Australian Bureau of Statistics

2006 TO 2101

3222.0

POPULATION PROJECTIONS AUSTRALIA

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CONTENTS

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Melissa Cotterill on Canberra (02) 6252 6384.

NOTES

ABOUT THIS ISSUE

This publication contains projections of Australia's population by age and sex for the period 30 June 2008 to 2101, and projections of the states, territories and capital cities/balances of state for the period 30 June 2008 to 2056. Figures for 30 June 2006 are final estimated resident population based on results of the 2006 Census of Population and Housing while figures for 30 June 2007 are preliminary estimated resident population.

Three main series of projections (Series A, B and C) are presented in this publication for analysis and reporting. Detailed information for these and other series is available from the ABS web site <http://www.abs.gov.au>.

CHANGES TO THIS ISSUE

These projections supercede the 2004-based series published in *Population Projections, Australia, 2004 to 2101* (cat. no. 3222.0) in November 2005.

SuperTABLE data cubes attached to this issue now contain all 72 projection series for Australia, states and territories, and capital cities and balances of state.

For comparison purposes, population estimates for the most recent census year (2006) are now included in tables, time series spreadsheets and data cubes.

DATA NOTES

The projections presented are not intended as predictions or forecasts, but are illustrations of growth and change in the population that would occur if assumptions made about future demographic trends were to prevail over the projection period.

While the assumptions are formulated on the basis of an assessment of past demographic trends, both in Australia and overseas, there is no certainty that any of the assumptions will be realised. In addition, no assessment has been made of possible future changes in non-demographic conditions.

ROUNDING

Population estimates and projections in this publication have been rounded to the nearest hundred. Calculations of percentage and numeric change and proportions are based on unrounded data.

Brian Pink
Australian Statistician

CHAPTER 1 MAIN FEATURES

INTRODUCTION

The population projections presented in this publication cover the period 30 June 2008 to 2101 for Australia and 30 June 2008 to 2056 for the states, territories, and capital cities/balances of state.

The projections are not predictions or forecasts, but are simply illustrations of the growth and change in population which would occur if certain assumptions about future levels of fertility, mortality, internal migration and overseas migration were to prevail over the projection period. The assumptions incorporate recent trends which indicate increasing levels of fertility and net overseas migration for Australia.

This chapter discusses the projection results, in terms of population size and growth, and the changing age structure and distribution of the population. Three main series of projections, Series A, B and C, have been selected from a possible 72 individual combinations of the various assumptions. Series B largely reflects current trends in fertility, life expectancy at birth, net overseas migration and net interstate migration, whereas Series A and Series C are based on high and low assumptions for each of these variables respectively.

MAIN PROJECTION SERIES, Australia

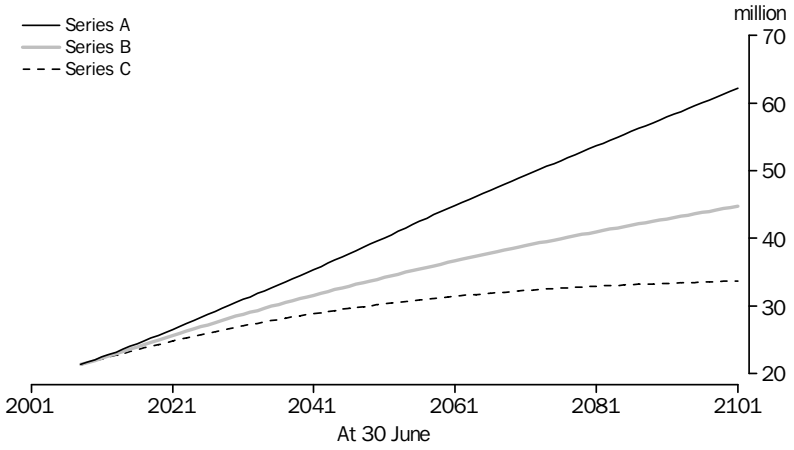
	ASSUMPTIONS				PROJECTED POPULATION AT 30 JUNE	
			Life expectancy at birth(a)			
	Total fertility rate(b)	*Net overseas migration*(c)	*Males*	*Females*	*2056*	*2101*
	babies per woman	persons	years	years	million	million
Series A	2.0	220 000	93.9	96.1	42.5	62.2
Series B	1.8	180 000	85.0	88.0	35.5	44.7
Series C	1.6	140 000	85.0	88.0	30.9	33.7

(a) From 2056.
(b) From 2021.
(c) From 2010–11 in Series A and C. From 2007–08 in Series B.

POPULATION SIZE AND GROWTH

Australia's estimated resident population (ERP) at 30 June 2007 of 21.0 million people is projected to increase to between 30.9 and 42.5 million people by 2056, and to between 33.7 and 62.2 million people by 2101. Series A projects the highest growth, while Series C projects the lowest growth.

PROJECTED POPULATION, Australia



In the 10 years to 30 June 2007, Australia's population increased by 1.3% per year on average, with just over half of this growth resulting from natural increase (the excess of births over deaths) and just under half from net overseas migration (NOM). In the last 2 years, Australia's population has grown by 1.5% per year, with NOM contributing more to population growth than natural increase in the year ended 30 June 2007. In 2006–07, there were 274,300 births and 134,800 deaths in Australia, resulting in natural increase of 139,500 people, while NOM contributed 177,600 people to Australia's population.

In Series C, a state of natural decrease, in which deaths outnumber births, is reached in 2048. However, net overseas migration more than compensates for losses due to natural decrease and Australia's population continues to increase, albeit slowly, throughout the projection period. A state of natural decrease is also reached in Series B, but only in the last year of the projection (2101).

In contrast to the 2004-based set of ABS population projections released in November 2005, no series shows population decline for Australia before the end of the century.

POPULATION AGEING

The ageing of Australia's population, already evident in the current age structure, is expected to continue. This is the result of sustained low levels of fertility combined with increasing life expectancy at birth. The median age of Australia's population (36.8 years at 30 June 2007) is projected to increase to between 38.7 years and 40.7 years in 2026 (Series A and C respectively) and to between 41.9 years and 45.2 years in 2056 (Series A and C).

The age composition of Australia's population is projected to change considerably as a result of population ageing. By 2056 there will be a greater proportion of people aged 65 years and over than at 30 June 2007, and a lower proportion of people aged under 15 years. In 2007 people aged 65 years and over made up 13% of Australia's population. This proportion is projected to increase to between 23% and 25% in 2056 (Series B and C respectively) and to between 25% and 28% in 2101 (Series B and C). The proportion of

POPULATION AGEING *continued*

people aged under 15 years is projected to decrease from 19% in 2007 to between 15% and 18% in 2056 (Series C and A respectively) and to between 14% and 17% in 2101 (Series C and A).

There were 344,100 people aged 85 years and over in Australia at 30 June 2007, making up 1.6% of the population. This group is projected to grow rapidly throughout the projection period, to between 4.9% and 7.3% by 2056 (Series B and A respectively), and to between 5.8% and 9.3% by 2101 (Series B and A).

STATES AND TERRITORIES

Series B

For the states and territories, further assumptions as to net population gains/losses due to overseas and interstate migration are required. See pages 29 and 33 for more information.

Assuming the medium level assumptions, Series B projects continuing population growth for all states and territories except Tasmania between 30 June 2007 and 2056.

By 2056 the population of New South Wales is projected to reach 10.2 million people, an increase of 3.3 million people (or 48%) since 30 June 2007, while Victoria is projected to reach 8.5 million people, an increase of 3.3 million people (or 64%).

Queensland is projected to experience the largest percentage increase in population between 30 June 2007 and 2056, more than doubling the 2007 population of 4.2 million to 8.7 million people by 2056. As a result Queensland is projected to replace Victoria as Australia's second most populous state in 2050.

Western Australia is also projected to more than double over the projection period, reaching 4.3 million people in 2056.

The Northern Territory's population is projected to increase by 186,600 people between 30 June 2007 and 2056, to 401,600 people. Although a smaller absolute increase than those projected for the larger states, this is a significant increase (87%) relative to the Northern Territory's population of 214,900 people in 2007.

The population of the Australian Capital Territory is projected to increase by 169,500 people (50%) between 30 June 2007 and 2056, reaching 509,300 people. South Australia is projected to increase by 620,300 people (39%) to 2.2 million people in 2056.

Tasmania's population is projected to increase slowly before levelling out by around 2040 and then decreasing marginally from 2051 onwards (571,000 people in 2056).

Series A and C

Compared to Series B, Series A assumes higher levels of components of population change (fertility, life expectancy, and migration) while Series C assumes lower levels. As a result, Series A results in larger projected populations by 2056 and Series C results in lower populations.

CAPITAL CITIES

In Series B, all capital cities are projected to experience higher percentage growth than their respective state or territory balances, resulting in further concentration of Australia's population within the capital cities. At 30 June 2007, 64% of Australians lived in a capital city. By 2056 this proportion is projected to increase to 67%.

Sydney and Melbourne

Series B projects Sydney to remain the most populous city in Australia, with 7.0 million people in 2056, closely followed by Melbourne with 6.8 million people. Sydney's population also continues to exceed that of Melbourne in Series C.

However, in Series A, Melbourne's population exceeds Sydney's in 2039. This is mainly due to the larger levels of internal migration losses assumed for Sydney (a net –48,000 people per year) compared to Melbourne (a net –15,000 people per year) in this series.

Other capital cities

In Series B, Perth is projected to experience the highest percentage growth (116%) of Australia's capital cities, increasing from 1.6 million people at 30 June 2007 to 3.4 million in 2056. The second highest percentage growth (114%) is projected for Brisbane, increasing from 1.9 million people to 4.0 million people. Darwin is also projected to double in size over the projection period, from 117,400 people in 2007 to 243,000 in 2056.

POPULATION SIZE, Observed and projected

Capital city/balance of state	AT 30 JUNE 2006(a)	AT 30 JUNE 2007(b)	AT 30 JUNE 2026			AT 30 JUNE 2056		
	Observed	*Observed*	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*
	NUMBER ('000)							
Sydney	4 282.0	4 334.0	5 487.2	5 426.3	5 358.2	7 649.0	6 976.8	6 565.2
Balance of New South Wales	2 534.1	2 554.0	3 189.9	2 968.8	2 780.2	4 140.1	3 233.4	2 646.1
Total New South Wales	*6 816.1*	*6 888.0*	*8 677.0*	*8 395.1*	*8 138.5*	*11 789.1*	*10 210.2*	*9 211.3*
Melbourne	3 743.0	3 805.8	5 272.3	5 038.1	4 861.7	7 970.7	6 789.2	6 100.9
Balance of Victoria	1 383.5	1 399.1	1 626.1	1 624.1	1 636.3	1 879.6	1 749.1	1 742.9
Total Victoria	*5 126.5*	*5 204.8*	*6 898.3*	*6 662.2*	*6 498.0*	*9 850.3*	*8 538.3*	*7 843.8*
Brisbane	1 819.8	1 857.0	2 908.0	2 681.1	2 465.6	4 955.1	3 979.3	3 237.0
Balance of Queensland	2 271.1	2 324.5	3 645.4	3 356.9	3 129.7	5 966.3	4 759.6	3 998.2
Total Queensland	*4 090.9*	*4 181.4*	*6 553.3*	*6 038.0*	*5 595.2*	*10 921.3*	*8 738.9*	*7 235.2*
Adelaide	1 145.8	1 158.0	1 410.8	1 384.5	1 391.8	1 848.5	1 651.8	1 623.7
Balance of South Australia	422.1	426.2	531.5	499.8	451.0	691.4	552.7	406.7
Total South Australia	*1 567.9*	*1 584.2*	*1 942.3*	*1 884.4*	*1 842.9*	*2 539.9*	*2 204.5*	*2 030.4*
Perth	1 518.7	1 554.1	2 455.2	2 267.6	2 112.1	4 164.4	3 358.4	2 815.5
Balance of Western Australia	540.6	552.0	796.8	732.9	660.5	1 207.6	935.0	702.3
Total Western Australia	*2 059.4*	*2 106.1*	*3 252.0*	*3 000.5*	*2 772.7*	*5 372.0*	*4 293.4*	*3 517.7*
Hobart	205.5	207.4	266.8	245.3	228.2	367.2	279.7	224.0
Balance of Tasmania	284.5	286.0	338.5	307.0	277.5	411.1	291.2	202.6
Total Tasmania	*490.0*	*493.4*	*605.3*	*552.3*	*505.7*	*778.3*	*571.0*	*426.6*
Darwin	114.4	117.4	189.3	165.2	142.4	334.9	243.0	169.2
Balance of Northern Territory	96.3	97.5	140.1	119.8	100.8	238.1	158.6	94.9
Total Northern Territory	*210.6*	*214.9*	*329.4*	*285.0*	*243.3*	*573.0*	*401.6*	*264.2*
Total Australian Capital Territory	*334.1*	*339.8*	*462.5*	*416.5*	*373.0*	*683.2*	*509.3*	*374.2*
Total capital cities(c)	*13 163.3*	*13 373.4*	*18 452.0*	*17 624.7*	*16 933.0*	*27 973.0*	*23 787.5*	*21 109.6*
Total balance of state	*7 532.2*	*7 639.3*	*10 268.2*	*9 609.2*	*9 036.1*	*14 534.2*	*11 679.6*	*9 793.7*
Australia(d)	**20 697.9**	**21 015.0**	**28 723.0**	**27 236.7**	**25 971.9**	**42 510.4**	**35 470.0**	**30 906.1**

(a) Final estimated resident population.
(b) Preliminary estimated resident population, base population.
(c) Includes the Australian Capital Territory.
(d) Includes Other Territories.

CHAPTER 2 ASSUMPTIONS

INTRODUCTION

The Australian Bureau of Statistics (ABS) uses the cohort-component method for producing population projections. In this method, assumptions made about future levels of fertility, mortality, overseas migration and internal migration are applied to a base population (split by sex and single year of age) to obtain a projected population for the following year. The assumptions are then applied to this new (projected) population to obtain a projected population for the next year. This process is repeated until the end of the projection period is reached.

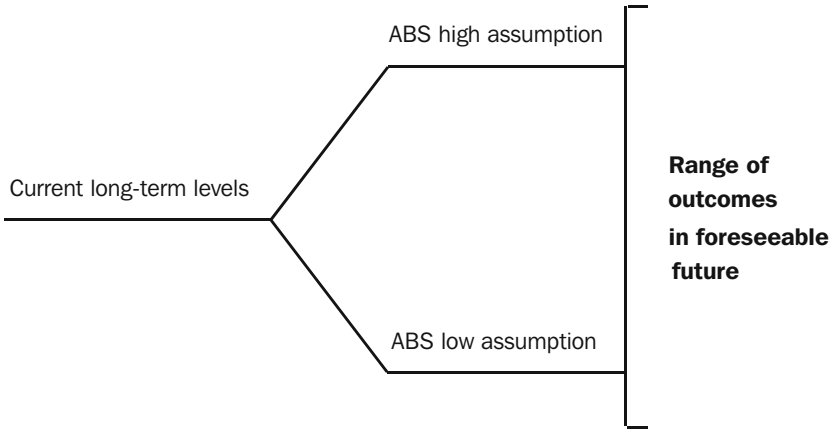
Span of projections

The projections span the period 30 June 2008 to 2101 for Australia, and 30 June 2008 to 2056 for the states, territories, capital cities and balances of state.

SUMMARY OF ASSUMPTIONS

Assumptions have been formulated on the basis of demographic trends over the past decade and longer, both in Australia and overseas, in conjunction with consultation with various individuals and government department representatives at the national and state/territory level. They do not attempt to allow for non-demographic factors (such as major government policy decisions, economic factors, catastrophes, wars, epidemics or significant health treatment improvements) which may affect future demographic behaviour or outcomes.

As future levels of fertility, mortality, overseas migration and internal migration are unpredictable, two or more assumptions have been made for each component. These are intended to illustrate a range of possible future outcomes, although there can be no certainty that any particular outcome will be realised, or that future outcomes will necessarily fall within these ranges.



Fertility

For the fertility component, assumptions are made about future total fertility rates (TFRs), age-specific fertility rates and the sex ratio at birth. Three long-term assumptions have been made about Australia's future levels of fertility:

- high: the TFR will reach 2.0 babies per woman by 2021, and then remain constant;
- medium: the TFR will decline to 1.8 babies per woman by 2021, and then remain constant; and
- low: the TFR will decline to 1.6 babies per woman by 2021, and then remain constant.

The trend towards older ages of mothers at birth of children is assumed to continue to 2021, but at a slower rate than historical trends, and remain constant thereafter. The sex ratio at birth is assumed to be 105.5 male births per 100 female births for all years.

Mortality

For the mortality component, assumptions are made about future levels of life expectancy at birth for males and females. Two assumptions have been made:

- high: life expectancy at birth will reach 93.9 years for males and 96.1 years for females by 2056, and remain constant thereafter. Under this assumption male and female life expectancy at birth will continue to increase by 0.30 years and 0.25 years per year respectively until 2056; and
- medium: life expectancy at birth will reach 85.0 years for males and 88.0 years for females by 2056, and remain constant thereafter. Under this assumption life expectancy at birth will increase by 0.30 years for males and 0.25 years for females per year until 2011, after which mortality improvement will gradually decline until 2056.

Under both assumptions, the pattern of change in age-sex specific death rates has been assumed to continue until 2026. Thereafter, the age-specific death rates are uniformly scaled to conform to the assumed life expectancy at birth for future years.

Overseas migration

Three assumptions have been made about Australia's future levels of net overseas migration (NOM):

- high: NOM will increase to 220,000 people per year by 2011 and remain constant thereafter;
- medium: NOM will remain constant at 180,000 people per year throughout the projection period; and
- low: NOM will decrease to 140,000 people per year by 2011 and remain constant thereafter.

A zero net overseas migration assumption has been included to facilitate analysis of the effect of overseas migration on Australia's future population.

Interstate migration

Three assumptions have been made about future net interstate migration levels:

- large interstate flows: relatively large net interstate migration gains for some states and territories, corresponding to relatively large losses for other states and territories;
- medium interstate flows: medium net interstate migration gains for some states and territories, and medium losses for others; and
- small interstate flows: relatively small net interstate migration gains for some states and territories, and small losses for others.

The medium interstate flows assumptions are based on long-term averages for the states and territories, while the large and small interstate flows assumptions encompass a wider range of values, based on historical variation in levels, to allow for a range of possible future outcomes, especially in the short term.

BASE POPULATION

The base population is the preliminary estimated resident population (ERP) at 30 June 2007.

PROJECTION SERIES

The above assumptions can be combined to create 54 sets of population projections. Three main series have been selected from these to provide a range, although not the full range, of projections for analysis and discussion in Chapters 3 and 4. These series are referred to as Series A, B and C. At times, to simplify the analysis, Series B has been chosen.

For some states, Series A and C do not depict the highest or lowest population outcomes. Where applicable, other series have been included in commentary.

Chapter 5 presents summary statistics for Australia, the states and territories, and capital cities and balances of state for Series A, B and C. Detailed information on these and remaining series are available in data cubes attached to this publication on the ABS web site.

The inclusion of a zero net overseas migration assumption increases the total number of available projections to 72 series, as presented on the following page. These extra series (Series 55 to 72) have not been considered for analysis in this publication but are included in data cubes attached to this publication.

WHICH SERIES TO USE

Future uncertainty, along with the subjective nature of assessing current trends, means that using a range of possible outcomes rather than a single projection series give a more realistic view of the possible future size, distribution and age structure of Australia's population.

Different series, constructed from varying combinations of assumptions, are appropriate for different time horizons (shorter or longer term), the geographic region(s) in question, and any volatility in the components. All series can more or less accommodate possible future levels of fertility and mortality, as both are fairly predictable. There is less certainty regarding future levels of overseas and interstate migration, due to the introduction of the improved methods for estimating net overseas migration and also their historical volatility. This volatility can be expected to continue due to future government policies and decision making, and economic, social and other determinants and influences, in Australia and overseas.

WHICH SERIES TO USE continued

The following table presents the 72 permutations of the various assumptions considered in developing the range of projections.

PROJECTION SERIES, Assumptions used

	HIGH LIFE EXPECTANCY AT BIRTH			MEDIUM LIFE EXPECTANCY AT BIRTH		
Net overseas migration	*Net interstate migration (large flows)*(a)	*Net interstate migration (medium flows)*	*Net interstate migration (small flows)*(a)	*Net interstate migration (large flows)*(a)	*Net interstate migration (medium flows)*	*Net interstate migration (small flows)*(a)
HIGH FERTILITY (2.0)						
220 000	1(A)	2	3	4	5	6
180 000	19	20	21	22	23	24
140 000	37	38	39	40	41	42
0	55	56	57	58	59	60
MEDIUM FERTILITY (1.8)						
220 000	7	8	9	10	11	12
180 000	25	26	27	28	29(B)	30
140 000	43	44	45	46	47	48
0	61	62	63	64	65	66
LOW FERTILITY (1.6)						
220 000	13	14	15	16	17	18
180 000	31	32	33	34	35	36
140 000	49	50	51	52	53	54(C)
0	67	68	69	70	71	72

(a) The large interstate flows assumption corresponds to large net interstate losses for New South Wales, Victoria and South Australia. For these states, the small interstate flows assumption yields greater population growth.

FERTILITY ASSUMPTIONS

Summary

Future trends in fertility are an important determinant of Australia's future population size, structure and growth. To produce population projections using the cohort-component method, assumptions for each year of the projection period are required for age-specific fertility rates and the sex ratio at birth.

Three long-term assumptions have been made regarding Australia's future TFR: high fertility (a TFR of 2.0 babies per woman), medium fertility (1.8) and low fertility (1.6). The trend towards older ages of mothers at birth of children is assumed to continue to 2021, but at a slower rate than historical trends, and remain constant thereafter. For all years, the sex ratio at birth is assumed to be 105.5 male births per 100 female births.

Assumptions for lower geographic levels (state/territory and capital city/balance of state) are derived from current differentials between Australia and each state/territory, and between each state/territory and its capital city/balance of state. Additional adjustments were made to some differentials to ensure projected births were consistent with the historical trend.

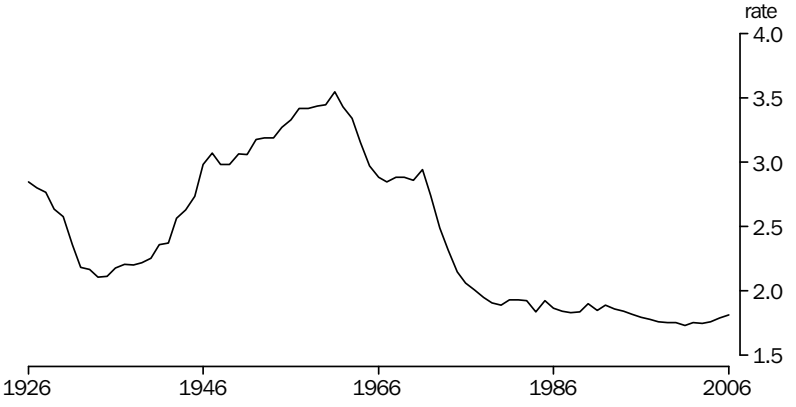
Trends in the total fertility rate

In 1961, at the height of the 'baby boom', Australia's TFR peaked at 3.5 babies per woman. Since then fertility has declined, falling sharply during the early 1960s as the oral contraceptive pill became available, before levelling out at around 2.9 babies per woman in the years 1966–1971. The reinterpretation of abortion law in New South Wales in 1971 had a substantial impact on women's ability to control their fertility (Carmichael, 1998). Subsequently a fall in births to young women contributed to a further decrease in the TFR and an increase in the median age of mothers. The TFR reached replacement level (2.1) in 1976, and continued to fall as increasing numbers of women chose to delay or forgo having children.

Fertility stabilised somewhat during the 1980s, before resuming a more gradual decline during the 1990s. The TFR reached a low of 1.73 babies per woman in 2001 and has increased since then, to 1.81 babies per woman in 2006.

Cohort fertility rates show a similar gradual decline over time, with women born in the early 1960s, now nearing the end of their reproductive years, having just over two babies per woman on average.

TOTAL FERTILITY RATE(a), Australia



(a) Babies per woman.

Assumed total fertility rates

The three assumptions for Australia's future fertility levels are made with regard to recent trends in the TFR, especially those of the last decade.

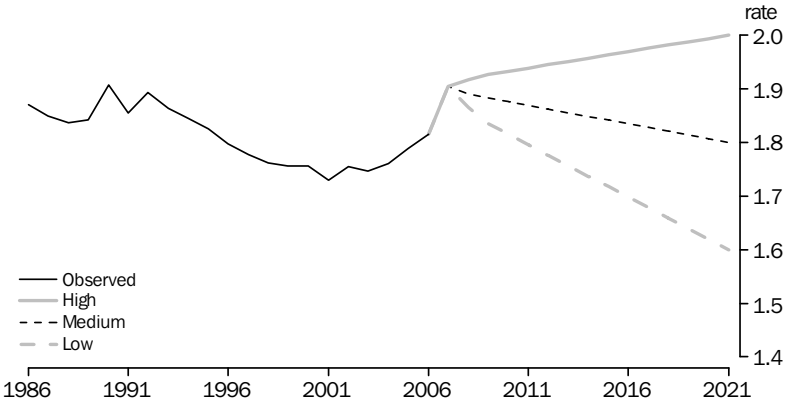
The high fertility scenario assumes that Australia's TFR will reach 2.0 babies per woman by 2021 and remain constant thereafter. This reflects levels of fertility recorded since 1977 of between 1.7 and 2.0 babies per woman, acknowledging the possibility that the TFR could increase, especially in the short-term.

The medium scenario assumes a short-term continuation of the increase in fertility since 2001, with the TFR increasing to 1.9 babies per woman in 2007, then gradually decreasing to 1.8 by 2021 and remaining constant thereafter.

Under the low fertility assumption the TFR also increases in 2007, but then declines at a faster rate, reaching 1.6 babies per woman by 2021 and remaining constant thereafter. Fertility rates have reached such levels in many European countries, and recent projections indicate this is considered a possibility in several others. Within Australia, fertility in the Australian Capital Territory and Victoria reached lows of 1.52 and 1.61 respectively in 2001.

All three scenarios assume higher TFRs up to 2009 than the TFR recorded in 2006 (1.81 babies per woman). Linear interpolation is employed to obtain TFRs for each year between 2009 and 2021. Birth registrations processed up to December quarter 2007 present a continuation of the recent rise in fertility, however the dimension and duration of the rise is not possible to gauge. Recent government policy initiatives and public attention and discussion of the impacts of lower fertility may have an effect in mitigating any future declines in fertility.

TOTAL FERTILITY RATE(a), Australia—Observed and assumed



(a) Babies per woman.

Trends in age-specific fertility rates

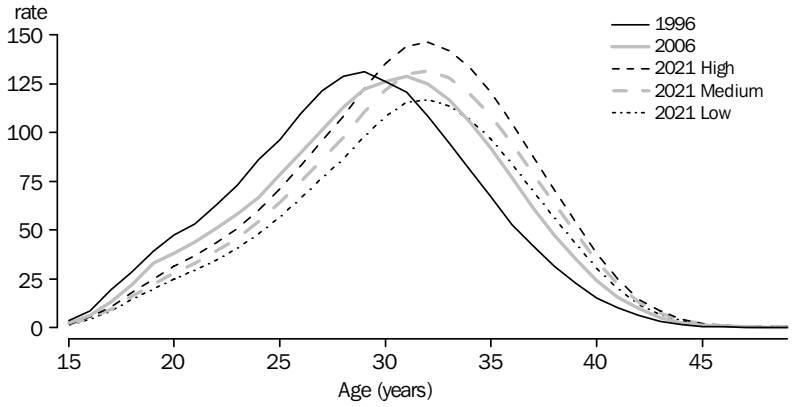
Population projections require assumptions about future age-specific fertility rates, which are derived from assumed TFRs and age distributions of fertility. These rates are applied to the projected female population in each year of the projection period in order to determine future numbers of births.

Over the past 10 years, age-specific fertility rates have been declining for the younger age groups (women below age 30), whilst increasing among women aged 30 years and over, representing a gradual shift in fertility towards older ages. Since 2003, fertility among women aged 30 years and over has exceeded that of women aged below 30 years.

While there has been a strong trend in recent decades for women to have babies at older ages, with the mean age of the fertility schedule rising from 29.1 years in 1996 to 30.3 years in 2006, there are signs in the latest data that this trend may be slowing.

This trend is assumed to continue to 2021, but at a slower rate than historical trends, and remain constant thereafter. The assumption of continuing deferment of fertility is calculated by applying half the average annual change in the percentage age distribution of fertility over the last five years to the base distribution, to obtain the assumed age distribution of fertility. As a result, the mean age of the fertility schedule increases to 31.3 years by 2021 for all three fertility scenarios. The assumed distribution is then applied to the assumed TFR for the corresponding projection year.

AGE–SPECIFIC FERTILITY RATES(a), Australia—Observed and assumed



(a) Babies per 1,000 women.

Trends in age-specific fertility rates continued

AGE-SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATE, Australia—Assumed

Year ended 30 June	AGE-SPECIFIC FERTILITY RATES(a) 15–19	20–24	25–29	30–34	35–39	40–44	45–49	TFR(b)	Mean age of mother
	rate	rate	rate	rate	rate	rate	rate	rate	years
HIGH ASSUMPTION									
2007	15.8	53.4	105.0	127.0	66.8	12.4	0.6	1.91	30.3
2008	15.6	52.9	104.7	128.3	68.4	12.8	0.7	1.92	30.4
2009	15.4	52.4	104.3	129.4	70.0	13.2	0.7	1.93	30.5
2010	15.1	51.8	103.6	130.3	71.4	13.6	0.7	1.93	30.5
2011	14.9	51.2	103.0	131.2	72.9	14.0	0.7	1.94	30.6
2012	14.6	50.5	102.3	132.1	74.3	14.4	0.8	1.95	30.7
2013	14.4	49.9	101.7	133.0	75.7	14.8	0.8	1.95	30.7
2014	14.1	49.3	101.0	133.9	77.2	15.2	0.8	1.96	30.8
2015	13.8	48.6	100.4	134.8	78.6	15.6	0.8	1.96	30.9
2016	13.5	48.0	99.7	135.7	80.1	16.0	0.9	1.97	31.0
2017	13.3	47.3	99.0	136.6	81.6	16.4	0.9	1.98	31.0
2018	13.0	46.7	98.3	137.5	83.1	16.8	0.9	1.98	31.1
2019	12.7	46.0	97.7	138.5	84.5	17.2	0.9	1.99	31.2
2020	12.4	45.3	97.0	139.4	86.0	17.7	1.0	1.99	31.2
2021	12.2	44.7	96.3	140.3	87.5	18.1	1.0	2.00	31.3
MEDIUM ASSUMPTION									
2007	15.8	53.4	105.0	127.0	66.8	12.4	0.6	1.91	30.3
2008	15.4	52.2	103.3	126.5	67.5	12.6	0.6	1.89	30.4
2009	15.1	51.2	101.9	126.5	68.4	12.9	0.7	1.88	30.5
2010	14.7	50.3	100.6	126.5	69.3	13.2	0.7	1.88	30.5
2011	14.3	49.3	99.3	126.5	70.2	13.5	0.7	1.87	30.6
2012	14.0	48.4	98.0	126.5	71.1	13.8	0.7	1.86	30.7
2013	13.6	47.5	96.7	126.4	72.0	14.1	0.7	1.86	30.7
2014	13.3	46.5	95.4	126.4	72.9	14.4	0.8	1.85	30.8
2015	13.0	45.6	94.1	126.4	73.8	14.6	0.8	1.84	30.9
2016	12.6	44.7	92.9	126.4	74.6	14.9	0.8	1.83	31.0
2017	12.3	43.8	91.6	126.4	75.5	15.2	0.8	1.83	31.0
2018	11.9	42.9	90.4	126.4	76.3	15.5	0.8	1.82	31.1
2019	11.6	42.0	89.1	126.3	77.1	15.7	0.9	1.81	31.2
2020	11.3	41.1	87.9	126.3	78.0	16.0	0.9	1.81	31.2
2021	10.9	40.2	86.6	126.3	78.8	16.3	0.9	1.80	31.3
LOW ASSUMPTION									
2007	15.8	53.4	105.0	127.0	66.8	12.4	0.6	1.91	30.3
2008	15.2	51.5	101.8	124.8	66.6	12.5	0.6	1.87	30.4
2009	14.7	49.9	99.3	123.2	66.7	12.6	0.6	1.84	30.5
2010	14.2	48.6	97.3	122.4	67.1	12.8	0.7	1.82	30.5
2011	13.8	47.4	95.4	121.5	67.5	13.0	0.7	1.80	30.6
2012	13.3	46.2	93.5	120.6	67.8	13.2	0.7	1.78	30.7
2013	12.9	44.9	91.5	119.7	68.2	13.3	0.7	1.76	30.7
2014	12.5	43.7	89.7	118.8	68.5	13.5	0.7	1.74	30.8
2015	12.1	42.5	87.8	117.9	68.8	13.7	0.7	1.72	30.9
2016	11.7	41.4	85.9	117.0	69.1	13.8	0.7	1.70	31.0
2017	11.3	40.2	84.1	116.1	69.3	14.0	0.8	1.68	31.0
2018	10.9	39.1	82.3	115.1	69.5	14.1	0.8	1.66	31.1
2019	10.5	37.9	80.5	114.2	69.7	14.2	0.8	1.64	31.2
2020	10.1	36.8	78.8	113.2	69.9	14.3	0.8	1.62	31.2
2021	9.7	35.7	77.0	112.2	70.0	14.5	0.8	1.60	31.3

(a) Babies per 1,000 women.

(b) Babies per woman.

Sex ratio at birth

Projections require an assumed sex ratio at birth (the ratio of male to female births, multiplied by 100), so that total projected births can be split into male and female births.

The sex ratio fluctuates around 105.5 males births per 100 female births. The sex ratio was 105.8 for the year ended 30 June 2006, 105.3 in 2000, and 105.9 in 1996. A constant ratio of 105.5 male births per 100 female births has been used for the duration of the projection period.

State/territory variations in fertility

In recent years, TFRs for Victoria, South Australia and the ACT have been lower than rates for Australia as a whole, while TFRs for the remaining states and territories, particularly Tasmania and the Northern Territory, have been higher.

The ratio of each jurisdiction's average TFR for the three years 2004–2006 to that of Australia is calculated, then applied to assumed future Australia-level TFRs. However, in some states these ratios have been adjusted to incorporate more recent data as it becomes available, or recent trends in a jurisdiction's ratio. The resulting set of state to Australia fertility differentials are thus calibrated to give projected births that are consistent with latest historical levels and trends. These differentials are assumed to remain constant throughout the projection period.

