

## Chapter 3 Population

### Key Points

- » The Northern Territory is generally sparsely settled, but more than half the population reside in the Greater Darwin area.
- » The population is relatively young but ageing rapidly.
- » A far higher proportion of the Territory's population is Indigenous (32 per cent) compared with other jurisdictions.
- » Natural increase (births minus deaths) is by far the largest component of Territory population growth and its contribution to growth is about double that experienced in other jurisdictions.
- » Net interstate migration is the most variable component of population growth and historically takes the form of an annual net population loss. Recent net migration has been positive, although quarterly patterns fluctuate considerably making the future hard to predict.
- » The Territory has enjoyed population growth of 2 per cent for the past three financial years and continues to have the third highest population growth rate after Western Australia and Queensland.
- » Population growth of 2.2 per cent is forecast for the year to December 2007, moderating to 1.9 per cent for the year to December 2008.

The Territory's population is characterised by its relatively young and very mobile nature, its large proportion of Indigenous people, and its high fertility rates. The population is highly urbanised, as in other parts of Australia, but a quarter of the population, mainly Indigenous people, live in remote communities and outstations spread over a vast area. Service provision is consequently both challenging and costly to deliver. The Territory experiences particularly high and volatile interstate migration among its non-Indigenous population, which strongly influences population growth and usually results in an annual net loss of interstate migrants. High natural increase, driven by high fertility rates in the Indigenous population, underpins continuing growth.

Population is both a source of labour supply and a source of demand for goods and services and as such, population growth may either drive or be partially driven by economic growth. Interstate migration, for example, often responds to economic growth. However, significant economic growth can still occur in the absence of increases in the population because capital-intensive major projects, such as the mining projects common to the Territory, do not demand high levels of labour, although they contribute significantly to the economy. In addition, there is an increasing reliance on fly-in fly-out workers as a source of labour for major projects in the Territory and these workers are not necessarily counted in the resident population.

The accurate estimation of population is of critical importance to the Territory as population estimates produced by the Australian Bureau of Statistics (ABS) are used by the Commonwealth Grants Commission (CGC) to distribute goods and services tax (GST) revenues, a substantial proportion of Territory total revenue. Northern Territory Treasury has concerns about the ability of the enumeration methods used by the ABS to accurately estimate the Territory's very mobile population. Estimates of the resident population based on the 2006 Census included large adjustments for undercounting in the Census (see Appendix 1). The undercount rate in the Territory

was much larger than in other jurisdictions (Table A3.1 in Appendix 1). The Northern Territory Government and the ABS have worked in partnership to improve the accuracy of population estimates through collaborative projects such as those which aim to improve enumeration methods in the Census.

**Population Measurement Concepts**

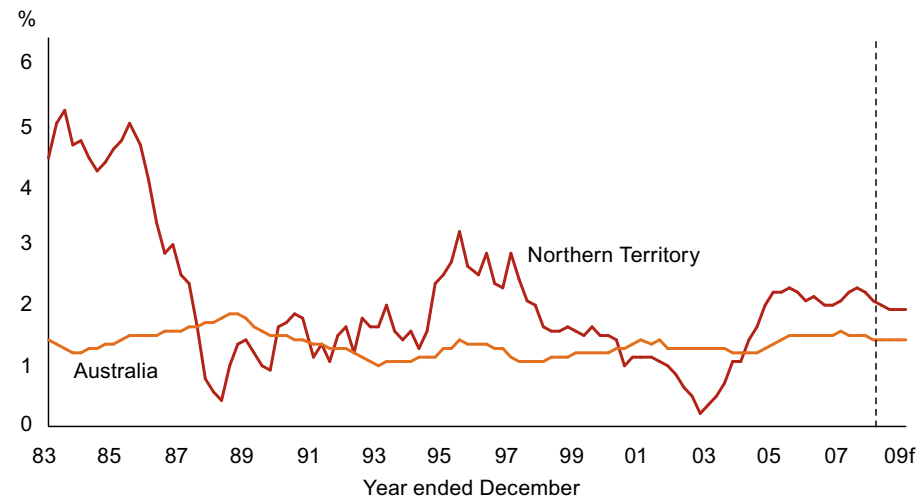
Population figures can be measured in a variety of ways. The concept of population used in this chapter is estimated resident population (ERP), which is the official population figure as measured by the ABS. It includes all people who usually live in a place. To measure ERP, the ABS needs information 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 fly-in fly-out workers, temporary visitors or holidaymakers.

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). Service providers and planners may be interested in another measurement concept, that of the service population. However service populations are not easily defined and measured, as they may include tourists and other visitors and may differ according to a service's catchment area.

**Recent Population Growth**

Population growth in the Territory is more volatile than Australian population growth (Chart 3.1). Significant fluctuations in the Territory's population growth rate are largely due to variations in interstate migration. Historically, the Territory's population grew strongly during the post-Cyclone Tracy reconstruction of the 1980s and the defence presence build up during the mid 1990s. Population growth slowed from 1999 to 2003, resulting from a lagged effect of the slowing Territory onshore economy, where the Territory experienced larger net interstate migration losses. Since 2004, population growth in the Territory has consistently been above national growth. Based on ABS estimated ERP, Territory annual population growth increased to 2.0 per cent in 2006, following revised growth of 2.3 per cent in 2005, and 1.6 per cent in 2004 (Table 3.1). In 2006-07, Territory estimated population growth was 2.0 per cent, the third consecutive year where the Territory population growth rate exceeded the national growth rate. Population growth in the Territory is forecast to be 2.2 per cent to December 2007 and is expected to ease slightly to 1.9 per cent in 2008 and 1.8 per cent in 2009, but remain above national growth during this period.

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 |
| 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        | 198.4              | 1.1             | 19 535.1        | 1.4             |
| 2002        | 199.4              | 0.5             | 19 773.3        | 1.2             |
| 2003        | 200.7              | 0.7             | 20 015.8        | 1.2             |
| 2004        | 203.9              | 1.6             | 20 257.1        | 1.2             |
| 2005        | 208.5              | 2.3             | 20 548.4        | 1.4             |
| 2006        | 212.6              | 2.0             | 20 852.4        | 1.5             |
| 2007        | 217.2              | 2.2             | 21 163.0        | 1.5             |
| 2008e       | 221.4              | 1.9             | 21 454.0        | 1.4             |
| 2009f       | 225.4              | 1.8             | 21 741.0        | 1.3             |

e: estimate f: forecast

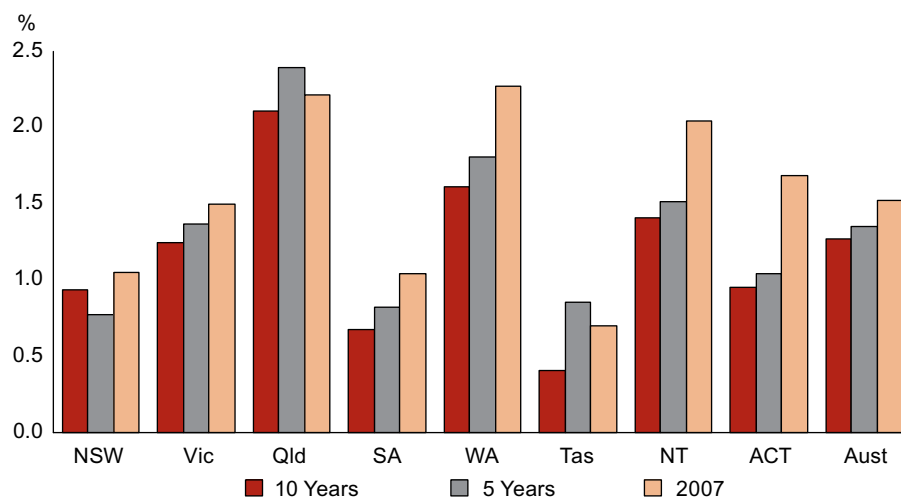
Source: Northern Territory Treasury, ABS Cat. No. 3101.0

### Interstate Comparison

Over the past ten years, the Territory had the third highest population growth of the jurisdictions (1.4 per cent) behind that of Queensland and Western Australia, and above the national average of 1.3 per cent (Chart 3.2). The Territory has maintained this position over 2006-07 and growth has strengthened considerably to more than 2 per cent while Western Australia has overtaken Queensland as the fastest growing jurisdiction. The national growth rate strengthened to 1.5 per cent in 2006-07.

