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Spatial trends in Australian population growth and movement

Bureau of Infrastructure, Transport and Regional Economics

Spatial trends in Australian population growth and movement

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Foreword

This report provides a summary of key trends in population growth and decline across Australia's regions, primarily between 2001 and 2009. The report highlights the role of population mobility—that is, internal and external migration—to population growth across different areas and briefly discusses some of the main factors shaping the country's settlement footprint.

The report provides an evidence base to inform the current debate occurring in relation to population issues and presents some of the future population challenges and opportunities for the nation.

This research was led by Geoff Frost, with Dr Jan Anderson-Muir, Dr Karen Wade and Lucy Williams also making important contributions to the report.

Gary Dolman
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August 2011

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While BITRE is grateful for the assistance provided by these individuals and organisations, the views expressed in this report are those of BITRE and should not be attributed to any other organisation.

At a glance

- This report presents a summary of Australia's population trends between 2001 and 2009.
- In 2009, Australia's population was approximately 22 million people and has grown by an average of 1.6 per cent annually since 2001.
- Since 2006 overseas arrivals have outpaced natural growth in contributing to Australia's population growth.
- Australia's population growth has been spatially uneven. For example, the population of coastal cities have consistently grown faster than Australia as a whole. In contrast, remote and inland country areas grew relatively slowly.
- Capital cities are important to understanding Australia's population growth. In absolute terms capital cities grew by over 1.6 million people between 2001 and 2009, representing 65 per cent of total national population growth over that period.
- Australia has one of the most mobile populations in the world.
- Capital cities are also central to understanding migration flows, accounting for over 80 per cent of immigrants and a large share of interregional migration by domestic residents.
- The movement of large numbers of people into Australia's major cities and coastal areas is consistent with long-term trends.
- The majority of population movement occurs within cities or regions rather than between them, often driven by housing considerations.
- Since 2001, there has been population growth in high amenity inland cities, peri-urban country areas and pockets of strong population growth in remote Australia generally associated through economic activities.
- Lifestyle choices are a key driver in understanding Australian settlement patterns and movements as many new residents are being drawn towards high amenity inland and coastal areas.
- Some drivers reflect the choices made by people at different stages of their lives. For example, young people moving out of rural areas and into urban locations to take advantage of education and employment opportunities.
- Population projections imply continuing strong population growth in coastal areas and slower growth in inland country and remote Australia. Population projections also imply a substantial increase in the number of older Australians, particularly in coastal regions, and an aging of the population.
- Australia's population growth and distribution poses challenges and opportunities for policymakers and society more broadly, on matters such as providing infrastructure and delivering services to a growing and spatially-dispersed population, as well as managing the environment.

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Executive summary

This report presents a summary of Australia's recent population trends, examining the regions that have grown or declined between 2001 and 2009. To complement understanding of population change, a related facet, population mobility, is also considered, as Australians are one of the world's most mobile populations. The report also presents a brief discussion of some of the main drivers that are shaping the country's settlement footprint.

A country's population is never static. The forces that can shape a population include natural growth, migration and demographic changes. Added to this is another layer, the spatial distribution of the country's settlement patterns which are influenced by consumer preferences, life stages, the environment and the economy.

In 2009, Australia's population was just under 22 million people, having grown by over 18 million people since Federation (ABS 2008a). Between 2001 and 2009, the number of Australians has increased by 2.5 million people at an annual growth rate of 1.6 per cent. This growth has come from both natural growth and overseas migration but since 2006 overseas migration has outpaced natural growth in contributing to Australia's population growth.

Australia's population growth has been spatially uneven. Queensland has been the fastest (at an annual rate of 2.5 per cent) and largest growing state in the Commonwealth with just under 800 000 new residents between 2001 and 2009. Western Australia has also grown quickly, with annual average population growth of 2.1 per cent over the same period. In contrast, the populations of Tasmania and South Australia grew by less than the national average, at 0.8 and 0.9 per cent per annum respectively.

Regional variation in spatial population growth is also shown through the classification structure used in this report, which defines six separate regional areas: capital cities, coastal cities, inland cities, coastal country areas, inland country areas and remote areas.

The population of coastal cities have consistently grown faster than Australia as a whole, at an annual rate of 2.3 per cent between 2001 and 2009. In contrast, the populations of remote and inland country areas grew relatively slowly at an annual rate of 0.6 and 0.5 per cent, respectively. In absolute terms, capital cities grew by over 1.6 million people, representing 65 per cent of total national population growth. Much of this population growth was in the outer suburbs.

The great majority of domestic migration occurs within regions or cities, rather than between them often driven by housing and accessibility considerations. For example, much of the migration to outer suburbs between 2001 and 2006 has been intracity migration, rather than intercity or interregional movements. Yet while these moves may be greater in number, important variations in interregional flows and drivers are shaping the spatial population pattern of the nation. While accommodation needs were important for people who moved locally, longer-distance movers reported that they relocated primarily to be closer to family and

friends (Hugo 2005). Lifestyle, employment prospects, environment and services (for example, accessing services for health reasons) also rated highly for interregional movers.

Capital cities are central to understanding migration flows in Australia. Just through their sheer size capital cities influence the settlement patterns both within the cities themselves and their surrounding hinterland. Two main trends are evident—the ongoing drift of regional Australians (particularly young people) to capital cities and a flow of ex-urban (generally older) migrants back to regional Australia. The latter flow has been concentrated toward coastal areas and selected high amenity or peri-urban rural areas. Moreover, over 80 per cent of overseas arrivals locate in a capital city.

The strong flow of people towards coastal locations illustrated in this report is simply a continuation of Australia's preference to live by the coast, which is a longstanding trend in internal migration patterns within Australia (ABS 2009f). However, the analysis also reveals population growth in some large inland cities, peri-urban inland country areas and pockets of strong population growth in remote Australia generally associated with economic activities. The complex mixtures of drivers associated with these areas are often hidden because of the focus on capital cities and coastal population change.

Lifestyle and life stage changes are key drivers in understanding Australian settlement patterns and movements. For example, life stage drivers are evident in the choices of young people to move out of rural areas and into urban locations for education and employment opportunities. In contrast, while younger people tend to move to urban areas, many older people are moving towards regional locations for lifestyle choices. Many of these new residents have been categorised as 'sea changers' or 'tree changers', especially amongst the older generation moving from a capital city to retire by the coast or attractive inland areas.

Urbanisation is also a strong driver. Australia has one of the most urbanised settlement structures in the world, with capital cities containing 64 per cent of the nation's population in 2009. The structure has been described as 'metropolitan primacy'. In contrast, remote Australia covering an area of 6.3 million kilometres comprises only 2 per cent of the population.

Remote Australia provides an illustration of economic drivers impacting on Australia's migration flows and settlement patterns. Currently, the resources boom is particularly pertinent with some mining areas such as the Pilbara and the Bowen Basin experiencing strong population growth. The impact of the resources boom on settlement manifests itself through a number of interacting factors such as the dominance of one industry, industries operating in a spatially wide labour market and quality of life issues (e.g. education and health services). Nevertheless, remote Australia experienced negative net-migration flows to all other regional areas with the largest loss to coastal cities, closely followed by capital cities. However, migration flows broken down by age reveals that for persons aged between 25 and 34 years, remote locations experienced a small net-migration inflow, which may reflect young adults (mostly from capital cities) taking advantage of economic opportunities in these selected remote areas.

The influence of economic opportunities is also evident because not all coastal areas are growing strongly. For example, some coastal cities in New South Wales, Tasmania and Victoria experienced slow population growth between 2001 and 2009. In general, these cities were still recovering from a severe economic downturn in recent decades, largely associated with restructuring away from manufacturing industries.

Population change has also been mixed in inland country areas. A range of drivers have been influencing population changes such as the 'sponge city' effect, commuting patterns and tree-change lifestyle preferences. In fact, for some regions population growth is a substantive generator of economic activity in itself. However, many small rural townships, especially those with an agricultural base, are experiencing declining populations.

The population growth patterns highlighted in the report are projected to continue, with strong growth in coastal areas and slower growth in inland country areas and remote Australia. A feature of the population projections is the substantial increase in the number of older Australians. In addition, there will be spatial differences in the ageing population with coastal area populations ageing faster while remote locations will have a far younger age profile. These trends will pose challenges and present opportunities for policymakers and society more broadly on matters such as providing infrastructure, delivering services to a growing and spatially-dispersed population, and in managing the environment.

CHAPTER 1
Introduction

Key points

- Australia's population as of June 2009 was approximately 22 million people.
- International migration in 2009 outpaced natural growth, accounting for over 60 per cent of Australia's population growth.
- Australia has experienced spatially uneven growth in population, with strong increases in capital cities, coastal areas and large inland cities and lower growth elsewhere.
- Australia has one of the highest levels of internal mobility in the world.
- Capital cities are central to understanding migration flows within Australia.
- Between 2001 and 2006, both coastal cities and coastal country locations experienced strong inward migration flows.

Purpose

This report summarises key trends in population growth and decline in Australia's regions, primarily between 2001 and 2009.[1] The report's main focus is on the spatial distribution of population growth. To complement understanding of population change, the important aspect of population mobility is also considered. It also discusses some of the main drivers of population change and suggests likely trends into the future.

While, this report focuses on recent trends in the spatial distribution of domestic residents, two other recent reports, by the Department of Immigration and Citizenship and the Productivity Commission, analyse other aspects of Australia's population growth. The Department of Immigration and Citizenship report *Population flows: Immigration aspects 2008–09* edition (DIAC 2010) provides a discussion of permanent and temporary migrants entering Australia under skilled, family, humanitarian, students and working holiday programs. The Productivity Commission (2010) report, entitled *Population and migration: understanding the numbers* has been released 'to improve the information base for public discussion' by providing a description of the population components. The PC report also contains a brief discussion into the geography of population growth in Australia with a focus on states/territories and capital cities.

1 The time period chosen was based on the most up-to-date Estimated Regional Population (ERP) calculations from the ABS.

National trends

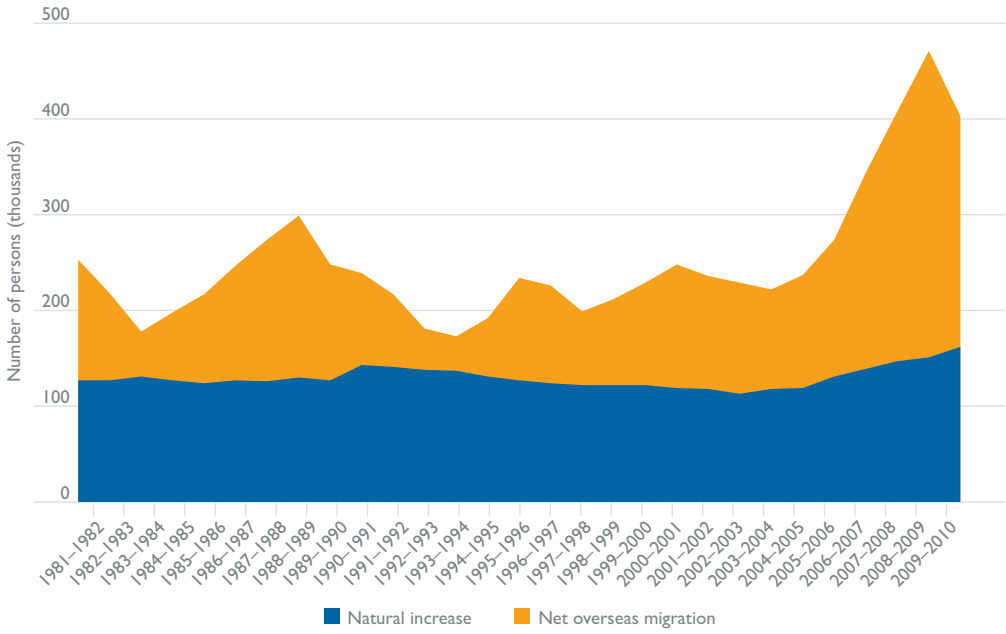
Components of growth

The Australian population as of June 2009 was just under 22 million people which increased by over 2.5 million people from 2001, at an average annual rate of 1.6 per cent. Australia's population growth can be broadly described in terms of two main components:

1. Natural increase (existing population plus births minus deaths); and
2. Net overseas migration (movement into and out of Australia).[2]

Figure 1 below shows that net overseas migration is now outpacing natural growth in contributing to Australia's overall population growth, but that this is a relatively recent phenomenon (Australian Government Major Cities Unit 2010). For example, between 2006 and 2009, international migration accounted for approximately 63 per cent of population growth, whilst natural growth accounted for approximately 37 per cent (ABS 2010a).[3] However, these national figures differ from regional population changes in that at the regional level, net population growth is also a product of migration to and from other parts of Australia.

F 1 **Components of Australian population growth, 1981 to 2010**



Source: ABS (2010a)

2 Net Overseas Migration (NOM) refers to 'the number of people arriving in Australia for 12 months or more, less the number of people departing from Australia for 12 months or more. In calculating NOM, the 12 months does not have to be continuous. It is measured over a 16-month reference period. Thus, an international student who visits their home country during semester breaks will be counted as a NOM arrival sometime during their second year of study in Australia' (DIAC 2010, p.3).

3 The increase in net overseas migration is also partly driven by the change in the ABS's methodology to estimate net overseas migration on a '12/16 month rule' since 2006 (ABS 2010a).

Uneven distribution of population change

The variation in population growth between the states and territories is shown in Table 1. Overall, Australia's population grew at an annual average rate of 1.6 per cent between 2001 and 2009 with state growth ranging from a high of 2.5 per cent annually for Queensland to a low of 0.8 per cent annually for Tasmania. Queensland also experienced the largest absolute increase in population with nearly 800 000 more people living in the state in 2009 than in 2001. Large population increases were also recorded for Victoria and New South Wales, with Tasmania, the Australian Capital Territory and Northern Territory recording much lower increases in population, of between 28 000 to 33 000 people.

T 1 Average annual and absolute increase in estimated resident population by state, 2001 to 2009

State and National	Average annual growth (per cent)	Increase in number of persons
New South Wales	1.0	559 204
Victoria	1.6	638 502
Queensland	2.5	796 157
South Australia	0.9	111 862
Western Australia	2.1	343 898
Tasmania	0.8	31 497
Northern Territory	1.7	28 170
Australian Capital Territory	1.2	32 872
Australia	1.6	2 542 016

Note: The table does not sum because of other territories.

Source: ABS (2010b).

Regional level population change exhibits far more variation. Figure 2 shows population growth and decline of all Statistical Local Areas (SLAs)[4] across Australia between 2001 and 2009.[5] The highest growth areas (shown in dark blue below) were generally associated with:

- coastal locations;
- capital cities; and
- regional cities.

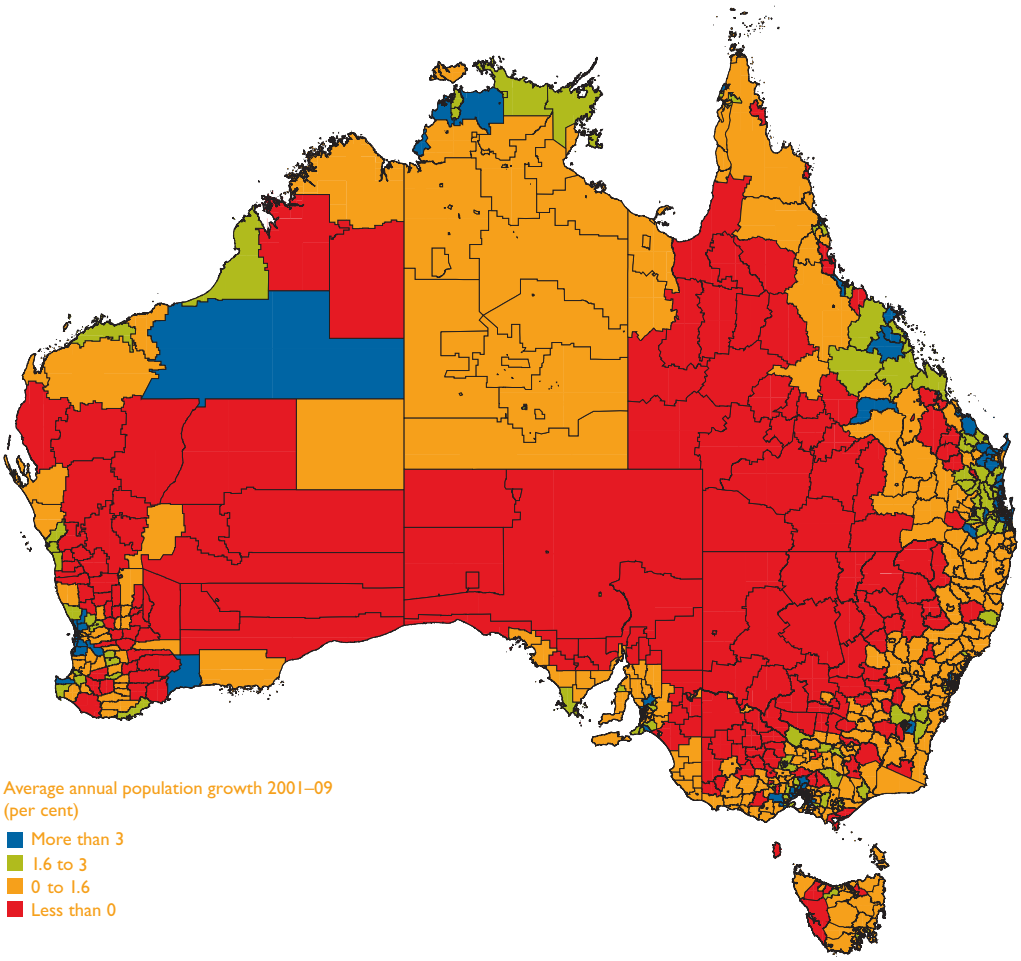
However, there were also some industry-specific inland growth areas. For example, population growth was high in the inland mining areas of the Pilbara (in Western Australia) and the Bowen Basin (in Queensland).

The map also shows that many remote and inland rural regions of Australia experienced below average population growth, or absolute declines.

4 See Appendix A for a definition of Statistical Local Area.

5 All ABS 2001–2009 population figures presented here are derived from ABS estimated resident population datasets published in 2010. These population estimates are final for 2001 to 2006 (based on census collection), revised for 2007 and 2008 and preliminary for 2009.

F 2 Average annual population growth by Statistical Local Area, 2001 to 2009

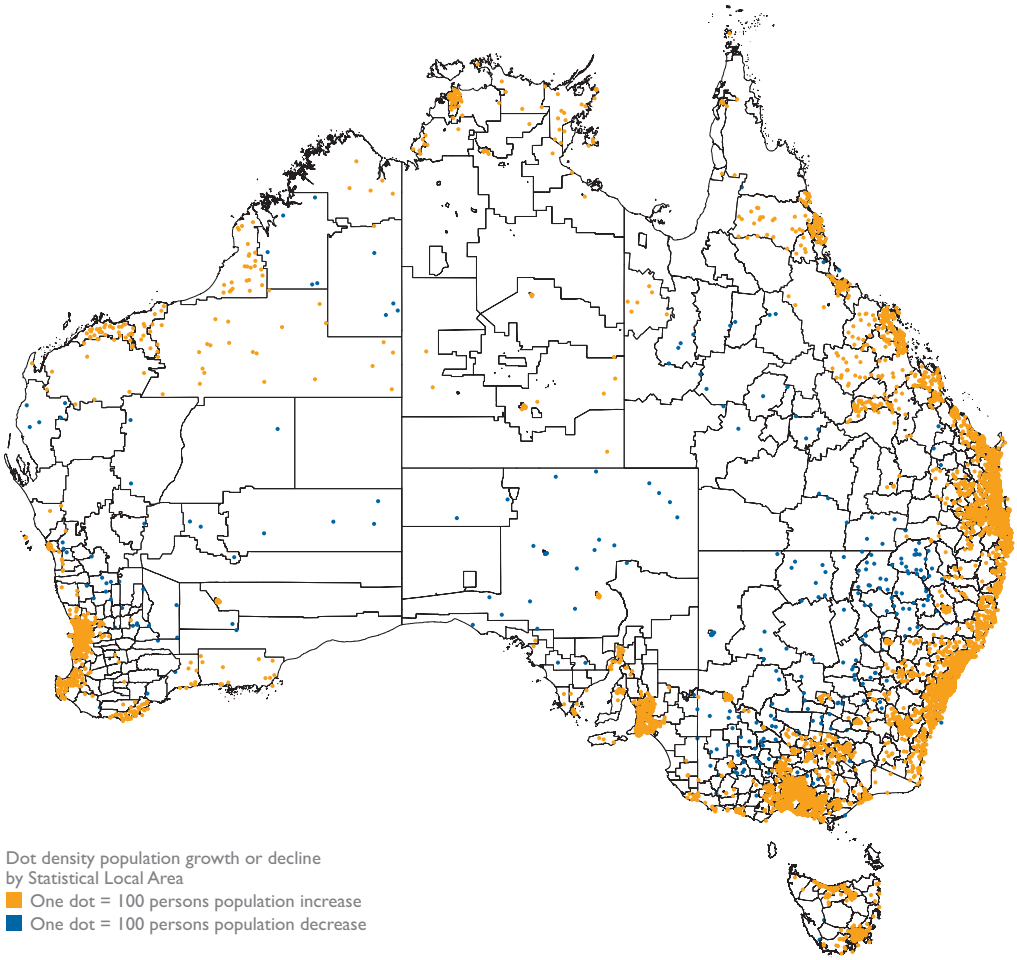


Source: ABS (2010b).

The striking feature of Figure 2 is the dominance of population decline occurring in inland areas. However, this map underestimates the underlying patterns of population growth. Figure 3 presents an alternative dot density population growth pattern for the same period. The orange dots show population increases of 100 persons within an SLA, while the blue dots show declines of 100 persons.

