

Chapter 3 Population

Key Points

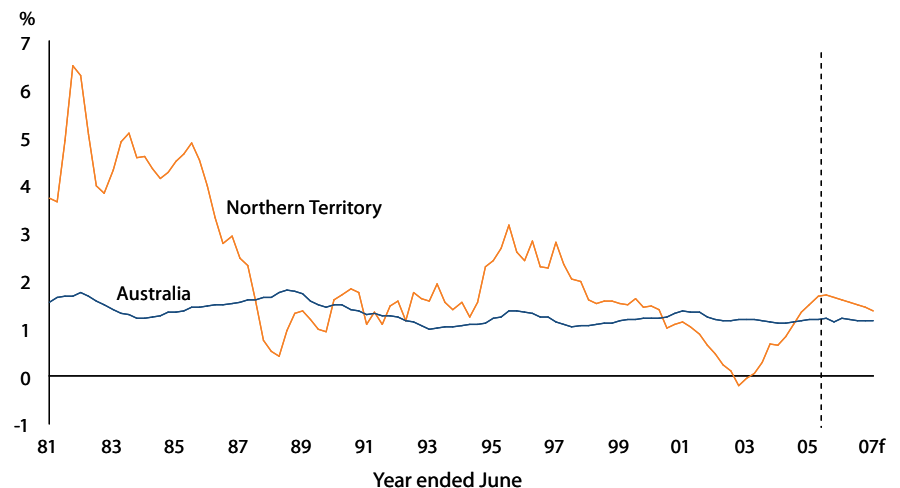
- The Northern Territory is sparsely settled, with a relatively young and highly urbanised population. A far higher proportion of the Territory population is Indigenous (29 per cent) than any other jurisdiction.
- Natural increase (births minus deaths) is a higher contributor to total growth in the Territory due to high rates of Indigenous fertility.
- Interstate migration is the most variable component of population growth, but has contributed to stronger growth during 2005-06.
- Population growth strengthened to 1.1 per cent in 2004, and further to an estimated 1.7 per cent in 2005, with positive net interstate migration inflows for the first time since 1997.
- Population growth of 1.5 per cent is forecast for 2006, easing to 1.2 per cent in 2007.

Population growth is an important driver of economic growth in the Territory, as both a supply of labour and source of demand for locally produced goods and services. It is important to note, however, that significant economic growth can still occur in the absence of increases in the resident population. This has been evident recently with the greater reliance on fly in fly out workers as a source of labour for major projects in the Territory.

The accurate estimation of population is of critical importance to the Territory, as the population estimates produced by the Australian Bureau of Statistics (ABS) are used by the Commonwealth Grants Commission to apportion goods and services tax (GST) revenues. Given the Territory's greater reliance on GST revenues as a source of funding relative to other jurisdictions, changes in the estimated number of residents can have a disproportionate impact on the Territory budget.

For some time, the Northern Territory Treasury has had concerns about enumeration methods used by the ABS to estimate the Territory's population. These concerns relate to the likelihood of underestimation of the population and the relatively high levels of uncertainty attached to estimates. For these and other reasons, the Northern Territory Government and the ABS are working in partnership to improve the enumeration associated with the 2006 Census. These arrangements are discussed briefly at the end of this chapter.

Chart 3.1: Annual Population Growth



f: forecast

Source: Northern Territory Treasury, ABS Cat. No. 3101.0

Table 3.1: Annual Population

To December	Northern Territory		Australia	
	Population (000)	Annual % Change	Population (000)	Annual % Change
1987	159.0	1.6	16 394.6	1.6
1988	160.5	0.9	16 687.1	1.8
1989	162.1	1.0	16 936.7	1.5
1990	165.0	1.8	17 169.8	1.4
1991	166.8	1.1	17 387.0	1.3
1992	169.7	1.7	17 581.3	1.1
1993	172.3	1.5	17 760.0	1.0
1994	175.0	1.5	17 951.5	1.1
1995	180.5	3.2	18 196.1	1.4
1996	184.6	2.3	18 420.3	1.2
1997	188.3	2.0	18 609.1	1.0
1998	191.3	1.6	18 814.3	1.1
1999	194.3	1.6	19 038.3	1.2
2000	196.3	1.0	19 272.6	1.2
2001	198.0	0.9	19 529.3	1.3
2002	198.2	0.1	19 754.8	1.2
2003	198.7	0.3	19 982.5	1.2
2004	200.8	1.1	20 210.0	1.1
2005e	204.3	1.7	20 452.2	1.2
2006f	207.3	1.5	20 689.0	1.2
2007f	209.8	1.2	20 923.5	1.1

e: estimate; f: forecast

Source: Northern Territory Treasury, Access Economics, ABS Cat No. 3101.0

Recent Population Growth

Based on ABS preliminary estimated resident population (ERP) estimates, Territory population growth increased to 1.1 per cent in 2004, following growth of 0.3 per cent in 2003 and 0.1 per cent in 2002 (Chart 3.1). Over the year to June 2005, Territory estimated population growth was 1.5 per cent, rising above the national growth rate for the first time in five years. Population growth in the Territory is expected to continue above the national growth rate during 2006 and 2007.