The five-year period from 2002-07 saw comparatively more modest growth than in the past year in most jurisdictions. The Territory experienced a subdued onshore economy around 2000 which moderated the strong growth experienced in more recent years and curtailed the average growth rate for this period to 1.5 per cent. This was still above the national average of 1.4 per cent.

Chart 3.2: State and Territory Population Growth Rates, to June 2007



Source: ABS Cat. No. 3101.0

### Regional Growth

Regional populations and population growth trends are important for informing government, business and service deliverers of future infrastructure and service needs including schools, roads, public housing and policing across the Territory.

Between 1996 and 2006, there was a 1.6 per cent increase in the proportion of the population living in the Darwin region, with the largest change occurring in Palmerston (Table 3.2). The proportion of the population living in the five main regional towns (Jabiru, Katherine, Nhulunbuy, Tennant Creek and Alice Springs) decreased from

23.9 per cent in 1996 to 21 per cent in 2006. Alice Springs was the only centre to experience a decrease in population between 2001 and 2006, with most of the other regional centres simply making up some of the population losses they had experienced in the previous intercensal period. Nhulunbuy experienced strong growth between 2001 and 2006 because of the Alcan alumina refinery expansion project. The proportion of the population that lived in the rest of the Territory, outside Greater Darwin and the five towns, increased between 1996 and 2006.

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

|                      | 1996           |             | 2001           |             | 2006           |             |
|----------------------|----------------|-------------|----------------|-------------|----------------|-------------|
|                      | Population     | % of Total  | Population     | % of Total  | Population     | % of Total  |
| Darwin               | 68 889         | 37.9        | 68 710         | 34.7        | 71 933         | 34.1        |
| Palmerston           | 13 343         | 7.3         | 22 559         | 11.4        | 25 889         | 12.3        |
| Litchfield           | 13 597         | 7.5         | 15 573         | 7.9         | 16 546         | 7.9         |
| <b>Darwin Region</b> | <b>95 829</b>  | <b>52.7</b> | <b>106 842</b> | <b>54.0</b> | <b>114 368</b> | <b>54.3</b> |
| Jabiru               | 1 457          | 0.8         | 1 181          | 0.6         | 1 247          | 0.6         |
| Katherine            | 9 443          | 5.2         | 8 956          | 4.5         | 9 023          | 4.3         |
| Nhulunbuy            | 3 759          | 2.1         | 3 800          | 1.9         | 4 433          | 2.1         |
| Tennant Creek        | 3 694          | 2.0         | 3 002          | 1.5         | 3 332          | 1.6         |
| Alice Springs        | 25 040         | 13.8        | 26 520         | 13.4        | 26 194         | 12.4        |
| Rest of Territory    | 42 621         | 23.4        | 47 467         | 24.0        | 52 077         | 24.7        |
| <b>Total NT</b>      | <b>181 843</b> |             | <b>197 768</b> |             | <b>210 674</b> |             |

Source: ABS Cat. No. 3218.0

## Population Characteristics

### Small Population, Large Land Area

The Territory is sparsely populated, with a density of 0.16 persons per square kilometre, lower than any other jurisdiction and well below the national density of 2.68 people per square kilometre.

### Highly Urbanised

Despite the low overall population density, more than three-quarters of the Territory's population live in the six main town centres. At the 2006 Census, the Greater Darwin region accounted for 54 per cent of the Territory's population. Alice Springs accounted for 12 per cent, while the other regional town centres (Katherine, Nhulunbuy, Tennant Creek and Jabiru) together accounted for about 9 per cent (Table 3.2). This pattern of settlement, particularly for non-Indigenous people, is related to employment opportunities such as in government administration, defence and construction in Darwin, hospitality and other service industries around Alice Springs. The influence of mining and service industries in these and other Territory towns is likely to increase in the future. The proportion of the population living in remote areas of the Territory (outside Darwin and the five regional towns) has also grown over recent years, largely driven by the high Indigenous fertility rate.

### Young Population

The Territory's population is the most youthful of any jurisdiction in Australia (Table 3.3 and Chart 3.3). It consistently has the largest proportion under 15 years of age and the smallest proportion aged 65 and over of any state or territory. For example, the proportion of the Territory's population under the age of 15 is 24 per cent, compared to 19 per cent nationally, reflecting the younger age profile of Indigenous Territorians and higher birth rate. The Territory also has a small proportion of people aged 65 years and over, at 5 per cent, compared to 13 per cent in Australia, due to lower life expectancy of Indigenous Territorians and out-migration of non-Indigenous Territorians at middle and older ages. 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 (68 per cent).

As at 30 June 2007, the median age of Territorians was estimated by the ABS to be 31.1 years. This is the youngest of any jurisdiction and almost six years below the national median age of 36.8 years. However, over the past ten years, the Territory's median age has increased much faster than that of the national population. See the section on Population Ageing below for more information.

Table 3.3: Comparative Age Distribution<sup>1</sup>

|                             | NSW     | Vic     | Qld     | WA      | SA      | Tas   | NT    | ACT   | Aust     |
|-----------------------------|---------|---------|---------|---------|---------|-------|-------|-------|----------|
| <b>Population (000)</b>     | 6 889.1 | 5 205.2 | 4 182.1 | 2 105.8 | 1 584.5 | 493.3 | 215.0 | 339.9 | 21 017.2 |
| <b>Age Distribution (%)</b> |         |         |         |         |         |       |       |       |          |
| 0 – 14 years                | 19.6    | 18.9    | 20.2    | 19.8    | 18.2    | 19.6  | 24.0  | 18.6  | 19.4     |
| 15 – 64 years               | 66.7    | 67.7    | 67.5    | 68.3    | 66.6    | 65.6  | 71.1  | 71.7  | 67.5     |
| 65 years and older          | 13.7    | 13.4    | 12.3    | 11.9    | 15.2    | 14.8  | 4.9   | 9.7   | 13.1     |
| <b>Median Age</b>           | 37.0    | 36.9    | 36.2    | 36.4    | 38.9    | 39.1  | 31.1  | 34.6  | 36.8     |

