

BACKGROUND RESEARCH PAPER

Assumptions Used in the Queensland Government Population Projections to 2056

Version 5

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BACKGROUND

Projections of the future population are a vital tool for policy makers and provide effective planning information on which to base decisions concerning the future.

Both the Queensland Government and the Australian Bureau of Statistics (ABS) produce population projections for Queensland. Queensland Government projections are generated for the state as a whole and for statistical divisions and local government areas, while ABS projections are produced at the state level, and for the Brisbane Statistical Division and remainder of Queensland.

Assumptions regarding future levels of fertility, mortality, and internal and overseas migration are critical inputs required to project future populations. Recent trends and current perspectives on these components of population change are essential evidence needed to construct an informed selection of assumptions. As future levels of fertility, mortality, and overseas migration and internal migration are not easily predicted, a range of assumptions (low, medium, high) are made for each of these components. The levels selected are not intended to be a forecast of possible futures, but rather are based on the range of historical outcomes and current perspectives for each component of population change.

Projections of the Queensland population were released by the Queensland Government and ABS in 2006. Table 1 shows the medium assumptions made by each agency at that time regarding fertility, mortality, interstate and overseas migration for Queensland.

Table 1 Population projection assumptions, Queensland Government (medium series) and Australian Bureau of Statistics (Series B – medium series), Queensland, 2006

Queensland Government	Australian Bureau of Statistics
Base population is the revised June 2004 Queensland population with a time horizon of June 2051	Base population is the revised June 2004 Queensland population with a time horizon of June 2051
Fertility to remain at 1.8 babies per woman in Australia until 2007–08, then linearly declining to 1.7 babies per woman by 2013–14, constant thereafter. A Queensland/Australia differential is applied to this assumption.	Fertility to decline to 1.7 children per woman in Australia by 2012–13, constant thereafter. A Queensland/Australia differential is applied to this assumption.
Life expectancy at birth of 88.4 years for males and 90.5 years for females in Australia by the end of the projection period (2050–51). A Queensland/Australia differential is applied to this assumption.	Life expectancy at birth of 84.6 years for males and 87.9 years for females in Australia by the end of the projection period (2050–51). A Queensland/Australia differential is applied to this assumption.
Net interstate migration for Queensland of 30,000 persons from 2005–06 to 2008–09, then increasing to 34,200 by 2014–15. From 2015–16, migration rates are applied with nets declining to 18,800 by 2050–51.	Net interstate migration for Queensland of 33,000 persons in 2004–05, then 30,000 persons in 2005–06, then 27,000 persons thereafter.
Net overseas migration for Australia of 110,000 persons per year. The Queensland share will be 18% in 2005–06, increasing linearly to 22% in 2050–51.	Net overseas migration for Australia of 110,000 persons per year. The Queensland share will be 18.5% in 2004–05, increasing to 20% in 2007–08, constant thereafter.

Source: Queensland Government, *Population Projections to 2051: Queensland and Statistical Divisions*, 2nd edition, 2006; Australian Bureau of Statistics, *Population Projections, Australia, 2004 to 2101* (Catalogue no. 3222.0)

More recent population data and more up-to-date perspectives on fertility, mortality and migration have become available since 2006. Preliminary re-based 30 June 2006 estimated resident populations for Queensland and statistical divisions and migration data from the 2006 Census of Population and Housing were released by the Australian Bureau of Statistics (ABS) in late 2007. As a consequence, at the time that this paper was prepared, the Queensland Government population projections released in 2006 were able to be revised. ABS were planning to release updated projections data on 4 September 2008.

POPULATION

Comparison of Actual and Projected Population

In 2006, the Queensland Government released state-level population projections data for the years 2004 to 2051. Table 2 shows the medium series Queensland Government projected populations for 2004, 2005 and 2006 which were released at that time. These are compared with estimated resident population (ERP) figures published by the Australian Bureau of Statistics (ABS) for the same years, which were published after the projections data. As such, a comparison can be made regarding the accuracy of the projections data.

ABS published ERP data for 2004, 2005 and 2006 based on the 2001 Census of Population and Housing (preliminary), but then made significant revisions to these figures when the results of the 2006 Census became available.

It should be noted that the Queensland Government projections data were published before the results of the 2006 Census were released, and therefore used the preliminary 2004 base population (which was based on the 2001 Census).

