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INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA
(1968 TO 2001)

A new series of projections of the population of Australia has been calculated for general publication, and supersedes projections issued by this Bureau in February 1965.

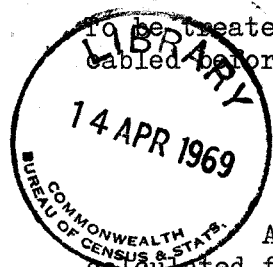
2. These new projections are based on a preliminary estimate of the age distribution of the population of Australia at 30 June 1968, and on assumptions as to the future which, as explained below, will be revised in later issues in the light of investigations being made into current trends. They are published as interim projections to meet the need for up-to-date projections of the Australian population. It is recognised that an integrated set of population projections for the States, Territories and Australia as a whole is also needed. The problems involved in making such integrated projections are being examined.

3. 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 to be quoted or taken in any way as official estimates or forecasts. 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 individuals, both in Australia and overseas, to changing circumstances. The forecasting of population movements is thus highly speculative and has not been attempted in these projections, which represent purely hypothetical populations based on certain assumptions as to future fertility, mortality and overseas migration.

4. In the previous projections, published in 1965, three alternative assumptions as to future fertility were included but in these interim projections only one fertility assumption has been adopted, which is that the 1967 age-specific fertility rates for females will remain unchanged throughout the period covered by the projections. These rates result in a gross reproduction rate of 1.39 (female children per woman) and an average age of mother (for all children born) of 27.26 years. Adopting these rates represents merely a convenient long-term application of the latest available experience and does not imply any prediction that the 1967 rates will not change. This single assumption about fertility has been adopted pending the completion of investigations currently being made into fertility trends. These investigations, which will take time to complete, are on a detailed basis, extending to annual and generation rates, marriage fertility and various characteristics such as age and previous issue of mother and duration of marriage.

5. The projected mortality experience has been based on an investigation into long-term trends in the mortality of the Australian population, which was made by the Commonwealth Actuary for the purpose of the previous projections, when age-specific mortality rates were determined for five-yearly periods to 30 June 1966. These projected rates have been used for the present series, and have been extended to the year 2001 by assuming that the 1961-66 rates continue unchanged. This procedure has been adopted only as an interim measure until a further review of mortality trends can be made.

6. As previously, net overseas migration (excess of total arrivals over total departures) has been projected on the basis of 100,000 persons per annum. It has also been assumed that the age-sex distribution of net migration remains the same as for the ten years ended 30 June 1968. 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. Thus, projections of migration at 90,000 per annum throughout



may be derived by multiplying the net migration component by 0.9 (representing the ratio of 90,000 to 100,000). Use of the level of 100,000 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.

7. The calculations have been made in two separate parts:

- (i) Projections of the estimated population at 30 June 1968, exclusive of subsequent migration; and
- (ii) Projections of population resulting from net overseas migration subsequent to 30 June 1968.

8. It has not been practicable as yet to determine appropriate fertility and mortality experiences for these components separately. Therefore the fertility and mortality assumptions described above, which are based on the experience of the Australian population as a whole, have been applied to both parts of the calculations (i) and (ii) at the appropriate ages.

9. The table below is a summary of the results at selected intervals from 1969 to 2001.

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(Thousands)

At 30 June	(i) Exclusive of overseas migration after 30 June 1968 (Base population)	(ii) Resulting from net overseas migration after 30 June 1968 at 100,000 per annum (a)
1969	12,167.6	101.4
1970	12,308.0	205.8
1971	12,452.2	313.1
1976	13,246.6	892.9
1981	14,132.1	1,540.2
1986	15,073.9	2,250.1
1991	16,009.9	3,021.1
1996	16,950.0	3,856.7
2001	17,948.6	4,761.3

(a) The assumed level of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels.

10. Users who wish to obtain projections of the total population on the assumptions made can do so by adding the projections of base population shown in (i) to projections of the net migration component calculated by applying a simple pro-rata factor to the figures shown in (ii). For example, illustrative totals for the year 2001, inclusive of net overseas migration at the levels of 90,000, 100,000 and 150,000 persons per annum, would be 22,233,800, 22,709,900 and 25,090,600 respectively.

11. The projections for the years shown above, together with the estimated population at 30 June 1968, on which they are based, are summarised by sex and five-yearly age groups in the attached tables. The projections have, however, been computed by single years of age and for each individual financial year. Detailed results from these calculations, not available from the attached tables, may be obtained on application to the Bureau.