<sup>1</sup> Based on estimated resident population at 30 June 2007

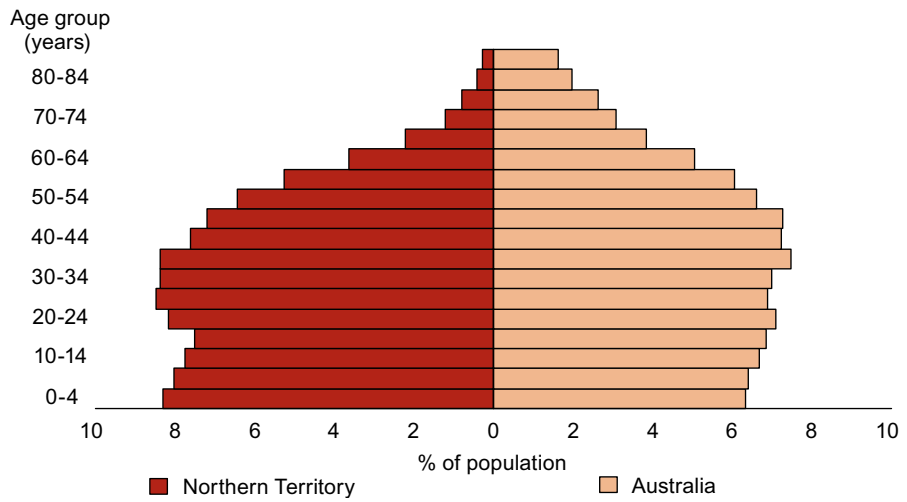
Source: ABS Cat. No. 3201.0

## Indigenous Population

The Indigenous population constitutes 31.6 per cent of the Territory's total population, a far larger proportion than any other jurisdiction, according to ABS experimental estimates of the Indigenous population for 30 June 2006. The Territory Indigenous population is much younger than the non-Indigenous population, with a median age of 22.6 at June 2006 compared with 34.7 years for the non-Indigenous population. Chart 3.4 shows the very different age distributions of the Territory's Indigenous and non-Indigenous populations. The non-Indigenous population has an unusual age distribution caused by the high proportion of people in the young to middle ages, reflecting large numbers of interstate migrants in these age groups. Smaller proportions in older age groups reflect the tendency of older non-Indigenous people to leave the Territory on retirement. The shape is also influenced by an exceptionally large cohort of young adults who came into the Territory 30 years ago following Cyclone Tracy and the expansion of services following Self Government. As this cohort ages, it affects the age distribution. The Indigenous population has a standard age profile of a developing nation, with high proportions of children reflecting high fertility rates. High mortality rates rather than migration cause the sharp tapering off of the pyramid from middle age.

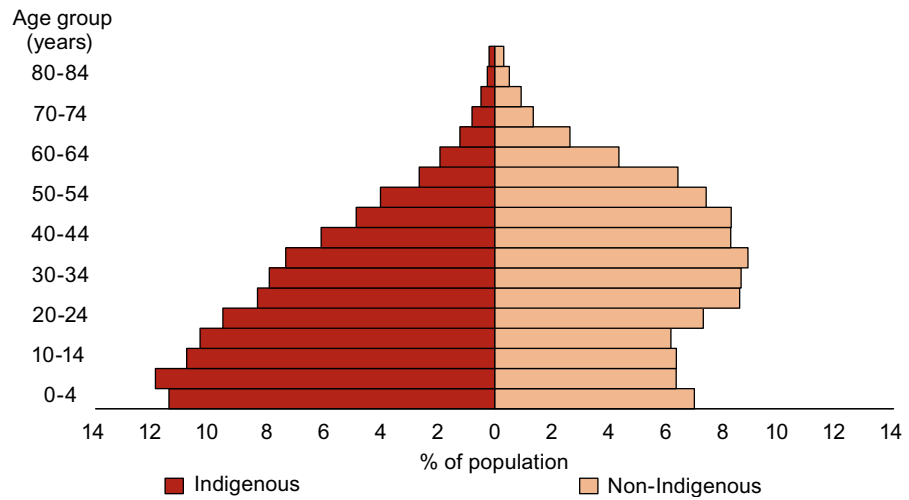
The ABS Indigenous experimental estimates are based on the 2006 Census usual residence counts and take into account instances in which Indigenous status is not stated, the extent to which the ABS estimates that Indigenous people are undercounted, and differences in Indigenous identification between the Census and the presumed more accurate post-enumeration survey. At 30 June 2006, the Indigenous population in the Territory was estimated to be 66 582 persons, accounting for 13 per cent of the national Indigenous population of 517 174, which was 2.5 per cent of Australia's total population. Between 1996 and 2006, based on ABS experimental estimates, the Territory's Indigenous population has seen average annual growth of 2.5 per cent compared to 1.0 per cent for the non-Indigenous population. These trend figures should be used with caution, as the methods used to adjust Census population counts for undercounting and not stated Indigenous status differ across Census years and this could introduce bias to the estimates of growth. Chart 3.4 shows projections for the Territory Indigenous and non-Indigenous populations for 30 June 2007. Northern Territory Government and Charles Darwin University draft population projections (see below) show the Indigenous population was projected to grow to 67 586 by June 2007.

Chart 3.3: Age Distribution of Population, June 2007



Source: ABS Cat. No. 3201.0

Chart 3.4: Age Distribution of Territory Population, June 2007



Source: NTG-CDU draft population projections 2008

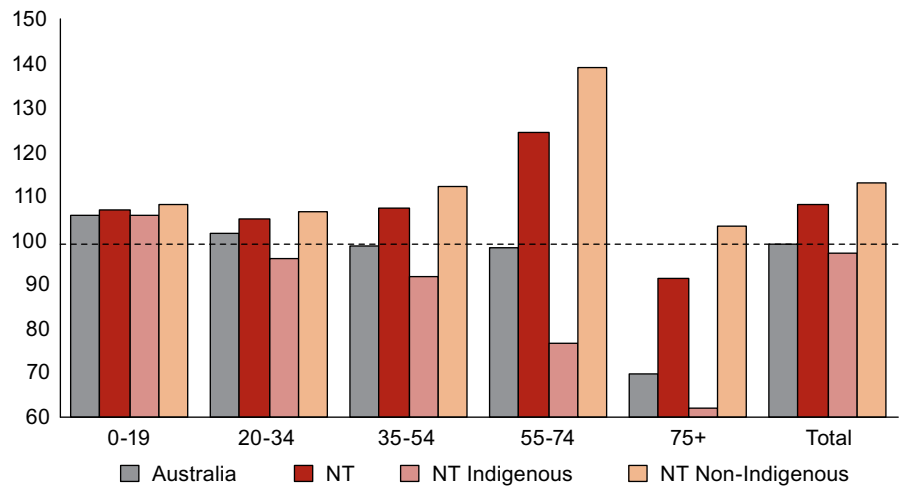
**Household Size**

From 1996 to 2006, the average number of persons per household decreased from 3.1 in 1996 to 2.9 in 2006, a decrease of 6.5 per cent over 1996. Although this seems a small decrease, the potential impact on housing demand is substantial. The ongoing decline in the average size of Territory households reflects an ageing population and an increasing proportion of single person households, consistent with national trends. Despite the decline, household size in the Territory remains the largest of all jurisdictions, greater than the national size of 2.6 persons per household, partly reflecting high rates of overcrowding among Indigenous households as well as larger and younger families, particularly in remote communities.