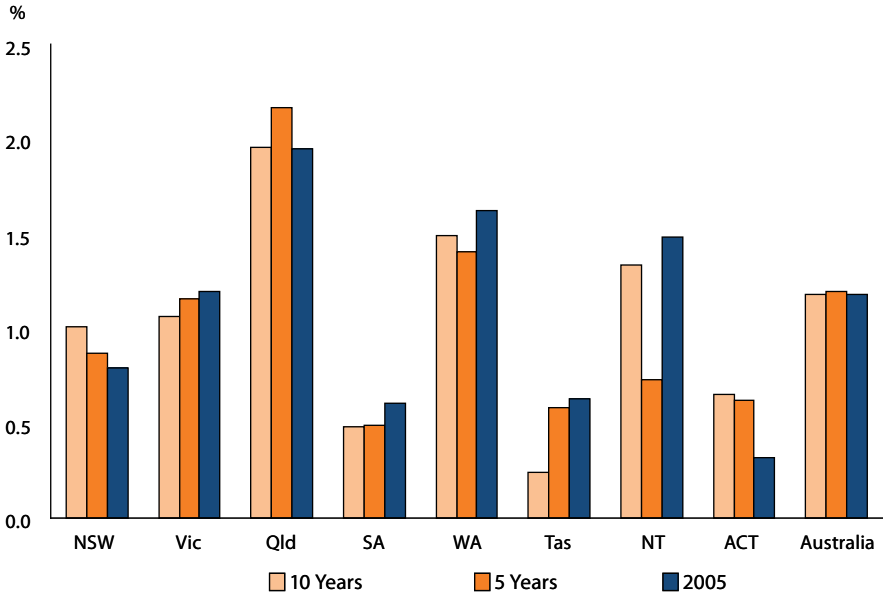
The Territory recorded the highest population growth of all jurisdictions over the five years to June 2000, primarily due to positive interstate migration resulting from the Army Presence in the North (APIN) defence expansion. The current period of strengthening population growth in the Territory follows weak growth consistent with increased net interstate migration loss caused by the downturn in the Territory onshore economy in 1999-2000 and 2000-01. Interstate migration outflows began to decline in 2003, and by 2005 had decreased to a level not seen for 15 years (Chart 3.7). The Territory's population is expected to increase by 1.7 per cent in the year to December 2005.

Interstate Comparison

Over the past 10 years, the Northern Territory had the third highest population growth of the jurisdictions, at 1.3 per cent per year, behind Queensland and Western Australia (Chart 3.2). Nationally, growth averaged 1.2 per cent over the same period. However, the Territory's average population growth over the past five years was well below the national rate, at 0.7 per cent, and was the fifth highest of the jurisdictions. In the year to June 2005, population growth in the Territory returned to the longer term stronger levels, and at 1.5 per cent was the third highest growth rate of the jurisdictions, behind Queensland and Western Australia.



Chart 3.2: State and Territory Population Growth Rates to June 2005 (average annual growth)



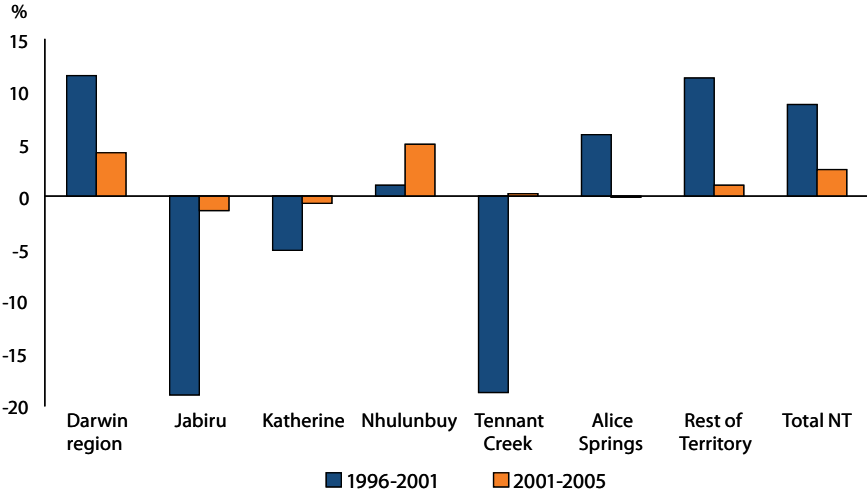
Source: ABS Cat. No. 3101.0

Regional Growth

Between 2001 and 2005, the Darwin region, comprising Darwin, Palmerston and Litchfield, experienced moderate population growth, with Palmerston increasing by 9.1 per cent and Litchfield by 6.9 per cent, compared with Darwin’s 2.0 per cent. The very high growth levels experienced by Palmerston between 1996 and 2001 (11.0 per cent per annum) have slowed to average annual growth of 2.0 per cent since 2001.

Other regional centres in the Territory experienced mixed growth results over the 2001-05 period. Jabiru, Katherine and Alice Springs fell by 1.4 per cent, 0.7 per cent and 0.1 per cent respectively, while the populations of Nhulunbuy and Tennant Creek grew by 5.0 per cent and 0.2 per cent respectively. The population of the remainder of the Territory increased by 1.0 per cent over the same period (Chart 3.3).

