



EXPERIMENTAL ESTIMATES AND PROJECTIONS, ABORIGINAL AND TORRES STRAIT ISLANDER AUSTRALIANS

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) TUES 8 SEP 2009

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I N Q U I R I E S

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Ellouise Hyams on Canberra (02) 6252 6820.

NOTES

ABOUT THIS PUBLICATION

In this publication the word 'Indigenous' refers to Aboriginal and Torres Strait Islander peoples of Australia.

This publication contains experimental estimates and projections of the Aboriginal and Torres Strait Islander (Indigenous) population of Australia and the states and territories for 30 June 1991 to 30 June 2021, based on the 2006 Census of Population and Housing. Estimates for 30 June 1986 to 30 June 1990 are also included, however these estimates should be interpreted with caution.

Detailed information is available in data cubes from the ABS web site <<http://www.abs.gov.au>>.

Projections of the Indigenous population by Indigenous Regions and Remoteness Areas (scheduled for release 30 September 2009) for 30 June 2007 to 30 June 2021 will also be available from the ABS web site.

CHANGES TO THIS ISSUE

SuperTABLE data cubes attached to this issue contain 14 projection series for Australia and the states and territories, for 2007 to 2021. Population estimates for 1986 to 2006 are also included as spreadsheets.

SuperTABLE data cubes for Indigenous Regions and Remoteness Areas for 2006 to 2021 are scheduled for release 30 September 2009 as part of this publication.

These estimates and projections supercede the 2001 census-based series published in *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2009* (cat. no. 3238.0) released in September 2004.

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 demographic trends, 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.

ROUNDED FIGURES

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.

Peter Harper
Acting Australian Statistician

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AIGC	Australian Indigenous Geographical Classification
ARIA	Accessibility/Remoteness Index of Australia
ASDR	age-specific death rate
ASFR	age-specific fertility rate
ASGC	Australian Standard Geographical Classification
ATSIC	Aboriginal and Torres Strait Islander Commission
Aust.	Australia
CD	collection district
ERP	estimated resident population
ICC	Indigenous Coordination Centre
IREG	Indigenous Region
NSW	New South Wales
NT	Northern Territory
OT	Other Territories
PES	Census of Population and Housing Post Enumeration Survey
Qld	Queensland
RA	Remoteness Area
SA	South Australia
SD	statistical division
Tas.	Tasmania
TFR	total fertility rate
TSRA	Torres Strait Regional Authority
Vic.	Victoria
WA	Western Australia

INTRODUCTION

The estimates and projections of Aboriginal and Torres Strait Islander (Indigenous) Australians presented in this publication are experimental. The significant volatility in Indigenous census counts and the quality of data on births, deaths and migration of Indigenous people do not support the use of the standard approach to population estimation.

Population estimates

Estimates for the Indigenous population of Australia and the states and territories have been produced for the period 1986 to 2006. Estimates should be treated with caution given the 20-year interval for which the assumption of improving life expectancy is applied (see Chapter 2 for more information), particularly for the period 1986 to 1990.

Population projections

Using assumptions about future fertility, paternity, life expectancy at birth and migration, 14 series of projections of the Indigenous population have been generated for 2007 to 2021 (see Chapter 2 for more information). Two series, Series A and B, have been chosen for analysis in this publication. Detailed information for these and the remaining series are available in data cubes attached to this publication on the ABS web site.

It is important to recognise that the projections are not predictions or forecasts, but are illustrations of the growth and change in population which would occur if certain assumptions about future levels of fertility, mortality and migration were to prevail over the projection period. There can be no certainty that any particular outcome will be realised, or that future outcomes will necessarily fall within the projected ranges.

1.1 MAIN PROJECTION SERIES, Australia

	ASSUMPTIONS, YEAR ENDED 30 JUNE 2021				PROJECTED POPULATION		
	<i>Total fertility rate (a)</i>	<i>Total paternity rate (b)</i>	<i>Male life expectancy at birth</i>	<i>Female life expectancy at birth</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
	babies per woman	babies per man	years	years	no.	no.	no.
Series A	2.13	1.19	(c) 67.3	(c) 73.0	355,771	357,535	713,306
Series B	2.13	1.19	(d) 72.1	(d) 77.8	359,902	361,162	721,064

- (a) Indigenous fertility rates decline by 0.5% per year.
- (b) Indigenous paternity rates increase by 1% per year.
- (c) Indigenous life expectancy at birth remains constant at 67.3 years for males and 73.0 years for females.
- (d) Indigenous life expectancy at birth increases by five years, reaching 72.1 years for males and 77.8 years for females by 2021 (from 67.1 years for males and 72.8 years for females in 2006).

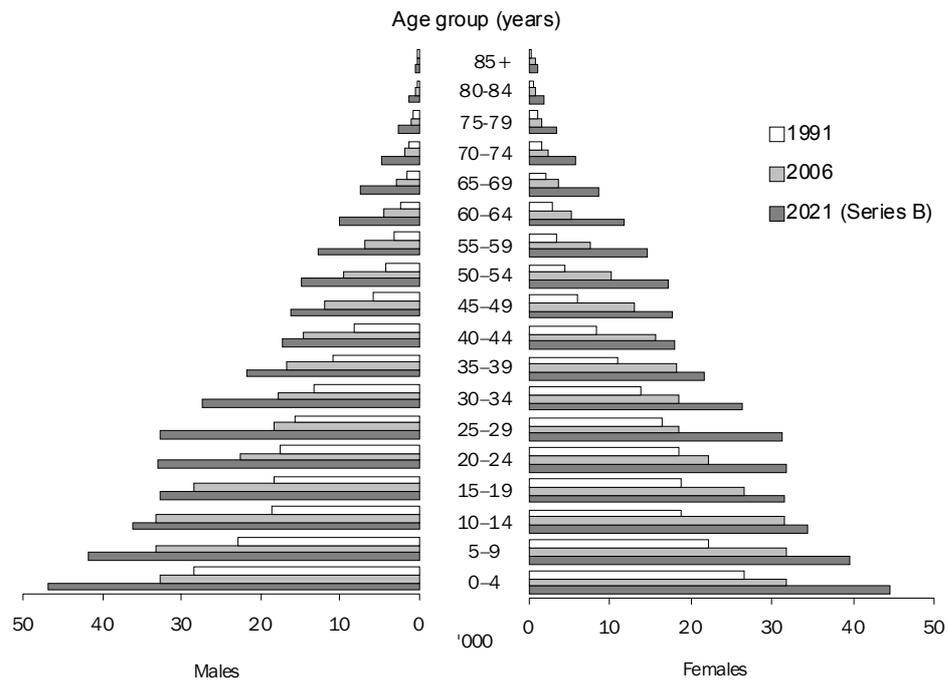
AUSTRALIA

The estimated resident Indigenous population of Australia at 30 June 1991 was 351,000 people. In 2006, there were 517,000 Indigenous people, representing 2.5% of the total Australian population. Between 1991 and 2006 the Indigenous population increased by 2.6% per year on average, compared with 1.2% for the total Australian population.

The population of Indigenous Australians is projected to increase to between 713,300 and 721,100 people in 2021, at an average growth rate of 2.2% per year. In comparison, the average growth rate of the total Australian population is projected to be between 1.2% and 1.7% per year over the same period (Population Projections, Australia, 2006 to 2101, cat. no. 3222.0).

The Indigenous population is projected to increase across all age groups between 2006 and 2021. The number of Indigenous children (0–14 years) is projected to increase from 194,200 in 2006 to between 242,600 and 243,400 in 2021, while the number of Indigenous people aged 25–54 years is projected to increase from 183,000 in 2006 to between 260,100 and 262,300 in 2021. The number of older Indigenous people (55 years and over) is projected to more than double over the period, from 40,000 in 2006 to between 82,000 and 86,600 in 2021.

1.2 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Australia—at 30 June



The median age of the Indigenous population is estimated to have increased from 20.1 years in 1991 to 21.0 years in 2006, and is projected to increase to between 23.9 and 24.1 years in 2021.

AUSTRALIA *continued*

The proportion of Indigenous children aged 0–14 years is projected to decrease from 38% in 2006 to 34% in 2021, while the proportion of Indigenous people aged 55 years and over is projected to increase from 8% in 2006 to between 11% and 12% in 2021. The proportion of Indigenous people aged 25–54 years is projected to increase marginally, from 35% in 2006 to 36% in 2021.

STATES AND TERRITORIES

At 30 June 2006, New South Wales had the largest Indigenous population of the states and territories (152,700 people), followed by Queensland (144,900), Western Australia (71,000), the Northern Territory (64,000), Victoria (33,500), South Australia (28,100), Tasmania (18,400) and the Australian Capital Territory (4,300) (table 1.3).

The Indigenous population of Queensland is projected to be the fastest growing of the states and territories, with an average growth rate over the projection period of between 2.6% and 2.7% per year, followed by Victoria (between 2.4% and 2.5%), the Australian Capital Territory (2.4%) and Tasmania (between 2.3% and 2.4%). The Northern Territory is projected to have the lowest growth rate over the fifteen year period, of between 1.6% and 1.7% per year.

In both Series A and B, Queensland is projected to overtake New South Wales in 2016 as the state or territory with the largest Indigenous population. Queensland's share of Australia's Indigenous population is projected to increase from 28.0% in 2006 to 29.8% in 2021, while New South Wales is projected to decrease marginally, from 29.5% to 29.2%. The distribution amongst the remaining states and territories is projected to remain largely unchanged.

1.3 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, States and territories—1991–2021

	1991	2006	2021 (SERIES A)		2021 (SERIES B)	
	no.	no.	no.	Growth rate (%) (a)	no.	Growth rate (%) (a)
NSW	101 493	152 685	208 341	2.1	210 582	2.2
Vic.	22 625	33 517	47 721	2.4	48 233	2.5
Qld	95 671	144 885	212 908	2.6	215 082	2.7
SA	19 775	28 055	37 987	2.0	38 413	2.1
WA	49 632	70 966	92 587	1.8	93 612	1.9
Tas.	12 462	18 415	26 063	2.3	26 353	2.4
NT	46 431	64 005	81 298	1.6	82 339	1.7
ACT	2 727	4 282	6 101	2.4	6 148	2.4
Aust. (b)	350 985	517 043	713 306	2.2	721 064	2.2

(a) Average annual growth rate for the period 2006 to 2021.

(b) Includes Other Territories.

INTRODUCTION

The Australian Bureau of Statistics (ABS) uses the cohort-component method for producing population projections. Using this method, assumptions made about future levels of fertility, mortality, and 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.

A similar method can also be used to produce population estimates for earlier years (in this publication, years prior to the 2006 Census of Population and Housing). This technique requires assumptions to be made about past levels of mortality, which are applied to the base population to obtain a 'reverse-survived' population for the previous year. The assumptions are then applied to this new (reverse-survived) population to obtain a population for the preceding year. This process is repeated until the first year of the estimation period is reached.

Estimates and projections presented in this publication supercede estimates and projections based on earlier censuses. The assumptions used differ from those in previous publications. As a result, and in addition to the use of a different base population, the size, structure and components of the estimated and projected Indigenous population are different to those previously published.

Span of estimates and projections

Estimates of the Indigenous population in this publication span the period 30 June 1991 to 30 June 2006 and are available for Australia and the states and territories. Estimates for the period 30 June 1986 to 30 June 1990 have also been produced. Given the 20-year interval for which the assumption of improving life expectancy at birth is applied, and given zero interstate migration is assumed for the estimates, data should be interpreted with caution.

Projections of the Indigenous population in this publication span the period 30 June 2007 to 30 June 2021 and are available for Australia and the states and territories. Projections for Indigenous Regions and Remoteness Areas for the same period will be available in data cubes attached to this publication on the ABS web site on 30 September 2009.

Base population

The base population is the experimental Indigenous resident population of Australia at 30 June 2006, derived from 2006 Census of Population and Housing counts of Indigenous Australians, adjusted for net undercount as measured by the Post Enumeration Survey (PES).

ESTIMATES

Summary of assumptions

A single time series of Indigenous estimates for the period 1986 to 2005 has been produced. The assumptions used are summarised below:

- male and female Indigenous life expectancy at birth increases by 0.2 years per year between 1986 and 2006 (this assumes Indigenous life expectancy at birth of 63.1 years for males and 68.8 years for females for Australia in 1986);
- zero net interstate migration with no arrivals and departures; and,
- zero net overseas migration with no arrivals and departures.

Chapter 5 presents summary statistics for Australia and the states and territories for the period 1986 to 2006. Detailed information is available in data cubes attached to this publication on the ABS web site.

PROJECTIONS

Summary of main assumptions

Assumptions have been formulated on the basis of past demographic trends, 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.

Assumptions used to produce the two main projection series (Series A and B) are summarised below:

- an annual decline of 0.5% in fertility rates;
- an annual increase of 1% in paternity rates;
- two assumptions were made about future Indigenous life expectancy at birth for Australia:
 - Indigenous life expectancy at birth will remain constant at 67.3 years for males and 73.0 years for females for the duration of the projection period; and
 - Indigenous life expectancy at birth will increase by 0.3 years per year for both males and females, reaching 72.1 years for males and 77.8 years for females by 2021. This equates to an increase in life expectancy at birth of 5 years over the 15 year projection period for both males and females.
- constant interstate migration at levels observed in the 2006 Census; and
- zero net overseas migration with no arrivals and no departures.

Projection series

In addition to the above assumptions, a number of extra assumptions were used to produce 14 series of population projections (table 2.1). Series A and B were selected from these to provide a range, although not the full range, of projections for analysis and discussion in Chapters 1 and 3.

Chapter 6 presents summary statistics for Australia and the states and territories for Series A and B for the period 2006 to 2021. Detailed information on these and the remaining projection series are available in data cubes attached to this publication on the ABS web site.

2.1 PROJECTION SERIES, Assumptions used

	INTERSTATE MIGRATION(a)				ZERO INTERSTATE MIGRATION			
	Life expectancy at birth				Life expectancy at birth			
	1(b)	2(c)	3(d)	4(e)	1(b)	2(c)	3(d)	4(e)
CONSTANT PATERNITY RATES								
Fertility rates								
Constant	..	..	E	..	L	..	..	..
Annual decrease								
0.5%	..	..	F	..	..	..	..	..
1%	..	..	..	..	..	..	..	..
2%	M	..	..	..	..	..	..	..
1% ANNUAL INCREASE IN PATERNITY RATES								
Fertility rates								
Constant	..	..	G	..	..	..	..	..
Annual decrease								
0.5%	A	C	B	D	..	..	K	..
1%	..	..	H	..	..	..	..	..
2%	..	..	I	..	..	..	..	..
2% ANNUAL INCREASE IN PATERNITY RATES								
Fertility rates								
Constant	..	..	..	N	..	..	..	..
Annual decrease								
0.5%	..	..	J	..	..	..	..	..
1%	..	..	..	..	..	..	..	..
2%	..	..	..	..	..	..	..	..

- (a) Levels of interstate migration as observed in the 2006 Census.
- (b) Indigenous life expectancy at birth remains constant at 67.3 years for males and 73.0 years for females.
- (c) Indigenous life expectancy at birth increases at the same rate as assumed life expectancy at birth for the total Australian population (as assumed in the medium mortality assumption, *Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0), reaching 70.2 years for males and 75.2 years for females by 2021.
- (d) Indigenous life expectancy at birth increases by five years, reaching 72.1 years for males and 77.8 years for females by 2021 (from 67.1 years for males and 72.8 years for females in 2006).
- (e) Indigenous life expectancy at birth reaches assumed life expectancy at birth for the total Australian population by 2031 (as assumed in the medium mortality assumption, *Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0), reaching 76.7 years for males and 81.2 years for females by 2021.

Which series to use

The population projections are not intended as forecasts or predictions, 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.

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 gives a more realistic view of the possible future size, distribution and age structure of Australia's Indigenous population.

There is also uncertainty surrounding 2006 Indigenous census counts and population estimates on which the projections are based, as well as data quality issues relating to registered births and deaths of Indigenous people. Information on data quality issues related to Indigenous estimates and projections are available in the Quality Declaration attached to this publication on the ABS web site.

Given evidence of improvements in mortality for some states and territories and given the assumption of increasing life expectancy used in producing the 1991 to 2005 estimates, it is expected that the projection series incorporating increasing life expectancy at birth (Series B) will be chosen by most users.

FERTILITY AND PATERNITY

The ABS Birth Registrations collection identifies a birth as being of Aboriginal and/or Torres Strait Islander (Indigenous) origin where at least one parent identifies themselves as being of Indigenous origin on the birth registration statement. Therefore Indigenous births can be attributed to either:

- Indigenous mothers, including births where both the mother and father are Indigenous; or
- Indigenous fathers and non-Indigenous mothers.

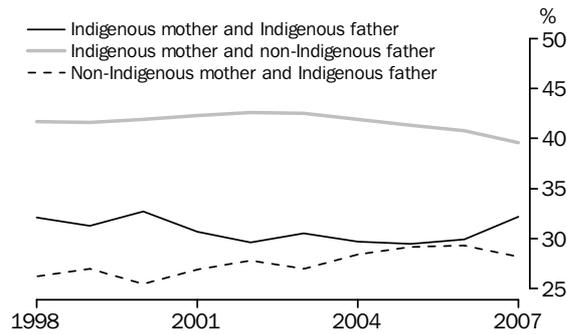
For simplicity, birth rates of Indigenous mothers are referred to in this publication as *fertility rates*, while birth rates where the father is Indigenous and the mother is non-Indigenous are referred to as *paternity rates*.

To produce population projections using the cohort-component method, assumptions for each year of the projection period are required for age-specific fertility rates, age-specific paternity rates and the sex ratio at birth.

Indigenous status of parents

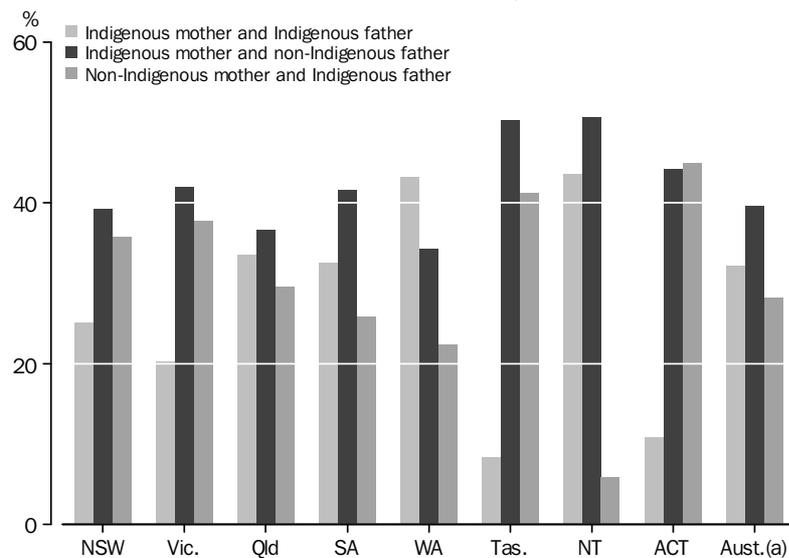
Around one-third (32%) of Indigenous births registered in 2007 were births for which both parents identified themselves as being of Indigenous origin on the birth registration statement. For 40% of Indigenous births, only the mother was of Indigenous origin (including births where paternity was not acknowledged and those where the father's Indigenous status was not stated). The remaining 28% of Indigenous births were recorded as having an Indigenous father and a non-Indigenous mother (including births where the mother's Indigenous status was not stated).

2.2 INDIGENOUS STATUS OF PARENTS, Australia, 1998–2007



The proportion of Indigenous births attributed to Indigenous mothers and/or Indigenous fathers differs significantly between the states and territories. In 2007, the proportion of Indigenous births where both the mother and father were Indigenous ranged from 44% in the Northern Territory to 8% in Tasmania, while the proportion of births to non-Indigenous mothers and Indigenous fathers ranged from 6% in the Northern Territory to 45% in the Australian Capital Territory (graph 2.3).