**Male to Female Ratio**

The Territory has significantly more males than females, with an estimated 108 males (52 per cent) for every 100 females (48 per cent) as at 30 June 2007. This is the highest sex ratio of all jurisdictions, much higher than the national ratio of 99 males for every 100 females. The Territory's sex ratio becomes more extreme in older age groups until 75 years and over, progressing from 107 males for every 100 females in 0-19 year olds, to 124 males to 100 females in 55-74 year olds (Chart 3.5). The corresponding national figures are 105 males for every 100 females aged 0-19 years and 98 males for every 100 females aged 55-74 years. The Territory differences lie in the age structure of non-Indigenous males and females, as can be seen in Chart 3.5. High death rates among Indigenous males affect the Indigenous sex ratio from an early age.

Chart 3.5: Number of Males per 100 Females, as at 30 June 2007<sup>1</sup>



<sup>1</sup> A ratio of 100 means that there are equal numbers of males and females in a population.

Source: ABS Cat. No. 3201.0; NTG-CDU draft population projections 2008

### Overseas Born

2006 Census results show that 23 per cent of the Territory usual 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 1996 and 2001 Censuses (21 per cent and 22 per cent respectively), and is similar to the total Australian proportion. In the Territory, of those born overseas, the main countries of birth were the United Kingdom (18 per cent), New Zealand (8 per cent), the Philippines (4 per cent), the United States (3 per cent) and Greece and Germany (2 per cent each). The proportion of 'not stated' responses to the birthplace question for the overseas born in the 2006 Census has more than doubled since 1996. Unfortunately, this obscures any patterns of change that may have occurred for countries of origin of overseas-born Territorians over the period.

### Population Ageing

Population ageing is a trend being experienced in nations around the world. In the absence of significant policy change, the implications of population ageing are lower labour force participation, potentially reduced labour productivity and increased government expenditure on services such as health and aged care.

Both Australia's and the Northern Territory's populations are ageing rapidly. Table 3.4 sets out estimated changes in median ages in the Territory and Australian populations between 1996 and 2016. Projections to 2016 are from the Northern Territory Government-Charles Darwin University (NTG-CDU) population projections model. The model uses the ABS 2006 ERPs as the base population and projects the Territory and Australian Indigenous and non-Indigenous populations by single year of age and sex to 2036. Assumptions for future change in the growth components of natural increase and migration were set in consultation with Northern Territory Government agencies, while Charles Darwin University provided the technical expertise. The projections are currently in draft form.

Table 3.4 shows that over the period 1996-2006, the median age of the Australian and Territory populations increased by 2.6 years and 3.1 years respectively, very large increases by any historical standards. The Territory's non-Indigenous population showed an even larger increase of 5.2 years over this period. The Indigenous increase was somewhat less at 2.0 years.

Table 3.4: Median Age, Northern Territory and Australia, 1996 to 2016

|                    | 1996 | 2006 | 2011 | 2016 |
|--------------------|------|------|------|------|
| Australia          | 34.0 | 36.6 | 37.7 | 38.4 |
| Northern Territory | 27.8 | 30.9 | 31.3 | 31.9 |
| NT Non-Indigenous  | 29.5 | 34.7 | 34.9 | 35.0 |
| NT Indigenous      | 20.6 | 22.6 | 23.8 | 25.0 |

Source: ABS Cat. Nos 3238.0, 3201.0; NTG-CDU draft population projections 2008

Large increases in the median age are expected in the decade beyond 2006, at 1.8 years for Australia and 2.4 years for the Territory's Indigenous populations but only 0.3 year for the Territory's non-Indigenous population. The transition to a much slower rate of increase in median age in the non-Indigenous population is a consequence of the unusual age profile of this population (see Chart 3.4) and is evidence of the substantial ageing that occurred in the decade up to 2006.

The projected proportions of the population aged 65 years and over tells a slightly different story but still with substantial changes over the decade from 2006 (Table 3.5). The proportion of the population 65 and over is projected to increase by 2.9 percentage points for both the Australian and Territory populations. The impact on the Territory's aged population, however, is greater than for Australia's aged population because the Territory had a much smaller proportion of its population aged 65 and over than Australia in 2006. This age group is projected to increase in size by 63 per cent compared with a 22 per cent increase in the Australian population. The most noticeable difference in the proportion aged 65 and over occurs in the Territory's non-Indigenous population with a 3.9 percentage point increase, representing a 68 per cent increase in size over the decade.

Table 3.5: Proportion of the Population Aged 65 and Over

|                    | 1996<br>% | 2006<br>% | 2011<br>% | 2016<br>% |
|--------------------|-----------|-----------|-----------|-----------|
| Australia          | 12.0      | 13.0      | 14.1      | 15.9      |
| Northern Territory | 3.2       | 4.6       | 6.0       | 7.5       |
| NT Non-Indigenous  | 3.4       | 5.4       | 7.2       | 9.1       |
| NT Indigenous      | 2.8       | 2.9       | 3.4       | 4.0       |

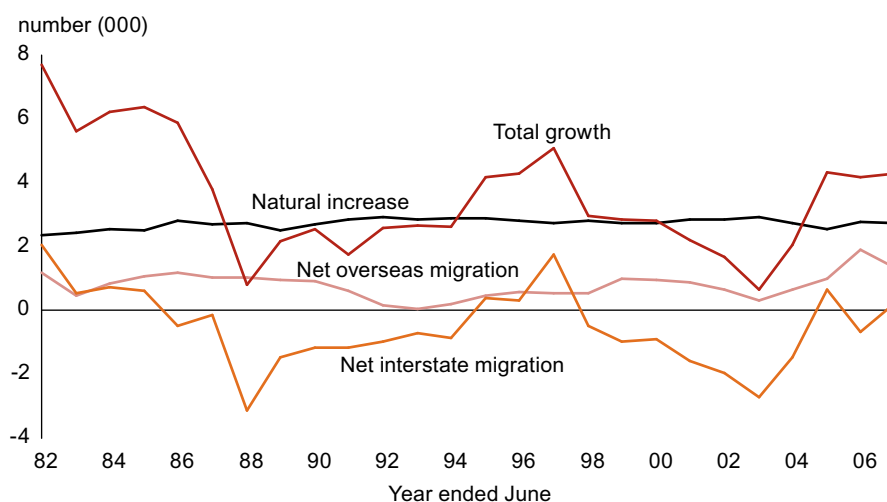
Source: ABS Cat. Nos 3238.0, 3201.0; NTG-CDU draft population projections 2008

The two summary measures of ageing appear to indicate contradictory expectations for ageing for the Territory's non-Indigenous population, that is, a small change in median age over the next decade but a large change in the proportion aged 65 and over. However, the results are not incompatible and arise as a consequence of the distinctive age composition of the Territory's non-Indigenous population. The increasing proportion of those aged 65 and over is a result of the ageing of the large cohort of post-Cyclone Tracy migrants to the Territory who, over the next decade, will significantly add to the 65 and over age group of the population. This is counterbalanced by the large cohorts of younger people entering the population, the consequence of continued high birth rates, natural increase and net migration of young adults (Chart 3.6). This results in little to no change in the overall median age of the non-Indigenous population.

## Components of Population Growth

Population growth is the result of changes in natural increase, which is the excess of births over deaths, and in migration. Migration can take the form of net overseas migration and, for the states and territories, net interstate migration. The components of Territory population growth and total population growth are shown in Chart 3.6.