12. Any discrepancies between totals and sums of components in tables are due to rounding.

13. The projections throughout include Aborigines.

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(i) Projected population exclusive of overseas migration after 30 June 1968

(Thousands)

Age last birthday (years)	Estimate 1968 (a)	Projected population (b) at 30 June								
		1969	1970	1971	1976	1981	1986	1991	1996	2001
Males										
0 - 4	588.8	586.5	592.5	603.9	677.2	741.7	789.6	814.1	843.2	898.3
5 - 9	623.1	623.8	617.7	605.2	601.6	674.9	739.5	787.2	811.7	840.7
10 - 14	578.8	588.1	598.0	608.4	603.9	600.4	673.8	738.2	785.8	810.3
15 - 19	547.6	553.2	556.7	563.5	606.2	601.9	598.7	671.8	736.1	783.5
20 - 24	510.7	522.3	534.8	547.4	560.1	602.8	598.8	595.6	668.4	732.3
25 - 29	412.3	426.0	440.9	453.9	544.0	556.8	599.6	595.7	592.5	664.8
30 - 34	373.7	380.5	388.1	394.9	451.0	540.8	553.8	596.4	592.4	589.3
35 - 39	384.5	375.4	367.2	362.3	391.9	447.7	537.1	550.1	592.3	588.4
40 - 44	404.2	405.3	402.7	398.3	358.2	387.7	443.2	531.7	544.5	586.4
45 - 49	370.2	383.0	390.9	393.2	390.7	351.7	381.0	435.7	522.5	535.2
50 - 54	321.9	317.8	320.1	331.7	379.9	377.9	340.7	369.1	422.1	506.0
55 - 59	290.6	297.8	303.4	305.8	312.2	358.0	356.6	321.5	348.4	398.5
60 - 64	229.6	236.9	243.6	249.5	276.3	282.9	324.7	323.3	291.5	315.9
65 - 69	167.6	172.0	177.2	183.0	212.5	235.6	241.9	277.4	276.0	249.0
70 - 74	117.4	119.2	122.6	125.1	142.2	165.5	183.7	189.0	216.3	215.1
75 & over	138.4	139.3	140.0	141.4	151.8	169.4	195.4	220.7	236.5	261.6
<u>Total</u>	6,059.5	6,127.0	6,196.4	6,267.6	6,659.8	7,096.0	7,558.2	8,017.4	8,480.3	8,975.2

(a) Preliminary estimate based on the age distribution at the Census of 30 June 1966 (adjusted for mis-statement of age) and on subsequent births, ages at death (as recorded to 1967 and estimated thereafter) and recorded ages of migrants. (b) Estimated population at 30 June 1968, projected on the basis of the assumptions as to subsequent fertility and mortality, set out in paragraphs 4 and 5 of the introductory notes.

NOTE. The projections above are of the population exclusive of migration subsequent to 30 June 1968. Corresponding projections of the population arising from assumed net overseas migration after 30 June 1968 at the purely illustrative level of 100,000 persons per annum are shown in Part (ii).

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(i) Projected population exclusive of overseas migration after 30 June 1968 - continued
(Thousands)

Age last birthday (years)	Estimate 1968 (a)	Projected population (b) at 30 June								
		1969	1970	1971	1976	1981	1986	1991	1996	2001
Females										
0 - 4	558.5	557.2	563.6	574.8	645.3	706.6	751.9	775.3	803.0	855.4
5 - 9	593.8	593.2	587.5	575.5	573.2	643.7	705.0	750.2	773.6	801.2
10 - 14	551.2	560.2	568.4	579.3	574.7	572.5	643.0	704.2	749.4	772.7
15 - 19	523.3	529.3	533.4	538.6	578.5	573.9	571.8	642.2	703.4	748.5
20 - 24	484.2	496.5	509.9	523.6	537.5	577.4	572.9	570.8	641.1	702.2
25 - 29	383.3	396.5	412.5	426.7	522.3	536.3	576.2	571.8	569.7	639.8
30 - 34	350.6	358.7	364.5	370.4	425.4	520.8	534.9	574.7	570.3	568.2
35 - 39	355.7	348.0	342.3	338.2	368.7	423.6	518.8	532.8	572.5	568.0
40 - 44	378.7	377.1	372.7	369.2	335.7	366.1	420.9	515.5	529.5	568.9
45 - 49	359.1	369.4	376.9	376.5	364.7	331.9	362.3	416.5	510.1	523.9
50 - 54	322.4	318.8	319.3	329.9	369.1	358.0	326.2	356.1	409.4	501.3
55 - 59	285.1	296.0	305.6	310.3	319.9	358.5	348.3	317.3	346.4	398.4
60 - 64	232.1	239.9	246.7	254.8	295.5	305.4	343.0	333.2	303.6	331.4
65 - 69	197.0	197.9	199.7	202.2	235.0	273.3	283.4	318.1	308.9	281.6
70 - 74	164.9	165.5	167.7	168.9	175.8	205.3	239.7	248.8	278.9	270.8
75 & over	231.5	236.5	241.1	245.5	265.6	282.8	317.4	365.0	400.0	440.9
Total	5,971.3	6,040.6	6,111.6	6,184.6	6,586.8	7,036.1	7,515.7	7,992.5	8,469.7	8,973.4