Regional variations in fertility

TFRs for Australian capital cities are typically lower than TFRs for their respective states and territories, while TFRs for state balances are higher. In 2004–2006, the TFR for Adelaide was 7% lower than the TFR for South Australia overall, while TFRs for Darwin, Perth and Melbourne were 4–5% lower than their respective state/territory levels. TFRs for Sydney, Hobart and Brisbane were 2–3% lower than the rates for New South Wales, Tasmania and Queensland respectively.

Assumed TFRs for the capital cities and state balances are derived by applying the average differential (for 2004–2006) between the region and its respective state/territory to that state/territory's assumed TFR. Similar to the state to Australia differentials, the capital city/balance of state to state/territory differentials were calibrated, where necessary, to ensure projected births were consistent with recent trends in numbers of births.

Regional variations in fertility continued

TOTAL FERTILITY RATES AND ASSUMED FERTILITY DIFFERENTIALS

	TOTAL FERTILITY RATE(a)(b)			ASSUMED FERTILITY DIFFERENTIAL(c)		
	Capital city	*Balance of state*	*Total*	*Capital city*	*Balance of state*	*Total*
	rate	rate	rate	%	%	%
New South Wales	1.74	1.93	1.79	93.0	103.5	96.0
Victoria	1.66	1.96	1.72	92.6	109.4	96.0
Queensland	1.79	1.85	1.82	102.1	105.7	103.7
South Australia	1.62	2.11	1.74	93.7	117.4	99.2
Western Australia	1.78	2.19	1.87	99.0	122.0	103.9
Tasmania	1.96	2.08	2.02	112.1	118.8	115.4
Northern Territory	2.06	2.25	2.18	112.4	122.9	118.6
Australian Capital Territory	. .	. .	1.63	. .	. .	91.0
Australia(d)	. .	. .	**1.79**	. .	. .	**100.0**

. . not applicable
(a) Babies per woman.
(b) Average of 2004, 2005 and 2006 TFRs.
(c) Assumed fertility differentials show the relationship of the average TFR for 2004–2006 for each state/territory, capital city and balance of state to the Australian level. Includes adjustments to ensure projected births are consistent with recent trends in numbers of births.
(d) Includes Other Territories.

ASSUMED TOTAL FERTILITY RATES(a), From 2021—States and territories

	HIGH ASSUMPTION			MEDIUM ASSUMPTION			LOW ASSUMPTION		
	Capital city	*Balance of state*	*Total*	*Capital city*	*Balance of state*	*Total*	*Capital city*	*Balance of state*	*Total*
	rate	rate	rate	rate	rate	rate	rate	rate	rate
New South Wales	1.86	2.07	1.92	1.7	1.86	1.73	1.49	1.66	1.54
Victoria	1.85	2.19	1.92	1.7	1.97	1.73	1.48	1.75	1.54
Queensland	2.04	2.11	2.07	1.8	1.90	1.87	1.63	1.69	1.66
South Australia	1.87	2.35	1.98	1.7	2.11	1.79	1.50	1.88	1.59
Western Australia	1.98	2.44	2.08	1.8	2.20	1.87	1.58	1.84	1.66
Tasmania	2.24	2.38	2.31	2.0	2.14	2.08	1.79	1.81	1.85
Northern Territory	2.25	2.46	2.37	2.0	2.21	2.14	1.80	1.97	1.90
Australian Capital Territory	. .	. .	1.82	. .	. .	1.64	. .	. .	1.46
Australia(b)	. .	. .	**2.00**	. .	. .	**1.80**	. .	. .	**1.60**

. . not applicable
(a) Babies per woman.
(b) Includes Other Territories.

International context

Fertility levels vary considerably between countries. There are many factors that can influence a country's fertility rate, such as differences in social and economic development and contraceptive prevalence. In general, developing countries have higher fertility rates while developed countries have lower fertility rates. According to the Population Reference Bureau (PRB) 2006 World Population Data Sheet, more-developed countries have an average TFR of 1.6 babies per woman, while less-developed countries have an average TFR of 2.9.

International context continued

Australia's TFR for 2006 of 1.8 babies per woman is well below the PRB world average of 2.7 babies per woman. Compared to other developed countries, Australia's TFR is above the PRB average of 1.6. Fertility in Hong Kong is very low at 1.0 babies per woman. Other countries that have low fertility are Ukraine (1.2) and Germany, Romania, Italy and Japan (all with 1.3). In contrast, many African countries have very high fertility rates, with Niger (7.9) and Guinea-Bissau (7.1) among the highest.

International fertility rates provide a frame of reference for the three fertility assumptions made for Australia. A TFR of 2.0 as assumed under the high fertility scenario equates to the current fertility level in countries such as New Zealand, the United States and Sri Lanka (all 2.0). The medium fertility scenario (a TFR of 1.8) would bring Australian fertility into line with current levels in countries such as Sweden and the United Kingdom. Australia's assumed TFR for the low fertility scenario (1.6) is the current average for the more developed countries.

International projections

In countries where fertility is low, the medium variant of the latest United Nations projections assumes that fertility will increase slowly until 2045–2050. According to this variant, all TFRs are projected to converge towards 1.85 babies per woman, though not all countries reach this level during the projection period.

PROJECTED TOTAL FERTILITY RATES, Selected countries(a)

Selected countries	*2005–2010*	*2010–2015*	*2045–2050*
Australia	1.79	1.83	1.85
Canada	1.53	1.53	1.85
China	1.73	1.78	1.85
France	1.89	1.85	1.85
Germany	1.36	1.39	1.74
Greece	1.33	1.38	1.73
Hong Kong (SAR of China)	0.97	0.99	1.34
India	2.81	2.54	1.85
Indonesia	2.18	2.01	1.85
Italy	1.38	1.41	1.74
Japan	1.27	1.27	1.60
Netherlands	1.72	1.72	1.85
New Zealand	1.99	1.94	1.85
Niger	7.19	6.88	3.78
Papua New Guinea	3.78	3.35	2.11
Spain	1.41	1.50	1.84
Sweden	1.80	1.84	1.85
United Kingdom	1.82	1.85	1.85
United States of America	2.05	2.02	1.85
Yemen	5.50	4.93	2.45
World	**2.55**	**2.46**	**2.02**

(a) Projected TFRs use the medium variant.

Source: Population Division, United Nations Secretariat, United Nations web site (2007), World Population Prospects, 2006 Revisions <http://esa.un.org/unpp/>

International projections continued

The United Nations high and low variants are assumed to remain 0.5 children above or below the medium fertility level for the majority of the period to 2050. Thus, the United Nations high fertility assumption shows Australia's fertility increasing to 2.35 babies per woman by 2045–2050 while the low assumption assumes a TFR of 1.35 babies per woman.

The latest available national projections produced by individual developed countries tend to emphasise a medium-level assumption of gradual decline or constant fertility. New Zealand projections released in 2007 assume a medium TFR declining from 2.11 babies per woman in 2008 to 1.90 in 2026 (Statistics New Zealand, 2007). Population projections for Sweden assume a constant TFR of 1.85 (Statistics Sweden, 2007). The United States of America is an exception, with a projected increase in fertility. Interim projections released in 2004 use a TFR assumption that reaches 2.2 babies per woman in 2025 (US Census Bureau, 2004), slightly lower than the medium assumption used in the previously released full set of the United States of America projections.

Generally, the low and high fertility assumptions for any nation's projections are between 10% and 15% lower or higher than the medium assumption, with changes being phased in over 10 to 25 years or longer. The low and high ABS fertility assumptions in this publication are 11% lower and higher, respectively, than the medium assumption.

MORTALITY ASSUMPTIONS

Summary

Australian life expectancy has improved steadily for both men and women since Federation. While continued improvements in life expectancy are anticipated, the extent of any further increase is a matter for debate. Many assume there is an upper limit to human longevity. However, what that limit may be, when humanity will reach it and how mortality will be experienced until that time are uncertain (Booth, MainDonald & Smith, 2002).

For the population projections in this issue, two assumptions on future life expectancy at birth have been made. The high mortality assumption assumes that life expectancy will continue to improve at the historical rate until the middle of the century, resulting in assumed life expectancy at birth of 93.9 years for males and 96.1 years for females in 2056. The medium mortality assumption assumes that life expectancy will continue to improve at the historical rate until 2011, then gradually slow to result in assumed life expectancy at birth of 85.0 years for males and 88.0 years for females in 2056.

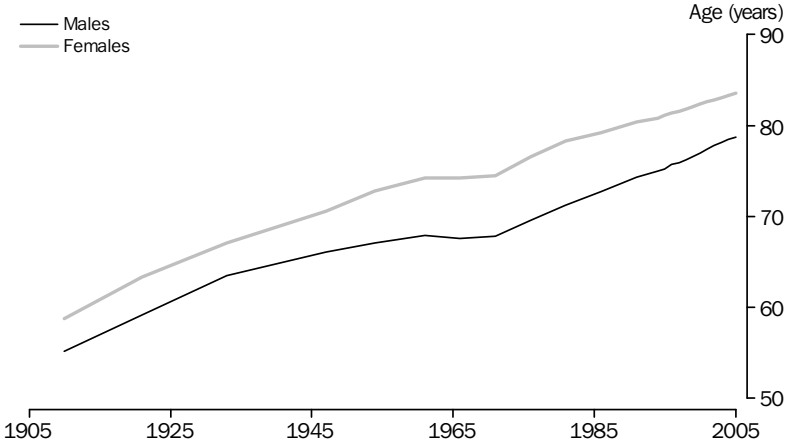
Assumptions for mortality at lower geographical levels are based on 2004–2006 differentials between Australia and each state/territory, and between each state/territory and its capital city/balance of state. Additional adjustments were made to some differentials to ensure projected deaths were consistent with the historical trend.

Trends in life expectancy

Male life expectancy at birth has increased from 55.2 years in the period 1901–1910 to 78.7 years in 2004–2006. Over the same period female life expectancy increased from 58.8 years to 83.5 years. The gains made in the early part of the 20th century are primarily attributed to improved living conditions such as improved water supply, sewerage systems, food quality and health education. The continuing increases in the latter part of that century are mainly due to improving social conditions and advances in medical technology such as mass immunisation and antibiotics.

The past two decades have seen further improvements in life expectancy. These increases are due in part to lower infant mortality, fewer deaths among children and fewer accidental deaths among young adults, and lower levels of deaths among older men from heart disease.

LIFE EXPECTANCY AT BIRTH, Australia



Trends in life expectancy continued

Between 1970–1972 and 2004–2006, life expectancy at birth has improved on average by 0.32 years per year for males and 0.26 years per year for females. For both males and females, the smallest increase during this period was recorded between 1995–1997 and 1996–1998 (with male life expectancy increasing by 0.17 years and female life expectancy increasing by 0.15 years) while the largest growth was recorded between 1998–2000 and 1999–2001 (with male life expectancy increasing by 0.47 years and female life expectancy increasing by 0.37 years).

LIFE EXPECTANCY AT BIRTH(a)—1970–1972 to 2004–2006

	LIFE EXPECTANCY AT BIRTH		INCREASE PER YEAR(b)		*Difference between female and male life expectancy*
	Males	*Females*	*Males*	*Females*	
Period	years	years	years	years	years
1970–1972(c)	67.81	74.49	. .	. .	. .
1980–1982(c)	71.23	78.27	0.34	0.38	7.0
1985–1987(c)	72.74	79.20	0.30	0.19	6.5
1990–1992(c)	74.32	80.39	0.32	0.24	6.1
1995–1997(c)	75.69	81.37	0.27	0.20	5.7
2000–2002(c)	77.64	82.87	0.39	0.30	5.2
1996–1998	75.86	81.52	0.17	0.15	5.7
1997–1999	76.22	81.77	0.36	0.25	5.6
1998–2000	76.56	82.04	0.34	0.27	5.5
1999–2001	77.03	82.41	0.47	0.37	5.4
2000–2002	77.40	82.59	0.37	0.18	5.2
2001–2003	77.76	82.84	0.36	0.25	5.1
2002–2004	78.08	83.03	0.32	0.19	5.0
2003–2005	78.47	83.34	0.39	0.31	4.9
2004–2006	78.71	83.48	0.24	0.14	4.8
Average annual increase(d)	. .	. .	0.32	0.26	. .

. . not applicable
(a) Life expectancy calculated using three years of data.
(b) Over previous period.
(c) Australian Government Actuary estimates for Census years.
(d) Based on linear trend between 1970–1972 and 2004–2006.

The faster increase in male life expectancy at birth has narrowed the gap between male and female life expectancy at birth. In 2004–2006 female life expectancy at birth exceeded male life expectancy by 4.8 years, in contrast to the peak difference of 7.0 years in 1980–1982.

Assumed life expectancy at birth

The high mortality assumption assumes male and female life expectancy at birth will increase from 2004–2006 levels by 0.30 and 0.25 years respectively until 2056. Based on this assumption, male life expectancy at birth would reach 93.9 years and female life expectancy at birth would reach 96.1 years in 2056.

The medium mortality assumption assumes male and female life expectancy at birth will increase from 2004–2006 levels by 0.30 and 0.25 years respectively until 2011. After this, life expectancy at birth is assumed to continue to increase over the projection period, but at declining rates. Based on this assumption, male life expectancy at birth would reach 85.0 years and female life expectancy at birth would reach 88.0 years in 2056.

Assumed life expectancy at birth continued

LIFE EXPECTANCY AT BIRTH, Assumed

	LIFE EXPECTANCY AT BIRTH		INCREASE PER YEAR		
	Males	*Females*	*Males*	*Females*	*Difference between female and male life expectancy*
Period	years	years	years	years	years
DECLINING IMPROVEMENT IN LIFE EXPECTANCY (medium assumption)					
2010–11	80.36	84.86	0.30	0.25	4.50
2015–16	81.36	85.61	0.20	0.15	4.25
2020–21	82.11	86.11	0.15	0.10	4.00
2025–26	82.61	86.51	0.10	0.08	3.90
2055–56	85.01	88.01	0.08	0.05	3.00
CONSTANT IMPROVEMENT IN LIFE EXPECTANCY (high assumption)					
2010–11	80.36	84.86	0.30	0.25	4.50
2015–16	81.86	86.11	0.30	0.25	4.25
2020–21	83.36	87.36	0.30	0.25	4.00
2025–26	84.86	88.61	0.30	0.25	3.75
2055–56	93.86	96.11	0.30	0.25	2.25

Trends in age-specific death rates

The inputs of the mortality component into producing population projections are 'survivorship ratios' obtained from assumed life tables. Life tables for each year up to 2056 are calculated in two steps: (1) life expectancy at birth for each projection year is determined; and (2) a life table is generated which gives the desired life expectancy at birth and allows for a shift in the age curve of mortality over time.

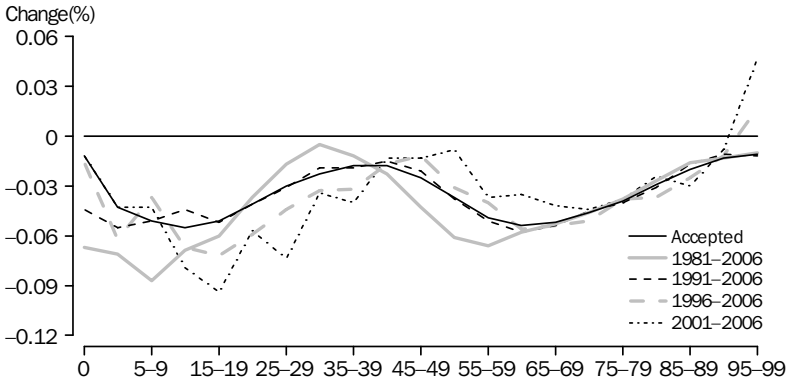
The shifting age curve of mortality over time should ideally represent current trends in age-sex differentials continued into the future. To achieve this, rates of change indicative of recent trends for each age-sex group are incorporated in the production of the assumed life tables. Determining assumed rates of change was achieved by observing historical patterns in age-specific death rates.

Between 1991 and 2006 children aged 1–14 experienced the fastest decline in age-specific death rates. Infants, males aged 55–74 and females aged 65–74 also experienced notable improvements in mortality. However, death rates of males aged 30–44 years and females aged 35–44 years showed little improvement. Both males and females aged 90–99 years also showed little improvement. In more recent times (2001–2006) the fastest declines in male mortality were for those aged 10–29 years and in female mortality, for those aged 5–14 years.

Rate of change in age-specific death rates

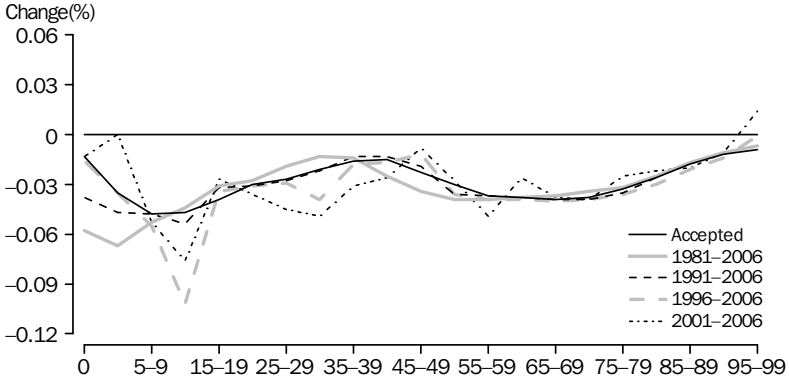
Rates of change identified as representative of recent trends in age-sex differentials, and used to generate the assumed life tables, were based primarily on 1991–2006 trends in age-specific death rates. These, and observed rates of change for other selected periods, are shown in the graphs below. Where necessary, adjustments were made to prevent future age-specific death rates for females exceeding those for males. The assumed rates of change continue to 2026, after which age-specific death rates are uniformly scaled to conform to the assumed life expectancy at birth for future years.

RATE OF CHANGE(a), Age-specific death rates—Males



(a) Rates of change are based on a linear trend fitted to age-specific death rates for each of the time periods shown.

RATE OF CHANGE(a), Age-specific death rates—Females

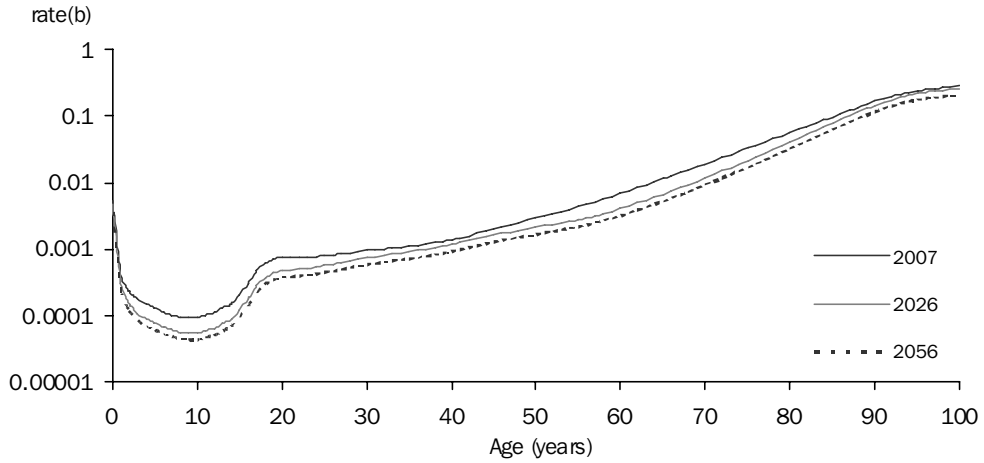


(a) Rates of change are based on a linear trend fitted to age-specific death rates for each of the time periods shown.

Assumed age-specific mortality rates

Age-specific mortality rates are assumed to decrease for all age groups for both males and females over the projection period. For both sexes the smallest decreases are assumed to occur in the 0, 35–44 and 85 years and over age groups.

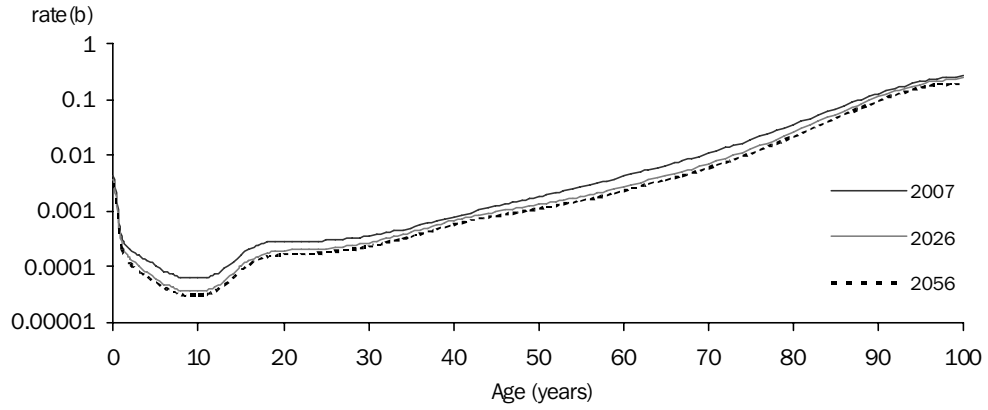
ASSUMED AGE-SPECIFIC MORTALITY RATES(a), Medium assumption—Males



(a) Mortality rates are the q(x) values from the life table.

(b) y-axis is on a logarithmic scale.

ASSUMED AGE-SPECIFIC MORTALITY RATES(a), Medium assumption—Females



(a) Mortality rates are the q(x) values from the life table.

(b) y-axis is on a logarithmic scale.

Assumed state/territory and capital city/balance of state mortality differentials

Mortality differentials continue to exist across the states and territories, and between capital cities and their respective balances of state. It is assumed that the mortality differentials based on those observed during 2004–2006 will remain constant throughout the projection period. Additional adjustments were made to some differentials to ensure projected deaths were consistent with current trends in numbers of deaths.

MORTALITY DIFFERENTIALS(a), State/territory and capital city/balance of state

	LIFE EXPECTANCY AT BIRTH, 2004–2006		MALE MORTALITY DIFFERENTIALS			FEMALE MORTALITY DIFFERENTIALS		
	Males	*Females*	*Capital city*	*Balance of state*	*State/territory*	*Capital city*	*Balance of state*	*State/territory*
	years	years	%	%	%	%	%	%
New South Wales	78.6	83.4	101.3	99.0	100.1	100.9	99.7	100.2
Victoria	79.3	83.7	101.1	98.8	100.3	100.5	99.2	99.9
Queensland	78.5	83.4	100.7	99.6	100.0	100.4	100.2	100.2
South Australia	78.6	83.6	100.0	99.0	99.9	100.3	99.6	100.1
Western Australia	79.1	83.8	100.9	99.3	100.3	100.9	99.3	100.3
Tasmania	77.4	82.3	98.1	97.7	97.9	98.1	97.8	98.1
Northern Territory	72.1	78.1	95.0	86.5	91.2	95.5	88.6	92.3
Australian Capital Territory	80.0	83.9	. .	. .	101.5	. .	. .	100.2
Australia(b)	**78.7**	**83.5**	. .	. .	**100.0**	. .	. .	**100.0**

. . not applicable

(a) Mortality differentials based on the relationship of 1981–2006 and 2004–06 life expectancies at birth for each state/territory,capital city and balance of state compared to the Australian level.

(b) Includes Other Territories.

International comparison of projections

Australian life expectancy is currently amongst the highest in the world. According to the Population Reference Bureau (PRB) 2006 World Population Data Sheet, the combined life expectancy at birth of males and females globally is 67 years. Australian life expectancy (estimated by the PRB to be 81 years for both males and females combined) is above that for countries such as the United States of America and the United Kingdom (both 78 years), Greece and New Zealand (both 79 years), and Canada (80 years). Australia's current life expectancy of 81 years is similar to that of Spain, Sweden, Switzerland, Iceland and Hong Kong (each 81 years), and slightly lower than Japan (82 years).

The United Nations (2006) projects global life expectancy at birth to reach 75 years by 2045–2050, with Australian life expectancy continuing to rank amongst the highest in the world (86 years in 2045–2050) according to the United Nations. Combined life expectancy at birth in this set of ABS population projections is assumed to be 86.5 years in 2056 under the medium assumption (similar to the United Nations estimate) and 95.0 years under the high assumption.

PROJECTED LIFE EXPECTANCY AT BIRTH(a), United Nations

	2000–2005		2020–2025		2045–2050		INCREASE 2000–2005 TO 2045–2050	
	Males	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
	years	years	years	years	years	years	years	years
Australia	77.9	82.9	81.3	85.3	84.1	88.0	6.2	5.1
Canada	77.3	82.3	80.5	84.7	83.2	87.5	5.9	5.2
China	70.5	73.7	74.0	77.8	77.4	81.3	6.9	7.6
France	76.0	83.2	79.0	85.8	81.8	88.5	5.8	5.3
Germany	75.7	81.5	78.5	84.0	81.4	86.8	5.7	5.3
Greece	76.4	80.1	79.0	83.8	81.8	86.6	5.4	6.5
Hong Kong (SAR of China)	78.6	84.5	81.0	86.9	83.3	89.8	4.7	5.3
India	61.7	64.2	68.0	72.1	73.4	77.9	11.7	13.7
Indonesia	66.7	70.5	72.5	76.9	76.4	80.8	9.7	10.3
Italy	76.9	82.9	79.3	85.2	82.1	87.9	5.2	5.0
Japan	78.3	85.2	81.0	88.4	83.3	90.9	5.0	5.7
Netherlands	76.3	81.0	79.4	83.5	82.1	85.9	5.8	4.9
New Zealand	77.0	81.3	80.7	84.0	83.5	86.8	6.5	5.5
Niger	55.4	53.6	63.0	62.1	69.1	70.4	13.7	16.8
Papua New Guinea	54.1	59.9	58.6	64.0	65.8	69.7	11.7	9.8
Spain	76.6	83.4	79.5	85.9	82.3	88.6	5.7	5.2
Sweden	77.8	82.3	80.8	84.7	83.5	87.0	5.7	4.7
United Kingdom	76.1	80.7	79.1	83.5	81.9	86.4	5.8	5.7
United States of America	74.7	80.0	77.4	82.7	80.4	85.7	5.7	5.7
Yemen	58.8	61.8	66.8	70.9	72.7	77.3	13.9	15.5
World	**63.9**	**68.3**	**68.6**	**73.2**	**73.1**	**77.8**	**9.2**	**9.5**

(a) Medium variant.

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2006 Revision and World Urbanisation Prospects: The 2005 Revision.

NET OVERSEAS MIGRATION

Summary

Three assumptions have been made about Australia's future levels of net overseas migration (NOM):

- 220,000 people per year (high),
- 180,000 people per year (medium); and
- 140,000 people per year (low).

In addition, a zero net overseas migration assumption has been included to facilitate analysis of the effect of overseas migration on Australia's future population.

Assumptions of NOM in previous ABS population projections have been derived from an analysis of historical figures, taking into account information such as moving averages over time. The introduction of a new method of estimating NOM from September quarter 2006 onwards has resulted in a significant break in series, with the latest estimates of NOM being significantly higher than previous levels. As a result, there is a higher level of uncertainty in what Australia's future NOM may be than in previous population projections.

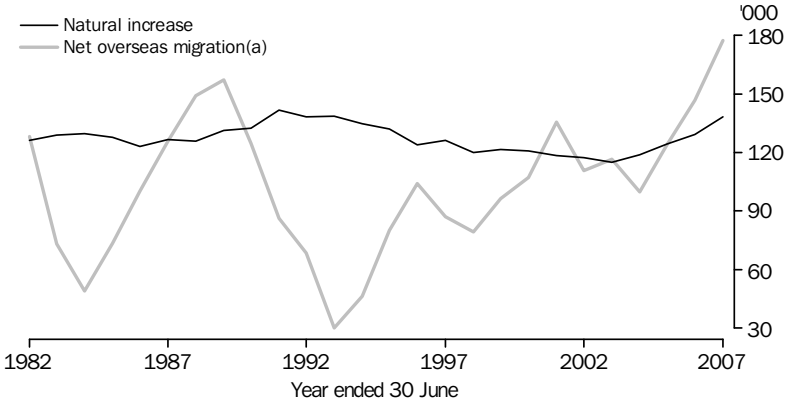
Improved NOM method

The ABS has developed an improved method for the estimation of NOM. The result has been a more accurate, but higher, NOM figure than obtained by the previous method. The new method was introduced from September quarter 2006 onwards, however, estimates from December quarter 2003 are available for analytical purposes. For more information on the improved method, refer to *Information Paper: Statistical Implications of Improved Methods for Estimating Net Overseas Migration, Australia, 2007* (cat. no. 3107.0.55.005).

Trends

Annual levels of NOM have fluctuated considerably in Australia over the past 25 years. The level has ranged from a low of 30,000 in the year ended 30 June 1993 to a high (under the improved method) of 177,600 in 2007. Over the past four years, NOM has also increased as a proportion of population growth, now contributing more than half of Australia's annual population growth. This trend should be interpreted with caution due to the break in series between the previous method of measuring NOM and the improved method.

NET OVERSEAS MIGRATION AND NATURAL INCREASE, Australia



(a) Break in series from 2007.

Observed and assumed net overseas migration

Currently, only three years of NOM data calculated using the improved method are available. The estimates for the years ended 30 June 2005 and 2006 presented in the following tables are indicative and were not used in the calculation of estimated resident population, while the latest figure (2007) is preliminary.

NET OVERSEAS MIGRATION, Arrivals and departures—States and territories(a)

Year ended 30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*(b)
				NOM ARRIVALS (no.)					
2005	125 569	81 346	65 438	16 573	39 995	3 160	4 441	5 915	342 442
2006	133 098	90 083	73 258	21 475	47 264	3 387	3 943	6 454	378 963
2007	133 285	93 316	75 327	22 215	48 355	3 485	5 134	6 304	387 427
				NOM DEPARTURES (no.)					
2005	78 141	43 561	38 643	8 118	20 802	1 936	3 476	5 151	199 830
2006	79 586	44 999	40 374	10 157	21 622	2 049	3 287	5 203	207 277
2007	78 394	46 163	41 791	9 069	22 836	2 233	3 813	5 505	209 810
				NET OVERSEAS MIGRATION (no.)					
2005	47 428	37 785	26 795	8 455	19 193	1 224	965	764	142 612
2006	53 512	45 084	32 884	11 318	25 642	1 338	656	1 251	171 686
2007	54 891	47 153	33 536	13 146	25 519	1 252	1 321	799	177 617
				NOM ARRIVALS (% share)					
2005	36.7	23.8	19.1	4.8	11.7	0.9	1.3	1.7	100.0
2006	35.1	23.8	19.3	5.7	12.5	0.9	1.0	1.7	100.0
2007	34.4	24.1	19.4	5.7	12.5	0.9	1.3	1.6	100.0
				NOM DEPARTURES (% share)					
2005	39.1	21.8	19.3	4.1	10.4	1.0	1.7	2.6	100.0
2006	38.4	21.7	19.5	4.9	10.4	1.0	1.6	2.5	100.0
2007	37.4	22.0	19.9	4.3	10.9	1.1	1.8	2.6	100.0
				NET OVERSEAS MIGRATION (% share)					
2005	33.3	26.5	18.8	5.9	13.5	0.9	0.7	0.5	100.0
2006	31.2	26.3	19.2	6.6	14.9	0.8	0.4	0.7	100.0
2007	30.9	26.5	18.9	7.4	14.4	0.7	0.7	0.4	100.0

(a) These estimates use the improved methodology for calculating NOM.
(b) Includes Other Territories.

Three assumptions have been made about Australia's future levels of NOM: 220,000 people per year (high), 180,000 people per year (medium) and 140,000 people per year (low). The high and low assumptions are phased in from the current level of NOM, and all assumptions are held constant from 2011 onwards.

Unlike births and deaths, NOM has fluctuated considerably over the years and the immigration component of NOM is not wholly set by the Federal Government at a set rate of the population (the emigration component has no controls placed upon it). Assumptions for NOM are therefore set at numeric levels rather than rates, in contrast to

Observed and assumed net overseas migration continued

assumptions on fertility and mortality. NOM can be expected to continue to fluctuate in the future as demand for migrants will rise and fall and emigration patterns may change. However, global competition for skilled migrants is likely to increase (Richardson and Lester, 2004), and hence, Australia may not necessarily be able to maintain the desired NOM level policy demands.

NET OVERSEAS MIGRATION, Observed and assumed

Year ended 30 June	Low assumption	Medium assumption	High assumption
	no.	no.	no.
OBSERVED (a)			
2005	142 612	142 612	142 612
2006	171 686	171 686	171 686
2007	177 617	177 617	177 617
ASSUMED			
2008	170 000	180 000	190 000
2009	160 000	180 000	200 000
2010	150 000	180 000	210 000
2011–2101	140 000	180 000	220 000

(a) These estimates use the improved methodology for calculating NOM.

In addition to the three main assumptions, a zero NOM scenario has been included. This is intended to facilitate analysis of population growth and provide an indication of the cumulative effect of varying levels of NOM over the projection period.

Assumed state/territory share of net overseas migration

With only three years of NOM data based on the improved method, it is not possible to assess trends in the distribution of NOM for the states and territories. Each state and territory's proportion of NOM is therefore based on an average of the three years of NOM data. For all three assumptions, NOM was allocated from 2011 as follows: New South Wales receives 31.5% of total NOM, Victoria 26.5%, Queensland 19.0%, South Australia 6.5%, Western Australia 14.5%, Tasmania 0.8%, and the Northern Territory and Australian Capital Territory each 0.6%. The assumptions have the limitation that they do not account for future changes in each state/territory's share of NOM over the long term.

ASSUMED NET OVERSEAS MIGRATION, State/territory share

Year ended 30 June	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
	%	%	%	%	%	%	%	%
2008	31.1	26.5	18.9	7.2	14.4	0.7	0.7	0.5
2009	31.2	26.5	18.9	7.0	14.4	0.8	0.7	0.5
2010	31.3	26.5	19.0	6.7	14.5	0.8	0.6	0.6
2011–2056	31.5	26.5	19.0	6.5	14.5	0.8	0.6	0.6

Assumed age structure of net overseas migration

The assumed age/sex structure of NOM for the states and territories is derived from three years of NOM data available using the improved NOM method. NOM arrivals and departures by state/territory, age and sex are simultaneously constrained to the total assumed NOM level for Australia and to the assumed state/territory shares of NOM. The assumed age/sex structures are held constant throughout the projection period.

For more information on the age structure of NOM, see *Migration, Australia, 2006–07* (cat. no. 3412.0).