Chart 3.6: Territory Population Growth by Component



Source: ABS Cat. No. 3101.0

### Natural Increase

Natural increase makes a strong and relatively stable contribution to total Territory population growth. There are, on average, about 3700 births and 950 deaths each year in the Territory (Table 3.6). Over the past five years, the percentage contribution of natural increase to the total annual Territory growth rate has fluctuated between 1.3 and 1.5 percentage points. This is about double the percentage contribution in other jurisdictions and is much higher than the Australian average of 0.6 percentage points per annum. Natural increase in the Territory's Indigenous population accounts for about 40 per cent of the total contribution of natural increase to Territory population growth. Although remaining high, Indigenous fertility rates in the Territory have decreased in recent years and this is the main reason for the small decrease in the contribution of natural increase to total Territory growth from almost 1.5 to 1.3 percentage points over the past five years.

Table 3.6: Population Components as at 30 June

|                              | 2001             | 2002             | 2003             | 2004<br>(000)    | 2005             | 2006             | 2007             |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Northern Territory</b>    | <b>197.77</b>    | <b>199.44</b>    | <b>200.11</b>    | <b>202.16</b>    | <b>206.49</b>    | <b>210.67</b>    | <b>214.98</b>    |
| Natural Increase             | 2.85             | 2.84             | 2.94             | 2.75             | 2.56             | 2.76             | 2.75             |
| Births                       | 3.70             | 3.76             | 3.82             | 3.62             | 3.52             | 3.72             | 3.73             |
| Deaths                       | 0.90             | 0.89             | 0.87             | 0.87             | 0.96             | 0.96             | 0.97             |
| Net Overseas Migration       | 0.88             | 0.66             | 0.33             | 0.65             | 1.00             | 1.89             | 1.32             |
| Net Interstate Migration     | -1.59            | -1.96            | -2.73            | -1.45            | 0.65             | -0.66            | 0.23             |
| New South Wales              | 6 575.22         | 6 629.83         | 6 674.37         | 6 710.49         | 6 758.27         | 6 817.18         | 6 889.07         |
| Victoria                     | 4 804.73         | 4 863.55         | 4 924.47         | 4 983.06         | 5 050.52         | 5 128.31         | 5 205.22         |
| Queensland                   | 3 628.95         | 3 714.94         | 3 809.56         | 3 901.81         | 3 996.56         | 4 091.55         | 4 182.06         |
| South Australia              | 1 511.73         | 1 521.12         | 1 531.26         | 1 540.40         | 1 552.52         | 1 568.20         | 1 584.51         |
| Western Australia            | 1 901.16         | 1 925.64         | 1 952.37         | 1 982.01         | 2 016.40         | 2 059.05         | 2 105.78         |
| Tasmania                     | 471.80           | 472.80           | 477.68           | 482.80           | 486.38           | 489.92           | 493.34           |
| Australian Capital Territory | 319.32           | 322.70           | 325.72           | 327.56           | 330.25           | 334.23           | 339.87           |
| <b>Australia</b>             | <b>19 413.24</b> | <b>19 652.56</b> | <b>19 898.07</b> | <b>20 132.76</b> | <b>20 399.84</b> | <b>20 701.49</b> | <b>21 017.22</b> |

Note: Growth components do not equal population change due to intercensal discrepancy.

Source: ABS Cat. No. 3101.0

**Births** The Territory's total fertility rate (TFR – children per woman during lifetime) in 2006 was 2.2 babies per woman, the highest of any state or territory. Over the past 20 years, the Territory's TFR has remained around this level while Australia has experienced a small decline in the TFR over the same period from 20 years ago to 1.7 in 2003, before an increase over the past three years to 1.8. The Commonwealth's 'baby bonus' policy may be partly responsible for achieving this increase, although currently there is no direct evidence to suggest this. This policy is aimed at reversing Australia's falling fertility rate which is below replacement level (the level of fertility at which a cohort of women are just replacing themselves with daughters – in Australia a TFR of about 2 is required).

The Territory's high TFR is influenced by the age distribution of non-Indigenous women which favours the child-bearing ages. Based on recent ABS data, some 57 per cent of non-Indigenous Territory women are aged 15 to 49 years compared with 49 per cent of Australian women. High fertility rates among Territory Indigenous women who had a TFR of 2.4 in 2006 also strongly influenced the overall TFR. There were 1459 births registered to Indigenous women in 2006, representing 40 per cent of total births (3696) in the Territory, which was higher proportionally than the representation of Indigenous people in the Territory's population (31.6 per cent). Nationally, Indigenous births made up nearly 5 per cent of all births. Indigenous women tend to be younger when they give birth, with a median age of 23.7 years compared with 28.1 years for all Territory mothers. Age-specific fertility rates are higher among younger women, particularly Indigenous women, in the Territory than they are elsewhere. The age-specific fertility rate for 15 to 19 year old Indigenous women in the Territory in 2006 was more than four and a half times that of all non-Indigenous Territory women and more than seven times higher than that of Australian 15 to 19 year old women.

Half the Territory's births in 2006 were to women living outside the Greater Darwin area. The TFR for Greater Darwin was 2.1 compared with 2.3 for the rest of the Territory. This reflects the high proportion of Indigenous people living in regional and remote areas of the Territory. However, the TFR for the rest of the Territory has decreased from 2.5 births per woman since 2005 while the TFR for Greater Darwin has remained relatively constant since that time.

**Deaths** In 2006, 932 deaths were registered in the Territory. The Territory has a lower crude (unadjusted) death rate than other states and territories because of its younger age structure. In 2006, the Territory's crude death rate was 4.4 per 1000 population compared with 6.5 for Australia. The median age at death in the Territory was 60.0 years compared with 80.3 years for Australia.

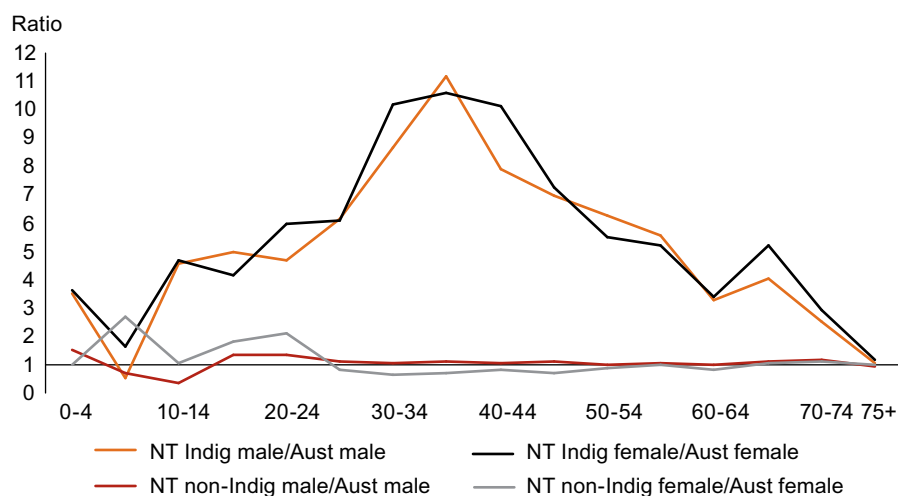
The crude death rate conceals important aspects of mortality in the Territory such as the high death rate of Indigenous people. Once adjusted by the ABS for differences in the age structure of the Territory and Australia, the Territory's death rate rises to 8.7 per 1000 compared with 6.0 for Australia. Over a 15 year period the age-standardised death rate has dropped from 12.7 per 1000 to 8.7, however the Territory's rate remains the highest of all the jurisdictions.