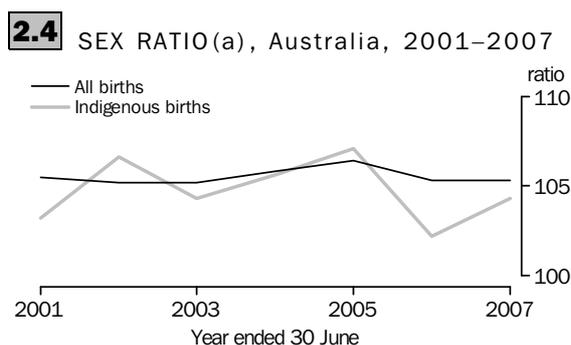
2.3 INDIGENOUS STATUS OF PARENTS, States and territories, 2007



(a) Includes Other Territories.

Sex ratio at birth

Population projections require an assumed sex ratio at birth (the ratio of male to female births, multiplied by 100) in order to split total projected births into male and female births. The sex ratio for all births registered in Australia fluctuates around 105.5 male births per 100 female births. The sex ratio for all registered births was 105.3 for the year ended 30 June 2006 and 105.5 for the year ended 30 June 2001. While the sex ratio at birth for Indigenous births is more volatile (graph 2.4), a constant ratio of 105.5 male births per 100 female births has been assumed for the duration of the projection period.



FERTILITY ASSUMPTION

One main assumption has been made for future fertility rates of Indigenous women:

- an annual decline of 0.5% in fertility rates. The total fertility rate (TFR) for Australia will decline from 2.3 babies per Indigenous woman in 2007 to 2.1 in 2021.

This assumption was primarily chosen on the basis of the declining trend in fertility as indicated by data from the 'children ever born' question asked in the Census.

The same rate of decline in fertility rates has been assumed for each state and territory, Indigenous Region and Remoteness Area; that is, each geographic area is assumed to experience a 0.5% annual decline in fertility rates over the projection period.

The effect of alternative fertility assumptions on the number of projected births and size of the future Indigenous population is described in Chapter 4.

Trends in fertility rates

CHILDREN EVER BORN

Cohort fertility rates, based on the 'children ever born' question asked in the Census of Population and Housing, illustrate a decline in Indigenous fertility over time.

The number of children ever born provides information on actual fertility outcomes of women of different ages. In particular, the number of children ever born to women aged 40–44 years can be regarded as a measure of completed fertility; that is, on average how many children this group of women had throughout their entire reproductive lifetimes.

In the 1981 Census, Indigenous women aged 40–44 years (born in 1937–1941) had an average of 4.55 babies per woman. In comparison, Indigenous women aged 40–44 years at the time of the 1986 Census (born in 1942–1946) had an average of 3.97 children. Those aged 40–44 years at the time of the 1996 Census (born 1952–1956) had an average of 3.10 children, and Indigenous women in this age group at the time of the 2006 Census (born in 1962–1966) had fewer children (2.84 babies per woman).

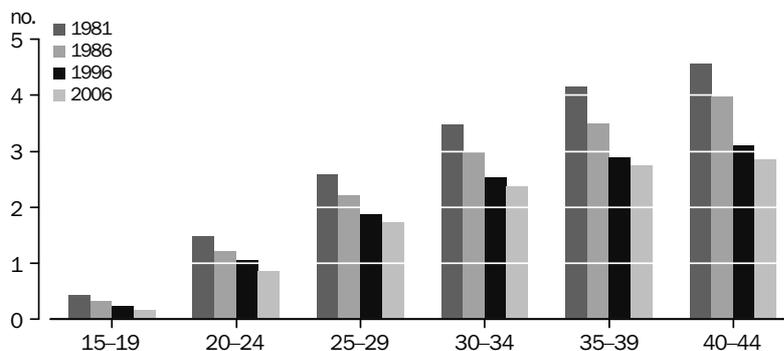
*Trends in fertility rates
continued*

CHILDREN EVER BORN *continued*

As indicated in graph 2.5, the average number of children ever born to Indigenous women has been declining for each age group over the past three decades. These declines, particularly in the younger age groups, indicate the possibility of future declines in the overall level of Indigenous fertility.

In the 1981 Census, Indigenous women aged 25–29 years (born in 1952–1956) had an average of 2.58 children ever born. In comparison, Indigenous women aged 25–29 years at the time of the 1986 Census (born in 1957–1961) had an average of 2.20 children. Those aged 25–29 years at the time of the 1996 Census (born in 1967–1971) had an average of 1.88 children, and Indigenous women in this age group at the time of the 2006 Census (born in 1977–1981) had an average of 1.73 children.

2.5 AVERAGE NUMBER OF CHILDREN EVER BORN(a), Indigenous women, 1981, 1986, 1996 and 2006 censuses



(a) Average number of children ever born calculated on assumption that women with 6 or more children had an average of 6.9 children.

Source: 1981, 1986, 1996 and 2006 Censuses of Population and Housing.

TOTAL FERTILITY RATE

The total fertility rate (TFR), based on birth registrations, represents the average number of children a woman could expect to bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

In the early 1960s, based on census data, the TFR for Indigenous women was 5.8 babies per woman. Since then, fertility levels for Indigenous women have declined substantially, with the largest decreases being recorded during the 1970s. Fertility of Indigenous women declined to a low of 1.9 babies per woman in 1996, gradually increased to 2.2 in 2001, and remained at around 2.1 until 2006.

In 2007, the TFR for Indigenous women increased to 2.4 babies per woman for Australia. This increase was largely driven by an increase in the number of births to Indigenous mothers in Queensland, which accounted for 57% of the overall increase in births to Indigenous mothers in Australia. In general, the TFR for Indigenous women has been constant at or around 2.1 babies per woman over the past decade.

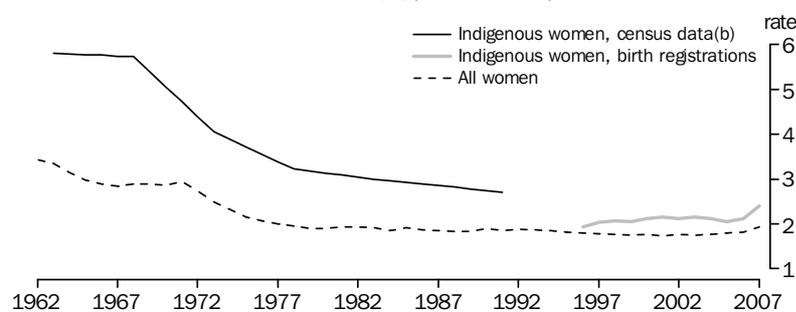
*Trends in fertility rates
continued*

TOTAL FERTILITY RATE *continued*

Graph 2.6 presents TFRs for Indigenous and all women for the period 1961–1966 to 2007. Due to the limited availability and poor quality of historical Indigenous birth registration data, fertility rates of Indigenous women up to 1991 were derived using data collected in the Australian censuses (Gray, 1997). With improvements in coverage, birth registration data has been used for 1996 onwards.

The TFRs for Indigenous women for the period 1996 to 2007 were derived using the number of births registered to Indigenous mothers, and estimates of the female Indigenous population. As these estimates are derived from different censuses, TFRs for Indigenous women for 1996 to 2007 are not strictly comparable.

2.6 TOTAL FERTILITY RATES (a), Australia, 1961–1966 to 2007



(a) Births per woman.

(b) Five-year TFRs (from 1961–66 to 1981–86) and ten-year TFR 1986–96 plotted against the middle year of the period.

Source: *Births, Australia, 2007* (cat. no. 3301.0)
Grey (1997)

*Choice of fertility
assumption*

In summary, while fertility rates based on birth registrations of Indigenous children may provide some evidence for assuming constant or increasing Indigenous fertility, cohort fertility rates based on the 'children ever born' question asked in the Census indicate long-term declines. The magnitude and duration of any future changes in fertility rates are not possible to gauge.

Given the long-term trend of declining fertility in Census data, a slowly decreasing fertility rate assumption has been chosen. Projection series which incorporate an assumption of constant fertility are also available in data cubes attached to this publication on the ABS web site.

*Method used to produce
fertility assumptions*

Assumed age-specific fertility rates for Indigenous women are based on three years of birth registrations (2005 to 2007) in order to minimise the effect of year-to-year fluctuations in registrations. These rates were adjusted to produce plausible numbers of projected births in the first year of the projection period in accordance with Indigenous population estimates at younger ages.

Adjustment factors were calculated for each state and territory by taking the ratio of the number of Indigenous children aged 0, 1 and 2 at 30 June 2006 to the number of births registered between 2005 and 2007. Differences in the two sources can be attributed to several factors. These include net undercount, census records for which Indigenous

*Method used to produce
fertility assumptions
continued*

status was not stated, lags in the registration of births and differences in the method of identification between the Census and the Birth Registrations collection (for example, a child born to an Indigenous and non-Indigenous parent is automatically identified as Indigenous in birth registrations, however the child may be identified as non-Indigenous on the census form). For each state and territory, the 2005–2007 age-specific fertility rates were then multiplied by the relevant adjustment factor to produce adjusted age-specific fertility rates.

In addition, as rates are required on a financial year basis, they were adjusted to account for the 6 month period between the mid-point of the period 2005–2007 (calendar year fertility rates) and 2006–07 (financial year fertility rates).

Although there is some evidence of greater declines in fertility in the younger age groups relative to older age groups, analysis suggests that incorporating this trend into the fertility assumptions would have a negligible effect on the future size of the Indigenous population. Therefore, the assumed 0.5% annual decline in fertility rates is applied uniformly across relevant age groups.

2.7 ASSUMED FERTILITY RATES, States and territories

AGE-SPECIFIC FERTILITY RATES(a)

	15–19(c)	20–24	25–29	30–34	35–39	40–44	45–49(d)	TFR(b)
YEAR ENDED 30 JUNE 2007								
NSW	60.6	122.4	114.8	87.1	42.8	9.3	1.0	2.19
Vic.	44.1	102.3	103.7	79.8	33.8	7.4	0.4	1.86
Qld	69.3	141.9	126.0	86.9	40.3	8.0	0.8	2.37
SA	67.3	127.5	107.8	70.3	35.2	7.1	—	2.08
WA	83.4	135.7	111.8	71.7	32.9	5.6	0.3	2.21
Tas.	42.6	115.2	116.6	73.6	23.0	2.8	—	1.87
NT	112.2	151.5	118.3	73.1	35.7	6.1	—	2.49
ACT	44.3	84.0	94.1	64.5	38.4	2.4	—	1.64
Aust. (e)	73.1	135.5	119.7	82.4	38.7	7.6	0.6	2.29
YEAR ENDED 30 JUNE 2021								
NSW	56.5	114.1	107.0	81.2	39.9	8.7	0.9	2.04
Vic.	41.1	95.3	96.7	74.4	31.5	6.9	0.4	1.73
Qld	64.6	132.2	117.5	81.0	37.6	7.5	0.7	2.21
SA	62.7	118.8	100.5	65.6	32.8	6.6	—	1.94
WA	77.7	126.5	104.3	66.8	30.7	5.2	0.3	2.06
Tas.	39.7	107.4	108.7	68.6	21.5	2.6	—	1.74
NT	104.6	141.2	110.3	68.1	33.3	5.7	—	2.32
ACT	41.3	78.3	87.7	60.1	35.8	2.2	—	1.53
Aust. (e)	68.1	126.3	111.5	76.8	36.0	7.1	0.5	2.13

— nil or rounded to zero (including null cells)

(a) Births per 1,000 Indigenous women.

(b) Births per Indigenous woman.

(c) Includes births to mothers aged less than 15 years.

(d) Includes births to mothers aged 50 years and over.

(e) Includes Other Territories.

Regional variations in fertility

INDIGENOUS REGIONS

In previously published ABS projections of the Indigenous population, fertility assumptions for sub-state geographies used the corresponding state and territory level assumption. The projections presented in this publication apply fertility assumptions for sub-state geographies by aggregating Indigenous Regions (IREGs) into two groups for each state and territory (except Tasmania and the Australian Capital Territory):

- capital city IREG (for example, Adelaide IREG); and
- rest of state/territory IREGs combined (for example, Port Augusta IREG and Ceduna IREG combined).

Fertility rates for each of these groups were equalised in a similar manner to state and territory rates to produce plausible numbers of projected births in the first year of the projection period in accordance with Indigenous population estimates at younger ages.

2.8 ASSUMED TOTAL FERTILITY RATES (a), Indigenous Regions

	30 June 2007	30 June 2021
Sydney IREG	1.81	1.69
Rest of NSW	2.28	2.12
Melbourne IREG	1.65	1.54
Rest of Vic.	2.10	1.96
Brisbane IREG	1.96	1.82
Rest of Qld	2.49	2.32
Adelaide IREG	1.94	1.81
Rest of SA	2.15	2.00
Perth IREG	2.12	1.98
Rest of WA	2.26	2.11
Tasmania IREG	1.87	1.74
Darwin IREG	2.44	2.27
Rest of NT	2.42	2.25
ACT IREG	1.64	1.53
Australia (b)	2.29	2.13

(a) Births per Indigenous woman.

(b) Includes Other Territories.

REMOTENESS AREAS

Assumed fertility rates for Remoteness Areas were calculated and adjusted using the same technique as for the states and territories.

2.9 ASSUMED TOTAL FERTILITY RATES (a), Remoteness Areas

	30 June 2007	30 June 2021
Major Cities	1.92	1.79
Inner and Outer Regional (combined)	2.30	2.15
Remote and Very Remote (combined)	2.48	2.31
Australia (b)	2.29	2.13

(a) Births per Indigenous woman.

(b) Includes Other Territories.

PATERNITY ASSUMPTION

One main assumption has been made for future paternity rates of Indigenous men:

- an annual increase of 1% in paternity rates. The total paternity rate (TPR) for Australia will increase from 1.0 babies per Indigenous man in 2007 to 1.2 in 2021.

The total paternity rate (TPR) is defined in this publication as the average number of Indigenous babies born per Indigenous male where the mother is non-Indigenous, and is calculated in the same way as the TFR.

The same rate of increase in paternity rates has been assumed for each state and territory, Indigenous Region, and Remoteness Area; that is, each geographic area is assumed to experience a 1% annual increase in paternity rates over the projection period.

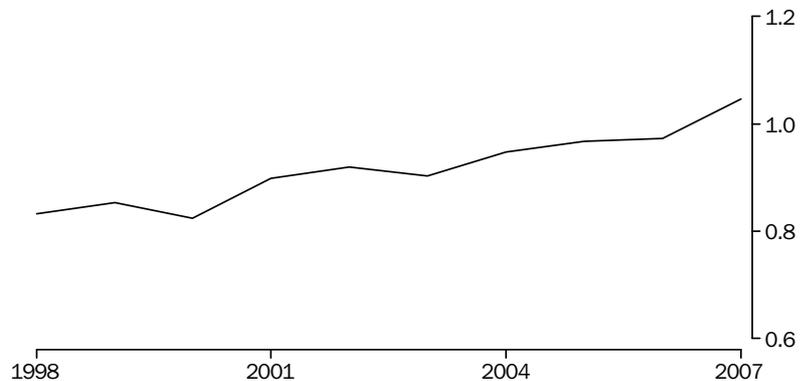
The effect of alternative paternity assumptions on the number of projected births and size of the future Indigenous population is described in Chapter 4.

Trends in paternity rates

As with the TFR, the time series of the TPR (graph 2.10) is based on population estimates which are not strictly comparable over time. Based on birth registrations, the TPR has been slowly increasing over the past decade, from 0.83 births per Indigenous man in 1998 to 1.05 in 2007.

Paternity rates prior to 1998 are not available as information on births to Indigenous fathers is not available for all states and territories, and no 'children ever born' question is asked of males in the Census.

2.10 TOTAL PATERNITY RATES (a), Australia, 1998–2007



(a) Births per Indigenous man, where mother is non-Indigenous unknown). The TPR is calculated in the same way as the TFR.

Method used to produce paternity assumptions

Assumed paternity rates were calculated using the same method as that used for assumed fertility rates. This involved the calculation of age-specific paternity rates based on 2005–2007 registered births to Indigenous fathers and non-Indigenous mothers, which were then adjusted to ensure consistency with the Indigenous population at younger ages. The assumption of a 1% annual increase in paternity rates was applied consistently across the relevant age groups.

2.11 ASSUMED PATERNITY RATES, States and territories

AGE-SPECIFIC PATERNITY RATES(a)

	15-19(c)	20-24	25-29	30-34	35-39	40-44	45-49(d)	TPR(b)
YEAR ENDED 30 JUNE 2007								
NSW	13.0	54.1	77.8	67.3	41.8	17.8	9.9	1.41
Vic.	11.5	53.0	63.7	64.3	43.6	15.5	13.9	1.33
Qld	11.1	46.5	60.5	54.1	30.6	14.1	8.7	1.13
SA	6.5	34.5	45.6	48.0	26.8	12.6	7.0	0.91
WA	9.2	28.4	33.0	31.1	19.7	9.5	7.6	0.69
Tas.	17.6	73.7	83.5	82.6	40.7	14.4	5.4	1.59
NT	1.4	7.5	11.2	10.7	5.6	2.9	4.5	0.22
ACT	11.8	41.8	68.9	78.2	33.9	23.0	14.9	1.36
Aust. (e)	10.3	41.6	54.2	49.6	29.8	13.2	8.7	1.04

YEAR ENDED 30 JUNE 2021

NSW	15.0	62.2	89.5	77.4	48.0	20.5	11.3	1.62
Vic.	13.2	60.9	73.3	73.9	50.1	17.8	16.0	1.53
Qld	12.7	53.5	69.5	62.2	35.1	16.2	10.0	1.30
SA	7.5	39.7	52.4	55.1	30.8	14.5	8.1	1.04
WA	10.5	32.6	38.0	35.7	22.7	10.9	8.8	0.80
Tas.	20.3	84.8	96.0	94.9	46.7	16.6	6.2	1.83
NT	1.6	8.6	12.9	12.3	6.4	3.3	5.2	0.25
ACT	13.6	48.0	79.2	89.9	39.0	26.4	17.1	1.57
Aust. (e)	11.8	47.9	62.3	57.0	34.3	15.2	10.0	1.19

(a) Births per 1,000 Indigenous men, where mother is non-Indigenous.

(b) Births per Indigenous man, where mother is non-Indigenous.

(c) Includes births to fathers aged less than 15 years.

(d) Includes births to fathers aged 50 years and over.

(e) Includes Other Territories.

Regional variations in paternity

INDIGENOUS REGIONS

Assumed paternity rates for IREGs were calculated and adjusted in the same way as for the states and territories.

2.12 ASSUMED TOTAL PATERNITY RATES (a), Indigenous Regions

	30 June 2007	30 June 2021
Sydney IREG	1.25	1.43
Rest of NSW	1.42	1.63
Melbourne IREG	1.19	1.37
Rest of Vic.	1.52	1.75
Brisbane IREG	1.41	1.63
Rest of Qld	0.93	1.07
Adelaide IREG	1.16	1.33
Rest of SA	0.40	0.46
Perth IREG	0.87	1.00
Rest of WA	0.58	0.66
Tasmania IREG	1.59	1.83
Darwin IREG	0.66	0.76
Rest of NT	0.09	0.10
ACT IREG	1.36	1.57
Australia (b)	1.04	1.19

- (a) Births per Indigenous man, where mother is non-Indigenous.
 (b) Includes Other Territories.

REMOTENESS AREAS

Assumed paternity rates for Remoteness Areas were calculated and adjusted using the same technique as for the states and territories.

2.13 ASSUMED TOTAL PATERNITY RATES (a), Remoteness Areas

	30 June 2007	30 June 2021
Major Cities	1.26	1.45
Inner and Outer Regional (combined)	1.20	1.38
Remote and Very Remote (combined)	0.29	0.34
Australia (b)	1.04	1.19

- (a) Births per Indigenous man, where mother is non-Indigenous.
 (b) Includes Other Territories.

MORTALITY ASSUMPTIONS

Two main assumptions have been made for future Indigenous life expectancy at birth for Australia:

- Indigenous life expectancy at birth will remain constant at 67.3 years for males and 73.0 years for females over the projection period; and
- Indigenous life expectancy at birth will increase by five years over the projection period, reaching 72.1 years for males and 77.8 years for females by 2021 (from 67.1 years for males and 72.8 years for females in 2006).