After the release of the Queensland Government projections, ABS released actual ERP data for 2005 and 2006. These actual figures were slightly higher than the projected figures. This result was due to the following factors:

1. Actual fertility was slightly higher than projected fertility
Actual: 52,092 births in 2004–05 and 53,455 births in 2005–06
Projected: 51,620 births in 2004–05 and 51,681 births in 2005–06
2. Projected and actual life expectancies resulted in very similar numbers of deaths.
3. Actual net interstate migration was lower overall than projected interstate migration
Actual: 31,494 in 2004–05 and 25,774 in 2005–06
Projected: 30,000 in both 2004–05 and 2005–06
4. Actual net overseas migration was significantly higher than projected net overseas migration
Actual: 29,555 in 2004–05 and 21,380 in 2005–06
Projected: 19,896 in 2004–05 and 19,991 in 2005–06

Table 2 Estimated resident population, projected and actual, Queensland

As at 30 June	Queensland Government		
	(a)(b)	ABS (based on 2001 Census)	ABS (based on 2006 Census)
2004	3,888,077	3,888,077	3,901,811
2005	3,963,968	3,977,052	3,996,564
2006	4,041,368	4,053,444	4,091,546

(a) 2nd edition released in 2006.

(b) Medium series.

Sources:

Projected: Queensland Government, *Population Projections to 2051: Queensland and Statistical Divisions*, 2nd edition, 2006

Actual: Australian Bureau of Statistics, *Australian Demographic Statistics* (Catalogue no. 3101.0)

FERTILITY

Introduction

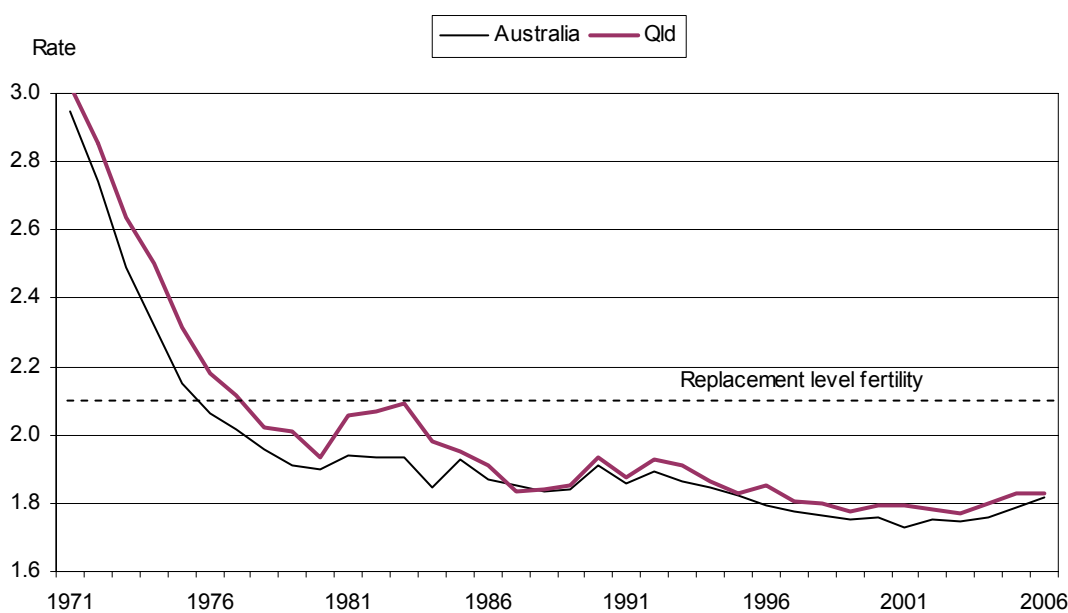
Future trends in fertility will be an important determinant of Queensland's population size and growth in years to come. One common measure of fertility is the total fertility rate (TFR).

The total fertility rate represents the number of children a woman would bear during her lifetime if she experienced the age-specific fertility rates prevailing over that period at each age of her reproductive life. The TFR is calculated as the sum of the age-specific fertility rates. Under current rates of mortality, up to age 49, a TFR of 2.1 babies per woman is regarded as the 'replacement level' of fertility, that is, the level at which the population exactly replaces itself.

Recent Trends

Many countries in the developed world have declining fertility rates, and the majority also have below-replacement fertility. Fertility rates in Australia and Queensland have followed this trend for many decades, with rates being below replacement level since the late 1970s. However, Australian and Queensland rates have increased in recent years, with the Queensland rate in 2006 the highest recorded since 1996 (see Figure 1 and Table 3).

Figure 1 Total fertility rates (a), Queensland and Australia, 1971 to 2006 (b)



- (a) Babies per women.
- (b) Calendar year basis.