Although about one in three Territorians is Indigenous, deaths registered as Indigenous accounted for nearly half of all deaths in 2006. This partly reflects the tendency of older non-Indigenous Territorians to leave the Territory on retirement, however high mortality rates at young ages among Indigenous people explain most of this over-representation in the death statistics.

Mortality rates are higher for Indigenous Territorians compared with all Australians at every stage of life (Chart 3.7). Data for 2001-04 combined shows that death rates

are 3.5 times higher for Indigenous children aged 0-4 and up to 11 times higher for Indigenous people aged 30-35. Cardiovascular disease was the leading cause of death for Indigenous Territorians in this period while cancer and cardiovascular disease were the leading causes of death for non-Indigenous Territorians.

Chart 3.7: Ratio of Age-Specific Death Rates, 2001-2004<sup>1</sup>



<sup>1</sup> A ratio of 1.0 means that age-specific rates for both populations are equal

Source: Department of Health and Community Services

### Life Expectancy

The higher death rates of Indigenous people and at earlier ages results in lower life expectancy. For 2001-04, estimated life expectancy at birth (the number of years a baby born in the period could expect to live if no changes in future death rates occur) in the Territory was 59.7 years for Indigenous males and 79.0 years for non-Indigenous males compared with 79.5 years for all Australian males. The corresponding figures for females are 68.2 years for Territory Indigenous females, 85.5 years for Territory non-Indigenous females and 85.1 years for all Australian females. Over the last 20 years, both Indigenous and non-Indigenous life expectancy has increased, hence the gap between Indigenous and non-Indigenous life expectancy remains at about 19 years for males and 17 years for females.

### Overseas Migration

Historically, net overseas migration to the Territory has provided a relatively stable contribution of about 0.4 percentage points (750 persons per year on average) to annual population growth in the Territory, lower than the national average. Over the last two financial years, net overseas migration has risen, to about 1900 persons in 2005-06 and 1300 persons in 2006-07, most likely due to increased labour demand resulting from the resources boom and skills shortages being experienced worldwide, and the construction boom occurring in the Territory. Despite this increase, the Territory's share of total Australian net overseas migration remains small, equivalent to its share of the Australian population (1 per cent).

The ABS recently developed a new methodology for estimating net overseas migration and preliminary results based on the new method were first incorporated in the September quarter 2006 figures. Using the new method, people who reside in or out of Australia for 12 months within a 16 month period are classed as permanent additions to or subtractions from the resident population. This is designed to ensure that groups such as overseas students, who spend most of their time in Australia but may return to their home country for university holidays, are included in the resident population. It is difficult to say at this stage whether the new method is having an effect on the Territory's population growth estimate. As noted above, increases in net overseas migration have been experienced recently, however net overseas migration remains a volatile series in the population accounts, and it is too early to draw conclusions.

There are two sources of overseas migration information: ABS and the Commonwealth Department of Immigration and Citizenship (DIAC). Unfortunately, it is not currently possible to compare the statistics from these two agencies in order to have a more complete understanding of immigration to the Territory. For example, DIAC presents statistics by visa category type (for example, family, humanitarian, skill) and status (permanent, temporary), whereas length of stay in Australia (12 months of residence within a 16 month period) rather than visa status is the criterion by which the ABS measures permanent additions to the resident population. The statistics presented below can therefore only indicate that there appears to be an increase in the numbers of immigrants to the Territory, however it is not possible to say how many of these are additions to the Territory's resident population. Emigration, which is not explored here, presents its own set of complexities.

Recent times have seen an increase in the numbers of skilled migrants to the Territory, as a result of new Commonwealth programs and policies as well as the need for the Territory to meet employment demand within Australia's skills shortage climate. Between 2004-05 and 2006-07, the number of skilled migrants arriving on permanent visas doubled from 154 to 308 (DIAC statistics). The Territory registered 142 humanitarian arrivals in 2006-07, up 149 per cent from the 57 humanitarian settlers received five years ago. Arrivals to the Territory for all permanent visa categories totalled 843 during 2006-07.

Category 457 visa holders are a group of employer-sponsored skilled temporary entrants. There were 1353 Category 457 visa holders in the Territory at 30 June 2007; up 55 per cent from 871 the previous year. The major citizenship countries of the 457 visa holders are the Philippines 348 (26 per cent), India 140 (10 per cent), the United Kingdom 127 (9 per cent), China 75 (6 per cent), Zimbabwe 72 (5 per cent), South Africa 67 (5 per cent) and Papua New Guinea 51 (4 per cent).

Primary grants (excludes accompanying family members) to Category 457 visa holders have risen from 690 in 2005-06 to 880 in 2006-07, an increase of 28 per cent. The Territory's share of these visa holders (1.9 per cent) exceeds its share of the Australian population (1 per cent).

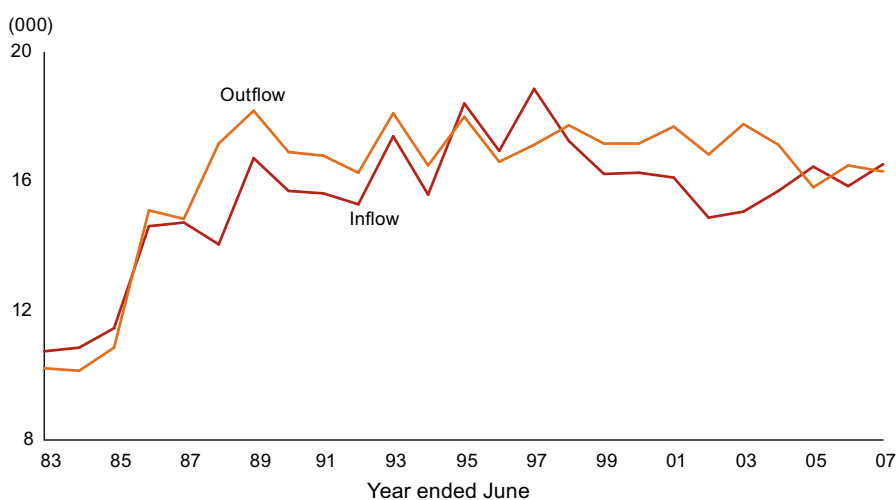
The major sponsoring industries of the new Category 457 visa holders are Health and community services 210 (24 per cent), accommodation, cafes and restaurants 140 (16 per cent), and construction 110 (13 per cent). Future years may see the growth rate in this visa category moderate, as the Commonwealth is currently revising and tightening policy around eligibility for this visa category, particularly around English language and occupational skills competencies.

### Interstate Migration

Interstate migration remains the 'wildcard' of Territory population growth. The Territory experiences very large annual interstate inflows and outflows of up to 18 000 people in each direction. The net figure is therefore the difference between two very large numbers and tends to be exceptionally volatile. Net interstate migration, as measured by the ABS, has fluctuated from negative 3100 per annum to positive 1700 per annum over the last 20 years, however in recent years it has more commonly taken the form of a loss to the Territory's population. Periods of positive net gains occurred in the mid 1990s during the defence force build up and in 2005 there was a period of small positive gain with the influence of major employment-creating projects such as the Wickham Point liquefied natural gas (LNG) plant and the Alcan G3 refinery expansion (Chart 3.8). Gains have also been recorded in the two most recent quarters, June and September 2007. Over the past five years, net interstate migration has subtracted on average 0.4 percentage points from annual growth, an average net loss of around 800 people each year. Note that the ABS has revised

these figures upwards based on the 2006 Census, showing that the Territory's net losses were not as large as reported by the preliminary ABS figures for the intercensal period 2001-06.