Assumed capital city/balance of state net overseas migration

As NOM data are not available below the state/territory level, an indirect method to calculate the capital city/balance of state (CC/BoS) levels of NOM is used. NOM at this level is derived from the 2001 and 2006 census questions on place of usual residence one year ago and five years ago. The process behind the assumptions involves:

- estimating CC/BoS shares of state/territory arrivals from census data; that is, people resident overseas one year ago;
- estimating CC/BoS overseas departures data from the census—a synthesis of the one and five years ago census data; that is, CC/BoS data for those residing in Australia five years previously and who were overseas residents one year ago, but then were Australian residents again on census night;
    - scaling this CC/BoS census departure data to state/territory passenger card departures data by Australian and non-Australian citizenship (this is done as the census data is biased towards estimating departures of Australian citizens, who have different residence patterns at the CC/BoS level to non-Australian citizens. Scaling to state/territory citizenship structures ensures that the CC/BoS departures data more accurately reflects the relative proportions of overseas departures from capital cities and balances of state); and
- proportions of arrivals and departures to each CC/BoS were applied to the state/territory NOM arrivals and departures assumptions. These share-of-state proportions were held constant for the entire projection period.

Similar 2001 and 2006 census tabulations are used to calculate CC/BoS shares of state/territory age/sex overseas arrivals and departures. These are applied to state/territory age/sex NOM arrivals and departures assumptions then constrained to the CC/BoS total arrivals and departures described above.

Assumed capital city/balance of state net overseas migration continued

ASSUMED NET OVERSEAS MIGRATION, Capital city/balance of state—2011 onwards

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*(a)
	no.	no.	no.	no.	no.	no.	no.	no.	no.
HIGH ASSUMPTION									
Capital city	65 019	54 572	24 595	12 991	28 473	1 021	975	1 320	188 966
Balance of state	4 281	3 728	17 205	1 309	3 427	739	345	. .	31 034
Total	69 300	58 300	41 800	14 300	31 900	1 760	1 320	1 320	220 000
MEDIUM ASSUMPTION									
Capital city	54 385	45 116	20 339	10 697	23 461	839	833	1 080	156 750
Balance of state	2 315	2 584	13 861	1 003	2 639	601	247	. .	23 250
Total	56 700	47 700	34 200	11 700	26 100	1 440	1 080	1 080	180 000
LOW ASSUMPTION									
Capital city	43 751	35 660	16 085	8 403	18 450	658	689	840	124 536
Balance of state	349	1 440	10 515	697	1 850	462	151	. .	15 464
Total	44 100	37 100	26 600	9 100	20 300	1 120	840	840	140 000

. . not applicable

(a) Includes Other Territories.

NET INTERSTATE MIGRATION

Summary

Interstate migration, as an unrestricted and unregulated effect on population, is the most volatile and consequently least predictable component in any population estimation or projection. The movement of people between the states and territories of Australia is influenced by many factors such as varying economic opportunities, overseas immigration and settlement patterns, lifestyle choices and marketing campaigns targeting interstate movers by state/territory governments. As the level of effect of these factors cannot be anticipated, trends in levels of past net interstate migration are used as the basis for assuming future levels.

Historical data

Net interstate migration estimates since 1987 are shown below. These are calculated using Medicare change of address records and census data on usual residence one year ago and five years ago.

NET INTERSTATE MIGRATION—1987–2007

Year ended 30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
1987	–9 524	–13 105	19 718	–3 977	6 576	–1 508	–120	1 940
1988	–13 340	–14 423	27 720	–1 240	4 274	–1 924	–3 129	2 062
1989	–37 974	–12 504	47 062	–221	5 017	203	–1 469	–114
1990	–35 983	–7 829	38 102	–252	3 012	2 790	–1 170	1 330
1991	–17 206	–14 853	29 709	1 545	–1 791	816	–1 152	2 932
1992	–13 807	–18 427	34 099	–658	–1 314	–289	–969	1 365
1993	–17 535	–25 388	49 162	–5 210	–152	–1 494	–699	1 316
1994	–12 180	–29 195	44 936	–3 978	3 825	–2 107	–875	–426
1995	–13 478	–22 020	40 224	–7 069	5 101	–2 656	384	–486
1996	–14 770	–12 800	32 614	–6 192	4 066	–2 590	328	–656
1997	–10 661	–6 195	19 605	–3 318	4 660	–3 325	1 754	–2 470
1998	–12 249	–270	17 424	–1 996	3 227	–3 633	–472	–1 982
1999	–13 050	2 527	16 682	–1 631	296	–3 317	–953	–506
2000	–14 274	5 219	18 453	–3 531	–2 187	–2 632	–907	–91
2001	–16 315	5 163	20 024	–2 418	–3 110	–2 136	–1 592	407
2002	–25 102	3 609	30 035	–1 308	–3 582	–1 423	–1 998	–197
2003	–32 467	–743	37 984	–1 191	–1 972	1 993	–2 768	–802
2004	–31 098	–3 051	35 498	–2 910	2 095	2 574	–1 487	–1 586
2005	–26 321	–3 070	30 371	–3 226	2 241	267	610	–842
2006	–25 576	–1 831	26 607	–2 711	3 933	–82	–553	258
2007	–27 333	–2 194	27 010	–3 563	4 410	–452	228	1 894
Average								
1988–2007	–20 536	–7 914	31 166	–2 554	1 602	–971	–844	70
1998–2007	–22 379	536	26 009	–2 449	535	–884	–989	–345
2003–2007	–28 559	–2 178	31 494	–2 720	2 141	860	–794	–216
2005–2007	–26 410	–2 365	27 996	–3 167	3 528	–89	95	437

Historical data continued

Over the past six years New South Wales has recorded large net interstate migration losses, while Queensland has continued as the largest beneficiary of interstate migration in Australia, recording net gains of between 20,000 and 38,000 since 2001.

Historically, Victoria has recorded net interstate migration losses over the last 25 years, with the exception of small gains made each year between 1999 and 2002. In recent years Victoria has returned to net interstate migration losses, although these have been smaller than those recorded in the 1980s and early 1990s.

South Australia has continued to record net interstate migration losses, while Western Australia has recorded increases in net interstate migration in the past five years, from a loss of 3,600 people in 2002 to a gain of 4,400 in 2007.

In the past two years Tasmania has returned to net interstate migration losses after recording three years of net interstate migration gain. Historically net interstate migration for the Northern Territory has been volatile, with small gains recorded in two of the past three years. Over the past ten years the Australian Capital Territory has recorded net interstate migration losses in seven of those years.

State/territory assumptions

Levels of assumed net interstate migration were derived by analysing trends over the past 25 years and constraining them such that they sum to zero.

Three assumptions have been made about future net interstate migration levels:

- large interstate flows: relatively large net interstate migration gains for some states and territories, corresponding to relatively large losses for other states and territories. For example, this equates to large net gains in Queensland and correspondingly large net losses in New South Wales and Victoria;
- medium interstate flows: medium net interstate migration gains for some states and territories, and medium losses for others; and
- small interstate flows: relatively small net interstate migration gains for some states and territories, and small losses for others.

The medium interstate flows assumptions are based on long-term averages for the states and territories, while the large and small interstate flows assumptions encompass a wider range of values, based on historical variation in levels, to allow for a range of possible future outcomes, especially in the short term.

It should be noted that for some states the large interstate flows assumption corresponds to large net interstate migration *losses*, therefore the small interstate flows assumption will yield greater population growth in such cases. Series 3 (not Series A) presents the highest projected populations for New South Wales, Victoria and South Australia.

State/territory assumptions continued

Net interstate migration assumptions for the states and territories are as follows:

ASSUMED NET INTERSTATE MIGRATION—2008–2056

Year ended 30 June	NSW '000	Vic. '000	Qld '000	SA '000	WA '000	Tas. '000	NT '000	ACT '000
LARGE INTERSTATE FLOWS ASSUMPTION (a)								
2008	–25.0	–4.0	26.5	–4.5	4.5	1.0	1.0	0.5
2009	–27.0	–10.0	34.0	–5.0	5.0	1.0	1.0	1.0
2010–2056	–29.0	–13.0	38.0	–5.0	5.5	1.0	1.0	1.5
MEDIUM INTERSTATE FLOWS ASSUMPTION								
2008	–22.5	–3.0	24.5	–4.0	4.0	0.5	0.5	—
2009	–21.5	–5.0	26.5	–3.5	3.5	—	—	—
2010–2056	–20.0	–6.0	27.5	–3.0	2.5	–0.5	–0.5	—
SMALL INTERSTATE FLOWS ASSUMPTION (a)								
2008	–20.0	–1.5	22.5	–3.0	3.0	—	—	–1.0
2009	–18.0	1.0	21.0	–2.0	1.5	–1.0	–1.0	–1.5
2010–2056	–13.0	2.0	18.0	–1.0	–0.5	–2.0	–2.0	–1.5

— nil or rounded to zero (including null cells)

(a) The large interstate flows assumption corresponds to large net interstate losses for New South Wales, Victoria and South Australia. For these states, the small interstate flows assumption yields greater population growth.

Capital city/balance of state net internal migration assumptions

Internal migration assumptions for capital cities and balances of states were based on indirectly estimated historical trends of net internal migration. Net total migration (overseas and internal) for each capital city/balance of state was assumed to be the difference between population growth and natural increase for these regions. Net internal migration was then assumed to be the difference between net total migration and the synthetic NOM estimates for capital city and balance of state (for the derivation of these NOM estimates see page 30).

Capital city/balance of state net internal migration assumptions continued

The state/territory assumptions have been split into capital city/balance of state assumptions as follows:

NET INTERNAL MIGRATION, Capital cities—Observed and assumed

Year ended 30 June	Sydney '000	Melbourne '000	Brisbane '000	Adelaide '000	Perth '000	Hobart '000	Darwin '000
OBSERVED							
1997	–21.6	–13.8	4.9	–2.5	1.4	–0.6	1.6
1998	–21.5	–3.5	6.0	–1.2	–0.4	–0.8	0.6
1999	–22.1	–3.8	4.1	–1.2	–0.7	–1.0	—
2000	–27.8	–1.6	4.6	–2.9	–3.7	–0.6	0.2
2001	–32.8	–4.2	5.0	–1.5	–3.9	–0.3	–0.2
2002	–42.3	3.4	7.9	–1.7	–2.2	–0.5	–1.2
2003	–51.7	–1.9	11.3	–2.6	–1.6	0.5	–1.9
2004	–41.4	–7.7	9.0	–5.1	2.6	1.0	–0.8
2005	–46.2	–8.5	2.7	–5.0	–1.0	–0.3	0.4
2006	–45.9	–9.6	–1.9	–3.9	1.0	0.2	–0.2
2007	–36.4	–10.0	1.9	–4.8	0.2	—	0.6
LARGE INTERSTATE FLOWS ASSUMPTION (a)							
2008	–41.0	–10.5	3.5	–5.9	1.0	0.8	1.0
2009	–45.0	–14.0	5.0	–6.5	1.3	0.5	0.9
2010–2056	–48.0	–15.0	7.0	–7.0	1.5	0.5	0.8
MEDIUM INTERSTATE FLOWS ASSUMPTION							
2008	–36.0	–10.0	2.3	–5.2	—	0.5	0.8
2009	–35.0	–11.0	3.0	–4.8	—	—	0.5
2010–2056	–34.0	–11.0	3.5	–4.3	—	—	—
SMALL INTERSTATE FLOWS ASSUMPTION (a)							
2008	–31.0	–9.5	1.0	–3.5	–0.3	0.2	0.5
2009	–26.0	–7.0	0.5	–2.0	–0.8	–0.3	–0.2
2010–2056	–22.0	–6.0	–0.5	–0.5	–1.5	–0.5	–0.8

— nil or rounded to zero (including null cells)

(a) The large interstate flows assumption corresponds to large net interstate losses for New South Wales, Victoria and South Australia. For these states, the small interstate flows assumption yields greater population growth.

Capital city/balance of state net internal migration assumptions continued

NET INTERNAL MIGRATION, Balance of states/territories—Observed and assumed

Year ended 30 June	Balance of NSW '000	Balance of Vic. '000	Balance of Qld '000	Balance of SA '000	Balance of WA '000	Balance of Tas '000	Balance of NT '000
OBSERVED							
1997	11.0	7.6	14.7	–0.9	3.3	–2.7	0.2
1998	9.3	3.2	11.4	–0.8	3.7	–2.8	–1.0
1999	9.1	6.3	12.6	–0.4	1.0	–2.3	–0.9
2000	13.5	6.8	13.9	–0.6	1.5	–2.0	–1.1
2001	16.5	9.3	15.0	–0.9	0.8	–1.8	–1.4
2002	17.2	0.2	22.2	0.4	–1.4	–0.9	–0.8
2003	19.2	1.2	26.7	1.4	–0.4	1.5	–0.8
2004	10.3	4.7	26.5	2.1	–0.5	1.6	–0.6
2005	19.8	5.4	27.7	1.8	3.3	0.6	0.2
2006	20.3	7.7	28.5	1.2	3.0	–0.3	–0.3
2007	9.0	7.8	25.1	1.2	4.2	–0.5	–0.4
LARGE INTERSTATE FLOWS ASSUMPTION (a)							
2008	16.0	6.5	23.0	1.4	3.5	0.2	—
2009	18.0	4.0	29.0	1.5	3.7	0.5	0.1
2010–2056	19.0	2.0	31.0	2.0	4.0	0.5	0.2
MEDIUM INTERSTATE FLOWS ASSUMPTION							
2008	13.5	7.0	22.2	1.2	4.0	—	–0.3
2009	13.5	6.0	23.5	1.3	3.5	—	–0.5
2010–2056	14.0	5.0	24.0	1.3	2.5	–0.5	–0.5
SMALL INTERSTATE FLOWS ASSUMPTION (a)							
2008	11.0	8.0	21.5	0.5	3.3	–0.2	–0.5
2009	8.0	8.0	20.5	—	2.3	–0.7	–0.8
2010–2056	9.0	8.0	18.5	–0.5	1.0	–1.5	–1.2

— nil or rounded to zero (including null cells)

(a) The large interstate flows assumption corresponds to large net interstate losses for New South Wales, Victoria and South Australia. For these states, the small interstate flows assumption yields greater population growth.

Age/sex structure of interstate migration

All assumptions are separated into arrivals and departures for each state/territory and capital city/balance of state. Rates for arrivals and departures for the states and territories are generated from movement data from recent censuses to obtain age/sex levels. Further, 2001 and 2006 census data are used to generate age/sex arrival and departure levels for each capital city/balance of state. As a result, all age/sex arrival and departure disaggregations sum to the net internal migration assumptions.

CHAPTER 3 PROJECTION RESULTS — AUSTRALIA

INTRODUCTION

The population projections presented in this publication are not predictions or forecasts. They are an assessment of what would happen to Australia's population if the assumed levels of the components of population change—births, deaths and migration—were to be realised over the next 50 to 100 years.

The projections reveal the size, structure and distribution of the future population under various assumptions on future levels of fertility, mortality and migration. These levels are based on long and short-term trends, current debate, and future scenarios dictated by research in Australia and elsewhere.

ASSUMPTIONS FOR SERIES A, B AND C

As described in Chapter 2, three assumptions have been made about Australia's future fertility, two assumptions about future mortality, three assumptions about future levels of net overseas migration (NOM) and three assumptions about net interstate migration. In addition, a zero net overseas migration assumption has been included to facilitate analysis of the effect of overseas migration on Australia's future population. From these assumptions, 72 projection series have been generated.

Using the preliminary estimated resident population (ERP) at June 2007 as the base population for all projections, three main series (Series A, B and C) have been selected for presentation and analysis in this chapter:

- Series A—assumes the TFR will reach 2.0 babies per woman by 2021 and then remain constant, life expectancy at birth will continue to increase until 2056 (reaching 93.9 years for males and 96.1 years for females), NOM will reach 220,000 by 2011 and then remain constant, and large interstate migration flows.
- Series B—assumes the TFR will decrease to 1.8 babies per woman by 2021 and then remain constant, life expectancy at birth will continue to increase each year until 2056, though at a declining rate (reaching 85.0 years for males and 88.0 years for females), NOM will remain constant at 180,000 per year throughout the projection period, and medium interstate migration flows.
- Series C—assumes the TFR will decrease to 1.6 babies per woman by 2021 and then remain constant, life expectancy at birth will continue to increase each year until 2056, though at a declining rate (reaching 85.0 years for males and 88.0 years for females), NOM will reach 140,000 per year by 2011 and then remain constant, and small interstate migration flows.

Unless otherwise stated the following analysis uses Series A and C to depict a range of projected populations for Australia. At times, to simplify the analysis, Series B has been chosen.

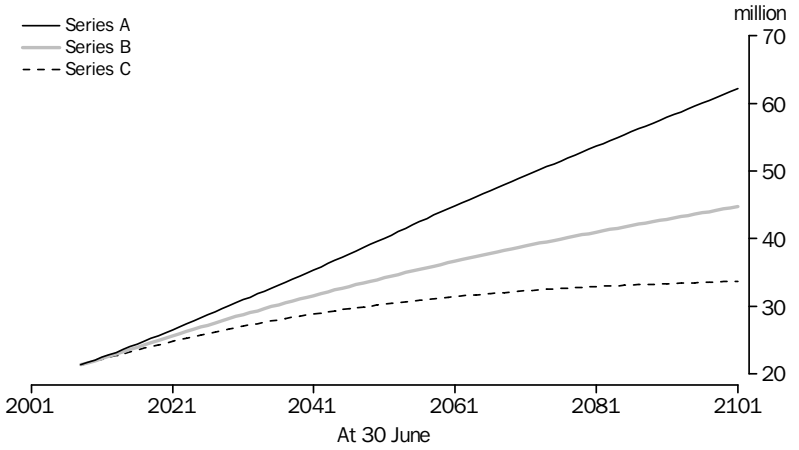
AUSTRALIA

Population size

Australia's population at 30 June 2007 of 21.0 million is projected to increase to between 30.9 million and 42.5 million in 2056, and reach between 33.7 million and 62.2 million in 2101.

The three main series project continuing population growth throughout the projection period. In Series A Australia experiences strong and consistent growth, reaching 42.5 million in 2056 and 62.2 million in 2101. In Series B the population will reach 35.5 million in 2056 and 44.7 million in 2101. In Series C growth is projected to be lower, with the population reaching 30.9 million in 2056 and 33.7 million in 2101.

PROJECTED POPULATION, Australia



Growth rates

The growth rate of Australia's population reflects the interaction of the components of population change—natural increase (the excess of births over deaths) and NOM.

In the 10 years to June 2007, Australia's population increased by 1.3% per year on average. Growth rates are projected to decline over the long term in all three main series, remaining above 1.0% for the next thirteen (Series C) to fifty-six years (Series A).

The three main series project positive population growth throughout the projection period, although growth rates decline over time and at varying rates. In Series A, Australia's growth rate initially increases to 1.7% per year and remains above the 10 year average (1.3%) until the middle of the century. Over the second half of the century, growth rates gradually decline, reaching 1.0% in 2061 and 0.7% in 2101.

In Series B, Australia's annual growth rate decreases from 1.5% in 2007 to 1.0% in 2032, and to 0.4% in 2101.

In Series C, Australia's annual growth rate decreases at a faster rate, reaching 1.0% in 2020 and 0.1% in 2101.

Growth rates continued

PROJECTED SIZE AND GROWTH OF AUSTRALIA'S POPULATION—At 30 June

	SERIES A		SERIES B		SERIES C	
Year ended 30 June	*Population*(a) '000	*Average annual growth rate* %	*Population*(a) '000	*Average annual growth rate* %	*Population*(a) '000	*Average annual growth rate* %
2005–2006(b)	20 697.9	1.49	20 697.9	1.49	20 697.9	1.49
2006–2007(c)	21 015.0	1.53	21 015.0	1.53	21 015.0	1.53
2007–2008	21 351.5	1.60	21 339.5	1.54	21 327.4	1.49
2008–2009	21 702.4	1.64	21 664.6	1.52	21 626.5	1.40
2009–2011	22 447.4	1.70	22 319.1	1.50	22 189.6	1.29
2011–2016	24 422.7	1.70	23 967.0	1.43	23 530.4	1.18
2016–2026	28 723.0	1.64	27 236.7	1.29	25 971.9	0.99
2026–2036	33 168.5	1.45	30 238.4	1.05	28 028.4	0.76
2036–2046	37 717.9	1.29	32 929.1	0.86	29 638.5	0.56
2046–2056	42 510.4	1.20	35 470.0	0.75	30 906.1	0.42
2056–2066	47 138.1	1.04	37 826.9	0.65	31 892.9	0.31
2066–2076	51 513.3	0.89	39 976.1	0.55	32 631.1	0.23
2076–2086	55 814.7	0.81	41 952.5	0.48	33 137.7	0.15
2086–2096	60 049.7	0.73	43 838.7	0.44	33 528.3	0.12
2096–2101	62 161.8	0.69	44 744.8	0.41	33 700.3	0.10

(a) At end of period.
(b) Final estimated resident population.
(c) Preliminary estimated resident population, base population.

International comparison—population growth

According to United Nations population projections (2006 revision), a number of developing and developed countries will experience low positive to negative population growth rates between now and the middle of the century. In 2000–2005, Japan's annual growth rate was 0.14%. By 2045–2050 Japan's population is projected to be decreasing by around 0.8% per year. Similarly, Italy, Greece and the Netherlands each recorded small positive population growth over the period 2000–2005, but are projected to experience decreases in population by the middle of the century (–0.3%, –0.2% and –0.05% per year respectively). China's population growth rate is also projected to decline from positive growth of 0.7% to –0.3% during the same period.

In contrast, the growth rates of Hong Kong, India, Indonesia, New Zealand, Papua New Guinea, the United Kingdom, the United States of America and Canada are projected to slow but remain positive between 2000–2005 and 2045–2050.

Births

There were 274,300 births and 134,800 deaths in Australia during 2006–07, resulting in natural increase of 139,500 people. The three main series present quite different scenarios for projected births.

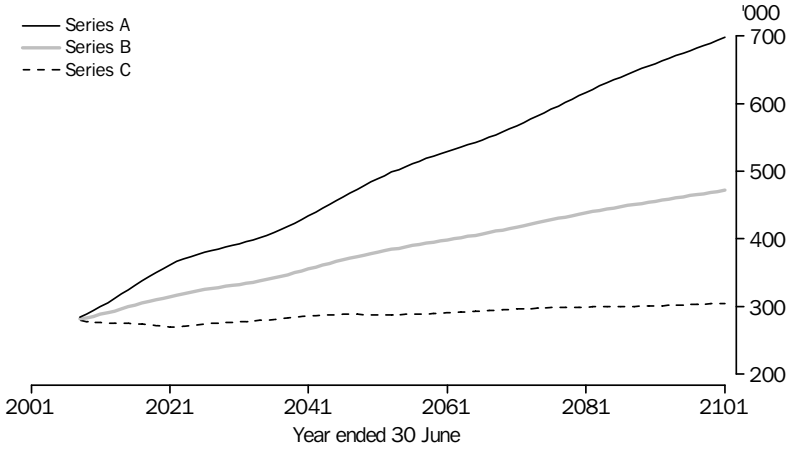
Series A projects strong and consistent increases in the numbers of births each year, due to the relatively high total fertility rate (2.0 births per woman assumed in this scenario). In 2056, Series A projects 511,200 births, increasing to around 700,000 births per year at the end of the century.

Numbers of births are also projected to increase in Series B, although at a slower rate than Series A. Series B projects 390,200 births in 2056 and 472,100 births in 2101.

Births continued

In Series C the projected number of births initially declines to 2022, then increases only slightly over the remainder of the century, reaching 304,800 in 2101.

PROJECTED BIRTHS, Australia



Deaths

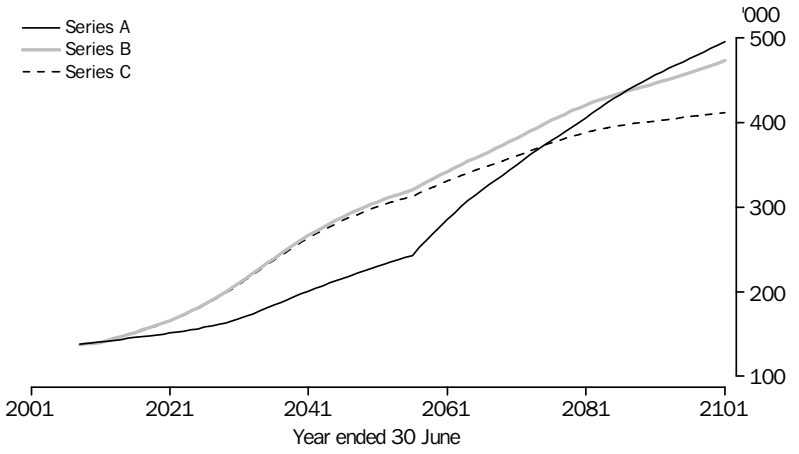
The numbers of projected deaths in Series B and C remain similar until the middle of the century as both series use the same mortality assumption. Initially deaths are projected to increase at current rates of around 0.6% to 0.7% per year. Between 2022 and the late 2030s deaths are projected to increase more rapidly (up to 2.7% per year in 2032) as a result of ageing of the population and in particular the progression of the large cohorts born during the post World War II 'baby boom', together with those former migrants born in 1947, into older age groups. From the middle of the century onwards the number of deaths generally increases at gradually declining rates.

From 134,800 deaths in 2006–07, Series C and B project deaths to more than double by 2056 (to 312,700 and 320,600 respectively), and reach between 411,400 and 473,200 respectively in 2101.

Series A assumes higher life expectancy at birth than Series B and C, therefore lower numbers of deaths are projected for the first 50 years of the projection period. The cessation of assumed improvements in life expectancy from 2057 onwards results in a rapid increase in deaths in Series A, compounded by the larger population size due to the combination of high fertility, low mortality and high net overseas migration assumptions used. Series A projects 243,000 deaths in 2056, increasing to 495,600 in 2101, the highest of all three main series.

Deaths continued

PROJECTED DEATHS, Australia



Natural increase

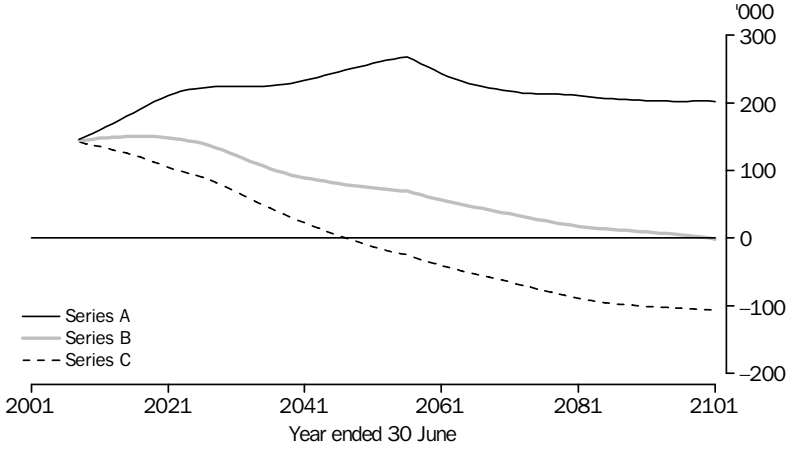
While the number of deaths in Australia are projected to increase in all three main series, the number of births are projected to vary widely. As a result, projected natural increase (births minus deaths) differs significantly for each of the three main series.

Natural increase in Series A is projected to initially increase, and to remain at or above 200,000 for the remainder of the projection period.

Series B projects a gradual decline in natural increase over the projection period, reaching 69,600 in 2056 and declining to zero by the end of the century.

In Series C natural increase declines at a faster rate, reaching a state of natural decrease (where deaths outnumber births) from 2048 onwards. By 2101 Series C projects natural decrease of –106,500 per year. Despite this, Australia's population is projected to continue to increase, as the assumed level of net overseas migration in Series C (140,000 people per year) outweighs losses in population due to natural decrease.

PROJECTED NATURAL INCREASE, Australia

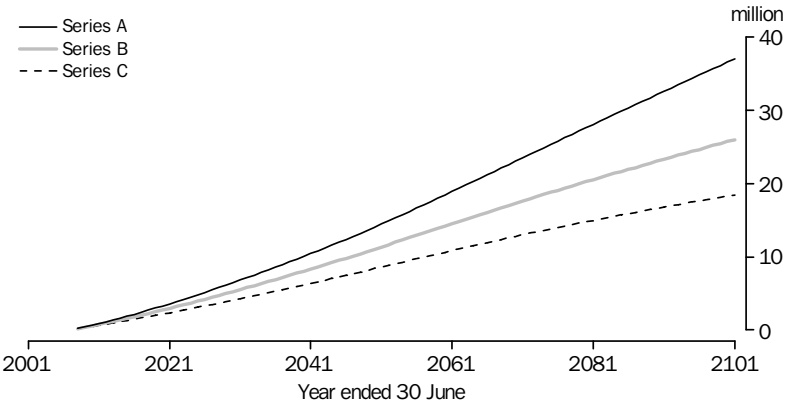


Effect of net overseas migration

In 2006–07 net overseas migration (NOM) contributed 177,600 people to Australia's population. While changes in fertility have the biggest effect on the youngest ages of the population, and changes in mortality are felt predominantly in older age groups, NOM affects the population of all ages. Although the age structure of migrants at arrival in Australia is younger than the Australian population as a whole, migrants age along with the rest of the population in the years following their arrival. Changes in NOM therefore affect the size of the population more than the age distribution.

Net overseas migration contributes to population growth through both the levels of migration itself, and by children born to migrants to Australia. The effect of NOM can be determined by comparing the projected population of each of the three main series with the projected population resulting from an assumed NOM level of zero. In Series A, NOM contributes a total of 16.6 million people to Australia's population between 30 June 2007 and 2056, and 37.0 million people between 30 June 2007 and 2101. In Series B, NOM contributes fewer people to the population (12.9 million by 2056, and 26.0 million by 2101), while in Series C, NOM contributes the fewest people (9.7 million by 2056, and 18.4 million by 2101).

CONTRIBUTION OF NOM TO PROJECTED POPULATION(a), Australia



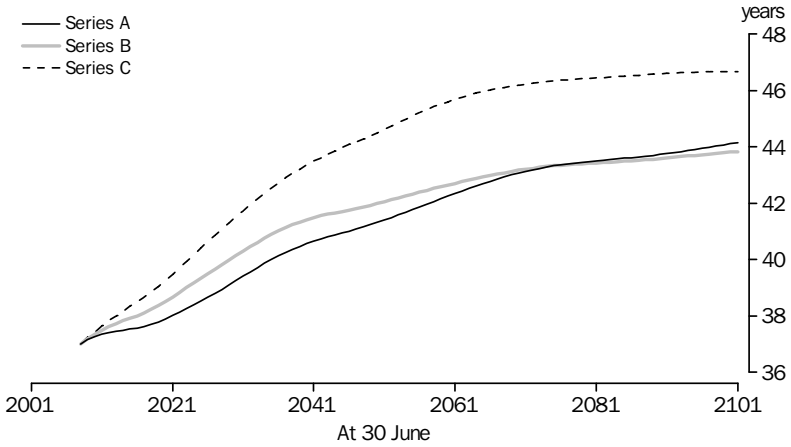
(a) Including children born to migrants to Australia.

Population ageing

Of the changes projected to occur in Australia's population, ageing is the most dramatic, with significant changes to the age structure of the population, particularly over the next fifty years. Ageing of the population is a trend which has been evident over recent decades as a result of fertility remaining below replacement level and declining mortality rates. In all three series this trend is projected to continue.

Changes in Australia's age structure are reflected in the median age, which is projected to increase from 36.8 years in 30 June 2007 to between 38.7 years and 40.7 years in 2026 and between 41.9 years and 45.2 years in 2056. Over the second half of the century, the median age is projected to continue to increase, but at slower rates, to between 43.8 years (Series B) and 46.7 years (Series C) in 2101.

PROJECTED POPULATION, Median age—Australia



The proportion of the population aged under 15 years is projected to decrease from 19% (4.1 million) of the population at 30 June 2007 to between 15% and 18% (4.5 million to 7.5 million) in 2056, and to decline slightly to between 14% and 17% in 2101 (4.7 million to 10.4 million).

