

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

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PROJECTIONS OF THE POPULATION OF AUSTRALIA

(1966 TO 1986)

This is the first issue for general publication of a series of projections of the future population of Australia prepared by the Commonwealth Bureau of Census and Statistics.

2. These projections represent purely hypothetical populations based on certain assumptions as to future fertility, mortality and oversea migration.

3. Trends in natural increase and migration are influenced by many factors, such as economic conditions, Government policy, occurrence or fear of war and the personal reactions of millions of individuals to changing circumstances.

4. The forecasting of population movements is thus highly speculative and has not been attempted in these projections.

5. Three alternative assumptions as to future fertility have been made, namely, that age-specific fertility rates for females (that is, the number of births per thousand females in five-yearly age groups) either rise, remain constant or decline. The projected rates are based on the average of the five years 1957 to 1961, and the three assumptions represent merely convenient long-term applications of this experience. They do not purport to cover the whole range of future fertility movements nor is it implied that any assumption is more likely than the others.

6. The projected mortality experience has been based on an investigation made for the purpose of these projections by the Commonwealth Actuary into long-term trends in the mortality of the Australian population.

7. Net oversea migration (excess of total arrivals over total departures) has been projected on the basis of 100,000 persons per annum assuming the sex and age distribution of net migration remains the same as for the three years ended 30th June, 1962. This round figure of 100,000 persons per annum has been used only as a convenient unit to facilitate pro-rata calculations for any other unit, and, to illustrate the method of pro-rata computation, projections of migration at 70,000 per annum throughout have been derived by multiplying by .7 (representing the ratio of 70,000 to 100,000). In making such calculations, however, it should be borne in mind that fertility is not independent of the level of migration and that, for example, assumptions of high fertility might not be consistent with those of low migration.

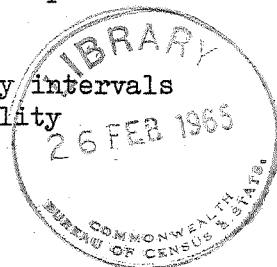
8. Use of the particular levels of 100,000 and 70,000 per annum in these projections is not meant to imply any view as to the absorptive capacity of the economy nor the probable rate of future migration.

9. The calculations have been made in two separate parts:-

- (a) Projections of the estimated population at 30th June, 1963, exclusive of subsequent migration; and
- (b) Projections of population resulting from net immigration subsequent to 30th June, 1963.

10. It has not been practicable to determine fertility and mortality experiences for these components separately. The fertility and mortality assumptions described above, which are based on the experience of the Australian population as a whole, have been accordingly applied to both of the components (a) and (b) at the appropriate ages.

11. The following is a summary of the results for five-yearly intervals from 1966 to 1986, showing the projections separately for each fertility assumption:-



PROJECTIONS OF THE POPULATION OF AUSTRALIA
(1966 TO 1986)

30th June	Projected Population ('000's)								
	(i) Exclusive of Migration subsequent to 30th June, 1963			(ii) Resulting from Net Immigration subsequent to 30th June, 1963, at assumed rate of 100,000 per annum			(iii) Resulting from Net Immigration subsequent to 30th June, 1963, at assumed rate of 70,000 per annum		
	A	B	C	A	B	C	A	B	C
1966	11,413	11,373	11,333	319	318	317	223	222	222
1971	12,366	12,228	12,090	935	925	916	654	648	641
1976	13,502	13,220	12,937	1,650	1,621	1,591	1,155	1,135	1,114
1981	14,808	14,328	13,849	2,459	2,395	2,330	1,722	1,676	1,631
1986	16,284	15,535	14,791	3,364	3,245	3,126	2,355	2,271	2,188

NOTE

The results above represent projections on the assumptions previously described. Columns A, B and C show the populations according to the alternative fertility assumptions, which are that from 1963-64 to 1985-86 the age-specific fertility rates for females (the number of births per thousand females in five-yearly age groups) will either -

- A. Rise uniformly - from 5 per cent. to 15 per cent. above the 1957-61 rates;
- B. Remain unchanged throughout - at the average of the 1957-61 rates; or
- C. Decline uniformly - from 5 per cent. to 15 per cent. below the average of the 1957-61 rates.