Source: Australian Bureau of Statistics, *Australian Historical Population Statistics, 2006*, Table 40. Age-specific fertility rates and total fertility rate, states and territories, 1947 onwards (Catalogue no. 3105.0.65.001) (for data from 1971 to 1995); *Births, Australia, 2006* (Catalogue no. 3301.0) (for data from 1996 to 2006)

Table 3 Total fertility rates (a), Queensland and Australia, 1996 to 2006 (b)

Year	Queensland	Australia
1996	1.851	1.796
1997	1.806	1.778
1998	1.800	1.762
1999	1.774	1.755
2000	1.791	1.756
2001	1.795	1.729
2002	1.781	1.755
2003	1.769	1.747
2004	1.798	1.761
2005	1.829	1.789
2006	1.831	1.814

(a) Babies per women.

(b) Calendar-year basis.

Source: Australian Bureau of Statistics, *Births, Australia, 2006* (Catalogue no. 3301.0)

Comparison of Actual and Projected Fertility Rates

At the time of the release of the 2nd edition of the Queensland Government Population Projections in early 2006, three long-term assumptions were made about Australia's future levels of fertility (see Table 4 below).

Table 4 Fertility assumptions (a), Queensland Government Population Projections, 2006 edition

Series	Assumption
Low	Fertility to decline to 1.6 babies per woman in Australia by 2020–21, constant thereafter.
Medium	Fertility to remain at 1.8 babies per woman in Australia until 2007–08, then decline linearly to 1.7 babies per woman by 2013–14, constant thereafter.
High	Fertility to increase to 2.0 babies per woman in Australia by 2020–21, constant thereafter.

(a) A Queensland/Australia differential is applied to these assumptions.

Source: Queensland Government, *Population Projections to 2051: Queensland and Statistical Divisions*, 2nd edition, 2006

These assumptions were made using the latest available data at that time, for the financial year 2004–05 (see the first set of actual data in Table 5). The rates for 2004–05 were calculated using preliminary births on a registration basis and estimated resident populations based on the 2001 Census.

Since the 2nd edition release, revised data for 2003–04 and 2004–05 have been published, and a figure for 2005–06 has been released. These results can now be compared with the assumed levels. The revisions to the actual rates have been marginally downward, and the data for 2005–06 indicate a further increase to fertility rates, at least in the short-term.

Table 5 Comparison of actual and assumed total fertility rates, Australia, 2003–04 to 2005–06

Series	Financial year			
	2003–04	2004–05	2005–06	2050–51
	— Rate —			
Actual (a)	1.756	1.780	n.a.	n.a.
Assumed:				
Low series	1.756	1.747	1.738	1.600
Medium series	1.756	1.800	1.800	1.800
High series	1.756	1.770	1.785	2.000
Actual (b)	1.747	1.766	1.804	n.a.

n.a. = not available

(a) Calculated using preliminary births on a registration basis and estimated resident populations based on 2001 Census.

(b) Calculated using revised births on occurrence basis and revised ERP based on 2006 Census.

Summary of Fertility Assumptions

The Queensland Government has made three long-term assumptions about Queensland's future levels of fertility for the 3rd edition:

1. Low assumption: a total fertility rate (TFR) of 1.8 in 2007–08, declining linearly to 1.7 within five years, then remaining constant;
2. Medium assumption: a TFR of 1.9 in 2007–08, declining linearly to 1.8 within five years, then remaining constant; and
3. High assumption: a TFR of 1.95 in 2007–08, increasing linearly to 2.0 within five years, and then remaining constant.

The long-term medium fertility assumption has been increased compared with the previous assumption of 1.7 babies per woman. The higher fertility rate is in line with contemporary perspectives which indicate that the current halt in historical fertility declines continues to be sustained.

The trend towards older ages of mothers at birth of children is assumed to continue under all scenarios, albeit slowing over time, while the sex ratio at birth in Queensland is assumed to be 105 male births per 100 female births.

MORTALITY

Introduction

Trends in mortality are an important determinant of Queensland's future population size, particularly for older age groups. Life expectancy at birth can be used as a measure of mortality.

Recent Trends

Australian male life expectancies at birth have increased from 47.2 years during the 1881 to 1890 period to 78.7 years in the 2004–2006 period. Female life expectancies increased from 50.9 years to 83.5 years over the same time period (Table 6).

At this point in time, there is no evidence of a slowing in the rate of increase in life expectancy for both males and females. Life expectancies for males and females increased by 1.7 years and 1.1 years respectively in the five years between 2001 and 2006. These increases are at least consistent with those experienced in previous time periods, and are actually greater than any recorded since the 1976 to 1981 period.