The map illustrates the major clusters of absolute population growth in the capital cities, peri-urban areas, regional cities and coastal locations, whilst the regions with population decline are evident in rural areas, especially in western Victoria and New South Wales.

F 3 Dot density population growth by Statistical Local Area, 2001 to 2009



Source: ABS (2010b).

Regional classification

In order to sensibly analyse and identify interregional trends, population change and migration flows in this report are based on six broad geographical areas utilising the 2006 Australian Statistical Geographical Classification (ASGC). These six regional classifications are:

Capital cities—Capital city Statistical Divisions (SDs) from each of the states and territories as defined by the ABS.

Coastal cities—ABS Statistical Districts[6] which are primarily urban and have 25 000 persons or more. These cities border the coastline or have their geographic centre within 50 kilometres of the coast.

6 Statistical Districts are defined by the ABS as being 'predominately urban areas, the boundaries of which are designed to contain the anticipated urban spread of the area for at least 20 years. They are generally defined as containing an urban centre population of 25 000 or more' (ABS 2005, p.23).

Inland cities—ABS Statistical Districts which are primarily urban and have 25 000 persons or more. These cities do not border a coastline or have their geographic centre within 50 kilometres of the coast.

Coastal country area—SLAs that border the coastline or have their geographic centre within 50 kilometres of the coast and are not classified as either remote or very remote (based on the ABS Remoteness structure) or as a coastal city.

Inland country areas—SLAs whose geographic centre is not within 50 kilometres of the coast and not otherwise classified as an inland city based on Statistical Districts or classified as remote or very remote (based on the ABS Remoteness structure).

Remote areas—Any SLA region that is predominantly classified as remote or very remote under the 2006 ABS Remoteness Structure (remote SLAs located in capital city SDs will remain with the capital city[7]).

The classifications closely match the ABS classification utilised in ABS (2009e) *A Picture of the Nation*. The major differences are the inclusion of the remote classification to distinguish it from the inland and coastal country areas and the definition of new residents.[8] Figure 4 presents a geographical representation of the classifications. A description of the ASGC structure and geographical classifications is provided in Appendix A.

These geographical classifications provide a basis for examining population growth across the country. Table 2 presents the average annual population growth by regional classification between 2001 and 2009. Coastal city population growth rate has consistently grown faster than Australia as a whole. In contrast, capital cities, inland cities and coastal country areas have grown at similar rates, with inland city average population growth 0.2 percentage points below the national average population growth.

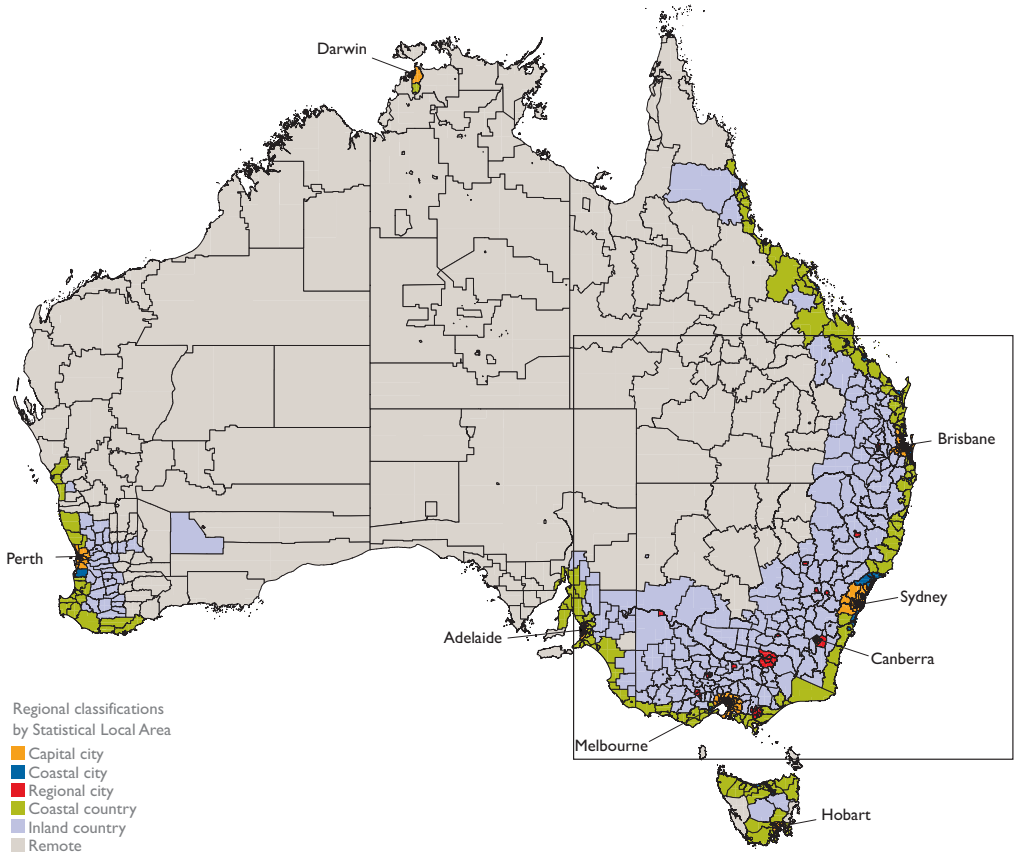
The population of inland country and remote areas have grown 0.6 and 0.5 per cent per annum, respectively, well below the national average population growth rate. In absolute terms, capital cities grew by over 1.6 million people, representing 65 per cent of the overall population growth between 2001 and 2009. This illustrates the importance of capital cities in understanding the country's population growth.

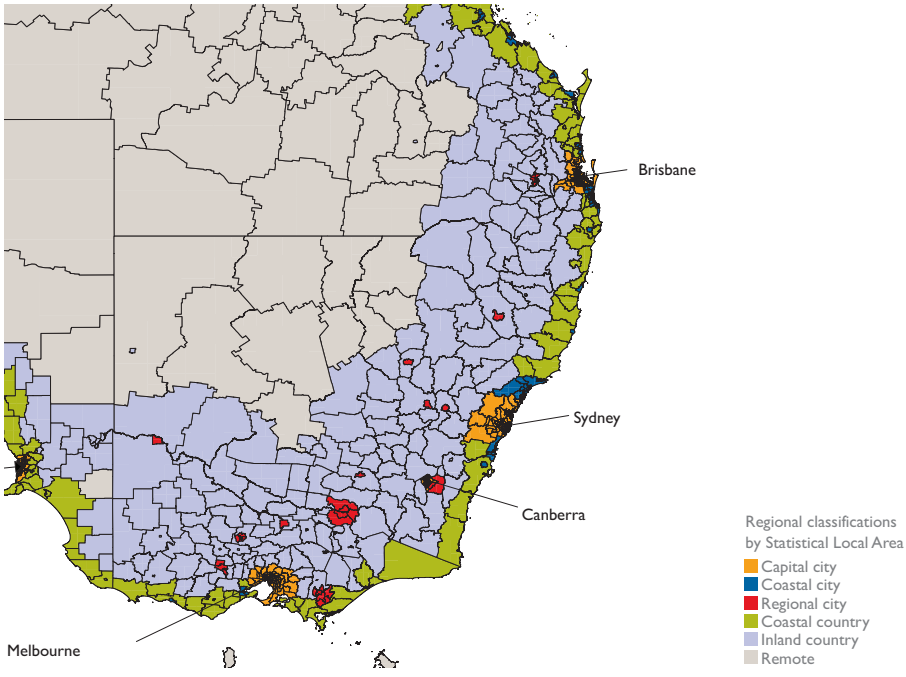
Population trends in each regional classification are examined further within the relevant chapters.

7 Islands classified as remote within the ABS Remoteness structure but that are part of the capital city under the ASGC, as such Bribie Island in Brisbane, could be classified as either a remote location or included in the capital city SD. This report treats such SLAs as part of the relevant capital city SD.

8 The ABS (2009e) publication defines new residents as 'people who moved between 2001 and 2006 into a different capital city SD or, for non-metropolitan areas, into a different Statistical Subdivision (SSD)', whereas estimates calculated in this publication maintain that the regional classifications are mutually exclusive. Hence, the ABS (2009e) estimates are higher than those reported here.

F 4 Regional classification by Statistical Local Areas





Source: BITRE derived regional classifications

T 2 Average annual growth of estimated resident population by regional classification, 2001 to 2009

Regional classification	Average annual growth (per cent)	Increase in number of persons
Capital cities	1.6	1 644 389
Coastal cities	2.3	506 729
Inland cities	1.4	92 410
Coastal country	1.5	192 652
Inland country	0.6	85 428
Remote areas	0.5	20 554
Australia	1.6	2 542 016

Note: The table does not sum because other territories is not included.

Source: ABS (2010b)

Population growth

Tables 3 and 4 show population growth at the ABS Statistical Division (SDs)[9] level, ranked by absolute numbers of new arrivals (Table 3) and average annual growth rates (Table 4).

In terms of absolute numbers of new residents, Australia's five largest capital cities, all of which had populations greater than one million persons, dominated the country's high growth areas between 2001 and 2009 (see Table 3). High growth is also evident in the other SDs in south-east Queensland, which grew by 650 000 people in that period. Many of the other high growth areas were in coastal regions adjacent to metropolitan centres, for example, the SDs of Barwon in Victoria and the South West in Western Australia. In New South Wales, the highest population growth has occurred along the coastal corridor between Sydney and Brisbane.

High growth also occurred in coastal areas encompassing the Queensland coastal cities of Rockhampton, Mackay, Townsville and Cairns. Inland SDs that feature in the top 20 growth areas list are the capital city of Canberra and the Darling Downs region in south-east Queensland, which includes Toowoomba.

9 See Appendix A for a definition of Statistical Division.

T 3 Top 20 Australian population growth regions (growth by number of persons), estimated resident population by Statistical Division, 2001 to 2009

	Estimated resident population 2001	Estimated resident population 2009	Population increase	Average annual growth (per cent)
Melbourne (VIC)*	3 471 625	3 995 537	523 912	1.8
Sydney (NSW)	4 128 272	4 504 469	376 197	1.1
Brisbane (QLD)*	1 629 195	1 962 422	333 226	2.4
Perth (WA)*	1 392 999	1 658 989	265 990	2.2
Gold Coast (QLD)*	432 478	571 447	138 969	3.5
Adelaide (SA)	1 107 986	1 187 466	79 480	0.9
Sunshine Coast (QLD)*	247 167	323 423	76 256	3.4
Wide Bay-Burnett (QLD)*	236 492	293 462	56 970	2.7
Hunter (NSW)	588 071	644 279	56 208	1.1
South West (WA)*	194 129	246 202	52 073	3.0
Far North (QLD)*	224 163	269 650	45 487	2.3
Northern (QLD)*	190 266	227 340	37 074	2.3
Mackay (QLD)*	137 539	172 735	35 196	2.9
Canberra (ACT)	318 939	351 868	32 929	1.2
Fitzroy (QLD)*	181 865	214 393	32 527	2.1
Illawarra (NSW)	399 987	431 160	31 173	0.9
Barwon (VIC)*	254 732	285 096	30 364	1.4
Mid-North Coast (NSW)	280 437	309 588	29 151	1.2
Darling Downs (QLD)*	210 233	238 463	28 231	1.6
Richmond-Tweed (NSW)*	216 489	241 954	25 465	1.4
Australia	19 413 240	21 955 256	2 542 016	1.6

Note: Asterisks (*) denote SDs that also appear in the top twenty by average annual growth between 2001 and 2009.
Source: ABS (2010b).

Table 4 shows the 20 fastest growing Australian SDs in terms of rates of average annual growth (expressed as an average annual percentage) and their estimated resident population change between 2001 and 2009. Looking at the percentage change in population growth produces a different picture to that shown in Table 3, although the dominance of south-east Queensland is still clear. Most of the faster population growth rate regions were smaller regional coastal cities (many of which were adjacent to major capital cities) with growth often outstripping population growth in the nearby capital city.

The Gold Coast, Sunshine Coast, Wide Bay-Burnett and West Moreton SDs in south-east Queensland all had higher relative growth than Brisbane. Similarly, Outer Adelaide grew relatively more quickly than Adelaide, and South Eastern New South Wales (including the city of Queanbeyan) grew faster than neighbouring Canberra. This is consistent with other studies of population growth in major cities, where fringe growth generally outstrips infill and increased density in established areas.

Other SDs adjacent to capital cities also grew quickly, though not as quickly as the capital cities themselves. These included the Darling Downs in south-east Queensland, the Richmond-Tweed region in New South Wales (close to Brisbane) and Barwon outside Melbourne.

A number of other SDs that grew strongly along the coast of Queensland included the Far North, Northern Queensland, Fitzroy and Mackay SDs. The Pilbara SD (WA) grew strongly in percentage terms but this represented only a small absolute increase in population.

T 4 Top 20 regional population growth by annual average percentage, by Statistical Division, 2001 to 2009

Statistical Division	Estimated resident population 2001	Estimated resident population 2009	Population growth	Average annual growth (per cent)
Gold Coast (QLD)*	432 478	571 447	138 969	3.5
Sunshine Coast (QLD)*	247 167	323 423	76 256	3.4
South West (WA)*	194 129	246 202	52 073	3.0
Mackay (QLD)*	137 539	172 735	35 196	2.9
Wide Bay-Burnett (QLD)*	236 492	293 462	56 970	2.7
West Moreton (QLD)	65 765	80 210	14 445	2.5
Brisbane (QLD)*	1 629 195	1 962 422	333 226	2.4
Pilbara (WA)	39 461	47 528	8 067	2.4
Far North (QLD)*	224 163	269 650	45 487	2.3
Outer Adelaide (SA)	113 992	136 623	22 631	2.3
Northern (QLD)*	190 266	227 340	37 074	2.3
Perth (WA)*	1 392 999	1 658 989	265 990	2.2
Fitzroy (QLD)*	181 865	214 393	32 527	2.1
Darwin (NT)	106 842	124 760	17 918	2.0
Melbourne (VIC)*	3 471 625	3 995 537	523 912	1.8
Darling Downs (QLD)*	210 233	238 463	28 231	1.6
South Eastern (NSW)	193 062	216 593	23 531	1.4
Barwon (VIC)*	254 732	285 096	30 364	1.4
Richmond-Tweed (NSW)*	216 489	241 954	25 465	1.4
Northern Territory–Balance (NT)	90 926	101 178	10 252	1.3
Australia	19 413 240	21 955 256	2 542 016	1.6

Note: Asterisks (*) denote SDs that also appear in the top twenty by absolute population growth between 2001 and 2009.

Source: ABS (2010b).

Population declines

Eight Statistical Divisions (SDs) experienced a decline in population between 2001 and 2009. These are listed in Table 5. A feature of many of the SDs, is that they are located in more isolated areas of the eastern states. These regions have been affected by a long drought and feature agricultural economies with only a minimal mining sector. This issue is explored further in the discussion of inland regional population growth in Chapter 5.

T 5 Regional population declines, by Statistical Division, 2001 to 2009

Statistical Division	Estimated resident population 2001	Estimated resident population 2009	Population decline	Average annual growth (per cent)
Far West (NSW)	24 403	22 731	–1 672	–0.9
North Western (NSW)	119 796	118 535	–1 261	–0.1
Central West (QLD)	12 497	11 302	–1 195	–1.2
South West (QLD)	27 002	26 277	–725	–0.3
Wimmera (VIC)	51 430	50 878	–552	–0.1
North West (QLD)	34 283	33 979	–304	–0.1
Other Territories	2 584	2 438	–146	–0.7
Australian Capital Territory–Bal (ACT)	378	321	–57	–2.0
Australia	19 413 240	21 955 256	2 542 016	1.6

Source: ABS (2010b).

For more information on population growth and decline in all SDs across Australia between 2001 and 2009, see Appendix Table B7.

High levels of population mobility

At the regional level, population mobility (both domestic and international migration) is an important factor in population growth patterns across Australia (ABS 2009f). Muhidin, Brown and Bell (2007) have highlighted that Australia has one of the highest levels of internal mobility in the world. In fact, 'Australians move house more than any other national population' (Hugo 2010b, p.47). Between 2001 and 2006, 1.9 million Australians moved to a different city or region (ABS 2009f). Much of this internal population flow has been concentrated towards regional cities in coastal areas, so that the population has grown significantly in these areas.

Table 6 presents the net-migration flows by regional classifications between 2001 and 2006. The migration data is based on the 2006 census, which asks where respondents were living five years previously. This enables analysis of migration flows at the SLA geographical scale. However, some care should be taken with this data:

- A substantial number of moves are within the same SLA,—for example, a person can change suburbs but remain within the same SLA—and hence will not be counted as having moved over the period.
- An individual could have made numerous moves over the five year period but the Census data only records one move.
- As the population is based on 2006 residents, only in-migration from overseas is reported. Hence, individuals that moved overseas between 2001 and 2006 are excluded from the analysis.
- The data is based on the known location of residents in 2001 and 2006, however, a substantial proportion (around 35 per cent based on SDs) of respondents reported an unknown location for 2001; as such the number of moves is underreported.
- Births and deaths are not accounted for in the matrix as persons deceased during the five year period do not appear. Similarly, children less than five are ignored.

The matrix presented in Table 6 illustrates the strong flow of people towards both coastal city and coastal country locations between 2001 and 2006. The population of coastal cities increased by over 182 000 persons and the population of coastal country areas increased by over 57 000 persons, between 2001 and 2006, as a result of domestic and international migration. This movement of people to coastal areas is a longstanding trend in internal migration patterns within Australia (ABS 2009f). Many coastal regions in Australia have experienced high levels of population growth as a result of positive net migration, such that 81.1 per cent of Australians now live within 50 kilometres of the coast (Hugo 2010a).

Capital cities are of central importance to migration flows within Australia—both with respect to an ongoing drift of regional Australians to capital cities (particularly young people), and a flow of ex-urban migrants to regional Australia. The latter flow has been concentrated toward coastal areas and selected high amenity or peri-urban rural areas. Overseas arrivals accounted for over 677 000 additional residents in capital cities between 2001 and 2006, illustrating the overwhelming trend of international arrivals locating in capital cities. The great majority of Australia's overseas born immigrants (80.6 per cent) lived in Australian capital cities in 2006

and that this was particularly the case for people who arrived between 2001 and 2006 (83.6 per cent) (Hugo 2010a).

T 6 Net migration flow matrix by regional classification, 2001 to 2006

Regional classification	Overseas	Remote	Capital cities	Inland country	Inland cities	Coastal country	Coastal cities	Total
				Origin in 2001				
Destination in 2006								
Coastal cities	79 655	8 777	55 776	12 948	7 693	18 014		182 863
Coastal country	21 479	5 453	41 614	5 833	948		–18 014	57 313
Inland cities	14 170	2 369	–3 873	18 956		–948	–7 693	22 981
Inland country	16 592	3 464	17 709		–18 956	–5 833	–12 948	28
Capital cities	677 529	7 659		–17 709	3 873	–41 614	–55 776	573 962
Remote	8 376		–7 659	–3 464	–2 369	–5 453	–8 777	–19 346

Notes: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

It is important to note however, that the great majority of relocations which occurred between 2001 and 2006 were within regions or cities, rather than between them. Of the 6.6 million Australians (more than a third of the population) who moved between 2001 and 2006, 71 per cent relocated within their own city or region (ABS 2009f).

Summary

Australia's population as of June 2009 was just under 22 million people, an increase of over 2.5 million people since 2001, at an average annual growth rate of 1.6 per cent. International migration was the largest component of population growth in 2009. In fact, since 2006, international migration has contributed approximately 63 per cent of total population growth, whilst natural growth accounted for approximately 37 per cent. The distribution of population growth has been uneven with the largest increases in population occurring in capital cities and coastal areas.

In terms of internal migration patterns, Australia has one of the highest levels of internal migration in the world. Capital cities are of central importance to migration flows within Australia.

The opening chapter has outlined some of the broader trends, such as the components of population growth, the distribution of population growth and the mobility of Australia's population. The remainder of this report provides a discussion of some of the known drivers of population settlement patterns and migration in Australia, and worldwide. The report then separately considers, in more detail, general trends in population growth and migration patterns for each of the major regional areas. This is followed by a consideration into Australia's future population patterns and a discussion of the overarching trends revealed in the analysis.

CHAPTER 2

Drivers of population growth and movement

Key points

- Population settlement patterns continuously evolve. Many drivers influence them such as the economy, the environment and consumer preferences.
- Australians have shown a strong preference for residing in coastal locations, urban areas and high amenity regional locations. These preferences reflect both lifestyle and life stage changes.
- Economic drivers influence settlement patterns and migration flows because of factors such as (un)employment, economic restructuring and resource endowment.
- Decentralisation of population and/or employment has been a policy instrument utilised by governments to actively influence settlement patterns.
- Australia is one of the most urbanised countries in the world and its settlement structure can be described as 'metropolitan primacy'.[10]
- Urbanisation has been a long standing historical trend for Australia, with metropolitan areas being a major destination for people.
- Urbanisation is not only a capital city phenomenon. Urban population growth is also occurring in peri-urban areas around major centres, along the coast and in large regional centres.
- The movement of young people out of rural areas and into urban locations seeking educational and employment opportunities is an enduring trend in Australia. However, while younger people tend to move towards large urban areas, many older people move to regional areas.

Introduction

Many drivers such as the economy, the environment, technology, consumer preferences and world events shape the settlement and migration patterns of individuals. Hence, population settlement patterns can never be viewed in isolation.

10 Metropolitan primacy is an urban structure in which the largest cities–in the Australian case, the state capitals–are very much larger than the next biggest centre in the state.