Chart 3.3: Territory Population Growth by Main Centre



Source: ABS Cat. No. 3218.0.55.001

Table 3.2: Territory Population Estimates by Main Centre, as at 30 June

	1991		1996		2001		2005p	
	Population	%	Population	%	Population	%	Population	%
Darwin	68 188	41.2	68 889	37.9	68 710	34.7	70 055	34.5
Palmerston	8 557	5.2	13 343	7.3	22 559	11.4	24 603	12.1
Litchfield	9 670	5.8	13 597	7.5	15 573	7.9	16 642	8.2
Darwin Region	86 415	52.2	95 829	52.7	106 842	54.0	111 300	54.9
Jabiru	1 454	0.9	1 457	0.8	1 181	0.6	1 165	0.6
Katherine	8 347	5.0	9 443	5.2	8 956	4.5	8 895	4.4
Nhulunbuy	4 020	2.4	3 759	2.1	3 800	1.9	3 990	2.0
Tennant Creek	3 238	2.0	3 694	2.0	3 002	1.5	3 009	1.5
Alice Springs	24 250	14.7	25 040	13.8	26 520	13.4	26 486	13.1
Rest of NT	37 769	22.8	42 621	23.4	47 467	24.0	47 948	23.6
Total NT	165 493	100.0	181 843	100.0	197 768	100.0	202 793	100.0

p: ABS preliminary estimate

Source: ABS Cat. No. 3218.0.55.001

Population Characteristics

Populations can be measured in a variety of ways. The main concept of population used in this chapter is 'estimated resident population' (ERP), which is the official population figure as measured by the ABS. It includes all people who usually live in a place. To measure ERP, the ABS needs information about the number of usual residents as well as information about the numbers of births and deaths and interstate and overseas migrants. ERP does not include the many fly in fly out workers who are brought in to work on major projects when local skilled labour is insufficient. Therefore, economic growth can still occur in the absence of increases in the resident population.

There are a number of other population concepts that can be of interest, for example, population counts from the ABS Census of Population and Housing. These can be based on place of enumeration (where people are actually counted on Census night) or place of usual residence (the place where people have lived or intend to reside for at least six months). The former are particularly useful for service providers and planners to know the size of the 'service population', which may include tourists and other visitors. The latter form the basis of ERP mentioned above.

Small Population, Large Land Area

The Territory is sparsely populated, with a density of 0.15 persons per square kilometre, lower than any other jurisdiction and well below the national density of 2.6 people per square kilometre.

Highly Urbanised

Despite the low overall population density, more than three-quarters of the Territory's population lives in the urban centres. As at 30 June 2005, the Darwin region accounted for around 55 per cent of the Territory's population. Alice Springs accounted for a further 13 per cent, while the other main administrative centres (Katherine, Nhulunbuy, Tennant Creek and Jabiru) accounted for about 9 per cent (Table 3.2).

The increasing population concentration in the Darwin region mirrors the national trend of greater population concentration in state capitals. The underlying causes of higher population density in urban areas include better employment prospects, higher standards of living, improved amenities and services and changing social values. In the Territory, it may also reflect a pattern of urban migration which is driven in part by the need to access health services and other social and employment opportunities. Without this migration, growth in remote areas would have been higher in recent years.



Young Population

The Territory's population is the most youthful of any jurisdiction in Australia (Chart 3.4). It consistently has the largest proportion under 15 years of age and the smallest proportion aged 65 and over of any state or territory. The Territory has a higher proportion (71 per cent) of its population in the typical working age group of 15- 64 years, compared to the Australian population (67 per cent).

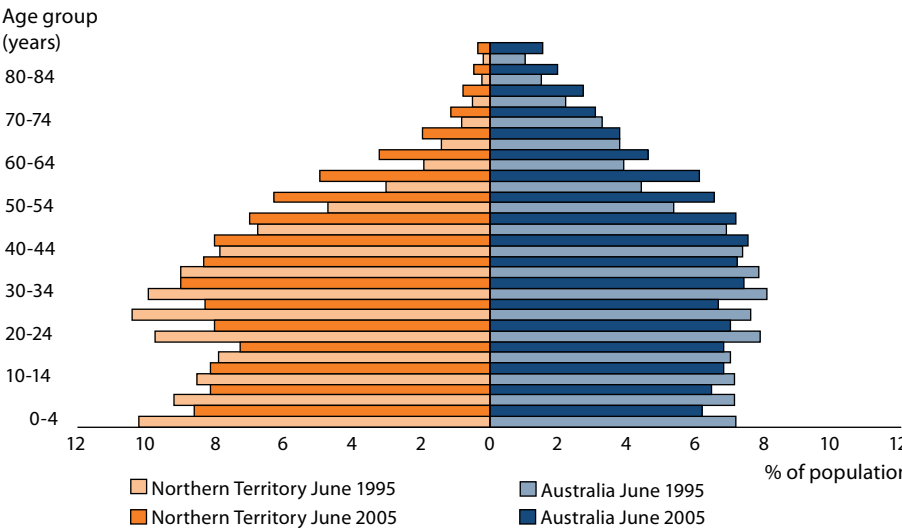
As at 30 June 2005, the median age of Territorians was estimated to be 30.9 years. This is the youngest of any jurisdiction and almost six years below the national median age of 36.6 years. However, over the past five years, the Territory's population has aged markedly faster than the national population. The median age in the Territory rose from 29.2 years in 2000 to 30.9 years in 2005, compared to an increase nationally from 35.4 years to 36.6 years over the same period. Chart 3.4 illustrates the different patterns of ageing experienced by the Territory and Australian populations over the past 10 years.

Indigenous Population

The Indigenous population makes up 29 per cent of the Territory's total population, according to ABS experimental estimates of the Indigenous population for 2001. This is proportionately far larger than any other jurisdiction, with more than one in four people in the Territory identifying as Indigenous. The Indigenous population is much younger than the non-Indigenous population, with a median age of 21.8 at June 2001 compared with 32.4 years for the non-Indigenous population.