Table 6 Life expectancy (a) at birth, Australia, 1981–90 to 2006

Period/Year	Males	Females
	— years —	
1881–90	47.2	50.9
1891–1900	51.1	54.8
1901–10	55.2	58.8
1920–22	59.2	63.3
1932–34	63.5	67.1
1946–48	66.1	70.6
1953–55	67.1	72.8
1960–62	67.9	74.2
1965–67	67.6	74.2
1971	68.3	74.8
1976	69.4	76.4
1981	71.4	78.4
1986	72.9	79.2
1991	74.4	80.3
1996	75.5	81.3
2001	77.0	82.4
2004	78.1	83.0
2005	78.5	83.3
2006	78.7	83.5

(a) Prior to 1995, expectation of life was based on annual life tables calculated by the ABS. From 1995 onwards, expectation of life has been calculated using data for the three years ending in the year in the table row headings.

Source: Australian Bureau of Statistics, *Australian Historical Population Statistics, 2006* (Catalogue no. 3105.0.65.001) (for years 1881 – 2004); *Deaths, Australia, 2005* (Catalogue no. 3302.0) (for 2005); *Deaths, Australia, 2006* (Catalogue no. 3302.0) (for 2006)

Current Perspectives

Historical declines in death rates and increases in life expectancies have been driven by improved technology, better social conditions, increased prenatal care and the availability of immunisation. Other technological developments such as x-rays and nuclear imaging have also made a considerable contribution to obstetrics, cancer treatment and research, therefore helping to increase the life expectancy of Australians.

While continued improvements in life expectancy are anticipated, the extent of any further increase is a matter for debate. Many assume there is an upper limit to human longevity.

The Queensland Health report “The Health of Queenslanders 2006” includes information on the burden of disease. Burden of disease measures the gap between the current health status and the ideal situation where everyone lives into old age free of disease and disability. It is the total impact of health conditions judged by years of life lost due to disability and premature mortality. The report states that “Queensland, like the rest of Australia, is in an epidemic of overweight and obesity for children and adults” and “in Queensland in 2003, overweight and obesity was the largest determinant of burden of disease (8.5 per cent), causing 9.2 per cent of the total burden for males and 7.7 per cent for females. The long-term effect of the overweight and obesity epidemic on life expectancies is still much in debate.

Comparison of Actual and Projected Life Expectancies

At the time of the release of the 2nd edition of the Queensland Government Population Projections in early 2006, three long-term assumptions were made about Australia’s future life expectancies (see Table 7 below).

Table 7 Assumed life expectancies at birth (a), Queensland Government Population Projections, 2006 edition

Series	Assumption
Low	Life expectancy at birth in Australia to reach 84.9 years for males and 88.0 years for females by 2050–51.
Medium	Life expectancy at birth in Australia to reach 88.4 years for males and 90.5 years for females by 2050–51.
High	Life expectancy at birth in Australia to reach 92.7 years for males and 95.1 years for females by 2050–51.

(a) A Queensland/Australia differential is applied to these assumptions.

Source: Queensland Government, *Population Projections to 2051: Queensland and Statistical Divisions*, 2nd edition, 2006

These assumptions were made using data to 2004, which were the latest available data at that time. Since the 2nd edition release of the population projections, life expectancies for 2005 and 2006 have been published, and these can now be compared with the assumed levels used in the projections.

Between 2004 and 2006, actual life expectancies at birth for males and females increased by 0.6 years and 0.5 years respectively. In the first two years of the projection data, life expectancies at birth for males and females were assumed to increase by 0.27 years and 0.19 years in the low series, 0.42 years and 0.30 years in the medium series, and 0.70 years and 0.55 years in the high series. As such, the assumption made for the high series was closest to the actual published figure.

Summary of Life Expectancy Assumptions

The Queensland Government has made three long-term assumptions about Queensland's future life expectancies at birth for the 3rd edition:

1. Low assumption: male and female life expectancies at birth are projected to reach 85.4 years and 88.4 years respectively by 2055–56;
2. Medium assumption: male and female life expectancies at birth are projected to reach 89.3 years and 91.2 years respectively by 2055–56; and
3. High assumption: male and female life expectancies at birth are projected to reach 94.0 years and 96.3 years respectively by 2055–56.