Natural population increase is an important contributor to population change. Australia's fertility rate in 2009 was 1.90 children per woman, which is high when compared to rates over the previous thirty years (ABS 2010f). Tasmania recorded the highest fertility rate in 2009 with 2.18 children per woman while the lowest was in the Australian Capital Territory with 1.74 (ABS 2010f). Age-specific fertility rates have also changed with fertility amongst younger women declining. The ABS (2010f, p.11) reports a 'shift in the peak fertility rates, from women aged 25–29 years in 1999 to women aged 30–34 years in 2000' and this trend has continued'.

Births are only part of the picture. Deaths have been steadily increasing over time with the larger population, as reflected in an increase in the absolute number of deaths. That said, the mortality rates have declined overall over the past twenty years to be 6.4 deaths per 1000 people in 2009 (ABS 2010g). This is indicative of increasing life expectancy (ABS 2010g). Currently, life expectancy at birth for Australian males is 79.3 years and 83.9 years for females (ABS 2010g).

Comparing the births and deaths in 2009, shows roughly twice as many births as deaths for that year. There is currently a relatively large proportion of women in the population of childbearing age contributing to the high number of births (ABS 2010f). Nevertheless as the population ages the difference between the number of births and deaths will decline (ABS 2010f). This is important to future population growth because changes in fertility rates and mortality rates results in significantly different natural increases in the population.[11]

Spatially, the relative contribution natural increase makes to population varies between capital cities and the balance of states. The ABS (2008d) population projections by component for 2009 reveals that for the cities of Sydney, Melbourne and Brisbane natural increase contributes more to the population growth than in the balance of the respective states (despite similar fertility rates). For example, in Sydney the share of natural increase in population growth is 65 per cent, compared to only 33 per cent in the balance of NSW. Conversely, in Perth, Hobart and Darwin natural increase contributes less to the population growth than for the balance of their respective states. In the case of the Northern Territory, the natural increase contribution to population growth outside Darwin is 115 per cent. Adelaide and the balance of South Australia were almost identical at 45 and 44 per cent respectively.

The other component of national population change is international migration. International migration has been a strong contributor towards Australia's recent population growth. For example, between 2006 and 2009, international migration accounted for approximately 63 per cent of population growth, whilst natural growth accounted for approximately 37 per cent (ABS 2010a).[12] Hugo (2004) has highlighted that international migration and the drivers behind it have changed. He identifies:

- 'the internationalisation of labour markets which has meant that many people now have knowledge of, and compete for, jobs in many countries;
- universalisation of education in most countries;
- reduction of time and travel costs between countries; and
- widening gaps in economic well-being between less developed and more developed nations' (Hugo 2004).

11 For further information refer to ABS (2008d).
12 The increase in net overseas migration is also partly driven by the change in the ABS's methodology to estimate net overseas migration on a '12/16 month rule' since 2006 (ABS 2010a).

To determine the overall impact on the regions within Australia, it is important to consider regional natural increase, where international migrants first settle and the impact of interregional migration within Australia. All these contribute to change in Australia's settlement patterns.

Bell (1995) has identified four main phases of internal migration since colonisation in 1788 that have shaped Australia's settlement patterns (cited in Kijas 2002). The first phase was the progress of people around Australia following gold rushes and agricultural projects. The second phase covered the interwar years with higher rates of rural to urban migration. The third phase dealt with the period between the Second World War to the late 1960s and was based on the development of manufacturing and a mineral boom. The fourth phase extends from the 1970s to the present, dealing with the emergence of counter-urbanisation and the structural changes of moving from manufacturing towards service industries.

The movement of people and the structure of a country's settlement pattern is complex and has been the subject of extensive investigation overtime. In 1885, Ravenstein wrote *The Laws of Migration* presenting an attempt to analyse the movement of people in terms of economic regional disparities. From this beginning a number of academic disciplines have proposed different concepts, theories and methodologies to explain the migration phenomenon.

No theoretical structure provides a complete explanation for population movement. However, many interacting forces are influencing where development and population growth occurs. The following is a brief outline of only some of the longstanding drivers such as urbanisation, age related migration, lifestyle migration, economic restructuring and government policies.

Urbanisation

Australia is one of the world's most urbanised populations (Hugo 2010a). Australia's settlement structure can be described as 'metropolitan primacy' (CSIRO 2001). This is where the largest cities—in the Australian case, the state capitals—are very much larger than the next biggest centre in the state.

The urbanisation of Australia has been a historical trend with metropolitan areas being the major destination for the population. For example, in 1906 around 36 per cent of people lived in capital cities but this had risen to 63 per cent in the 1970s and has since stabilised around this level (ABS 2010a). Although pronounced in Australia, this is a worldwide phenomenon. The proportion of people living in urban areas globally has risen from 29 per cent in 1950 to 50 per cent in 2010 and is projected to grow to 69 per cent by 2050 (United Nations 2009).

Urbanisation provides a range of advantages that are attractive to both businesses and people. For example, economies of scale (greater specialisation from workers and firms; more competitive pressure), sharing of local inputs, knowledge spillovers and labour pooling provide advantages that promote the concentration of human activity. There are, of course, disadvantages to cities such as congestion and higher costs of some factors of production, particularly land.

Urbanisation is not only a capital city phenomenon with population growth occurring in peri-urban areas around major centres, along the coast and in regional centres. For example, outer urban growth and encroachment into adjacent regions has also spurred the growth of peri-urban townships. The peri-urban regions within easy commuting distance to major centres

enjoy the benefits of the greater quality and range of services often available in metropolitan areas combined with a country lifestyle. Buxton et al (2006, p.3) provide one explanation for peri-urban growth suggesting that 'it expresses the preferences of individual decision makers for rural small town life'.

Another form of urban growth is the 'sponge city' effect, where large regional centres appear to absorb the surrounding population perhaps because of the greater range of available services and greater economic opportunities. However, this term and the raw population changes can hide much complexity.

As will be highlighted in the report later, cities such as Dubbo and Wagga Wagga, for example, have gained people at least partially, at the expense of those hinterland regions (see further discussion in Chapter 5). Tables 7 and 8 below show the flipside of this phenomenon, focussing on what has happened to the estimated resident population of those outlying rural communities between 2001 and 2009. The tables reveal that many (though not all) of the townships and districts with populations of less than 10 000 declined in the regions surrounding Dubbo and Wagga Wagga. Particularly affected were some of the communities relatively remote from large population centres and suffering from the consequences of severe drought and largely dependent on the agricultural sector. It should be noted however, that some of the small communities surrounding these cities increased in size. Factors that may have contributed to population growth in small communities include increased willingness to commute to work from small towns outside regional cities, 'tree change' migration or the growth of new industries or employment sectors in these small communities.

T 7 Population decline in small rural communities surrounding the city of Dubbo, 2001 to 2009

Statistical Local Area	Estimated resident population 2001	Estimated resident population 2009	Population change 2001 to 2009	Population change 2001 to 2009 (per cent)
Dubbo–Part (Pt) A (includes City of Dubbo)	35 191	37 491	2 300	6.5
Dubbo–Pt B	3 563	3 720	157	4.4
Mid–Western Regional–Pt A	18 513	19 112	599	3.2
Wellington	8 801	8 904	103	1.2
Cobar	5 182	5 166	–16	–0.3
Gilgandra	4 799	4 669	–130	–2.7
Narromine	7 117	6 818	–299	–4.2
Warrumbungle Shire	10 849	10 323	–526	–4.8
Bogan	3 181	3 003	–178	–5.6
Coonamble	4 836	4 306	–530	–11.0
Brewarrina	2 165	1 911	–254	–11.7
Walgett	8 328	7 209	–1 119	–13.4
Warren	3 320	2 833	–487	–14.7
Bourke	3 951	3 070	–881	–22.3

Note: The table above shows population change for all Statistical Local Areas in the Statistical Division of Northern Western (NSW).

Source: ABS (2010b).

T 8 Population decline in small rural communities surrounding the city of Wagga Wagga, 2001 to 2009

Statistical Local Area	Estimated resident population 2001	Estimated resident population 2009	Population change 2001 to 2009	Population change 2001 to 2009 (per cent)
Wagga Wagga–Pt A (includes City of Wagga Wagga)	52 120	58 046	5 926	11.4
Wagga Wagga–Pt B	4 602	4 858	256	5.6
Junee	5 905	6 283	378	6.4
Griffith	24 604	25 703	1 099	4.5
Coolamon	4 122	4 219	97	2.4
Gundagai	3 792	3 870	78	2.1
Cootamundra	7 695	7 703	8	0.1
Leeton	11 925	11 906	–19	–0.2
Tumut Shire	11 470	11 396	–74	–0.6
Temora	6 337	6 158	–179	–2.8
Murrumbidgee	2 662	2 556	–106	–4.0
Hay	3 599	3 370	–229	–6.4
Narrandera	6 739	6 262	–477	–7.1
Lockhart	3 578	3 299	–279	–7.8
Carrathool	3 316	2 964	–352	–10.6

Note: The table above shows population change for all Statistical Local Areas in the Statistical Division of Murrumbidgee (NSW).

Source: ABS (2010b).

Another phenomenon impacting on rural areas is welfare-led migration, which can slow population decline, but serve to reinforce social and economic disadvantage already faced in these communities. Buxton et al (2006, p.3) have also characterised low income people moving to the urban fringe as 'forced relocators'. It was during the 1980s and 1990s, researchers began to recognise that welfare recipients were an important part of the 'counter urbanisation' turnaround, which saw a partial reversal of rural to urban migration in Australia, as people began moving from capital cities back out to regional areas[13] (Hugo and Bell 1998). Counter-urbanisation did not in itself slow the loss of population in many inland areas, but it has increasingly concentrated populations into high amenity country coastal areas, river locations and peri-urban locations (Kijas 2002).

For much of the 1980s and 1990s, significant numbers of aged pensioners, sole parent pensioners and unemployed people began moving into coastal communities which had previously been affected by economic downturn—largely to take advantage of cheaper housing and lower costs of living in these places (Hugo and Bell 1998). As low income earners, these people were finding it harder and harder to make ends meet in the more expensive urban regions of the country (Hugo and Bell 1998).

While housing stress is more likely to be found in metropolitan areas, and low income earners are still moving to non-metropolitan areas, in more recent times housing affordability has also been declining in non-metropolitan urban and coastal Australia (Costello 2009). An increase in demand from urban residents for coastal holiday homes, and an influx of relatively affluent urban sea changers (compared with local populations) into coastal towns, has begun to push housing and rental prices beyond the reach of low income earners who may previously have

13 Counter-urbanisation in this context refers to the movement of people from 'metropolitan areas' towards 'non-metropolitan areas' regardless whether the non-metropolitan location is urban.

moved during the 1980s and 1990s. These new internal migration trends have also pushed housing prices beyond the reach of long-term locals, making it difficult to slow the outward migration of young people from these areas (Victorian Department of Planning and Community Development (DPCD) 2008a). In Victoria, for example, approximately 80 per cent of coastal towns had higher increases in housing prices than the Victorian average between 1990 and 2006. In the coastal region of Bass Coast Shire, an increase in second home ownership has helped generate a fivefold increase in house price's during the decade prior to 2006 (DPCD 2008a). Costello (2009) has argued it is not only in coastal areas that these effects are being felt. Rural 'tree change' migration of relatively wealthy early retirees into high amenity rural areas, along with new pressures created by an influx of urban commuters living in peri-urban communities, is also beginning to have the same effect on housing and rental prices in rural areas.

Budge (2005) points out that welfare recipients are now forced to look for regions and areas that are in decline and 'left behind', being too distant from the influence of metropolitan areas to attract the likes of tree changers and sea changers. Meanwhile, some of the people who already live in these declining townships find themselves 'trapped' in their own houses and businesses because the resale value is insufficient for them to move to more sought after areas. The available housing stock does not relate to current needs, and is unlikely to, because there is little new stock being built and the population profile is ageing rapidly.

In agricultural areas like these with declining town populations, many small towns have lost their original economic function as jobs and services have shifted to regional centres. In these places, difficult decisions are being made about which services to keep, and what future public infrastructure investment will be made (Budge 2005). This could make life increasingly difficult for people from disadvantaged socioeconomic backgrounds living there because they may not have access to private transport, for example.

Age related migration

Many Australians move repeatedly throughout their lives. Using data current up until 1996, Bell and Hugo (2000) found that Australian males and females will, on average, move 11.1 times and 11.5 times respectively. Age is a major determinant of this propensity to migrate. Investigations into the age profile of migrants reveal distinctive patterns of larger migration rates for young and older persons in their life stage. The age effect of migration for the young occurs because migration is an investment whether through education, entering the job market or a change in family status, which principally occurs among adolescents and young adults, compared to the total population.

The movement of young people out of rural areas and into urban locations is a longstanding trend in Australia. Most of this movement during the second half of the twentieth century was into capital cities (ABS 2003a). Table 9 presents the gross migration flows between capital cities and non-metropolitan locations from 2001 to 2006. For persons aged between 15 and 24 years the overwhelming flow is towards capital cities, with more than twice as many persons moving to capital cities than the number in the opposite direction. However, flows of older migrants from capital cities to non-metropolitan areas outweigh the younger cohorts drift towards capital cities.

T 9 Migration flows from and to capital cities and non-metropolitan areas by age bracket, from 2001 to 2006

Age bracket	Non-metropolitan to capital city	Capital city to non-metropolitan
0 to 14 years	52 694	79 248
15 to 24 years	122 932	60 765
25 to 34 years	86 273	107 794
35 to 54 years	99 958	160 365
55 to 64 years	28 812	68 847
over 65 years	30 400	47 652

Notes: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

The ABS (2009f) completed an analysis of age related migration for new residents who moved to high population growth regions (particularly capital cities) between 2001 and 2006, and found that migrants were on average younger than the Australian population as a whole, and younger than the people who already lived in those regions. More than 40 per cent of people who moved into high growth regions between 2001 and 2006 were aged between 20 and 39 years. By comparison, less than 9 per cent of new residents moving to high growth regions, such as capital cities, were aged 65 years and older, compared with 15 per cent of people already living in those regions (ABS 2009f).

Rural Australia has been losing young people to urban centres. Rural areas that young people migrate from usually experience increasingly older age profiles (ABS 2003a). Declining key industries and the withdrawal of services associated with population decline can in turn make living in rural areas even less attractive to young people (ABS 2003a).

As Barr (2002) points out, part of the youth exodus is related to the lessening attractiveness of agriculture as a career for younger rural Australians. He refers to the decreasing entry of younger persons into agriculture and a continued lowering of entry scores for tertiary agricultural courses as evidence of this trend (Barr 2002). Barr (2002) argues that regardless of fluctuations in agricultural commodity prices, lifestyle and cultural influences also impact on young people's decisions. 'Many rural young aspire to the urban cosmopolitan life. It's where the jobs, concerts, friends and fun will be' (Barr 2002, p.40).

However, while younger people tend to move to urban areas, many older people move away from these areas (ABS 2009e). Table 9 illustrates the flow of older persons from the capital cities towards non-metropolitan locations. A great majority of those non-metropolitan locations are coastal locations which make up 52 per cent of new residents aged over 55.[14]

An explanation for the age effect on persons over 65 years centres around an amenity driven focus, as retirees are less concerned with wage differentials. Attractive regions for retirees are areas with amenities such as mild weather, coastal contact, low crime rates and a high concentration of other older people. Another element of the migration of older people is increasing affluence; enabling a growing number of individuals to live in the rural or small-town environment they prefer (Bell and Hugo 2000). Murphy and Burley (1996) describe these people as ex-urbanites, who are generally more affluent and for whom amenity considerations are more prominent than housing costs, which leads into lifestyle preferences. The pattern of

14 This calculation is based only on internal migration.

coastal population growth is predicted to continue as Gurran et al (2006, p.1) points out one factor could be the 'imminent retirement of the "baby boomer" generation, and thus a sizeable new market for high amenity retirement destinations'. However, this pattern is not immutable, and as previously highlighted, increasing housing prices could slow or restrict migration options.

Lifestyle and consumer preferences

Australians have shown a preference for coastal living, urban areas and high amenity regional locations. These preferences can be driven by both lifestyle and life stage changes as highlighted in the previous discussion.

The amenity endowment of a location that influences the settlement patterns of individuals can be divided into three groups. These amenities include physical, service and social and are used as proxies for the benefits and costs of a location. A discussion of the three amenity types is below.

1. Physical amenities are the infrastructure and environmental features of a region that can impact on lifestyle. A physical amenity entails attributes such as climate, clean air, transport and landscape. For example, the attractiveness of the weather can have a strong effect on the decision to migrate. Wilson (1996) found that warm summers and mild winters were significant forces on the migration patterns for Australians.
2. Services amenities relate to the availability of goods and services in a region, such as medical, educational and financial facilities. Studies of the role of service amenities have found them to be significant in migrants' decision to move. As highlighted earlier, the provision of services in small and remote locations may be difficult to maintain with a declining population.
3. Social amenities refer to the demographic and personal characteristics of residents in a region. For example, the composition of age cohorts in regions can influence the migration decision. Retired migrants move towards regions with existing large concentrations of older people (Duncombe et al 2001). Newbold (1996, p. 559) claims that a large elderly population share attracts older migrants 'given the greater availability of services available to the elderly'. However, the concentration of the elderly within regions can also occur through ageing.

Economic drivers

Economic drivers influence settlement patterns and migration flows. Below are just some of the factors that can influence the location of settlements and drive individual decision makers to relocate.

Human capital

A relationship exists between human capital and migration. The basic human capital model position is that individuals invest in personal education in order to increase their skills (Human Capital), to maximise their expected utility later.

There are a number of hypotheses for the positive relationship between education and migration.[15] First, white collar workers receive higher revenue returns, enabling a greater capacity to cover costs of moving. Second, educated people have greater information about the opportunities through social networks and the ability to respond to prospects. Finally, some highly skilled professions involve moves between capital cities only, because demand for specialised skills is not concentrated in regions.

Unemployment/employment

Unemployment can influence an individual's decision to migrate to enhance economic opportunities. The phenomenon of the unemployed having higher migration rates is present in a number of studies. This hypothesis states that the unemployed are more sensitive to the labour market than the employed (Fields 1976). Still, not all literature supports the hypothesis of unemployed persons having higher migration rates, particularly for countries other than the United States (Van Dijk et al 1989; Pissarides and Wadsworth 1989). The differences in empirical outcomes on the propensity of migration for the unemployed could relate to other factors affecting the migration decision. Goss and Schoening (1985) state that migration declines for each period a persons' unemployment increases. The ability to migrate is a function of household assets; people unemployed for extensive periods may not be able to finance a move.

The movement of unemployment is also an adjustment mechanism for the economy as people can move towards locations that are experiencing labour shortages such as the resources and agricultural industries. In terms of labour mobility as an adjustment mechanism in Australia, Debelle and Vickery (1999, p. 259) concluded that 'most migration takes place, on average, within four years and the process of adjustment is completed after seven years', illustrating a long adjustment period.

Economic restructuring

Over many decades, rural areas have experienced a loss of people to cities and larger regional centres, linked with locational disadvantage resulting from global economic forces, economic restructuring (particularly in agriculture) and government policy shifts (Costello 2009). Drought, redistribution of irrigation supplies, changing commodity prices, productivity improvements, the contraction of agricultural labour demand, and changes in the size of farm holdings have all had a direct bearing on the population of agriculture dependent communities (BITRE 2010a). Public and private sector withdrawal of facilities and services from these rural and remote communities has often been justified by population decline there, but the withdrawal of services can in itself further exacerbate population decline (Costello 2009, p. 221).

In Victoria, for example, the only town type to consistently lose population between 1981 and 2006 was inland dry land farming towns (Victorian Department of Planning and Community Development (DPCD) 2008b). This was associated with trends such as the contraction of agricultural labour demand, and the out-migration of youth (DPCD 2008b). The most significant declines occurred in townships with populations of around one to two thousand persons, which suffered job losses in the agricultural industry, and the flow-on effects of job losses in

15 For example, Flood et al., 1991.

other sectors of the labour market associated with the withdrawal of services, such as banking, government administration and education (DPCD 2008b).

A range of other agriculturally dependent Statistical Local Areas have declined, such as Bourke, Brewarrina and Walgett in north-western New South Wales, along with places such as Winton and Blackall in central west Queensland, which were traditionally wool growing regions. Wheat and sheep growing communities in the Upper and Lower Great Southern Statistical Divisions (SDs) of Western Australia, and the Wimmera and Mallee SDs of Victoria are further examples of population decline associated with agricultural change.

Resource endowment

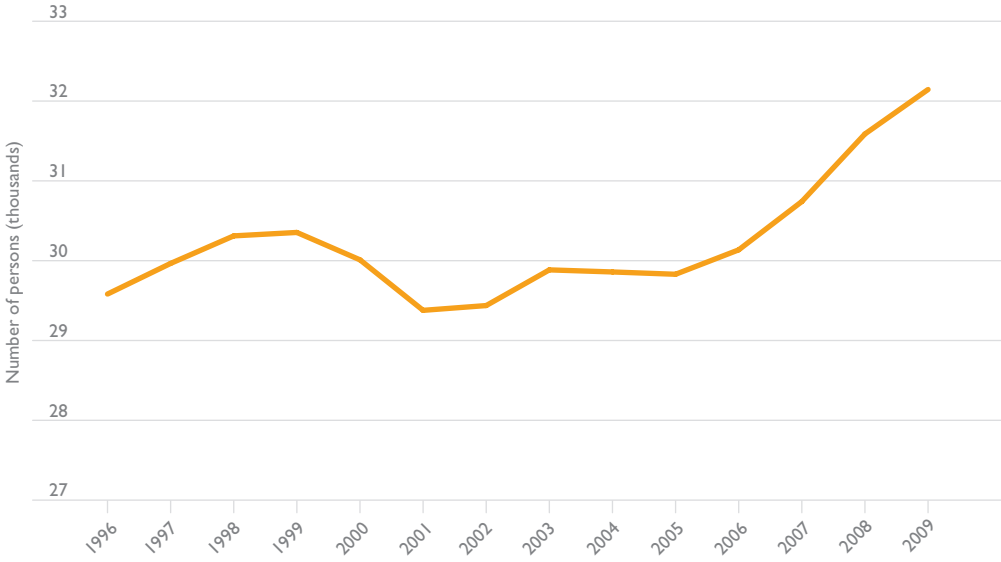
A main driver for the development of settlements has been the location of water—it is a fundamental resource. It has and will continue to place restrictions on the distribution of towns that have grown up along rivers and locations with effective rainfall. However, '[w]ater shortages and the longer-term security of water supply are serious concerns for Australia' (AG 2010). Water is essential for households, the environment and businesses and the management of water supply will be an important driver in the future sustainability of the population and economic prosperity of regions. For example, the Murray Darling Basin Authority (MDBA) states that water reforms are seen as a way 'to strike a long-term balance between meeting the needs of the environment and those of a growing economy and population' (MDBA 2010, p.xiv).