To produce population projections using the cohort-component method, life tables are required for each year of the projection period. These are calculated in two steps:

- life expectancy at birth for each projection year is assumed; and
- life tables, based on the 2005–2007 age/sex structure of mortality, are generated to match the assumed life expectancies at birth.

Survivorship ratios from the life tables are then applied to the population by single year of age and sex.

Assumptions for mortality at lower geographical levels are based on 2005–2007 differentials between Australia and each state or territory, groups of Indigenous Regions, and Remoteness Areas.

The effect of alternative life expectancy at birth assumptions on the number of projected deaths and size of the future Indigenous population is described in Chapter 4.

Current life expectancy at birth

At the national level, Indigenous life expectancy at birth for the period 2005–2007 is estimated to be 67.2 years for males and 72.9 years for females (see *Experimental Life Tables for Aboriginal and Torres Strait Islander Australians, 2005–2007*, cat. no. 3302.0.55.003).

As survivorship ratios are required on a financial year basis, life expectancy at birth estimates were adjusted to account for the 6 month period between the midpoint of 2005–2007 (calendar year life expectancy) and 2005–06 (financial year life expectancy), resulting in life expectancy at birth of 67.1 years for Indigenous males and 72.8 years for Indigenous females for Australia for the year ending 30 June 2006, which form the starting point of the life expectancy at birth assumptions.

Trends in life expectancy at birth

The ABS has compiled experimental life tables for Indigenous Australians following the 1996, 2001 and 2006 Censuses of Population and Housing. Due to changes in methods, the most recent estimates of life expectancy at birth are not comparable to estimates for earlier periods. Assumptions about future levels of Indigenous life expectancy at birth cannot therefore be based on observed trends.

A recent study (Wilson, Condon and Barnes, 2007) found evidence that life expectancy at birth of Indigenous people living in the Northern Territory has improved, increasing from 52 years for males and 54 years for females in the late 1960s to around 60 years for males and 68 years for females in recent years. The study found that improvements in infant mortality contributed significantly to increases in life expectancy at birth, particularly between the late 1960s and mid-1980s. Since then life expectancy gains have been largely the result of improving mortality of Indigenous people aged 45 years and over.

Trends in life expectancy at birth continued

In addition, alternative measures indicate some improvement in mortality of Indigenous Australians over time. For example, declines in Indigenous mortality, as measured by age-standardised death rates, have been recorded for both males and females in Western Australia, and females in the Northern Territory between 1991 and 2005. Declines in Indigenous infant mortality have also been recorded in Western Australia, South Australia and the Northern Territory over the period (see *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 2008*, cat. no. 4704.0).

Assumed life expectancy at birth

Two life expectancy at birth assumptions have been used to produce the two main series. One assumes that Indigenous life expectancy at birth will remain constant at 67.3 years for males and 73.0 years for females over the projection period.

The second mortality assumption is that Indigenous life expectancy at birth will increase by 0.3 years per year from 2005–06 levels for both males and females. An annual increase of around 0.3 years per year has been observed for the total Australian male population over the past 20 years. This level of improvement assumes that Indigenous life expectancy at birth will increase at a faster rate than total Australian life expectancy (as assumed in the medium mortality assumption, *Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0), resulting in a narrowing of the difference between Indigenous and total Australian life expectancy at birth throughout the projection period. Based on this assumption, both male and female life expectancy at birth increase by five years over the fifteen year projection period, reaching 72.1 and 77.8 years respectively in 2021.

State/territory variations in mortality

Indigenous life expectancy at birth differs between the states and territories. For the purposes of these projections, mortality differentials between each state/territory and Australia are calculated and applied to the assumed Australian life expectancies at birth (table 2.14) to obtain assumed life expectancy at birth for the states and territories. This method assumes that the mortality differentials, based on those observed during 2005–2007, will remain constant throughout the projection period.

Indigenous life expectancy at birth for 2005–2007 is available for New South Wales, Queensland, Western Australia and the Northern Territory. Due to small numbers of registered Indigenous deaths it is not possible to produce Indigenous life tables for the remaining jurisdictions. For the purposes of the projections, life expectancy at birth for Victoria and Tasmania is assumed to be the same as New South Wales, while life expectancy at birth for South Australia is assumed to be the same as Western Australia. Life expectancy at birth for the Australian Capital Territory is assumed to be the same as that derived for Sydney Indigenous Region.

State/territory variations
in mortality continued

2.14 INDIGENOUS LIFE EXPECTANCY AT BIRTH AND MORTALITY DIFFERENTIALS (a), States and territories, 2005–2007

	LIFE EXPECTANCY AT BIRTH		MORTALITY DIFFERENTIALS	
	Males	Females	Males	Females
	years	years	%	%
New South Wales	69.9	75.0	104	103
Queensland	68.3	73.6	102	101
Western Australia	65.0	70.4	97	97
Northern Territory	61.5	69.2	91	95
Australia (b)	67.2	72.9	100	100

(a) Mortality differentials based on the relationship of 2005–2007 life expectancies at birth for each state/territory, compared with Australia.

(b) Includes Other Territories.

Source: *Experimental Life Tables for Aboriginal and Torres Strait Islander Australians, 2005–2007* (cat. no. 3302.0.55.003).

Regional variations in
mortality

INDIGENOUS REGIONS

To apply assumptions on life expectancy at birth for sub-state geographies, IREGs were aggregated into two groups for each state and territory (except Tasmania and the Australian Capital Territory):

- capital city IREG (for example, Adelaide IREG); and
- rest of state/territory IREGs combined (for example, Port Augusta IREG and Ceduna IREG combined).

To account for under-identification of deaths of Indigenous people at the sub-state level, the number of registered deaths of Indigenous people for each IREG group in 2005–2007 was adjusted using state and territory adjustment factors from the 2006 Census Data Enhancement (CDE) Indigenous Mortality Quality Study. For more information about the derivation and use of adjustment factors in the compilation of Indigenous life tables for the states and territories, see *Experimental Life Tables for Aboriginal and Torres Strait Islander Australians, 2005–2007* (cat. no. 3302.0.55.003).

Life tables were then constructed to obtain life expectancy at birth for 2005–2007 for each IREG group using adjusted deaths in conjunction with 2006 Indigenous populations for each IREG group. Differentials were calculated as the ratio of Indigenous life expectancy at birth for each IREG group and Australia (table 2.15). This method assumes that under-identification of Indigenous deaths is consistent across all regions within each state and territory. Mortality differentials are assumed to remain constant throughout the projection period.

It should be noted that Indigenous life tables for IREG groups have been calculated solely for use as assumptions in population projections.

Regional variations in mortality continued

INDIGENOUS REGIONS *continued*

2.15 INDIGENOUS LIFE EXPECTANCY AT BIRTH AND MORTALITY DIFFERENTIALS (a), Indigenous Regions, 2005–2007

	LIFE EXPECTANCY AT BIRTH		MALE MORTALITY DIFFERENTIALS		FEMALE MORTALITY DIFFERENTIALS	
	Males	Females	Capital city IREG	Rest of state IREG group	Capital city IREG	Rest of state IREG group
	years	years	%	%	%	%
New South Wales	69.9	75.0	109	102	105	102
Queensland	68.3	73.6	108	99	106	99
Western Australia	65.0	70.4	100	95	98	95
Northern Territory	61.5	69.2	97	91	98	95
Australia (b)	67.2	72.9	100	100	100	100

(a) Mortality differentials based on the relationship of 2005–2007 life expectancies at birth for each capital city IREG and rest of state IREG group, compared with Australia.
 (b) Includes Other Territories.

As noted above, Indigenous life tables were not produced for Victoria, South Australia, Tasmania and the Australian Capital Territory. The following differentials have been used for IREG groups in these states and territories:

- for Victoria, Melbourne IREG uses the Sydney IREG differential, and Non-Metropolitan Victoria IREG uses the rest of NSW IREG group differential;
- for South Australia, Adelaide IREG uses the Perth IREG differential, and the rest of South Australia IREG group uses the rest of Western Australia IREG group differential;
- for Tasmania, the New South Wales state differential is used; and
- for the Australian Capital Territory, the Sydney IREG differential is used.

REMOTENESS AREAS

Indigenous life expectancy at birth differentials for Remoteness Areas were calculated using the same method as that used for IREG groups (table 2.16). To account for the under-identification in deaths of Indigenous people, the number of registered deaths of Indigenous people in 2005–2007 for each Remoteness Area was adjusted using Australia-level adjustment factors from the CDE Indigenous Mortality Quality Study. This method assumes that under-identification of Indigenous deaths across Remoteness Areas is consistent across Australia. Mortality differentials are assumed to remain constant throughout the projection period.

It should be noted that Indigenous life tables for Remoteness Areas have been calculated solely for use as assumptions in population projections.

*Regional variations in
mortality continued*

REMOTENESS AREAS *continued*

2.16 MORTALITY DIFFERENTIALS (a), Remoteness Areas, 2005–2007

	Males	Females
	%	%
Major Cities	107	105
Inner and Outer Regional (combined)	103	102
Remote and Very Remote (combined)	90	93
Australia (b)	100	100

- (a) Mortality differentials based on the relationship of 2005–2007 life expectancies at birth for each Remoteness Area, compared with Australia.
- (b) Includes Other Territories.

INTERSTATE MIGRATION
ASSUMPTION

One assumption has been made for future net internal migration of Indigenous people:

- constant levels of migration as observed in the 2006 Census of Population and Housing.

The effect of a zero net interstate migration assumption on the size of the future Indigenous population of the states and territories is described in Chapter 4.

*Trends in interstate
migration*

The 2006 Census 'place of usual residence five years ago' question showed that 18,445 Indigenous people changed their state or territory of usual residence between 2001 and 2006. Between 1996 and 2001, 18,671 Indigenous people changed their state or territory of usual residence.

Indigenous children under five years of age on Census Night were excluded from this measure, as were Indigenous people overseas on Census Night, people whose place of usual residence five years ago was overseas, and people whose state or territory of usual residence five years ago was not recorded. Also excluded were 1,176 Indigenous people whose place of usual residence on Census Night and/or place of usual residence five years ago could not be coded to an Indigenous Region (to ensure migration profiles for Indigenous Regions were consistent with state and territory migration profiles).

2.17 INTERSTATE ARRIVALS AND DEPARTURES (a), 2001–2006

	STATE/TERRITORY OF ARRIVAL								Total departures
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	
State/territory of departure									
NSW	..	908	3 345	262	298	174	195	437	5 632
Vic.	576	..	487	180	173	143	90	19	1 668
Qld	1 908	518	..	259	348	180	548	148	3 909
SA	188	203	220	..	158	50	317	24	1 160
WA	221	180	381	233	..	75	500	27	1 617
Tas.	116	174	228	51	80	..	31	17	697
NT	202	148	711	391	345	29	..	42	1 868
ACT	330	64	175	23	24	19	39	..	676
Total arrivals	3 576	2 196	5 547	1 400	1 430	670	1 721	714	17 269
Net movements (b)	-2 056	528	1 638	240	-187	-27	-147	38	..

.. not applicable

- (a) Indigenous children under five years of age on Census Night were excluded, as were Indigenous people who were overseas on Census Night, people whose place of usual residence five years ago was overseas, and people whose state or territory of usual residence five years ago was not recorded. Also excluded were 1,176 Indigenous people whose place of usual residence on Census Night and/or place of usual residence five years ago could not be coded to an Indigenous Region.
- (b) Includes Other Territories.

Method used to produce interstate migration assumption

State or territory of usual residence on Census Night was cross-tabulated with state or territory of usual residence five years ago to obtain net interstate migration for each state and territory for 2001–2006 (table 2.17).

These figures are affected by a number of data quality issues, including census net undercount and records for which Indigenous status was not stated. To account for these, net interstate migration estimates were adjusted by a proportion calculated by dividing Indigenous population estimates by Indigenous census counts, for each state and territory.

The adjusted net interstate migration estimates were then divided by five to obtain annual levels, which were assumed to remain constant over the projection period (table 2.18). In addition, they were used as constraints on migration assumptions for Indigenous Regions.

2.18 ASSUMED NET INTERSTATE MIGRATION

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
Annual net migration	-485	109	382	41	-25	-14	-13	5

Age/sex profile of interstate migration

The age/sex profile of interstate migration was derived from the 'place of usual residence one year ago' question from the 2006 Census. Arrival and departure rates for the states and territories were calculated by single year of age and sex and adjustments were made where appropriate to ensure plausible age/sex profiles of projected populations. All age/sex arrival and departure disaggregations were constrained by the main net internal migration assumption.

Sub-state migration

INDIGENOUS REGIONS

Annual net migration estimates for each IREG were calculated in the same way as for the states and territories, and were assumed to remain constant over the fifteen year projection period (table 2.19).

Arrival levels and departure rates were calculated for each IREG by single year of age and sex. These were then constrained to the state or territory net migration levels and were assumed to remain constant over the projection period. Further adjustments were made where appropriate to ensure plausible age/sex profiles of the projected populations of IREGs.

2.19 ASSUMED NET INTERNAL MIGRATION, Indigenous Regions

	<i>Annual net migration</i>
Queanbeyan	-24
Bourke	-124
Coffs Harbour	153
Sydney	-329
Tamworth	-57
Wagga Wagga	-61
Dubbo	-43
Melbourne	48
Non-Metropolitan Victoria	61
Brisbane	357
Cairns	92
Mount Isa	-110
Cape York	-21
Rockhampton	69
Roma	-20
Torres Strait	-146
Townsville	161
Adelaide	62
Ceduna	2
Port Augusta	-23
Perth	173
Broome	-64
Kununurra	-118
Narrogin	-22
South Hedland	15
Derby	34
Kalgoorlie	-21
Geraldton	-22
Alice Springs	80
Jabiru	-38
Katherine	-27
Apatula	-76
Nhulunbuy	-16
Tennant Creek	-49
Darwin	113

*Sub-state migration
continued*

REMOTENESS AREAS

Annual net migration estimates for each Remoteness Area were calculated in the same way as for the states and territories, and were assumed to remain constant over the fifteen year projection period (table 2.20).

Arrival levels and departure rates were calculated for each Remoteness Area by single year of age and sex and were assumed to remain constant over the projection period. Further adjustments were made where appropriate to ensure plausible age/sex profiles of the projected populations of Remoteness Areas.

2.20 ASSUMED NET INTERNAL MIGRATION, Remoteness Areas

	<i>Annual net migration</i>
Major Cities	586
Inner and Outer Regional (combined)	465
Remote and Very Remote (combined)	-1 051

OVERSEAS MIGRATION
ASSUMPTION

One assumption has been made for future net overseas migration of Indigenous people:

- zero overseas migration, with zero arrivals and zero departures.

*Trends in overseas
migration*

According to the 2006 Census of Population and Housing, there were 964 Indigenous people resident in Australia in 2006 who lived overseas in 2001, equivalent to an in-migration rate of 1.9 persons per 1,000 Indigenous persons for the period 2001–2006. This level of in-migration has a negligible effect on the size of the future Indigenous population of Australia.

*Assumed future overseas
migration*

Net overseas migration of Indigenous people is assumed to be zero (with zero arrivals and departures) for the duration of the projection period.

UNEXPLAINED GROWTH

Projections of the Indigenous population based on the 2001 Census included an 'unexplained growth' component to account for changes in the Indigenous population between censuses which could not be attributed to demographic factors (that is, the difference could not be fully accounted for by natural increase over the intercensal period). The unexplained growth assumption used in the 'High' series of the 2001-based projections was a 1.6% increase per year in the Indigenous population of Australia (see *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2009*, cat. no. 3238.0).

Recent analysis on the change in the Indigenous population between 2001 and 2006, as derived from the 2001 and 2006 Censuses respectively, indicates that the growth over this period can be attributed almost entirely to demographic factors. Therefore, no assumption has been made regarding unexplained growth for projections based on the 2006 Census.

INTRODUCTION

This publication contains population estimates and projections of the Aboriginal and Torres Strait Islander (Indigenous) population of Australia, based on results of the 2006 Census of Population and Housing, for the period 30 June 1986 to 30 June 2021.

Estimates for 1986 to 2005 have been produced by reverse-surviving the experimental estimated resident Indigenous population at 30 June 2006, using 2005–2007 experimental Indigenous life tables as a basis on which to make assumptions about past Indigenous life expectancy at birth. Projections for 2007 to 2021 have been produced by applying a range of assumptions regarding future levels of components of population change to the 30 June 2006 population (see Chapter 2 for more information).

Population estimates

For the purposes of the estimates, Indigenous life expectancy at birth for Australia is assumed to have increased by 0.2 years per year between 1986 and 2006, for both males and females.

Estimates for 1986 to 1990 should be treated with caution given the 20-year interval for which the assumption of improving life expectancy at birth is applied, as well as the assumption of zero net interstate migration over the period.

Population projections

It is important to recognise that the projections presented in this publication are not predictions or forecasts. Rather, they are an assessment of what would happen to the size and structure of the Indigenous population of Australia if the assumed levels of the components of population change – births, deaths and migration – were to be realised over the projection period. There can be no certainty that any particular outcome will be realised, or that future outcomes will necessarily fall within the projected ranges.

As described in Chapter 2, various assumptions have been made about future levels of Indigenous fertility, paternity, life expectancy at birth and migration, resulting in 14 projection series. Two main series (Series A and B) have been selected for presentation and analysis in this publication. Both series assume the total fertility rate will decrease to 2.1 babies per Indigenous woman by 2021, the total paternity rate will increase to 1.2 babies per Indigenous man, and net interstate migration will remain at levels observed in the 2006 Census. Two assumptions on life expectancy at birth have been used to produce the two main series:

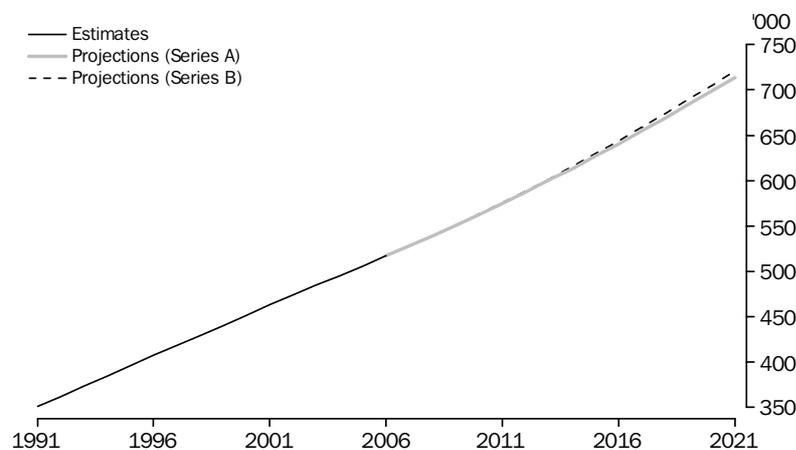
- in Series A, Indigenous life expectancy at birth is assumed to remain constant at current levels for both males and females; and
- in Series B, Indigenous life expectancy at birth is assumed to increase by 5 years from current levels for both males and females.

AUSTRALIA

The estimated resident Indigenous population of Australia at 30 June 1991 was 351,000 people. In 2006, there were 517,000 people, representing 2.5% of the total Australian population. Between 1991 and 2006 the Indigenous population increased by 2.6% per year on average, compared with 1.2% for the total Australian population.

The population of Indigenous Australians is projected to increase to between 713,300 and 721,100 people in 2021, at an average growth rate of 2.2% per year. In comparison, the average growth rate of the total Australian population is projected to be between 1.2% and 1.7% per year over the same period (*Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0).

3.1 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Australia—1991–2021



The Indigenous population is projected to increase across all age groups between 2006 and 2021. The number of Indigenous children (0–14 years) is projected to increase from 194,200 in 2006 to between 242,600 and 243,400 in 2021. This equates to an increase of 25% over the period. The number of young adults (15–24 years) increases by a similar proportion (29%), from 99,700 people to between 128,600 and 128,800 people.

