9 per cent) was higher than the national average (29.1 per cent) (figure A.23). In 1996, the proportion of people in the NT who owned a home (45.1 per cent) was lower than the national average (69.0 per cent) (table A.8), with the break-up between private and public rental illustrated in figure A.23.

Figure A.23 **Proportion of people by geographic location and housing tenure**



<sup>a</sup> There were no people in the rural and remote classification.

Sources: tables A.6 and A.8.

In 1999, 13.2 per cent of people in the NT received some form of income support, compared with 17.9 per cent of the Australian population (figure A.24). This can be broken down further with 5.6 per cent in receipt of some form of labour market allowance (the national average was 3.8 per cent), 2.7 per cent receiving an age pension (the national average was 9.0 per cent), 2.3 per cent receiving a disability support pension (the national average was 3.0 per cent) and 2.5 per cent receiving a sole parent pension (the national average was 2.0 per cent) (table A.10).

The average quarterly rate of unemployment in the NT at June 2001 was 6.6 per cent compared with the national average of 6.8 per cent (figure A.24). The workforce participation rate for the NT during 2001 was 72.6 per cent compared with the national rate of 63.8 per cent (table A.16).

During 1999-2000, the real gross state product for the NT was 1.0 per cent of the gross national product and reflected no growth compared with the previous year's (table A.17).

Figure A.24 **Persons receiving income support and unemployment rate**



<sup>a</sup> Aged pensioners, unemployment allowees, disability support pensioners and sole parent pensioners.

Sources: tables A.10 and A.14.

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## A.11 List of source tables

The source tables for appendix A are provided on the CD-ROM enclosed with the Report. The files are provided in Microsoft Excel 97 format as `\Publications\Reports\2002\Attach_stat_app.xls` and in Adobe PDF format as `\Publications\Reports\2002\Attach_stat_app.pdf`

Supporting tables are identified in references throughout this chapter by an 'A' suffix (for example, table A.3 is table 3 in the electronic files). They may be subject to revision. The most up-to-date versions of these files can be found on the Review web page ([www.pc.gov.au/gsp](http://www.pc.gov.au/gsp)). Users without Internet access can contact the Secretariat to obtain up-to-date versions of the tables (see details on the inside front cover of the Report).

Table A.1	Persons, by age, 1999-2000
Table A.2	Estimated residential population, by calendar and financial year, 1995-2001
Table A.3	Estimated residential population, by Indigenous status, 1996
Table A.4	Projections of the Indigenous population, 1997-2001
Table A.5	Estimated residential population, by country of birth, 1996
Table A.6	Estimated residential population, by geographic location, 2000
Table A.7	Household structure, 2000
Table A.8	Proportion of households, by housing type, 1996
Table A.9	Persons aged 15 years and over, by weekly individual income, 1996
Table A.10	Income support, 1999
Table A.11	Persons with a disability, 1998
Table A.12	Persons, by age of leaving school, 1996
Table A.13	Persons aged 15 years and over, by highest level of post-school educational qualification, 1996
Table A.14	Unemployment rate, 1992-2001
Table A.15	Employed persons, 1991-2001
Table A.16	Workforce participation rate, 1992-2001
Table A.17	Real gross State product, 1992-2000
Table A.18	Gross domestic product deflators, 1984-2001

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## A.12 Statistical concepts used in the Report

### Reliability of estimates

Outcome and quality indicators are reported from client and community perception surveys for a number of services covered in this Report. Police services use the ABS Population Survey Monitor, for example, to obtain an indication of the level of satisfaction within the community for the services that police agencies provide.

The presence of sampling error — that is, the error that occurs by chance because the data were only obtained from a sample and not the entire population — implies that the reported responses may not be indicative of the true responses. This section describes in detail some of the issues for drawing inferences from survey data (ABS 1999).

#### *Standard error*

The standard error (SE) is one measure of the variability that occurs as a result of surveying a sample of the population. There are two chances in three (67 per cent) that a survey estimate is within one standard error of the figure that would have been obtained if the population had been included, and about nineteen chances in twenty (95 per cent) that it is within approximately two standard errors. The true value of  $x$  lies within:

$$x-1.96 SE(x) \quad \text{and} \quad x+1.96 SE(x)$$

where  $x$  is the estimate (for example, the number of persons responding either 'satisfied' or 'very satisfied'). The standard error of an estimate can be obtained from either the tables reporting the estimates and relative standard errors or the relative standard error tables produced at the end of each of the relevant attachments. Linear interpolation needs to be used to calculate the standard errors of estimates falling between the sizes of estimates listed in these tables.

#### *Relative standard error*

The standard error can be expressed as a proportion of the estimate — known as the relative standard error (RSE). The relative standard error is determined by dividing the standard error of the estimate  $SE(x)$  by the estimate  $x$  and expressing it as a percentage. That is:

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$$RSE(x) = \frac{SE(x)}{x}$$

If 4.3 million persons in NSW were estimated to be satisfied with a service, and the standard error is approximately  $\pm 34,100$  persons, for example, then the  $RSE(x)$  would be equal to 0.0078, or 0.78 per cent. The relative standard error is a useful measure in that it provides an immediate indication of the percentage errors likely to have occurred as a result of sampling.