Another aspect of resource endowment driving population patterns that is particularly pertinent in Australia, is the current resource boom. Mining areas such as the Pilbara and the Bowen Basin are experiencing strong population growth.

An interesting aspect of this population growth is that it may not continue after the resource boom because of the volatile nature of this sector. 'In the past, resources activity has been typified by boom and bust cycles' (NRSET 2010, p.1). Hence, the fly-in fly-out option has grown as a way for individuals to mitigate risks and retain amenity levels (for example a child's education), and has also provided a method for mining companies to access a wider labour pool.

In the south-east of Western Australia, the city of Kalgoorlie-Boulder grew in association with gold mining activity between 2001 and 2009 (from 29 383 to 32 150 persons, an increase of 9.4 per cent). While Figure 5 shows a population increase for Kalgoorlie-Boulder over this period, it also illustrates a boom and bust cycle. Gold exploration expenditure halved in 2001 from its peak in 1996–97, which is reflected in the population decline during the same period. In contrast, mining is currently experiencing a boom and Kalgoorlie-Boulder's population has grown strongly, especially recently. Since 2005 the population has increased 7.8 per cent to 2009 (representing 82 per cent of the total increase between 2001 and 2009).

F 5 Population of Kalgoorlie/Boulder, 1996 to 2009



Source: ABS (2010b).

In the past, mining companies typically built small townships near mine sites for workers and their families to live in, and encouraged people to move to these townships, but this has become less and less common. Today, many mining workers live in Perth, travel to the mine site by plane or car on their own, and stay in pre-fabricated single workers quarters whilst they are on shift. Workers might alternate between 2 or 3 weeks on shift at the mine, and 1 or 2 weeks off shift back in Perth, depending on the shift arrangements of the different companies for whom they work. As will be highlighted in Chapter 6, in Perth only 4 per cent of the population worked directly in the mining industry but of these individuals 72 per cent worked outside of Perth (ABS 2008b). This is supported by a recent BITRE (2010d) study on Perth's working zone residents, which found that about 3 per cent worked outside the region in 2006. This amounts to 23 717 employed persons. The five largest destinations were all mining regions operating on a fly-in fly-out or drive-in drive-out basis such as Laverton, Leonora & Menzies (2257 commuters), East Pilbara (1756 commuters), Ashburton (1525 commuters), Roebourne (1036 commuters) and Wiluna (918 commuters) (BITRE 2010d).

However, while economic growth associated with the resources boom has brought population growth in some remote areas it has also declined in others. This could be due to mines in the area coming to the end of their working lives, falls in commodity prices or there are more easily accessible larger centres nearby. For example, 'close' to Kalgoorlie-Boulder are the much smaller communities of Laverton and Leonora. These towns experienced significant population falls, despite the existence of large gold mines nearby. In fact, the population of Laverton Shire (the township of Laverton and surrounds) and Leonora Shire (the townships of Leonora, Leinster and surrounds) both declined, by 36.8 per cent and 16.6 per cent respectively, between 2001 and 2009.[16]

16 An illustration of the dramatic changing fortunes that mining operations can have on a town is provided in Chapter 6 for the township of Ravensthorpe in Western Australia.

Broken Hill in New South Wales is another example. Broken Hill was founded and grew due to mining of rich deposits of lead, zinc and silver. Whilst mining continues today, some deposits have been depleted, so resources are not being extracted at the same rate. The estimated resident population of the Statistical Local Area of Broken Hill declined from 21 098 to 19 960 persons (a 5.4 per cent change) between 2001 and 2009.

Direct government policies

Decentralisation of either population or employment has been a policy instrument utilised to actively influence settlement patterns. The clearest example is the formation of the nation's capital in Canberra. In fact, the building of the national capital is outlined under section 125 of the Constitution, which reads:

> 'The seat of Government of the Commonwealth shall be determined by the Parliament, and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.
>
> Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor. The Parliament shall sit at Melbourne until it meet at the seat of Government.' (Australian Constitution 1901).

The Commonwealth took control of the Australian Capital Territory in 1911. At that time, the terrain of the new capital was almost devoid of trees due to the harsh climate and pastoral activities and had a population of only 1714 people (ABS 1988). Almost a hundred years later the Territory has grown to a population of 352 200 people. A brief discussion on Canberra's development is provided in Box 1.

Box 1 Canberra

Canberra was designed by Walter Burley Griffin and Marion Mahony Griffin to have parks, boulevards, public building and monuments. The plan was chosen after an international competition to design the nation's new capital. The city developed slowly, especially due to the Great Depression and World War II. It was not until the 1950s, with intervention by the Prime Minister that 'an active and political interest in the development of a planned Federal Capital re-emerged' and the National Capital Development Commission (NCDC) was established (National Capital Authority 2010). In fact, in order to give impetus to the development 'the Federal Government committed to a program of transferring public servants to Canberra, mainly from Melbourne' and the building of infrastructure (National Capital Authority 2010). The development of the city illustrates the substantial commitment and concentrated effort by government that is required to make a difference in the growth of a city.

A number of other government programs have been implemented to encourage migration to rural areas, such as the soldier settlement schemes—e.g. expansion of the Loxton Irrigation Area in South Australia after World War II (SLSA n.d.p)—and the British migrant schemes that involved providing land to migrants and returning soldiers. Frost (1998) states that these schemes simply did not work and provides five reasons for their failure. First, some of the soldiers returning from war were physically incapable of doing the labour. Second, the migrants

from Britain did not have enough knowledge of Australian conditions to make a success of farming. Third, a drought occurred in the late 1920s. Fourth, the prices of primary products crashed on the world market and, finally, many did not have the capital backing needed to set up a new farm. Thus, many people were forced to walk away from the land and migrate to the cities.

One of the most cited examples of federal government entering into this policy space is through the formation of the Department of Urban and Regional Development during the Whitlam years of government. The government pursued a policy of population decentralisation by promoting a number of designated growth centres, as well as urban renewal projects in existing large cities. Wilson (1978) (cited in BTRE 2003) estimated that from 1973–74 to 1975–76 around $564 million dollars (equivalent to $3.2 billion in 2009–10 dollars) was committed to this policy. The growth centres were allocated $140 million ($801 million in 2009–10 dollars) of which Albury-Wodonga received over half the available funds.

The aim was to assist growth centres reach a critical self-sustaining size, after which it was expected continued funding support would not be necessary. The experience in Albury-Wodonga illustrates a number of the problems with decentralisation. The program began with unrealistic expectations. The initial population target was for 300 000 people by 2000 from a base of 37 931 residents in 1971 (ABS 2008b). This target was revised down over time to be 150 000 people by the turn of the century, which the city still has not achieved (the population of the Albury-Wodonga Statistical District as at June 2009 was 104 609 persons).

Moreover, while some increase in population occurred, it was greatly offset by wider exogenous changes in the economy, underscoring the difficulty of achieving growth using public sector intervention. The fall in manufacturing employment during this period made it difficult for regional areas to attract such business activity when major cities themselves were attempting to retain employment.

State governments have also introduced decentralisation policies. BTRE (2003) outlines the main policy instruments that have been implemented to promote decentralisation, primarily through the provision of positive incentives. These included:

- 'low cost loans and loan guarantees;
- subsidies on industrial land and buildings;
- streamlining of approval and regulatory processes; and
- subsidies for reducing utility and other operating costs' (BTRE 2003, p23).

The overall conclusion was that '[s]tate location based incentive programmes designed to turn around urbanised population distribution trends were not generally successful' (BTRE 2003, p. 23). The factors listed that contributed to the unsuccessful outcome was the relatively thin spread of funding and 'competition between the states for investment in the large capital centres that discouraged more regulatory regional based approaches at the risk of losing investment to other state capitals' BTRE 2003, p. 23).

Nonetheless, governments continue to pursue decentralisation strategies with varying degrees of success. For example, the relocation of the NSW Attorney General's Department from Sydney to Parramatta and the Victorian Government transfer of the Traffic Accident Commission (TAC) from Melbourne to Geelong (Ward 2007). In the case of the TAC, a feasibility report into the move recognised substantial economic benefits for Geelong but that

this 'would be offset by losses in Melbourne' (PricewaterhouseCoopers 2005, p. 22 (cited in Ward 2007)). Moreover, the zero sum game came at a cost with incentives required to induce workers to move.

In cases where governments' have worked with the underlying economic competitiveness of a region, more successful outcomes have been achieved. Townsville is a service hub for northern Queensland that has built on its mineral processing and defence foundations. The BTRE (2003) investigation into Townsville highlighted a number of key development drivers such as long-term cumulative growth, a diverse economy, well developed infrastructure and administration decentralisation.

The conclusion presented in the report (BTRE 2003) was that while government plays an important role, it is not a determining role. However, '[t]he Townsville experience demonstrates positive outcomes from a combination of interventions over a sustained time period designed to build on the region's geographic and traditional strengths' (BTRE 2003, p. 84).

Ultimately, past experience of government interventions into influencing spatial economic activities have been mixed. If the policy is based on unrealistic expectations, without appropriate consideration of the underlying drivers, the diverted resources can impose long-term costs on the economy because of the mis-allocation of resources. Moreover, even when a clear objective and rationale for the program is established, working in concert with the economic competitive advantages of a location, the challenges faced by government are considerable. A range of policy concerns such as the scale of the impact, cost-benefit issues, sustainability of the program and choosing a location (picking a winner) would all have to be addressed.

Summary

The process of population settlement and migration is never static but continuously evolves. This chapter has provided a discussion of some of the drivers for this process such as the economy, the environment and consumer preferences.

Urbanisation has been a longstanding feature of Australia's development, which has been described as having a 'metropolitan primacy' urban structure. However, urbanisation is not only a capital city phenomenon with population growth occurring in peri-urban areas around major centres, along the coast and in large regional centres.

Australians have shown a strong preference for coastal living, urban areas and high amenity regional locations. These preferences can be driven by both lifestyle and life stage changes. While younger people tend to move to urban areas, many older people are moving to regional locations for lifestyle reasons.

Economic drivers also have a strong influence on settlement patterns and migration flows. Drivers include a person's employment opportunities, economic restructuring and resource endowment. Currently, the resources boom is particularly pertinent, with some mining areas such as the Pilbara and the Bowen Basin experiencing strong population growth.

Government intervention in the development of regional locations requires a sustained and coordinated approach. Past experience shows the ability of governments to significantly influence settlement patterns is mixed.

CHAPTER 3
Capital cities

Key points

- Australia's capital cities grew by more than 1.6 million people between 2001 and 2009.
- Melbourne's population has grown by more than other cities in absolute terms, but Brisbane's population has grown fastest in proportionate terms, with an average annual growth rate of 2.4 per cent per annum since 2001.
- The population changes of capital cities are complex and a high degree of 'churn' occurs within these cities. The great majority of relocations were within regions or cities, rather than between them.
- Capital cities do not stand alone but are part of a network of complex migration flows between capital cities themselves and the interaction with regional areas and international arrivals.
- Capital cities are the main entry points for international arrivals to Australia. In 2006, half of all new residents in Australia's capital cities (people who had moved there within the past five years) were international arrivals.
- Almost one fifth of longer-distance domestic migrants to capital cities reported that they relocated primarily to be closer to family and friends already located in their capital city of destination. Lifestyle, environment, employment and services (for example, accessing services for health reasons) also rate highly. In contrast, those residents who relocated within the same capital city reported accommodation needs as the most important factor in relocating.
- The pull of education, employment and lifestyle opportunities in capital cities is a significant driver for young people, who are a particularly mobile cohort in the Australian population.

Introduction

According to ABS population estimates, Australia's capital cities Statistical Divisions (SDs) grew by more than 1.6 million people between 2001 and 2009, at an annual average growth rate of 1.6 per cent, and now comprise 64 per cent of the nation's population. As discussed earlier, Australia's largest capital cities dominated the country's population growth in terms of raw population numbers. The rate of population growth in capital cities has also been increasing recently. Hugo (2010a) points out that the average annual rate of growth of Australia's capital cities has recently increased, from 1.3 per cent between 2001 and 2006, to 2.2 per cent

between 2006 and 2009. That amounts to almost a million people (838 298) being added to capital cities between 2006 and 2009.

Table 10 ranks Australia's capital cities by absolute population growth between 2001 and 2009. It also shows annual average population growth rates for the same period. The table shows that the SD of Melbourne has added the largest number of people to its population, but that Brisbane, Perth and Darwin have been growing at a faster annual average rate. The city of Hobart experienced the smallest population increase and shares Australia's lowest annual average growth rate with Adelaide.

T 10 Population growth in capital cities (by number of people and average annual growth), estimated resident population by Statistical Division, 2001 to 2009

Capital city (statistical division)	Population growth 2001 to 2009	Average annual growth 2001 to 2009 (per cent)
Melbourne (VIC)	523 912	1.8
Sydney (NSW)	376 197	1.1
Brisbane (QLD)	333 226	2.4
Perth (WA)	265 990	2.2
Adelaide (SA)	79 480	0.9
Canberra (ACT)	32 929	1.2
Darwin (NT)	17 918	2.0
Greater Hobart (TAS)	14 737	0.9
All capital cities	1 644 389	1.6

Note: The Statistical Division of Outer Adelaide's annual average growth rate (2.3 per cent) was significantly higher than that of Adelaide (0.9 per cent) between 2001 and 2009. Outer Adelaide includes the local government areas of Barossa, Light, Mallala, Kangaroo Island, Adelaide Hills, Mount Barker, Alexandrina, Victor Harbor and Yankalilla.

Source: ABS (2010b).

Population change 2001 to 2009

Within large capital cities, the majority of population growth has occurred in the outer suburbs (BITRE 2010b). Table 11 presents the top ten Statistical Local Areas (SLAs) (within capital cities) with the highest average annual population growth rate from 2001 to 2009. The Australian Capital Territory is represented in the top three positions reflecting the establishment of new suburbs in the SLAs of Harrison, Gungahlin and Gungahlin-Hall Balance.

T 11 Top ten Statistical Local Areas with the highest population growth rate in the capital cities, 2001 to 2009

Statistical Local Area	Population 2001	Population 2009	Population change (number)	Average annual population growth 2001 to 2009 (per cent)
Harrison (ACT)*	–	2 459	2 459	118
Gungahlin (ACT)*	–	6 411	6 411	75
Gungahlin-Hall–Balance (ACT)*	47	1 038	991	47
Wyndham–South (VIC)*	3 836	25 164	21 328	27
Griffin-Mango Hill (QLD)*	3 103	16 269	13 166	23
Wakerley (QLD)*	1 538	6 706	5 168	20
Lee Point-Leanyer Swamp (NT)	139	566	427	19
Melbourne Southbank-Docklands (VIC)	4 512	17 568	13 056	19
Pallara-Heathwood-Larapinta (QLD)	783	2 706	1 923	17
City–Inner (QLD)	1 021	3 515	2 494	17

Sources: ABS (2010b). Note: Gungahlin and Harrison first had estimated resident populations above zero in 2002. The table shows population percentage growth between 2002 and 2009 for these Statistical Local Areas (SLAs). Asterisks (*) denote SLAs that appear in both tables 11 and 12

In terms of absolute population growth Melbourne's growth areas dominate. Melton–East, Casey–Berwick, Casey–Cranbourne, Wyndham–North and Hume–Craigieburn SLAs, which are all nominated growth areas within the *Melbourne 2030* strategic plan, were the top five SLAs ranked by absolute population increase between 2001 and 2009. In fact, these five SLAs alone represent 39 per cent of the city's population increase. Perth also experienced substantial absolute increases in population through SLAs such as Rockingham and Swan.

However, simply looking at population change does not reveal where these people are coming from. For example, some of Australia's highest natural[17] population growth areas are in rapidly growing outer suburbs where young families have moved. Table 12 shows the 10 SLAs which experienced strong natural population growth between 2001 and 2009. All were on the fringe of a capital city. Gungahlin, Gungahlin-Hall Balance, Amaroo and Harrison are all on the northern limits of Canberra, whilst Dunlop is on the north-west outer limit. Griffin-Mango Hill and Wakerley are in the north and eastern outer areas of Brisbane. Wyndham–South, incorporating the suburb of Point Cook, is positioned in Melbourne's outer west, and Gunn-Palmerston incorporates new suburban developments to the south-east of Darwin. SLAs denoted by an asterisk (*) in Tables T11 and T12 appear in both tables, which illustrates the inter-connection between new suburbs and young families.

17 Natural growth between 2001 and 2009 is measured as a percentage of the 2001 population.

T 12 Ten Statistical Local Areas with the highest natural growth in Australia, 2001 to 2009

Statistical Local Area	Natural growth 2001 to 2009 (percentage of the 2001 population)	Population growth 2001 to 2009 (percentage of the 2001 population)	Population growth 2001 to 2009 (absolute increase)
Harrison (ACT)*	1 356	23 339	2 459
Gungahlin (ACT)*	402	5 044	6 411
Wyndham - South (VIC)*	64	556	21 328
Griffin-Mango Hill (QLD)*	37	424	13 166
Wakerley (QLD)*	37	336	5 168
Melton - East (VIC)	36	232	37 258
Dunlop (ACT)	32	153	4 144
Gungahlin-Hall - Balance (ACT)*	32	2 110	991
Amaroo (ACT)	31	109	3 646
Gunn-Palmerston City (NT)	29	145	1 843

Note: Gungahlin and Harrison first had estimated resident populations above zero in 2002. The table shows population percentage growth between 2002 and 2009 for these Statistical Local Areas (SLAs). Asterisks (*) denote SLAs that appear in both Tables 11 and 12.

Sources: ABS (2010b; 2007a; 2007c; 2009a; 2009b).

Importantly however, natural growth in regions like these was only a small part of the overall population growth. For example, the SLA of Wyndham South in Melbourne grew by 64 per cent due to natural growth from 2001 to 2009, but it actually grew by 556 per cent in total due to migration, particularly from nearby SLAs. Over 2000 people moved from Hobsons Bay–Altona to Wyndham South.

Few capital city SLAs experienced population decline, with only 13 per cent experiencing a fall in population between 2001 and 2009. The largest population declines, of over 1000 people, were in the SLAs of Hume–Broadmeadows (a fall of 1585 people) in Melbourne and Kambah (a fall of 1169 people) in Canberra.

In terms of proportional declines, the largest decline occurred in the Darwin SLA of City–Remainder by 2.4 per cent annually between 2001 and 2009. However, SLAs in Canberra represent 9 out of 10 of the largest falls in population, with Fadden, Monash and Evatt experiencing declines of between 1.2 and 1.1 per cent annually from 2001. The high representation of Canberra's SLAs may be due to the small geographical scale of the SLAs for the city. Another hypothesis could be that these suburbs have a high proportion of 'empty nesters', i.e older couples whose adult children have moved away. Suburbs developed in the 1960s and 1970s would have seen an influx of young families of a similar age cohort and have a similar timeframe for out-migration of young people.

Population mobility 2001 to 2006

It is important to note, that the great majority of relocations which occurred between 2001 and 2006 were within regions or cities, rather than between them. Of the 6.6 million Australian people (more than a third of the population) who moved between 2001 and 2006, 71 per cent relocated within their own city or region (ABS 2009f). This illustrates the high degree of churn that is continuously occurring in cities. For example, much of the migration to outer suburbs has been intracity migration, rather than intercity or interregional movement between 2001 and 2006.

A survey by Hugo et al (2005) suggested that a significant proportion of people who move within cities do so for housing-related reasons. Table 13a shows the top five reasons cited for moving within the city of Melbourne, derived from a survey of 480 people who moved within that city between April 2004 and June 2005 (Hugo et al 2005).

T 13a Top five reasons for moving within the city of Melbourne, April 2004 to June 2005

Reason given for move	Percentage of the 480 survey respondents who moved within the city of Melbourne
Upgrade to larger house	12.3
Moving from rental house to own home	8.3
Lifestyle/environment	8.1
Expiry of lease/rental	7.9
Downsize/smaller house	7.1

Note: The results above are derived from a sample of 480 respondents.

Source: Hugo et al (2005, p.81).

Table 13b shows the top five reasons for people to move between capital cities, and between non-metropolitan regions. Because most moves in Australia between 2001 and 2006 were within the same city, town or region, we can assume that many of the survey respondents included in these groups also stayed within their own city, town or region.

T 13b Top five reasons for moving between metropolitan areas and between non-metropolitan areas, April 2004 to June 2005

Reason given for move	Percentage of the 4207 survey respondents who moved between metropolitan areas	Percentage of the 2441 survey respondents who moved between non-metropolitan areas
Upgrade to larger house	10.5	7.6
Lifestyle/environment	9.2	8.8
Downsize/smaller house	7.2	7.9
Expiry of lease/rental	7.3	7.2
Moving from rental house to own home	7.7	6.8

Note: The results above are derived from a sample of 4207 respondents (metropolitan area to metropolitan area moves) and 2441 respondents (non-metropolitan to non-metropolitan moves)

Source: Hugo et al (2005, p.81). respectively.