INTERSTATE MIGRATION

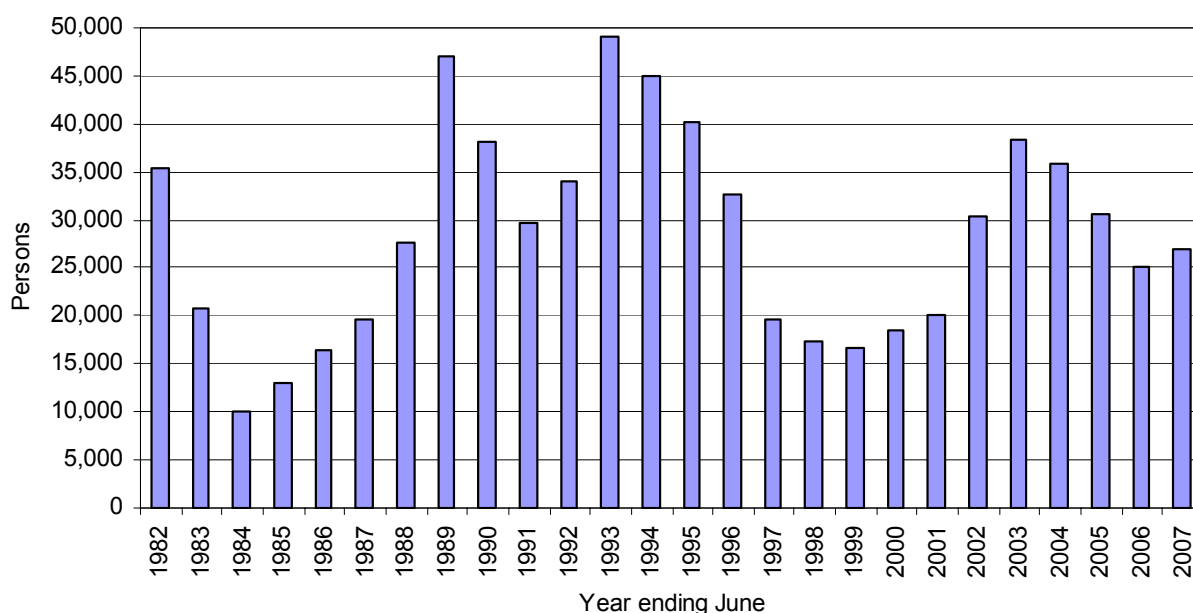
Introduction

Interstate migration is the most volatile component of population change in Queensland. The movement of people between the states and territories of Australia is unrestricted and depends on many factors such as their varying economic opportunities, overseas immigration and settlement patterns, and lifestyle and amenity choices of the population. None of these factors can be foreseen with any accuracy. Instead, the range of long-term historical net levels can assist in projecting lower and upper bounds for future interstate migration levels. Recent interstate migration trends can be of assistance in formulating assumptions, at least for the first few years of the projection period.

Recent Trends

Interstate migration estimates published by the Australian Bureau of Statistics indicate that Queensland's net interstate migration gains have varied considerably over the last twenty years (see Figure 2 and Table 8). Since 1981–82 (when the current ABS interstate migration series commenced), net interstate migration to Queensland has varied from a low of 9,959 persons in 1983–84 to a high of 49,162 persons in 1992–93. Net interstate levels increased from a low period in the late 1990s to a peak in 2002–03, have eased in recent years, with an increase recorded in 2006–07.

Figure 2 Net interstate migration, Queensland, 1981–82 to 2006–07 (a)



(a) Estimates for the year ending June 2002 onwards have been revised based on results of the 2006 Census of Population and Housing.

Source: Australian Bureau of Statistics, *Australian Demographic Statistics* (Catalogue no. 3101.0)

Table 8 Net Interstate Migration, Queensland, 1981–82 to 2006–07

Year ending June	Net interstate migration persons
1982	35,453
1983	20,831
1984	9,959
1985	12,920
1986	16,500
1987	19,718
1988	27,720
1989	47,062
1990	38,102
1991	29,709
1992	34,099
1993	49,162
1994	44,936
1995	40,224
1996	32,614
1997	19,605
1998	17,424
1999	16,682
2000	18,453
2001	20,024
2002	30,395
2003	38,360
2004	35,864
2005	30,706
2006	25,227
2007	27,010

(a) Estimates for the year ending June 2002 onwards have been revised based on results of the 2006 Census of Population and Housing.

Source: Australian Bureau of Statistics; *Australian Demographic Statistics* (Catalogue no. 3101.0)

This analysis of annual data shows a gradual decline in net interstate migration to Queensland in recent years, with an increase in the latest year. At the time that this paper was prepared, quarterly data were available for the September quarter 2007. These data shown in Table 9 reveal that there was a very small decrease in net interstate migration recorded during this quarter.