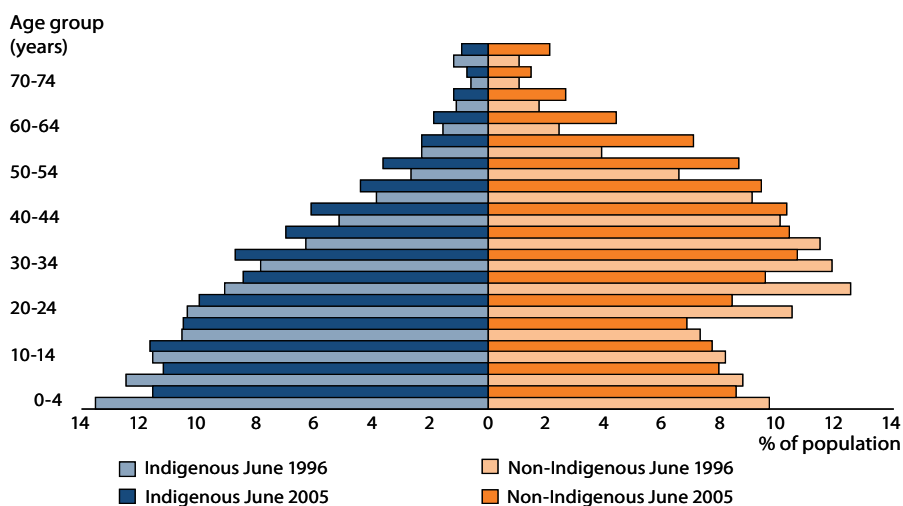
The ABS experimental estimates and projections are based on the 2001 Census usual residence counts and take into account instances in which Indigenous status is not stated, the extent to which ABS estimates Indigenous people are undercounted and a number of other demographic adjustments. At 30 June 2001, the Indigenous population in the Territory was estimated to be 56 875 persons, accounting for 12 per cent of the national Indigenous population of 458 520, which was 2.4 per cent of Australia's total population. Between 1991 and 2001, the Territory's Indigenous population has had average annual growth of 2 per cent compared to 1.7 per cent for the non-Indigenous population. Chart 3.5 shows experimental projections of the Indigenous population as at June 2005 and shows patterns of ageing in the Territory Indigenous and non-Indigenous populations over the past decade.

Chart 3.4: Age Distribution of Population



Source: ABS Cat. No. 3201.0

Chart 3.5: Age Distribution of Territory Population



Note: ABS experimental Indigenous estimates are not available for 1995
 Source: ABS Cat. No. 3201.0 and 3238.0

Falling Household Size

In the five year period between June 1996 and June 2001, the number of resident households in the Territory was estimated by ABS to have increased by 11 per cent (based on 1996 and 2001 Census data). Household growth was significantly faster than population growth of 9 per cent based on 1996 and 2001 Census data, and is associated with a drop in the average number of people per household from 3.1 to 3.0. The ongoing decline in the average size of Territory households reflect an ageing population, a falling fertility rate and an increasing proportion of single-person households, which is consistent with national trends. Despite the decline, household size in the Territory remains the largest of all jurisdictions, partly reflecting high rates of overcrowding among Indigenous households as well as larger families, particularly in remote communities.

Male to Female Ratio

The Territory has significantly more males than females, with an estimated 111 males (52.6 per cent) for every 100 females (47.4 per cent) as at 30 June 2004. This contrasts with the national ratio of 99 males for every 100 females. The ratio becomes more extreme in older age groups, progressing from 108 males for every 100 females in 0-19 year olds, to 127 males to 100 females in 55-74 year olds. Corresponding national figures are 105 males for every 100 females for the 0-19 years age group and 99 males for every 100 females for the 55-74 age group.

Overseas Born

2001 Census results show that 22 per cent of the enumerated Territory resident population was born overseas, with many from non-English speaking backgrounds. This is similar to the proportion of overseas-born recorded in both the 1991 and 1996 Censuses (21 per cent), and is similar to the total Australian proportion. In the Territory, of those born overseas, the main countries of birth were the United Kingdom (17.7 per cent), New Zealand (8.2 per cent), the Philippines (3.9 per cent), the United States (2.8 per cent), Germany (2.4 per cent) and Greece (2.4 per cent).



Population Ageing

In April 2005, the Productivity Commission released its report, *Economic Implications of an Ageing Australia*, which explores the impact that Australia's ageing population may have on various aspects of the economy, state and national budgets. Like other developed countries, Australia's population is ageing. By 2045, one in four Australian residents will be aged over 65, compared with about one in eight currently. Ageing of the population is the result of past trends in fertility and mortality and cannot be reversed. Population policies such as increased immigration will have little effect on the future age structure of the population. In the absence of significant change, ageing will mean lower labour force participation, potentially reduced productivity and increased costs such as health care.

Although the Territory has a younger population than those of other jurisdictions, the population is ageing at a faster rate. The proportion of Territorians aged over 65 may have increased three-fold in 40 years time, whereas the proportion in this age group in the Australian population is expected to double.

Some of the economic impacts of ageing will be more marked in the Territory. For example, the rise in health and aged-care costs is expected to have a greater impact in the Territory than most of Australia because of the rapid rise in the Territory's aged population. Although the Productivity Commission report predicts that education costs will fall in all jurisdictions, it is unlikely this will be the case in the Territory, particularly because of education costs associated with the large youthful Indigenous population.