Strikingly, for the groups of survey respondents in Tables 13a and 13b, the five most popular reasons for moving were the same (from 26 response categories provided in the survey). The survey shows that the most common reasons for moving within cities and regions were often related to housing and accommodation needs.

A study by the ABS (2008c) on Victorian and New South Wales migration movements, surveyed people on the reasons for changing their usual residence in the three years prior to 2008. The survey reported that factors commonly identified as reasons for a move include housing costs[18] and characteristics, neighbourhood attractiveness, proximity to family and friends, lifestyle and access to services (e.g. schools). For movements within the Sydney and Melbourne the reasons identified included more accessibility considerations such as living near family and friends, access to services and work prospects, along with costs and lifestyle considerations.

18 The survey lists costs in the publication, which has been classified as housing costs within the dataset.

In terms of intercapital city migration, the link between employment opportunities and people who moved from 2001 to 2006 is strong. People who had recently moved between capital cities had higher labour force participation (81 per cent) than longer-term residents in those cities (77 per cent) (ABS 2009e). Intercapital city migrants were a slightly older group than new city residents from non-metropolitan areas, and fewer of them were students (ABS 2009e). Half of employed intercapital city migrants classified themselves as managers or professionals during the 2006 census (ABS 2009e). Moreover, approximately 40 per cent of these people lived in what the ABS defined as 'higher income households', namely those households with the top 20 per cent of Australian household incomes reported during the same census (ABS 2009e, p. 27).

By contrast, high proportions of new residents from non-metropolitan areas (45 per cent), worked in low skilled occupations.[19] These people were also less likely than intercapital city migrants to live in higher income households (ABS 2009e).

Migration from regional areas 2001 to 2006

The ABS has estimated that 12 per cent of new capital city residents in 2006 had lived outside those cites in 2001 (ABS 2009e). Table 14 shows the number of migrants to each of the eight state and territory capital cities, between 2001 and 2006, by major source—other capital city, non-capital city by state/territory and overseas migrants. It shows that overseas arrivals were the dominant group amongst new residents (from a known destination) in Sydney, Melbourne, Brisbane, Adelaide, Perth and Darwin. It also shows that intercapital city movement featured strongly in all capital cities, particularly with people moving from Sydney and Melbourne.

With respect to those people moving to capital cities from non-metropolitan areas, the table shows that most new residents had moved from within their own state. An exception was Darwin, where people from regional Northern Territory and Queensland both featured strongly. Another characteristic of the migration flows is that people from regional New South Wales also figure strongly in migration to several capital cities, between 2001 and 2006, including Sydney, Melbourne, Brisbane and Canberra.

19 The ABS (2009e) defines 'low skill level occupation' as a group of occupations including intermediate clerical, sales and service workers; intermediate production and transport workers; elementary clerical, sales and service workers; and labourers and related workers.

T 14 Most common places of origin (2001) among new capital city residents (2006)

Place of origin (2001)	Percentage of new residents (of known 2001 origin), 2006	Number of new residents (of known 2001 origin), 2006
Moved to Sydney		
Overseas	66.6	244 074
NSW non-capital city	15.9	58 408
Melbourne	4.2	15 475
QLD non-capital city	3.0	10 871
Moved to Melbourne		
Overseas	57.7	191 531
VIC non-capital city	16.5	54 759
Sydney	6.4	21 272
NSW non-capital city	3.5	11 513
Moved to Brisbane		
Overseas	33.9	90 788
QLD non-capital city	30.4	81 415
Sydney	10.9	29 224
NSW non-capital city	8.8	23 528
Moved to Adelaide		
Overseas	40.0	41 049
SA non-capital city	26.6	27 267
Sydney	5.9	6 073
Melbourne	5.7	5 898
Moved to Perth		
Overseas	49.3	87 488
WA non-capital city	26.7	47 446
Sydney	5.5	9 827
Melbourne	4.5	8 020
Moved to Greater Hobart		
TAS non-capital city	32.8	7 902
Overseas	19.4	4 667
Melbourne	9.5	2 288
Sydney	9.2	2 217
Moved to Darwin		
Overseas	14.3	3 517
NT non-capital city	13.1	3 216
QLD non-capital city	13.0	3 192
Melbourne	7.5	1 839
Moved to Canberra		
NSW non-capital city	26.4	14 851
Overseas	25.7	14 431
Sydney	16.8	9 423
Melbourne	7.1	3 999

Notes: This table is based on the three regions (capital city, non-capital city and overseas) from which people moved to capital cities between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

For comparative purposes, Table 15 below presents people moving to a non-capital city region between 2001 and 2006. It shows that capital cities are a dominant feature of Australia's internal migration system, acting both as a magnet for new residents from elsewhere in Australia and overseas, and as a significant source of new residents for non-capital city regions. This said, out-migration from capital cities has much less impact on large city populations, than in-migration has on much smaller populations in many other regions of Australia. Capital city out-migration to various types of regions is discussed in more detail later.

T 15 Most common places of origin (2001) among new residents of all Australian non-capital city regions (2006)

Place of origin (2001)	Percentage of new residents (of known 2001 origin) living in a non-capital city, 2006
Capital cities	45.2
QLD non-capital city	14.3
All other non-capital cities	14.3
NSW non-capital city	14.0
Overseas	12.1

Notes: This table is based on people moving to non-capital cities between 2001 and 2006 (where 'overseas' is counted as a region). This table only shows percentages of those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a significant proportion of did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

To understand why people move from regional areas to a capital city, Table 16 shows the top five reasons cited for the move, based on a survey of 981 people who moved into capital cities between April 2004 and June 2005 (Hugo et al 2005). These people cited very different reasons for their migration from people who moved within their own capital cities.

T 16 Top five reasons for moving from a regional area to a capital city Statistical Division, April 2004 to June 2005

Reasons	Percentage of those survey respondents who moved to a capital city Statistical Division (from a non-capital city origin)
To be nearer family or friends	18.3
Lifestyle/environment	11.5
To be nearer employment	8.8
Partner's employment	5.8
Health reasons	5.3

Notes: Hugo et al (2005) study define capital city Statistical Divisions as 'metropolitan', and non-capital city Statistical Divisions as 'rest-of-state' (Hugo et al 2005, p. 80). The results above are derived from a sample of 981 respondents.

Source: Hugo et al (2005, p. 81).

In contrast to residents relocating within the same capital city, who reported accommodation needs as the most important factor in relocating, longer-distance movers reported that they relocated primarily to be closer to family and friends. The attraction of lifestyle/environment and services (for example, accessing services for health reasons) also rated highly. Further, the survey shows that the pull of urban employment was strong for many respondents. This is not surprising, as between 2001 and 2006, 65 per cent of all new jobs in Australia were created in capital cities (BITRE 2009).

The pull of education, employment and lifestyle opportunities in capital cities is significant for young people, a particularly mobile cohort in the Australian population (ABS 2009c). Between 2001 and 2006, 20 per cent of all 20 to 24 year old Australians from non-capital city areas

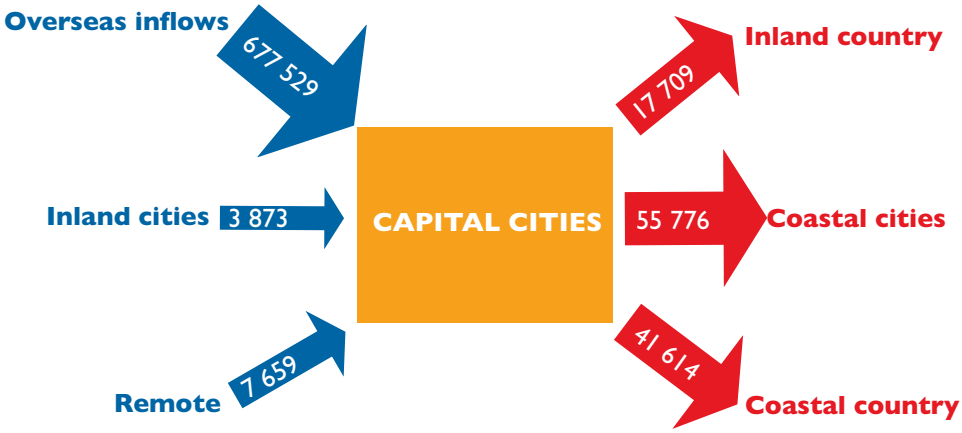
moved to capital cities (ABS 2009c). In 2001, for example, 82 455 young rural and regional city Australians (aged 15 to 24) moved to a capital city (ABS 2003a). Twenty-seven per cent of people aged 15 and over who moved to Australia's capital cities between 2001 and 2006 were students (compared to 14 per cent of longer term residents) (ABS 2009e).

In the 15 to 34 year age group, people who moved within Australia between 2001 and 2006 had slightly higher labour force participation rates (78 per cent) than longer-term residents (75 per cent), supporting the proposal that employment opportunities are an important consideration for younger people who move (ABS 2009e), also noting that education is likely to be a significant factor for young people.

To provide a broader overview of the migration flows, Figure 6 presents a graphical representation of the net-migration flows for capital cities by regional classification, along with a table of the gross migration flows. Overwhelmingly, most new capital city residents are from overseas, which represented 62 per cent of all new arrivals. The next largest group of new arrivals is from coastal cities, with gross inward migration of 143 500 persons. However, outward migration to coastal cities exceeded inward migration and consequently there was a net migration flow of 55 776 people from capital cities to coastal cities. Capital cities also experienced net outward migration to coastal and inland country areas and net inflows from inland cities and remote locations.

As previously highlighted, in Chapter 1, the data is based on 2006 census responses. Hence, those people that moved overseas between 2001 and 2006 are out of scope .

F 6 Net-migration flows for capital cities, from 2001 to 2006



Regional classification	Overseas	Coastal city	Inland city	Coastal country	Inland country	Remote
Capital cities in-migration	677 529	143 503	51 699	94 325	92 504	38 236
Capital cities out-migration	na	199 279	47 826	135 939	110 213	30 577
Capital cities net-migration	677 529	–55 776	3 873	–41 614	–17 709	7 659

Notes: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. NA denotes that data is unavailable.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

International migration 2001 to 2006

The importance of overseas arrivals to population levels in capital cities is significant. Currently, capital cities are the main entry point for migrants to Australia. In 2006, half of all new residents in Australia's capital cities (people who had moved there within the past five years) were international immigrants (ABS 2009e).

Table 14 shows that more than half of all new arrivals in Sydney and Melbourne came from overseas, and almost half of all new arrivals in Perth also came from overseas. Comparatively few new arrivals in Darwin, Greater Hobart and Canberra came from overseas. There, new additions to the population were much more likely to be internal migrants from elsewhere in Australia.

Table 17 shows that the great majority of Australia's overseas born immigrants (80.6 per cent) lived in Australian capital cities in 2006, and that this was particularly the case for people who arrived between 2001 and 2006 (83.6 per cent) (Hugo 2010a).

T 17 Australian-born and overseas-born residents, 2006

Place of birth	Place of residence–capital city (per cent)	Place of residence non-metropolitan (per cent)	Total
Australia-born	58.3	41.7	100.0
Overseas-born	80.6	19.4	100.0
Overseas-born resident less than 5 years	83.9	16.1	100.0

Source: Hugo (2010a).

As a group, overseas immigrants had a relatively young age profile compared to that of Australia as a whole. In 2006, 34 per cent of the Australian population was aged between 15 and 40 (ABS 2006b). Meanwhile, amongst those immigrants who arrived in 2004, 2005 and 2006, for example, the proportion of people between the ages of 15 and 40 was around 66 per cent (ABS 2009d). Education was a significant factor in international migration to Australian capital cities. Thirty-four per cent of international arrivals aged 15 years and over who resided in capital cities between 2001 and 2006 were students (ABS 2009e). This compares with 14 per cent of longer-term residents in those cities (ABS 2009e). For those not studying, a slightly lower proportion of new capital city residents from overseas (40 per cent) than longer-term residents in capital cities (43 per cent) worked in low skilled occupations (ABS 2009e).

Summary

Between 2001 and 2009, the population of Australia's eight capital cities grew by 1.6 million people. Australian capital cities contain 64 per cent of the country's population as at June 2009 making it one of the most urbanised countries in the world.

Domestic and international migration flows are a significant factor in the growth of capital cities, with the great majority of relocations occuring within regions or cities, rather than between them. For example, much of the migration to outer suburbs has been intracity migration, rather than intercity or interregional movement between 2001 and 2006. And these outer suburbs have been the strong growth areas for the nation's capitals.

Capital cities also do not stand alone but are part of complex migration flows between capital cities themselves and the interaction with regional areas and international arrivals. Capital cities are the main entry point for international arrivals to Australia.

The drivers for migration to capital cities are also diverse. For regional migrants, almost one fifth of longer-distance movers reported that they relocated primarily to be closer to family and friends already located in their capital city of destination. Lifestyle/environment and employment also rated highly. More precisely, the pull of education, employment and lifestyle opportunities in capital cities is a significant driver for young people, who are a particularly mobile cohort in the Australian population.

CHAPTER 4
Coastal

Key points

- Living by the coast has been a longstanding preference for Australians, with properties with beachfront or ocean views highly sought after.
- Many of Australia's coastal cities had population growth rates higher than that of Australia as a whole.
- Some coastal cities in New South Wales, Tasmania and Victoria have experienced slow population growth rates. In general, these cities were still recovering from depressed local employment opportunities over recent decades, largely associated with restructuring away from manufacturing industries.
- Coastal cities often had a strong contingent of intrastate capital city arrivals, a significant group of new residents from overseas and a focus on same-state migration amongst people from other non-capital city areas of Australia.
- Growing coastal country regions are characterised by their close proximity to either a large coastal city or capital city.
- One important feature of internal migration towards coastal country areas is the 'sea change' migration phenomenon amongst older people moving from capital cities to retire.

Introduction

Australians have a love of living and holidaying by the coast. It is a longstanding trend in the country's settlement pattern. In fact, by the early 1990s it was evident that coastal urban growth 'was assuming major significance in Australia' (DEH 2001, p. 15). Many factors have been identified that are contributing to coastal population growth such as retirement, lifestyle changes and tourism.

Examination of population change occurring in coastal areas in this chapter has been separated into coastal cities and coastal country areas.

Coastal cities

This section introduces population trends in Australia's coastal cities. In doing so, it considers all Australian coastal cities classified as 'Statistical Districts' by the ABS, with a population of 25 000 persons or more that have their centre point within 50 kilometres of the coast.

Population change 2001 to 2009

As discussed earlier, Statistical Divisions surrounding coastal cities have recently experienced some of the highest population growth rates in Australia. Table 18 shows all twenty-two of Australia's coastal cities and their population growth between 2001 and 2009. Fourteen of Australia's coastal cities had population growth rates higher than that of Australia as a whole. Seven of the ten fastest growing coastal cities were located in Queensland, and a further one was located on the Queensland border.

As Beer and Clower (2009) observed, most of the regional cities that experienced rapid population growth between 1996 and 2001 were located on the coast and had significant tourism and leisure industries. Also, attractive lifestyle and high levels of amenities located in these cities are a factor in Australia longstanding preference for coastal living. This is still the case in 2009, with the Gold Coast, Sunshine Coast, Hervey Bay and Cairns still growing strongly, for example.

However, eight coastal cities in New South Wales, Tasmania and Victoria experienced below national average population growth between 2001 and 2009. In general, these cities were still recovering from a localised economic downturn in recent decades, largely associated with restructuring away from manufacturing industries. For example, Geelong saw manufacturing and financial industries decline during the 1990s. Newcastle experienced the closure of BHP's steelworks in 1999, and Wollongong also saw a manufacturing industry downturn. That said, both Newcastle and Wollongong still had high absolute population growth. Part of the Wollongong's population growth can be attributed to a recent increase in commuting from houses in Wollongong to jobs in Sydney (BITRE n.d.). The larger coastal cities also have more overseas immigrants possibly due to the greater variety of services or greater variety of employment opportunities that is not available in small towns.

In the case of Tasmania, Burnie-Devonport and Launceston were both affected by broader trends, such as the economic downturn and slow growth in the Tasmanian economy during the 1990s—Tasmania was heavily dependent upon traditional manufacturing and agricultural industries (BITRE 2008). While, the city of Lismore could be regarded more as an inland city it is included because it is within 50 kilometres of the coast.

T 18 Coastal cities–total population growth and annual average population growth, 2001 to 2009

Coastal cities	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Hervey Bay (QLD)	39 599	58 902	19 303	5.1
Mandurah (WA)	59 752	83 032	23 280	4.2
Bunbury (WA)	50 008	66 117	16 109	3.6
Sunshine Coast (QLD)	186 391	245 309	58 918	3.5
Gold Coast-Tweed (QLD/NSW)	474 753	623 100	148 347	3.5
Cairns (QLD)	112 932	147 118	34 186	3.4
Gladstone (QLD)	39 100	50 538	11 438	3.3
Mackay (QLD)	64 767	83 680	18 913	3.3
Townsville (QLD)	134 073	168 402	34 329	2.9
Bundaberg (QLD)	56 806	67 840	11 034	2.2
Geraldton (WA)	31 425	36 343	4 918	1.8
Rockhampton (QLD)	67 369	77 017	9 648	1.7
Port Macquarie (NSW)	38 130	43 561	5 431	1.7
Coffs Harbour (NSW)	46 099	52 517	6 418	1.6
Nowra–Bomaderry (NSW)	30 168	33 985	3 817	1.5
Warrnambool (VIC)	29 629	33 374	3 745	1.5
Geelong (VIC)	159 503	175 803	16 300	1.2
Newcastle (NSW)	492 549	540 796	48 247	1.2
Wollongong (NSW)	269 597	288 984	19 387	0.9
Launceston (TAS)	98 526	105 445	6 919	0.9
Burnie–Devonport (TAS)	77 480	82 102	4 622	0.7
Lismore (NSW)	30 871	32 291	1 420	0.6
Total Coastal cities	2 589 527	3 096 256	506 729	2.3
Total Australia	19 413 240	21 955 256	2 542 016	1.6

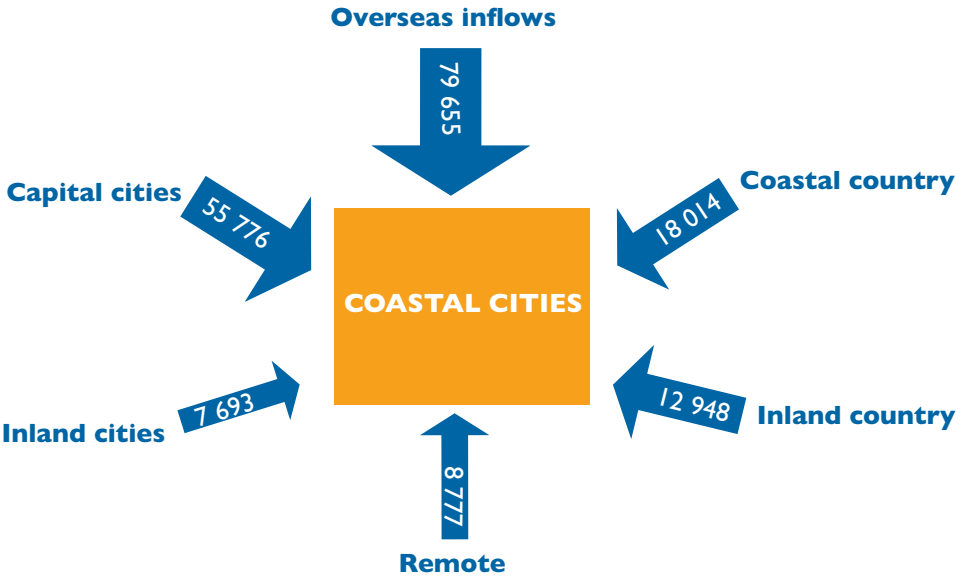
Source: ABS (2010b).

Population mobility 2001 to 2006

Between 2001 and 2006, approximately 455 000 people moved to a coastal city from another regional classification. Of the new residents in coastal cities in 2006, 44 per cent had lived in a capital city in 2001, 20 per cent had lived in other coastal country areas and 10 per cent in inland country areas. Figure 7 presents the net-migration flows for coastal cities from 2001 to 2006, along with a table of the gross migration flows. The chart illustrates a number of features:

- Overseas immigrants are the largest source of inflow, with capital cities the next largest source of inward net migration flows.
- Coastal cities are a net attractor of population from every other regional classification.
- Capital cities had the largest number of people moving between these regional classifications and was even larger than the number of movements occurring only within coastal cities at around 315 000 moves.