Chart 3.8: Territory Interstate Migration Flows

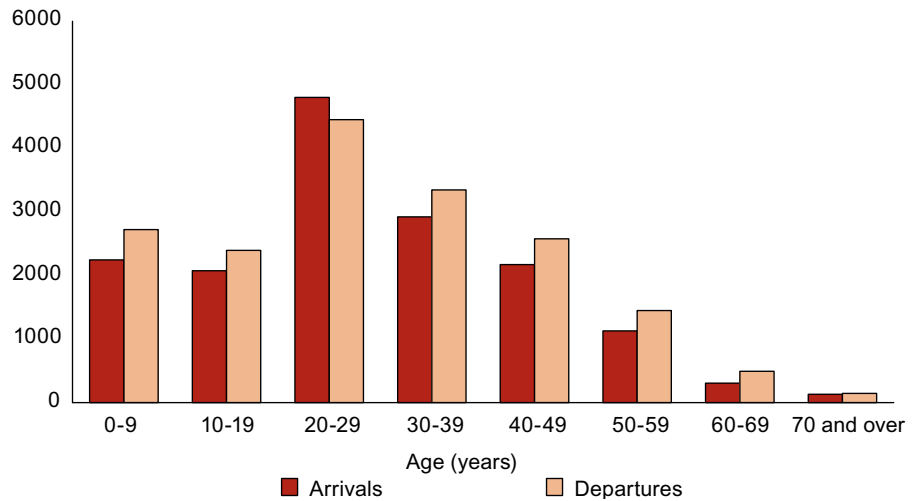


Source: ABS Cat. No. 3101.0

Recent research is providing evidence-based insights into who migrates to the Territory and why, as well as who stays. The research forms part of a comprehensive program of demographic research being conducted in partnership between the Territory Government, CDU and the ABS. The research includes the Territory Mobility Survey (TMS), a telephone survey of 1500 Territory residents about their migration histories, and the Australia Post Relocation Survey (APS), a mail-out survey to which 2000 Australian households that had moved house responded. The results of the APS point overwhelmingly to work-related reasons as being the primary motivator for people to move from one jurisdiction to another. However, family and social networks featured strongly for people leaving the Territory and for those who move across other state or territory borders, while this was much less significant for movers into the Territory. For a small number of dissatisfied Territory ex-residents, climate and cost of living were the main reasons for leaving while improved law and order would be the main incentive to encourage them to return to the Territory. According to the APS, only 17 per cent of movers to the Territory intended to stay permanently or long term although the TMS reported a higher figure of one quarter of respondents who intended to stay permanently. Both surveys showed that the vast majority of current and former Territory residents are satisfied with life in the Territory, however it seems that for many, this is not enough to keep them here long term and many plan to leave within five years of arrival. In fact, the median length of stay of movers out in the APS survey was about five years.

Although movement to and from the Territory occurs at all ages, most Territory interstate migrants are young adults. Territory interstate in-migrants in 2005-06 had a median age of 26 years, while the median age of out-migrants was 27 years. Tasmania had the oldest median age for in-migrants of 31 years while the median age of out-migrants was 28 for all jurisdictions other than the Territory. Chart 3.9 shows a typical age profile of interstate migrants for the Territory, with a net gain of people in their 20s. In all other age groups, the Territory experiences a net loss of people.

Chart 3.9: Age Profile of Territory Arrivals and Departures (five year average 2001-02 to 2005-06)

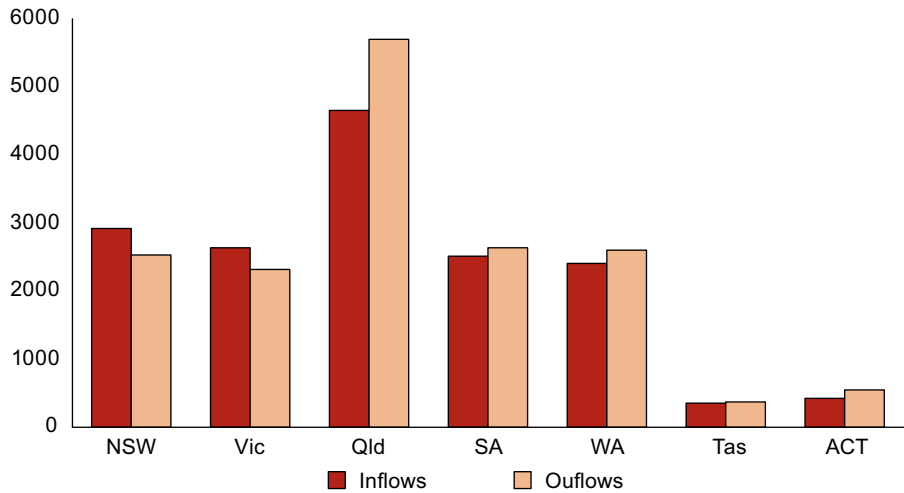


Source: ABS Cat. No. 3412.0

Interstate mobility is more significant in the Territory than in other jurisdictions. Based on Census questions about where people lived five years before the Census date, about 20 per cent of Territory residents in 2006 were not living in the Territory five years earlier. Although the Australian Capital Territory had a similar rate to the Territory (19 per cent), the figure ranged from 7 to 12 per cent for the states.

Over the five years to June 2007, about 8 per cent of the population left the Territory each year for interstate destinations while nationally, less than 2 per cent of the population moved interstate (ERP data). More of the Territory population exchange is with Queensland than other states. In the five years to June 2006, 32 per cent of the combined population flows were with Queensland, while the other large states accounted for most of the remainder (Chart 3.10).

Chart 3.10: Territory Interstate Migration Flows by Jurisdiction, 2002-03 to 2006-07 (annual average)



Source: ABS Cat. No. 3101.0

People come to the Territory from all parts of Australia and, in terms of absolute net gains, Census data show that over 2001 to 2006 the Territory received most interstate migrants from Melbourne and Sydney. However, relative to the populations of those cities, the strengths of the inflows of people were quite small. When placed in the context of the population size of the region of origin, the largest relative inflows of people are from the Territory's neighbouring regions of the Kimberley, Pilbara, north west Queensland, and northern South Australia.

## Population Outlook

Major employment creating projects are the key drivers of change in population growth in the Territory. The completion of the Wickham Point LNG plant and the Alcan G3 refinery expansion project suggest that, in the medium term unless other major projects are confirmed soon, the strong population growth experienced in the Territory over the past three years may start to moderate. The past three financial years have seen population growth of 2.0 per cent. Northern Territory Treasury forecasts growth of 2.2 per cent for the year to December 2007 moderating to 1.9 per cent for the year to December 2008. Construction of the Darwin Waterfront is currently providing good employment opportunities and the associated construction of hotels, residential apartments and retail complexes will continue for several years. Residential construction remains strong and should continue to be so in the mid term, with large residential construction projects such as Pandanas and Evolution apartment complexes, as well as construction in the new suburbs of Lyons and Muirhead, under way. Construction of the Blacktip pipeline will provide good employment opportunities during 2008-09. Job vacancies in the Territory are at high levels and increasing. All these are good signs for continued population growth. However, engineering construction indicators show a decrease in activity in this sector over the past two years although the level of activity is still relatively high in historical terms. Some other economic indicators such as building approvals and housing finance commitments also suggest a slowing down of activity in some sectors.