Indigenous Population

The economic consequences of demographic change within the Indigenous population will be divergent. The growing size of the younger sections of the population will continue to create increased demand for education services, while demand for health services will also increase as the older section of the population grows rapidly. Poor health among the Indigenous population will compound this situation.

The creation of employment and economic development opportunities for the fast-growing, working aged (15-64 years) segment of the population will present challenges for the Territory. Another area of growing demand associated with the changing demography of the Territory's Indigenous population will be the provision of education and housing for these Territorians and their dependants.

Non-Indigenous Population

The main demographic challenge for the non-Indigenous population in the Territory arises from interstate migration. Natural increase (births less deaths) for the non-Indigenous section of the Territory population is likely to follow a similar trend to that observed nationally.

The non-Indigenous section of the Territory's population has high levels of mobility. During the young adult years, mobility typically results in net migration inflows but, at most other ages, usually results in net migration outflows.

The future challenges associated with these major demographic movements are to maintain an economic and social environment that continues to attract young adult Australians, in the face of growing competition from other states and territories for the diminishing number of young working age Australians. The Territory also faces a challenge to further develop its economic and social infrastructure and environment in an effort to change the long-standing trend of older age groups migrating away from the Territory.

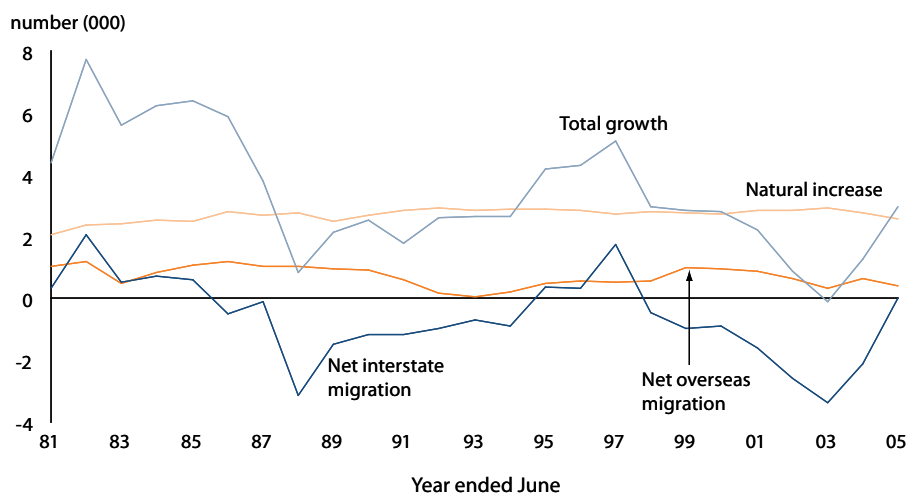
Working Age Population

For some time into the future, the Territory is likely to face an expanding, rather than a contracting, working age population as a proportion of the total population. This is unique among the jurisdictions in Australia. The expected growth in the Indigenous population has the potential to expand the Territory workforce if opportunities to participate fully in economic development are provided and accepted. This will provide the Territory with a competitive advantage compared with the rest of Australia.

Components of Population Growth

Population growth consists of natural increase (births minus deaths), net overseas migration and net interstate migration.

Chart 3.6: Territory Population Growth by Component



Source: ABS Cat. No. 3101.0

Natural Increase

Natural increase is the main contributor to growth in the Territory (Table 3.3). On average, natural increase contributed 1.4 percentage points to annual growth over the five year period to June 2005, declining from 1.5 per cent over the five year period to June 2000 (Chart 3.6).

Table 3.3: Population Components, as at 30 June

	1998	1999	2000	2001	2002	2003	2004	2005
	(000)							
Northern Territory	189.9	192.7	195.6	197.8	198.7	198.5	199.8	202.8
Natural increase	2.8	2.7	2.7	2.9	2.8	2.9	2.8	2.6
Births	3.7	3.6	3.6	3.7	3.8	3.8	3.6	3.5
Deaths	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Overseas migration	0.6	1.0	0.9	0.9	0.7	0.3	0.6	0.4
Net interstate migration	-0.5	-1.0	-0.9	-1.6	-2.6	-3.4	-2.1	0.0
New South Wales	6 339	6 411	6 486	6 575	6 634	6 682	6 721	6 774
Victoria	4 638	4 686	4 741	4 805	4 857	4 911	4 963	5 022
Queensland	3 448	3 501	3 562	3 629	3 711	3 801	3 888	3 964
South Australia	1 490	1 498	1 505	1 512	1 519	1 526	1 533	1 542
Western Australia	1 823	1 850	1 874	1 901	1 925	1 950	1 978	2 010
Tasmania	472	471	471	472	473	477	482	485
Australian Capital Territory	310	312	315	319	322	323	324	325
Australia	18 711	18 926	19 153	19 413	19 641	19 873	20 092	20 329

Note: Growth components do not equal population change due to inter-censal discrepancy. Issues relating to the registration of births and deaths leads to discrepancies between births/deaths and natural increase in the Territory.

Source: ABS Cat. No. 3101.0



Fertility The Territory is characterised by high fertility rates, particularly among the Indigenous population. Since 1986, total fertility (children per woman during lifetime) for all Territory females has fluctuated around 2.3, while nationally it has fallen from 1.9 to 1.8. In 2004, the total fertility for Indigenous women in the Territory was 2.6, while the total fertility for all Territory women was 2.2. For the same period, the Australian fertility rates were 2.1 and 1.8 respectively. The total fertility for Indigenous females in the Territory remains the highest of all jurisdictions.