The number of Indigenous people aged 25–54 years is projected to increase from 183,000 in 2006 to between 260,100 and 260,300 in 2021. This equates to an increase of between 42% and 43% over the period.

The number of older Indigenous people (55 years and over) is projected to more than double over the period, from 40,000 in 2006 to between 82,000 and 86,600 in 2021.

AUSTRALIA *continued***3.2** ESTIMATED AND PROJECTED INDIGENOUS POPULATION, At 30 June

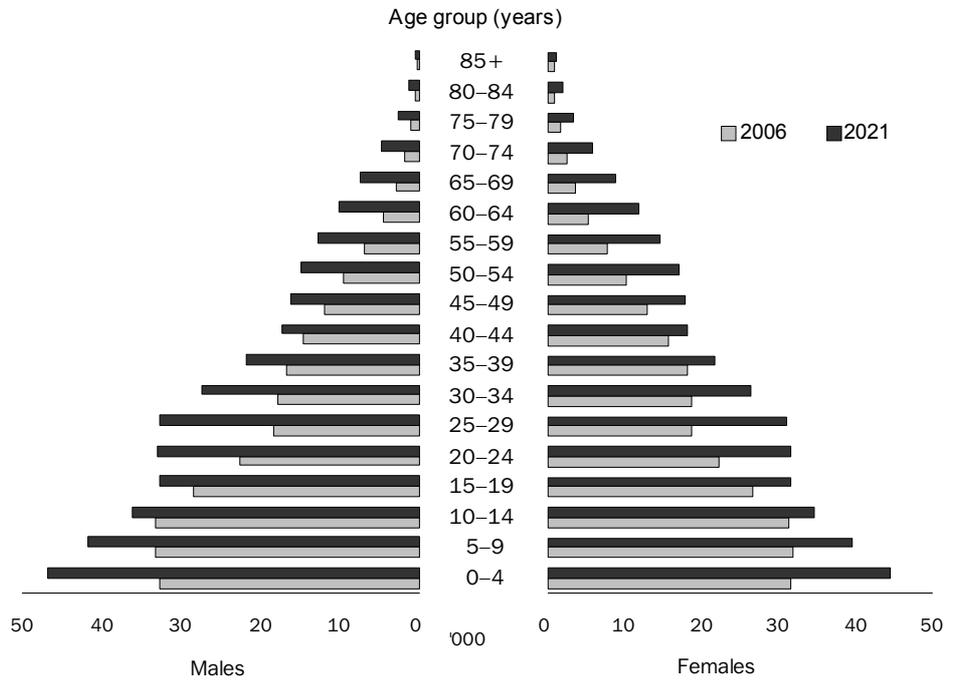
Age group (years)	1991	2006	2021 (Series A)	2021 (Series B)
NUMBER				
0–14	137,749	194,249	242,587	243,429
15–24	73,355	99,722	128,604	128,781
25–34	59,091	73,149	117,006	117,515
35–44	38,742	65,011	77,933	78,599
45–54	20,431	44,885	65,179	66,190
55–64	11,831	24,112	47,739	49,027
65–74	6,706	10,768	25,168	26,704
75 and over	3,080	5,147	9,090	10,819
Total	350,985	517,043	713,306	721,064
PROPORTION (%)				
0–14	39.2	37.6	34.0	33.8
15–24	20.9	19.3	18.0	17.9
25–34	16.8	14.1	16.4	16.3
35–44	11.0	12.6	10.9	10.9
45–54	5.8	8.7	9.1	9.2
55–64	3.4	4.7	6.7	6.8
65–74	1.9	2.1	3.5	3.7
75 and over	0.9	1.0	1.3	1.5
Total	100	100	100	100

Population structure

The Indigenous population has a relatively young age structure. Between 1991 and 2006 the median age of the Indigenous population is estimated to have increased from 20.1 to 21.0 years, and is projected to increase to between 23.9 and 24.1 years in 2021.

The proportion of Indigenous children aged 0–14 years decreased from 39% in 1991 to 38% in 2006, and is projected to decrease to 34% in 2021. The proportion of Indigenous people aged 55 years and over increased from 6% in 1991 to 8% in 2006, and is projected to increase to between 11% and 12% in 2021. The proportion of Indigenous people aged 25–54 years is projected to increase marginally, from 35% in 2006 to 36% in 2021.

3.3 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Australia, Series B—at 30 June



Natural increase

At the Australia level, any growth in the Indigenous population is entirely due to natural increase (that is, the excess of births over deaths), as net overseas migration is assumed to be zero.

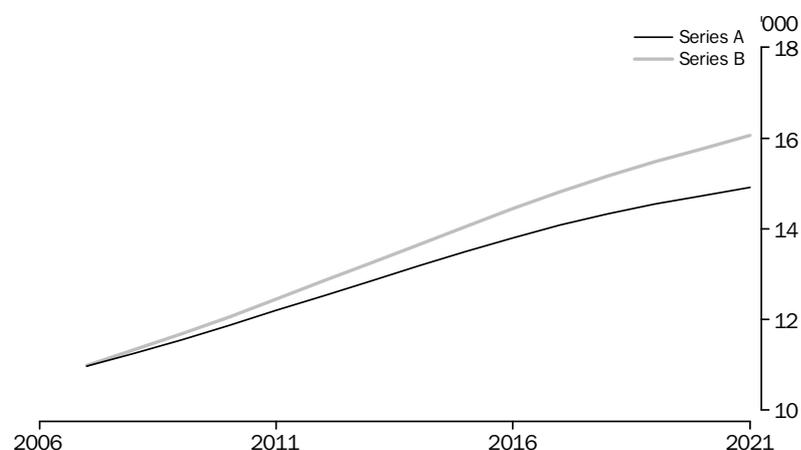
Although decreasing fertility rates are assumed, the number of births of Indigenous children is projected to increase over the projection period. This is due to the age structure of the Indigenous population, which has large numbers of people moving into peak child-bearing ages over the projection period, as well as due to the assumption of increasing paternity rates. As a result, the number of births of Indigenous children is projected to increase from 13,600 in 2007, to between 19,000 and 19,100 in 2021.

In Series A, which assumes constant life expectancy at birth, the number of deaths of Indigenous people is projected to increase from 2,600 in 2007 to 4,200 in 2021. In comparison, in Series B, which incorporates an increasing life expectancy at birth assumption, the number of deaths is projected to increase to 3,100 in 2021, 1,100 (26%) fewer than in Series A.

As the number of births is considerably larger than the number of deaths, natural increase remains consistently high, reaching between 14,900 and 16,100 people (Series A and B respectively) in 2021.

Natural increase
continued

3.4 PROJECTED NATURAL INCREASE OF INDIGENOUS POPULATION, Australia—2007–2021



STATES AND TERRITORIES

Both Series A and Series B project continuing population growth for all states and territories between 2006 and 2021 (table 3.5).

The Indigenous population of Queensland is projected to be the fastest growing of the states and territories, with an average growth rate of between 2.6% and 2.7% per year, followed by Victoria (between 2.4% and 2.5%), the Australian Capital Territory (2.4%) and Tasmania (between 2.3% and 2.4%). These high rates of population growth are in part due to the age structure of the Indigenous population in these states and territories, with relatively large cohorts of Indigenous people moving into peak child-bearing ages throughout the projection period. The assumption of increasing paternity rates also contributes to population growth, as does assumed net interstate migration for Queensland (+382 people per year) and Victoria (+109 people per year).

The Indigenous population of New South Wales is projected to grow at a lower rate, of around 2.1% to 2.2% per year on average. While high levels of natural increase are projected due to the age structure of the Indigenous population, the net migration assumption of –485 people per year for New South Wales has the effect of reducing the rate of population growth.

The Northern Territory is projected to have the lowest average growth rate over the fifteen year period, of between 1.6% and 1.7% per year. This is in part due to the age structure of the Northern Territory population which, unlike many of the other states and territories, is relatively smooth (see graph 3.13). The absolute size of the Indigenous population in child-bearing age groups (15–49 years) therefore increases relatively consistently throughout the projection period. As a result, projected numbers of births in the Northern Territory do not increase as rapidly as in the other states and territories, and therefore population growth is slower. In addition, the projected Indigenous population in the Northern Territory is largely unaffected by an increasing paternity assumption, as less than 10% of births of Indigenous children in the Northern Territory are born to Indigenous fathers and non-Indigenous mothers.

STATES AND TERRITORIES

continued

Similar to the Northern Territory, average annual growth rates for Western Australia (between 1.8% and 1.9%) and South Australia (between 2.0% and 2.1%) are lower than the other states and territories, due in part to the relatively smooth age structures of their Indigenous populations. Assumed net interstate migration for Western Australia (–25 people per year) has a small negative effect on the rate of population growth over the projection period, while net interstate migration for South Australia (+41 people per year) has a small positive effect.

Components of population change for Australia and each state and territory are presented in detail in data cubes attached to this publication on the ABS web site.

3.5 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, States and territories—1991–2021

	1991	2006	2021 (SERIES A)		2021 (SERIES B)	
	no.	no.	no.	Growth rate (%) (a)	no.	Growth rate (%) (a)
NSW	101 493	152 685	208 341	2.1	210 582	2.2
Vic.	22 625	33 517	47 721	2.4	48 233	2.5
Qld	95 671	144 885	212 908	2.6	215 082	2.7
SA	19 775	28 055	37 987	2.0	38 413	2.1
WA	49 632	70 966	92 587	1.8	93 612	1.9
Tas.	12 462	18 415	26 063	2.3	26 353	2.4
NT	46 431	64 005	81 298	1.6	82 339	1.7
ACT	2 727	4 282	6 101	2.4	6 148	2.4
Aust. (b)	350 985	517 043	713 306	2.2	721 064	2.2

(a) Average annual growth rate for the period 2006 to 2021.

(b) Includes Other Territories.

Changing state/territory share

In both Series A and B, Queensland is projected to overtake New South Wales in 2016 as the state or territory with the largest Indigenous population. Queensland's share of Australia's Indigenous population is projected to increase from 28.0% in 2006 to 29.8% in 2021, while New South Wales is projected to decrease marginally, from 29.5% to 29.2%.

Western Australia's share is projected to decline from 13.7% in 2006 to 13.0% in 2021, while the Northern Territory's share also declines, from 12.4% to 11.4%. The distribution amongst the remaining states and territories is projected to remain largely unchanged.

Changing state/territory
share *continued*

3.6 PROJECTED DISTRIBUTION OF INDIGENOUS POPULATION, States
and territories, At 30 June

	2006	2021(a)
	%	%
NSW	29.5	29.2
Vic.	6.5	6.7
Qld	28.0	29.8
SA	5.4	5.3
WA	13.7	13.0
Tas.	3.6	3.7
NT	12.4	11.4
ACT	0.8	0.9

(a) State/territory distribution is
the same in Series A and B.

New South Wales

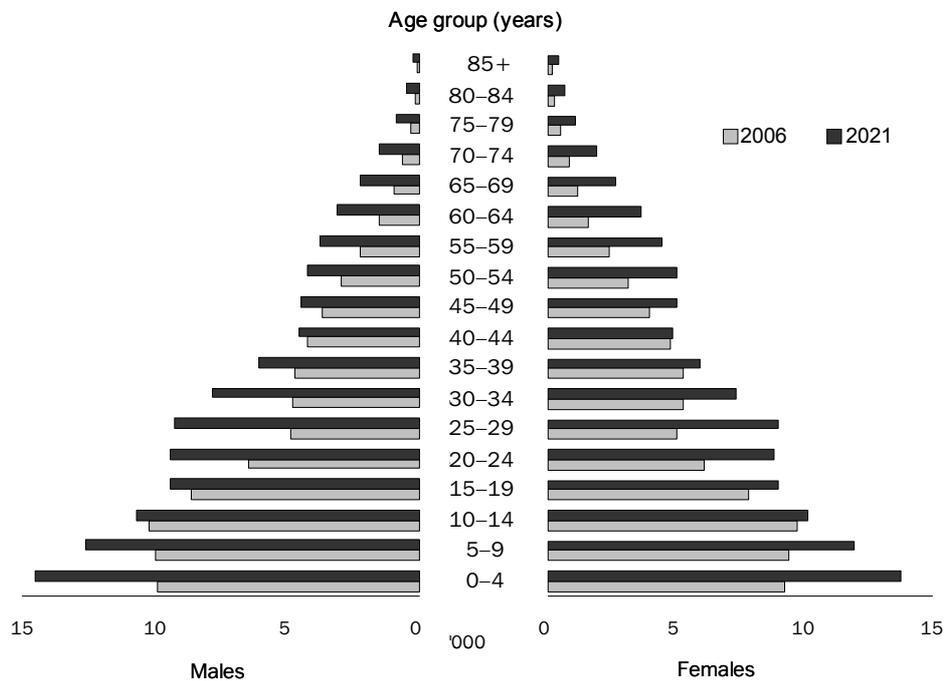
POPULATION SIZE

The Indigenous population of New South Wales is estimated to have increased from 101,500 people in 1991 to 152,700 people in 2006, and is projected to increase to between 208,300 and 210,600 people by 2021. This equates to an average growth rate of 2.1% to 2.2% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of New South Wales was 20.6 years in 2006, and is projected to increase to between 23.4 and 23.6 years by 2021.

3.7 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, New South Wales, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in New South Wales is projected to increase from 4,100 in 2007 to between 5,900 and 6,000 in 2021, while the number of deaths of Indigenous people increases from between 650 and 660 in 2007 to between 770 and 1,100 in 2021. By 2021, natural increase reaches between 4,800 and 5,200, up from 3,500 in 2007.

Net interstate migration of Indigenous people is assumed to be -485 persons per year for all years of the projection period.

Victoria

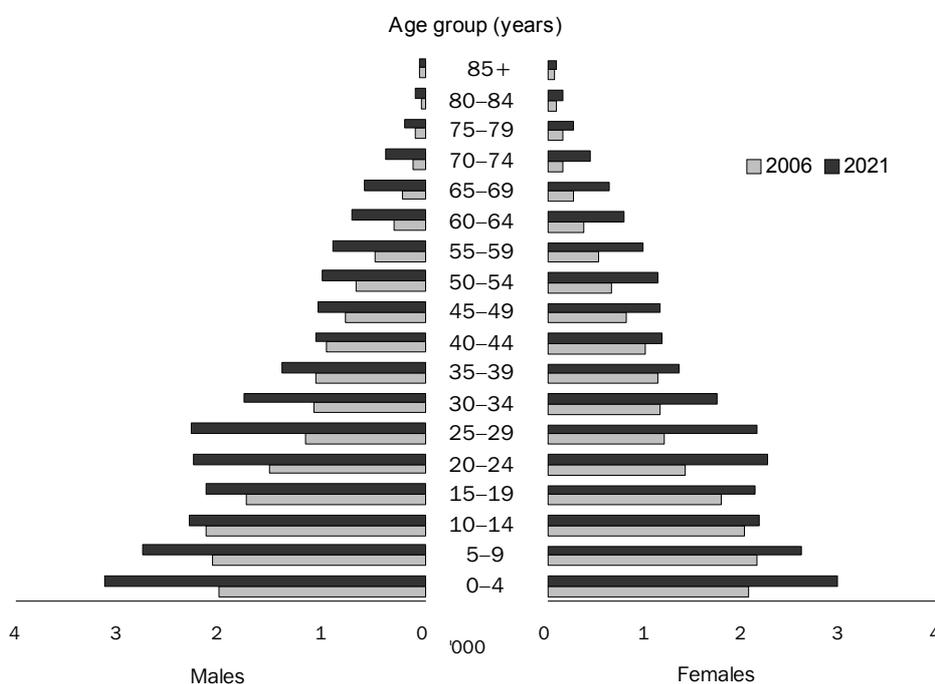
POPULATION SIZE

The Indigenous population of Victoria is estimated to have increased from 22,600 people in 1991 to 33,500 people in 2006, and is projected to increase to between 47,700 and 48,200 people by 2021. This equates to an average growth rate of 2.4% to 2.5% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of Victoria was 21.2 years in 2006, and is projected to increase to between 24.1 and 24.3 years by 2021.

3.8 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Victoria, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in Victoria is projected to increase from 830 in 2007 to 1,300 in 2021, while the number of deaths of Indigenous people increases from 170 in 2007 to between 180 and 260 in 2021. By 2021, natural increase reaches between 1,000 and 1,100, up from 660 in 2007.

Net interstate migration of Indigenous people is assumed to be +109 persons per year for all years of the projection period.

Queensland

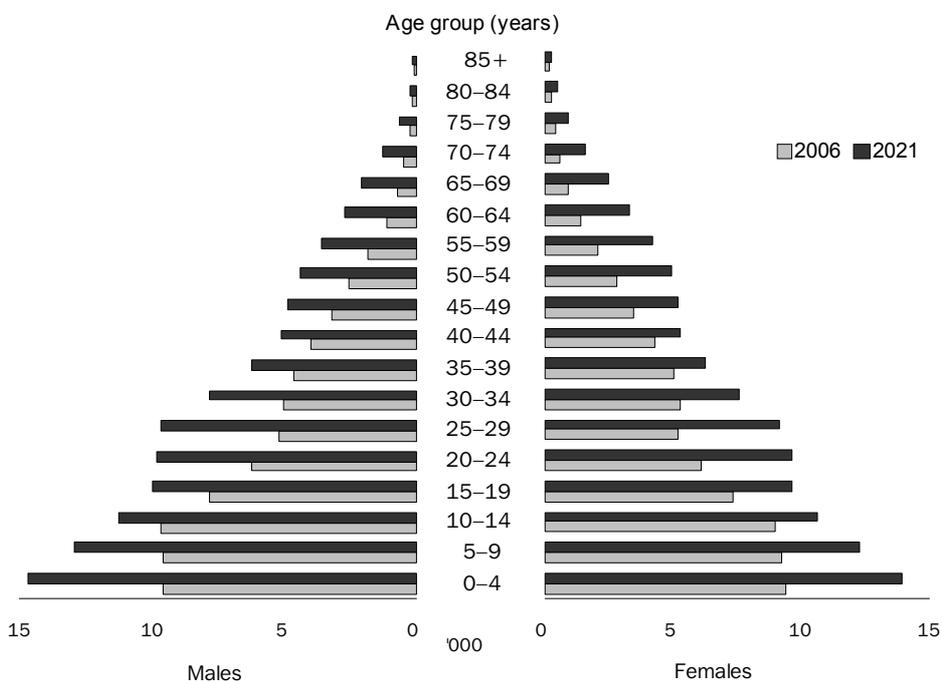
POPULATION SIZE

The Indigenous population of Queensland is estimated to have increased from 95,700 people in 1991 to 144,900 people in 2006, and is projected to increase to between 212,900 and 215,100 people by 2021. This equates to an average growth rate of 2.6% to 2.7% per year between 2006 and 2021. The Indigenous population of Queensland is projected to exceed the Indigenous population of New South Wales in 2016.

AGE/SEX STRUCTURE

The median age of the Indigenous population of Queensland was 20.4 years in 2006, and is projected to increase to between 23.0 and 23.2 years by 2021.

3.9 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Queensland, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in Queensland is projected to increase from 4,000 in 2007 to 6,000 in 2021, while the number of deaths of Indigenous people increases from 650 in 2007 to between 790 and 1,100 in 2021. By 2021, natural increase reaches between 4,900 and 5,200, up from 3,400 in 2007.

Net interstate migration of Indigenous people is assumed to be +382 persons per year for all years of the projection period.