12. Users who wish to obtain projections of the total population on the assumptions made can do so by adding the projections of base population (i) to those of subsequent migration (ii) or (iii) or some other pro-rata level. For example, illustrative totals for 1986 for "A", "B" and "C" respectively would be 19,648,000, 18,780,000 and 17,917,000, including net immigration at the rate of 100,000 per annum; or 18,639,000, 17,806,000 and 16,979,000, including net immigration at the rate of 70,000 per annum.

13. The projections according to sex and five-yearly age groups are shown in the attached tables, which, for comparison, also include the numbers enumerated at the Census of 30th June, 1961 and the estimated population at 30th June, 1963.

14. Users should carefully note the hypothetical nature of these projections and their various assumptions and limitations. It is to be stressed that the projections are not issued as official statistics and, in particular, are not to be quoted or taken in any way as official estimates or forecasts.

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COMMONWEALTH STATISTICIAN

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
CANBERRA, A.C.T. 22ND FEBRUARY, 1965

NOTE Inquiries concerning these statistics may be made in Canberra by telephoning 41971, Extension 16 or, in each State capital, by telephoning the office of the Bureau of Census and Statistics.

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PROJECTIONS OF THE POPULATION OF AUSTRALIA

2.

(At 30th June)

(ii) Projected Population resulting from Net Immigration Subsequent to 30th June, 1963, at Assumed Rate of 100,000 Persons per Annum

Age Last Birthday (years)	Projected Population - in thousands														
	1966			1971			1976			1981			1986		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Males															
0 - 4	20.0	19.4	18.8	73.4	69.1	64.8	128.0	117.7	107.4	180.2	162.2	144.2	234.8	206.8	178.8
5 - 9		16.6		47.5	46.9	46.4	100.8	96.5	92.2	155.2	145.0	134.8	207.3	189.4	171.5
10 - 14		15.7			42.9		73.6	73.1	72.5	126.9	122.6	118.3	181.3	171.0	160.8
15 - 19		16.7			41.9			69.1		99.8	99.2	98.6	152.9	148.6	144.3
20 - 24		34.1			69.4			94.6			121.6		152.2	151.7	151.2
25 - 29		24.3			77.3			112.5			137.5			164.5	
30 - 34		14.7			51.9			104.6			139.6			164.5	
35 - 39		9.3			31.3			68.3			120.6			155.4	