In 2004, 42 per cent of all births in the Northern Territory were recorded as Indigenous, compared to 44 per cent in 2001. Nationally, 4.6 per cent and 4.7 per cent of all births were recorded as Indigenous in 2001 and 2004 respectively.

One of the most striking differences between the Indigenous population of the total Territory population is in the 19 years and under age group, where the age-specific fertility rates of Indigenous women are twice that of all Territory women.

In Darwin, the 2004 total fertility rate was 2.0, compared to 2.5 for the balance of the Territory.

Mortality Rates Crude death rates (that is, deaths per 1000 people with no adjustment for age profiles) in the Territory are the second lowest of all jurisdictions, reflecting the younger age profile of the population and the tendency for retirees to leave the Territory. This has been a major factor in the Territory having the lowest crude death rate of any jurisdiction in Australia, despite high mortality among Indigenous Territorians.

On an age-standardised basis, which takes into account the age structure of the population, mortality rates are significantly higher in the Territory (8.2 per 1000) than in any other jurisdiction and nationally (6.3 per 1000). The Indigenous population experiences much poorer health outcomes than the non-Indigenous population. Over the period 1996-2000, age-standardised death rates for Indigenous Territorians were two to three times higher than those for non-Indigenous Territorians. For the period 2002-04, the infant mortality rate in the Territory for Indigenous persons was 15 per 1000 births, compared to 10 per 1000 for the total Territory population. In 2004, Indigenous infant deaths accounted for over 70 per cent of all infant deaths.

Life Expectancy Reflecting the higher standardised mortality rates in the Indigenous population, life expectancy in the Territory is below the Australian level and is the lowest of all jurisdictions. Life expectancy for Territorians born in 2004 was 72.3 years for males and 78.0 for females, compared to Australian rates of 78.1 years for males and 83.0 years for females. Indigenous Territorian life expectancy at birth for 1996-2000 is estimated by the Northern Territory Department of Health and Community Services to be 59.4 years for males and 65.0 years for females.

Life expectancy in Darwin in 2004 was 76.9 years for males and 81.5 years for females, significantly higher than the remainder of the Territory, where life expectancy was estimated at 68.4 years for males and 73.4 years for females, largely reflecting the geographic distribution of Indigenous and non-Indigenous Territorians.

Median Age at Death The median age at death in the Territory is well below the Australian median age. This is a result of a young population, in combination with high mortality in the Indigenous population. In 2004, the median age at death in the Territory was the lowest of all jurisdictions for Indigenous males and females at 43.8 and 54.0 years respectively, compared to 63.0 and 71.3 for non-Indigenous males and females.

Overseas Migration

Overseas migration has typically made a small positive contribution to Territory population growth (Chart 3.6) and, in the five years to June 2005, its average contribution to growth was 0.3 of a percentage point per annum. The annual contribution to growth was relatively volatile over the past five years, ranging from 0.2 to 0.5 of a percentage point.

Table 3.4: Estimated Proportion of 2001 Population Previously not Resident in the State or Territory

	One year ago %	Five years ago %
New South Wales	2.4	7.6
Victoria	2.3	7.0
Queensland	3.4	10.8
South Australia	2.0	6.1
Western Australia	2.5	8.4
Tasmania	2.5	6.6
Northern Territory	7.5	20.9
Australian Capital Territory	6.7	19.2

Source: ABS Cat. No. 2004.0

Interstate Migration

The Territory's population shows greater interstate mobility than any other jurisdiction, with an estimated 21 per cent of the Territory's population in 2001 not living in the Territory five years previously (Table 3.4). Over the five years to June 2005, around 9 per cent of the population moved interstate each year. Nationally, around 2 per cent of the population move interstate each year. The Territory tends to attract young mobile interstate migrants; in 2003-04 the median age of interstate migrants was the lowest of the jurisdictions, at 27 years of age. The tendency of people to leave the Territory on retirement, however, reduces the magnitude of net migration to the Territory.

Chart 3.7: Territory Interstate Migration Flows



Source: ABS Cat. No. 3101.0

Given the relatively stable nature of natural increase and overseas migration, change in Territory population growth is largely determined by movements in interstate migration. Over the five years to June 2005, quarterly estimates of net interstate migration ranged from a gain of 233 in the June quarter 2005 to a loss of 1160 persons in the March quarter 2003. On average, net interstate migration subtracted one percentage point from annual growth over the five-year period to June 2005.