South Australia

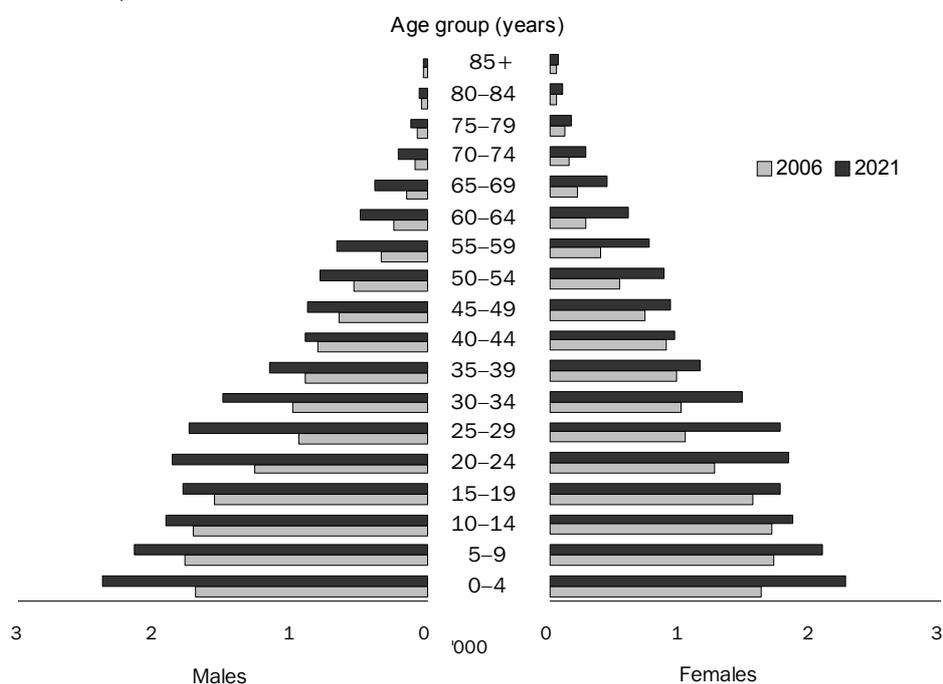
POPULATION SIZE

The Indigenous population of South Australia is estimated to have increased from 19,800 people in 1991 to 28,100 people in 2006, and is projected to increase to between 38,000 and 38,400 people by 2021. This equates to an average growth rate of 2.0% to 2.1% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of South Australia was 21.2 years in 2006, and is projected to increase to between 23.8 and 24.0 years by 2021.

3.10 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, South Australia, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in South Australia is projected to increase from 690 in 2007 to between 960 and 970 in 2021, while the number of deaths of Indigenous people increases from 180 in 2007 to between 200 and 250 in 2021. By 2021, natural increase reaches between 710 and 770, up from 520 in 2007.

Net interstate migration of Indigenous people is assumed to be +41 persons per year for all years of the projection period.

Western Australia

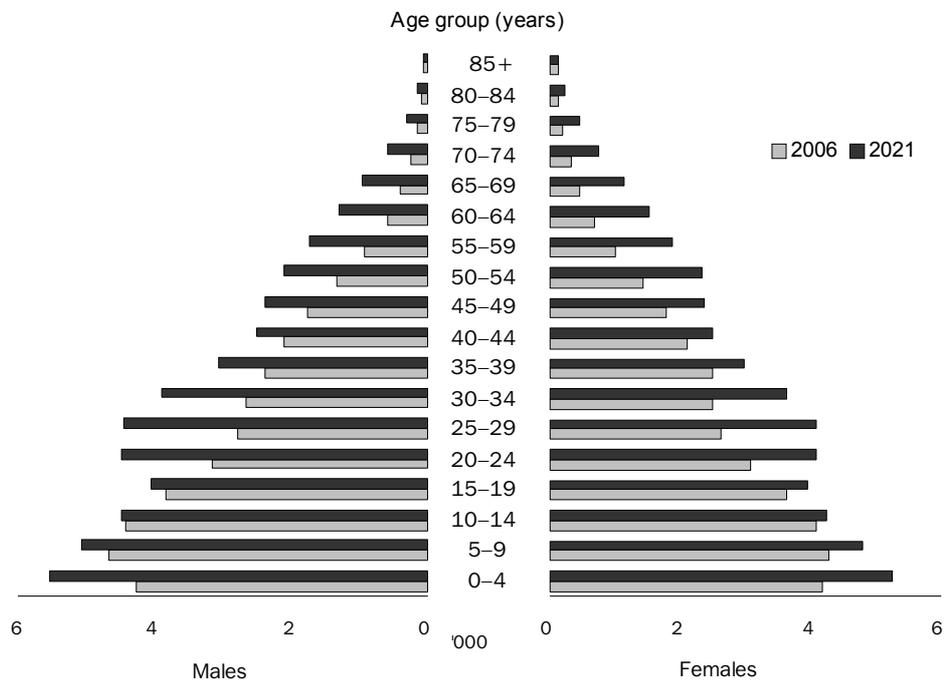
POPULATION SIZE

The Indigenous population of Western Australia is estimated to have increased from 49,600 people in 1991 to 71,000 people in 2006, and is projected to increase to between 92,600 and 93,600 people by 2021. This equates to an average growth rate of 1.8% to 1.9% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of Western Australia was 21.6 years in 2006, and is projected to increase to between 25.2 and 25.5 years by 2021.

3.11 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Western Australia, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in Western Australia is projected to increase from 1,700 in 2007 to 2,200 in 2021, while the number of deaths of Indigenous people increases from 430 in 2007 to between 500 and 650 in 2021. By 2021, natural increase reaches between 1,600 and 1,700, up from 1,300 in 2007.

Net interstate migration of Indigenous people is assumed to be -25 persons per year for all years of the projection period.

Tasmania

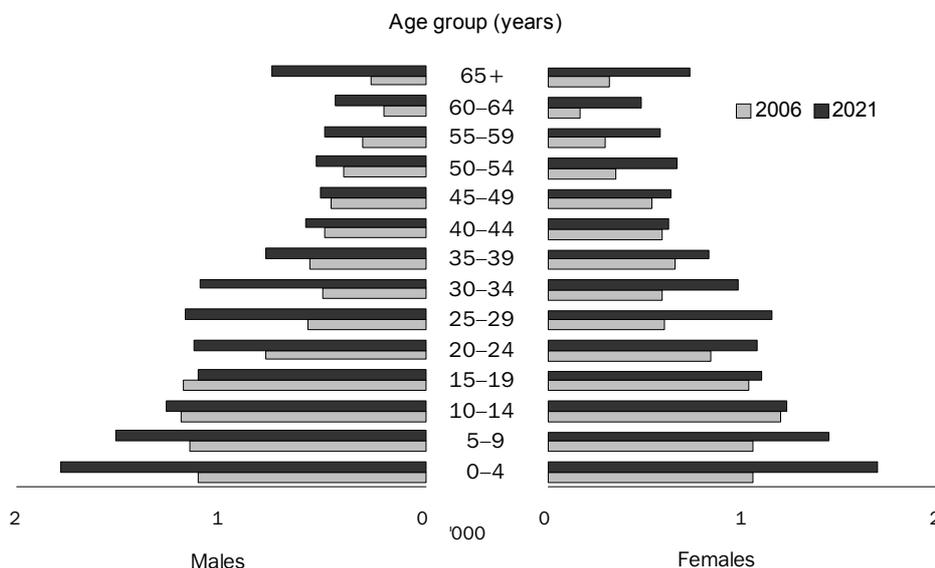
POPULATION SIZE

The Indigenous population of Tasmania is estimated to have increased from 12,500 people in 1991 to 18,400 people in 2006, and is projected to increase to between 26,100 and 26,400 people by 2021. This equates to an average growth rate of 2.3% to 2.4% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of Tasmania was 20.6 years in 2006, and is projected to increase to between 24.4 and 24.6 years by 2021.

3.12 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Tasmania, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in Tasmania is projected to increase from 490 in 2007 to 750 in 2021, while the number of deaths of Indigenous people increases from 80 in 2007 to between 100 and 140 in 2021. By 2021, natural increase reaches between 610 and 660, up from 410 in 2007.

Net interstate migration of Indigenous people is assumed to be -14 persons per year for all years of the projection period.

Northern Territory

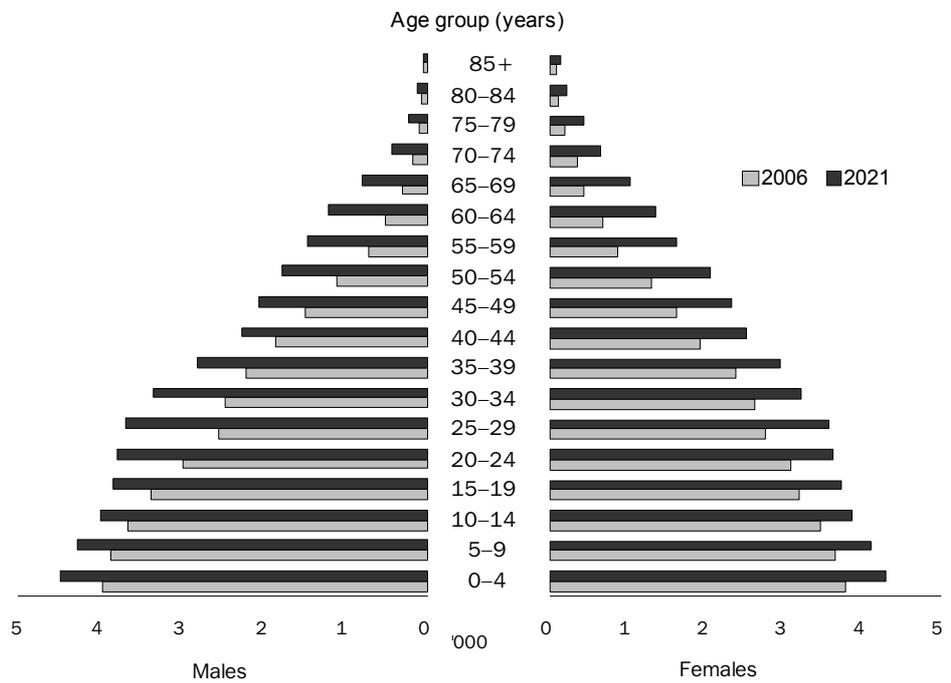
POPULATION SIZE

The Indigenous population of the Northern Territory is estimated to have increased from 46,400 people in 1991 to 64,000 people in 2006, and is projected to increase to between 81,300 and 82,300 people by 2021. This equates to an average growth rate of 1.6% to 1.7% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of the Northern Territory was 22.3 years in 2006, and is projected to increase to between 25.5 and 25.8 years by 2021.

3.13 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Northern Territory, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in the Northern Territory is projected to increase from 1,600 in 2007 to 1,800 in 2021, while the number of deaths of Indigenous people increases from 440 in 2007 to between 500 and 650 in 2021. By 2021, natural increase reaches between 1,100 and 1,300, compared with 1,200 in 2007.

Net interstate migration of Indigenous people is assumed to be -13 persons per year for all years of the projection period.

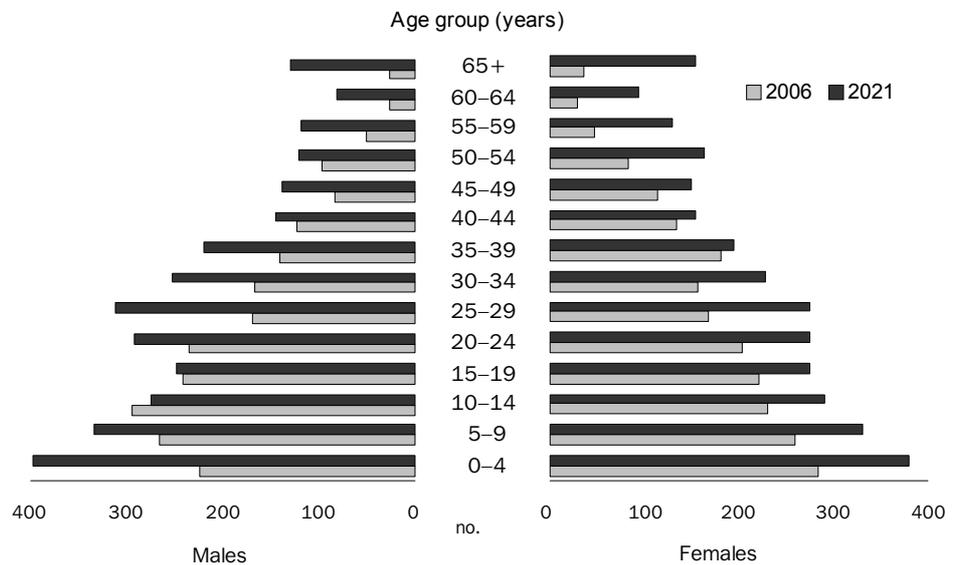
Australian Capital Territory POPULATION SIZE

The Indigenous population of the Australian Capital Territory is estimated to have increased from 2,700 people in 1991 to 4,300 people in 2006, and is projected to increase to 6,100 people by 2021. This equates to an average growth rate of 2.4% per year between 2006 and 2021.

AGE/SEX STRUCTURE

The median age of the Indigenous population of the Australian Capital Territory was 21.1 years in 2006, and is projected to increase to between 24.6 and 24.8 years by 2021.

3.14 ESTIMATED AND PROJECTED INDIGENOUS POPULATION, Australian Capital Territory, Series B—at 30 June



COMPONENTS OF POPULATION CHANGE

The number of births of Indigenous children in the Australian Capital Territory is projected to increase from 110 in 2007 to 160 in 2021, while the number of deaths of Indigenous people remains small (between 10 and 20 deaths). By 2021, natural increase reaches between 130 and 140, up from 100 in 2007.

Net interstate migration of Indigenous people is assumed to be +5 persons per year for all years of the projection period.

INTRODUCTION

The main projection series (Series A and B) represent two of a range of possible outcomes for the size and structure of the future Indigenous population. Future actual levels of the components of population change may differ from those assumed in this publication.

This chapter discusses the effect of differing levels of components of population change on the projected size and structure of the Indigenous population of Australia, as well as on the projected numbers of births and deaths of Indigenous people. Overall, sensitivity analysis shows that varying the assumptions appears to have little effect on the size of the projected Indigenous population.

FERTILITY RATES

Series A and B use a fertility assumption that incorporates an annual decline of 0.5% in Indigenous fertility rates, resulting in a total fertility rate (TFR) of 2.1 for Australia by 2021. Sensitivity analysis was undertaken into the effect of alternative fertility assumptions on the size of the future Indigenous population and the number of projected births.

Extra projection series were generated using the following assumptions:

- no decline in fertility rates (a TFR of 2.3 for Australia by 2021);
- an annual decline of 1% in fertility rates (a TFR of 2.0 for Australia by 2021); and
- an annual decline of 2% in fertility rates (a TFR of 1.7 for Australia by 2021).

Table 4.1 shows the Indigenous population at 30 June 2006 and the projected Australian and state/territory populations in 2021 under the four fertility assumptions. Table 4.2 shows the number of births of Indigenous children for 2007 and 2021 under these assumptions. Assumptions relating to Indigenous paternity rates, life expectancy at birth and interstate migration are at levels specified in Series B.

FERTILITY RATES

*continued***4.1** PROJECTED INDIGENOUS POPULATION(a), Alternative fertility assumptions, At 30 June

	2021				
	2006	Constant (Series G)	0.5% annual decrease (Series B)	1% annual decrease (Series H)	2% annual decrease (Series I)
	'000	'000	'000	'000	'000
NSW	152.7	212.3	210.6	208.9	205.8
Vic.	33.5	48.6	48.2	47.9	47.3
Qld	144.9	217.0	215.1	213.2	209.7
SA	28.1	38.7	38.4	38.1	37.5
WA	71.0	94.5	93.6	92.8	91.3
Tas.	18.4	26.5	26.4	26.2	25.8
NT	64.0	83.2	82.3	81.5	80.0
ACT	4.3	6.2	6.1	6.1	6.0
Aust. (b)	517.0	727.4	721.1	715.0	703.8

- (a) Assuming Indigenous paternity rates increase by 1% per year, Indigenous life expectancy at birth reaches 72.1 years for males and 77.8 years for females by 2021, and interstate migration remains at levels observed in the 2006 Census.
- (b) Includes Other Territories.

The main fertility assumption (0.5% annual decline in fertility rates) results in the Indigenous population of Australia reaching 721,100 people in 2021 (Series B), and the number of births of Indigenous children increasing from 13,600 in 2007 to 19,100 in 2021 (table 4.2).

Assuming fertility rates remain constant (Series G), the Indigenous population of Australia is projected to reach 727,400 people in 2021, 6,300 (1%) people more than in Series B. Under this assumption there will be 20,000 births of Indigenous children in 2021, 910 (5%) more than in Series B. This equates to 2.6% more Indigenous children aged 0–14 years in 2021 compared with Series B.

Assuming a 1% annual decline in fertility rates (Series H), the Indigenous population of Australia is projected to reach 715,000 people in 2021, 6,100 (1%) people fewer than in Series B. Under this assumption there will be 18,300 births of Indigenous children in 2021, 850 (4%) fewer than in Series B. This equates to 2.5% fewer Indigenous children aged 0–14 years in 2021 compared with Series B.

Assuming a 2% annual decline in fertility rates (Series I), the Indigenous population of Australia is projected to reach 703,800 people in 2021, 17,300 (2%) people fewer than in Series B. Under this assumption there will be 16,700 births of Indigenous children in 2021, 2,400 (13%) fewer than in Series B. This equates to 7.1% fewer Indigenous children aged 0–14 years in 2021 compared with Series B.

FERTILITY RATES
*continued***4.2** PROJECTED BIRTHS OF INDIGENOUS CHILDREN(a), Alternative fertility assumptions, Year ended 30 June

	2021				
	2007	Constant (Series G)	0.5% annual decrease (Series B)	1% annual decrease (Series H)	2% annual decrease (Series I)
	'000	'000	'000	'000	'000
NSW	4.1	6.2	6.0	5.7	5.3
Vic.	0.8	1.3	1.3	1.2	1.1
Qld	4.0	6.3	6.0	5.7	5.3
SA	0.7	1.0	1.0	0.9	0.8
WA	1.7	2.3	2.2	2.1	1.9
Tas.	0.5	0.8	0.8	0.7	0.7
NT	1.6	1.9	1.8	1.7	1.5
ACT	0.1	0.2	0.2	0.2	0.1
Aust. (b)	13.6	20.0	19.1	18.3	16.7

- (a) Assuming Indigenous paternity rates increase by 1% per year, Indigenous life expectancy at birth reaches 72.1 years for males and 77.8 years for females by 2021, and interstate migration remains at levels observed in the 2006 Census.
- (b) Includes Other Territories.

PATERNITY RATES

Series A and B use a paternity assumption that incorporates an annual increase of 1% in paternity rates for children born to Indigenous fathers and non-Indigenous mothers, resulting in a total paternity rate (TPR) of 1.2 for Australia by 2021. Sensitivity analysis was undertaken into the effect of alternative paternity assumptions on the size of the future Indigenous population and the number of projected births.

Extra projection series were generated using the following assumptions:

- no increase in paternity rates (a TPR of 1.0 for Australia by 2021); and
- an annual increase of 2% in paternity rates (a TPR of 1.4 for Australia by 2021).

Table 4.3 shows the Indigenous population at 30 June 2006 and the projected Australian and state/territory populations in 2021 under the three paternity assumptions. Table 4.4 shows the number of births of Indigenous children for 2007 and 2021 under these assumptions. Assumptions relating to Indigenous fertility rates, life expectancy at birth and interstate migration are at levels specified in Series B.

PATERNITY RATES

*continued***4.3** PROJECTED INDIGENOUS POPULATION(a), Alternative paternity assumptions, At 30 June

	2006	2021		
		Constant (Series F)	1% annual increase (Series B)	2% annual increase (Series J)
	'000	'000	'000	'000
NSW	152.7	208.4	210.6	213.0
Vic.	33.5	47.8	48.2	48.7
Qld	144.9	213.3	215.1	217.0
SA	28.1	38.2	38.4	38.7
WA	71.0	93.1	93.6	94.2
Tas.	18.4	26.0	26.4	26.7
NT	64.0	82.2	82.3	82.5
ACT	4.3	6.1	6.1	6.2
Aust. (b)	517.0	715.4	721.1	727.3

(a) Assuming Indigenous fertility rates decline by 0.5% per year, Indigenous life expectancy at birth reaches 72.1 years for males and 77.8 years for females by 2021, and interstate migration remains at levels observed in the 2006 Census.