Proportions and percentages formed from the ratio of two estimates are also subject to sampling error, for example, as when estimating the proportion of a population that is 'satisfied' or 'very satisfied' with a service. The size of the error depends on the accuracy of both the numerator (the estimated number of persons responding 'satisfied' or 'very satisfied') and the denominator (the estimated size of the population). The formula of a proportion is:

$$RSE\left(\frac{x_1}{X}\right) = \sqrt{[RSE(x_1)]^2 - [RSE(X)]^2}$$

where  $x_1$  is estimated as the number of persons from jurisdiction  $x$  responding 'satisfied' or 'very satisfied' and  $X$  is estimated population of jurisdiction  $x$ .

## Testing for statistical differences

The chance that an estimate falls within a certain range of the true value is known as the *confidence* of the estimate. For any particular survey, there is a tradeoff between the confidence of the estimate and the range of error (in terms of standard errors) attached to the estimate. The appropriate level of reliability chosen depends on the purpose of obtaining the estimate. The lower the level of confidence required, the more precise the estimate will be.

Confidence intervals — that is, the value ranges within which estimates are likely to fall — can be used to test whether the reported proportions between two jurisdictions are different. When comparing proportions, if the confidence intervals for the jurisdictions overlap, then there can be little confidence that the estimated proportions differ from each other.

Imagine, for example, that 60 per cent of NSW clients report being 'satisfied' or 'very satisfied' with a service, and that 58 per cent of Queensland clients report being 'satisfied' or 'very satisfied'. The 95 per cent confidence interval for NSW is estimated to be  $\pm 3.2$  per cent and that for Queensland is estimated to be  $\pm 1.5$  per cent. This implies a 56.8–62.3 per cent confidence interval for NSW clients and a 56.5–59.5 per cent confidence range for Queensland clients. The two ranges

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overlap, so there is little confidence at the 95 per cent level that there is a difference between them.

Mathematically, the estimated response will lie within the 95 per cent confidence interval:

$$\left(\frac{x_1}{X} - \frac{y_1}{Y}\right) - 1.96\sqrt{RSE(x_1/X)\frac{x_1}{X} + RSE(y_1/Y)\frac{y_1}{Y}} \quad \text{and}$$

$$\left(\frac{x_1}{X} - \frac{y_1}{Y}\right) + 1.96\sqrt{RSE(x_1/X)\frac{x_1}{X} + RSE(y_1/Y)\frac{y_1}{Y}}$$

where  $x_1$ ,  $X$ ,  $y_1$  and  $Y$  represent the estimated number of respondents and estimated populations of jurisdictions  $x$  and  $y$  respectively. If none of the values in this interval is zero, then it is possible to conclude that the difference between jurisdiction  $x$ 's response and jurisdiction  $y$ 's response is statistically significant.

## **Growth rates**

### *Average annual growth rates*

As data in the Report covers different periods (for example, population growth, inflation and expenditure changes), average annual averages have been used to facilitate more meaningful comparisons.

The formula for calculating an average annual growth rate is:

$$\{[(\text{end period value}/\text{start period value})^{(1/t)} - 1] * 100\}$$

where  $t$  equals the count of the number of periods.

### *Summing and taking averages of growth rates*

#### *Total growth rate*

The formula for calculating a total growth rate from annual growth rates is:

$$r_T = \prod_i (1+r_i) - 1$$

that is, the total growth over the period ( $r_T$ ) is found by taking the product of each of the  $(1+r_i)$ 's and deducting 1.

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If, for example, your sample range of growth rates are:

1995-96 to 1996-97	6 per cent
1996-97 to 1997-98	6 per cent
1997-98 to 1998-99	8 per cent

then the total growth over the period 1995-96 to 1998-99 can be calculated as:

$$r_T = [ \prod (1+r)_i ] * 100 = [ (1.06) * (1.06) * (1.08) - 1 ] * 100 = [1.213488 - 1] * 100$$

or 21.3 per cent.

### *Average growth rates*

The formula for the average of growth rates is:

$$r_A = \{ [ \prod_i (1+r)_i ]^{(1/t)} - 1 \} * 100$$

This involves finding first the total growth over the period before finding the average. Note that  $t$  is the count of growth rates that you are averaging, not the years. For example:

$$r_A = \{ [ (1.06 * 1.06 * 1.08)^{(1/3)} - 1 ] * 100 \}$$

$$= \{ [(1.213488)^{(1/3)} - 1] * 100 \}$$

$$= [ (1.066625) - 1 ] * 100$$

$$= 6.66 \text{ per cent.}$$

While an arithmetic average can be calculated ( $[6+6+8]/3=6.66$ ) quickly and easily, there are several reasons that geometric means are preferred.

- The arithmetic mean is only reasonably accurate for small growth rates (because it ignores the compounding effect). Take for example annual growth rates of 20, 30 and 40 per cent. Their arithmetic mean is 30  $(20+30+40)/3=30$ , but their geometric mean is 29.7.
- The geometric mean uses the same formula as that used to calculate average annual growth rates.

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## **GDP deflators**

The table containing GDP deflators for the 1984–2001 period can be found in table A.18 on the CD-ROM. The general formula used to rebase GDP deflators is as follows:

New index for year  $t$  =  $100 * (\text{current index for year } t / \text{current index for the year that will be new base}).$