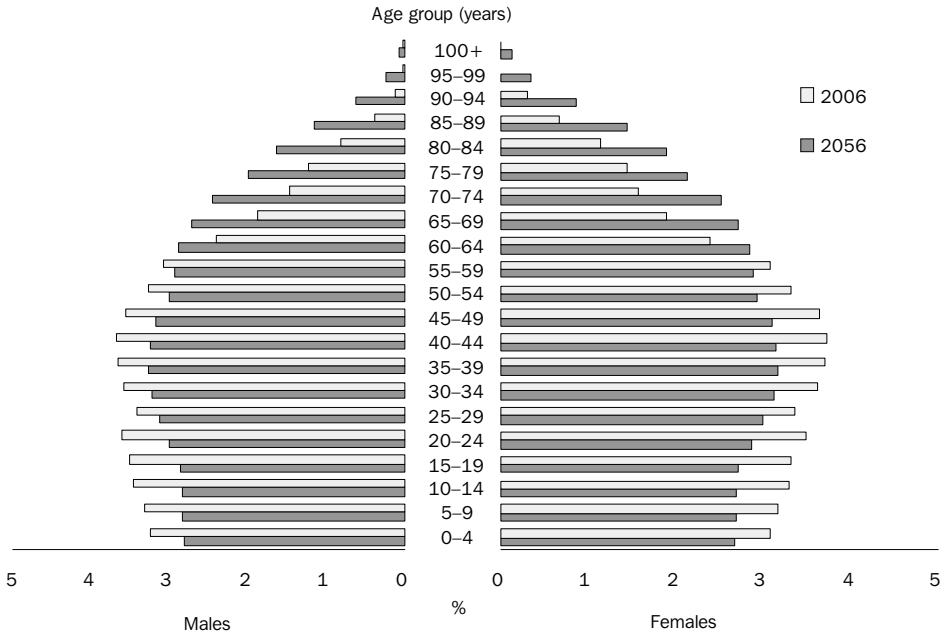
PROJECTED POPULATION, By age group—Australia

	0-14 YEARS			15-64 YEARS			65 YEARS AND OVER			85 YEARS AND OVER		
At 30 June	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*
					NUMBER ('000)							
2006(a)	4 050.4	4 050.4	4 050.4	13 954.8	13 954.8	13 954.8	2 692.7	2 692.7	2 692.7	322.1	322.1	322.1
2007(b)	4 075.3	4 075.3	4 075.3	14 174.6	14 174.6	14 174.6	2 765.1	2 765.1	2 765.1	344.1	344.1	344.1
2008	4 110.9	4 106.8	4 102.8	14 404.5	14 396.6	14 388.6	2 836.2	2 836.1	2 836.0	362.9	362.9	362.9
2009	4 152.6	4 139.0	4 125.1	14 625.6	14 601.7	14 577.8	2 924.1	2 923.8	2 923.6	381.4	381.4	381.4
2011	4 256.0	4 209.2	4 161.1	15 071.3	14 990.9	14 910.4	3 120.0	3 119.0	3 118.1	420.7	420.7	420.7
2016	4 617.8	4 434.6	4 251.5	16 034.9	15 781.7	15 532.1	3 769.9	3 750.7	3 746.8	509.5	504.4	504.3
2026	5 515.5	4 885.4	4 284.4	17 941.8	17 264.7	16 615.6	5 265.7	5 086.5	5 071.9	718.0	658.9	658.4
2036	6 125.0	5 190.4	4 328.4	20 140.5	18 757.0	17 455.1	6 903.0	6 291.1	6 244.9	1 354.9	1 062.3	1 059.9
2046	6 692.3	5 506.5	4 446.7	22 556.1	20 280.9	18 184.8	8 469.4	7 141.7	7 007.0	2 201.1	1 439.0	1 432.7
2056	7 474.9	5 880.0	4 509.7	24 642.1	21 458.0	18 575.7	10 393.4	8 131.9	7 820.7	3 103.4	1 723.7	1 703.6
2066	8 138.5	6 175.2	4 541.0	26 879.1	22 646.5	18 885.5	12 120.5	9 005.2	8 466.5	3 783.3	1 898.4	1 841.8
2076	8 716.0	6 451.0	4 615.1	29 293.8	23 836.9	19 090.5	13 503.6	9 688.2	8 925.4	4 521.4	2 195.8	2 076.9
2086	9 411.3	6 756.4	4 672.1	31 443.7	24 875.3	19 294.0	14 959.7	10 320.8	9 171.6	5 082.9	2 357.4	2 180.3
2096	10 079.1	7 028.9	4 704.6	33 577.0	25 897.3	19 532.1	16 393.6	10 912.6	9 291.7	5 477.4	2 487.3	2 257.9
2101	10 375.0	7 151.4	4 726.3	34 714.7	26 418.0	19 631.8	17 072.1	11 175.5	9 342.3	5 759.5	2 576.0	2 283.3
					PROPORTION OF POPULATION (%)							
2006	19.6	19.6	19.6	67.4	67.4	67.4	13.0	13.0	13.0	1.6	1.6	1.6
2007	19.4	19.4	19.4	67.4	67.4	67.4	13.2	13.2	13.2	1.6	1.6	1.6
2008	19.3	19.2	19.2	67.5	67.5	67.5	13.3	13.3	13.3	1.7	1.7	1.7
2009	19.1	19.1	19.1	67.4	67.4	67.4	13.5	13.5	13.5	1.8	1.8	1.8
2011	19.0	18.9	18.8	67.1	67.2	67.2	13.9	14.0	14.1	1.9	1.9	1.9
2016	18.9	18.5	18.1	65.7	65.8	66.0	15.4	15.6	15.9	2.1	2.1	2.1
2026	19.2	17.9	16.5	62.5	63.4	64.0	18.3	18.7	19.5	2.5	2.4	2.5
2036	18.5	17.2	15.4	60.7	62.0	62.3	20.8	20.8	22.3	4.1	3.5	3.8
2046	17.7	16.7	15.0	59.8	61.6	61.4	22.5	21.7	23.6	5.8	4.4	4.8
2056	17.6	16.6	14.6	58.0	60.5	60.1	24.4	22.9	25.3	7.3	4.9	5.5
2066	17.3	16.3	14.2	57.0	59.9	59.2	25.7	23.8	26.5	8.0	5.0	5.8
2076	16.9	16.1	14.1	56.9	59.6	58.5	26.2	24.2	27.4	8.8	5.5	6.4
2086	16.9	16.1	14.1	56.3	59.3	58.2	26.8	24.6	27.7	9.1	5.6	6.6
2096	16.8	16.0	14.0	55.9	59.1	58.3	27.3	24.9	27.7	9.1	5.7	6.7
2101	16.7	16.0	14.0	55.8	59.0	58.3	27.5	25.0	27.7	9.3	5.8	6.8
					AVERAGE ANNUAL GROWTH RATE (%)							
2005–2006	0.70	0.70	0.70	1.60	1.60	1.60	2.09	2.09	2.09	5.57	5.57	5.57
2006–2007	0.61	0.61	0.61	1.58	1.58	1.58	2.69	2.69	2.69	6.84	6.84	6.84
2007–2008	0.87	0.77	0.67	1.62	1.57	1.51	2.57	2.57	2.56	5.44	5.45	5.44
2008–2009	1.02	0.78	0.54	1.54	1.43	1.31	3.10	3.09	3.09	5.11	5.11	5.11
2009–2011	1.24	0.84	0.44	1.51	1.32	1.13	3.30	3.28	3.27	5.02	5.02	5.02
2011–2016	1.65	1.05	0.43	1.25	1.03	0.82	3.86	3.76	3.74	3.91	3.70	3.70
2016–2026	1.79	0.97	0.08	1.13	0.90	0.68	3.40	3.09	3.07	3.49	2.71	2.70
2026–2036	1.05	0.61	0.10	1.16	0.83	0.49	2.74	2.15	2.10	6.56	4.89	4.88
2036–2046	0.89	0.59	0.27	1.14	0.78	0.41	2.07	1.28	1.16	4.97	3.08	3.06
2046–2056	1.11	0.66	0.14	0.89	0.57	0.21	2.07	1.31	1.10	3.49	1.82	1.75
2056–2066	0.85	0.49	0.07	0.87	0.54	0.17	1.55	1.03	0.80	2.00	0.97	0.78
2066–2076	0.69	0.44	0.16	0.86	0.51	0.11	1.09	0.73	0.53	1.80	1.47	1.21
2076–2086	0.77	0.46	0.12	0.71	0.43	0.11	1.03	0.63	0.27	1.18	0.71	0.49
2086–2096	0.69	0.40	0.07	0.66	0.40	0.12	0.92	0.56	0.13	0.75	0.54	0.35
2096–2101	0.58	0.35	0.09	0.67	0.40	0.10	0.81	0.48	0.11	1.01	0.70	0.22

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

PROJECTED POPULATION, Series B, Australia—At 30 June

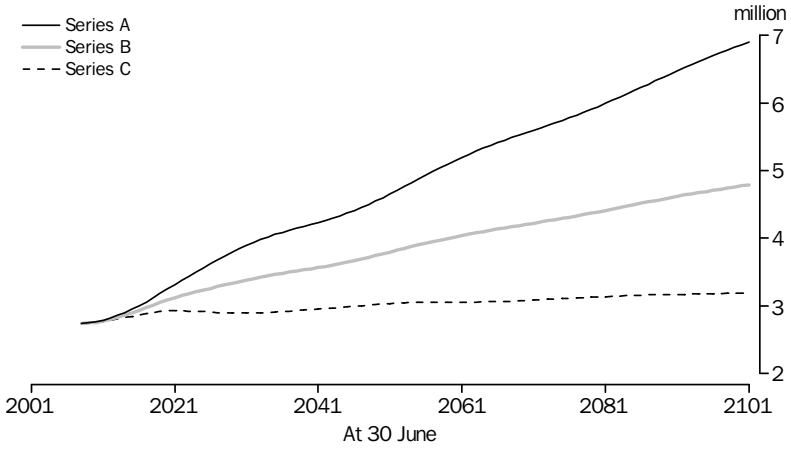


Population aged 5–14 years

Changes in the number of children aged 5–14 years, an age group closely aligned to compulsory ages for schooling, has implications for the provision of primary and secondary education.

Series A projects strong increases in the number of children in this age group, from 2.7 million at 30 June 2007 to 4.9 million in 2056 and 6.9 million at the end of the century. The number of children aged 5–14 are also projected to increase in Series B, although at a slower rate than Series A. Series B projects 3.9 million children aged 5–14 in 2056 and 4.8 million in 2101. In Series C the number of children aged 5–14 increases only slowly throughout the century, reaching 3.2 million in 2101.

PROJECTED POPULATION AGED 5–14 YEARS, Australia



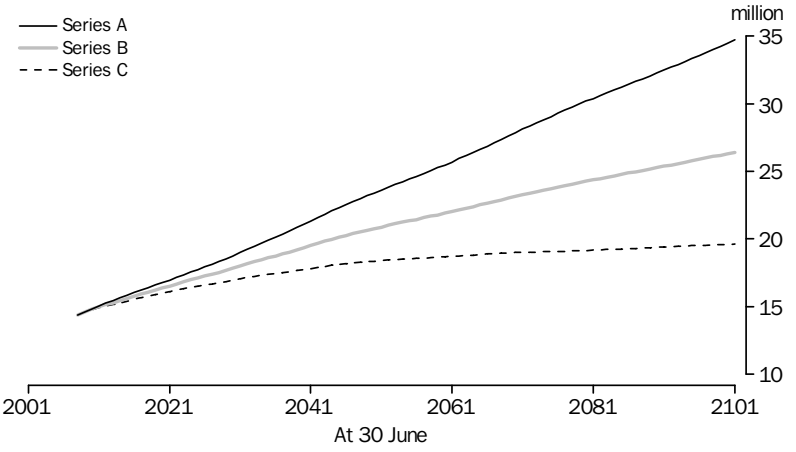
While the number of children aged 5–14 are projected to increase in all three main series, their proportion will decline from 13% at 30 June 2007 to between 10% and 12% by 2056. Between 2056 and 2101 little change in the proportion of this age group is projected.

Population aged 15–64 years

The population aged 15–64 years, which encompasses the working-age population, was 14.2 million people at 30 June 2007, making up 67% of Australia's population. The three main series project this group to continue to increase throughout the projection period. Series A projects strong growth in the number of people aged 15–64 years, reaching 24.6 million in 2056 and 34.7 million in 2101. The numbers of people aged 15–64 are also projected to increase in Series B, although at a slower rate than Series A. Series B projects 21.5 million people aged 15–64 in 2056 and 26.4 million in 2101. In Series C the projected number of people aged 15–64 reaches 18.6 million in 2056 and then increases very slightly to 19.6 million in 2101.

Despite different outcomes in terms of population size, the proportion of the total population of 15–64 year olds will be similar for all three main series throughout the projection period. This proportion declines from 67% at 30 June 2007 to between 58%–60% in 2056 and 56%–59% in 2101.

PROJECTED POPULATION AGED 15–64 YEARS, Australia



Within the 15–64 years age group ageing will occur in all three series. From 26% of people aged 15–64 at 30 June 2007, people aged 50–64 years are projected to increase to between 28% and 31% in 2056. From 2056 the proportion remains relatively stable.

Within the 15–64 age group, the proportion of people aged 15–29 years is projected to decline slightly in all three series, from 31% at 30 June 2007 to between 27% and 30% by 2056, and to remain at these levels until 2101. The proportion of people aged 30–49 years declines slightly over the century, reaching 41% in 2101.

Population aged 65 years and over

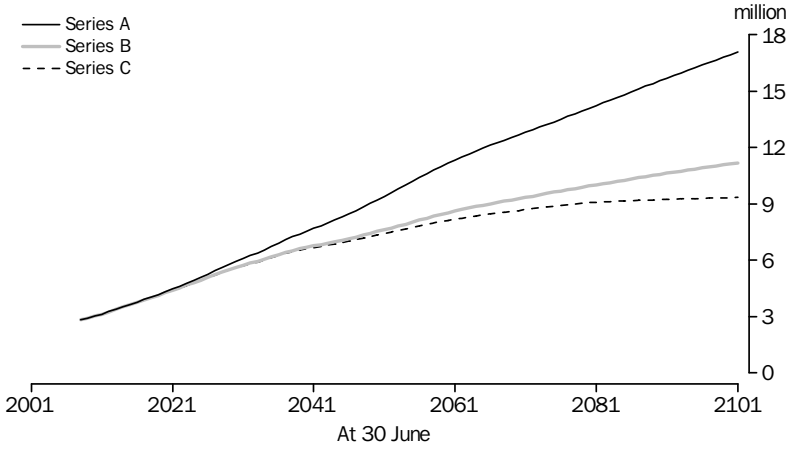
The population aged 65 years and over will increase rapidly throughout the first half of the projection period, in terms of both numbers and proportions of the total population. This age group is projected to increase from 2.8 million at 30 June 2007 to between 5.1 million and 5.3 million in 2026, and to between 7.8 million and 10.4 million in 2056. By 2101 this age group is projected to reach between 9.3 million and 17.1 million.

As a proportion of the population, the population aged 65 years and over is projected to increase from 13% at 30 June 2007 to between 18% (Series A) and 20% (Series C) in 2026, 23% (Series B) to 25% (Series C) in 2056, and 25% (Series B) to 28% (Series C) in 2101.

Population aged 65 years and over continued

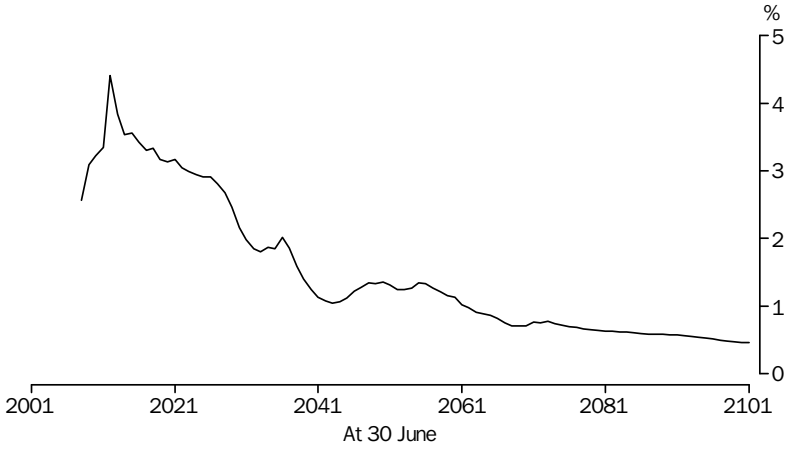
Among other considerations such as health and housing services, growth in this age group has particular implications for retirement income planning (Department of Treasury, 2007).

PROJECTED POPULATION AGED 65 YEARS AND OVER, Australia



The annual growth rate for people aged 65 years and over will peak in 2012 at 4.4% to 4.5%, when the large cohort born in 1947, part of the post World War II 'baby boom', together with former migrants born in 1947, reach 65 years. Growth rates remain strong in Series A due to higher assumed life expectancy at birth, declining to 1.0% in 2078 and 0.8% by the end of the projection period. In Series B and C, growth rates decrease more quickly, reaching 1.0% in the early 2040s and declining to 0.5% and 0.1% respectively by 2101.

ANNUAL GROWTH RATES, 65 years and over, Australia—Series B



Population aged 85 years and over

The projected number of people aged 85 years and over has implications for the provision of health services and appropriate housing (Department of Treasury, 2007), given that non-private dwellings are currently the most common form of housing for people in this age group.

At 30 June 2007 there were 344,100 people aged 85 years and over in Australia. This age group is projected to increase rapidly throughout the projection period. In Series A, which uses the high life expectancy at birth assumption, the population is projected to

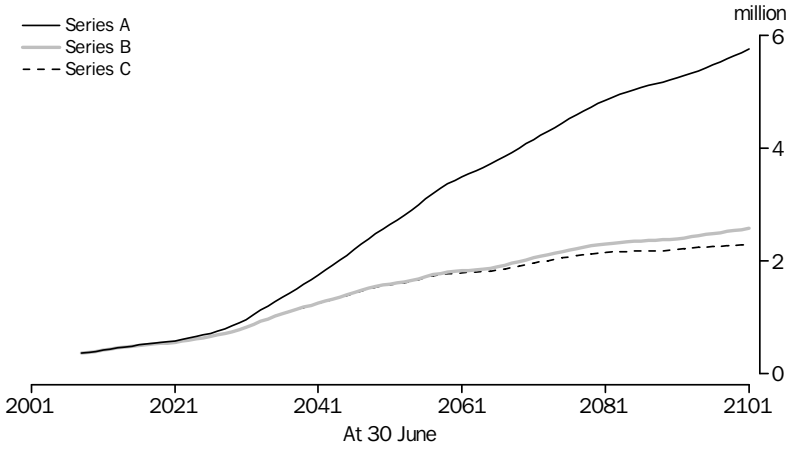
Population aged 85 years and over continued

more than double within 20 years (to 718,000 people in 2026), to double again by 2038 (1.51 million), and to double once more by 2056 (3.1 million). Over the second half of the century the number of people aged 85 and over continues to grow strongly, reaching 5.8 million people by 2101.

Series B and C (which both use the medium life expectancy at birth assumption) also project high growth, though considerably less than Series A from around 2030 onwards. By 2056 the population aged 85 years and over is projected to be 1.7 million in both series, and between 2.3 and 2.6 million in 2101.

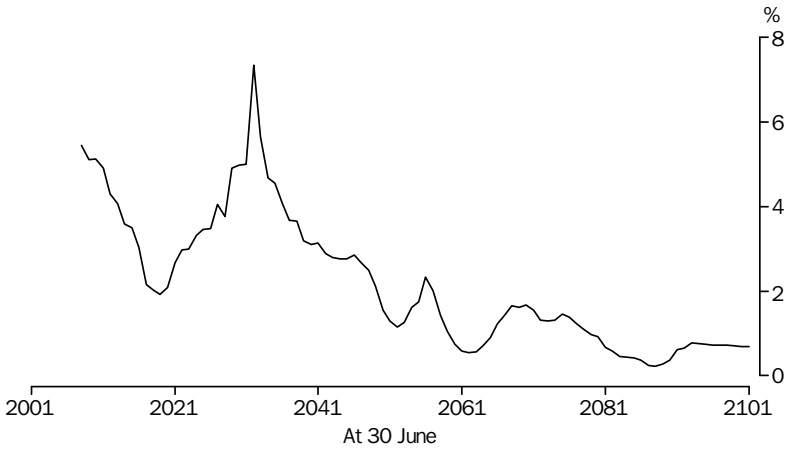
People aged 85 years and over made up 1.6% of Australia's population at 30 June 2007. This age group is projected to account for around 5% (Series B) to 7% (Series A) of the population in 2056, and 6% (Series B) to 9% (Series A) in 2101.

PROJECTED POPULATION AGED 85 YEARS AND OVER, Australia



The population aged 85 years and over is projected to experience the highest growth rates of all age groups. Growth for this group will peak at between 7% and 9% in 2032. This peak is due to the large cohort of people born in 1947 reaching 85 years around this time.

ANNUAL GROWTH RATES, 85 years and over, Australia—Series B



A noticeable change within this age group is the increasing proportion of men due to the narrowing of the gap between male and female life expectancy. At 30 June 2007 men

Population aged 85 years and over continued

accounted for 33% of all people aged 85 years and over. This proportion is projected to increase to 40% in 2026, 42%–45% in 2056, and 44%–47% in 2101.

Population aged 100 years and over

At 30 June 2007 there were 2,800 Australian residents aged 100 years or more. In Series B this is projected to increase to 71,200 in 2056 and 136,200 in 2101. As a proportion of the total population, this represents a rise from 0.01% at 30 June 2007 to 0.30% in 2101.

Dependency ratio

The dependency ratio is a measure used to compare the size of the working age population to the size of the non-working age population, calculated as the sum of people aged 0–14 years and 65 years and over (that is, 'dependents') divided by the number of people aged 15–64 years, multiplied by 100.

While the ratio may oversimplify the implication of dependency—for example, many young adults are dependent on their parents during tertiary study, many people aged 15–64 years are not part of the workforce, many people retire before 65 years of age, while people aged 65 years or over may be self-funded retirees or may continue to work—it provides another measure of the structure of the population.

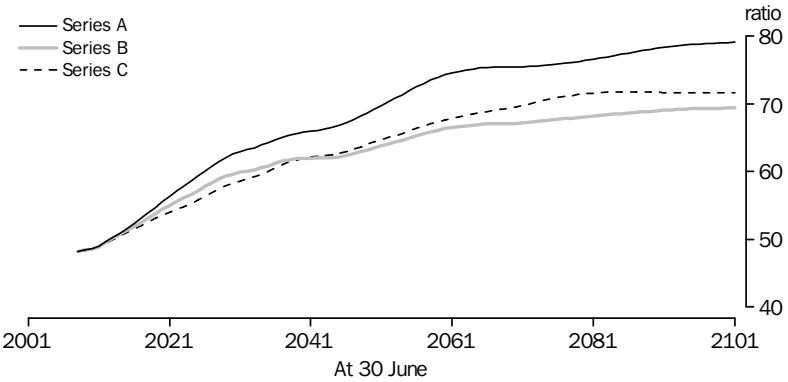
A dependency ratio of 100 denotes an equal number of non-working age and working age people. A ratio larger than 100 denotes more dependents than people of working age, while a ratio of less than 100 denotes fewer dependents than people of working age.

At 30 June 2007 there were 48 people in non-working age groups for every 100 working age people. The dependency ratio is projected to increase rapidly in all three main series from 2015, reaching between 65 (Series B) and 73 (Series A) in 2056, and increasing slightly thereafter, to between 69 (Series B) and 79 (Series A) in 2101.

In Series A, high fertility and high life expectancy result in increasing numbers of the non-working age population, resulting in the dependency ratio remaining the highest of the three main series throughout the projection period.

Series C projects lower dependency ratios than Series B until 2040, after which they remain higher. This is due to higher fertility in Series B, which adds to the 0–14 year age group early in the projection period, resulting in higher ratios than in Series C. As these children move into the 15–64 year age group they increase the working-age population, reducing the dependency ratio.

PROJECTED DEPENDENCY RATIO(a), Australia



(a) The sum of people aged 0–14 years and 65 years and over divided by the number of people aged 15–64 years, multiplied by 100.

International comparison—population ageing

United Nations population projections indicate that many other countries throughout the world may also experience population ageing over the next 50 years.

The proportion of people aged under 15 years is projected to decline for all countries presented in the table below. The proportion of people aged 65 years and over will more than double in China, Hong Kong, India, Indonesia and Papua New Guinea by 2050. Many countries, including Australia, are projected to have 20% or more of their population aged 65 years and over in 2050, while in Japan, Italy, Hong Kong and Greece, around 1 in 3 people will be aged 65 years and over.

PROJECTED POPULATION(a), Selected countries

	AT 30 JUNE 2005				AT 30 JUNE 2050			
Country	*Population*	*Persons aged under 15 years*	*Persons aged 15–64 years*	*Persons aged 65 years and over*	*Population*	*Persons aged under 15 years*	*Persons aged 15–64 years*	*Persons aged 65 years and over*
	million	%	%	%	million	%	%	%
Australia(b)	20.4	19.7	67.3	12.9	34.0	16.7	61.2	22.2
Canada	32.3	17.6	69.2	13.1	42.8	15.6	58.7	25.7
China	1 313.0	21.6	70.7	7.7	1 408.8	15.3	61.0	23.7
Greece	11.1	14.3	67.4	18.3	10.8	13.3	55.0	31.7
Hong Kong (SAR of China)	7.1	15.1	72.9	12.0	9.0	11.2	56.1	32.6
India	1 134.4	33.0	62.0	5.0	1 658.3	18.2	67.3	14.5
Indonesia	226.1	28.4	66.1	5.5	296.9	17.5	64.0	18.6
Italy	58.6	14.0	66.3	19.7	54.6	13.3	54.0	32.6
Japan	127.9	13.9	66.4	19.7	102.5	11.3	51.1	37.7
Netherlands	16.3	18.4	67.4	14.2	17.2	16.0	58.8	25.2
New Zealand	4.1	21.5	66.4	12.2	5.2	16.1	59.7	24.1
Papua New Guinea	6.1	40.6	57.0	2.4	11.2	23.8	68.9	7.3
United Kingdom	60.2	18.0	66.0	16.1	68.7	16.2	59.7	24.1
United States of America	299.8	20.8	66.9	12.3	402.4	17.3	61.7	21.0
World	**6 514.8**	**28.3**	**64.4**	**7.3**	**9 191.3**	**19.8**	**63.9**	**16.2**

(a) Medium variant.

(b) Series B.

Source: ABS for projected population of Australia. Population Division, United Nations Secretariat, United Nations web site (2007), *World Population Prospects: The 2006 Revision* <http://esa.un.org/unpp/> for selected countries and world projected populations.

CHAPTER 4 PROJECTION RESULTS — STATES AND TERRITORIES

STATES AND TERRITORIES

Projections of the states and territories reveal the size, structure and distribution of their future populations. Unless otherwise stated the following analysis uses Series A and C to depict a range, although not the full range, of future outcomes. At times, to simplify the analysis, Series B has been chosen.

Series B projects continuing population growth over the next 50 years in all states and territories except Tasmania, where the population increases slowly before levelling out by around 2040 and then decreasing marginally from 2051 onwards. Between 30 June 2007 and 2056 the populations of both Queensland and Western Australia are projected to more than double (with increases of 109% and 104% respectively) while the Northern Territory is projected to increase by 87%. In comparison, the projected growth for Australia for the same period is 69%.

Changing state/territory share

In Series B New South Wales is projected to remain the most populous state in Australia, although its share of Australia's population will decline slightly, from 33% at 30 June 2007 to 29% in 2056. Queensland is projected to replace Victoria in 2050 as the second most populous state, with Queensland's share of Australia's population increasing from 20% to 25% over the next 50 years, and Victoria's share decreasing marginally, from 25% to 24%.

In Series B Western Australia will increase its share of Australia's population from 10% at 30 June 2007 to 12% in 2056, while South Australia's share will decline from 7.5% to 6.2% over the same period. Similarly, Tasmania's share will decline from 2.3% at 30 June 2007 to 1.6% in 2056. The Northern Territory's share will remain at a similar level, increasing from 1.0% to 1.1%. Likewise the Australian Capital Territory's share will change only marginally, decreasing from 1.6% to 1.4%.

CAPITAL CITY/BALANCE OF STATE

In Series B all capital cities are projected to increase their share of their respective state or territory population over the next 50 years. By 2056 Melbourne, Perth and Adelaide will have the largest shares, with 80% of all Victorians living in Melbourne (73% in 2007), 78% of Western Australians living in Perth (74% in 2007), and 75% of South Australians living in Adelaide (73% in 2007). Hobart will experience the largest gain in share, increasing by 7 percentage points to 49% of Tasmania's population in 2056 (from 42% in 2007). Brisbane will experience the smallest gain, increasing to 46% (from 44% in 2007). Sydney's share of New South Wales' population is projected to increase to 68% in 2056 (from 63% in 2007) while the Darwin's share is projected to increase to 61% (from 55% in 2007).

Conversely, each balance of state/territory's share will decrease over the period 30 June 2007 to 2056. The populations of the balances of Queensland and Tasmania will remain larger than their respective capital cities, with 55% and 51% of their state's population respectively.

CAPITAL CITY/BALANCE OF STATE *continued*

As a result, further concentration of Australia's population within the capital cities will occur. At 30 June 2007, 64% of Australians lived in capital cities; by 2056 this proportion is projected to increase to 67%.

Sydney and Melbourne

Series B projects Sydney to remain the most populous city in Australia, with 7.0 million people in 2056, closely followed by Melbourne with 6.8 million people.

However, in Series A Melbourne's population is projected to exceed that of Sydney in 2039. This is mainly due to the large migration losses for Sydney (which is assumed to lose a net 48,000 people per year to the rest of Australia in this scenario), while Melbourne loses only a net 15,000 people per year to the rest of Australia. See page 35 for assumed net internal migration for the capital cities.

Other capital cities

Perth is projected to experience the highest percentage growth (116%) of Australia's capital cities, increasing from 1.6 million people at 30 June 2007 to 3.4 million in 2056 (Series B). The second highest percentage growth is projected for Brisbane, with an increase of 114%, from 1.9 million people at 30 June 2007 to 4.0 million in 2056.

Darwin's population is also projected to double in size over the projection period, from 117,400 people at 30 June 2007 to 243,000 people in 2056.

The remaining capital cities are projected to experience smaller percentage increases, with the Australian Capital Territory increasing by 50% (from 339,800 at 30 June 2007 to 509,300 in 2056), Adelaide increasing 43% (from 1.2 million to 1.7 million) and Hobart increasing 35% (from 207,400 people to 279,700 people).

POPULATION SIZE, Observed and projected

Capital city/balance of state	AT 30 JUNE 2006(a) *Observed*	AT 30 JUNE 2007(b) *Observed*	AT 30 JUNE 2026 *Series A*	*Series B*	*Series C*	AT 30 JUNE 2056 *Series A*	*Series B*	*Series C*
			NUMBER ('000)					
Sydney	4 282.0	4 334.0	5 487.2	5 426.3	5 358.2	7 649.0	6 976.8	6 565.2
Balance of New South Wales	2 534.1	2 554.0	3 189.9	2 968.8	2 780.2	4 140.1	3 233.4	2 646.1
Total New South Wales	*6 816.1*	*6 888.0*	*8 677.0*	*8 395.1*	*8 138.5*	*11 789.1*	*10 210.2*	*9 211.3*
Melbourne	3 743.0	3 805.8	5 272.3	5 038.1	4 861.7	7 970.7	6 789.2	6 100.9
Balance of Victoria	1 383.5	1 399.1	1 626.1	1 624.1	1 636.3	1 879.6	1 749.1	1 742.9
Total Victoria	*5 126.5*	*5 204.8*	*6 898.3*	*6 662.2*	*6 498.0*	*9 850.3*	*8 538.3*	*7 843.8*
Brisbane	1 819.8	1 857.0	2 908.0	2 681.1	2 465.6	4 955.1	3 979.3	3 237.0
Balance of Queensland	2 271.1	2 324.5	3 645.4	3 356.9	3 129.7	5 966.3	4 759.6	3 998.2
Total Queensland	*4 090.9*	*4 181.4*	*6 553.3*	*6 038.0*	*5 595.2*	*10 921.3*	*8 738.9*	*7 235.2*
Adelaide	1 145.8	1 158.0	1 410.8	1 384.5	1 391.8	1 848.5	1 651.8	1 623.7
Balance of South Australia	422.1	426.2	531.5	499.8	451.0	691.4	552.7	406.7
Total South Australia	*1 567.9*	*1 584.2*	*1 942.3*	*1 884.4*	*1 842.9*	*2 539.9*	*2 204.5*	*2 030.4*
Perth	1 518.7	1 554.1	2 455.2	2 267.6	2 112.1	4 164.4	3 358.4	2 815.5
Balance of Western Australia	540.6	552.0	796.8	732.9	660.5	1 207.6	935.0	702.3
Total Western Australia	*2 059.4*	*2 106.1*	*3 252.0*	*3 000.5*	*2 772.7*	*5 372.0*	*4 293.4*	*3 517.7*
Hobart	205.5	207.4	266.8	245.3	228.2	367.2	279.7	224.0
Balance of Tasmania	284.5	286.0	338.5	307.0	277.5	411.1	291.2	202.6
Total Tasmania	*490.0*	*493.4*	*605.3*	*552.3*	*505.7*	*778.3*	*571.0*	*426.6*
Darwin	114.4	117.4	189.3	165.2	142.4	334.9	243.0	169.2
Balance of Northern Territory	96.3	97.5	140.1	119.8	100.8	238.1	158.6	94.9
Total Northern Territory	*210.6*	*214.9*	*329.4*	*285.0*	*243.3*	*573.0*	*401.6*	*264.2*
Total Australian Capital Territory	*334.1*	*339.8*	*462.5*	*416.5*	*373.0*	*683.2*	*509.3*	*374.2*
Total capital cities(c)	*13 163.3*	*13 373.4*	*18 452.0*	*17 624.7*	*16 933.0*	*27 973.0*	*23 787.5*	*21 109.6*
Total balance of state	*7 532.2*	*7 639.3*	*10 268.2*	*9 609.2*	*9 036.1*	*14 534.2*	*11 679.6*	*9 793.7*
Australia(d)	**20 697.9**	**21 015.0**	**28 723.0**	**27 236.7**	**25 971.9**	**42 510.4**	**35 470.0**	**30 906.1**

(a) Final estimated resident population.
(b) Preliminary estimated resident population, base population.
(c) Includes the Australian Capital Territory.
(d) Includes Other Territories.

CAPITAL CITY/BALANCE OF STATE POPULATION SHARE, Observed and projected

	AT 30 JUNE 2006(a)	AT 30 JUNE 2007(b)	AT 30 JUNE 2026			AT 30 JUNE 2056		
Capital city/balance of state	*Observed*	*Observed*	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*
			SHARE OF STATE (%)					
Sydney	62.8	62.9	63.2	64.6	65.8	64.9	68.3	71.3
Balance of New South Wales	37.2	37.1	36.8	35.4	34.2	35.1	31.7	28.7
Total New South Wales	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Melbourne	73.0	73.1	76.4	75.6	74.8	80.9	79.5	77.8
Balance of Victoria	27.0	26.9	23.6	24.4	25.2	19.1	20.5	22.2
Total Victoria	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Brisbane	44.5	44.4	44.4	44.4	44.1	45.4	45.5	44.7
Balance of Queensland	55.5	55.6	55.6	55.6	55.9	54.6	54.5	55.3
Total Queensland	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Adelaide	73.1	73.1	72.6	73.5	75.5	72.8	74.9	80.0
Balance of South Australia	26.9	26.9	27.4	26.5	24.5	27.2	25.1	20.0
Total South Australia	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Perth	73.7	73.8	75.5	75.6	76.2	77.5	78.2	80.0
Balance of Western Australia	26.3	26.2	24.5	24.4	23.8	22.5	21.8	20.0
Total Western Australia	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Hobart	41.9	42.0	44.1	44.4	45.1	47.2	49.0	52.5
Balance of Tasmania	58.1	58.0	55.9	55.6	54.9	52.8	51.0	47.5
Total Tasmania	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Darwin	54.3	54.6	57.5	58.0	58.5	58.5	60.5	64.1
Balance of Northern Territory	45.7	45.4	42.5	42.0	41.5	41.5	39.5	35.9
Total Northern Territory	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

POPULATION DISTRIBUTION, Observed and projected

Capital city/balance of state	AT 30 JUNE 2006(a) *Observed*	AT 30 JUNE 2007(b) *Observed*	AT 30 JUNE 2026 *Series A*	*Series B*	*Series C*	AT 30 JUNE 2056 *Series A*	*Series B*	*Series C*
			DISTRIBUTION (%)					
Sydney	20.7	20.6	19.1	19.9	20.6	18.0	19.7	21.2
Balance of New South Wales	12.2	12.2	11.1	10.9	10.7	9.7	9.1	8.6
Total New South Wales	*32.9*	*32.8*	*30.2*	*30.8*	*31.3*	*27.7*	*28.8*	*29.8*
Melbourne	18.1	18.1	18.4	18.5	18.7	18.7	19.1	19.7
Balance of Victoria	6.7	6.7	5.7	6.0	6.3	4.4	4.9	5.6
Total Victoria	*24.8*	*24.8*	*24.0*	*24.5*	*25.0*	*23.2*	*24.1*	*25.4*
Brisbane	8.8	8.8	10.1	9.8	9.5	11.7	11.2	10.5
Balance of Queensland	11.0	11.1	12.7	12.3	12.1	14.0	13.4	12.9
Total Queensland	*19.8*	*19.9*	*22.8*	*22.2*	*21.5*	*25.7*	*24.6*	*23.4*
Adelaide	5.5	5.5	4.9	5.1	5.4	4.3	4.7	5.3
Balance of South Australia	2.0	2.0	1.9	1.8	1.7	1.6	1.6	1.3
Total South Australia	*7.6*	*7.5*	*6.8*	*6.9*	*7.1*	*6.0*	*6.2*	*6.6*
Perth	7.3	7.4	8.5	8.3	8.1	9.8	9.5	9.1
Balance of Western Australia	2.6	2.6	2.8	2.7	2.5	2.8	2.6	2.3
Total Western Australia	*9.9*	*10.0*	*11.3*	*11.0*	*10.7*	*12.6*	*12.1*	*11.4*
Hobart	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7
Balance of Tasmania	1.4	1.4	1.2	1.1	1.1	1.0	0.8	0.7
Total Tasmania	*2.4*	*2.3*	*2.1*	*2.0*	*1.9*	*1.8*	*1.6*	*1.4*
Darwin	0.6	0.6	0.7	0.6	0.5	0.8	0.7	0.5
Balance of Northern Territory	0.5	0.5	0.5	0.4	0.4	0.6	0.4	0.3
Total Northern Territory	*1.0*	*1.0*	*1.1*	*1.0*	*0.9*	*1.3*	*1.1*	*0.9*
Total Australian Capital Territory	*1.6*	*1.6*	*1.6*	*1.5*	*1.4*	*1.6*	*1.4*	*1.2*
Total capital cities(c)	*63.6*	*63.6*	*64.2*	*64.7*	*65.2*	*65.8*	*67.1*	*68.3*
Total balance of state	*36.4*	*36.4*	*35.7*	*35.3*	*34.8*	*34.2*	*32.9*	*31.7*
Australia(d)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Final estimated resident population.
(b) Preliminary estimated resident population, base population.
(c) Includes the Australian Capital Territory.
(d) Includes Other Territories.