(b) Includes Other Territories.

The main paternity assumption (1% annual increase in paternity rates) results in the Indigenous population of Australia reaching 721,100 people in 2021 (Series B), and the number of births of Indigenous children increasing from 13,600 in 2007 to 19,100 in 2021 (table 4.3).

Assuming paternity rates remain constant (Series F), the Indigenous population of Australia is projected to reach 715,400 people in 2021, 5,700 (1%) people fewer than in Series B. Under this assumption there will be 18,300 births of Indigenous children in 2021, 860 (5%) fewer than in Series B. This equates to 2.3% fewer Indigenous children aged 0–14 years in 2021 compared with Series B.

Assuming a 2% annual increase in paternity rates (Series J), the Indigenous population of Australia is projected to reach 727,300 people in 2021, 6,200 (1%) people more than in Series B. Under this assumption there will be 20,100 births of Indigenous children in 2021, 980 (5%) more than in Series B. This equates to 2.5% more Indigenous children aged 0–14 years in 2021 compared with Series B.

PATERNITY RATES
*continued***4.4** PROJECTED BIRTHS OF INDIGENOUS CHILDREN(a), Alternative paternity assumptions, Year ended 30 June

	2021			
	2007	Constant (Series F)	1% annual increase (Series B)	2% annual increase (Series J)
	'000	'000	'000	'000
NSW	4.1	5.6	6.0	6.3
Vic.	0.8	1.2	1.3	1.3
Qld	4.0	5.7	6.0	6.3
SA	0.7	0.9	1.0	1.0
WA	1.7	2.1	2.2	2.3
Tas.	0.5	0.7	0.8	0.8
NT	1.6	1.8	1.8	1.8
ACT	0.1	0.1	0.2	0.2
Aust. (b)	13.6	18.3	19.1	20.1

- (a) Assuming Indigenous fertility rates decline by 0.5% per year, Indigenous life expectancy at birth reaches 72.1 years for males and 77.8 years for females by 2021, and interstate migration remains at levels observed in the 2006 Census.
- (b) Includes Other Territories.

LIFE EXPECTANCY AT
BIRTH

Two assumptions for life expectancy at birth have been used to produce Series A and Series B, as described in Chapter 2. Sensitivity analysis was undertaken into the effect of alternative life expectancy at birth assumptions on the size of the future Indigenous population and the number of projected deaths.

Extra projection series were generated using the following assumptions:

- Indigenous life expectancy at birth will increase at the same rate as the total Australian population as defined by the medium mortality assumption in *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0), reaching 70.2 years for males and 75.2 years for females in 2021. This equates to increases in life expectancy at birth of 3.1 years for Indigenous males and 2.4 years for Indigenous females over the projection period; and
- Indigenous life expectancy at birth will reach the same level as the total Australian population as defined by the medium mortality assumption in *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0) in 2031, reaching 76.7 years for males and 81.2 years for females in 2021. This equates to increases in life expectancy at birth of 9.5 years for Indigenous males and 8.4 years for Indigenous females over the projection period.

Table 4.5 shows the Indigenous population at 30 June 2006 and the projected Australian and state/territory populations in 2021 under the four life expectancy at birth assumptions. Table 4.6 shows the number of deaths of Indigenous people for 2007 and 2021 under these assumptions. Assumptions relating to Indigenous fertility rates, paternity rates and interstate migration are at levels specified in both Series A and B.

LIFE EXPECTANCY AT
BIRTH *continued***4.5** PROJECTED INDIGENOUS POPULATION(a), Alternative life expectancy at birth assumptions, At 30 June

		2021				
		Constant life expectancy at birth (Series A)	Increase at same rate as total Australia (Series C)(b)	Increase by 5 years (Series B)	Increase to same level as total Australia by 2031 (Series D)(c)	
2006		'000	'000	'000	'000	
NSW	152.7	208.3	209.8	210.6	212.3	
Vic.	33.5	47.7	48.0	48.2	48.7	
Qld	144.9	212.9	214.3	215.1	216.7	
SA	28.1	38.0	38.3	38.4	38.8	
WA	71.0	92.6	93.3	93.6	94.6	
Tas.	18.4	26.1	26.2	26.4	26.6	
NT	64.0	81.3	82.0	82.3	83.2	
ACT	4.3	6.1	6.1	6.1	6.2	
Aust. (d)	517.0	713.3	718.3	721.1	727.3	

- (a) Assuming Indigenous fertility rates decline by 0.5% per year, Indigenous paternity rates increase by 1% per year, and interstate migration remains at levels observed in the 2006 census.
- (b) Indigenous life expectancy at birth will increase by 3.1 years for males and 2.4 years for females over the projection period.
- (c) Indigenous life expectancy at birth will increase by 9.5 years for males and 8.4 years for females over the projection period.
- (d) Includes Other Territories.

Assuming constant life expectancy at birth (Series A), the Indigenous population of Australia is projected to reach 713,300 in 2021. Under this assumption, the number of deaths of Indigenous people will increase from 2,600 in 2007 to 4,200 in 2021.

Assuming Indigenous life expectancy at birth increases at the same rate as the total Australian population (Series C), the Indigenous population of Australia is projected to reach 718,300 people in 2021, 5,000 (1%) people more than in Series A. Under this assumption there will be 3,600 deaths of Indigenous people in 2021, 590 (14%) fewer than in Series A.

Assuming Indigenous life expectancy at birth increases by five years over the fifteen year projection period (Series B), the Indigenous population of Australia is projected to reach 721,100 people in 2021, 7,800 (1%) people more than in Series A. Under this assumption there will be 3,100 deaths of Indigenous people in 2021, 1,100 (26%) fewer than in Series A.

Assuming Indigenous life expectancy at birth increases such that it reaches the same level as the total Australian population by 2031 (Series D), the Indigenous population of Australia is projected to reach 727,300 people in 2021, 14,000 (2%) people more than in Series A. Under this assumption there will be 2,400 deaths of Indigenous people in 2021, 1,800 (43%) fewer than in Series A.

LIFE EXPECTANCY AT
BIRTH *continued***4.6** PROJECTED DEATHS OF INDIGENOUS PERSONS (a), Alternative
life expectancy at birth assumptions, Year ended 30 June

		2021			
	2007(b)	Constant life expectancy at birth (Series A)	Increase at same rate as total Australia (Series C) (c)	Increase by 5 years (Series B)	Increase to same level as total Australia by 2031 (Series D) (d)
NSW	654	1 090	920	773	587
Vic.	167	255	217	183	138
Qld	647	1 098	933	791	610
SA	177	254	223	200	156
WA	432	647	563	504	389
Tas.	77	139	115	97	73
NT	436	650	573	504	412
ACT	10	24	19	16	12
Aust. (e)	2 602	4 159	3 565	3 070	2 378

(a) Assuming Indigenous fertility rates decline by 0.5% per year, Indigenous paternity rates increase by 1% per year, and interstate migration remains at levels observed in the 2006 census.

(b) Number of deaths projected under Series B.

(c) Indigenous life expectancy at birth increases by 3.1 years for males and 2.4 years for females over the projection period.

(d) Indigenous life expectancy at birth increases by 9.5 years for males and 8.4 years for females over the projection period.

(e) Includes Other Territories.

Interstate migration

An extra projection series which assumes zero net interstate migration (Series K) was produced to analyse the effect of interstate migration on the Indigenous populations of the states and territories.

Table 4.7 shows the Indigenous population at 30 June 2006 and the projected state/territory populations in 2021 for Series B (net interstate migration at levels observed in the 2006 Census) and Series K (zero net interstate migration). The assumptions relating to Indigenous fertility rates, paternity rates and life expectancy at birth are at levels specified in Series B.

The effect of the migration assumption on the Indigenous populations of the states and territories is dependent on whether positive or negative net interstate migration is assumed (table 2.18).

Interstate migration
continued

4.7 PROJECTED INDIGENOUS POPULATION(a), Alternative net interstate migration assumptions, At 30 June

	2021		
		Net interstate migration (Series B)(b)	Zero net interstate migration (Series K)
	2006	'000	'000
NSW	152.7	210.6	220.0
Vic.	33.5	48.2	46.3
Qld	144.9	215.1	207.9
SA	28.1	38.4	37.6
WA	71.0	93.6	94.0
Tas.	18.4	26.4	26.7
NT	64.0	82.3	82.3
ACT	4.3	6.1	6.0

- (a) Assuming Indigenous fertility rates decline by 0.5% per year, Indigenous paternity rates increase by 1% per year, and Indigenous life expectancy at birth reaches 72.1 years for males and 77.8 years for females by 2021.
- (b) Net interstate migration at levels observed in the 2006 census.

Assuming net interstate migration remains at levels observed in the 2006 Census (Series B), Queensland is projected to have the largest Indigenous population of the states and territories in 2021 (215,100 people), followed by New South Wales (210,600). However, assuming zero net interstate migration (Series K), New South Wales remains the most populous state or territory (220,000 people in 2021), followed by Queensland (207,900). The effect of the interstate assumption on the projected Indigenous population of Victoria is an extra 2,000 (4%) people in 2021. The choice of the net interstate migration assumption has only a marginal effect on the Indigenous population of the remaining states and territories.

Conclusion

Sensitivity analysis indicates that variation in the levels of assumptions has only a small effect on the total projected populations of Australia and the states and territories. However, the choice of fertility and paternity assumptions affect the projected number of births of Indigenous children, while the choice of life expectancy at birth has a relatively large effect on the projected number of deaths of Indigenous people, as observed above.

The two main series project the Indigenous population of Australia to reach between 713,300 (Series A) and 721,100 people (Series B) in 2021. It is possible to combine the assumptions described above such that minimum and maximum projected populations outside this range are obtained.

Series M, which combines a 2% annual increase in fertility, constant paternity and constant life expectancy at birth, results in an Indigenous population of 690,400 people in 2021. Series N, which combines constant fertility, a 2% annual increase in paternity, and an increase of life expectancy at birth of 9.5 years for males and 8.4 years for females, results in an Indigenous population of 733,700 people in 2021. This is a range of 43,200 people.

Conclusion continued

Overall, sensitivity analysis indicates that future increases in the Indigenous population can be largely attributed to the age structure and its potential for growth, rather than variations in the assumptions used for the components of population change.

CHAPTER **5**

POPULATION ESTIMATES – SUMMARY TABLES

5.1 ESTIMATED RESIDENT INDIGENOUS POPULATION, Australia, At 30 June

	1986	1991	1996	2001	2002	2003	2004	2005	2006
MALES									
0–4	22 962	28 490	33 347	33 407	33 483	33 232	33 033	32 934	32 753
5–9	18 639	22 906	28 420	33 271	33 281	33 207	33 199	33 149	33 335
10–14	18 439	18 635	22 899	28 409	29 959	31 476	32 457	33 045	33 254
15–19	17 668	18 372	18 577	22 832	23 581	24 398	25 387	26 719	28 329
20–24	15 836	17 499	18 200	18 429	19 063	19 880	20 833	21 927	22 657
25–29	13 609	15 624	17 285	17 987	17 756	17 658	17 676	17 882	18 246
30–34	11 351	13 382	15 380	17 026	17 448	17 729	18 027	17 854	17 737
35–39	8 550	11 026	13 019	14 996	15 248	15 612	15 755	16 164	16 624
40–44	6 115	8 213	10 614	12 567	13 030	13 362	13 795	14 145	14 517
45–49	4 419	5 822	7 837	10 161	10 553	10 989	11 378	11 789	12 062
50–54	3 523	4 132	5 478	7 391	7 781	8 179	8 663	9 029	9 616
55–59	2 685	3 204	3 795	5 060	5 447	5 786	6 110	6 522	6 869
60–64	2 017	2 347	2 831	3 403	3 587	3 820	4 036	4 293	4 574
65–69	1 728	1 655	1 950	2 378	2 406	2 483	2 587	2 752	2 901
70–74	1 090	1 276	1 253	1 499	1 648	1 711	1 776	1 783	1 861
75–79	609	720	851	877	869	911	958	1 025	1 059
80–84	256	323	391	475	494	481	470	488	523
85 and over	153	193	245	310	325	341	357	374	392
All ages	149 649	173 819	202 372	230 478	235 959	241 255	246 497	251 874	257 309
FEMALES									
0–4	22 256	26 676	31 465	31 834	31 947	31 923	31 711	31 545	31 673
5–9	18 812	22 230	26 643	31 433	31 517	31 549	31 555	31 686	31 801
10–14	18 902	18 812	22 230	26 643	28 089	29 427	30 539	31 174	31 433
15–19	18 693	18 872	18 787	22 201	22 980	23 536	24 278	25 370	26 614
20–24	16 451	18 612	18 790	18 713	19 117	19 801	20 565	21 282	22 122
25–29	13 880	16 332	18 491	18 676	18 247	18 045	17 998	18 331	18 620
30–34	11 205	13 753	16 188	18 335	18 821	19 109	19 178	18 905	18 546
35–39	8 614	11 071	13 579	15 997	16 409	16 721	17 026	17 563	18 136
40–44	6 167	8 432	10 842	13 331	13 857	14 413	14 947	15 357	15 734
45–49	4 710	5 968	8 185	10 558	11 013	11 471	12 020	12 511	13 011
50–54	3 708	4 509	5 732	7 895	8 290	8 811	9 291	9 686	10 196
55–59	3 032	3 489	4 274	5 459	5 864	6 309	6 713	7 185	7 554
60–64	2 524	2 791	3 214	3 965	4 141	4 292	4 522	4 785	5 115
65–69	1 966	2 195	2 466	2 866	2 994	3 108	3 245	3 419	3 576
70–74	1 303	1 580	1 795	2 046	2 099	2 185	2 251	2 239	2 430
75–79	836	952	1 155	1 339	1 369	1 397	1 455	1 574	1 575
80–84	417	497	593	722	745	771	772	796	871
85 and over	322	395	485	595	620	646	672	699	727
All ages	153 798	177 166	204 914	232 608	238 119	243 514	248 738	254 107	259 734
PERSONS									
0–4	45 218	55 166	64 812	65 241	65 430	65 155	64 744	64 479	64 426
5–9	37 451	45 136	55 063	64 704	64 798	64 756	64 754	64 835	65 136
10–14	37 341	37 447	45 129	55 052	58 048	60 903	62 996	64 219	64 687
15–19	36 361	37 244	37 364	45 033	46 561	47 934	49 665	52 089	54 943
20–24	32 287	36 111	36 990	37 142	38 180	39 681	41 398	43 209	44 779
25–29	27 489	31 956	35 776	36 663	36 003	35 703	35 674	36 213	36 866
30–34	22 556	27 135	31 568	35 361	36 269	36 838	37 205	36 759	36 283
35–39	17 164	22 097	26 598	30 993	31 657	32 333	32 781	33 727	34 760
40–44	12 282	16 645	21 456	25 898	26 887	27 775	28 742	29 502	30 251
45–49	9 129	11 790	16 022	20 719	21 566	22 460	23 398	24 300	25 073
50–54	7 231	8 641	11 210	15 286	16 071	16 990	17 954	18 715	19 812
55–59	5 717	6 693	8 069	10 519	11 311	12 095	12 823	13 707	14 423
60–64	4 541	5 138	6 045	7 368	7 728	8 112	8 558	9 078	9 689
65–69	3 694	3 850	4 416	5 244	5 400	5 591	5 832	6 171	6 477
70–74	2 393	2 856	3 048	3 545	3 747	3 896	4 027	4 022	4 291
75–79	1 445	1 672	2 006	2 216	2 238	2 308	2 413	2 599	2 634
80–84	673	820	984	1 197	1 239	1 252	1 242	1 284	1 394
85 and over	475	588	730	905	945	987	1 029	1 073	1 119
All ages	303 447	350 985	407 286	463 086	474 078	484 769	495 235	505 981	517 043

5.2**ESTIMATED RESIDENT INDIGENOUS POPULATION, States/territories, At 30 June**

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
MALES									
1986	42 724	9 646	40 466	8 465	21 938	5 071	20 142	1 123	149 649
1991	50 275	11 146	47 213	9 678	25 088	6 194	22 776	1 364	173 819
1992	52 076	11 532	48 820	9 947	25 781	6 418	23 357	1 407	179 424
1993	53 840	11 926	50 605	10 217	26 501	6 660	23 955	1 471	185 264
1994	55 577	12 299	52 321	10 478	27 273	6 867	24 505	1 532	190 942
1995	57 449	12 682	53 983	10 764	27 996	7 101	25 031	1 603	196 702
1996	59 266	13 023	55 658	11 040	28 728	7 287	25 617	1 658	202 372
1997	61 011	13 365	57 275	11 310	29 463	7 492	26 150	1 708	207 872
1998	62 783	13 721	58 940	11 599	30 228	7 685	26 712	1 766	213 534
1999	64 479	14 095	60 518	11 900	31 028	7 876	27 276	1 821	219 096
2000	66 161	14 460	62 189	12 213	31 773	8 067	27 866	1 881	224 714
2001	67 895	14 835	63 879	12 470	32 530	8 277	28 563	1 923	230 478
2002	69 540	15 229	65 477	12 746	33 227	8 471	29 204	1 957	235 959
2003	71 109	15 568	67 079	13 020	33 869	8 650	29 847	2 004	241 255
2004	72 783	15 896	68 693	13 270	34 456	8 821	30 422	2 045	246 497
2005	74 468	16 240	70 362	13 532	35 116	8 995	30 953	2 095	251 874
2006	76 229	16 581	71 950	13 790	35 775	9 204	31 514	2 147	257 309
FEMALES									
1986	44 238	9 892	41 961	8 794	21 369	5 373	20 954	1 143	153 798
1991	51 218	11 479	48 458	10 097	24 544	6 268	23 655	1 363	177 166
1992	52 924	11 857	50 059	10 379	25 238	6 466	24 224	1 408	182 641
1993	54 709	12 205	51 648	10 668	25 947	6 672	24 793	1 458	188 187
1994	56 493	12 544	53 243	10 949	26 667	6 907	25 390	1 500	193 781
1995	58 249	12 932	54 846	11 236	27 366	7 123	25 973	1 542	199 358
1996	59 990	13 280	56 500	11 519	28 088	7 332	26 522	1 592	204 914
1997	61 722	13 639	58 201	11 791	28 756	7 540	27 023	1 629	210 394
1998	63 391	14 033	59 814	12 064	29 445	7 720	27 632	1 692	215 886
1999	65 097	14 439	61 360	12 360	30 210	7 897	28 203	1 738	221 401
2000	66 728	14 827	63 013	12 649	31 002	8 094	28 811	1 793	227 019
2001	68 359	15 170	64 697	12 935	31 747	8 272	29 473	1 851	232 608
2002	69 992	15 501	66 364	13 205	32 479	8 443	30 121	1 908	238 119
2003	71 581	15 850	67 993	13 487	33 178	8 606	30 747	1 965	243 514
2004	73 192	16 186	69 540	13 748	33 831	8 777	31 330	2 025	248 738
2005	74 764	16 557	71 252	14 007	34 467	8 972	31 895	2 084	254 107
2006	76 456	16 936	72 935	14 265	35 191	9 211	32 491	2 135	259 734
PERSONS									
1986	86 962	19 538	82 427	17 259	43 307	10 444	41 096	2 266	303 447
1991	101 493	22 625	95 671	19 775	49 632	12 462	46 431	2 727	350 985
1992	105 000	23 389	98 879	20 326	51 019	12 884	47 581	2 815	362 065
1993	108 549	24 131	102 253	20 885	52 448	13 332	48 748	2 929	373 451
1994	112 070	24 843	105 564	21 427	53 940	13 774	49 895	3 032	384 723
1995	115 698	25 614	108 829	22 000	55 362	14 224	51 004	3 145	396 060
1996	119 256	26 303	112 158	22 559	56 816	14 619	52 139	3 250	407 286
1997	122 733	27 004	115 476	23 101	58 219	15 032	53 173	3 337	418 266
1998	126 174	27 754	118 754	23 663	59 673	15 405	54 344	3 458	429 420
1999	129 576	28 534	121 878	24 260	61 238	15 773	55 479	3 559	440 497
2000	132 889	29 287	125 202	24 862	62 775	16 161	56 677	3 674	451 733
2001	136 254	30 005	128 576	25 405	64 277	16 549	58 036	3 774	463 086
2002	139 532	30 730	131 841	25 951	65 706	16 914	59 325	3 865	474 078
2003	142 690	31 418	135 072	26 507	67 047	17 256	60 594	3 969	484 769
2004	145 975	32 082	138 233	27 018	68 287	17 598	61 752	4 070	495 235
2005	149 232	32 797	141 614	27 539	69 583	17 967	62 848	4 179	505 981
2006	152 685	33 517	144 885	28 055	70 966	18 415	64 005	4 282	517 043

(a) Includes Other Territories.