Table 9 Net interstate migration, Queensland, March quarter 2002 to December quarter 2007

Year/quarter	Net interstate migration	Change since same quarter of proceeding year
	— persons —	
2002		
March	6,838	..
June	10,185	..
September	9,652	..
December	11,139	..
2003		
March	8,035	1,197
June	9,534	-651
September	8,953	-699
December	10,202	-937
2004		
March	7,766	-269
June	8,943	-591
September	7,392	-1,561
December	8,600	-1,602
2005		
March	7,550	-216
June	7,164	-1,779
September	6,002	-1,390
December	7,883	-717
2006		
March	5,122	-2,428
June	6,220	-944
September	5,627	-375
December	8,273	390
2007		
March	6,558	1,436
June	6,552	332
September	5,602	-25

.. = not applicable

(a) Estimates from the September quarter 2001 to June quarter 2006 have been revised based on results of the 2006 Census of Population and Housing.

Source: Australian Bureau of Statistics; *Australian Demographic Statistics* (Catalogue no. 3101.0)

Comparison of Actual and Projected Net Interstate Migration

At the time of the release of the 2nd edition of the Queensland Government Population Projections in early 2006, three long-term assumptions were made about net interstate migration to Queensland (see Table 10 below).

Table 10 Assumed net interstate migration, Queensland Government Population Projections, 2006 edition

Series	Assumption
Low	Net interstate migration for Queensland of 24,000 persons between 2005–06 and 2008–09, then declining to 14,600 persons by 2050–51 based on migration rates.
Medium	Net interstate migration for Queensland of 30,000 persons between 2005–06 and 2008–09, increasing to 34,200 persons by 2014–15. Migration rates are applied from 2015–16 with nets declining to 18,800 by 2050–51.
High	Net interstate migration for Queensland of 36,000 persons between 2005–06 and 2008–09, increasing to 40,200 persons by 2014–15. Migration rates are applied from 2015–16 with nets declining to 22,500 by 2050–51.

Source: Queensland Government, *Population Projections to 2051: Queensland and Statistical Divisions*, 2nd edition, 2006

These assumptions were made using the latest available data at that time, for the June quarter 2005. These data showed a decline in net interstate migration since 2002, with no indication of a turning point in the data at that time.

Since the release of the 2nd edition population projections data in early 2006, an extra nine quarters of data have become available. These data reveal that net interstate migration to Queensland continued to decline until the December quarter 2006, then increased for two quarters, with net interstate migration easing slightly in the September quarter 2007.

Assumed Future Net Interstate Migration

The Queensland Government has made three short-term assumptions about future net interstate migration levels for Queensland:

1. Low assumption: net interstate migration for Queensland to start at 26,000 persons in 2007–08 decreasing to 23,000 persons in five years (by 2012–13) and then decreasing to 20,700 persons by 2022–23. Migration rates are then applied with nets declining to 13,900 persons by 2055–56;
2. Medium assumption: net interstate migration for Queensland to start at 31,500 persons in 2007–08 increasing to 32,750 persons in five years (by 2012–13) and then decreasing to 26,000 persons by 2022–23. Migration rates are then applied with nets declining to 17,600 persons by 2055–56; and
3. High assumption: net interstate migration for Queensland to start at 39,500 persons in 2007–08 increasing to 43,100 persons in five years (by 2012–13) and then decreasing to 31,500 persons by 2022–23. Migration rates are then applied with nets declining to 21,200 persons by 2055–56.

Migration Rates

The Australian Bureau of Statistics (ABS) use migration rates to model net interstate flows for Queensland, but these flows are then constrained to predetermined net migration figures. This method does not take account of the size of the populations at risk of migration. The Queensland Government uses the same method of setting net levels for early projection years. However, migration rates by age are then used for the remainder of the projection period. The advantage of the migration rate methodology is that the projection model makes adjustments to interstate in-flows and out-flows as the size and composition of Queensland and the rest of Australia's population changes throughout the projection period.

The migration rates are determined by using a measure called the Gross Migration Rate (GMR). These are analogous to the total fertility rate in that they are the sum of age-specific rates. For these projections they are based on the results of the 2006 Census. They represent the number of moves a person would make if they experienced the age-specific migration rates prevailing at the time of the 2006 Census at each age of life.

OVERSEAS MIGRATION

Introduction

Levels of overseas migration in Queensland and Australia are a function of changes in the Commonwealth Government's migrant visa quota and the breakdown of this quota by class, movement between Australia and New Zealand, and relative economic and social conditions between Australia and overseas. As a result, historical overseas migration levels for Queensland and Australia have shown sizeable variation, making assumptions about the future of this movement difficult to determine.