Median age

At 30 June 2007 Tasmania had the oldest population of the states and territories, with a median age of 39.1 years, followed by South Australia (38.9 years). The Northern Territory (31.1 years) and the Australian Capital Territory (34.5 years) had the youngest populations.

The median ages of all states and territories are projected to increase over the period 30 June 2007 to 2056, with Tasmania and South Australia remaining the oldest populations.

MEDIAN AGE, Observed and projected

	AT 30 JUNE 2006(a)	AT 30 JUNE 2007(b)	AT 30 JUNE 2026			AT 30 JUNE 2056		
	Observed	*Observed*	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*
New South Wales	36.8	36.9	39.1	39.8	40.8	42.5	42.8	45.5
Victoria	36.7	36.9	38.8	39.5	40.5	42.1	42.5	45.1
Queensland	36.0	36.2	37.9	38.9	40.3	41.3	42.1	45.0
South Australia	38.8	38.9	40.8	41.4	42.4	43.8	43.9	46.6
Western Australia	36.2	36.4	38.1	39.2	40.5	41.4	42.1	45.0
Tasmania	38.8	39.1	41.5	42.9	44.7	44.9	45.7	50.0
Northern Territory	30.9	31.1	32.6	33.3	34.2	33.6	34.5	36.6
Australian Capital Territory	34.4	34.5	36.5	37.5	39.0	39.0	39.8	43.0
Australia(c)	**36.6**	**36.8**	**38.7**	**39.5**	**40.7**	**41.9**	**42.4**	**45.2**

(a) Final estimated resident population.
(b) Preliminary estimated resident population, base population.
(c) Includes Other Territories.

Population turning points

The populations of most states and territories are projected to continue to increase between 30 June 2007 and 2056. However, in some scenarios turning points will be reached for some states and territories at which the population will peak and then decrease.

In Series A the populations of all states and territories are projected to continue to increase between 30 June 2007 and 2056.

In Series B only Tasmania reaches a turning point during the projection period, peaking at 571,200 in 2050 and slowly decreasing thereafter.

In Series C only the populations of Tasmania and the Australian Capital Territory will reach turning points during the projection period. In this scenario Tasmania's population reaches a peak of 508,400 in 2020, while the population of the Australian Capital Territory peaks at 379,400 people in 2040.

The populations of all capital cities are projected to continue to increase throughout the projection period in all series except Series C, in which the population of Hobart reaches a peak of 230,900 in 2036.

POPULATION TURNING POINTS(a)

	CAPITAL CITY			BALANCE OF STATE			TOTAL		
	Series A	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*	*Series A*	*Series B*	*Series C*
	year	year	year	year	year	year	year	year	year
New South Wales	(b)	(b)	(b)	(b)	(b)	2033	(b)	(b)	(b)
Victoria	(b)	(b)	(b)	(b)	(b)	2055	(b)	(b)	(b)
Queensland	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)	(b)
South Australia	(b)	(b)	(b)	(b)	(b)	2027	(b)	(b)	(b)
Western Australia	(b)	(b)	(b)	(b)	(b)	2050	(b)	(b)	(b)
Tasmania	(b)	(b)	2036	(b)	2031	2010	(b)	2050	2020
Northern Territory	(b)	(b)	(b)	(b)	(b)	2020	(b)	(b)	(b)
Australian Capital Territory	. .	. .	. .	. .	. .	. .	(b)	(b)	2040
Australia(c)	. .	. .	. .	. .	. .	. .	(b)	(b)	(b)

. . not applicable
(a) Year in which population peaks, based on unrounded figures.
(b) Population has no turning point.
(c) Includes Other Territories.

Alternative scenarios to Series A, B and C

For New South Wales, Victoria and South Australia, Series A and C do not depict the highest or lowest population outcomes. This is due to the relationship of migration flows between the states and territories, whereby if some states (primarily Queensland and Western Australia) receive large net interstate migration gains (as assumed in Series A) then others (primarily New South Wales, Victoria and South Australia) must experience correspondingly large losses.

For New South Wales, Victoria and South Australia, Series 3 (that is, high fertility, high life expectancy at birth, high net overseas migration but small interstate migration flows—see table on page 10) presents the highest future populations while Series 52 (low fertility, medium life expectancy at birth, low net overseas migration but large interstate migration flows) presents the lowest. These scenarios are discussed in the following state/territory analysis under the heading 'Alternative scenarios to Series A, B, and C'.

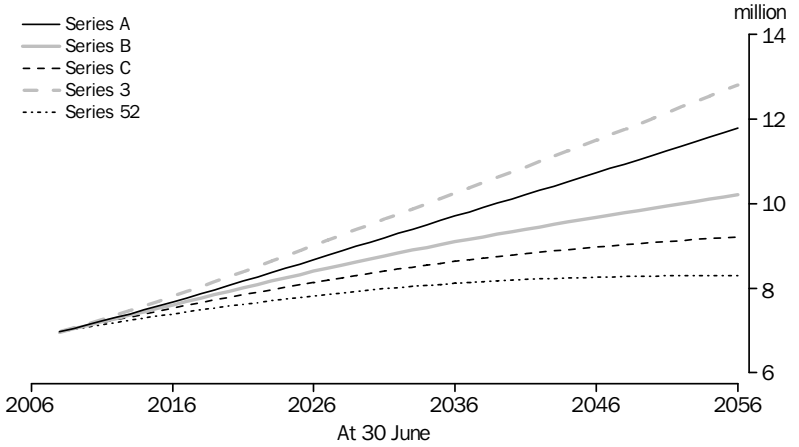
NEW SOUTH WALES

Population size

The population of New South Wales is projected to increase continuously between 30 June 2007 and 2056 in the three main series.

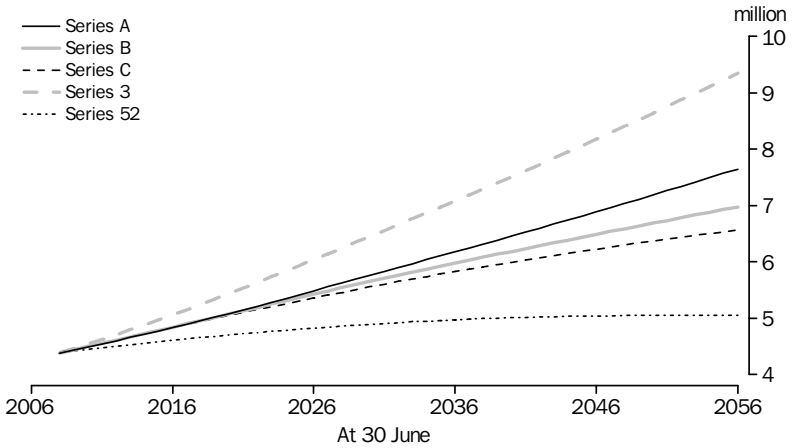
Of the three main series, Series A projects the largest population for New South Wales, increasing from 6.9 million people at 30 June 2007 to 11.8 million in 2056. Series B projects an increase to 10.2 million people, while the smallest population of the three main series is projected in Series C (9.2 million people).

PROJECTED POPULATION, New South Wales



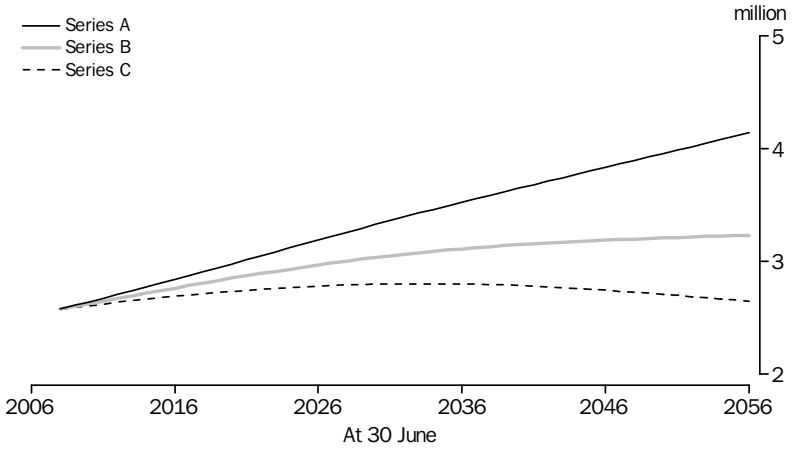
Most of New South Wales' growth is projected to occur in Sydney, where the population is projected to increase from 4.3 million at 30 June 2007 to between 6.6 million and 7.6 million in 2056. Population growth in the balance of New South Wales is smaller, increasing from 2.6 million at 30 June 2007 to between 3.2 million (Series B) and 4.1 million (Series A) in 2056. In Series C the population of the balance of New South Wales peaks in 2033 (2.8 million people) and then gradually declines, reaching 2.6 million in 2056.

PROJECTED POPULATION, Sydney



Population size continued

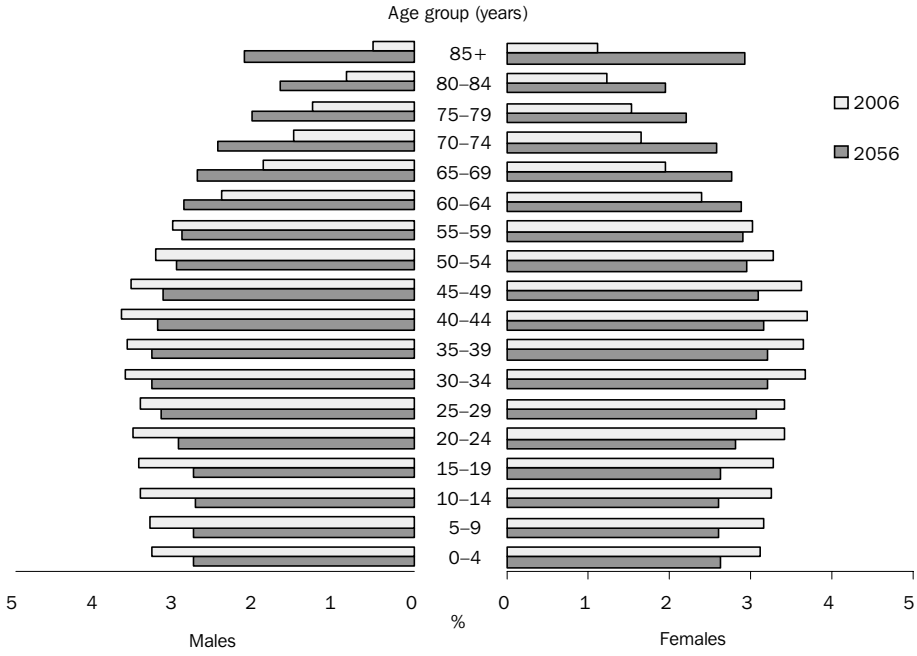
PROJECTED POPULATION, Balance of New South Wales



Age/sex structure

The median age of the population of New South Wales is projected to increase from 36.9 years at 30 June 2007 to between 42.5 years and 45.5 years in 2056. The graph below presents the age structure for New South Wales in 2006 and 2056.

PROJECTED POPULATION, Series B, New South Wales—At 30 June



Births and deaths

In 2006–07 there were 90,300 births and 45,900 deaths in New South Wales, resulting in natural increase of 44,400 people. In Series C natural increase will decline, with the number of deaths first exceeding the number of births in 2043–44. In Series A and B natural increase will continue, as deaths do not exceed births during the projection period.

Alternative scenarios to Series A, B and C

The combination of assumptions in Series 3 results in the largest population for New South Wales in 2056 (12.8 million people). This is due to the comparatively small interstate migration flows (a net –13,000 people per year for New South Wales) assumed in this series. Conversely, Series 52, which assumes comparatively large interstate migration flows (a net –29,000 people per year for New South Wales) projects the smallest population by 2056 (8.3 million people).

Similarly, Series 3 projects the highest population for Sydney (9.3 million people in 2056) and Series 52 projects the smallest population (5.1 million people).

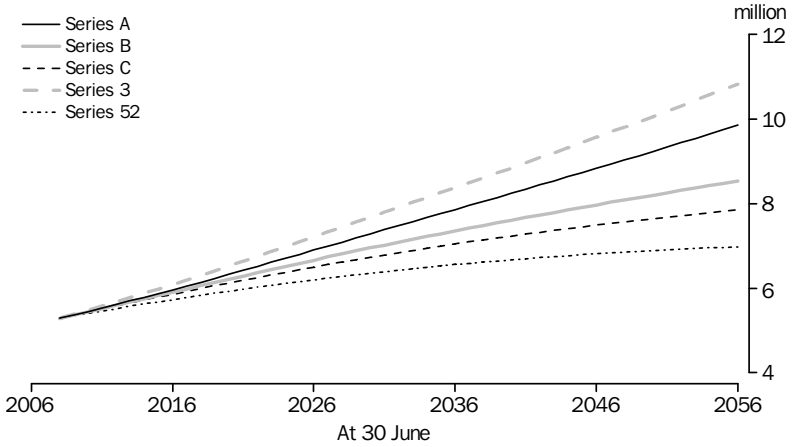
VICTORIA

Population size

The population of Victoria is projected to increase continuously between 30 June 2007 and 2056 in the three main series.

Of all the main series, Series A projects the largest population for Victoria, increasing from 5.2 million at 30 June 2007 to 9.9 million in 2056. Series B projects an increase to 8.5 million people while the smallest population (7.8 million) of the three main series is projected in Series C.

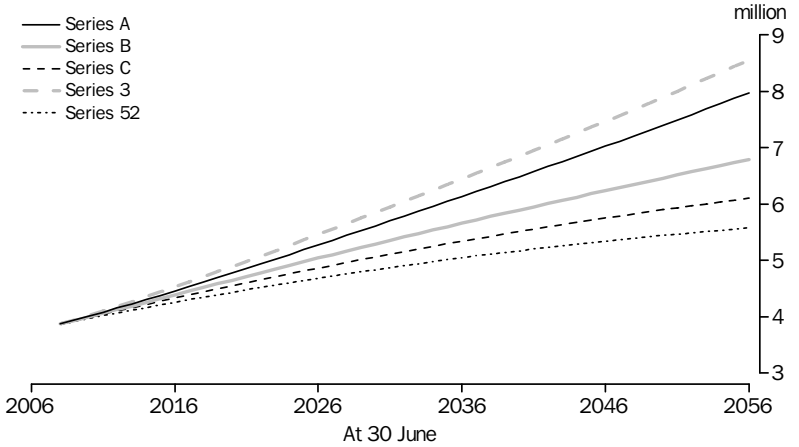
PROJECTED POPULATION, Victoria



From 3.8 million at 30 June 2007, Melbourne's population is projected to increase continuously to between 6.1 million (Series C) and 8.0 million (Series A) in 2056.

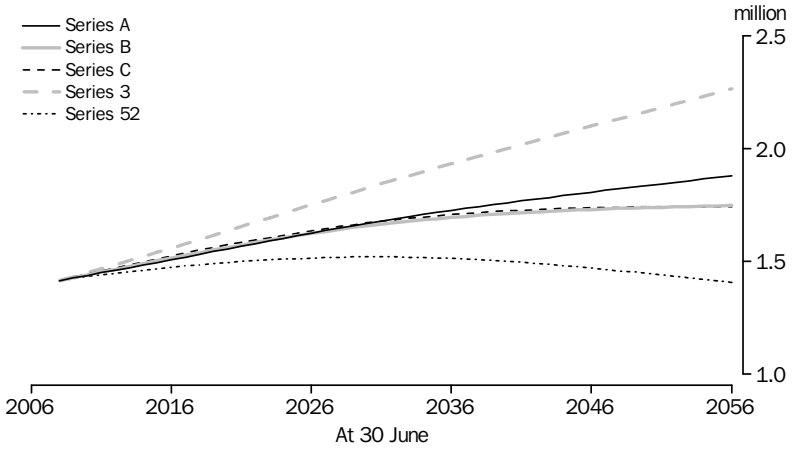
Population growth in the balance of Victoria will be smaller, from 1.4 million people at 30 June 2007 to between 1.7 million and 1.9 million in 2056.

PROJECTED POPULATION, Melbourne



Population size continued

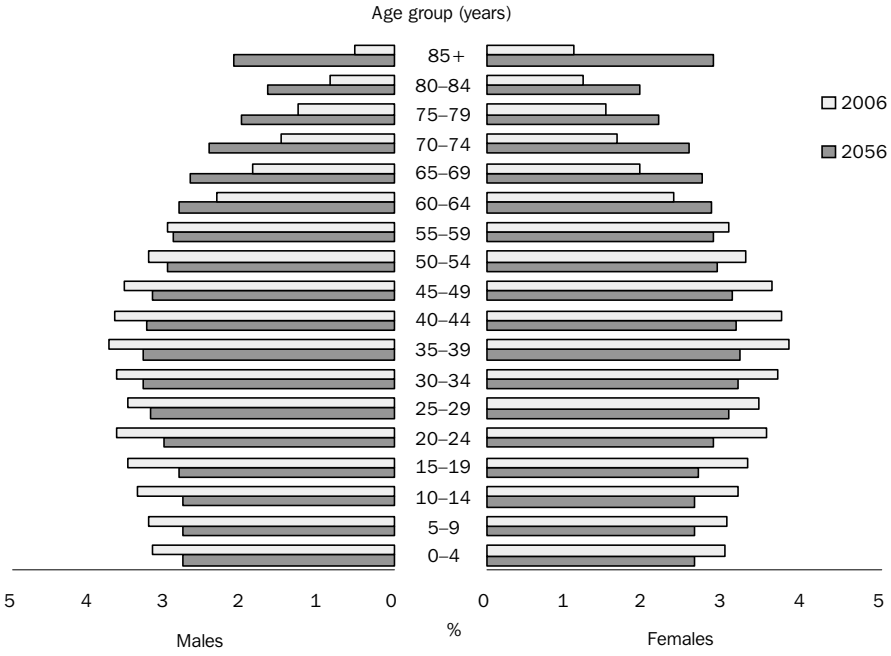
PROJECTED POPULATION, Balance of Victoria



Age/sex structure

The median age of the population of Victoria is projected to increase from 36.9 years at 30 June 2007 to between 42.1 years and 45.1 years in 2056. The graph below presents the age structure for Victoria in 2006 and 2056.

PROJECTED POPULATION, Series B, Victoria—At 30 June



Births and deaths

In 2006–07 there were 67,300 births and 34,000 deaths in Victoria, resulting in natural increase of 33,300 people. In Series A and B natural increase is projected to continue, as deaths do not exceed births during the period 30 June 2007 to 2056. In Series C natural increase is projected to decline, with the number of deaths first exceeding the number of births in 2046–47.

Alternative scenarios to Series A, B and C

The combination of assumptions in Series 3 results in the largest population for Victoria in 2056 (10.8 million people). This is due to the small interstate migration gains assumed for Victoria (a net 2,000 people per year) in this series. Conversely, Series 52, which assumes the greatest interstate migration losses for Victoria (a net –13,000 people per year) projects the smallest population by 2056 (7.0 million).

Similarly, Series 3 projects the highest population for both Melbourne (8.6 million people in 2056) and balance of Victoria (2.3 million) and Series 52 projects the smallest population (5.6 million for Melbourne and 1.4 million for balance of Victoria).

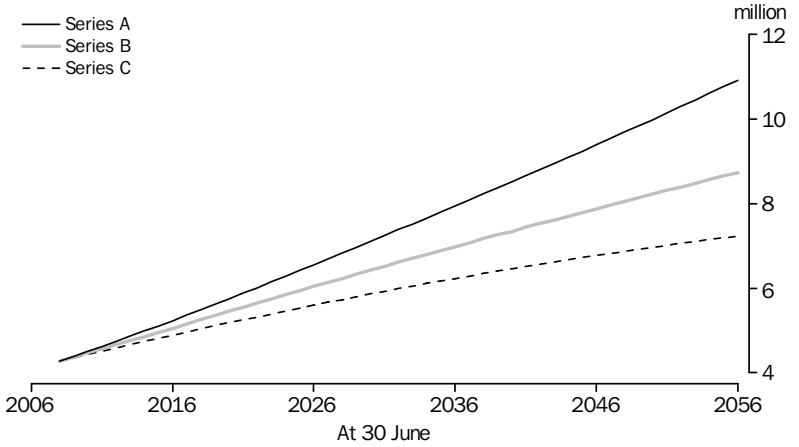
QUEENSLAND

Population size

The population of Queensland is projected to increase continuously between 30 June 2007 and 2056 in the three main series.

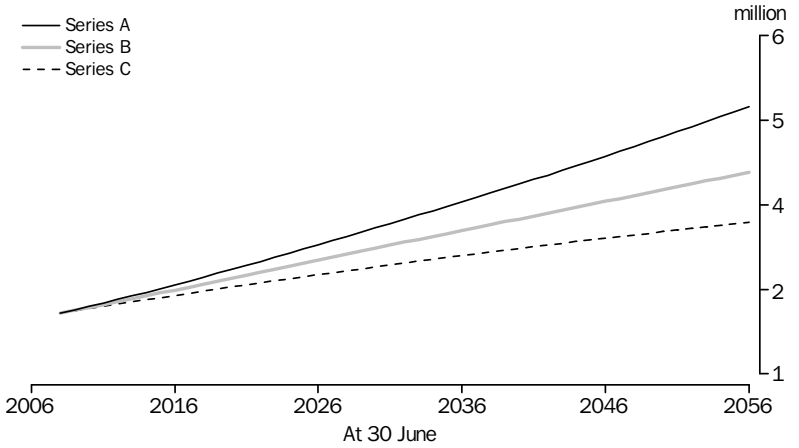
Series A projects the largest population for Queensland, increasing from 4.2 million people at 30 June 2007 to 10.9 million in 2056. Series B projects an increase to 8.7 million people, while the smallest population of the three main series is projected in Series C (7.2 million people).

PROJECTED POPULATION, Queensland



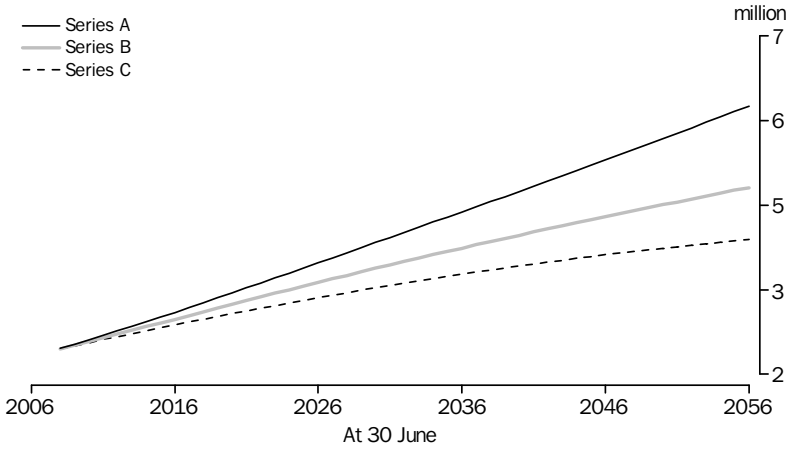
Queensland's capital city and balance of state populations increase continuously throughout the projection period in the three main series. The population of Brisbane is projected to increase from 1.9 million at 30 June 2007 to between 3.2 million and 5.0 million in 2056, while the balance of Queensland is projected to increase from 2.3 million to between 4.0 million and 6.0 million. The balance of Queensland continues to make up more than half of Queensland's population throughout the projection period.

PROJECTED POPULATION, Brisbane



Population size continued

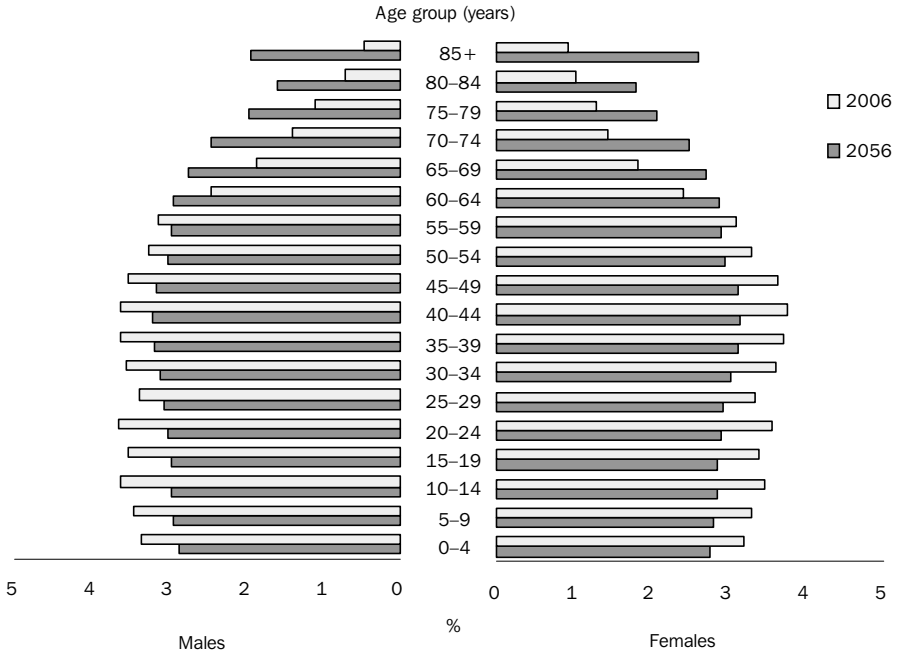
PROJECTED POPULATION, Balance of Queensland



Age/sex structure

The median age of the population of Queensland is projected to increase from 36.2 years at 30 June 2007 to between 41.3 years and 45.0 years in 2056. The graph below presents the age structure for Queensland in 2006 and 2056.

PROJECTED POPULATION, Series B, Queensland—At 30 June



Births and deaths

In 2006–07 there were 54,600 births and 24,600 deaths in Queensland, resulting in natural increase of 30,000 people. In Series A and B natural increase is projected to continue, as deaths do not exceed births during the period 30 June 2007 to 2056. In Series C natural increase is projected to decline, with the number of deaths first exceeding the number of births in 2053–54.

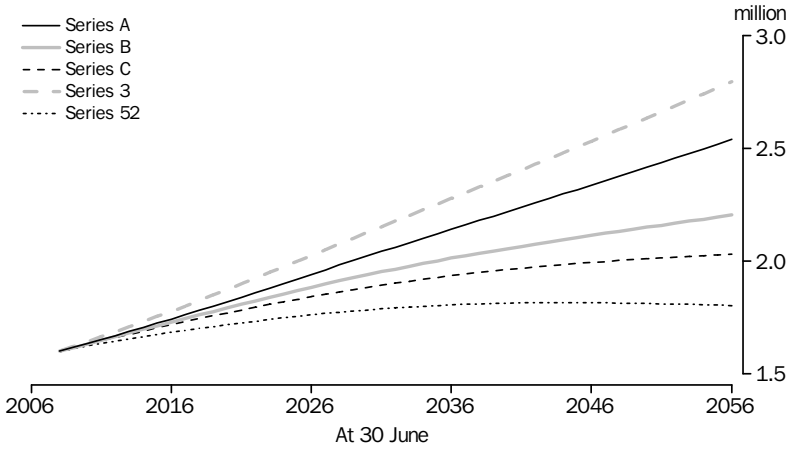
SOUTH AUSTRALIA

Population size

The population of South Australia is projected to increase continuously between 30 June 2007 and 2056 in the three main series.

Series A projects the largest population for South Australia, increasing from 1.6 million at 30 June 2007 to 2.5 million in 2056. Series B projects an increase to 2.2 million people, while the smallest population (2.0 million) is projected in Series C.

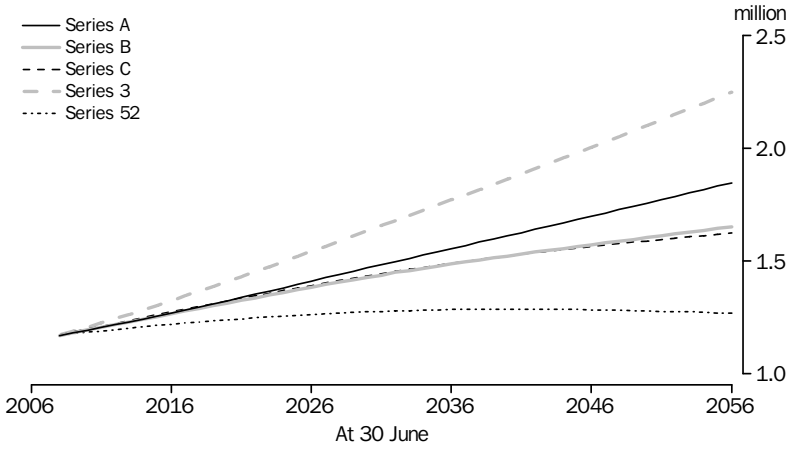
PROJECTED POPULATION, South Australia



Adelaide's population is projected to increase continuously in the three main series from 1.2 million at 30 June 2007 to between 1.6 million and 1.8 million in 2056.

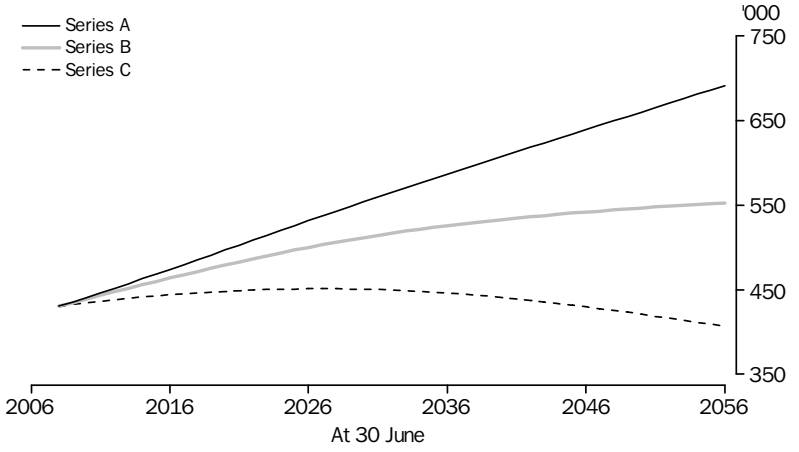
In two of the three main series the population of the balance of South Australia is projected to increase, from 426,200 at 30 June 2007 to 552,700 (Series B) and 691,400 (Series A) in 2056. In Series C the population is projected to increase marginally over the next twenty years, peaking at 451,100 in 2027, before declining to 406,700 in 2056.

PROJECTED POPULATION, Adelaide



Population size continued

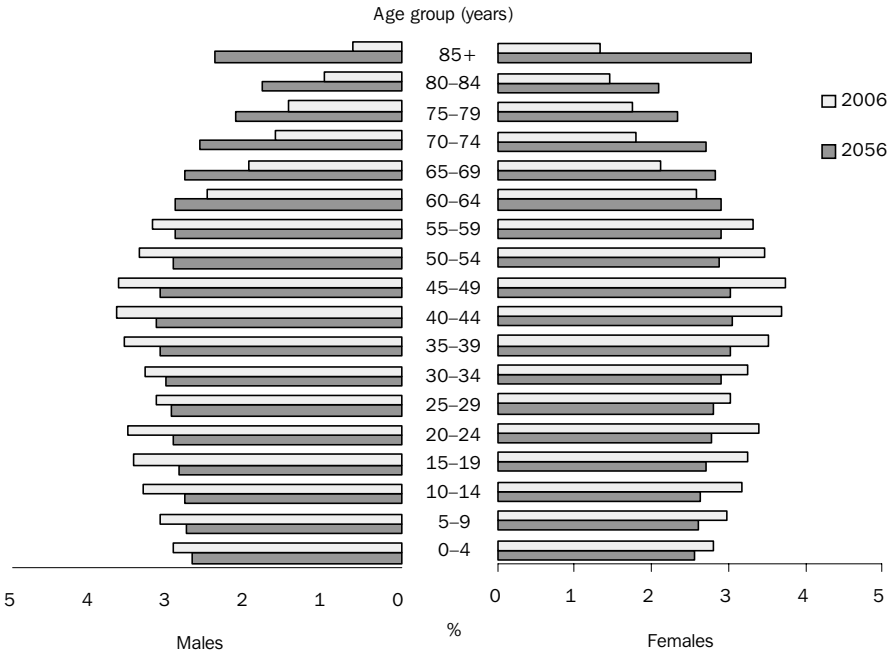
PROJECTED POPULATION, Balance of South Australia



Age/sex structure

At 30 June 2007 the median age of South Australia's population was 38.9 years, the second highest of the states and territories. By 2056 the median age is projected to increase to between 43.8 years and 46.6 years. The graph below presents the age structure for South Australia in 2006 and 2056.