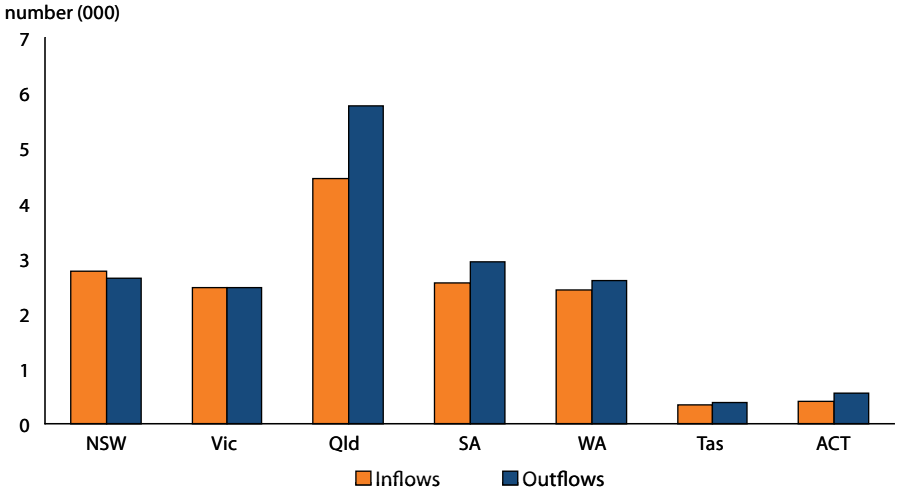
Until 2005, the pattern over the past two decades has been of consistent net interstate migration outflows, except for the period of the defence build up during 1995 to 1998. If the growth in defence personnel and family members over the past 12 years was excluded from the Territory's population figures, the Territory's average annual population growth rate since 1992 of 1.5 per cent would be approximately 1.2 per cent, 0.3 of a percentage point lower.

Over the past two years there has been a significant turnaround in the Territory's net interstate migration outflows (Chart 3.7). Net interstate migration turned positive in the March quarter 2005 for the first time since December 1999, and two years after the largest net interstate migration outflow in the March quarter 2003 (1160 persons). Recent improvement in net interstate migration reflects the improving prospects for the Territory economy, particularly in construction and tourism.

Over the five years to June 2005, on average, 31 per cent of the combined population flow into and out of the Territory was with Queensland (Chart 3.8). New South Wales, Victoria, South Australia and Western Australia account for the majority of the remainder. In net terms, strong outflows were recorded to Queensland, South Australia and Western Australia over the five years to June 2005. The only net inflow was from New South Wales.

The estimation of interstate migration remains an area of concern for the Northern Territory Government. The ABS calculates interstate migration flows using Medicare change of address records provided by Medicare Australia (formerly the Health Insurance Commission). The ABS makes adjustments to the raw records for time lags between a person moving interstate and updating their Medicare record, and for other factors such as failure to update Medicare records by certain segments of the population. The updating of Medicare personal records usually takes place when an individual lodges a claim with Medicare. Anecdotal evidence suggests many new residents do not update their Medicare address details. Young people moving out of home for the first time may continue to use their parents' interstate postal address for much correspondence. Further, young adults and males do not tend to use medical services as frequently as other segments of the population. Northern Territory Treasury is working to understand more about Medicare change of address data and use of this data by ABS in population estimation, and to promote the need for new residents to the Territory to update their address records promptly with Medicare.

Chart 3.8: Territory Interstate Migration Flows, by Jurisdiction, 2000-01 to 2004-05 (annual average)



Source: ABS Cat. No. 3101.0

2006 Census and Population Estimation

Demographic Challenges and Population Initiatives

The five-yearly Census of Population and Housing will be held on Tuesday 8 August 2006. By early 2006, the ABS was already well into the recruitment and operational phases associated with conducting this complex task. In the Northern Territory, about 1 100 people will be recruited to assist with the Census count.

Census counts provide a base from which the ABS derives estimates of Australia's resident population (ERP) for the subsequent five years. The count of the population is adjusted for usual residence (that is, where people usually live), visitors from overseas, Australian residents temporarily overseas on Census night, and an estimate of the number of people missed in the Census and those counted more than once.

Between Census years, adjustments are made every three months for births, deaths and overseas and interstate migration for each state and territory, to obtain up to date resident population estimates.

The ability to accurately monitor and forecast the size and distribution of the Northern Territory's population is vital in planning for the future of the Territory. The Territory is heavily dependent on Australian Government grants for its revenue sources (mainly GST revenues). GST revenues are apportioned annually to the states and territories using a model driven by population estimates. Therefore, accurate population estimates are critical to ensure the Territory receives its share of the GST revenues. Secondly, reliable population forecasts are crucial for the development of effective policy responses and to ensure the needs of the Territory's unique population are met.

Population Estimates and Federal Representation

Another important use of ABS population estimates is for the allocation of House of Representative seats to the states and territories in the Australian parliament. This is determined largely by population size. Prior to the 2001 federal election, the Territory had just one member in the House of Representatives, however a determination by the Australian Electoral Commission in 2000 resulted in the allocation of a second seat to the Territory. Slower population growth in 2002, and downward adjustments to preliminary estimates, resulted in a determination that could have led to the loss of the second seat in future federal elections. This caused considerable public and political objection. An inquiry by the Joint Standing Committee for Electoral Matters resulted in an unusual amendment to the *Electoral Act* that acknowledged uncertainty in the official population estimates and introduced the concept of a confidence interval in Northern Territory and Australian Capital Territory population estimates. The 2003 determination was set aside and the Territory was allowed to retain its two seats until the subsequent determination held on 17 November 2005. At that determination, the population had increased sufficiently for the Territory to retain its second seat because of the new amendments. Whether the Territory retains its second seat will depend on its future population growth relative to the other jurisdictions.

Territory Government Support for the Census

More than any other jurisdiction, the Territory faces the challenge of counting, estimating and predicting the size and composition of its population with, in relative terms, more at stake than other jurisdictions. The Territory covers a vast geographical area and much of its resident population is sparsely distributed and isolated. The population is culturally diverse, bringing challenges of communication. The Territory experiences high mobility, both locally with the movement of Indigenous people, and across borders, with relatively large numbers of visitors and short-term residents.