F 7 Net-migration flows for coastal cities, from 2001 to 2006



Regional classification	Overseas	Capital city	Inland city	Coastal country	Inland country	Remote
Coastal cities in-migration	79 655	199 279	20 528	89 546	44 074	21 913
Coastal cities out-migration	na	143 503	12 835	71 532	31 126	13 136
Coastal cities net-migration	79 655	55 776	7 693	18 014	12 948	8 777

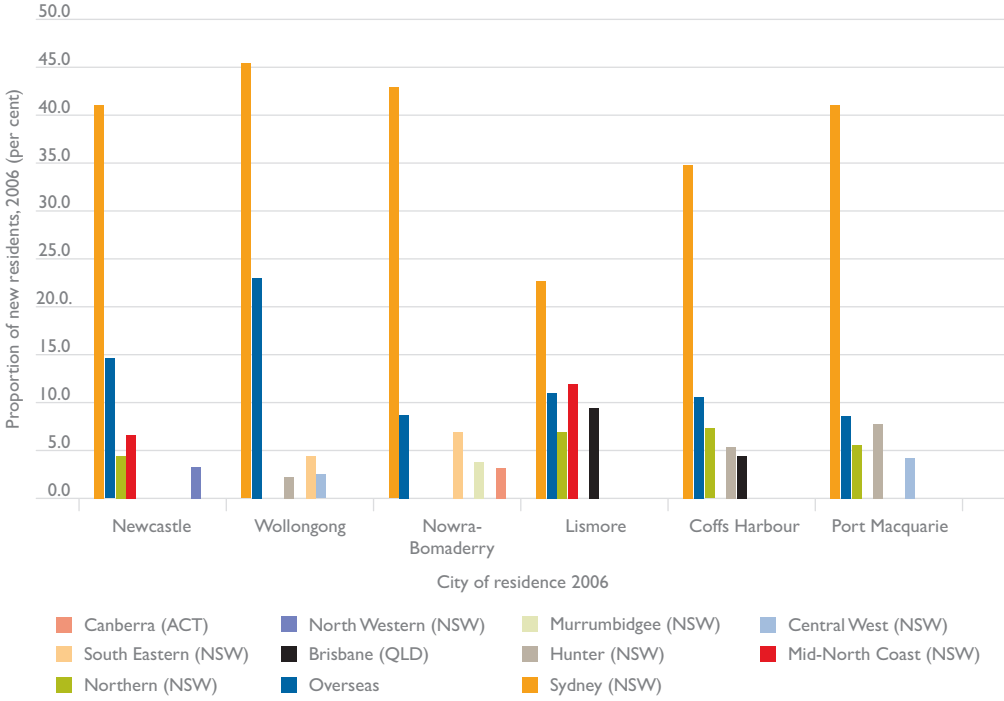
Note: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. NA denotes that data is unavailable.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Figure 8 shows the number of migrants to each coastal city of New South Wales between 2001 and 2006, for the top five SDs (note that 'overseas' has been counted as a separate SD). With respect to place of origin the profile of new residents in most Australian coastal cities was relatively similar to the New South Wales profile shown here (for more detail, see Appendix Tables B1 to B6). Like the New South Wales coastal cities, other Australian coastal cities often had a strong contingent of intrastate capital city arrivals, a significant group of new residents from overseas, and a focus on same-state migration amongst people from other non-capital city areas of Australia.

People who moved to coastal cities from within Australia did not tend to move far, often staying within their own state. With respect to the New South Wales example, only those regional cities closest to Brisbane (Lismore and Coffs Harbour) saw relatively strong in-migration from that city. Similarly, Nowra-Bomaderry the closest coastal city to Canberra saw relatively significant in-migration from Canberra.

F 8 New arrivals in New South Wales coastal cities 2006, by top five places of residence in 2001



Note: This table is based on the top five Statistical Divisions from which people moved to coastal cities in New South Wales between 2001 and 2006 (where 'overseas' is counted as a Statistical Division). This table only shows percentages of those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

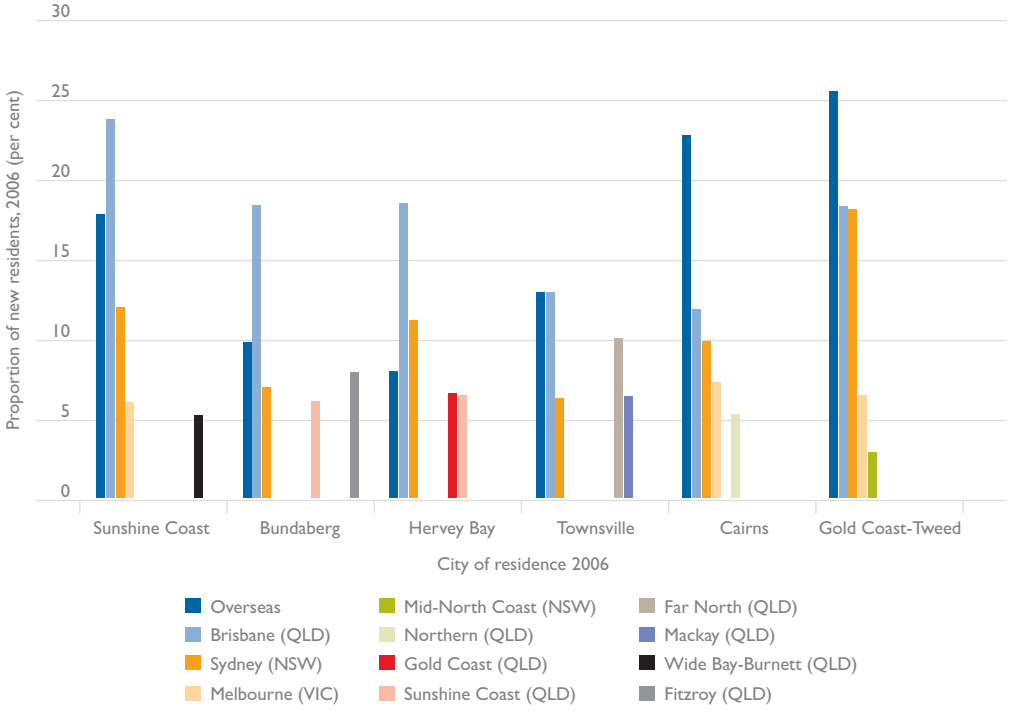
Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

The new resident profiles of all Victorian coastal cities, all Western Australian coastal cities, and some Queensland coastal cities (Rockhampton, Gladstone, Mackay and Toowoomba) were similarly dominated by intrastate migrants from capital cities and regional areas, along with overseas arrivals.

The picture was slightly different in Launceston and Burnie-Devonport, where migrants from Melbourne and Sydney featured amongst the top five SDs from which people moved (along with Hobart, non-metropolitan Tasmanian and overseas migrants).

Figure 9 shows that some coastal cities of Queensland drew a higher proportion of internal Australian migrants from outside the state than the other Queensland cities mentioned above. In addition to strong proportions of new residents from Brisbane, all of the cities in Figure 9 also drew significant numbers of residents from Sydney. The Sunshine Coast, Cairns and the Gold Coast-Tweed Statistical District also drew strong contingents of new residents from Melbourne. On the border of Queensland and New South Wales, the Gold-Coast Tweed Statistical District drew its fifth largest group of new residents from the mid-north coast of New South Wales.

F 9 New arrivals in selected Queensland coastal cities 2006, by top five places of residence in 2001



Note: This table is based on the top five Statistical Divisions from which people moved to selected Coastal cities in Queensland between 2001 and 2006 (where 'overseas' is counted as a Statistical Division). This table only shows percentages of those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Of those people who moved to coastal cities between 2001 and 2006, ex-capital city residents were also a dominant group as illustrated in Table 19. Most often, capital city out-migrants did not move far, tending to relocate to regional cities within their own states. However, Sydney out-migrants were also a particularly strong contingent amongst new residents in the Queensland Statistical Districts of the Sunshine Coast, the Gold Coast, Hervey Bay and Cairns. Numbers of Melbourne and Sydney out-migrants also outstripped the numbers of Hobart out-migrants amongst new arrivals in Launceston and Burnie-Devonport.

T 19 Ex-capital city residents (top 2 cities of origin only) as a proportion of all new residents in each Australian coastal city (per cent), 2006

Coastal regional cities–NSW, 2006	Former capital city of residence, 2001			
	Sydney	Brisbane	Melbourne	Canberra
Newcastle (NSW)	41.1		2.4	
Wollongong (NSW)	45.4			2.2
Nowra-Bomaderry (NSW)	42.9			3.2
Lismore (NSW)	22.7	9.4		
Coffs Harbour (NSW)	34.8	4.4		
Port Macquarie (NSW)	41.1		3.3	
Coastal regional cities–VIC, 2006	**Former capital city of residence, 2001**			
	Melbourne	Sydney	Adelaide	
Geelong (VIC)	30.3	2.8		
Warrnambool (VIC)	32.2		2.7	
Coastal regional cities–QLD, 2006	**Former capital city of residence, 2001**			
	Brisbane	Sydney		
Sunshine Coast (QLD)	23.9	12.0		
Bundaberg (QLD)	18.5	7.0		
Hervey Bay (QLD)	18.6	11.2		
Rockhampton (QLD)	14.8	3.7		
Gladstone (QLD)	16.2	4.0		
Mackay (QLD)	14.5	4.5		
Townsville (QLD)	13.0	6.3		
Cairns (QLD)	11.9	9.9		
Gold Coast-Tweed (QLD/NSW)	18.4	18.2		
Coastal regional cities–WA, 2006	**Former capital city of residence, 2001**			
	Perth	Sydney	Melbourne	
Mandurah (WA)	53.7	2.0		
Bunbury (WA)	33.8		2.0	
Geraldton (WA)	34.1	2.6		
Coastal regional cities–TAS, 2006	**Former capital city of residence, 2001**			
	Melbourne	Greater Hobart	Sydney	
Launceston (TAS)	9.5	11.1		
Burnie-Devonport (TAS)	10.4		8.8	

Note: This table only shows capital city arrivals as a percentage of those new residents with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Table 20 shows the top five reasons for people to move from a capital city location to a non-capital city location, derived from a survey of 1401 people who did this between April 2004 and June 2005. It should be noted that the sixth most common reason for moving was 'to be nearer employment', with 4.8 per cent of respondents choosing this response (Hugo et al 2005, p. 81). However, for many ex-urban immigrants included in the survey lifestyle, family and friends were significant factors in their decisions to move.

T 20 Top five reasons for moving from a metropolitan area to a non-metropolitan area, April 2004 to June 2005

Reason given for move	Percentage of the 1401 survey respondents who moved from a metropolitan area to a non-metropolitan area
Lifestyle/environment	17.9
To be nearer family or friends	12.4
Retirement	7.0
Climate	5.6
Health reasons	4.9

Source: Hugo et al (2005, p. 81).

The reasons above are linked to the relatively mature age profile of people moving from capital city to non-metropolitan areas, compared with that of people moving the other way. In 2006, only 21 per cent of new coastal city residents from capital cities were aged 24 to 35 years. People aged 50 years and over represented a greater proportion of new residents in coastal cities (24 per cent) than in capital cities (12 per cent).

It is also important to note that some regional cities attracted much higher concentrations of ex-urban retirees than others. This was the case in the two fastest growing major population centres in Australia—the coastal regional communities of Hervey Bay in Queensland and Mandurah in Western Australia. Between 2003 and 2008, people aged 60 years and over accounted for more than a quarter of new residents in those cities (ABS 2009f).

Expansion in employment opportunities in regional cities has been an important factor associated with migration to those places (ABS 2009e). Thus, coastal cities attracted a broader age range of new residents between 2001 and 2006. Approximately 21 per cent of new residents who moved from non-metropolitan areas to a coastal city were aged between 15 and 24 years, and moved to these cities for work and study (ABS 2009e). Almost half of this group (49 per cent) worked in retail, accommodation and food services or the construction industries (ABS 2009e). Almost as many were students (45 per cent) (ABS 2009e). For example, the Victorian Department of Planning and Community Development (2008a) points out that one factor associated with population growth in the coastal city of Warrnambool is the growth in young adults moving to the region for its educational opportunities, particularly those provided at Deakin University.

International migration 2001 to 2006

Although most recently arrived international immigrants in Australia live in capital cities, the proportion of newly arrived international migrants settling outside capital cities has been increasing over the past 13 years. Data from the Department of Immigration and Citizenship shows that less than 10 per cent of new immigrants settled outside capital cities in 1996. In 2008, around 15 per cent of new immigrants settled outside capital cities, although this proportion fell back slightly to be just above 14 per cent in 2009 (Hugo 2010a).

Table 21 shows the proportion of new residents (arriving since 2001) in each coastal city who was an overseas immigrant, as at 2006. Overseas arrivals ranked amongst the top two or three SDs of origin amongst new residents for every coastal city in Australia.

Although the cities of Hervey Bay and Mandurah were the fastest growing coastal cities in Australia, both had relatively small contingents of overseas immigrants amongst new arrivals. As discussed later in this section, a strong proportion of Hervey Bay and Mandurah growth between 2001 and 2009 is associated with retiree in-migration. By contrast, Australia's recent immigrant arrivals have a relatively young age profile, with many people either studying or in the labour force. Amongst new immigrant arrivals in 2004, 2005 and 2006, only 6.4, 6.3 and 5.2 per cent of the population respectively were aged 55 years and over (compared with 24.4 per cent of the total Australian population in 2006) (ABS 2009d, ABS 2006b).

Conversely, the next four fastest growing coastal cities, Gold Coast-Tweed, Cairns, Bunbury and the Sunshine Coast, had some of the highest proportions of overseas immigrants amongst new arrivals. Wollongong also saw relatively high overseas arrivals.

T 21 Overseas arrivals as a proportion of new residents (since 2001) by coastal cities, 2006

Coastal cities of usual residence 2006	Overseas arrivals (2001 to 2006) as a proportion of new residents (per cent)	Number of overseas arrivals (2001 to 2006)
Gold Coast-Tweed (QLD/NSW)	25.7	28 766
Wollongong (NSW)	23.0	5 812
Cairns (QLD)	22.9	5 236
Geelong (VIC)	21.1	3 483
Bunbury (WA)	19.3	1 707
Sunshine Coast (QLD)	17.9	9 290
Launceston (TAS)	17.3	1 957
Newcastle (NSW)	14.6	7 452
Rockhampton (QLD)	14.3	1 270
Mackay (QLD)	13.7	1 790
Townsville (QLD)	13.0	3 875
Mandurah (WA)	13.0	2 066
Gladstone (QLD)	11.1	902
Warrnambool (VIC)	11.1	365
Geraldton (WA)	11.1	515
Lismore (NSW)	11.0	469
Coffs Harbour (NSW)	10.6	880
Bundaberg (QLD)	9.8	1 006
Burnie-Devonport (TAS)	9.0	690
Nowra-Bomaderry (NSW)	8.7	355
Port Macquarie (NSW)	8.6	661
Hervey Bay (QLD)	8.0	1 108

Note: This table only shows overseas arrivals as a percentage of those new residents with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Coastal country areas

The coastal country areas regional classification is made up of 152 Statistical Local Areas (SLAs) that are positioned along the coast but have not been classified as remote/very remote or as a coastal city. To be included the geographical centre of the SLA has to be within 50 kilometres of the coast. Very large SLAs (over 25 000 square kilometres) are excluded because large parts of the SLA are a long way from the coast.

The overall population growth of coastal country areas averaged 1.5 per cent per annum between 2001 and 2009, close to the national average population growth rate of 1.6 per cent per annum over that period. Within this regional classification, a number of SLAs have experienced strong population growth while others have declined.

Population change 2001 to 2009

Table 22 presents the top ten SLAs that have experienced strong population growth from 2001 to 2009. A feature of the listing is that many of these SLAs are positioned close to either a large coastal city or capital city. For example, Mount Barker–Central SLA in South Australia has experienced substantial growth in its population, of over 5000 people from 2001 to 2009. The town of Mount Barker itself with a population of around 11 000 people as at 2006, is only around 35 kilometres away from the capital city of Adelaide. This region has been earmarked by the South Australian government in *The 30-Year Plan for Greater Adelaide* (2010), which targets the Adelaide Hills and Murray Bridge regions with net additional dwellings and population of 13 000 and 29 000 respectively over the next 30 years (South Australian Department of Planning and Local Government 2010).

Queensland is strongly represented with five of the top ten fastest growing coastal country SLAs. Again the feature is the close proximity of the SLAs to major centres, with Mirani being close to Mackay and Miriam Vale, Isis and Tiaro being close to Gladstone, Bundaberg and Hervey Bay respectively.

T 22 Ten Statistical Local Areas with the highest population growth rate in coastal country areas, 2001 to 2009

Coastal country SLAs	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Chittering (WA)	2 936	4 310	1 374	4.9
Surf Coast–East (VIC)	11 907	16 053	4 146	3.8
Mount Barker–Central (SA)	15 487	20 870	5 383	3.8
Miriam Vale (QLD)	4 484	6 037	1 553	3.8
Caloundra–Rail Corridor (QLD)	16 589	22 307	5 718	3.8
Alexandrina–Coastal (SA)	9 744	12 907	3 163	3.6
Busselton (WA)	23 099	30 514	7 415	3.5
Tiaro (QLD)	4 756	6 251	1 495	3.5
Mirani (QLD)	5 283	6 918	1 635	3.4
Isis (QLD)	5 849	7 638	1 789	3.4
Total Coastal country	1 567 690	1 760 342	192 652	1.5
Total Australia	19 413 240	21 955 256	2 542 016	1.6

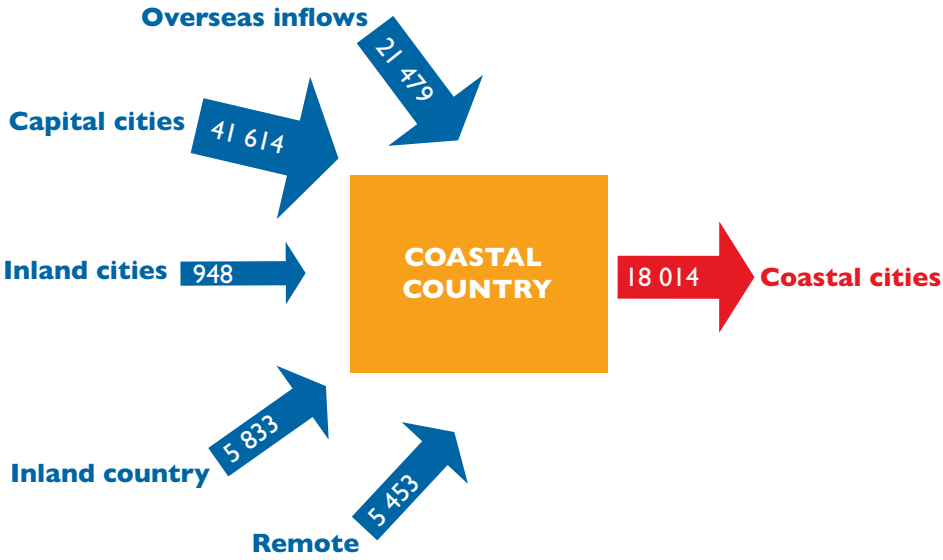
Source: BITRE analysis of ABS (2010b).

Only nine per cent of the SLAs that make up coastal country areas experienced declines in population from 2001 to 2009. The largest fall was in Manjimup (in Western Australia) with a fall of 147 people to have a population of 10 162 people as at June 2009. This SLA experienced a fall in employment of 8 per cent, representing a fall in total employment of 390 jobs between 2001 and 2006. The industries particularly hard hit were the agricultural and forestry sectors, with falls of 181 and 222 jobs respectively.

Coastal country areas migration 2001 to 2006

Movement to coastal country areas from elsewhere in Australia is a relatively longstanding trend in Australian demography, reaching back as far as the 1970s. This followed a previous post-war period of decline in rural coastal regions. The reversal of population decline in coastal country areas has been associated with structural changes in Australian industry, a transition from manufacturing to service industries, and a move to increased leisure opportunities and tourism in society (Kijas 2002). Figure 10 illustrates the net-migration flows for coastal country areas, from 2001 to 2006, along with the gross migration flows in the table. The largest net inflow of people towards coastal country areas is from capital cities with over 41 000 people becoming new residents between 2001 and 2006. This is combined with smaller net inflows from other regional classification, except for the net migration outflow towards coastal cities. In terms of the degree of interaction, coastal country areas have a high volume of migration flows with both capital and coastal cities.

F 10 Net-migration flows for coastal country areas, from 2001 to 2006



Regional classification	Overseas	Capital city	Coastal city	Inland city	Inland country	Remote
Coastal country in-migration	21 479	135 939	71 532	10 571	37 483	16 433
Coastal country out-migration	na	94 325	89 546	9 623	31 650	10 980
Coastal country net-migration	21 479	41 614	–18 014	948	5 833	5 453

Note: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. NA denotes that data is unavailable.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

This growth in coastal country areas has had the greatest impact on Australia's southern and eastern coastlines (Kijas 2002). One important feature of Australian internal migration to coastal country areas is 'sea change' (ABS 2009e). 'Sea change' migration is popularly conceived of as the movement of semi-retired or retired households to high amenity coastal areas, for what is understood to be idyllic coastal country lifestyles (McManus and Connell 2008). Comparatively more new coastal country residents aged 55 to 64 (57 per cent) were not in the labour force than longer-term residents in the same age group (45 per cent) (ABS 2009e).[20] Due to the high proportion of retired people, people who had moved to coastal country areas since 2001 were more likely to live in lower income households than new residents in other locations—26 per cent compared to 15 to 24 per cent elsewhere (ABS 2009e). This said, despite the lower incomes, they were more likely than new residents in other areas to live in their own homes, owned outright or with a mortgage (ABS 2009e). This was particularly the case for new residents aged 55 to 64 from capital cities (86 per cent) (ABS 2009e).

A distinctive feature of retirement migration is that often it is associated with people moving to what was formerly a holiday house, or to a place that they regularly visited on holidays previously. Alternatively, other retirees return to home areas which they left when they finished school, or were forced to seek work in urban centres because of a lack of local job opportunities (Hugo & Bell 1998).

Aside from retirees, around 41 per cent of new residents in coastal country areas were families with children under 15 years of age, as opposed to 37 per cent of new residents in capital cities (ABS 2009e). Health care and social assistance (11 per cent), and the retail trade (11 per cent) were the largest employment industries for employed new residents, compared with agriculture, forestry and fishing (12 per cent), and retail trade (12 per cent) for longer-term residents (ABS 2009e).