40 - 44		7.1			22.0			43.7			80.3			132.2	
45 - 49		4.2			14.7			29.3			50.7			86.7	
50 - 54		2.1			8.2			18.4			32.5			53.3	
55 - 59		1.3			4.4			10.1			19.7			33.1	
60 - 64		.7			2.4			5.2			10.4			19.1	
65 - 69		.6			1.5			3.0			5.4			9.8	
70 - 74		.4			1.3			1.9			3.1			5.0	
75 & over		.2			.8			1.6			2.6			3.8	
Total	168.0	167.4	166.8	490.9	486.0	481.2	864.7	849.6	834.4	1,286.1	1,253.0	1,219.9	1,755.9	1,694.9	1,634.0
Females															
0 - 4	18.6	18.1	17.6	69.9	65.7	61.5	121.8	112.1	102.3	171.6	154.4	137.3	223.5	196.8	170.2
5 - 9		14.7		43.1	42.6	42.1	94.1	90.0	85.9	146.1	136.3	126.5	195.7	178.6	161.5
10 - 14		13.6			37.6		66.1	65.5	65.0	117.0	112.9	108.8	168.9	159.1	149.3
15 - 19		11.9			33.6			57.6		85.9	85.5	85.0	136.8	132.7	128.6
20 - 24		22.6			46.1			67.8			91.7		120.0	119.5	119.0
25 - 29		20.8			58.6			81.9			103.6			127.5	
30 - 34		15.5			48.2			85.9			109.2			130.9	
35 - 39		11.4			35.6			68.1			105.7			129.0	
40 - 44		7.7			25.5			49.6			82.0			119.3	
45 - 49		3.9			14.8			32.5			56.3			88.4	
50 - 54		3.1			9.3			20.0			37.4			60.8	
55 - 59		2.4			7.1			13.1			23.6			40.5	
60 - 64		1.8			5.4			9.9			15.7			25.7	
65 - 69		1.3			4.0			7.3			11.5			16.9	
70 - 74		.9			2.7			5.1			7.9			11.7	
75 & over		.7			2.4			4.8			8.0			12.4	
Total	150.9	150.4	149.9	443.9	439.2	434.5	785.6	771.2	756.8	1,173.2	1,141.7	1,110.2	1,608.0	1,549.8	1,491.7
Persons															
0 - 4	38.6	37.5	36.4	143.3	134.8	126.3	249.8	229.8	209.7	351.8	316.6	281.5	458.3	403.6	349.0
5 - 9		31.3		90.6	89.5	88.5	194.9	186.5	178.1	301.3	281.3	261.3	403.0	368.0	333.0
10 - 14		29.3			80.5		139.7	138.6	137.5	243.9	235.5	227.1	350.2	330.1	310.1
15 - 19		28.6			75.5			126.7		185.7	184.7	183.6	289.7	281.3	272.9
20 - 24		56.7			115.5			162.4			213.3		272.2	271.2	270.2
25 - 29		45.1			135.9			194.4			241.1			292.0	
30 - 34		30.2			100.1			190.5			248.8			295.4	
35 - 39		20.7			66.9			136.4			226.3			284.4	
40 - 44		14.8			47.5			93.3			162.3			251.5	
45 - 49		8.1			29.5			61.8			107.0			175.1	
50 - 54		5.2			17.5			38.4			69.9			114.1	
55 - 59		3.7			11.5			23.2			43.3			73.6	
60 - 64		2.5			7.8			15.1			26.1			44.8	
65 - 69		1.9			5.5			10.3			16.9			26.7	
70 - 74		1.3			4.0			7.0			11.0			16.7	
75 & over		.9			3.2			6.4			10.6			16.2	
Total	318.9	317.8	316.7	934.8	925.2	915.7	1,650.3	1,620.8	1,591.2	2,459.3	2,394.7	2,330.1	3,363.9	3,244.7	3,125.7