For these reasons, Northern Territory Treasury is working closely with the ABS to develop more effective mechanisms for Territory Government agencies (and other Territory-based organisations) to better support ABS to conduct Census field activities. In December 2005, the Chief Minister and the Australian Statistician signed a Memorandum of Understanding to guide collaboration between the agencies on statistical matters, including cooperation on the Census. A Census Coordination Plan has been developed for Territory Government involvement in the Census. It includes strategies for whole of government engagement, employment of Territory Government staff on the Census and a communications campaign.

In most places, people will complete their Census form on Census night, but in remote Indigenous communities and town camps, enumeration is conducted by household interview and takes place over a period of several weeks. The Territory Government will work with the ABS to encourage people to complete their form on Census night, and to assist the ABS to find and support the best possible interviewers in remote communities.

Post-Enumeration Survey

Although the best method of obtaining accurate population estimates is to count the population correctly in the first instance, some under or over-count of the population inevitably occurs in the Census. To estimate the size of the under or over-count, the ABS conducts a Post-Enumeration Survey (PES) soon after the Census. A sample of households is visited and surveyed using a subset of the questions on the Census form. These records are then matched, where possible, to Census records and an estimate of those missed or counted twice is obtained. Until now, the PES has been conducted in urban and regional parts of Australia only, and crude adjustments are made for undercounting the 25 per cent of the Territory's population who live in remote areas. The Territory has historically had the largest undercount estimate of all jurisdictions, being estimated by the ABS in 2001 to be 4 per cent compared with 1.8 per cent for other parts of Australia. Northern Territory Treasury has long held concerns over the methodology for estimating the undercount and its application to the whole of the Territory.

In 2006, ABS is exploring the possibility of conducting a PES in remote areas. Subject to potential methodological and operational constraints, the aim is to improve the estimate of the undercount for the Territory. The Territory supports the ABS decision to explore this option, recognising the difficulties of conducting such an exercise, and the significance of the potential effect on the Territory's population estimates. Treasury will explore all options with ABS to fully understand and develop confidence in the procedures proposed for the PES in remote areas.

Partnership with Charles Darwin University

Northern Territory Treasury is working with the School for Social and Policy Research at Charles Darwin University (CDU) on a demographic research program. A major part of the work program is to better understand the factors underpinning the high levels of mobility demonstrated by many Territorians. This will assist the development of effective strategies and programs to improve the Territory's ability to attract potential new residents and retain existing residents for longer periods. In July 2005, the Australian Research Council (ARC) awarded a grant to CDU in partnership with Northern Territory Treasury, the Department of Business, Economic and Regional Development and the ABS, to investigate population mobility and its consequences, such as the loss of professional expertise and social memory. The research group's current work includes analysing historical mobility trends in the Territory, exploring the mobility of particular professional groups and developing a telephone survey about mobility.

Population Projections Modelling

CDU is working with Northern Territory Treasury and other Territory Government agencies to improve and extend population estimation and projection methodologies appropriate to the Territory's population. These improved methodologies will be used to make more detailed population estimates and projections available to Territory Government agencies.

In 2005, the Northern Territory Statistical Liaison Committee formed a population sub-committee to progress population issues, including the development of a common set of population projections to be made available for use across Territory Government agencies. CDU has developed a population projections model to produce projections from 2001-02 to 2050-51. The 2001 Census is used as the base year. The model calculates future births, deaths, international and interstate migration for each age and sex cohort of the Indigenous and non-Indigenous populations of the Territory and the rest of Australia. In a second phase, the model will produce regional projections for the Territory.

The sub-committee's task is to set the parameters for the model and agree on the underlying assumptions. A statistical evidence-based method is being applied to guide this work. Challenges include predicting future fertility and mortality patterns of the Indigenous population. Further challenges lie in setting the parameters for the regional projections.

Despite the challenges, the project will provide useful and relevant Territory population projections for Government business. The projections will be subject to a regular review process, and a set of technical papers around the assumptions will be produced to describe current thinking and to explore alternative scenarios. The first set of projections should be available in mid 2006 and the interdepartmental committee will produce an information paper to coincide with their release.

Population Outlook

During 2005, population growth in the Territory gained momentum, with Northern Territory Treasury estimating growth of 1.7 per cent to December 2005. Further out, population growth is expected to remain strong at 1.5 per cent in the year to December 2006. The completion of the construction of the Wickham Point liquefied natural gas (LNG) plant in December 2005 will be partly offset by employment opportunities on the Darwin Waterfront Development. Alcan's G3 refinery expansion should continue to provide strong employment opportunities until the end of 2006. Normal cyclical movements in defence force personnel are expected. Housing vacancy rates have recently shown signs of increasing from the historically low levels experienced in mid 2005, and it will be important to monitor the direction of these and other economic indicators over the coming months. For the remainder of the decade, population growth is forecast to average around 1.2 per cent.

Beyond 2007, prediction is difficult due to uncertainty surrounding the likelihood of future major employment-creating projects, which will be the major determinant of net migration to the Territory.

The effectiveness of current Territory Government policies such as Building our Population and the Business and Skilled Migration Strategy to address some of the Territory's demographic challenges will have a significant impact on the Territory's future population growth.

In relation to population estimation, supporting efforts to obtain an accurate count in the forthcoming 2006 Census is a priority for the Territory Government and its agencies.