As the Victorian Department of Planning and Community Development (2008a) shows, in addition to population growth amongst permanent new retiree settlers, who are not dependent on employment for an income or families with flexible work arrangements who do not need to commute to urban work premises, there is often also additional, fluctuating population growth in many coastal country areas. This fluctuating population growth includes weekenders, second home owners, part-timers who can telecommute, and seasonal workers. Numbers of holiday house occupants and tourist visitors swell during summer and decline again in winter (Victorian Department of Planning and Community Development 2008a).

These changes are due to broader shifts in Australian society such as increased numbers of people owning weekender homes, less structured and more flexible working hours, rising affluence and high car ownership giving people more leisure and commuting options, and more people choosing to live in a place based on lifestyle considerations rather than economic ones (Victorian Department of Planning and Community Development 2008a).

In terms of international arrivals just over 21 000 people moved to a coastal country area between 2001 and 2006, which represents only 7 per cent of new residents. As a proportion of international arrivals to new residents, the top four SLAs were, in order, Douglas and Whitsunday (in Queensland), Byron (in NSW) and Augusta-Margaret River (in WA). A feature of these destinations is that they are also popular for domestic migration.

20 The coastal country area estimates presented by the ABS (2009e) publication would be larger than those for the BITRE regional classification because of the slightly larger geographical coastal country classification.

Summary

A coastal lifestyle has been a longstanding preference of Australians. This preference is reflected in the strong population growth of many coastal cities and coastal country areas often at rates higher than the national average.

Many of the new residents have been categorised as 'sea changers', especially amongst the older generation moving from a capital city to retire by the coast. However, not all coastal areas are growing strongly with some coastal cities in New South Wales, Tasmania and Victoria experiencing slow population growth rates. In general, these cities were still recovering from severe localised economic downturn in recent decades, largely associated with restructuring away from manufacturing industries.

CHAPTER 5
Inland

Key points

- All inland cities have experienced positive population growth. However, growth was slower, on average, than in coastal cities.
- Around 20 per cent of new residents aged 15 and over in inland cities were students, attracted by university and vocational education facilities.
- Often, inland cities had higher proportions of new arrivals from non-capital city Australian locations than coastal cities did.
- Population change in inland country areas has been mixed with some regions growing quickly while others have experienced substantial declines.
- The population growth or declines of inland country areas resulted from a range of factors, such as the sponge city effect, peri-urban growth, lifestyle changes and shifts in industry structure.

Introduction

Australian inland areas are diverse and cover locations as different as the mountainous high country regions in Victoria, tropical rainforests of Queensland and desert areas in Western Australia. Population growth is also variable with some regions growing strongly, whilst others experienced population declines.

To examine population change occurring in inland areas the chapter has been separated into two sections—inland cities and inland country areas.

Inland cities

Inland cities are based on Statistical Districts that are primarily urban and have 25 000 persons or more. These cities do not border a coastline, have a centre point more than 50 kilometres from the coast and are not classified as remote or very remote in the ABS Remoteness structure. There were 14 inland cities in Australia in 2009.

Population change 2001 to 2009

Between 2001 and 2009, population growth in inland cities was comparatively slower on average than that of coastal cities. Table 23 shows that only Queanbeyan and Toowoomba, both of which were located adjacent to capital cities, had population growth rates higher than the national average. The rest grew, but more slowly.

Growth was slowest in the La Trobe Valley, Dubbo and Orange. Slow growth in the La Trobe Valley was associated with the aftermath of restructuring and downturn in the electricity industry in the 1990s (VDPCD 2008b). The coastal cities of Newcastle, Wollongong, Launceston and Burnie-Devonport experienced slower average growth and were also recovering after an economic downturn.

T 23 Inland cities–total population growth and annual average population growth, 2001 and 2009

Inland city	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Queanbeyan (NSW)	41 598	51 250	9 652	2.6
Toowoomba (QLD)	109 449	128 600	19 151	2.0
Bendigo (VIC)	79 673	89 995	10 322	1.5
Ballarat (VIC)	83 599	94 088	10 489	1.5
Wagga Wagga (NSW)	52 120	58 046	5 926	1.4
Mildura (VIC)	45 294	50 042	4 748	1.3
Bathurst (NSW)	30 615	33 793	3 178	1.2
Tamworth (NSW)	42 510	46 695	4 185	1.2
Kalgoorlie/Boulder (WA)	29 383	32 150	2 767	1.1
Albury-Wodonga (NSW/VIC)	95 621	104 609	8 988	1.1
Shepparton (VIC)	44 876	48 926	4 050	1.1
La Trobe Valley (VIC)	74 996	79 964	4 968	0.8
Dubbo (NSW)	35 191	37 491	2 300	0.8
Orange (NSW)	36 999	38 685	1 686	0.6
Total Inland cities	801 924	894 334	92 410	1.4
Total Australia	19 413 240	21 955 256	2 542 016	1.6

Note: The Albury–Wodonga Statistical District straddles the New South Wales/Victorian border.

The 2009 estimated resident population of the New South Wales city of Queanbeyan (which includes the SLA of Palerang–Pt A) has been separated out from the capital city of Canberra here, although the ABS defines 'Canberra–Queanbeyan' as one Statistical District. Canberra's population is discussed in the capital city section of this report.

Source: BITRE analysis of ABS (2010b).

New residents (that is, people who arrived between 2001 and 2006) represented 21 per cent of the population of inland cities in 2006 (ABS 2009e). These new residents had a relatively young age profile, with a median age of 29 years, due to a relatively large inflow of young people and a relatively small inflow of older people (ABS 2009e). Around 20 per cent of new residents aged 15 and over in the inland cities were students, attracted by university and vocational education facilities (ABS 2009e).

The largest employing industries for employed new residents in inland cities were health care and social assistance (12 per cent) and public administration and safety (12 per cent), whilst the largest employing industry for employed longer-term residents was retail trade (14 per cent)

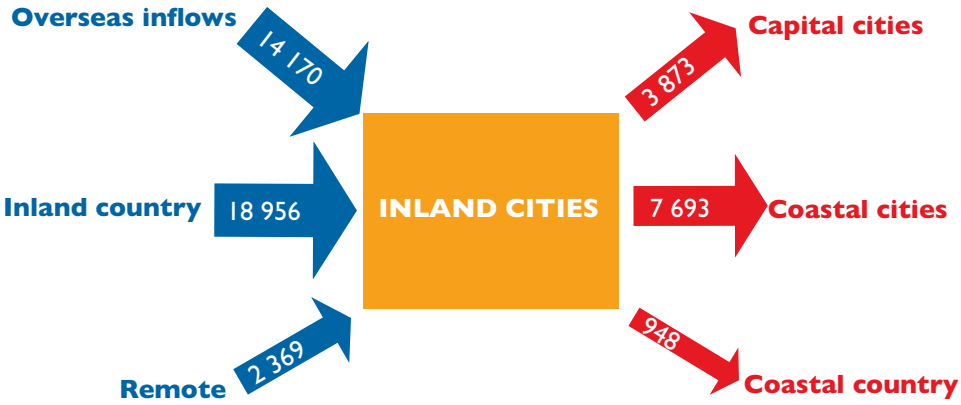
(ABS 2009e). An exception was Kalgoorlie, with approximately 25 per cent of new residents (and 20 per cent of longer-term residents) working in the mining industry (ABS 2009e).

Every regional city has a different industry structure and economic history, attracting different types of new residents. For example, in Mildura and Shepparton, growth has been supported by strongly developed agricultural processing industries, whilst in Bendigo and Ballarat service industries, education and government administration have bolstered population growth (Beer and Clower 2009).

Population mobility 2001 to 2006

Figure 11 illustrates the net-migration flows for inland cities between 2001 and 2006, along with the gross migration flows in the table. The figure illustrates the net flows of people from inland cities towards capital cities and coastal locations. Inland cities experienced net inward inflows from inland country areas and remote Australia. The largest gross inflow to inland cities was from inland country areas and the largest gross outflow was to capital cities.

F 11 Net-migration flows for inland cities, from 2001 to 2006



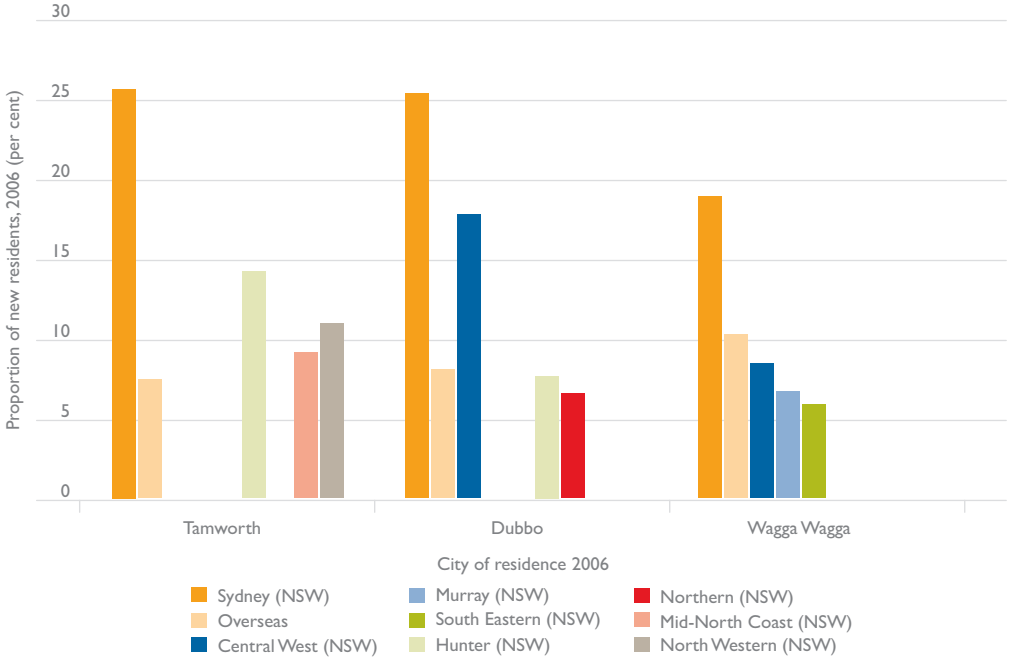
Regional classification	Overseas	Capital city	Coastal city	Coastal country	Inland country	Remote
Inland cities in-migration	14 170	47 826	12 835	9 623	49 343	6 206
Inland cities out-migration	na	51 699	20 528	10 571	30 387	3 837
Inland cities net-migration	14 170	–3 873	–7 693	–948	18 956	2 369

Note: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. NA denotes that data is unavailable.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Figures 12 and 13 show the top five places from which new residents moved to the New South Wales inland cities of Tamworth, Dubbo and Wagga Wagga, and to the Victorian inland cities of Bendigo, Ballarat and Mildura. They show that all of these towns received less than 30 per cent of their new residents from the capital cities of Melbourne and Sydney. More than half of all new residents in Dubbo, Tamworth, Mildura, Toowoomba, Bendigo, Ballarat and Wagga Wagga in 2009 had moved there from non-capital city locations.

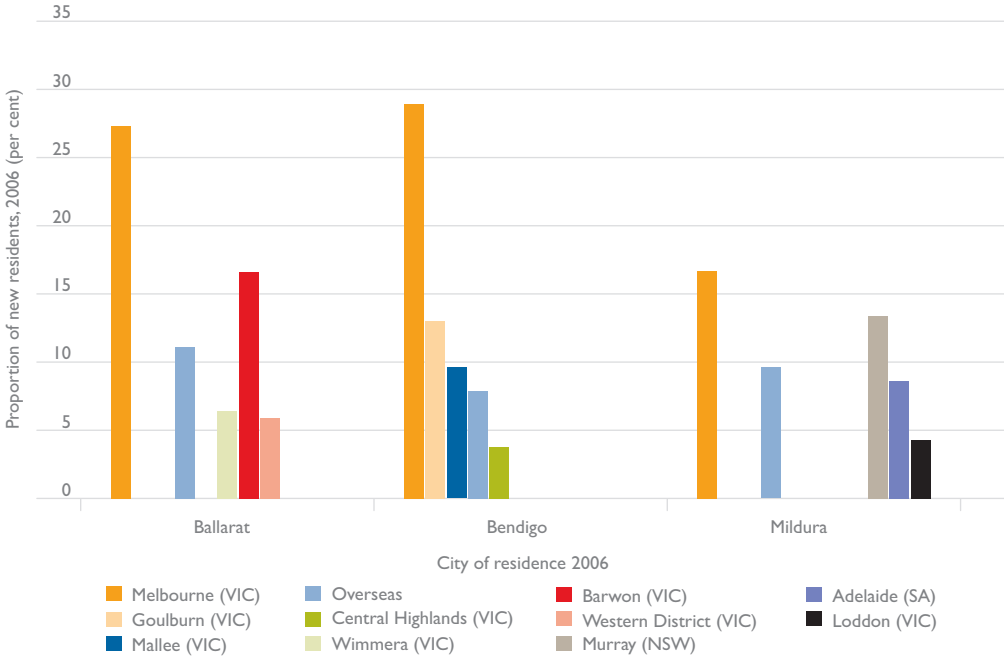
F 12 New arrivals in selected New South Wales inland cities 2006, by top five places of residence in 2001



Note: This table is based on the top five Statistical Divisions from which people moved to selected inland cities in NSW between 2001 and 2006 (where 'overseas' is counted as a Statistical Division). This table only shows percentages of those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

F 13 New arrivals in selected Victorian inland cities 2006, by top five places of residence in 2001



Note: This table is based on the top five Statistical Divisions from which people moved to selected inland cities in Victoria between 2001 and 2006 (where 'overseas' is counted as a Statistical Division). This table only shows percentages of those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Despite the importance of other regions as migration sources for inland cities, many people who moved to inland cities between 2001 and 2006 were from capital cities. Table 24 shows the proportion of new residents in inland cities from the two largest contributing capital cities. As highlighted previously, Tamworth, Dubbo and Wagga Wagga received less than 30 per cent of their new residents from Sydney but places such as Bathurst and Orange had much larger inward flows from Sydney at 44.3 per cent and 34.8 per cent, respectively.

T 24 Ex-capital city residents 2001 (top 2 cities of origin only), as a proportion of all new residents in each Australian inland city, 2006

Inland cities–NSW 2006	Former capital city of residence (per cent) in 2001			
	Sydney	Canberra	Brisbane	Melbourne
Tamworth (NSW)	25.8		4.4	
Dubbo (NSW)	25.5		3.0	
Wagga Wagga (NSW)	19.0	5.0		
Bathurst (NSW)	44.3	2.2		
Orange (NSW)	34.8		2.1	
Albury-Wodonga (NSW/VIC)	12.6			18.5
Queanbeyan (NSW)	11.8	45.4		
Inland cities–VIC 2006	**Former capital city of residence, 2001**			
	Melbourne	**Adelaide**	**Sydney**	**Brisbane**
Ballarat (VIC)	27.3	1.7		
Bendigo (VIC)	28.9		2.0	
Shepparton (VIC)	25.6		3.8	
La Trobe Valley (VIC)	36.7			2.8
Mildura (VIC)	16.7	8.6		
Inland cities–QLD, 2006	**Former capital city of residence, 2001**			
	Brisbane	**Sydney**		
Toowoomba (QLD)	18.5	3.5		
Inland cities–WA 2006	**Former capital city of residence, 2001**			
	Perth	**Melbourne**		
Kalgoorlie/Boulder (WA)	32.0	3.3		

Note: This table only shows capital city arrivals as a percentage of those new residents with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

International migration 2001 to 2006

International arrivals were a significant group amongst new residents living in all inland cities, between 2001 and 2006, as shown in Table 25. The inland cities with the highest concentrations of immigrants amongst new arrivals were Shepparton and Kalgoorlie. The cities of Tamworth, Bendigo and Dubbo had the lowest proportion of immigrants amongst new arrivals.

T 25 Overseas arrivals as a proportion of new residents since 2001 by inland city (per cent), 2006

Inland city of usual residence 2006	Overseas arrivals as a proportion of new residents (2001 to 2006)	Number of overseas arrivals (2001 to 2006)
Shepparton (VIC)	23.5	1 076
Kalgoorlie/Boulder (WA)	21.0	1 415
Toowoomba (QLD)	15.6	3 304
La Trobe Valley (VIC)	12.1	866
Ballarat (VIC)	11.1	1 327
Queanbeyan (NSW)	11.0	1 195
Wagga Wagga (NSW)	10.3	888
Mildura (VIC)	9.6	570
Albury-Wodonga (NSW/VIC)	9.2	1 162
Orange (NSW)	8.8	398
Bathurst (NSW)	8.2	399
Dubbo (NSW)	8.1	312
Bendigo (VIC)	7.9	868
Tamworth (NSW)	7.5	390

Note: This table only shows overseas arrivals as a percentage of those new residents with a known place of usual residence in 2001. Table 2 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Inland country areas

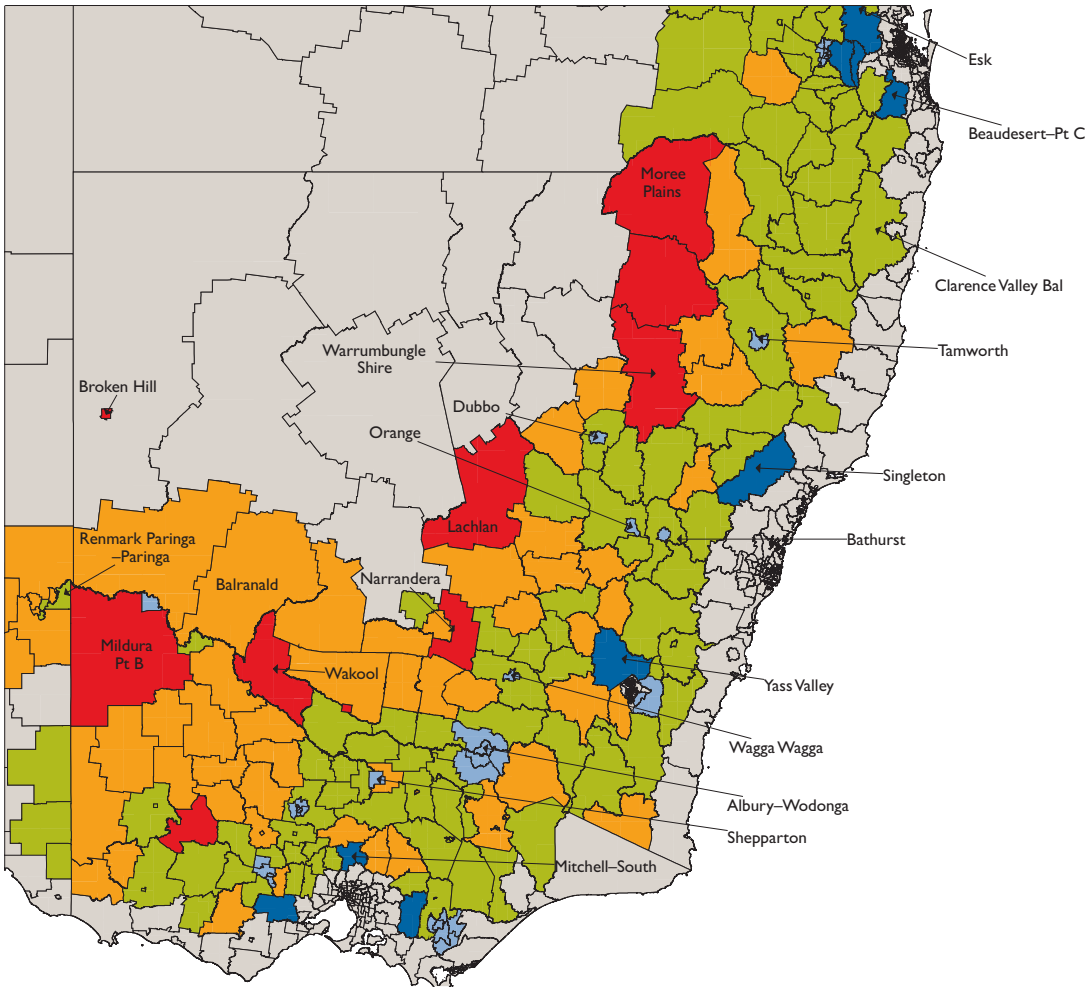
Inland country areas are SLAs where the geographic centre is 50 kilometres or more from the coast and not classified as either an inland city (based on Statistical Districts) or as remote or very remote (based on the ABS Remoteness structure). In 2009, there were 257 SLAs in inland country areas.

Population change 2001 to 2009

Population change in inland country areas has been mixed, with some regions growing quickly while others have experienced substantial declines. Figure 14 shows population growth between 2001 and 2009 in inland country areas in south-eastern Australia. SLAs where the population has grown are shaded in green and areas where the population has declined are shaded in orange. Inland cities are in light blue.

A feature of the map is that inland country areas that are either close to the coast, close to a capital city or close to regional cities have generally experienced population growth. In contrast, those regions further inland have generally experienced population declines. More specially, the population of regions surrounding the Murray River and nearby irrigation areas have generally declined.

F 14 Inland country SLAs absolute population change (part selection only), 2001 to 2009



Population change for inland country, 2001 to 2009
by SLA and number of persons

- Top ten inland country population decline
- Inland country population decline
- Inland country population growth
- Top ten inland country population growth
- Inland city
- Not in scope

Source: BITRE analysis of ABS (2010b)

Table 26 presents the top ten highest population growth rates by SLAs in the inland country areas between 2001 and 2009 (a selection of the top ten are displayed in Figure 14). The first three SLAs illustrate three contrasting patterns of population growth. Nebo illustrates growth due to the resources boom, where 45 per cent of the employment growth between 2001 and 2006 for this SLA coming from the mining sector. Woocoo[21] is a region close to Hervey Bay and Maryborough on the coast of Queensland, which are strong lifestyle population growth areas. Finally, Mitchell–South represents the growth of peri-urban locations that are townships or rural locations positioned close to a major centre, in this case Melbourne.