Changes to Overseas Migration Methodology

Measures of net overseas migration produced by the Australian Bureau of Statistics (ABS) in recent years have been affected by problems associated with the calculation of migration adjustment (previously known as category jumping). In addition, the ABS has identified problems with measuring the status of travellers who spend broken extended periods in Australia. In particular, many overseas students visiting Australia for several years return to their country of origin for end-of-year holidays.

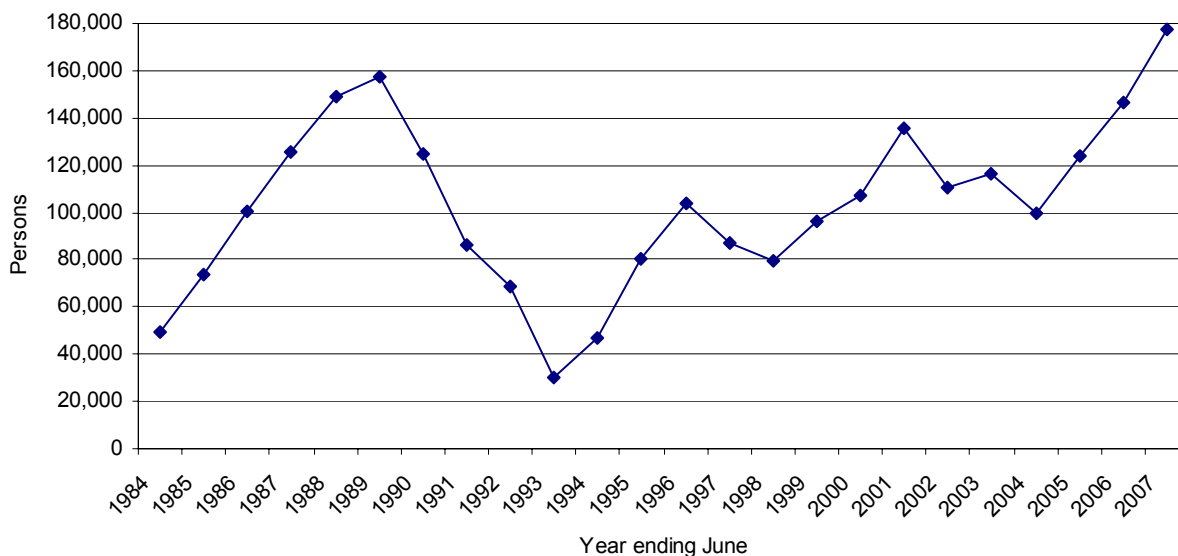
As a result of these issues, ABS has incorporated a new method for estimating overseas movements. This method uses a '12/16 month rule' to measure a person's residency in Australia. This method replaces the older '12/12 month rule'. If an overseas traveller is resident in Australia for a total of 12 months or more during this 16 month period, they are included in the population. For example, international students who spend a broken 12 month period (travelling to and from their country of origin) out of a 16 month period in Australia will now be counted in the estimated resident population. The rule also applies to outbound travellers.

The new methodology has been used to produce net overseas migration estimates since the September quarter 2006.

Recent Trends

In the period between 1983–84 and 2006–07, net overseas migration to Australia reached 157,436 persons in 1988–89, declined to a much lower net gain of 30,042 persons in 1992–93, then followed an increasing trend to reach a record high of 177,617 persons in 2006–07 (Figure 3). Care should be taken when interpreting figures from recent years due to methodological issues relating to net overseas migration.

Figure 3 Net overseas migration, Australia, 1983–84 to 2005–06



Source: Australian Bureau of Statistics, *Australian Demographic Statistics* (Catalogue no. 3101.0)

Table 11 indicates that Queensland's share of Australia's net overseas migration has shown a general increase over the past twenty years. However, the data for recent years (especially between 2001 and 2006) should be treated with caution due to methodological issues with the correct measurement of net overseas migration.

Table 11 Net overseas migration, Queensland as a proportion of Australia, 1983–84 to 2006–07

Year ending June	Queensland	Australia	Qld as a proportion of Australia
	— number —		%
1984	3,267	49,098	6.7
1985	7,665	73,708	10.4
1986	11,382	100,359	11.3
1987	13,171	125,730	10.5
1988	20,442	149,341	13.7
1989	21,776	157,436	13.8
1990	13,142	124,647	10.5
1991	9,743	86,432	11.3
1992	8,250	68,580	12.0
1993	3,719	30,042	12.4
1994	5,241	46,549	11.3
1995	10,580	80,125	13.2
1996	13,051	104,137	12.5
1997	12,620	87,079	14.5
1998	12,490	79,162	15.8
1999	13,710	96,483	14.2
2000	17,514	107,275	16.3
2001	21,003	135,673	15.5
2002	26,488	110,556	24.0
2003	27,122	116,498	23.3
2004	25,399	99,966	25.4
2005	29,555	123,763	23.9
2006	32,952	146,753	22.5
2007	33,536	177,617	18.9

Source: Australian Bureau of Statistics, *Australian Demographic Statistics* (Catalogue no. 3101.0)

Table 12 shows net overseas migration on a quarterly basis, including data since September quarter 2006, which are based on the improved methodology.