PROJECTED POPULATION, Series B, South Australia—At 30 June



Births and deaths

In 2006–07 there were 18,700 births and 12,000 deaths in South Australia, resulting in natural increase of 6,700 people. In Series A and B natural increase is projected to continue, as deaths do not exceed births during the projection period. In Series C natural increase is projected to decline, with the number of deaths first exceeding the number of births in 2034–35.

Alternative scenarios to Series A, B and C

The combination of assumptions in Series 3 results in the largest population for South Australia in 2056 (2.8 million people). This is due to the relatively small interstate migration losses assumed for South Australia (a net –1,000 people per year) in this series. Conversely, Series 52, which assumes the greatest interstate migration losses for South Australia (a net –5,000 people per year) projects the smallest population by 2056 (1.8 million people).

Similarly, Series 3 projects the highest population for Adelaide (2.3 million people in 2056) and Series 52 projects the smallest population (1.3 million people).

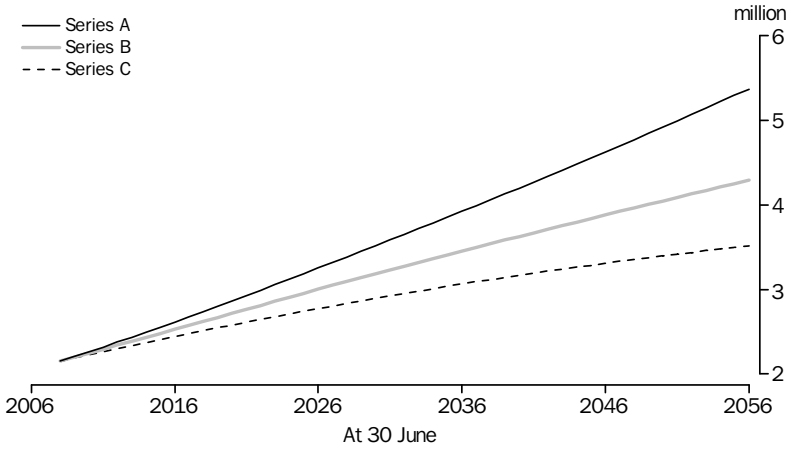
WESTERN AUSTRALIA

Population size

The population of Western Australia is projected to increase continuously between 30 June 2007 and 2056 in the three main series.

Series A projects the largest population for Western Australia, increasing from 2.1 million at 30 June 2007 to 5.4 million in 2056. Series B projects an increase to 4.3 million people, while the smallest population is projected in Series C (3.5 million people).

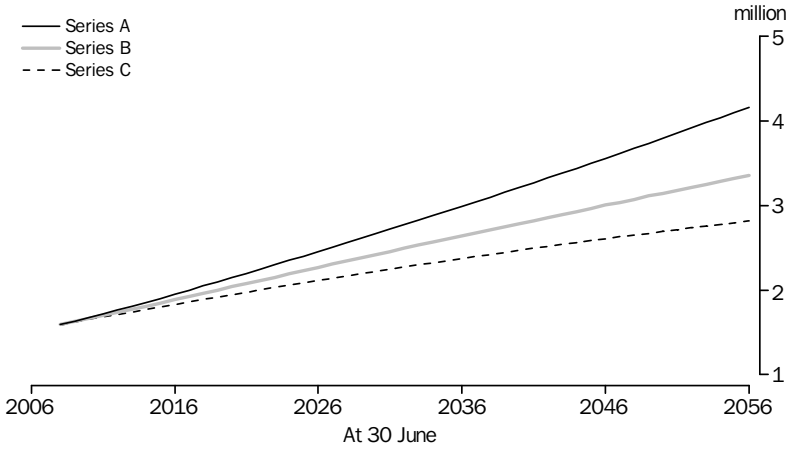
PROJECTED POPULATION, Western Australia



Most of Western Australia's growth is projected to occur in Perth, where the population increases continuously from 1.6 million at 30 June 2007 to between 2.8 million and 4.2 million in 2056.

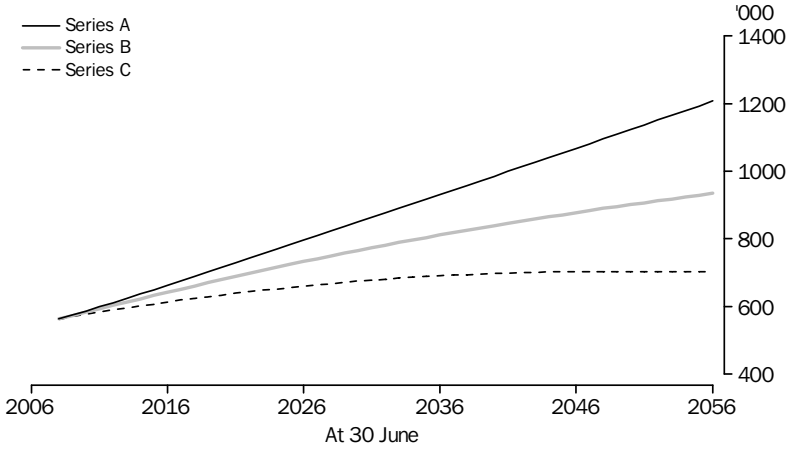
Population growth in the balance of Western Australia is projected to be smaller, with Series A projecting an increase to 1.2 million people in 2056 and Series B, an increase to 935,000. In Series C the balance of Western Australia's population increases slowly, levelling out by around 2040 and remaining steady thereafter (702,300 people in 2056).

PROJECTED POPULATION, Perth



Population size continued

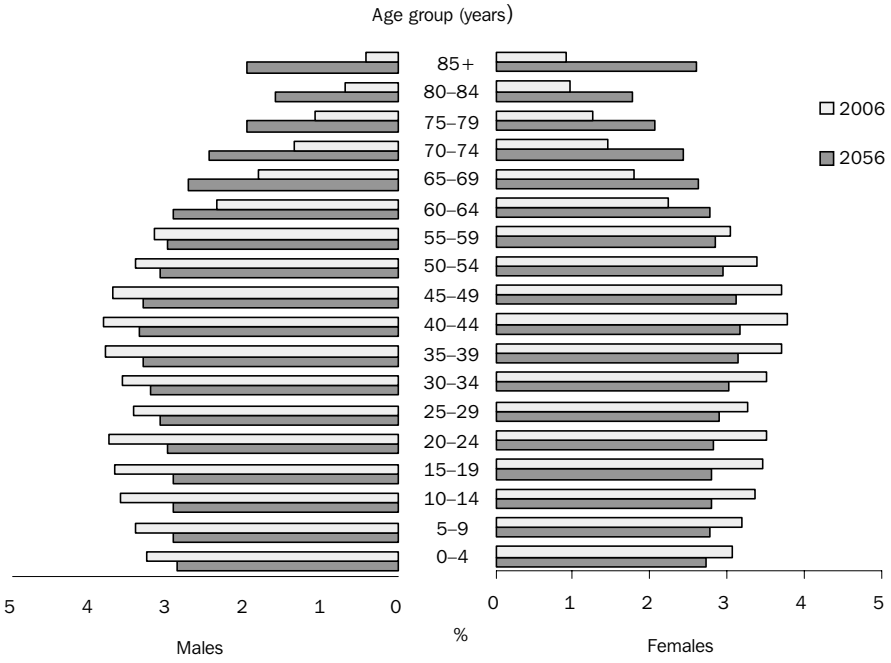
PROJECTED POPULATION, Balance of Western Australia



Age/sex structure

The median age of the population of Western Australia is projected to increase from 36.4 years at 30 June 2007 to between 41.4 years and 45.0 years in 2056. The graph below presents the age structure for Western Australia in 2006 and 2056.

PROJECTED POPULATION, Series B, Western Australia—At 30 June



Births and deaths

In 2006–07 there were 28,600 births and 11,800 deaths in Western Australia, resulting in natural increase of 16,800 people. In Series A and B natural increase is projected to continue, as deaths do not exceed births during the projection period. In Series C natural increase is projected to decline, with the number of deaths first exceeding the number of births in 2054–55.

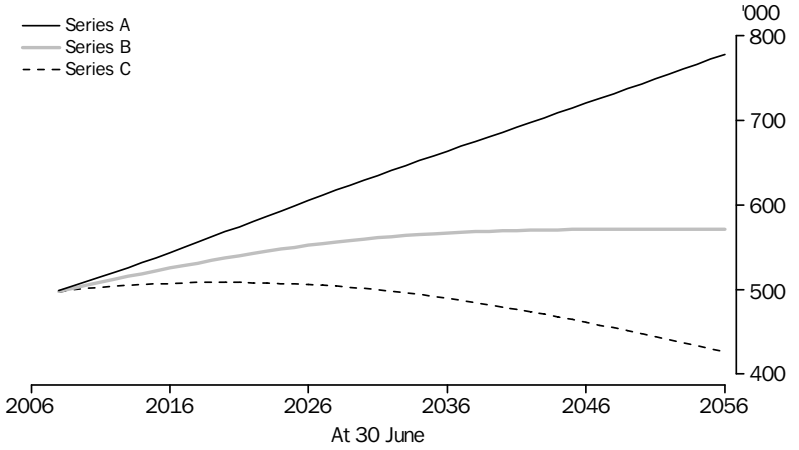
TASMANIA

Population size

The population of Tasmania is projected to increase in two of the three main series, and decline in the third.

Series A projects the largest population for Tasmania, increasing from 493,400 people at 30 June 2007 to 778,300 in 2056. In Series B Tasmania's population increases slowly before levelling out by around 2040 and then decreasing marginally from 2051 onwards (571,000 people in 2056). In Series C, Tasmania's population increases only slightly over the next decade and begins to decline from 2020 onwards. By 2056 Tasmania's population is projected to be 426,600 in this scenario.

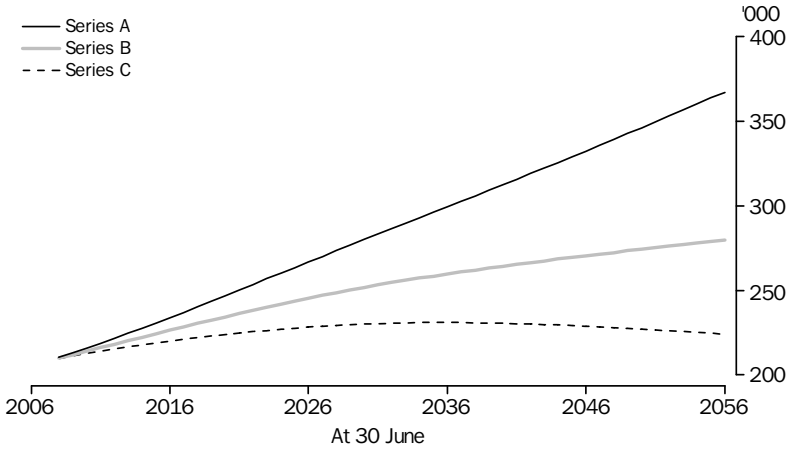
PROJECTED POPULATION, Tasmania



From 207,400 people at 30 June 2007, Hobart's population is projected to increase to between 224,000 and 367,200 in 2056.

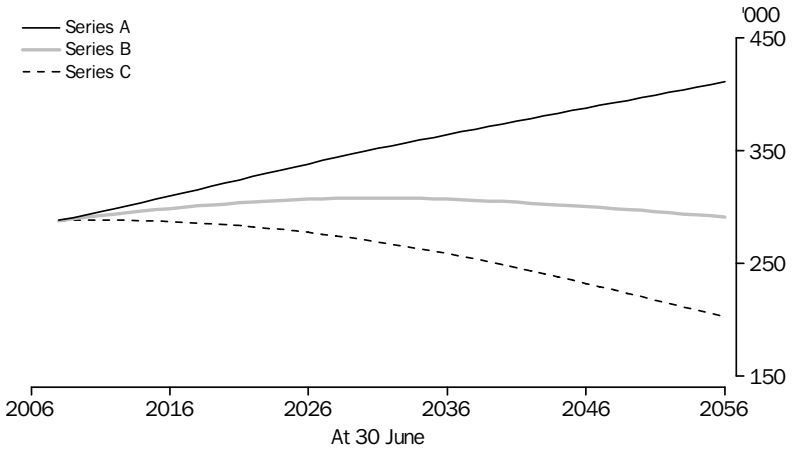
The population of the balance of Tasmania is projected to increase in Series A (from 286,000 at 30 June 2007 to 411,100 in 2056), but will decrease from 2031 onwards in Series B (reaching 291,200 in 2056) and from 2010 onwards in Series C (to 202,600 in 2056).

PROJECTED POPULATION, Hobart



Population size continued

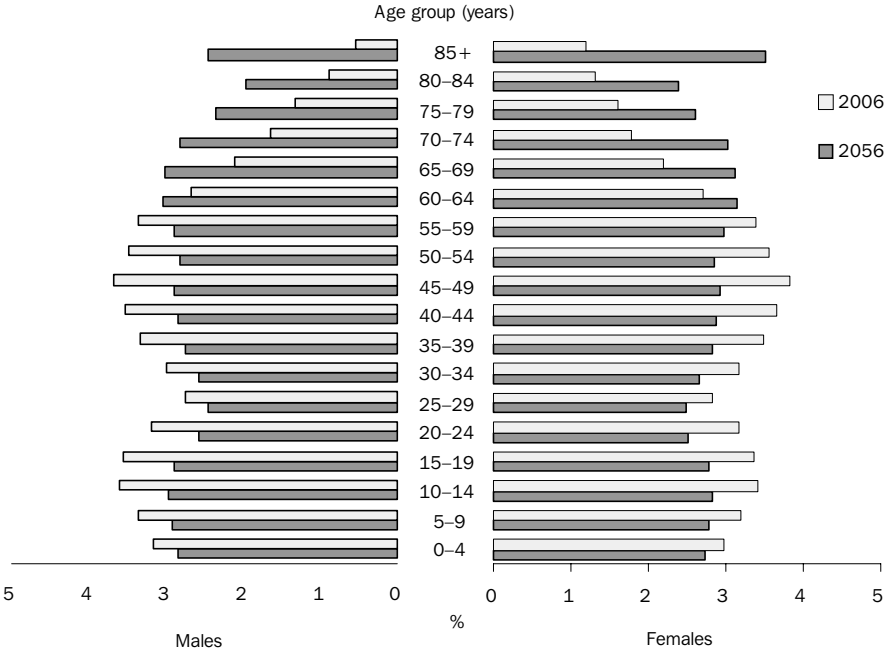
PROJECTED POPULATION, Balance of Tasmania



Age/sex structure

At 30 June 2007 Tasmania had the oldest population of the states and territories, with a median age of 39.1 years (compared to 36.8 years for Australia). This is projected to increase to between 44.9 years and 50.0 years in 2056. The graph below presents the age structure for Tasmania in 2006 and 2056.

PROJECTED POPULATION, Series B, Tasmania—At 30 June



Births and deaths

In 2006–07 there were 6,600 births and 4,000 deaths in Tasmania, resulting in natural increase of 2,600 people. In Series A, natural increase is projected to continue, as deaths do not exceed births during the projection period. In Series B and C natural increase is projected to decline, with deaths first exceeding births in 2035–36 and 2026–27 respectively.

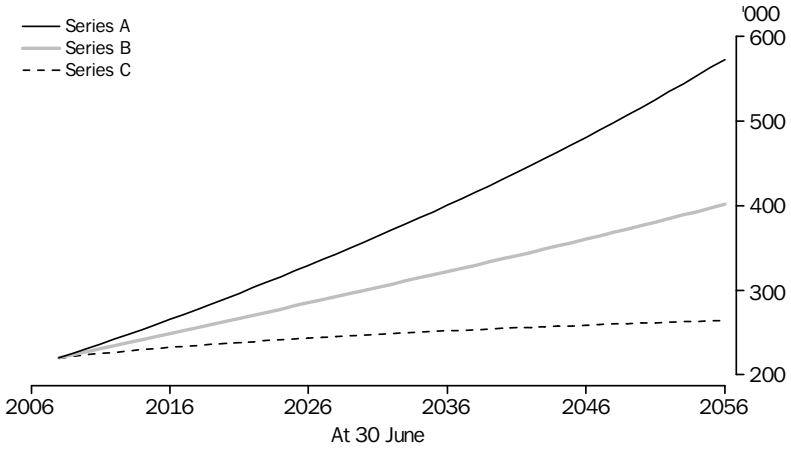
NORTHERN TERRITORY

Population size

The population of the Northern Territory is projected to increase continuously between 30 June 2007 and 2056 in the three main series.

Series A projects the largest population for the Northern Territory, increasing from 214,900 people at 30 June 2007 to 573,000 in 2056. Series B projects an increase to 401,600 in 2056, while in Series C only a relatively small increase in population is projected (reaching 264,200 people in 2056).

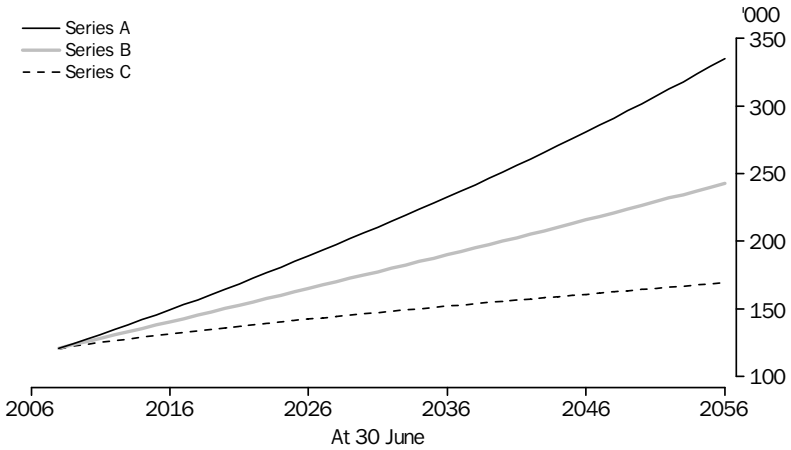
PROJECTED POPULATION, Northern Territory



From 117,400 people at 30 June 2007, Darwin's population is projected to increase to between 169,200 and 335,000 in 2056.

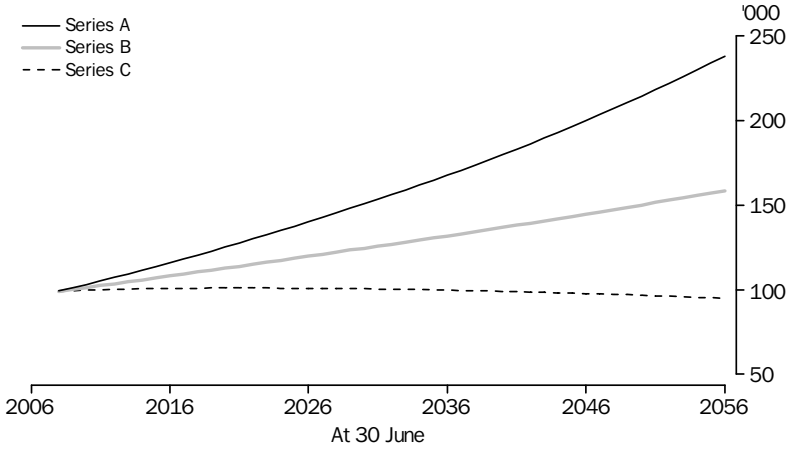
In two of the three main series the population of the balance of the Northern Territory is projected to increase, from 97,500 at 30 June 2007 to 158,600 (Series B) and 238,100 (Series A). In Series C the population increases only marginally over the next decade, peaking at 101,000 in 2020, before declining to 94,900 in 2056.

PROJECTED POPULATION, Darwin



Population size continued

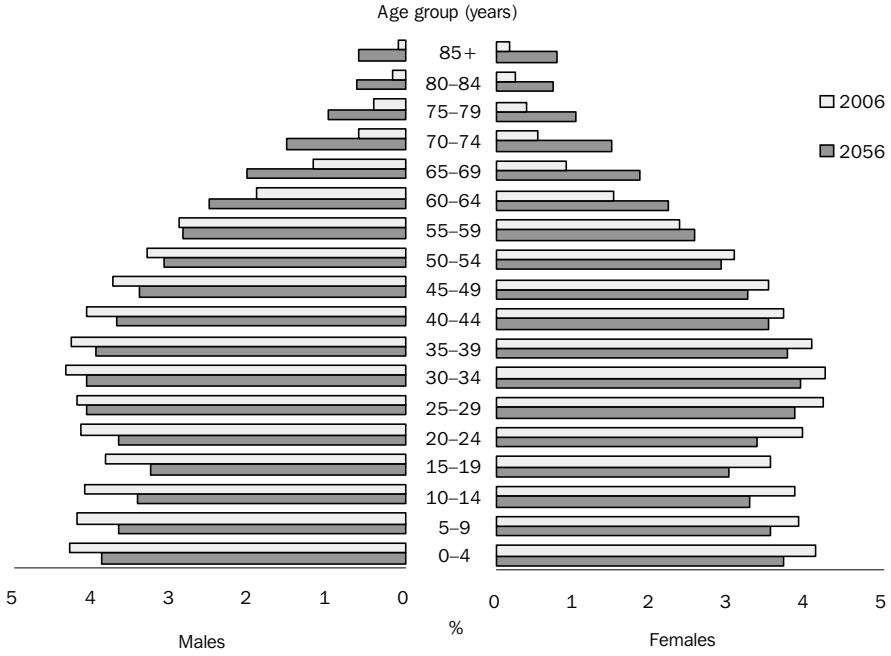
PROJECTED POPULATION, Balance of Northern Territory



Age/sex structure

The age structure of the Northern Territory is significantly different to other states and territories, with a median age of 31.1 years at 30 June 2007 (compared to 36.8 years for Australia). Due to comparatively high assumed fertility levels, the Northern Territory is projected to experience considerably less ageing of the population than other states and territories, with the median age increasing to between 33.6 years and 36.6 years in 2056. The graph below presents the age structure for the Northern Territory in 2006 and 2056.

PROJECTED POPULATION, Series B, Northern Territory—At 30 June



Births and deaths

In 2006–07 there were 3,700 births and 1,000 deaths in the Northern Territory, resulting in natural increase of 2,700 people. The Northern Territory is one of two states/territories in which all three main series project natural increase to continue throughout the projection period. In Series A natural increase will steadily rise, in Series B natural increase will slowly rise, while in Series C natural increase will decline, but remain positive over the projection period.

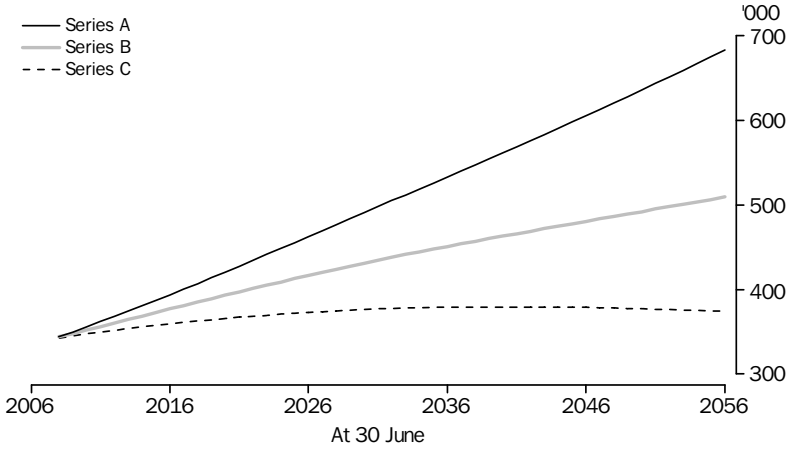
AUSTRALIAN CAPITAL TERRITORY

Population size

The population of the Australian Capital Territory is projected to increase each year between 30 June 2007 and 2056 in Series A and B, but reaches a turning point in 2040 in Series C.

Series A projects the largest population for the Australian Capital Territory, increasing from 339,800 people at 30 June 2007 to 683,200 in 2056. Series B projects an increase to 509,300 people in 2056. In Series C the population is projected to increase only slowly before reaching a peak of 379,400 people in 2040 and then slowly decreasing, to 374,200 people in 2056.

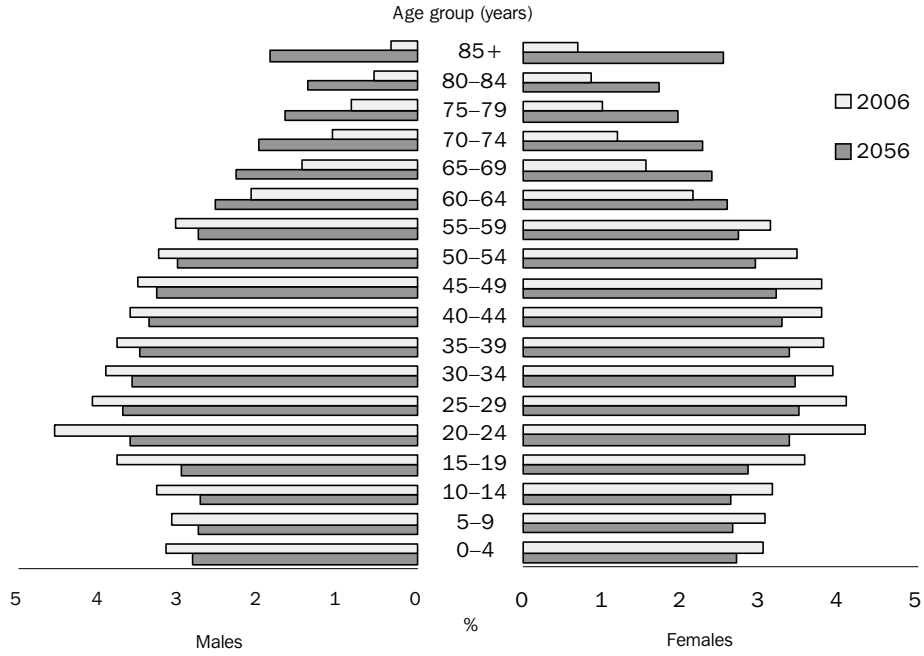
PROJECTED POPULATION, Australian Capital Territory



Age/sex structure

The median age of the population of Australian Capital Territory is projected to increase from 34.5 years in 2007 to between 39.0 years and 43.0 years in 2056. The graph below presents the age structure for Australian Capital Territory in 2006 and 2056.

PROJECTED POPULATION, Series B, ACT—At 30 June



Births and deaths

In 2006–07 there were 4,500 births and 1,500 deaths in the Australian Capital Territory, resulting in natural increase of 3,000 people. The Australian Capital Territory is one of two states/territories in which all three main series project natural increase to continue throughout the projection period. In Series A natural increase will steadily rise, in Series B natural increase will fall slowly, while in Series C natural increase will decline steadily, but remain positive over the projection period.

CHAPTER 5 SUMMARY TABLES

LIST OF TABLES

page

LIST OF TABLES

5.1 PROJECTED POPULATION, Sex—Australia

At 30 June	SERIES A			SERIES B			SERIES C		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
	'000	'000	'000	'000	'000	'000	'000	'000	'000
2006(a)	10 282.4	10 415.4	20 697.9	10 282.4	10 415.4	20 697.9	10 282.4	10 415.4	20 697.9
2007(b)	10 444.6	10 570.4	21 015.0	10 444.6	10 570.4	21 015.0	10 444.6	10 570.4	21 015.0
2008	10 614.4	10 737.1	21 351.5	10 608.4	10 731.1	21 339.5	10 602.3	10 725.1	21 327.4
2009	10 791.5	10 910.9	21 702.4	10 772.5	10 892.1	21 664.6	10 753.3	10 873.2	21 626.5
2010	10 975.8	11 091.8	22 067.6	10 937.3	11 053.7	21 991.0	10 898.4	11 015.3	21 913.7
2011	11 167.4	11 279.9	22 447.4	11 102.9	11 216.2	22 319.1	11 037.8	11 151.8	22 189.6
2012	11 361.6	11 470.5	22 832.1	11 268.7	11 378.8	22 647.5	11 175.8	11 287.0	22 462.8
2013	11 558.2	11 663.6	23 221.8	11 434.7	11 541.7	22 976.4	11 312.5	11 421.0	22 733.5
2014	11 757.6	11 859.2	23 616.8	11 601.0	11 704.9	23 305.9	11 447.8	11 553.8	23 001.6
2015	11 959.6	12 057.5	24 017.1	11 767.6	11 868.5	23 636.1	11 581.8	11 685.5	23 267.3
2016	12 164.3	12 258.4	24 422.7	11 934.5	12 032.5	23 967.0	11 714.5	11 815.9	23 530.4
2017	12 371.8	12 462.1	24 833.9	12 101.3	12 196.5	24 297.8	11 845.4	11 944.8	23 790.2
2018	12 581.9	12 668.5	25 250.4	12 268.0	12 360.5	24 628.4	11 974.5	12 072.0	24 046.6
2019	12 794.6	12 877.3	25 672.0	12 434.3	12 524.3	24 958.6	12 101.7	12 197.6	24 299.2
2020	13 009.7	13 088.7	26 098.4	12 600.2	12 687.9	25 288.1	12 226.7	12 321.3	24 547.9
2021	13 227.0	13 302.2	26 529.2	12 765.4	12 851.1	25 616.5	12 349.4	12 443.0	24 792.4
2022	13 446.1	13 517.6	26 963.7	12 929.8	13 013.9	25 943.7	12 470.1	12 563.2	25 033.4
2023	13 666.4	13 734.4	27 400.9	13 093.4	13 176.2	26 269.6	12 589.5	12 682.6	25 272.1
2024	13 887.8	13 952.4	27 840.1	13 255.9	13 338.1	26 594.0	12 707.4	12 800.9	25 508.3
2025	14 109.9	14 171.1	28 281.0	13 417.3	13 499.1	26 916.5	12 823.7	12 918.0	25 741.7
2026	14 332.5	14 390.5	28 723.0	13 577.4	13 659.3	27 236.7	12 938.2	13 033.7	25 971.9
2027	14 555.6	14 610.6	29 166.3	13 735.8	13 818.0	27 553.8	13 050.6	13 147.7	26 198.3
2028	14 779.2	14 831.3	29 610.5	13 892.4	13 975.2	27 867.6	13 160.8	13 259.7	26 420.5
2029	15 003.0	15 052.2	30 055.1	14 047.1	14 130.7	28 177.8	13 268.8	13 369.6	26 638.3
2030	15 226.8	15 273.2	30 500.0	14 199.9	14 284.3	28 484.2	13 374.3	13 477.2	26 851.5
2031	15 450.7	15 494.1	30 944.7	14 350.6	14 435.9	28 786.5	13 477.5	13 582.4	27 059.9
2032	15 674.5	15 714.9	31 389.4	14 499.4	14 585.3	29 084.7	13 578.3	13 685.1	27 263.4
2033	15 898.4	15 935.5	31 834.0	14 646.2	14 732.7	29 378.9	13 676.7	13 785.3	27 461.9
2034	16 122.5	16 156.0	32 278.5	14 791.2	14 877.9	29 669.2	13 772.7	13 882.8	27 655.6
2035	16 346.8	16 376.4	32 723.3	14 934.5	15 021.1	29 955.6	13 866.5	13 977.8	27 844.3
2036	16 571.6	16 596.9	33 168.5	15 076.2	15 162.2	30 238.4	13 958.2	14 070.2	28 028.4
2037	16 797.1	16 817.6	33 614.6	15 216.5	15 301.5	30 518.0	14 047.8	14 160.0	28 207.8
2038	17 023.4	17 038.5	34 061.9	15 355.7	15 438.9	30 794.6	14 135.5	14 247.4	28 382.8
2039	17 250.8	17 260.0	34 510.8	15 493.8	15 574.7	31 068.5	14 221.3	14 332.3	28 553.6
2040	17 479.5	17 482.1	34 961.5	15 631.0	15 708.9	31 340.0	14 305.5	14 414.7	28 720.2
2041	17 709.6	17 704.9	35 414.4	15 767.5	15 841.7	31 609.3	14 387.9	14 494.9	28 882.8
2042	17 941.2	17 928.6	35 869.8	15 903.4	15 973.2	31 876.6	14 468.7	14 572.7	29 041.5
2043	18 174.5	18 153.1	36 327.7	16 038.7	16 103.4	32 142.1	14 547.9	14 648.3	29 196.3
2044	18 409.6	18 378.8	36 788.3	16 173.5	16 232.5	32 406.0	14 625.6	14 721.8	29 347.4
2045	18 646.4	18 605.4	37 251.7	16 307.8	16 360.5	32 668.3	14 701.6	14 793.1	29 494.7
2046	18 884.8	18 833.1	37 717.9	16 441.6	16 487.5	32 929.1	14 776.2	14 862.4	29 638.5
2047	19 125.0	19 061.8	38 186.8	16 575.0	16 613.5	33 188.6	14 849.1	14 929.6	29 778.8
2048	19 366.7	19 291.3	38 658.0	16 708.0	16 738.6	33 446.6	14 920.6	14 994.9	29 915.5
2049	19 610.0	19 521.7	39 131.7	16 840.5	16 862.9	33 703.4	14 990.7	15 058.3	30 049.0
2050	19 854.9	19 753.1	39 608.0	16 972.6	16 986.3	33 958.9	15 059.3	15 120.0	30 179.3
2051	20 101.2	19 985.4	40 086.6	17 104.3	17 108.9	34 213.2	15 126.6	15 180.0	30 306.6
2052	20 349.0	20 218.5	40 567.5	17 235.6	17 230.9	34 466.5	15 192.7	15 238.5	30 431.2
2053	20 598.0	20 452.5	41 050.5	17 366.5	17 352.2	34 718.7	15 257.7	15 295.5	30 553.2
2054	20 848.3	20 687.1	41 535.4	17 497.1	17 472.9	34 970.0	15 321.5	15 351.3	30 672.8
2055	21 099.7	20 922.4	42 022.1	17 627.4	17 593.0	35 220.4	15 384.5	15 405.9	30 790.4
2056	21 352.1	21 158.2	42 510.4	17 757.3	17 712.7	35 470.0	15 446.5	15 459.5	30 906.1
2101	31 430.5	30 731.3	62 161.8	22 479.8	22 265.0	44 744.8	16 893.0	16 807.3	33 700.3

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.2 COMPONENTS OF POPULATION CHANGE, Australia

Year ended 30 June		*2006*(a)	*2007*(b)	*2008*	*2016*	*2026*	*2036*	*2046*	*2056*	*2101*
SERIES A										
Components of population change										
Start population	'000	20 394.8	20 697.9	21 015.0	24 017.1	28 281.0	32 723.3	37 251.7	42 022.1	61 739.5
Births	'000	263.5	274.3	284.0	331.4	380.0	409.2	462.2	511.2	697.9
Deaths	'000	134.0	134.8	137.5	145.8	158.0	183.9	216.0	243.0	495.6
Natural increase	'000	129.5	139.5	146.5	185.6	222.0	225.3	246.2	268.3	202.3
Total migration	'000	146.8	177.6	190.0	220.0	220.0	220.0	220.0	220.0	220.0
Total growth	'000	303.1	317.2	336.5	405.6	442.0	445.3	466.2	488.3	422.3
End population	'000	20 697.9	21 015.0	21 351.5	24 422.7	28 723.0	33 168.5	37 717.9	42 510.4	62 161.8
Rate										
Total fertility rate(c)	rate	1.81	1.86	1.91	1.97	2.00	2.00	2.00	2.00	2.00
Standardised death rate(d)	rate	6.1	5.9	6.0	4.8	3.6	2.6	1.9	1.4	1.4
Total migration(e)	rate	7.1	8.5	9.0	9.1	7.7	6.7	5.9	5.2	3.6
Total growth(f)	rate	1.5	1.5	1.6	1.7	1.6	1.4	1.3	1.2	0.7
SERIES B										
Components of population change										
Start population	'000	20 394.8	20 697.9	21 015.0	23 636.1	26 916.5	29 955.6	32 668.3	35 220.4	44 566.0
Births	'000	263.5	274.3	281.9	302.5	325.1	342.1	369.3	390.2	472.1
Deaths	'000	134.0	134.8	137.5	151.7	185.0	239.3	288.5	320.6	473.2
Natural increase	'000	129.5	139.5	144.4	150.9	140.2	102.9	80.9	69.6	–1.2
Total migration	'000	146.8	177.6	180.0	180.0	180.0	180.0	180.0	180.0	180.0
Total growth	'000	303.1	317.2	324.4	330.9	320.2	282.9	260.9	249.6	178.8
End population	'000	20 697.9	21 015.0	21 339.5	23 967.0	27 236.7	30 238.4	32 929.1	35 470.0	44 744.8
Rate										
Total fertility rate(c)	rate	1.81	1.86	1.90	1.84	1.80	1.80	1.80	1.80	1.80
Standardised death rate(d)	rate	6.1	5.9	6.0	5.1	4.5	4.2	4.0	3.7	3.7
Total migration(e)	rate	7.1	8.5	8.5	7.6	6.6	6.0	5.5	5.1	4.0
Total growth(f)	rate	1.5	1.5	1.5	1.4	1.2	0.9	0.8	0.7	0.4
SERIES C										
Components of population change										
Start population	'000	20 394.8	20 697.9	21 015.0	23 267.3	25 741.7	27 844.3	29 494.7	30 790.4	33 666.9
Births	'000	263.5	274.3	279.8	274.4	274.1	281.2	288.1	288.4	304.8
Deaths	'000	134.0	134.8	137.5	151.3	183.9	237.2	284.3	312.7	411.4
Natural increase	'000	129.5	139.5	142.4	123.1	90.2	44.0	3.8	–24.3	–106.5
Total migration	'000	146.8	177.6	170.0	140.0	140.0	140.0	140.0	140.0	140.0
Total growth	'000	303.1	317.2	312.4	263.1	230.2	184.0	143.8	115.7	33.5
End population	'000	20 697.9	21 015.0	21 327.4	23 530.4	25 971.9	28 028.4	29 638.5	30 906.1	33 700.3
Rate										
Total fertility rate(c)	rate	1.81	1.86	1.89	1.71	1.60	1.60	1.60	1.60	1.60
Standardised death rate(d)	rate	6.1	5.9	6.0	5.1	4.5	4.2	4.0	3.7	3.7
Total migration(e)	rate	7.1	8.5	8.0	6.0	5.4	5.0	4.7	4.5	4.2
Total growth(f)	rate	1.5	1.5	1.5	1.1	0.9	0.7	0.5	0.4	0.1

(a) Final estimated resident population.
(b) Preliminary estimated resident population, base population.
(c) Births per woman.
(d) Deaths per 1,000 standard population.
(e) Net migration per 1,000 mid-year population.
(f) Growth rate for year ending 30 June.