Based on current knowledge, the most significant future project for the Territory would be Train 2 of the LNG plant, possibly commencing in mid 2009. If employment prospects for this project are the same as or better than for Train 1, this should provide a further sustained boost to population growth. However increasing use of fly-in fly-out labour and construction methods which use pre-assembled modules (requiring less labour on site) could see fewer new additions to the Territory's resident population than expected. There is no confirmation of this project at this stage. Another large gas plant has also been mooted for the Territory but negotiations are at an early stage.

Net overseas migration should remain strong in the mid term as the skills shortage endures, as long as the Commonwealth continues to facilitate access to regional skilled migration visas. However, the skills shortage also means demand for workers is strong in other parts of Australia such as Western Australia and Queensland, and the Territory has to remain competitive to attract and keep both interstate and overseas workers. There is a distinct possibility that the Territory will be unable to remain fully competitive with other parts of Australia for skilled workers in the coming years. This could result in a gradual increase in net emigration from the Territory. It is equally important that current residents continue to find the Territory sufficiently attractive to stay.

Beyond 2008, the uncertainty surrounding future major employment creating projects makes forecasting difficult. Treasury forecasts population growth to average around 1.7 per cent for the last years of the decade.

## Appendix 1: 2006 Census Results and Re-Based Estimated Resident Population for 30 June 2006

Estimated Resident Populations (ERPs) are re-based every five years on population counts derived from a new Census, the most recent of which was conducted in August 2006.

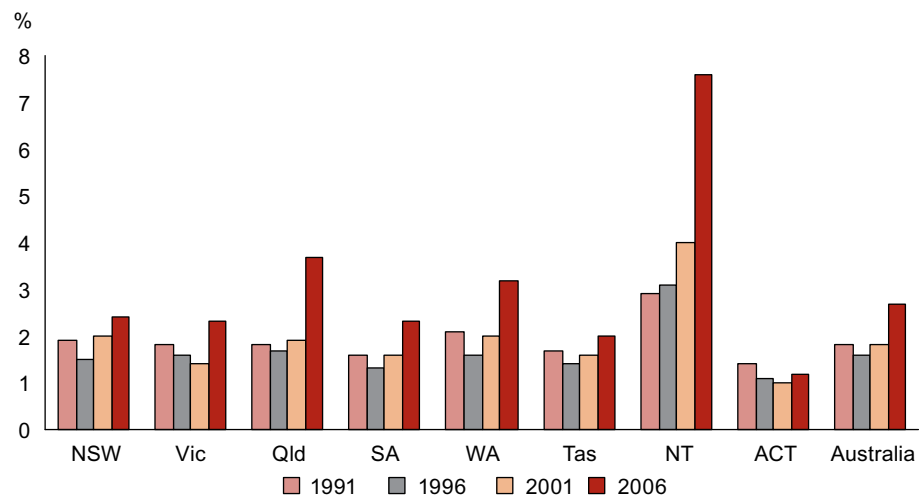
The Territory's ERP at 30 June 2006 was 210 674, an increase of 1.9 per cent over the equivalent figure based on the 2001 Census of 206 688. The gap of 3986 people is known as intercensal error and is a result of inaccurate or incomplete intercensal information for the growth components of natural increase and migration, as well as errors in either of the base years of 2001 and 2006. The ABS attributed proportionally more of the intercensal error to the Territory than to other jurisdictions. It is likely the ABS will revise the intercensal error based on new information for the intercensal growth components when revised ERPs are published later in 2008.

Accurate ERP depends on accurate results from the Census, and the Post Enumeration Survey (PES) – a survey designed to allow undercounting in the Census to be estimated. However, the Territory's unique geography and demography make obtaining accurate results from these data collections a particularly challenging task. ABS has advised that the 2006 Census was more difficult to conduct than previous Censuses, particularly in northern Australia. The number of non-contact dwellings and hence the proportion of 'not stated' responses on most Census questions increased between 2001 and 2006 with the highest proportion of 'not stated' responses occurring in the Northern Territory.

The PES was extended to remote areas for the first time in 2006. This resulted in a better estimate of Census undercount, however the levels of undercounting are considerably higher, for all jurisdictions, than those in 2001.

Chart A3.1 shows that undercount rates have been increasing across Australia over the past four Censuses. The Territory has the highest undercount rate of all the jurisdictions in every Census year. The Territory's undercount rate nearly doubled in 2006 (7.6 per cent) compared with 2001 (4 per cent). This is partly a result of the extended scope of the collection to include remote areas as well as improved methodology in 2006 for estimating the undercount, which means the 2001 and 2006 estimates are not completely comparable. This suggests that undercount has been underestimated in previous Censuses.

Chart A3.1: Undercount Rates, Four Censuses



Source: ABS Cat. No. 2940.0

## Indigenous Undercount

ABS published a breakdown of the Indigenous undercount below the national level for the first time after the 2006 Census (Table A3.1). The Indigenous undercount rate cannot be directly compared with the total Territory undercount rate shown above because of the different ways the rates are calculated. The Indigenous undercount rate includes adjustments for non-response to the Census Indigenous status question. The high Indigenous undercount rate for the Territory (19.2 per cent) is of concern and means that Indigenous Census count data need to be used with great caution, if at all in some cases. In addition, comparability with 2001 Indigenous Census data is compromised and uncertainty remains about the growth rate of the Indigenous population, which consequently affects the size and growth of the non-Indigenous population.

Although the ABS did not publish a non-Indigenous undercount, Treasury has estimated this at 19 675 people or 13.6 per cent of ERP at 30 June 2006.

Table A3.1: Indigenous Net Undercount by State/Territory 2006

|            | PES estimate <sup>1</sup> |                             |                                      | Usual Residence Census Count | Net Undercount | Net Undercount Rate |
|------------|---------------------------|-----------------------------|--------------------------------------|------------------------------|----------------|---------------------|
|            | Persons                   | Standard Error <sup>2</sup> | Relative Standard Error <sup>3</sup> |                              |                |                     |
|            | no.                       | no.                         | %                                    |                              |                |                     |
| NSW/ACT    | 151 048                   | 9 146                       | 6.1                                  | 142 382                      | 8 666          | 5.7                 |
| Vic/SA/Tas | 73 380                    | 4 337                       | 5.9                                  | 72 467                       | 913            | 1.2                 |
| Qld        | 145 843                   | 6 087                       | 4.2                                  | 127 580                      | 18 263         | 12.5                |
| WA         | 77 304                    | 5 605                       | 7.3                                  | 58 710                       | 18 594         | 24.1                |
| <b>NT</b>  | <b>66 402</b>             | <b>2 341</b>                | <b>3.5</b>                           | <b>53 661</b>                | <b>12 741</b>  | <b>19.2</b>         |
| Australia  | 513 977                   | 13 309                      | 2.6                                  | 454 799                      | 59 178         | 11.5                |

<sup>1</sup> Estimate from the ABS PES of the Indigenous population who should have been counted in the 2006 Census

<sup>2</sup> Means that the true value for the PES estimate could be said, with 95% confidence, to lie between plus or minus two standard errors of the estimate, for example, for the Territory, between 61 720 and 71 084

<sup>3</sup> The standard error expressed as a proportion of the PES estimate

Source: ABS Cat. No. 4705.0

In combination, the factors presented above mean that there is greater known uncertainty than in the past about Census population counts and estimates derived from them and these factors impact more on the Territory than on other jurisdictions.