(a) Preliminary estimate based on the age distribution at the Census of 30 June 1966 (adjusted for mis-statement of age) and on subsequent births, ages at death (as recorded to 1967 and estimated thereafter) and recorded ages of migrants. (b) Estimated population at 30 June 1968, projected on the basis of the assumptions as to subsequent fertility and mortality, set out in paragraphs 4 and 5 of the introductory notes.

NOTE, The projections above are of the population exclusive of migration subsequent to 30 June 1968. Corresponding projections of the population arising from assumed net overseas migration after 30 June 1968 at the purely illustrative level of 100,000 persons per annum are shown in Part (ii).

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(i) Projected population exclusive of overseas migration after 30 June 1968 - continued

(Thousands)

Age last birthday (years)	Estimate 1968 (a)	Projected population (b) at 30 June								
		1969	1970	1971	1976	1981	1986	1991	1996	2001
Persons										
0 - 4	1,147.4	1,143.7	1,156.1	1,178.7	1,322.5	1,448.3	1,541.5	1,589.4	1,646.3	1,753.7
5 - 9	1,216.8	1,217.1	1,205.2	1,180.7	1,174.8	1,318.6	1,444.5	1,537.4	1,585.2	1,641.9
10 - 14	1,130.0	1,148.4	1,166.4	1,187.8	1,178.6	1,172.9	1,316.7	1,442.5	1,535.3	1,583.0
15 - 19	1,070.9	1,082.4	1,090.1	1,102.2	1,184.7	1,175.8	1,170.5	1,314.0	1,439.5	1,532.0
20 - 24	994.9	1,018.8	1,044.7	1,071.1	1,097.6	1,180.2	1,171.8	1,166.5	1,309.5	1,434.5
25 - 29	795.6	822.5	853.4	880.6	1,066.3	1,093.2	1,175.9	1,167.4	1,162.1	1,304.6
30 - 34	724.3	739.2	752.6	765.4	876.4	1,061.6	1,088.7	1,171.1	1,162.7	1,157.4
35 - 39	740.2	723.4	709.5	700.5	760.5	871.3	1,055.9	1,082.9	1,164.8	1,156.4
40 - 44	782.9	782.3	775.4	767.5	693.8	753.8	864.2	1,047.2	1,074.0	1,155.3
45 - 49	729.2	752.3	767.8	769.8	755.4	683.6	743.3	852.2	1,032.6	1,059.1
50 - 54	644.3	636.6	639.4	661.6	749.1	735.9	666.8	725.2	831.5	1,007.3
55 - 59	575.7	593.8	609.0	616.1	632.1	716.5	704.9	638.8	694.8	796.9
60 - 64	461.7	476.7	490.3	504.3	571.8	588.3	667.6	656.4	595.1	647.4
65 - 69	364.6	369.9	376.9	385.2	447.5	508.9	525.4	595.4	585.0	530.6
70 - 74	282.4	284.7	290.2	294.0	318.0	370.8	423.4	437.8	495.2	485.9
75 & over	369.9	375.8	381.1	386.8	417.3	452.3	512.7	585.7	636.5	702.5
TOTAL	12,030.8	12,167.6	12,308.0	12,452.2	13,246.6	14,132.1	15,073.9	16,009.9	16,950.0	17,948.6

(a) Preliminary estimate based on the age distribution at the Census of 30 June 1966 (adjusted for mis-statement of age) and on subsequent births, ages at death (as recorded to 1967 and estimated thereafter) and recorded ages of migrants. (b) Estimated population at 30 June 1968, projected on the basis of the assumptions as to subsequent fertility and mortality, set out in paragraphs 4 and 5 of the introductory notes.