5.3 SUMMARY STATISTICS, Australia

At 30 June		2006(a)	2007(b)	2008	2016	2026	2036	2046	2056	2101
SERIES A										
Median age										
Males	years	35.9	37.4	36.6	36.7	37.8	39.3	40.2	41.1	43.6
Females	years	36.1	37.6	36.8	38.5	39.5	41.0	41.9	42.6	44.7
Persons	years	36.4	36.7	37.0	37.6	38.7	40.1	41.0	41.9	44.1
Sex ratio(c)	ratio	98.7	98.8	98.9	99.2	99.6	99.8	100.3	100.9	102.3
Proportion of population										
Under 15 years	%	19.6	19.4	19.3	18.9	19.2	18.5	17.7	17.6	16.7
15–64 years	%	67.4	67.4	67.5	65.7	62.5	60.7	59.8	58.0	55.8
65 years and over	%	13.0	13.2	13.3	15.4	18.3	20.8	22.5	24.4	27.5
85 years and over	%	1.6	1.6	1.7	2.1	2.5	4.1	5.8	7.3	9.3
Dependency ratio	ratio	48.3	48.3	48.2	52.3	60.1	64.7	67.2	72.5	79.1
SERIES B										
Median age										
Males	years	35.9	37.4	36.2	37.1	38.6	40.1	40.9	41.6	43.1
Females	years	36.1	37.6	37.7	38.9	40.4	41.9	42.7	43.2	44.6
Persons	years	36.4	36.7	37.0	38.0	39.5	41.0	41.7	42.4	43.8
Sex ratio(c)	ratio	98.7	98.8	98.9	99.2	99.4	99.4	99.7	100.3	101.0
Proportion of population										
Under 15 years	%	19.6	19.4	19.2	18.5	17.9	17.2	16.7	16.6	16.0
15–64 years	%	67.4	67.4	67.5	65.8	63.4	62.0	61.6	60.5	59.0
65 years and over	%	13.0	13.2	13.3	15.6	18.7	20.8	21.7	22.9	25.0
85 years and over	%	1.6	1.6	1.7	2.1	2.4	3.5	4.4	4.9	5.8
Dependency ratio	ratio	48.3	48.3	48.2	51.9	57.8	61.2	62.4	65.3	69.4
SERIES C										
Median age										
Males	years	35.9	37.4	36.3	37.6	39.7	41.8	43.1	44.4	45.9
Females	years	36.1	37.6	37.8	39.4	41.6	43.7	45.0	46.1	47.5
Persons	years	36.4	36.7	37.0	38.5	40.7	42.7	44.1	45.2	46.7
Sex ratio(c)	ratio	98.7	98.8	98.9	99.1	99.3	99.2	99.4	99.9	100.5
Proportion of population										
Under 15 years	%	19.6	19.4	19.2	18.1	16.5	15.4	15.0	14.6	14.0
15–64 years	%	67.4	67.4	67.5	66.0	64.0	62.3	61.4	60.1	58.3
65 years and over	%	13.0	13.2	13.3	15.9	19.5	22.3	23.6	25.3	27.7
85 years and over	%	1.6	1.6	1.7	2.1	2.5	3.8	4.8	5.5	6.8
Dependency ratio	ratio	48.3	48.3	48.2	51.5	56.3	60.6	63.0	66.4	71.7

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

(c) Males per 100 females.

5.4 PROJECTED POPULATION, Capital city/balance of state—New South Wales

At 30 June	TOTAL NEW SOUTH WALES			SYDNEY			BALANCE OF NEW SOUTH WALES		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	6 816.1	6 816.1	6 816.1	4 282.0	4 282.0	4 282.0	2 534.1	2 534.1	2 534.1
2007(b)	6 888.0	6 888.0	6 888.0	4 334.0	4 334.0	4 334.0	2 554.0	2 554.0	2 554.0
2008	6 965.5	6 964.3	6 963.0	4 384.8	4 386.7	4 388.7	2 580.7	2 577.5	2 574.3
2009	7 045.5	7 041.8	7 035.9	4 435.4	4 440.9	4 445.3	2 610.2	2 600.9	2 590.6
2010	7 128.1	7 121.3	7 110.2	4 486.7	4 496.6	4 503.3	2 641.4	2 624.7	2 606.9
2011	7 215.4	7 201.6	7 181.4	4 541.8	4 553.1	4 559.0	2 673.6	2 648.5	2 622.4
2012	7 303.9	7 281.9	7 251.6	4 597.9	4 609.8	4 614.4	2 706.0	2 672.0	2 637.2
2013	7 393.8	7 362.2	7 321.1	4 655.0	4 666.9	4 669.7	2 738.7	2 695.3	2 651.4
2014	7 485.0	7 442.6	7 389.7	4 713.2	4 724.3	4 724.7	2 771.8	2 718.3	2 665.0
2015	7 577.6	7 523.2	7 457.6	4 772.4	4 782.0	4 779.6	2 805.3	2 741.1	2 678.0
2016	7 671.7	7 603.8	7 524.7	4 832.6	4 840.1	4 834.2	2 839.0	2 763.7	2 690.5
2017	7 767.2	7 684.4	7 590.8	4 894.0	4 898.4	4 888.4	2 873.2	2 786.0	2 702.4
2018	7 864.2	7 764.8	7 655.9	4 956.5	4 956.8	4 942.3	2 907.7	2 807.9	2 713.6
2019	7 962.6	7 845.0	7 719.8	5 020.0	5 015.5	4 995.7	2 942.6	2 829.6	2 724.1
2020	8 062.3	7 925.0	7 782.6	5 084.6	5 074.2	5 048.6	2 977.7	2 850.8	2 734.0
2021	8 163.2	8 004.7	7 844.1	5 150.2	5 133.0	5 100.9	3 013.1	2 871.7	2 743.2
2022	8 265.1	8 083.9	7 904.6	5 216.6	5 191.8	5 152.9	3 048.5	2 892.1	2 751.7
2023	8 367.6	8 162.7	7 964.4	5 283.6	5 250.6	5 204.6	3 084.0	2 912.1	2 759.7
2024	8 470.5	8 240.9	8 023.3	5 351.1	5 309.3	5 256.2	3 119.4	2 931.5	2 767.2
2025	8 573.7	8 318.4	8 081.4	5 419.0	5 367.9	5 307.4	3 154.7	2 950.4	2 774.0
2026	8 677.0	8 395.1	8 138.5	5 487.2	5 426.3	5 358.2	3 189.9	2 968.8	2 780.2
2027	8 780.5	8 470.7	8 194.3	5 555.7	5 484.2	5 408.5	3 224.8	2 986.5	2 785.8
2028	8 884.0	8 545.2	8 248.8	5 624.5	5 541.7	5 458.2	3 259.6	3 003.5	2 790.6
2029	8 987.5	8 618.4	8 301.8	5 693.4	5 598.7	5 507.2	3 294.0	3 019.7	2 794.6
2030	9 090.7	8 690.3	8 353.4	5 762.5	5 655.1	5 555.5	3 328.2	3 035.2	2 797.9
2031	9 193.6	8 760.8	8 403.3	5 831.6	5 710.9	5 603.0	3 362.0	3 050.0	2 800.3
2032	9 296.1	8 829.9	8 451.7	5 900.7	5 766.0	5 649.7	3 395.4	3 063.9	2 802.0
2033	9 398.3	8 897.6	8 498.4	5 969.9	5 820.5	5 695.6	3 428.5	3 077.1	2 802.8
2034	9 500.2	8 963.8	8 543.5	6 039.0	5 874.4	5 740.7	3 461.2	3 089.5	2 802.7
2035	9 601.8	9 028.7	8 586.9	6 108.2	5 927.6	5 785.0	3 493.6	3 101.1	2 801.9
2036	9 703.1	9 092.4	8 628.8	6 177.4	5 980.3	5 828.5	3 525.7	3 112.1	2 800.3
2037	9 804.4	9 154.8	8 669.1	6 246.8	6 032.4	5 871.3	3 557.5	3 122.3	2 797.8
2038	9 905.5	9 216.0	8 708.0	6 316.5	6 084.2	5 913.3	3 589.1	3 131.9	2 794.7
2039	10 006.8	9 276.3	8 745.4	6 386.4	6 135.5	5 954.7	3 620.4	3 140.8	2 790.7
2040	10 108.2	9 335.7	8 781.5	6 456.6	6 186.4	5 995.4	3 651.6	3 149.2	2 786.1
2041	10 209.9	9 394.2	8 816.2	6 527.3	6 237.1	6 035.4	3 682.6	3 157.1	2 780.8
2042	10 311.9	9 451.9	8 849.7	6 598.4	6 287.5	6 074.9	3 713.5	3 164.4	2 774.8
2043	10 414.3	9 509.0	8 881.9	6 670.0	6 337.7	6 113.7	3 744.3	3 171.2	2 768.2
2044	10 517.2	9 565.4	8 912.9	6 742.2	6 387.7	6 151.8	3 775.0	3 177.7	2 761.1
2045	10 620.6	9 621.3	8 942.8	6 814.9	6 437.6	6 189.4	3 805.7	3 183.7	2 753.4
2046	10 724.5	9 676.7	8 971.6	6 888.2	6 487.3	6 226.4	3 836.3	3 189.4	2 745.2
2047	10 828.9	9 731.6	8 999.3	6 962.1	6 536.9	6 262.8	3 866.8	3 194.7	2 736.5
2048	10 933.7	9 786.0	9 026.1	7 036.5	6 586.3	6 298.6	3 897.2	3 199.7	2 727.5
2049	11 039.1	9 840.1	9 051.9	7 111.4	6 635.6	6 333.8	3 927.7	3 204.5	2 718.0
2050	11 144.9	9 893.8	9 076.8	7 186.9	6 684.8	6 368.4	3 958.1	3 209.1	2 708.3
2051	11 251.3	9 947.2	9 100.8	7 262.8	6 733.8	6 402.5	3 988.5	3 213.5	2 698.4
2052	11 358.1	10 000.3	9 124.1	7 339.2	6 782.6	6 435.9	4 018.9	3 217.7	2 688.2
2053	11 465.3	10 053.1	9 146.8	7 416.1	6 831.3	6 468.9	4 049.3	3 221.8	2 677.9
2054	11 572.9	10 105.7	9 168.8	7 493.3	6 879.9	6 501.4	4 079.6	3 225.8	2 667.4
2055	11 680.9	10 158.0	9 190.3	7 571.0	6 928.4	6 533.5	4 109.9	3 229.6	2 656.8
2056	11 789.1	10 210.2	9 211.3	7 649.0	6 976.8	6 565.2	4 140.1	3 233.4	2 646.1

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.5 PROJECTED POPULATION, Capital city/balance of state—Victoria

At 30 June	TOTAL VICTORIA			MELBOURNE			BALANCE OF VICTORIA		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	5 126.5	5 126.5	5 126.5	3 743.0	3 743.0	3 743.0	1 383.5	1 383.5	1 383.5
2007(b)	5 204.8	5 204.8	5 204.8	3 805.8	3 805.8	3 805.8	1 399.1	1 399.1	1 399.1
2008	5 286.8	5 284.6	5 283.0	3 872.8	3 870.5	3 868.3	1 414.0	1 414.1	1 414.7
2009	5 366.2	5 362.3	5 359.9	3 939.3	3 934.3	3 930.2	1 426.8	1 428.0	1 429.7
2010	5 445.9	5 439.0	5 434.5	4 007.9	3 998.2	3 990.3	1 437.9	1 440.8	1 444.2
2011	5 529.0	5 515.8	5 506.0	4 079.6	4 062.3	4 047.8	1 449.3	1 453.6	1 458.2
2012	5 613.0	5 592.7	5 576.9	4 152.2	4 126.5	4 104.9	1 460.8	1 466.1	1 472.0
2013	5 698.1	5 669.5	5 647.2	4 225.8	4 191.0	4 161.6	1 472.3	1 478.6	1 485.6
2014	5 784.3	5 746.5	5 717.0	4 300.5	4 255.6	4 218.1	1 483.9	1 490.9	1 498.9
2015	5 871.7	5 823.5	5 786.2	4 376.1	4 320.5	4 274.2	1 495.5	1 503.1	1 512.0
2016	5 960.2	5 900.8	5 854.9	4 452.9	4 385.6	4 330.0	1 507.3	1 515.2	1 524.9
2017	6 049.9	5 977.9	5 922.8	4 530.7	4 450.8	4 385.3	1 519.2	1 527.1	1 537.5
2018	6 140.8	6 055.1	5 990.0	4 609.7	4 516.2	4 440.1	1 531.1	1 538.9	1 549.8
2019	6 232.8	6 132.1	6 056.3	4 689.7	4 581.6	4 494.5	1 543.1	1 550.5	1 561.8
2020	6 325.9	6 208.9	6 121.7	4 770.7	4 647.1	4 548.2	1 555.2	1 561.8	1 573.4
2021	6 419.9	6 285.4	6 186.1	4 852.7	4 712.5	4 601.3	1 567.2	1 572.9	1 584.7
2022	6 514.8	6 361.6	6 249.6	4 935.5	4 777.8	4 654.0	1 579.3	1 583.8	1 595.7
2023	6 610.2	6 437.4	6 312.7	5 018.9	4 843.1	4 706.4	1 591.2	1 594.3	1 606.3
2024	6 706.0	6 512.9	6 375.2	5 103.0	4 908.3	4 758.5	1 603.0	1 604.6	1 616.7
2025	6 802.1	6 587.9	6 437.0	5 187.4	4 973.3	4 810.3	1 614.6	1 614.5	1 626.7
2026	6 898.3	6 662.2	6 498.0	5 272.3	5 038.1	4 861.7	1 626.1	1 624.1	1 636.3
2027	6 994.8	6 735.8	6 558.1	5 357.5	5 102.5	4 912.5	1 637.3	1 633.3	1 645.6
2028	7 091.4	6 808.5	6 617.1	5 443.1	5 166.5	4 962.7	1 648.3	1 642.0	1 654.4
2029	7 188.0	6 880.3	6 675.1	5 528.9	5 230.0	5 012.3	1 659.1	1 650.3	1 662.8
2030	7 284.5	6 951.0	6 731.9	5 614.9	5 292.9	5 061.2	1 669.6	1 658.1	1 670.7
2031	7 380.9	7 020.8	6 787.5	5 701.0	5 355.2	5 109.4	1 679.9	1 665.5	1 678.1
2032	7 477.0	7 089.4	6 841.9	5 787.2	5 417.0	5 156.8	1 689.9	1 672.4	1 685.1
2033	7 573.1	7 157.1	6 895.2	5 873.5	5 478.2	5 203.6	1 699.6	1 678.9	1 691.6
2034	7 668.9	7 223.7	6 947.2	5 959.9	5 538.9	5 249.6	1 709.0	1 684.9	1 697.6
2035	7 764.7	7 289.4	6 998.0	6 046.6	5 599.0	5 294.9	1 718.1	1 690.4	1 703.1
2036	7 860.4	7 354.2	7 047.7	6 133.4	5 658.6	5 339.5	1 727.0	1 695.6	1 708.2
2037	7 956.2	7 418.1	7 096.3	6 220.6	5 717.7	5 383.5	1 735.7	1 700.3	1 712.8
2038	8 052.2	7 481.3	7 143.8	6 308.0	5 776.5	5 426.8	1 744.1	1 704.7	1 717.0
2039	8 148.3	7 543.8	7 190.3	6 395.9	5 834.9	5 469.5	1 752.4	1 708.8	1 720.9
2040	8 244.8	7 605.7	7 235.9	6 484.2	5 893.0	5 511.6	1 760.6	1 712.6	1 724.3
2041	8 341.7	7 667.0	7 280.5	6 573.1	5 950.9	5 553.1	1 768.6	1 716.1	1 727.4
2042	8 439.0	7 727.8	7 324.2	6 662.4	6 008.4	5 594.0	1 776.5	1 719.4	1 730.1
2043	8 536.7	7 788.2	7 366.9	6 752.4	6 065.8	5 634.3	1 784.4	1 722.4	1 732.6
2044	8 635.0	7 848.1	7 408.7	6 842.9	6 122.8	5 674.0	1 792.1	1 725.3	1 734.7
2045	8 733.8	7 907.7	7 449.5	6 934.1	6 179.7	5 713.0	1 799.8	1 728.0	1 736.5
2046	8 833.1	7 966.8	7 489.5	7 025.8	6 236.3	5 751.4	1 807.3	1 730.4	1 738.1
2047	8 933.0	8 025.5	7 528.6	7 118.1	6 292.7	5 789.2	1 814.8	1 732.7	1 739.4
2048	9 033.2	8 083.8	7 566.7	7 211.0	6 348.9	5 826.3	1 822.2	1 734.9	1 740.4
2049	9 133.9	8 141.8	7 604.0	7 304.3	6 404.8	5 862.8	1 829.6	1 736.9	1 741.2
2050	9 235.1	8 199.4	7 640.4	7 398.2	6 460.5	5 898.5	1 836.9	1 738.9	1 741.9
2051	9 336.7	8 256.6	7 676.0	7 492.6	6 515.9	5 933.7	1 844.1	1 740.7	1 742.3
2052	9 438.7	8 313.5	7 710.9	7 587.4	6 571.0	5 968.2	1 851.3	1 742.5	1 742.7
2053	9 541.2	8 370.1	7 745.0	7 682.7	6 625.9	6 002.2	1 858.5	1 744.2	1 742.9
2054	9 643.9	8 426.5	7 778.5	7 778.3	6 680.6	6 035.5	1 865.6	1 745.9	1 743.0
2055	9 747.0	8 482.5	7 811.4	7 874.3	6 735.0	6 068.4	1 872.6	1 747.5	1 743.0
2056	9 850.3	8 538.3	7 843.8	7 970.7	6 789.2	6 100.9	1 879.6	1 749.1	1 742.9

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.6 PROJECTED POPULATION, Capital city/balance of state—Queensland

At 30 June	TOTAL QUEENSLAND			BRISBANE			BALANCE OF QUEENSLAND		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	4 090.9	4 090.9	4 090.9	1 819.8	1 819.8	1 819.8	2 271.1	2 271.1	2 271.1
2007(b)	4 181.4	4 181.4	4 181.4	1 857.0	1 857.0	1 857.0	2 324.5	2 324.5	2 324.5
2008	4 278.0	4 273.7	4 269.4	1 899.7	1 897.2	1 894.7	2 378.3	2 376.5	2 374.7
2009	4 385.3	4 368.4	4 353.5	1 945.7	1 938.5	1 930.7	2 439.6	2 430.0	2 422.9
2010	4 500.0	4 465.0	4 432.8	1 995.5	1 980.7	1 964.6	2 504.5	2 484.3	2 468.1
2011	4 618.2	4 562.2	4 510.0	2 047.1	2 023.2	1 997.5	2 571.0	2 539.0	2 512.5
2012	4 737.7	4 659.6	4 586.7	2 099.4	2 065.9	2 030.2	2 638.3	2 593.7	2 556.5
2013	4 858.7	4 757.4	4 662.9	2 152.5	2 108.8	2 062.7	2 706.2	2 648.6	2 600.2
2014	4 981.1	4 855.4	4 738.6	2 206.4	2 152.0	2 095.1	2 774.8	2 703.4	2 643.6
2015	5 105.1	4 953.8	4 813.8	2 261.0	2 195.4	2 127.2	2 844.1	2 758.4	2 686.5
2016	5 230.4	5 052.4	4 888.4	2 316.4	2 239.0	2 159.2	2 914.1	2 813.4	2 729.2
2017	5 357.3	5 151.2	4 962.3	2 372.5	2 282.8	2 191.0	2 984.8	2 868.4	2 771.3
2018	5 485.6	5 250.0	5 035.5	2 429.4	2 326.7	2 222.4	3 056.2	2 923.3	2 813.0
2019	5 615.3	5 348.9	5 107.8	2 487.1	2 370.8	2 253.6	3 128.2	2 978.1	2 854.3
2020	5 746.3	5 447.7	5 179.4	2 545.5	2 414.9	2 284.4	3 200.9	3 032.8	2 894.9
2021	5 878.6	5 546.5	5 250.0	2 604.5	2 459.1	2 315.0	3 274.0	3 087.4	2 935.0
2022	6 011.9	5 645.1	5 320.0	2 664.2	2 503.3	2 345.3	3 347.7	3 141.7	2 974.7
2023	6 146.2	5 743.6	5 389.5	2 724.5	2 547.7	2 375.5	3 421.7	3 195.9	3 014.0
2024	6 281.3	5 842.0	5 458.6	2 785.2	2 592.2	2 405.7	3 496.1	3 249.8	3 052.9
2025	6 417.0	5 940.1	5 527.2	2 846.4	2 636.7	2 435.7	3 570.6	3 303.5	3 091.5
2026	6 553.3	6 038.0	5 595.2	2 908.0	2 681.1	2 465.6	3 645.4	3 356.9	3 129.7
2027	6 690.2	6 135.4	5 662.6	2 969.9	2 725.5	2 495.2	3 720.3	3 409.9	3 167.3
2028	6 827.7	6 232.3	5 729.1	3 032.3	2 769.9	2 524.7	3 795.4	3 462.4	3 204.5
2029	6 965.5	6 328.6	5 794.9	3 094.9	2 814.1	2 553.8	3 870.6	3 514.5	3 241.0
2030	7 103.7	6 424.2	5 859.7	3 157.9	2 858.1	2 582.7	3 945.8	3 566.1	3 277.0
2031	7 242.2	6 519.1	5 923.6	3 221.1	2 902.0	2 611.3	4 021.1	3 617.2	3 312.3
2032	7 381.1	6 613.4	5 986.6	3 284.7	2 945.7	2 639.6	4 096.4	3 667.7	3 347.0
2033	7 520.2	6 706.9	6 048.6	3 348.5	2 989.2	2 667.6	4 171.8	3 717.7	3 381.0
2034	7 659.8	6 799.8	6 109.7	3 412.6	3 032.6	2 695.3	4 247.2	3 767.2	3 414.4
2035	7 799.7	6 892.0	6 169.8	3 477.0	3 075.8	2 722.7	4 322.7	3 816.1	3 447.1
2036	7 940.1	6 983.6	6 228.9	3 541.8	3 119.0	2 749.8	4 398.3	3 864.6	3 479.1
2037	8 081.1	7 074.6	6 287.2	3 607.0	3 162.0	2 776.6	4 474.1	3 912.6	3 510.5
2038	8 222.8	7 165.1	6 344.5	3 672.7	3 205.0	2 803.2	4 550.1	3 960.2	3 541.3
2039	8 365.2	7 255.2	6 400.9	3 738.9	3 247.9	2 829.5	4 626.3	4 007.3	3 571.4
2040	8 508.4	7 344.9	6 456.5	3 805.6	3 290.8	2 855.6	4 702.8	4 054.1	3 600.9
2041	8 652.5	7 434.2	6 511.2	3 872.9	3 333.8	2 881.4	4 779.6	4 100.5	3 629.8
2042	8 797.5	7 523.2	6 565.0	3 940.9	3 376.8	2 907.0	4 856.7	4 146.5	3 658.1
2043	8 943.5	7 611.9	6 618.1	4 009.5	3 419.8	2 932.3	4 934.1	4 192.2	3 685.8
2044	9 090.5	7 700.4	6 670.2	4 078.7	3 462.8	2 957.3	5 011.9	4 237.5	3 712.9
2045	9 238.5	7 788.5	6 721.6	4 148.5	3 505.9	2 982.2	5 089.9	4 282.6	3 739.4
2046	9 387.4	7 876.3	6 772.1	4 219.1	3 549.0	3 006.7	5 168.4	4 327.4	3 765.4
2047	9 537.3	7 963.9	6 821.7	4 290.2	3 592.1	3 031.0	5 247.1	4 371.8	3 790.8
2048	9 688.0	8 051.1	6 870.5	4 361.9	3 635.2	3 054.9	5 326.0	4 415.9	3 815.6
2049	9 839.5	8 138.1	6 918.6	4 434.3	3 678.3	3 078.6	5 405.3	4 459.8	3 839.9
2050	9 991.9	8 224.7	6 965.8	4 507.1	3 721.4	3 102.0	5 484.8	4 503.3	3 863.8
2051	10 145.1	8 311.1	7 012.3	4 580.6	3 764.4	3 125.1	5 564.5	4 546.7	3 887.2
2052	10 299.0	8 397.2	7 058.1	4 654.5	3 807.5	3 148.0	5 644.5	4 589.7	3 910.1
2053	10 453.6	8 483.0	7 103.2	4 729.0	3 850.5	3 170.6	5 724.7	4 632.5	3 932.7
2054	10 608.9	8 568.5	7 147.7	4 803.9	3 893.4	3 192.9	5 805.1	4 675.1	3 954.8
2055	10 764.8	8 653.8	7 191.7	4 879.3	3 936.4	3 215.1	5 885.6	4 717.5	3 976.7
2056	10 921.3	8 738.9	7 235.2	4 955.1	3 979.3	3 237.0	5 966.3	4 759.6	3 998.2

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.7 PROJECTED POPULATION, Capital city/balance of state—South Australia

At 30 June	TOTAL SOUTH AUSTRALIA			ADELAIDE			BALANCE OF SOUTH AUSTRALIA		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	1 567.9	1 567.9	1 567.9	1 145.8	1 145.8	1 145.8	422.1	422.1	422.1
2007(b)	1 584.2	1 584.2	1 584.2	1 158.0	1 158.0	1 158.0	426.2	426.2	426.2
2008	1 600.8	1 600.4	1 600.6	1 170.0	1 169.9	1 170.9	430.8	430.5	429.7
2009	1 617.5	1 616.8	1 616.7	1 181.8	1 182.0	1 184.2	435.6	434.8	432.4
2010	1 634.4	1 633.2	1 632.5	1 193.5	1 194.2	1 198.0	441.0	439.1	434.5
2011	1 651.9	1 649.4	1 647.3	1 205.5	1 206.1	1 210.9	446.3	443.3	436.3
2012	1 669.6	1 665.5	1 661.9	1 217.8	1 218.0	1 223.8	451.8	447.4	438.1
2013	1 687.5	1 681.5	1 676.3	1 230.3	1 230.0	1 236.6	457.2	451.5	439.7
2014	1 705.7	1 697.6	1 690.5	1 243.0	1 242.0	1 249.3	462.8	455.6	441.2
2015	1 724.3	1 713.7	1 704.5	1 255.9	1 254.1	1 261.9	468.3	459.6	442.7
2016	1 743.1	1 729.7	1 718.4	1 269.1	1 266.1	1 274.4	473.9	463.6	444.0
2017	1 762.1	1 745.8	1 732.1	1 282.6	1 278.2	1 286.8	479.6	467.5	445.2
2018	1 781.5	1 761.7	1 745.4	1 296.2	1 290.3	1 299.1	485.3	471.4	446.3
2019	1 801.1	1 777.6	1 758.5	1 310.1	1 302.3	1 311.2	491.0	475.2	447.3
2020	1 820.9	1 793.3	1 771.4	1 324.1	1 314.3	1 323.2	496.8	479.0	448.2
2021	1 841.0	1 808.9	1 783.9	1 338.4	1 326.2	1 334.9	502.6	482.7	448.9
2022	1 861.2	1 824.4	1 796.1	1 352.8	1 338.1	1 346.5	508.4	486.3	449.6
2023	1 881.4	1 839.7	1 808.1	1 367.2	1 349.9	1 358.0	514.2	489.8	450.1
2024	1 901.7	1 854.8	1 820.0	1 381.7	1 361.5	1 369.4	520.0	493.2	450.5
2025	1 922.0	1 869.7	1 831.5	1 396.3	1 373.1	1 380.7	525.8	496.6	450.8
2026	1 942.3	1 884.4	1 842.9	1 410.8	1 384.5	1 391.8	531.5	499.8	451.0
2027	1 962.6	1 898.8	1 853.9	1 425.4	1 395.8	1 402.7	537.2	502.9	451.1
2028	1 982.9	1 912.8	1 864.5	1 440.0	1 406.9	1 413.4	542.8	506.0	451.1
2029	2 003.1	1 926.6	1 874.8	1 454.6	1 417.8	1 423.9	548.5	508.8	450.9
2030	2 023.2	1 940.0	1 884.8	1 469.2	1 428.4	1 434.1	554.0	511.6	450.6
2031	2 043.2	1 953.1	1 894.3	1 483.7	1 438.8	1 444.1	559.6	514.3	450.2
2032	2 063.2	1 965.8	1 903.4	1 498.1	1 449.0	1 453.8	565.1	516.8	449.6
2033	2 083.0	1 978.2	1 912.2	1 512.5	1 459.0	1 463.3	570.5	519.2	448.9
2034	2 102.7	1 990.2	1 920.5	1 526.8	1 468.7	1 472.4	575.9	521.5	448.1
2035	2 122.4	2 001.9	1 928.5	1 541.0	1 478.2	1 481.3	581.3	523.7	447.2
2036	2 141.9	2 013.2	1 936.1	1 555.2	1 487.5	1 489.9	586.7	525.7	446.1
2037	2 161.4	2 024.3	1 943.3	1 569.4	1 496.6	1 498.3	592.0	527.7	444.9
2038	2 180.9	2 035.1	1 950.1	1 583.6	1 505.5	1 506.5	597.3	529.6	443.6
2039	2 200.4	2 045.6	1 956.7	1 597.8	1 514.2	1 514.4	602.6	531.4	442.2
2040	2 219.8	2 056.0	1 962.9	1 612.0	1 522.9	1 522.1	607.8	533.1	440.7
2041	2 239.4	2 066.1	1 968.8	1 626.3	1 531.4	1 529.7	613.1	534.7	439.1
2042	2 258.9	2 076.1	1 974.4	1 640.6	1 539.8	1 537.0	618.3	536.2	437.4
2043	2 278.6	2 085.9	1 979.7	1 655.0	1 548.1	1 544.1	623.6	537.7	435.6
2044	2 298.3	2 095.5	1 984.8	1 669.5	1 556.4	1 551.1	628.8	539.1	433.7
2045	2 318.1	2 105.1	1 989.7	1 684.0	1 564.6	1 557.9	634.1	540.5	431.8
2046	2 338.0	2 114.5	1 994.3	1 698.6	1 572.7	1 564.5	639.3	541.8	429.8
2047	2 357.9	2 123.9	1 998.7	1 713.3	1 580.8	1 571.0	644.6	543.1	427.7
2048	2 377.9	2 133.1	2 002.9	1 728.1	1 588.8	1 577.4	649.8	544.3	425.5
2049	2 398.0	2 142.2	2 006.8	1 742.9	1 596.8	1 583.6	655.0	545.4	423.3
2050	2 418.1	2 151.3	2 010.6	1 757.8	1 604.8	1 589.6	660.2	546.6	421.0
2051	2 438.3	2 160.3	2 014.2	1 772.8	1 612.7	1 595.5	665.5	547.6	418.7
2052	2 458.5	2 169.3	2 017.7	1 787.8	1 620.6	1 601.4	670.7	548.7	416.3
2053	2 478.8	2 178.1	2 021.0	1 802.9	1 628.4	1 607.1	675.9	549.7	414.0
2054	2 499.2	2 187.0	2 024.2	1 818.1	1 636.2	1 612.7	681.1	550.7	411.6
2055	2 519.5	2 195.8	2 027.4	1 833.3	1 644.0	1 618.2	686.3	551.7	409.1
2056	2 539.9	2 204.5	2 030.4	1 848.5	1 651.8	1 623.7	691.4	552.7	406.7