NOTE: The projections above represent hypothetical increments of population from net overseas migration (excess of total arrivals over total departures) subsequent to 30th June, 1963, on the following assumed experiences -

Fertility)
Mortality) As in Table (i)

Sex-age Distribution of Migration - Average of the three years ended June, 1962.

The assumed rate of 100,000 per annum has been used only as a convenient round figure to facilitate pro-rata calculations for other levels. Corresponding projections of other constant levels of net migration, on the same assumptions as to fertility, mortality and sex-age distribution, can be derived by applying the appropriate pro-rata factor (for example, for an assumed level of 70,000 persons per annum by multiplying by .7).

PROJECTIONS OF THE POPULATION OF AUSTRALIA

(At 30th June)

3.

(iii) Projected Population resulting from Net Immigration Subsequent to 30th June, 1963, at Assumed Rate of 70,000 Persons per Annum

Age Last Birthday (years)	Projected Population - in thousands														
	1966			1971			1976			1981			1986		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
	Males														
0 - 4	13.9	13.6	13.2	51.4	48.3	45.3	89.6	82.4	75.2	126.1	113.5	101.0	164.3	144.7	125.2
5 - 9		11.6		33.2	32.9	32.5	70.5	67.5	64.5	108.7	101.5	94.3	145.1	132.6	120.0
10 - 14		10.9			30.0		51.6	51.2	50.8	88.8	85.8	82.8	126.9	119.7	112.6
15 - 19		11.7			29.4			48.4		69.8	69.5	69.1	107.0	104.0	101.0
20 - 24		23.9			48.6			66.2			85.1		106.6	106.2	105.8
25 - 29		17.0			54.1			78.7			96.2			115.1	
30 - 34		10.3			36.3			73.2			97.7			115.2	
35 - 39		6.5			21.9			47.8			84.4			108.8	
40 - 44		5.0			15.4			30.6			56.2			92.5	
45 - 49		3.0			10.3			20.5			35.5			60.7	
50 - 54		1.5			5.8			12.8			22.8			37.3	
55 - 59		.9			3.1			7.1			13.8			23.1	
60 - 64		.4			1.7			3.6			7.3			13.4	
65 - 69		.4			1.0			2.1			3.8			6.9	
70 - 74		.3			.9			1.4			2.2			3.5	
75 & over		.2			.5			1.2			1.8			2.7	
Total	117.5	117.2	116.8	343.6	340.2	336.8	605.3	594.7	584.1	900.2	877.1	854.0	1,229.1	1,186.4	1,143.8
	Females														
0 - 4	13.1	12.7	12.3	48.8	46.0	43.1	85.3	78.4	71.6	120.1	108.1	96.1	156.5	137.8	119.1
5 - 9		10.3		30.2	29.8	29.4	65.9	63.0	60.1	102.2	95.4	88.6	137.0	125.0	113.1
10 - 14		9.6			26.3		46.2	45.9	45.5	81.9	79.0	76.1	118.2	111.4	104.5
15 - 19		8.3			23.5			40.3		60.2	59.8	59.4	95.8	92.9	90.1
20 - 24		15.8			32.2			47.4			64.2		84.0	83.7	83.3
25 - 29		14.6			41.0			57.4			72.5			89.3	
30 - 34		10.9			33.8			60.2			76.5			91.6	
35 - 39		8.0			24.9			47.7			74.0			90.3	
40 - 44		5.4			17.9			34.7			57.4			83.5	
45 - 49		2.7			10.4			22.8			39.4			61.9	
50 - 54		2.1			6.5			14.0			26.2			42.5	
55 - 59		1.7			5.0			9.2			16.5			28.4	
60 - 64		1.3			3.8			7.0			11.0			18.0	
65 - 69		.9			2.8			5.1			8.0			11.8	
70 - 74		.6			1.9			3.5			5.5			8.2	
75 & over		.4			1.7			3.3			5.7			8.6	
Total	105.7	105.3	104.9	310.7	307.5	304.2	550.0	539.9	529.8	821.3	799.2	777.1	1,125.6	1,084.9	1,044.2
	Persons														
0 - 4	27.0	26.3	25.5	100.2	94.3	88.4	174.9	160.8	146.8	246.2	221.6	197.1	320.8	282.5	244.3
5 - 9		21.9		63.4	62.7	61.9	136.4	130.5	124.6	210.9	196.9	182.9	282.1	257.6	233.1
10 - 14		20.5			56.3		97.8	97.1	96.3	170.7	164.8	158.9	245.1	231.1	217.1
15 - 19		20.0			52.9			88.7		130.0	129.3	128.5	202.8	196.9	191.1
20 - 24		39.7			80.8			113.6			149.3		190.6	189.9	189.1
25 - 29		31.6			95.1			136.1			168.7			204.4	
30 - 34		21.2			70.1			133.4			174.2			206.8	
35 - 39		14.5			46.8			95.5			158.4			199.1	
40 - 44		10.4			33.3			65.3			113.6			176.0	
45 - 49		5.7			20.7			43.3			74.9			122.6	
50 - 54		3.6			12.3			26.8			49.0			79.8	
55 - 59		2.6			8.1			16.3			30.3			51.5	
60 - 64		1.7			5.5			10.6			18.3			31.4	
65 - 69		1.3			3.8			7.2			11.8			18.7	
70 - 74		.9			2.8			4.9			7.7			11.7	
75 & over		.6			2.2			4.5			7.5			11.3	
Total	223.2	222.5	221.7	654.3	647.7	641.0	1,155.3	1,134.6	1,113.9	1,721.5	1,676.3	1,631.1	2,354.7	2,271.3	2,188.0

Note:- The projections above are purely illustrative and have been derived by pro-rata calculation from the (unrounded) figures for net migration at 100,000 persons per annum (that is, by multiplying by .7). The assumptions as to fertility, mortality and sex-age distribution of migration are the same as for the projections in Table (ii). Projections of other constant levels of migration can be obtained by similar pro-rata calculations from the (rounded) figures shown in Table (ii).