NOTE. The projections above are of the population exclusive of migration subsequent to 30 June 1968. Corresponding projections of the population arising from assumed net overseas migration after 30 June 1968 at the purely illustrative level of 100,000 persons per annum are shown in Part (ii).

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(ii) Projected population resulting from net migration after 30 June 1968,
at 100,000 persons per annum
(Thousands)

NOTE. The assumed rate of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels

Age last birthday (years)	Projected population at 30 June								
	1969	1970	1971	1976	1981	1986	1991	1996	2001
Males									
0 - 4	5.9	12.2	18.7	57.3	95.7	132.5	170.5	212.5	259.2
5 - 9	6.0	12.2	18.7	49.9	88.4	126.8	163.5	201.4	243.2
10 - 14	5.0	10.1	15.5	45.4	76.6	115.0	153.4	190.0	227.8
15 - 19	6.2	11.4	16.0	40.6	70.5	101.6	139.9	178.1	214.6
20 - 24	8.4	16.8	25.1	55.9	80.4	110.1	141.1	179.3	217.3
25 - 29	7.5	15.5	24.0	65.6	96.3	120.7	150.3	181.1	219.0
30 - 34	4.7	9.7	15.2	51.9	93.3	123.8	148.1	177.5	208.2
35 - 39	3.4	7.0	10.8	34.3	70.7	111.9	142.1	166.3	195.5
40 - 44	2.4	5.0	7.8	24.8	48.0	84.1	124.8	154.8	178.7
45 - 49	1.4	3.0	4.8	16.7	33.4	56.2	91.7	131.8	161.2
50 - 54	0.8	1.6	2.5	9.3	20.9	37.1	59.2	93.6	132.4
55 - 59	0.6	1.2	1.8	5.5	12.0	22.9	38.2	59.1	91.5
60 - 64	0.3	0.7	1.1	3.6	7.0	12.8	22.7	36.6	55.6
65 - 69	0.3	0.7	1.0	2.4	4.6	7.5	12.5	21.0	32.9
70 - 74	0.2	0.4	0.6	1.8	3.0	4.7	6.9	10.9	17.5
75 & over	0.1	0.3	0.4	1.3	2.7	4.2	6.0	8.5	12.4
Total	53.1	107.8	163.9	466.5	803.4	1,171.9	1,571.1	2,002.3	2,467.0

NOTE. These projections represent cumulative populations resulting from net migration (excess of total arrivals over total departures) at the level of 100,000 persons per annum subsequent to 30 June 1968, and based on the assumptions as to fertility, mortality and age structure set out in paragraphs 4 to 6 of the introductory notes. The assumed rate of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels. Corresponding projections at other constant levels of net migration can be derived by applying to the above figures the appropriate pro-rata factor (e.g. for an assumed level of 90,000 persons per annum by multiplying by 0.9)

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(ii) Projected population resulting from net migration after 30 June 1968 - continued
at 100,000 persons per annum
 (Thousands)

NOTE. The assumed rate of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels

Age last birthday (years)	Projected population at 30 June									
	1969	1970	1971	1976	1981	1986	1991	1996	2001	
Females										
0 - 4	5.6	11.4	17.6	54.5	91.1	126.1	162.3	202.2	246.7	
5 - 9	5.4	11.1	17.0	46.2	83.0	119.6	154.5	190.6	230.4	
10 - 14	4.4	9.1	13.9	41.1	70.3	107.0	143.5	178.4	214.5	
15 - 19	4.8	8.9	12.6	34.6	61.7	90.9	127.6	164.0	198.9	
20 - 24	6.5	13.2	19.8	44.3	66.2	93.3	122.4	159.1	195.5	
25 - 29	6.1	12.5	19.0	51.4	75.9	97.8	124.8	153.9	190.4	
30 - 34	4.7	9.6	14.7	44.9	77.3	101.7	123.6	150.5	179.5	
35 - 39	3.5	7.2	11.1	34.4	64.5	96.7	121.0	142.8	169.6	
40 - 44	2.2	4.6	7.3	24.6	47.6	77.6	109.6	133.7	155.4	
45 - 49	1.3	2.7	4.3	15.3	32.3	55.2	84.8	116.5	140.4	
50 - 54	1.0	2.0	3.0	9.3	20.1	36.9	59.3	88.5	119.6	
55 - 59	0.9	1.8	2.7	7.5	13.6	24.2	40.5	62.4	90.7	
60 - 64	0.8	1.6	2.4	6.7	11.2	17.2	27.2	42.9	63.8	
65 - 69	0.6	1.2	1.8	5.5	9.4	13.6	19.2	28.5	43.0	
70 - 74	0.3	0.7	1.1	3.6	6.8	10.3	14.0	18.8	27.1	
75 & over	0.2	0.5	0.7	2.7	5.9	10.3	15.6	21.6	28.7	
Total	48.3	98.0	149.2	426.4	736.9	1,078.2	1,450.0	1,854.4	2,294.3	