5.3 ESTIMATED RESIDENT INDIGENOUS POPULATION, Median age, States/territories, at 30 June

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust. (a)
MALES									
1986	20.1	19.7	18.5	19.6	19.0	21.1	18.2	14.7	19.1
1991	20.1	20.2	19.1	19.8	19.7	20.4	19.1	16.0	19.6
1996	19.3	19.7	18.9	19.9	20.0	19.1	20.0	16.7	19.4
2001	18.9	19.8	18.9	19.5	20.2	18.7	20.5	18.4	19.4
2006	19.7	20.9	19.6	20.5	21.1	19.8	21.3	20.8	20.2
FEMALES									
1986	20.3	20.2	18.9	20.3	19.3	20.2	18.5	16.3	19.5
1991	21.2	20.8	20.1	20.8	20.4	20.7	19.9	17.8	20.5
1996	21.3	21.0	20.5	21.0	20.9	20.2	21.1	19.3	20.9
2001	21.1	20.9	20.5	21.0	21.3	20.2	22.2	20.4	21.1
2006	21.6	21.6	21.1	22.0	22.1	21.5	23.3	21.5	21.8
PERSONS									
1986	20.2	20.0	18.7	20.0	19.2	20.6	18.4	15.6	19.3
1991	20.7	20.5	19.6	20.3	20.0	20.5	19.5	17.1	20.1
1996	20.4	20.4	19.7	20.4	20.5	19.6	20.5	18.1	20.2
2001	19.9	20.3	19.7	20.2	20.7	19.4	21.3	19.3	20.2
2006	20.6	21.2	20.4	21.2	21.6	20.6	22.3	21.1	21.0

(a) Includes Other Territories.

CHAPTER **6**

POPULATION PROJECTIONS – SUMMARY TABLES

6.1 PROJECTED INDIGENOUS POPULATION, Australia, At 30 June

	MALES				FEMALES				PERSONS			
	2006(a)	2011	2016	2021	2006(a)	2011	2016	2021	2006(a)	2011	2016	2021
..... SERIES A												
0-4	32 753	36 295	41 592	46 621	31 673	34 526	39 573	44 352	64 426	70 821	81 165	90 973
5-9	33 335	32 676	36 211	41 493	31 801	31 618	34 468	39 509	65 136	64 294	70 679	81 002
10-14	33 254	33 299	32 641	36 170	31 433	31 776	31 593	34 442	64 687	65 075	64 234	70 612
15-19	28 329	33 145	33 192	32 534	26 614	31 380	31 723	31 540	54 943	64 525	64 915	64 074
20-24	22 657	28 105	32 878	32 924	22 122	26 517	31 262	31 606	44 779	54 622	64 140	64 530
25-29	18 246	22 391	27 773	32 486	18 620	21 979	26 348	31 061	36 866	44 370	54 121	63 547
30-34	17 737	17 962	22 043	27 343	18 546	18 458	21 785	26 116	36 283	36 420	43 828	53 459
35-39	16 624	17 303	17 527	21 511	18 136	18 333	18 248	21 536	34 760	35 636	35 775	43 047
40-44	14 517	16 067	16 721	16 939	15 734	17 836	18 028	17 947	30 251	33 903	34 749	34 886
45-49	12 062	13 926	15 415	16 039	13 011	15 379	17 432	17 618	25 073	29 305	32 847	33 657
50-54	9 616	11 437	13 204	14 615	10 196	12 619	14 917	16 907	19 812	24 056	28 121	31 522
55-59	6 869	8 983	10 678	12 327	7 554	9 787	12 115	14 317	14 423	18 770	22 793	26 644
60-64	4 574	6 250	8 177	9 716	5 115	7 094	9 194	11 379	9 689	13 344	17 371	21 095
65-69	2 901	3 955	5 401	7 069	3 576	4 632	6 420	8 321	6 477	8 587	11 821	15 390
70-74	1 861	2 312	3 154	4 301	2 430	3 052	3 952	5 477	4 291	5 364	7 106	9 778
75-79	1 059	1 328	1 652	2 254	1 575	1 884	2 368	3 069	2 634	3 212	4 020	5 323
80-84	523	632	791	987	871	1 037	1 243	1 562	1 394	1 669	2 034	2 549
85 and over	392	314	355	442	727	587	653	776	1 119	901	1 008	1 218
All ages	257 309	286 380	319 405	355 771	259 734	288 494	321 322	357 535	517 043	574 874	640 727	713 306
..... SERIES B												
0-4	32 753	36 321	41 717	46 887	31 673	34 551	39 676	44 581	64 426	70 872	81 393	91 468
5-9	33 335	32 676	36 245	41 641	31 801	31 621	34 502	39 627	65 136	64 297	70 747	81 268
10-14	33 254	33 300	32 644	36 216	31 433	31 776	31 596	34 477	64 687	65 076	64 240	70 693
15-19	28 329	33 151	33 209	32 565	26 614	31 386	31 731	31 556	54 943	64 537	64 940	64 121
20-24	22 657	28 116	32 928	33 013	22 122	26 522	31 290	31 647	44 779	54 638	64 218	64 660
25-29	18 246	22 402	27 835	32 637	18 620	21 987	26 383	31 146	36 866	44 389	54 218	63 783
30-34	17 737	17 977	22 108	27 512	18 546	18 470	21 827	26 220	36 283	36 447	43 935	53 732
35-39	16 624	17 326	17 608	21 704	18 136	18 347	18 296	21 652	34 760	35 673	35 904	43 356
40-44	14 517	16 094	16 830	17 164	15 734	17 852	18 093	18 079	30 251	33 946	34 923	35 243
45-49	12 062	13 955	15 537	16 316	13 011	15 398	17 518	17 800	25 073	29 353	33 055	34 116
50-54	9 616	11 466	13 337	14 932	10 196	12 642	15 015	17 142	19 812	24 108	28 352	32 074
55-59	6 869	9 009	10 817	12 671	7 554	9 811	12 221	14 583	14 423	18 820	23 038	27 254
60-64	4 574	6 282	8 319	10 082	5 115	7 121	9 317	11 691	9 689	13 403	17 636	21 773
65-69	2 901	3 986	5 553	7 466	3 576	4 657	6 560	8 681	6 477	8 643	12 113	16 147
70-74	1 861	2 342	3 293	4 691	2 430	3 081	4 091	5 866	4 291	5 423	7 384	10 557
75-79	1 059	1 352	1 765	2 567	1 575	1 912	2 499	3 421	2 634	3 264	4 264	5 988
80-84	523	651	872	1 206	871	1 063	1 359	1 865	1 394	1 714	2 231	3 071
85 and over	392	332	427	632	727	617	789	1 128	1 119	949	1 216	1 760
All ages	257 309	286 738	321 044	359 902	259 734	288 814	322 763	361 162	517 043	575 552	643 807	721 064

(a) Estimated resident Indigenous population.

6.2**PROJECTED INDIGENOUS POPULATION, States/territories, Males, At 30 June**

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
.....									
SERIES A									
2006(b)	76 229	16 581	71 950	13 790	35 775	9 204	31 514	2 147	257 309
2007	77 716	16 978	73 856	14 076	36 408	9 404	32 079	2 198	262 836
2008	79 254	17 386	75 799	14 368	37 062	9 611	32 646	2 250	268 499
2009	80 830	17 809	77 796	14 664	37 731	9 827	33 218	2 302	274 302
2010	82 469	18 243	79 840	14 969	38 412	10 052	33 795	2 353	280 260
2011	84 162	18 693	81 942	15 282	39 114	10 282	34 366	2 410	286 380
2012	85 906	19 155	84 107	15 605	39 829	10 525	34 937	2 467	292 663
2013	87 711	19 635	86 333	15 936	40 550	10 776	35 506	2 528	299 110
2014	89 568	20 123	88 621	16 274	41 283	11 036	36 086	2 589	305 718
2015	91 490	20 621	90 971	16 616	42 029	11 307	36 661	2 650	312 486
2016	93 465	21 136	93 381	16 968	42 784	11 583	37 234	2 710	319 405
2017	95 482	21 664	95 847	17 326	43 549	11 866	37 808	2 772	326 461
2018	97 546	22 204	98 371	17 687	44 313	12 157	38 382	2 832	333 642
2019	99 646	22 749	100 940	18 051	45 083	12 451	38 958	2 898	340 928
2020	101 784	23 309	103 552	18 421	45 857	12 745	39 516	2 968	348 306
2021	103 954	23 874	106 208	18 799	46 634	13 039	40 070	3 037	355 771

.....									
SERIES B									
2006(b)	76 229	16 581	71 950	13 790	35 775	9 204	31 514	2 147	257 309
2007	77 718	16 978	73 860	14 076	36 408	9 405	32 080	2 198	262 844
2008	79 266	17 391	75 815	14 368	37 066	9 614	32 654	2 249	268 546
2009	80 866	17 817	77 829	14 667	37 745	9 833	33 235	2 302	274 419
2010	82 533	18 258	79 905	14 976	38 438	10 063	33 826	2 355	280 481
2011	84 264	18 715	82 046	15 297	39 155	10 299	34 420	2 413	286 738
2012	86 061	19 189	84 263	15 629	39 889	10 547	35 014	2 471	293 195
2013	87 929	19 683	86 551	15 971	40 634	10 807	35 613	2 533	299 856
2014	89 862	20 187	88 913	16 324	41 399	11 075	36 224	2 596	306 718
2015	91 871	20 706	91 346	16 682	42 178	11 359	36 841	2 659	313 783
2016	93 948	21 245	93 852	17 055	42 971	11 648	37 459	2 722	321 044
2017	96 078	21 799	96 435	17 436	43 780	11 946	38 081	2 789	328 491
2018	98 273	22 368	99 080	17 820	44 601	12 255	38 713	2 853	336 113
2019	100 520	22 946	101 795	18 207	45 431	12 570	39 354	2 920	343 895
2020	102 824	23 539	104 571	18 602	46 272	12 887	39 984	2 993	351 826
2021	105 174	24 147	107 403	19 009	47 123	13 207	40 618	3 065	359 902

(a) Includes Other Territories.

(b) Estimated resident Indigenous population.

6.3 PROJECTED INDIGENOUS POPULATION, States/territories, Females, At 30 June ..

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
.....									
SERIES A									
2006(b)	76 456	16 936	72 935	14 265	35 191	9 211	32 491	2 135	259 734
2007	77 949	17 306	74 792	14 537	35 820	9 405	33 065	2 188	265 178
2008	79 484	17 692	76 703	14 818	36 466	9 606	33 644	2 241	270 772
2009	81 080	18 085	78 658	15 111	37 128	9 814	34 223	2 297	276 516
2010	82 721	18 491	80 674	15 413	37 806	10 034	34 804	2 356	282 421
2011	84 421	18 910	82 752	15 723	38 493	10 269	35 390	2 412	288 494
2012	86 184	19 346	84 892	16 039	39 192	10 511	35 974	2 470	294 734
2013	88 002	19 792	87 100	16 361	39 908	10 763	36 559	2 527	301 140
2014	89 881	20 256	89 367	16 690	40 636	11 024	37 138	2 587	307 709
2015	91 809	20 739	91 690	17 030	41 375	11 290	37 724	2 651	314 440
2016	93 793	21 231	94 068	17 374	42 126	11 567	38 311	2 718	321 322
2017	95 834	21 732	96 503	17 724	42 881	11 850	38 896	2 786	328 342
2018	97 916	22 242	98 989	18 083	43 647	12 135	39 482	2 857	335 489
2019	100 040	22 769	101 518	18 449	44 415	12 424	40 062	2 928	342 745
2020	102 196	23 301	104 089	18 818	45 184	12 721	40 649	2 995	350 095
2021	104 387	23 847	106 700	19 188	45 953	13 024	41 228	3 064	357 535

.....									
SERIES B									
2006(b)	76 456	16 936	72 935	14 265	35 191	9 211	32 491	2 135	259 734
2007	77 952	17 307	74 793	14 537	35 821	9 405	33 067	2 188	265 186
2008	79 498	17 693	76 713	14 821	36 471	9 608	33 650	2 242	270 815
2009	81 106	18 092	78 688	15 118	37 140	9 820	34 240	2 298	276 623
2010	82 773	18 503	80 727	15 427	37 833	10 043	34 835	2 356	282 620
2011	84 509	18 932	82 837	15 743	38 539	10 281	35 435	2 412	288 814
2012	86 313	19 376	85 017	16 067	39 264	10 530	36 040	2 471	295 206
2013	88 184	19 833	87 274	16 401	40 010	10 787	36 651	2 529	301 799
2014	90 125	20 312	89 597	16 744	40 771	11 056	37 263	2 591	308 591
2015	92 127	20 812	91 990	17 101	41 552	11 329	37 880	2 656	315 581
2016	94 195	21 325	94 450	17 462	42 350	11 615	38 506	2 724	322 763
2017	96 334	21 849	96 973	17 831	43 157	11 909	39 141	2 792	330 124
2018	98 526	22 386	99 567	18 212	43 976	12 206	39 779	2 866	337 658
2019	100 773	22 941	102 213	18 605	44 807	12 509	40 417	2 940	345 347
2020	103 066	23 507	104 915	19 004	45 645	12 823	41 069	3 010	353 183
2021	105 408	24 086	107 679	19 404	46 489	13 146	41 721	3 083	361 162

(a) Includes Other Territories.

(b) Estimated resident Indigenous population.

6.4**PROJECTED INDIGENOUS POPULATION, States/territories, Persons, At 30 June . .**

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
.....									
SERIES A									
2006(b)	152 685	33 517	144 885	28 055	70 966	18 415	64 005	4 282	517 043
2007	155 665	34 284	148 648	28 613	72 228	18 809	65 144	4 386	528 014
2008	158 738	35 078	152 502	29 186	73 528	19 217	66 290	4 491	539 271
2009	161 910	35 894	156 454	29 775	74 859	19 641	67 441	4 599	550 818
2010	165 190	36 734	160 514	30 382	76 218	20 086	68 599	4 709	562 681
2011	168 583	37 603	164 694	31 005	77 607	20 551	69 756	4 822	574 874
2012	172 090	38 501	168 999	31 644	79 021	21 036	70 911	4 937	587 397
2013	175 713	39 427	173 433	32 297	80 458	21 539	72 065	5 055	600 250
2014	179 449	40 379	177 988	32 964	81 919	22 060	73 224	5 176	613 427
2015	183 299	41 360	182 661	33 646	83 404	22 597	74 385	5 301	626 926
2016	187 258	42 367	187 449	34 342	84 910	23 150	75 545	5 428	640 727
2017	191 316	43 396	192 350	35 050	86 430	23 716	76 704	5 558	654 803
2018	195 462	44 446	197 360	35 770	87 960	24 292	77 864	5 689	669 131
2019	199 686	45 518	202 458	36 500	89 498	24 875	79 020	5 826	683 673
2020	203 980	46 610	207 641	37 239	91 041	25 466	80 165	5 963	698 401
2021	208 341	47 721	212 908	37 987	92 587	26 063	81 298	6 101	713 306
.....									
SERIES B									
2006(b)	152 685	33 517	144 885	28 055	70 966	18 415	64 005	4 282	517 043
2007	155 670	34 285	148 653	28 613	72 229	18 810	65 147	4 386	528 030
2008	158 764	35 084	152 528	29 189	73 537	19 222	66 304	4 491	539 361
2009	161 972	35 909	156 517	29 785	74 885	19 653	67 475	4 600	551 042
2010	165 306	36 761	160 632	30 403	76 271	20 106	68 661	4 711	563 101
2011	168 773	37 647	164 883	31 040	77 694	20 580	69 855	4 825	575 552
2012	172 374	38 565	169 280	31 696	79 153	21 077	71 054	4 942	588 401
2013	176 113	39 516	173 825	32 372	80 644	21 594	72 264	5 062	601 655
2014	179 987	40 499	178 510	33 068	82 170	22 131	73 487	5 187	615 309
2015	183 998	41 518	183 336	33 783	83 730	22 688	74 721	5 315	629 364
2016	188 143	42 570	188 302	34 517	85 321	23 263	75 965	5 446	643 807
2017	192 412	43 648	193 408	35 267	86 937	23 855	77 222	5 581	658 615
2018	196 799	44 754	198 647	36 032	88 577	24 461	78 492	5 719	673 771
2019	201 293	45 887	204 008	36 812	90 238	25 079	79 771	5 860	689 242
2020	205 890	47 046	209 486	37 606	91 917	25 710	81 053	6 003	705 009
2021	210 582	48 233	215 082	38 413	93 612	26 353	82 339	6 148	721 064

(a) Includes Other Territories.

(b) Estimated resident Indigenous population.

6.5 PROJECTED INDIGENOUS POPULATION, Median age, States/territories, At 30 June

	SERIES A			SERIES B			
	2006(a)	2011	2016	2021	2011	2016	2021
MALES							
NSW	19.7	20.8	22.0	22.6	20.9	22.1	22.9
Vic.	20.9	21.7	22.9	23.5	21.7	23.0	23.8
Qld	19.6	20.5	21.7	22.3	20.6	21.8	22.5
SA	20.5	21.4	22.4	23.2	21.4	22.5	23.3
WA	21.1	22.2	23.6	24.7	22.2	23.7	24.9
Tas.	19.8	21.6	23.1	23.8	21.6	23.2	24.1
NT	21.3	22.4	23.6	24.6	22.4	23.7	24.8
ACT	20.8	22.3	23.4	24.5	22.3	23.5	24.8
Aust.(b)	20.2	21.2	22.4	23.2	21.3	22.5	23.4
FEMALES							
NSW	21.6	22.4	23.4	24.2	22.4	23.5	24.5
Vic.	21.6	22.5	23.7	24.6	22.5	23.9	24.8
Qld	21.1	21.8	22.9	23.6	21.8	23.0	23.8
SA	22.0	22.7	23.6	24.4	22.7	23.7	24.6
WA	22.1	23.4	24.6	25.8	23.4	24.7	26.0
Tas.	21.5	22.8	24.0	25.0	22.8	24.1	25.2
NT	23.3	24.5	25.4	26.5	24.5	25.5	26.7
ACT	21.5	22.6	23.8	24.6	22.7	23.9	24.9
Aust.(b)	21.8	22.6	23.7	24.6	22.7	23.8	24.8
PERSONS							
NSW	20.6	21.5	22.7	23.4	21.6	22.8	23.6
Vic.	21.2	22.0	23.3	24.1	22.1	23.4	24.3
Qld	20.4	21.1	22.3	23.0	21.2	22.4	23.2
SA	21.2	22.0	23.0	23.8	22.0	23.1	24.0
WA	21.6	22.8	24.1	25.2	22.8	24.2	25.5
Tas.	20.6	22.1	23.5	24.4	22.1	23.6	24.6
NT	22.3	23.4	24.5	25.5	23.4	24.6	25.8
ACT	21.1	22.4	23.6	24.6	22.5	23.7	24.8
Aust.(b)	21.0	21.9	23.1	23.9	21.9	23.1	24.1

(a) Estimated resident Indigenous population.

(b) Includes Other Territories.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains experimental estimates of the Aboriginal and Torres Strait Islander (Indigenous) population of Australia from 30 June 1986 to 30 June 2006, and projections of the Indigenous population from 30 June 2007 to 30 June 2021, based on results of the 2006 Census of Population and Housing.