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.8 PROJECTED POPULATION, Capital city/balance of state—Western Australia

At 30 June	TOTAL WESTERN AUSTRALIA			PERTH			BALANCE OF WESTERN AUSTRALIA		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	2 059.4	2 059.4	2 059.4	1 518.7	1 518.7	1 518.7	540.6	540.6	540.6
2007(b)	2 106.1	2 106.1	2 106.1	1 554.1	1 554.1	1 554.1	552.0	552.0	552.0
2008	2 155.1	2 152.9	2 150.3	1 592.1	1 589.7	1 588.6	563.0	563.2	561.7
2009	2 206.7	2 199.5	2 191.3	1 632.2	1 625.5	1 621.2	574.5	574.0	570.1
2010	2 261.1	2 245.6	2 229.0	1 674.5	1 661.8	1 652.1	586.6	583.8	576.9
2011	2 317.7	2 292.0	2 265.2	1 718.6	1 698.4	1 681.8	599.1	593.6	583.3
2012	2 375.1	2 338.6	2 301.1	1 763.5	1 735.3	1 711.4	611.6	603.4	589.7
2013	2 433.3	2 385.4	2 336.9	1 809.0	1 772.4	1 741.0	624.3	613.1	595.8
2014	2 492.2	2 432.4	2 372.4	1 855.1	1 809.7	1 770.5	637.0	622.7	601.8
2015	2 551.9	2 479.6	2 407.6	1 902.0	1 847.3	1 799.9	649.9	632.3	607.7
2016	2 612.3	2 527.0	2 442.6	1 949.4	1 885.1	1 829.3	662.9	641.9	613.4
2017	2 673.6	2 574.5	2 477.3	1 997.6	1 923.1	1 858.4	676.0	651.4	618.9
2018	2 735.5	2 622.0	2 511.6	2 046.4	1 961.1	1 887.5	689.1	660.8	624.2
2019	2 798.3	2 669.5	2 545.6	2 095.8	1 999.3	1 916.2	702.4	670.2	629.3
2020	2 861.6	2 717.1	2 579.1	2 145.8	2 037.6	1 944.8	715.8	679.4	634.2
2021	2 925.7	2 764.6	2 612.1	2 196.4	2 075.9	1 973.1	729.2	688.6	639.0
2022	2 990.2	2 812.0	2 644.8	2 247.5	2 114.3	2 001.2	742.7	697.7	643.6
2023	3 055.2	2 859.3	2 677.2	2 298.9	2 152.7	2 029.1	756.3	706.7	648.1
2024	3 120.5	2 906.5	2 709.3	2 350.7	2 191.0	2 057.0	769.8	715.5	652.4
2025	3 186.1	2 953.6	2 741.2	2 402.8	2 229.3	2 084.6	783.3	724.3	656.5
2026	3 252.0	3 000.5	2 772.7	2 455.2	2 267.6	2 112.1	796.8	732.9	660.5
2027	3 318.1	3 047.1	2 803.8	2 507.8	2 305.7	2 139.4	810.3	741.4	664.4
2028	3 384.5	3 093.5	2 834.5	2 560.7	2 343.7	2 166.5	823.8	749.8	668.1
2029	3 451.1	3 139.5	2 864.8	2 613.8	2 381.6	2 193.2	837.3	758.0	671.6
2030	3 517.9	3 185.3	2 894.6	2 667.1	2 419.2	2 219.7	850.8	766.1	674.9
2031	3 584.9	3 230.7	2 924.0	2 720.6	2 456.7	2 245.9	864.3	774.0	678.0
2032	3 652.0	3 275.8	2 952.9	2 774.3	2 493.9	2 271.9	877.8	781.8	681.0
2033	3 719.4	3 320.5	2 981.3	2 828.2	2 531.0	2 297.5	891.2	789.5	683.8
2034	3 786.9	3 364.9	3 009.2	2 882.3	2 567.9	2 322.8	904.7	797.0	686.4
2035	3 854.7	3 409.0	3 036.7	2 936.6	2 604.6	2 347.9	918.1	804.4	688.8
2036	3 922.8	3 452.8	3 063.7	2 991.2	2 641.2	2 372.7	931.6	811.6	691.0
2037	3 991.2	3 496.4	3 090.2	3 046.1	2 677.7	2 397.2	945.1	818.7	693.0
2038	4 059.9	3 539.7	3 116.3	3 101.3	2 714.0	2 421.5	958.6	825.7	694.9
2039	4 129.0	3 582.8	3 142.0	3 156.9	2 750.2	2 445.5	972.1	832.6	696.5
2040	4 198.5	3 625.8	3 167.3	3 212.8	2 786.4	2 469.3	985.7	839.3	698.0
2041	4 268.5	3 668.5	3 192.1	3 269.2	2 822.6	2 492.8	999.3	846.0	699.2
2042	4 338.9	3 711.1	3 216.5	3 326.0	2 858.6	2 516.2	1 012.9	852.5	700.3
2043	4 409.9	3 753.6	3 240.5	3 383.2	2 894.7	2 539.2	1 026.6	858.9	701.3
2044	4 481.3	3 795.9	3 264.1	3 440.9	2 930.7	2 562.0	1 040.3	865.2	702.0
2045	4 553.2	3 838.1	3 287.2	3 499.1	2 966.6	2 584.6	1 054.1	871.4	702.7
2046	4 625.6	3 880.1	3 310.0	3 557.7	3 002.6	2 606.9	1 067.9	877.6	703.1
2047	4 698.4	3 922.1	3 332.4	3 616.7	3 038.4	2 628.9	1 081.7	883.6	703.5
2048	4 771.7	3 963.8	3 354.4	3 676.1	3 074.2	2 650.7	1 095.6	889.6	703.7
2049	4 845.4	4 005.5	3 376.0	3 735.9	3 110.0	2 672.1	1 109.5	895.5	703.8
2050	4 919.6	4 047.0	3 397.2	3 796.1	3 145.7	2 693.3	1 123.4	901.3	703.8
2051	4 994.1	4 088.4	3 418.0	3 856.7	3 181.3	2 714.3	1 137.4	907.1	703.7
2052	5 069.0	4 129.6	3 438.6	3 917.6	3 216.9	2 735.0	1 151.4	912.8	703.6
2053	5 144.3	4 170.7	3 458.8	3 978.9	3 252.3	2 755.4	1 165.4	918.4	703.3
2054	5 219.9	4 211.7	3 478.7	4 040.5	3 287.7	2 775.7	1 179.4	924.0	703.0
2055	5 295.8	4 252.6	3 498.3	4 102.3	3 323.1	2 795.7	1 193.5	929.5	702.7
2056	5 372.0	4 293.4	3 517.7	4 164.4	3 358.4	2 815.5	1 207.6	935.0	702.3

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.9 PROJECTED POPULATION, Capital city/balance of state—Tasmania

At 30 June	TOTAL TASMANIA			GREATER HOBART			BALANCE OF TASMANIA		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	490.0	490.0	490.0	205.5	205.5	205.5	284.5	284.5	284.5
2007(b)	493.4	493.4	493.4	207.4	207.4	207.4	286.0	286.0	286.0
2008	498.4	497.7	497.1	210.2	209.9	209.6	288.1	287.9	287.5
2009	503.7	501.8	499.8	213.0	211.9	211.3	290.7	289.8	288.5
2010	509.1	505.2	501.3	215.8	214.0	212.7	293.3	291.2	288.6
2011	514.7	508.7	502.6	218.7	216.1	214.1	296.0	292.6	288.6
2012	520.3	512.0	503.8	221.6	218.2	215.3	298.7	293.9	288.5
2013	526.0	515.4	504.8	224.6	220.2	216.6	301.4	295.2	288.3
2014	531.8	518.7	505.8	227.6	222.3	217.7	304.2	296.4	288.0
2015	537.7	521.9	506.5	230.7	224.3	218.9	307.0	297.6	287.7
2016	543.6	525.1	507.2	233.9	226.4	220.0	309.8	298.7	287.2
2017	549.7	528.3	507.7	237.0	228.4	221.1	312.6	299.9	286.7
2018	555.8	531.3	508.1	240.3	230.4	222.1	315.5	300.9	286.0
2019	561.9	534.3	508.3	243.5	232.4	223.0	318.4	301.9	285.3
2020	568.1	537.2	508.4	246.8	234.4	223.9	321.3	302.8	284.4
2021	574.3	540.0	508.3	250.1	236.3	224.8	324.2	303.7	283.5
2022	580.6	542.7	508.0	253.5	238.2	225.6	327.1	304.5	282.5
2023	586.8	545.2	507.6	256.8	240.0	226.3	330.0	305.2	281.3
2024	593.0	547.7	507.1	260.1	241.8	227.0	332.9	305.9	280.1
2025	599.2	550.1	506.5	263.5	243.6	227.6	335.7	306.5	278.8
2026	605.3	552.3	505.7	266.8	245.3	228.2	338.5	307.0	277.5
2027	611.4	554.4	504.8	270.1	247.0	228.8	341.3	307.4	276.0
2028	617.4	556.3	503.7	273.4	248.6	229.2	344.0	307.7	274.5
2029	623.4	558.1	502.5	276.7	250.2	229.6	346.7	307.9	272.8
2030	629.3	559.8	501.1	280.0	251.7	230.0	349.3	308.1	271.1
2031	635.2	561.3	499.5	283.3	253.2	230.3	351.9	308.1	269.3
2032	641.0	562.6	497.8	286.5	254.6	230.5	354.5	308.1	267.3
2033	646.8	563.9	496.0	289.8	255.9	230.7	357.0	307.9	265.3
2034	652.5	565.0	494.0	293.0	257.2	230.8	359.5	307.7	263.2
2035	658.2	565.9	491.9	296.2	258.5	230.9	361.9	307.4	261.0
2036	663.8	566.8	489.6	299.5	259.7	230.9	364.3	307.0	258.7
2037	669.4	567.5	487.2	302.7	260.9	230.9	366.7	306.6	256.4
2038	675.0	568.2	484.7	305.9	262.1	230.8	369.1	306.1	253.9
2039	680.6	568.7	482.1	309.2	263.2	230.7	371.5	305.5	251.4
2040	686.2	569.2	479.4	312.4	264.3	230.5	373.8	304.9	248.8
2041	691.9	569.6	476.5	315.7	265.4	230.3	376.2	304.3	246.2
2042	697.5	570.0	473.6	319.0	266.4	230.1	378.5	303.6	243.5
2043	703.2	570.3	470.6	322.3	267.4	229.8	380.9	302.9	240.8
2044	708.8	570.5	467.5	325.6	268.5	229.5	383.2	302.1	238.0
2045	714.5	570.7	464.3	329.0	269.5	229.2	385.5	301.3	235.1
2046	720.3	570.9	461.1	332.4	270.4	228.9	387.9	300.5	232.3
2047	726.0	571.0	457.8	335.8	271.4	228.5	390.2	299.6	229.4
2048	731.7	571.1	454.5	339.2	272.4	228.1	392.5	298.7	226.4
2049	737.5	571.1	451.1	342.7	273.3	227.6	394.9	297.8	223.5
2050	743.3	571.2	447.6	346.1	274.3	227.1	397.2	296.9	220.5
2051	749.1	571.2	444.2	349.6	275.2	226.7	399.5	296.0	217.5
2052	754.9	571.1	440.7	353.1	276.1	226.1	401.8	295.0	214.5
2053	760.8	571.1	437.2	356.6	277.0	225.6	404.1	294.1	211.6
2054	766.6	571.1	433.6	360.1	277.9	225.1	406.5	293.1	208.6
2055	772.4	571.0	430.1	363.7	278.8	224.5	408.8	292.2	205.6
2056	778.3	571.0	426.6	367.2	279.7	224.0	411.1	291.2	202.6

(a) Final estimated resident population.

(b) Preliminary estimated resident population, base population.

5.10 PROJECTED POPULATION, Capital city/balance of state—Northern Territory ....

At 30 June	TOTAL NORTHERN TERRITORY			DARWIN			BALANCE OF NORTHERN TERRITORY		
	Series A '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000	*Series A* '000	*Series B* '000	*Series C* '000
2006(a)	210.6	210.6	210.6	114.4	114.4	114.4	96.3	96.3	96.3
2007(b)	214.9	214.9	214.9	117.4	117.4	117.4	97.5	97.5	97.5
2008	220.1	219.5	218.9	120.9	120.6	120.3	99.2	98.9	98.7
2009	225.5	223.7	221.9	124.4	123.6	122.4	101.1	100.1	99.5
2010	230.9	227.2	223.5	127.8	126.0	123.8	103.1	101.2	99.7
2011	236.3	230.7	225.1	131.2	128.4	125.1	105.1	102.3	100.0
2012	241.9	234.3	226.6	134.7	130.8	126.4	107.2	103.5	100.2
2013	247.6	237.8	228.1	138.3	133.2	127.7	109.3	104.6	100.4
2014	253.3	241.4	229.5	141.9	135.6	129.0	111.4	105.8	100.5
2015	259.2	245.0	230.9	145.6	138.1	130.2	113.6	106.9	100.7
2016	265.1	248.6	232.2	149.3	140.5	131.5	115.8	108.1	100.8
2017	271.2	252.2	233.5	153.1	142.9	132.6	118.1	109.2	100.9
2018	277.3	255.8	234.8	156.9	145.4	133.8	120.4	110.4	100.9
2019	283.5	259.4	235.9	160.8	147.9	135.0	122.8	111.6	101.0
2020	289.8	263.1	237.1	164.7	150.3	136.1	125.1	112.7	101.0
2021	296.3	266.7	238.2	168.7	152.8	137.2	127.6	113.9	101.0
2022	302.8	270.3	239.2	172.7	155.3	138.2	130.0	115.1	101.0
2023	309.3	274.0	240.3	176.8	157.8	139.3	132.5	116.2	101.0
2024	315.9	277.7	241.3	180.9	160.3	140.4	135.0	117.4	100.9
2025	322.6	281.3	242.3	185.1	162.7	141.4	137.6	118.6	100.9
2026	329.4	285.0	243.3	189.3	165.2	142.4	140.1	119.8	100.8
2027	336.2	288.7	244.2	193.5	167.7	143.4	142.7	120.9	100.8
2028	343.1	292.4	245.2	197.7	170.2	144.5	145.3	122.1	100.7
2029	350.0	296.0	246.1	202.0	172.7	145.4	148.0	123.3	100.6
2030	357.0	299.7	247.0	206.3	175.2	146.4	150.7	124.5	100.5
2031	364.0	303.4	247.8	210.6	177.7	147.4	153.4	125.7	100.4
2032	371.2	307.1	248.7	215.0	180.2	148.3	156.2	126.9	100.3
2033	378.4	310.8	249.5	219.4	182.6	149.3	159.0	128.1	100.2
2034	385.6	314.5	250.3	223.8	185.1	150.2	161.8	129.3	100.0
2035	393.0	318.2	251.0	228.3	187.6	151.1	164.7	130.6	99.9
2036	400.4	321.9	251.8	232.8	190.1	152.0	167.6	131.8	99.7
2037	407.9	325.6	252.5	237.3	192.6	152.9	170.6	133.0	99.6
2038	415.6	329.4	253.3	241.9	195.1	153.8	173.7	134.3	99.4
2039	423.3	333.2	254.0	246.6	197.6	154.7	176.7	135.5	99.2
2040	431.2	337.0	254.7	251.3	200.2	155.6	179.9	136.8	99.0
2041	439.1	340.8	255.3	256.0	202.7	156.5	183.1	138.1	98.8
2042	447.2	344.6	256.0	260.9	205.3	157.4	186.3	139.3	98.6
2043	455.4	348.5	256.7	265.7	207.9	158.2	189.6	140.6	98.4
2044	463.7	352.4	257.3	270.7	210.5	159.1	193.0	142.0	98.2
2045	472.2	356.4	257.9	275.7	213.1	160.0	196.5	143.3	98.0
2046	480.7	360.4	258.5	280.8	215.7	160.8	199.9	144.6	97.7
2047	489.4	364.4	259.2	285.9	218.4	161.7	203.5	146.0	97.5
2048	498.2	368.4	259.7	291.1	221.1	162.5	207.1	147.3	97.2
2049	507.2	372.4	260.3	296.4	223.7	163.4	210.8	148.7	97.0
2050	516.2	376.5	260.9	301.7	226.4	164.2	214.5	150.1	96.7
2051	525.4	380.6	261.5	307.1	229.2	165.0	218.3	151.5	96.4
2052	534.7	384.8	262.0	312.6	231.9	165.9	222.1	152.9	96.1
2053	544.1	388.9	262.6	318.1	234.6	166.7	226.0	154.3	95.9
2054	553.6	393.1	263.1	323.6	237.4	167.6	230.0	155.7	95.6
2055	563.3	397.3	263.6	329.3	240.2	168.4	234.0	157.2	95.3
2056	573.0	401.6	264.2	334.9	243.0	169.2	238.1	158.6	94.9

(a) Final estimated resident population

(b) Preliminary estimated resident population, base population.

5.11 PROJECTED POPULATION, Australian Capital Territory

At 30 June	Series A '000	Series B '000	Series C '000
2006(a)	334.1	334.1	334.1
2007(b)	339.8	339.8	339.8
2008	344.4	343.8	342.7
2009	349.6	347.8	345.0
2010	355.7	352.0	347.4
2011	361.8	356.2	349.6
2012	368.1	360.4	351.7
2013	374.4	364.6	353.7
2014	380.7	368.7	355.7
2015	387.2	372.9	357.6
2016	393.7	377.0	359.4
2017	400.4	381.1	361.1
2018	407.0	385.2	362.8
2019	413.8	389.2	364.3
2020	420.6	393.2	365.8
2021	427.5	397.2	367.1
2022	434.5	401.1	368.4
2023	441.5	405.0	369.6
2024	448.5	408.9	370.8
2025	455.5	412.7	371.9
2026	462.5	416.5	373.0
2027	469.6	420.2	373.9
2028	476.7	423.9	374.8
2029	483.7	427.5	375.6
2030	490.8	431.0	376.3
2031	497.8	434.5	377.0
2032	504.9	437.9	377.5
2033	511.9	441.2	378.0
2034	518.9	444.5	378.4
2035	526.0	447.7	378.7
2036	533.0	450.8	379.0
2037	540.0	453.9	379.2
2038	547.1	457.0	379.3
2039	554.2	460.0	379.4
2040	561.4	463.0	379.4
2041	568.5	466.0	379.4
2042	575.8	468.9	379.3
2043	583.1	471.8	379.2
2044	590.4	474.8	379.0
2045	597.8	477.7	378.8
2046	605.3	480.6	378.5
2047	612.8	483.5	378.3
2048	620.4	486.4	377.9
2049	628.1	489.2	377.6
2050	635.8	492.1	377.2
2051	643.6	495.0	376.7
2052	651.4	497.9	376.3
2053	659.3	500.7	375.8
2054	667.2	503.6	375.3
2055	675.2	506.4	374.7
2056	683.2	509.3	374.2

(a) Final estimated resident population.
(b) Preliminary estimated resident population, base population.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains projections of Australia's population by age and sex for the period 2008 to 2101, and projections of the states, territories and capital cities/balances of state for the period 2008 to 2056. Capital city/balance of state projections were not generated for the Australian Capital Territory.

2 Three main series of projections (Series A, B and C) are presented in this publication. These series have been selected to provide a range, although not the full range, of projections for analysis and discussion.

3 For some states, Series A and C do not depict the highest or lowest population outcomes. Where applicable, other series have been included in commentary.

4 These projections supercede the 2004-based series published in *Population Projections, Australia, 2004 to 2101* (cat. no. 3222.0) in November 2005.

5 The projections for Australia include Other Territories, comprising Christmas Island, Cocos (Keeling) Islands and Jervis Bay Territory.

OBJECTIVES

6 The ABS publishes population projections twice every intercensal period to regularly service the needs of users of population projections.

7 The projections are not intended as predictions or forecasts, but are illustrations of growth and change in the population that would occur if assumptions made about future demographic trends were to prevail over the projection period.

8 While the assumptions for the projections are formulated on the basis of an assessment of past demographic trends, both in Australia and overseas, there is no certainty that any of the assumptions will or will not be realised. In addition, no assessment has been made of changes in non-demographic conditions.

9 Accordingly, alternative combination of assumptions have been provided in recognition of this uncertainty and to provide users with a range of options.

DEVELOPMENT

10 The process of developing population projections involves research, analysis, consultation and computation. Analysis of demographic trends, research into the determinants of population growth and distribution, and consultation with various individuals and government department representatives at the national and state levels are necessary to formulate the various assumptions and to ensure their general relevance for the projection period.

11 Consultation occurred from May to July 2008, following which assumptions for the population projections were finalised. Three assumptions were used for fertility, two assumptions were used for mortality, three assumptions were used for net overseas migration and three assumptions were used for internal migration. In addition, a zero net overseas migration assumption has been included to facilitate analysis of the impact of overseas migration to Australia.

PROJECTION TECHNIQUES

12 There are many techniques which may be used for population projections, such as simple extrapolations, probabilistic methods, broad economic, social and time-series analysis, and detailed component methods.

13 The ABS uses the cohort-component method, which begins with a base population for each sex by single year of age and advances it year by year by applying assumptions

PROJECTION TECHNIQUES *continued*

regarding future fertility, mortality and migration. This procedure is repeated for each year in the projection period for Australia and each state and territory, as well as each capital city/balance of state in each state and territory. The resulting population projections for each year for the states and territories, by sex and single year of age, are adjusted to sum to the Australian results. Likewise, capital city/balance of state projections are adjusted to sum to their respective state/territory projections.

ASSUMPTIONS

14 Assumptions regarding future levels of fertility, mortality and migration used to produce the population projections, and how they were formulated, are discussed in Chapter 2—Assumptions.

ACKNOWLEDGMENT

15 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

RELATED PUBLICATION AND REFERENCES

16 Users may also wish to refer to the following ABS products:

Australian Demographic Statistics (cat. no. 3101.0)
Australian Historical Population Statistics (cat. no. 3105.0.65.001)
Births, Australia (cat. no. 3301.0)
Causes of Death, Australia (cat. no. 3303.0)
Deaths, Australia (cat. no. 3302.0)
Demographic Estimates and Projections: Concepts, Sources and Methods (cat. no. 3228.0)
Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2009 (cat. no. 3238.0)
Household and Family Projections, Australia, 2001 to 2026 (cat. no. 3236.0)
Information Paper: Improved Methods for Estimating Net Overseas Migration (cat. no. 3107.0.55.003)
Information Paper: Statistical Implications of Improved Methods for Estimating Net Overseas Migration, Australia, 2007 (cat. no. 3107.0.55.005)
Migration, Australia (cat. no. 3412.0)
Population by Age and Sex, Australian States and Territories (cat. no. 3201.0)

17 ABS products and publications are available free of charge from the ABS web site <http://www.abs.gov.au>. Click on Statistics to gain access to the full range of ABS statistical and reference information.

ADDITIONAL STATISTICS AVAILABLE

18 More detailed information for the three main series presented in this publication and other series can be obtained from the ABS web site in *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0). Data cubes provided are:

- *Projected population, Australia, 2006–2101*—in SuperTABLE format;
- *Projected population, capital city/balance of state, 2006–2056*—in SuperTABLE format for each state/ territory;
- *Projected population, components of change and summary statistics, 2006–2101*—in Microsoft Excel format for Australia, state/territory and capital city/balance of state.

19 Population projections for the three main series (Series A, B and C) for Australia and the states are also available in Time Series Spreadsheet (Microsoft Excel) format from the ABS web site.

20 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
Aust.	Australia
Bal	Balance
DIAC	Australian Government Department of Immigration and Citizenship
ERP	estimated resident population
NIM	net interstate migration
NOM	net overseas migration
NSW	New South Wales
NT	Northern Territory
OAD	overseas arrivals and departures
Qld	Queensland
SA	South Australia
SD	statistical division
SLA	statistical local area
Tas.	Tasmania
TFR	total fertility rate
UN	United Nations
Vic.	Victoria
WA	Western Australia

GLOSSARY

12/12 month rule A method for measuring an overseas traveller's duration of stay or absence in which the 12 month usual residence criterion in population estimates is measured across a 12 month period. Under a 12/12 month rule, overseas travellers must be resident in Australia for a *continuous* 12 month period or more to be included in the estimated resident population. Similarly, Australian residents travelling overseas must be absent from Australia for a continuous 12 month period or more to be removed from the estimated resident population.

12/16 month rule A method for measuring an overseas traveller's duration of stay or absence which takes an approach to measure usual residence that *does not have to be continuous*, as opposed to the continuous approach used under a 12/12 month rule. Under a 12/16 month rule, overseas travellers must have been resident in Australia for a total period of 12 months or more, during the 16 month follow-up period to be included in the estimated resident population.

The 12/16 month rule therefore takes account of those persons who may have left Australia briefly and returned, while still being resident for 12 months out of 16. Similarly, it takes account of Australians who live most of the time overseas but periodically return to Australia for short periods.

Age-specific death rates Age-specific death rates are the number of deaths (occurred or registered) during the calendar year at a specified age per 1,000 of the estimated resident population of the same age at mid-point of the year (30 June). Pro rata adjustment is made in respect of deaths for which the age of the deceased is not given.

Age-specific fertility rates Age-specific fertility rates are the number of live births (occurred or registered) during the calendar year, according to the age of the mother, per 1,000 of the female estimated resident population of the same age at 30 June. For calculating these rates, births to mothers under 15 years are included in the 15–19 years age group, and births to mothers aged 50 years and over are included in the 45–49 years age group.

Average annual growth rate The average annual population growth rate, r, is calculated as a percentage using the formula:

$$r = \left[\left(\frac{P_n}{P_o} \right)^{\frac{1}{n}} - 1 \right] \times 100$$

where P_0 is the population at the start of the period, P_n is the population at the end of the period and n is the length of the period between P_n and P_0 in years.

Balance of state/territory The aggregation of all Statistical Divisions (SD) within a state or territory other than its Capital City SD. See Major Statistical Region in Australian Standard Geographical Classification (ASGC) (cat. no. 1216.0).

Baby boom Baby boom refers to the generation born between the end of World War II and the mid-1960s. Baby boomers are usually taken to be those born in the years 1946 to 1965 inclusive.

Birth The delivery of a child, irrespective of the duration of pregnancy, who, after being born, breathes or shows any evidence of life such as a heartbeat.

Capital city Refers to the Capital City Statistical Divisions of states and territories as defined in Statistical Geography: Volume 1. Australian Standard Geographical Classification (ASGC) (cat. no. 1216.0).

Dependency ratio The dependency ratio is a measure used to compare the size of the working age population to the size of the non-working age population, calculated as the sum of people aged 0–14 and 65 years and over (that is, 'dependents') divided by the number of people aged 15–64 years, multiplied by 100.

Estimated resident population The official measure of the population of Australia is based on the concept of residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. It includes usual residents who are overseas for less than 12 months. It excludes overseas visitors who are in Australia for less than 12 months.

Fertility schedule A fertility schedule is a time series of age-specific fertility rates.

Infant mortality rate The number of deaths of children under one year of age in a calendar year per 1,000 live births in the same calendar year.

Internal migration The difference between the number of persons who have changed their place of usual residence by moving into a defined geographical area and the number who have changed their place of usual residence by moving out of that defined geographical area during a specified time period. This difference may be either positive or negative.

Life expectancy at birth Life expectancy refers to the average number of additional years a person of a given age and sex might expect to live if the age-specific death rates of the given period continued throughout his or her lifetime.

Median value For any distribution the median value (age, duration, interval) is that value which divides the relevant population into two equal parts, half falling below the value, and half exceeding it. Where the value for a particular record has not been stated, that record is excluded from the calculation.

Migration adjustment The ABS applies a number of adjustments to overseas arrivals and departures (OAD) data in order to produce estimates of net overseas migration (NOM). These mainly comprise adjustments designed to reflect differences between stated travel intentions and actual travel behaviour, but also include adjustments to transform numbers of overseas movements into numbers of travellers. These adjustments are collectively referred to as 'migration adjustments', although they have been referred to in the past as 'category jumping' adjustments.

Natural increase The excess of births over deaths.

Net interstate migration The difference between the number of persons who have changed their place of usual residence by moving into a given state or territory and the number who have changed their place of usual residence by moving out of that state or territory during a specified time period. This difference can be either positive or negative.

Net overseas migration (NOM) Net overseas migration is the net gain or loss of population through immigration to Australia or emigration from Australia. It is:

- based on an international travellers' duration of stay being in or out of Australia for 12 months or more;
- the difference between the number of incoming travellers who stay in Australia for 12 months or more and are added to the population (NOM arrivals) and the number of outgoing travellers who leave Australia for 12 months or more and are subtracted from the population (NOM departures).

When using the current method for estimating final net overseas migration this term is then based on a traveller's actual duration of stay or absence using the 12/16 month rule. Preliminary NOM estimates are modelled on patterns of traveller behaviours observed in final NOM estimates for the same period two years earlier.

NOM arrivals NOM arrivals are all overseas arrivals that contribute to net overseas migration (NOM). It is the number of incoming international travellers who stay in Australia for 12 months or more and are added to the population.

NOM arrivals *continued*

When using the current method for estimating net overseas migration this term is then based on a traveller's actual duration of stay using the 12/16 month rule.

NOM departures

NOM departures are all overseas departures that contribute to net overseas migration (NOM). It is the number of outgoing international travellers (Australian residents and long-term visitors to Australia) who leave Australia for 12 months or more and are subtracted from the population.

When using the current method for estimating net overseas migration this term is then based on a traveller's actual duration of absence using the 12/16 month rule.

Other Territories

Other Territories comprises Christmas Island, Cocos (Keeling) Islands and Jervis Bay Territory.

Population growth

For Australia, population growth is the sum of natural increase and net overseas migration. For states and territories, population growth also includes net interstate migration. After the census, intercensal population growth also includes an allowance for intercensal discrepancy.

Rate of population growth

Population change over a period as a proportion (percentage) of the population at the beginning of the period.

Replacement fertility

Replacement level fertility is the number of babies a female would need to have over her reproductive life span to replace herself and her partner. Given the current mortality of females up to age 49 years, replacement fertility is estimated at 2.1 babies per female.

Sex ratio

The sex ratio relates to the number of males per 100 females. The sex ratio is defined for total population, at birth, at death and among age groups by appropriately selecting the numerator and denominator of the ratio.

Standardised death rate

Standardised death rates enable the comparison of death rates between populations with different age structures by relating them to a standard population. The ABS standard populations relate to the years ending in 1 (e.g. 1991). The current standard population is all persons in the 2001 Australian population. They are expressed per 1,000 or 100,000 persons. There are two methods of calculating standardised death rates:

- *The direct method*—-this is used when the populations under study are large and the age-specific death rates are reliable. It is the overall death rate that would have prevailed in the standard population if it had experienced at each age the death rates of the population under study. This is the method used in this publication.
- *The indirect method*—this is used when the populations under study are small and the age-specific death rates are unreliable or not known. It is an adjustment to the crude death rate of the standard population to account for the variation between the actual number of deaths in the population under study and the number of deaths which would have occurred if the population under study had experienced the age-specific death rates of the standard population.

Statistical Division

Statistical Divisions (SD) consist of one or more Statistical Subdivisions (SSD). The divisions are designed to be relatively homogenous regions characterised by identifiable social and economic units within the region, under the unifying influence of one or more major towns or cities. Further information concerning SDs is contained in Australian Standard Geographical Classification (ASGC) (cat. no. 1216.0).

State or territory and Statistical Local Area of usual residence

State or territory and Statistical Local Area of usual residence refers to the state or territory and SLA of usual residence of:

- the population (estimated resident population)
- the mother (birth collection)
- the deceased (death collection).

In the case of overseas movements, state or territory of usual residence refers to the state or territory regarded by the traveller as the one in which he/she lives or has lived. State or territory of intended residence is derived from the intended address given by settlers, and by the Australian residents returning after a journey abroad. Particularly in

State or territory and Statistical Local Area of usual residence *continued*

the case of the former, this information does not necessarily relate to the state or territory in which the traveller will eventually establish a permanent residence.

Total fertility rate

The sum of age-specific fertility rates. It represents the number of children a female would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

Usual residence

Usual residence within Australia refers to that address at which the person has lived or intends to live for a total of six months or more in a given reference year.

BIBLIOGRAPHY

FERTILITY

Carmichael, G 1998, 'Things Ain't What They Used To Be! Demography, Mental Cohorts, Mortality and Values in Post-war Australia', *Journal of the Population Association,* Vol. 15, no. 2, pp. 91–113 (Presidential Address to the Australian Population Association).

Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat 2007, World Population Prospects: The 2006 Revision <http://esa.un.org/unpp>.

Population Reference Bureau, 2006, World Population Data Sheet <http://www.prb.org/pdf06/06WorldDataSheet.pdf>.

Statistics New Zealand 2007, National Population Projections, <http://www.stats.govt.nz/products-and-services/info-releases/nat-pop-proj-info-releases.htm>

United States Census Bureau 2004, US Interim Projections by Age, Sex, Race and Hispanic Origin, <http://www.census.gov/ipc/www/usinterimproj/>

Statistics Sweden 2007, Population Projections 2008-2110, <http://www.ssd.scb.se/databaser/makro/produkt.asp?produktid=BE0401&lang=2>

MORTALITY

Booth, H, Maindonald, J & Smith, L 2002, 'Applying Lee-Carter under conditions of variable mortality decline', *Population Studies,* vol. 56, no. 3, pp. 325–336.

OVERSEAS MIGRATION

Richardson, Lester, S & L 2004, *A Comparison of Australian and Canadian Immigration Policies and Labour Market Outcomes*, Report to the Department of Immigration and Multicultural and Indigenous Affairs, The National Institute of Labour Studies, Flinders University.

IMPLICATIONS OF AGEING

Department of Treasury 2007, *Intergenerational Report 2007,* <http://www.treasury.gov.au/igr>

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