NOTE. These projections represent cumulative populations resulting from net migration (excess of total arrivals over total departures) at the level of 100,000 persons per annum subsequent to 30 June 1968, and based on the assumptions as to fertility, mortality and age structure set out in paragraphs 4 to 6 of the introductory notes. The assumed rate of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels. Corresponding projections at other constant levels of net migration can be derived by applying to the above figures the appropriate pro-rata factor (e.g. for an assumed level of 90,000 persons per annum by multiplying by 0.9)

INTERIM PROJECTIONS OF THE POPULATION OF AUSTRALIA

(ii) Projected population resulting from net migration after 30 June 1968 - continued
at 100,000 persons per annum
 (Thousands)

NOTE. The assumed rate of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels

Age last birthday (years)	Projected population at 30 June								
	1969	1970	1971	1976	1981	1986	1991	1996	2001
Persons									
0 - 4	11.5	23.6	36.3	111.7	186.8	258.6	332.9	414.7	505.9
5 - 9	11.4	23.3	35.7	96.2	171.4	246.4	318.0	392.0	473.6
10 - 14	9.4	19.2	29.4	86.5	146.9	222.1	296.9	368.4	442.4
15 - 19	11.0	20.2	28.6	75.2	132.2	192.5	267.5	342.2	413.5
20 - 24	14.9	30.0	44.9	100.2	146.7	203.4	263.6	338.3	412.7
25 - 29	13.6	28.0	42.9	117.1	172.1	218.5	275.1	335.0	409.4
30 - 34	9.3	19.3	29.9	96.8	170.6	225.5	271.7	328.0	387.7
35 - 39	6.9	14.2	22.0	68.7	135.1	208.6	263.1	309.1	365.1
40 - 44	4.6	9.6	15.2	49.4	95.6	161.6	234.5	288.5	334.1
45 - 49	2.6	5.7	9.1	32.0	65.7	111.4	176.5	248.3	301.6
50 - 54	1.8	3.6	5.5	18.6	41.0	73.9	118.5	182.0	252.0
55 - 59	1.5	3.0	4.5	13.0	25.6	47.0	78.7	121.4	182.2
60 - 64	1.1	2.3	3.5	10.2	18.2	30.0	50.0	79.5	119.4
65 - 69	0.9	1.9	2.8	7.9	14.0	21.1	31.7	49.5	75.9
70 - 74	0.5	1.1	1.7	5.5	9.8	14.9	20.9	29.7	44.6
75 & over	0.3	0.7	1.2	4.0	8.5	14.5	21.7	30.1	41.2
<u>TOTAL</u>	101.4	205.8	313.1	892.9	1,540.2	2,250.1	3,021.1	3,856.7	4,761.3

NOTE. These projections represent cumulative populations resulting from net migration (excess of total arrivals over total departures) at the level of 100,000 persons per annum subsequent to 30 June 1968, and based on the assumptions as to fertility, mortality and age structure set out in paragraphs 4 to 6 of the introductory notes. The assumed rate of 100,000 has been used only as a convenient round figure to facilitate pro-rata calculations for other levels. Corresponding projections at other constant levels of net migration can be derived by applying to the above figures the appropriate pro-rata factor (e.g. for an assumed level of 90,000 persons per annum by multiplying by 0.9).

J. P. O'NEILL

ACTING COMMONWEALTH STATISTICIAN

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS
 CANBERRA, A.C.T. 2600 8 APRIL 1969

NOTE. Inquiries concerning these statistics may be made in Canberra by telephoning 63 9111, Extension 2464 or, in each State capital, by telephoning the office of the Bureau of Census and Statistics.