2 Due to the inherent uncertainties in these data, the estimates and projections presented in this publication are referred to as experimental. Caution should be exercised when interpreting them.

3 These estimates and projections supercede the 2001-based series published in *Experimental Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 1991 to 2009* (cat. no. 3238.0) in September 2004.

DATA QUALITY

4 The significant volatility in Indigenous census counts and the quality of data on births, deaths and migration of Indigenous persons do not support the use of the standard approach to population estimation, in which observed numbers of births, deaths and migration during a specified period are added to the population at the start of the period to obtain an estimate of the population at the end of the period.

5 Data quality issues relating to Indigenous population estimates for 30 June 2006 derived from the 2006 Census of Population and Housing, on which the estimates and projections in this publication are based, are discussed in more detail in paragraphs 9 to 22 of the Explanatory Notes of *Experimental Estimates of Aboriginal and Torres Strait Islander Australians, Jun 2006* (cat. no. 3238.0.55.001) and the associated Technical Note: Estimated Aboriginal and Torres Strait Islander Australian Resident Population - Method of Calculation.

6 For a discussion of the measurement of deaths of Indigenous persons, see Chapter 2 of *Experimental Life Tables for Aboriginal and Torres Strait Islander Australians, 2005–2007* (cat. no. 3302.0.55.003).

CLASSIFICATIONS

Indigenous status

7 The Indigenous population comprises people who are of Aboriginal origin, Torres Strait Islander origin or both Aboriginal and Torres Strait Islander origin. The Commonwealth definition of an Aboriginal or Torres Strait Islander person is:

- a person of Aboriginal or Torres Strait Islander descent who;
- identifies as being of Aboriginal or Torres Strait Islander origin and who is;
- accepted as such by the community with which the person associates.

8 The 2006 Census of Population and Housing (Household Form) asked the following question of each person:

7 Is the person of Aboriginal or Torres Strait Islander origin? • For persons of both Aboriginal and Torres Strait Islander origin, mark both 'Yes' boxes.	<input type="radio"/> No <input type="radio"/> Yes, Aboriginal <input type="radio"/> Yes, Torres Strait Islander
--	--

Australian statistical areas

9 This publication contains data presented according to a number of geographic classifications: the Main Structure of the Australian Standard Geographical Classification (ASGC), the Australian Indigenous Geographical Classification (AIGC), and Remoteness Areas (RA).

AUSTRALIAN STANDARD GEOGRAPHICAL CLASSIFICATION - MAIN STRUCTURE

10 The Australian Standard Geographical Classification (ASGC) is a hierarchical classification system consisting of six interrelated classification structures. The ASGC provides a common framework of statistical geography and thereby enables the production of statistics which are comparable and can be spatially integrated.

11 The state/territory is the largest spatial unit in the Main Structure and in the ASGC. Six states and five territories are recognised in the ASGC: New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory, Australian Capital Territory, Jervis Bay Territory and the External Territories of Christmas Island and Cocos (Keeling) Islands.

12 Population estimates and projections have been produced separately for each state and territory of Australia, excluding Jervis Bay Territory, Christmas Island and Cocos (Keeling) Islands. These three regions, collectively referred to as 'Other Territories' (OT), have been combined and included in totals for Australia.

13 Estimates and projections are not available for other geographies within the ASGC.

14 For further information refer to *Australian Standard Geographical Classification (ASGC)* (cat. no. 1216.0).

AUSTRALIAN INDIGENOUS GEOGRAPHICAL CLASSIFICATION

15 Population projections are also presented according to the Australian Indigenous Geographical Classification (AIGC) which refers to boundaries as defined at 1 July 2006. Under this classification, population projections were produced for:

- Indigenous Regions (IREG): The Australian Government uses 30 Indigenous Coordination Centres (ICC) and the Torres Strait Regional Authority (TSRA) to manage the delivery of a range of services to Aboriginal and Torres Strait Islander peoples across Australia. For census purposes, the ABS defines Indigenous Regions based on ICC and TSRA areas. In aggregate, IREGs cover the whole of Australia without gaps or overlaps.

16 Projections are not available for lower level geographies within the AIGC.

17 For further information refer to *Maps and Census Profiles, Australian Indigenous Geographical Classification, 2006* (cat. no. 4706.0.30.001).

RE MOTENESS AREAS

18 Remoteness Areas (RA) are the spatial units that make up the ASGC Remoteness Classification. There are six classes of Remoteness Area in the Remoteness Structure: Major Cities of Australia, Inner Regional Australia, Outer Regional Australia, Remote Australia, Very Remote Australia and Migratory. Under this classification, Indigenous population projections were produced for:

- Major Cities of Australia;
- Inner Regional Australia and Outer Regional Australia combined; and
- Remote Australia and Very Remote Australia combined.

19 Projections are not available for lower level geographies within the Remoteness Areas classification.

20 For further information refer to *Australian Standard Geographical Classification (ASGC)* (cat. no. 1216.0).

Age groups

21 Estimates and projections in this publication are presented by 5-year age groups, with upper age groups as follows:

- Australia, states and territories—85 years and over (65 years and over for Tasmania and the Australian Capital Territory);
- Indigenous Regions—65 years and over; and
- Remoteness Areas—75 years and over.

22 Single year of age data is available on request for Australia and the states and territories, excluding the Australian Capital Territory and Other Territories. Single year of age data for these jurisdictions is not available (see paragraphs 45–46).

23 It is important to recognise the inherent uncertainties in these data. Indigenous population estimates for 30 June 2006, on which the estimates and projections are based, may be subject to errors that cannot be adjusted for in the population estimates compilation process. This is due to the inability of the Post Enumeration Survey to adjust for net undercount by Indigenous status by single year of age and sex. For example, features present in single year of age census counts, such as age heaping, will most likely appear in population estimates for 2006, even after adjustment for net undercount and other factors, and therefore may appear in single year of age estimates for earlier years as well as projections.

24 In addition, the use of assumptions on future levels of fertility, mortality and migration to obtain population projections adds a further level of uncertainty, the extent of which cannot be measured.

METHODS

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

26 As mentioned above, data quality issues relating to census counts, births, deaths and migration of Indigenous persons do not support the standard approach to population estimation. An alternative method is therefore required to enable the construction of a time series of the size and structure of the Indigenous population.

27 Estimates of the Indigenous population are available for 30 June of the latest census year (currently, 30 June 2006). Based on these, estimates (for previous years) and projections (for future years) can be derived using assumptions about past and future components of population change.

28 Due to volatility in Indigenous census counts, estimates for previous years derived from the 30 June 2006 data provide a consistent time series compared to census year estimates derived from previous censuses. The estimates in this publication therefore supercede previously published ABS estimates and projections of the Indigenous population. See paragraphs 36–38 for a comparison of population estimates based on the 2006, 2001 and 1996 censuses.

Cohort-component method

29 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 regarding future fertility, mortality and migration. This procedure is repeated for each year in the projection period. Projections for each geographic region (for example, Indigenous Regions) by sex and single years of age are adjusted to sum to state or territory projections which are in turn adjusted to sum to Australia-level projections.

30 A similar technique can also be used to estimate past populations, by 'reverse-surviving' a population using mortality rates derived from life tables.

ESTIMATES

31 A single series of population estimates for the period 1986 to 2005 was calculated by reverse-surviving the 30 June 2006 experimental estimated Indigenous resident population using assumed life tables based on those calculated for the period 2005–2007. Zero net interstate and overseas migration was assumed for the period 1986 to 2006.

Method used to derive estimates

32 Using 30 June 2006 experimental Indigenous resident population estimates as the base population, estimates were survived back one year at a time to 30 June 1986. For example, the number of 19-year old males in 2005 was obtained by applying survivorship ratios from life tables to the number of 20-year old males in 2006. This calculation is performed for all ages and both sexes to obtain the complete 2005 population, and repeated to obtain estimates to 1986.

33 The absolute size of net interstate migration does not warrant a specific assumption in constructing these estimates. As such, zero internal migration has been assumed. As census data indicates that the level of net overseas migration of Indigenous persons is negligible, zero net overseas migration has been assumed.

34 For the 2001-based Indigenous population estimates a constant life expectancy at birth assumption was assumed. However, it is unlikely that life expectancy at birth for Indigenous Australians has remained unchanged over the past 15 years at 2005–2007 levels. For the estimates presented in this publication, it was assumed that Indigenous life expectancy at birth at the Australia level increased by 0.2 years per year for the period 30 June 1986 to 30 June 2006 for both males and females. Under this assumption, life expectancy at birth would be 64.1 years for Indigenous males and 69.8 years for Indigenous females in 1991. Whether Indigenous life expectancy at birth has changed at a faster or slower rate is unknown.

Estimates for 1986 to 1990

35 Given the 20-year interval for which the assumption of improving life expectancy at birth is applied, as well as the assumption of zero net interstate migration over the period, estimates for 1986 to 1990 should be interpreted with caution.

Comparison to previously published estimates

36 The total Indigenous population of Australia at 30 June 2001, based on the 2001 Census, was 458,500 persons. The estimate for 2001 presented in this publication, based on the 2006 Census, is 463,100 persons (1% greater than the previously published 2001 estimate).

37 The estimate for 30 June 1996 based on the 1996 Census was 386,000 persons. The estimate for 1996 presented in this publication, based on the 2006 Census, is 407,300 persons (5.5% greater than the previously published 1996 estimate).

38 The estimate for 30 June 1991 based on the 1991 Census was 283,000 persons. The estimate for 1991 presented in this publication, based on the 2006 Census, is 351,000 persons (24% greater than the previously published 1991 estimate).

PROJECTIONS

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

Assumptions

40 Assumptions have been formulated on the basis of past demographic trends, in conjunction with consultation with various individuals and government department representatives at the national and state/territory level. Consultation occurred between May and July 2009, after which the assumptions were finalised.

41 The assumptions 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. There is no certainty that any of the assumptions will or will not

Assumptions continued

be realised. For detailed information on the assumptions used, see Chapter 2 for more information.

42 Projections incorporating alternative levels and combinations of assumptions have been produced in recognition of this uncertainty and to provide a range of options to users (see Chapter 4 for more information).

Method used to derive projections

43 Using 30 June 2006 experimental Indigenous resident population estimates as the base population, the estimates were projected forward one year at a time to 30 June 2021. For example:

- the number of 21-year old males in 2007 was obtained by applying survivorship ratios from life tables to the number of 20-year old males in 2006. This calculation is performed for all ages and both sexes to obtain a 'survived' population for 2007;
- net interstate migration (by single year of age and sex) for 2007 was derived by applying migration rates to the 2006 Indigenous population and adding these to the relevant state or territory population; and
- to obtain the number of 0-year olds in 2007, age-specific fertility and paternity rates were applied to the female and male populations (respectively) aged 15–49 years to derive the number of births (that is, 0-year olds). These are split into males and females using the assumed sex ratio at birth.

44 The result of these steps is the projected population for 2007. This process is repeated to produce each successive year of the projection, until the projection horizon is reached.

CONFIDENTIALITY

45 The *Census and Statistics Act, 1905* provides the authority for the ABS to collect statistical information, and requires that statistical output shall not be published or disseminated in a manner that is likely to enable the identification of a particular person or organisation. This requirement means that the ABS must take care and make assurances that any statistical information about individual respondents cannot be derived from published data.

46 Some techniques used to guard against identification or disclosure of confidential information in statistical tables are suppression of sensitive cells, random adjustments to cells with very small values, and aggregation of data. To protect confidentiality within this publication, some cell values may have been suppressed and are not available for publication but included in totals where applicable. In these cases data may not sum to totals due to the confidentialisation of individual cells.

ROUNDING

47 In this publication population estimates and projections, and their components have sometimes been rounded. Rounded figures and unrounded figures should not be assumed to be accurate to the last digit shown. Where figures have been rounded, discrepancies may occur between sums of component items and totals.

ACKNOWLEDGEMENTS

48 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 PUBLICATIONS AND
REFERENCES

- 49** Other ABS publications that may be of interest to users include:
- Australian Demographic Statistics* (cat. no. 3101.0)
- Births, Australia* (cat. no. 3301.0)
- Deaths, Australia* (cat. no. 3302.0)
- Demography Working Paper 2001/4 – Issues in Estimating the Indigenous Population* (cat. no. 3126.0)
- Discussion Paper: Assessment of Methods for Developing Life Tables for Aboriginal and Torres Strait Islander Australians, Australia, 2006* (cat. no. 3302.0.55.002)
- Experimental Estimates and Projections, Indigenous Australians, 1991 to 2009* (cat. no. 3238.0)
- Experimental Estimates of the Aboriginal and Torres Strait Islander Population, 1991 to 1996* (cat. no. 3230.0)— discontinued
- Experimental Estimates of the Aboriginal and Torres Strait Islander Population, June 1986 to June 1991* (cat. no. 3230.0) — discontinued
- Experimental Life Tables for Aboriginal and Torres Strait Islander Australians, 2005–2007* (cat. no. 3302.0.55.003)
- Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1996 to 2006* (cat. no. 3231.0) — discontinued
- National Aboriginal and Torres Strait Islander Social Survey, 2002* (cat. no. 4714.0)
- Population Characteristics, Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 4713.0)
- Population Distribution, Aboriginal and Torres Strait Islander Australians, 2006* (cat. no. 4705.0)
- The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (cat. no. 4704.0)

ADDITIONAL STATISTICS
AVAILABLE

- 50** 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.
- 51** 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.

GLOSSARY

Age-sex pyramid	An age-sex pyramid is a bar chart graphically representing the age structure of the population, usually in five-year age groups, for males and females separately. The age structure of the population usually approximates the shape of a pyramid because mortality progressively reduces the number in each birth cohort as it ages. The age pyramid is useful to show the existence of unusually large or small cohorts, and in this way, not only conveys information about a country's past demographic history, but also a great deal about its demographic future.
Age-specific death rates	Age-specific death rates (ASDRs) 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 the 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 (ASFR) 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. In the calculation of 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. Pro rata adjustment is made for births for which the age of the mother is not given.
Age-specific paternity rates	Age-specific paternity rates (ASPR) are the number of live births (occurred or registered) during the calendar year, according to the age of the father, per 1,000 of the male estimated resident population of the same age at 30 June. In the calculation of these rates, births to fathers under 15 years are included in the 15–19 years age group, and births to fathers aged 50 years and over are included in the 45–49 years age group. Pro rata adjustment is made for births for which the age of the father is not given.
Average annual growth rate	The average annual growth rate, r , is calculated as a percentage using the formula: $\left[\left(\frac{P_n}{P_0} \right)^{\frac{1}{n}} - 1 \right] \times 100$ <p>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_0 and P_n in years.</p>
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 heartbeat.
Completed fertility	Completed fertility represents the average number of births a cohort of females have borne over their reproductive lifetimes.
Death	Death is the permanent disappearance of all evidence of life after birth has taken place. The definition excludes all deaths prior to live birth. For the purposes of the Death Registrations collection, a death refers to any death which occurs in, or en route to Australia and is registered with a state or territory Registry of Births, Deaths and Marriages.
Estimated resident population (ERP)	The official measure of the population of Australia is based on the concept of usual 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.
Indigenous	Persons who identify themselves as being of Aboriginal and/or Torres Strait Islander origin.

Indigenous birth	The birth of a live-born child where either the mother or the father was identified as being of Aboriginal or Torres Strait Islander origin on the birth registration form.
Indigenous death	The death of a person who is identified as being of Aboriginal and/or Torres Strait Islander (Indigenous) origin on the Death Registration Form. From 2007, Indigenous origin for deaths registered in South Australia, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory is also derived from the Medical Certificate of Cause of Death.
Indigenous Region (IREG)	<p>In 2006, the highest level of the Australian Indigenous Geographical Classification (AIGC) is made up of Indigenous Regions (IREGs). IREGs are based on the earlier Aboriginal and Torres Strait Islander Commission (ATSIC) Regions but reflect recent changes in local government areas. Changes in government administrative arrangements were also taken into account in defining the IREGs. Where possible and appropriate, the 2001 boundaries were maintained to allow the characteristics of Indigenous people within a Region to be compared across Censuses.</p> <p>IREGs cover in aggregate, the whole of Australia without gaps or overlaps.</p>
Intercensal period	The time period between 30 June in the previous census year and 30 June of the latest census year.
Life expectancy	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/her lifetime.
Life table	<p>A life table is a tabular, numerical representation of mortality and survivorship of a cohort of births at each age of life. The conventional life table is based on the assumption that as the cohort passes through life it experiences mortality at each age in accordance with a predetermined pattern of mortality rates which do not change from year to year. The life table thus constitutes a hypothetical model of mortality, and even though it is usually based upon death rates from a real population during a particular period of time, it does not describe the real mortality which characterises a cohort as it ages.</p> <p>Due to differences in mortality patterns between males and females at different ages, life tables are generally constructed separately for each sex.</p>
Median age	For any distribution the median value is that which divides the relevant population into two equal parts, half falling below the value, and half exceeding it. Thus, the median age is the age at which half the population is older and half is younger.
Migration	The movement of people across a specified boundary for the purpose of establishing a new or semi-permanent residence. Migration can be international (migration between countries) and internal (migration within a country).
Mortality	Death.
Natural increase	Excess of births over deaths.
Net interstate migration	Net interstate migration is the net gain or loss of population though interstate migration being the change of a person's place of usual residence from one state or territory to another state or territory.
Net overseas migration	Net overseas migration is the net gain or loss of population through immigration to Australia and emigration from Australia.
Net population growth	For Australia, net population growth is the sum of natural increase and net overseas migration. For the states and territories, net population growth also includes net interstate migration.

Net undercount	The difference between the actual census count (including imputations) and an estimate of the number of people who should have been counted in the census. This estimate is based on the Post Enumeration Survey conducted after each census. For a category of person (e.g. based on age, sex and state of usual residence), net undercount is the resultant of census undercount, over count, misclassification and imputation error.
Other Territories	Following the 1992 amendments to the Acts Interpretation Act to include the Indian Ocean Territories of Christmas Island and the Cocos (Keeling) Islands as part of geographic Australia, another category at the state and territory level has been created, known as Other Territories. Other Territories include Jervis Bay Territory, previously included with the Australian Capital Territory, as well as Christmas Island and the Cocos (Keeling) Islands.
Post Enumeration Survey (PES)	The Post Enumeration Survey (PES) is a household survey conducted three to four weeks after the census. The PES allows the ABS to estimate the number of people missed in the census and the number counted more than once. Usually more people are missed than counted more than once in Australia, leading to a net undercount. Results from the PES contribute to a more accurate calculation of the estimated resident population (ERP) for Australia and the states and territories which is then backdated to 30 June of the census year.
Rate of population growth	Population change over a period as a proportion (percentage) of the population at the beginning of the period.
Remoteness Area	<p>Within the Australian Standard Geographical Classification (ASGC), the Remoteness classification comprises five categories, each of which identifies a (non-contiguous) region in Australia being a grouping of Collection Districts (CDs) sharing a particular degree of remoteness. The degrees of remoteness range from 'highly accessible' (i.e. major cities) to 'very remote'.</p> <p>The degree of remoteness of each CD was determined using the Accessibility/Remoteness Index of Australia (ARIA). CDs have then been group into the appropriate category of Remotness to form non-contiguous areas within each state.</p> <p>For more information, refer to <i>Statistical Geography Volume 1: Australian Standard Geographical Classification (ASGC) 2006</i> (cat. no. 1216.0) and <i>ABS Views on Remotness</i> (cat. no. 1244.0).</p>
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.
State/territory of usual residence	State or territory of usual residence refers to the state or territory of usual residence of: <ul style="list-style-type: none"> ■ the population; ■ the mother (Birth Registrations collection); and ■ the deceased (Death Registrations collection).
Total fertility rate (TFR)	The sum of age-specific fertility rates (live births at each age of mother per female population of that age). 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.
Total paternity rate (TPR)	The sum of age-specific paternity rates (live births at each age of father per male population of that age). It represents the number of children a male would bear during his lifetime if he experienced current age-specific paternity rates at each age of his reproductive life.
Unexplained growth	The intercensal growth in the Indigenous population counts that cannot be fully explained by births, deaths and migration.

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