Table 12 Net overseas migration (a)(b), Queensland as a proportion of Australia, September quarter 2001 to September quarter 2007

Year/quarter	Queensland persons	Australia persons	Qld as a proportion of Australia %
2001			
September	7,832	27,712	28.3
December	6,491	31,189	20.8
2002			
March	6,960	36,355	19.1
June	5,205	15,300	34.0
September	8,777	29,889	29.4
December	6,991	28,931	24.2
2003			
March	7,697	41,574	18.5
June	3,657	16,104	22.7
September	6,959	27,224	25.6
December	6,847	25,202	27.2
2004			
March	7,782	35,472	21.9
June	3,911	12,068	32.4
September	6,152	30,393	20.2
December	7,909	28,492	27.8
2005			
March	9,265	47,067	19.7
June	6,229	17,811	35.0
September	8,406	37,449	22.4
December	8,277	34,682	23.9
2006			
March	10,077	53,211	18.9
June	6,192	21,411	28.9
September	7,463	45,740	16.3
December	6,301	38,468	16.4
2007			
March	11,367	57,009	19.9
June	8,405	36,400	23.1
September	7,623	47,225	16.1

(a) These estimates contain a break in time series. Estimates for September quarter 2006 onwards use an improved methodology and are not comparable with net overseas migration estimates from earlier periods.

(b) Estimates for September quarter 2006 onwards are preliminary.

Source: Australian Bureau of Statistics, *Australian Demographic Statistics* (Catalogue no. 3101.0)

Comparison of Actual and Projected Net Overseas Migration

At the time of the release of the 2nd edition of the Queensland Government Population Projections in early 2006, three long-term assumptions were made about net overseas migration to Australia and Queensland (see Table 13 below).

Table 13 Assumed net overseas migration, Queensland Government Population Projections, 2006 edition

Series	Assumption
Low	Net overseas migration of 80,000 for Australia for each year of the projection period, with an 18% Queensland share for the entire projection period.
Medium	Net overseas migration for Australia of 110,000 persons per year, with the Queensland share increasing linearly from 18% in 2005–06 to 22% in 2050–51.
High	Net overseas migration of 140,000 for Australia for each year of the projection, with the Queensland share increasing linearly from 18% in 2005–06 to reach Queensland's population share of Australia (25.6%) in 2050–51.

Source: Queensland Government, *Population Projections to 2051: Queensland and Statistical Divisions*, 2nd edition, 2006

These assumptions were made using the latest available data at that time, for the 2004–05 year. The data were also based on the older methodology, using the '12/12 month rule'. These data showed an average net overseas migration level to Australia of less than 110,000 persons in the preceding decade. As such, the assumed level of 110,000 persons was plausible. Figures of 146,753 persons for 2005–06 and a record 177,617 persons in 2006–07 have since been released.

Each of the three long-term assumptions used 18% as a starting point for Queensland share of Australia's net overseas migration. This assumed share was similar to the estimated actual quarterly shares published for the September and December quarters 2006 and March quarter 2007, which use the new improved methodology.

Assumed Future Net Overseas Migration

Net overseas migration assumptions for Queensland are derived by making assumptions for Australia, and then applying a projected Queensland share to the assumed levels.

Three long-term assumptions have been made about Australia's future net overseas migration levels:

1. Low assumption: net overseas migration for Australia of 170,000 persons until 2011–12, then declining linearly to 100,000 persons by 2021–22, then remaining constant for the remainder of the projection period. Queensland's share to start at 18.9% and increase to 20% across the projection period;
2. Medium assumption: net overseas migration for Australia of 185,000 persons until 2011–12, then declining linearly to 130,000 persons by 2021–22, then remaining constant for the remainder of the projection period. Queensland's share to start at 18.9% and increase to 22% across the projection period; and
3. High assumption: net overseas migration for Australia of 200,000 persons until 2011–12, then declining linearly to 170,000 persons by 2021–22, then remaining constant for the remainder of the projection period. Queensland's share to start at 20% and then increase to 25% across the projection period.