T 26 Ten Statistical Local Areas with the highest population growth rate in inland country areas, 2001 to 2009

Inland country SLAs	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Nebo (QLD)	2 094	2 989	895	4.5
Woocoo (QLD)	3 078	4 164	1 086	3.8
Mitchel–South (VIC)	16 954	22 909	5 955	3.8
Laidley (QLD)	13 089	17 409	4 320	3.6
Golden Plains–South-East (VIC)	7 754	10 134	2 380	3.4
Warwick–West (QLD)	3 213	4 165	952	3.3
Beaudesert–Pt C (QLD)	10 591	13 150	2 559	2.7
Goulburn Mulwaree Bal (NSW)	5 329	6 604	1 275	2.7
Kilkivan (QLD)	3 222	3 978	756	2.7
Kilcoy (QLD)	3 312	4 075	763	2.6
Total Inland country	1 635 841	1 721 268	85 428	0.6
Total Australia	19 413 240	21 955 256	2 542 016	1.6

Source: BITRE analysis of ABS (2010b).

As Budge (2005) points out, there are some rural locations beyond capital cities and their surrounds in Australia which have experienced high levels of growth in recent years. In Victoria, for example, these areas typically have very high natural and built amenity, and are associated with a well performing regional centre or with horticultural investment (Budge 2005). Barr (2002, p. 41) refers similarly to what he defines as 'amenity landscapes', which exist at the periphery around metropolitan and regional cities and offer aesthetically pleasing rural landscapes. Thus their attraction is determined by proximity to towns and a pleasant climate, for example. A discussion on a peri-urban location is provided in Box 2.

21 Through the definitional classification Woocoo just misses out on being classified as coastal because its centre point is outside the 50 kilometre limit.

Box 2 Peri-urban growth–Bungendore, NSW

The town of Bungendore is close to the nation's capital Canberra. This town grew quickly between 2001 and 2006 at an annual average rate of 5.3 per cent to a population of 2183 in 2006. This is over four percentage points higher than the population growth rate for the nation. The town's strong connection with the Canberra labour market is reflected in both the occupation and industry make up of the town's residents. For example, Bungendore in 2006 is dominated by employment in Central Government administration (9 per cent) and Defence (5 per cent). In contrast, Central Government administration and Defence employment nationally represents only 1.3 and 0.7 per cent respectively. This connection with Defence employment will likely increase further with the opening of the Australian Headquarters Joint Operations Command (HQJOC). The growth of peri-urban areas such as Bungendore has been recognised in the Sydney-Canberra Corridor Regional Strategy (New South Wales Department of Planning 2008). The strategy highlights that '[m]uch of this part of the Region is within commuting distance of Canberra and has benefited as a result of migration from the ACT. The rural character of Yass Valley and Palerang shires contrasts with the largely suburban character of Queanbeyan' (New South Wales Department of Planning 2008, p. 34).

A study into peri-urban regions in Australia has been completed by researchers from RMIT and Griffith Universities titled *Change and Continuity in Peri-Urban Australia.* The report highlights that the term peri-urban has its 'roots in the need to transcend the traditional urban-rural dichotomy' (Buxton et al 2006, p. 24). It recognises the transitional nature of peri-urban landscapes between a city and a strictly rural environment.

The physical structure of peri-urban areas can also be characterised as being significant agricultural producers. For example, the Port Phillip region close to Melbourne 'is the second highest producer of agricultural products in Victoria, and its agricultural output per hectare is four times the state average' (Buxton 2006, p. 3). However, Low Choy et al (2008) has highlighted that peri-urban areas demonstrate distinctive characteristics. They explored different planning scenarios for south-east Queensland and the greater Melbourne regions—based on *Agriculturally Declining and Agriculturally Revival* scenarios (Low Choy et al 2008, p. vi), and highlight two findings that occur under both scenarios, these are:

- continued spatial fragmentation 'dominated by activities associated with on-going peri-urbanisation processes' (Low Choy et al 2008, p. vii); and
- land use intensification into high capital forms of agricultural production as well as increasing dominance of non-urban industries (Low Choy et al 2008).

However, looking only at regions that have grown shows only part of the population picture occurring in inland country areas. In fact, 35 per cent of inland country SLAs experienced a decline in population between 2001 and 2009. Table 27 presents the SLAs that experienced the largest absolute declines in population from 2001 to 2009 and Figure 9 shows some of these SLAs in dark red.

A range of other agriculturally dependent SLAs appear in this list, such as Moree Plains, Narrabri and Lachlan in north-western New South Wales, which have industry structures strongly

geared towards sheep, beef cattle and grain farming. In contrast, the township of Broken Hill ranked second with a mining industry focus. Whilst mining continues today, deposits have been depleted, so resources are not being extracted at the same rate.

T 27 Ten Statistical Local Areas with the largest population declines in inland country areas, 2001 to 2009

Inland country SLAs	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Moree Plains (NSW)	16 233	14 406	–1 827	–1.5
Broken Hill (NSW)	21 098	19 960	–1 138	–0.7
Narrabri (NSW)	14537	13693	–844	–0.7
Lachlan (NSW)	7 560	6 872	–688	–1.2
Deniliquin (NSW)	8 333	7 693	–640	–1.0
Warrumbungle Shire (NSW)	10 849	10 323	–526	–0.6
Wakool (NSW)	4 929	4 427	–502	–1.3
Mildura–Pt B (VIC)	4 322	3 835	–487	–1.5
Narrandera (NSW)	6 739	6 262	–477	–0.9
N. Grampians–Stawell (VIC)	9 223	8 810	–413	–0.6
Total Inland country	1 635 841	1 721 268	85 428	0.6
Total Australia	19 413 240	21 955 256	2 542 016	1.6

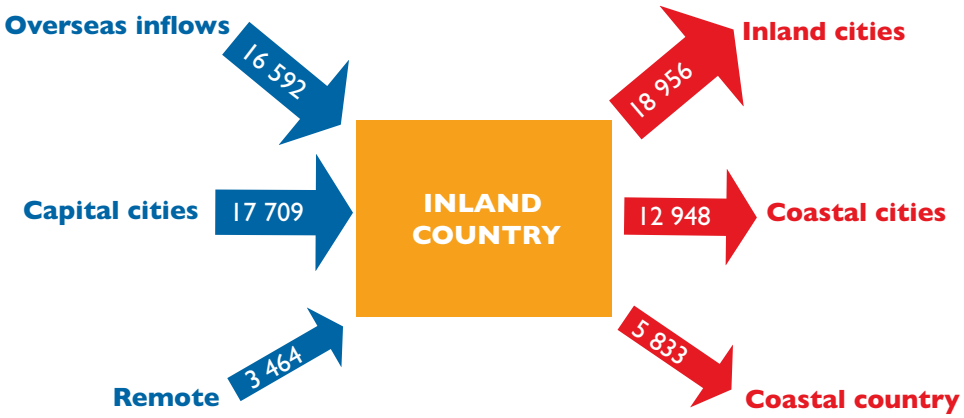
Source: BITRE analysis of ABS (2010b).

This trend of declining population in rural areas is not new. Data using a geographical definition based on urban centres, small towns and rural balance over a longer period shows a sustained trend of rural population loss associated with urban expansion. In fact, population loss in the Victorian rural balance was 72 000 persons from 1991 to 2006, which amounts to over half (55 per cent) of the national decline, with Queensland (13 per cent), NSW (12 per cent), NT (10 per cent) and SA (7 per cent) also making modest contributions. The population loss in Victoria was also combined with a fall in agricultural employment of 7400 persons, which is a relatively small number in comparison. Thus, the agricultural employment loss represents just a small fraction of the rural balance population loss and suggests that other factors are also making an important contribution, particularly the encroachment of Melbourne and the expansion of regional cities.

Inland country areas migration 2001 to 2006

Inland country areas experienced net inflow of migrants from capital cities and remote areas, and were a source of net population flows to inland cities, coastal cities and coastal country areas (see Figure 15). Capital cities were the largest source of gross migration to inland country areas and also the largest destination for outward migration from inland country areas.

F 15 Net-migration flows for inland country areas, from 2001 to 2006



Regional Classification	Overseas	Capital city	Coastal city	Inland city	Coastal country	Remote
Inland country in-migration	16 592	110 213	31 126	30 387	31 650	15 071
Inland country out-migration	na	92 504	44 074	49 343	37 483	11 607
Inland country net-migration	16 592	17 709	–12 948	–18 956	–5 833	3 464

Note: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. NA denotes that data is unavailable.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

A number of researchers have observed that inland cities such as Dubbo and Wagga Wagga have been acting as 'sponge cities' in recent decades, 'soaking up' populations from small townships and farming districts in their immediate surrounds (that is, within their own Statistical Divisions) (Nugent 2000, p.1).

Tables 28 and 29 show population flows to and from the cities of Dubbo and Wagga Wagga between 2001 and 2006, within their respective Statistical Divisions. Both show that the cities of Dubbo and Wagga Wagga gained people from their surrounding areas, at the expense of those hinterland regions. It should be noted that people from surrounding rural areas were lost not only to Dubbo and Wagga Wagga, but to other population centres as well. This was previously discussed in Chapter 2.

T 28 Net migration to Dubbo from surrounding Statistical Local Areas (within the same Statistical District), 2001 to 2006

Moved from Dubbo Statistical District to …		Moved to Dubbo Statistical District from …		Net Migration to Dubbo Statistical District
Dubbo–Pt A	22 850	Dubbo–Pt A	22 850	Did not move
Dubbo–Pt B	389	Dubbo–Pt B	418	29
Gilgandra	98	Gilgandra	214	116
Mid-Western Regional–Pt A	48	Mid-Western Regional–Pt A	89	41
Narromine	164	Narromine	226	62
Warrumbungle Shire	68	Warrumbungle Shire	184	116
Wellington	183	Wellington	273	90
Bogan	28	Bogan	86	58
Coonamble	36	Coonamble	134	98
Walgett	27	Walgett	84	57
Warren	38	Warren	111	73
Bourke	36	Bourke	121	85
Brewarrina	30	Brewarrina	64	34
Cobar	60	Cobar	70	10
Total Out-migration	1 205	Total In-migration	2 074	869

Note: Dubbo Statistical District comprises the Statistical Local Area of Dubbo (C)–Pt A only. In other words, the table above shows that 22 850 people stayed in the same Statistical Local Area. This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

T 29 Net migration to Wagga Wagga from surrounding Statistical Local Areas (within the same Statistical District), 2001 to 2006

Moved from Wagga Wagga Statistical District to….		Moved to Wagga Wagga Statistical District from….		Net Migration to Wagga Wagga Statistical District
Wagga Wagga–Pt A	34 509	Wagga Wagga - Pt A	34 509	Did not move
Coolamon	160	Coolamon	249	89
Cootamundra	34	Cootamundra	134	100
Gundagai	27	Gundagai	77	50
Junee	162	Junee	285	123
Lockhart	151	Lockhart	260	109
Narrandera	54	Narrandera	168	114
Temora	52	Temora	195	143
Tumut Shire	100	Tumut Shire	268	168
Wagga Wagga–Pt B	457	Wagga Wagga–Pt B	505	48
Carrathool	10	Carrathool	47	37
Griffith	133	Griffith	213	80
Hay	16	Hay	44	28
Leeton	62	Leeton	163	101
Murrumbidgee	13	Murrumbidgee	27	14
Total Out-migration	1 431	Total In-migration	2 635	1 204

Note: Wagga Wagga Statistical District comprises the Statistical Local Area of Wagga Wagga (C)–Pt A only. In other words, the table above shows that 34 509 people stayed in the same Statistical Local Area. This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Another form of population movement, as highlighted earlier, is the growth of peri-urban locations close to large centres. In-migration towards these SLAs is dominated by the nearby city. For example, 76 per cent of the new residents in Mitchell–South in 2006, which is within commuting distance of Melbourne, came from Melbourne.

A further aspect of people moving in recent years is the phenomenon occurring through 'tree change' migration. 'Tree change' migration is popularly conceived of as the movement of semi-retired or retired households to high amenity inland areas (McManus and Connell 2008), but it can also include all people moving to country areas for what is understood to be an idyllic rural lifestyle. Budge (2005) points out that a major influencing factor for ex-urban migrants moving to certain regional cities, small towns and rural areas is the pursuit of what is believed to be a 'better lifestyle'. For example, retirees who do not have enough savings to finance their retirement, but do have equity in a capital city home, are selling their homes to buy cheaper rural houses and use the rest of the proceeds to live on. Housing affordability in metropolitan areas has also been a significant influencing factor in working aged people leaving cities like Melbourne and seek work elsewhere in smaller regional centres. A study by the Tasmanian Department of Treasury and Finance found that a strong motivator for people to move to Tasmania was housing affordability (TDTF 2003). Essentially, Tasmania's lower house prices in comparison to the mainland were an incentive to move.

By leaving urban centres, people may also be choosing what they believe to be a slower pace of life in high amenity smaller communities, pursuing greater recreational opportunities, or perhaps seeking to live in what they perceive to be communities with lower crime rates and congestion than found in capital cities (Budge 2005). Younger, pre-retirement 'tree changers' may be willing to trade off desired places against a lower level and variety of employment prospects. Others will continue to work in major centres but commute from outlying rural or peri-urban communities in order to achieve the lifestyle home location they prefer (Budge 2005).

Influxes of ex-urban migrants can themselves help create a cycle which generates higher population density in high amenity rural regions over time, by pushing up the prices of rural land in those regions, restricting the capacity of local agriculture to adjust to maintain economic competitiveness (for example, by increasing the size of farm landholdings to achieve new economies of scale). Barr (2002, p. 41) contends that, whilst many 'low landscape amenity' regions with strong and competitive traditional agricultural industries have seen population decline in recent decades (new production methods require less and less intensive labour inputs, for example), high amenity rural regions have seen rising populations due to new arrivals from elsewhere. Another aspect, investigated by Costello (2009, p. 232) for the inland Victorian country town of Castlemaine, was that 'the dynamics of the local housing market [has] changed, particularly the loss of affordable housing, [was] attributed directly by key stakeholders to 'tree changers' driving house price rises'.

Box 3 Tree change case study–Echuca, Victoria

According to the Victorian Government, Echuca is one of the state's townships which experienced strong growth due to retirement and 'tree change' migration (Victorian Department of Planning and Community Development 2008b). Between 2001 and 2006, the Statistical Local Area of Campaspe Shire–Echuca grew by 16.7 per cent, from 11 609 to 13 553 persons, with an annual average growth rate of 2.0 per cent (BITRE analysis of ABS 2010b). Between 2001 and 2006, 21.1 per cent of new residents who moved to the township of Echuca (originally from outside the Echuca Statistical Local Area) were aged 55 and over (ABS 2007b). This compares with 15.7 per cent of new residents who moved to the capital city Statistical Division of Melbourne, within the same state (BITRE analysis of ABS 2006c). Of the 2180 people who moved to the Statistical Local Area of Campaspe Shire–Echuca from other Statistical Divisions, almost one third (33.1 per cent) came from Melbourne (BITRE analysis of ABS unpublished data, 2006 Census of Population and Housing). This was by far the largest group of immigrants to the region.

Budge (2005) argues that the traditional view of how population growth has been driven in regional areas (namely, that investment in new enterprises was necessary to attract a workforce so that population growth would follow) does not necessarily hold true for places like Echuca. Whilst Budge acknowledges that the traditional model does explain considerable population growth, it is increasingly evident that population growth in places like Echuca is a substantive generator of jobs in itself. Rural townships can be losing jobs in agriculture and manufacturing but still growing because of growth in industry sectors which service growing numbers of people and households. For these areas, the local economy is built on population led growth. The quality of key services and facilities and their capacity to meet lifestyle and personal needs (including medical, health and education services) are important drivers. Prospective new residents look to elements such as the range and number of quality shops meeting lifestyle needs, the existence of quality walking trails, libraries, fitness and activity centres, and the long term commitment to quality environmental settings (Budge 2005). Meanwhile, there are people moving to these areas identifying local opportunities to serve the population with start-up businesses.

By 2005, Echuca was in itself a strong employment base, and people were commuting to it from smaller hinterland towns in surrounding regions to work there. In 2004, approximately 18.5 per cent of the workforce of Kyabram (a township of approximately 6000 people 37 kilometres to the south-east) was working in Echuca. Similarly, 26.5 per cent of the workforce of Rochester (a township of approximately 2500 people 30 kilometres to the south) was working in Echuca (Budge 2005).

In terms of international arrivals over 16 000 people moved into an inland country area. Table 30 presents the top five inland country regions that experienced the most overall arrivals and the most arrivals as a proportion of new residents, between 2001 and 2006. The SLA of Griffith appears in both categories, with a high level of overseas arrivals moving to this agricultural region, which also has a strong food and beverage manufacturing sector.

T 30 Overseas arrivals as a proportion of new residents and highest number of overseas arrivals (since 2001) by inland country, 2006

Inland country SLAs	Overseas arrivals as a proportion of new residents (per cent)	Number of overseas arrivals
Mount Hotham Alpine Resort (VIC)	30.0	12
Remainder of ACT (ACT)	26.6	25
Swan Hill–Robinvale (VIC)	24.5	150
Griffith (NSW)*	22.5	730
Katanning (WA)	20.9	180
Inland country SLAs	**Highest number of overseas arrivals**	**Overseas arrivals as a proportion of new residents (per cent)**
Griffith (NSW)*	730	22.5
Armidale Dumaresq–City (NSW)	638	11.4
Mitchell–South (VIC)	400	7.3
Murray Bridge (SA)	356	11.0
Gatton (QLD)	342	8.7

Note: This table only shows overseas arrivals as a percentage of those new residents with a known place of usual residence in 2001. Table 1 at Appendix C shows the proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. Asterisks (*) denote SLAs that appear in both classifications.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Summary

Australian inland areas are diverse and population growth has also been mixed. All inland cities experienced population growth between 2001 and 2009, but growth was comparatively slower on average than that of coastal cities. However, often inland cities had higher proportions of new arrivals from non-capital city Australian locations than coastal cities did.

Population change in inland country areas has been far more mixed with some regions growing quickly while others have experienced substantial declines. The population growth or declines of inland country areas are driven by the sponge city effect, peri-urban growth and tree change lifestyle changes, with substantial interaction between the capital cities and inland country areas. In fact, for some regions population growth is a substantive generator of jobs in itself. However, many small rural townships, especially those with an agricultural base, are experiencing population declines.

CHAPTER 6
Remote areas

Key points

- Remote areas cover an area of 6.3 million kilometres, but contained only 2.2 per cent of the country's population in 2009.
- The population across all remote areas grew by 20 500 people between 2001 and 2009, at an annual average rate of 0.5 per cent per annum.
- Some remote areas that grew strongly have an association with the resources boom, but growth also occurred in attractive remote coastal locations and regions with high birth rates.
- 44 per cent of remote SLAs experienced a decline in population between 2001 and 2009, with many of these having a strong agricultural sector base.
- Remote locations experienced net outward migration to all other regional classifications with the largest loss to coastal cities, closely followed by capital cities.
- Remote locations experienced a net inward migration of persons aged between 25 and 34 years, which may reflect young adults (mostly from capital cities) taking advantage of economic opportunities in selected remote locations.
- The economy and local amenities are factors that have a strong influence on the settlement patterns of individuals in remote locations, especially for those regions with a resource industry base.

Introduction

The outback is an iconic image both nationally and internationally. This chapter provides some of the key population characteristics that make up the largest land share of the regional classification. Remote areas include any SLA that is predominantly classified as remote or very remote in the 2006 ABS Remoteness Structure. SLAs located in a capital city SD but classified as remote in the ABS Remoteness Structure remain with the relevant capital city. There were 226 remote SLAs in 2009.

Population change 2001 to 2009

Remote Australia had a population of 485 000 people in 2009, which increased by 20 500 persons between 2001 and 2009. The region covers an area of 6.3 million square kilometres, representing 82 per cent[22] of the country's land mass, but accounts for only 2.2 per cent of the nation's population in 2009. The region is also the slowest growing of all the regional classifications at an average 0.5 per cent annually, which is less than one third of the national rate.

While overall population growth across remote Australian regions has been slow there are still regions that have experienced strong growth. Table 31 lists the remote SLAs that experienced the highest average annual population growth rates and largest absolute population increases between 2001 and 2009. Emerald and East Pilbara SLAs appear in both lists.

Mining regions feature heavily among the list of remote regions experiencing strong population growth. For example, Emerald and Belyando are in the Bowen Basin coal mining region. On the western side of the country the SLAs of Roebourne and the East Pilbara, along with other surrounding SLAs such as Port Hedland and Ashburton, are strong in the iron ore mining sector.

Two other SLAs illustrate a different dimension to remote Australia's population growth. Broome is an attractive coastal city that is known worldwide for its pearling industry, which is combined with a strong tourism sector that suggests it has more in common with coastal country regions. In contrast, the SLA of Thamarrurr to the south-west of Darwin along the coast contains the urban centre of Wadeye. Around 93 per cent of Thamarrurr's population in 2006 comprised Indigenous Australians and it has a high natural population growth rate.

T 31 Remote–top five total population growth and average annual population growth, 2001 to 2009

Remote SLAs	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Emerald (QLD)*	13 056	17 298	4 242	3.6
Roebourne (WA)	15 058	18 828	3 770	2.8
Broome (WA)	13 196	15 857	2 661	2.3
East Pilbara (WA)*	5 628	7 954	2 326	4.4
Belyando (QLD)	9 948	11 876	1 928	2.2
Weipa (QLD)	2 173	3 320	1 147	5.4
Ravensthorpe (WA)	1 504	2 402	898	6.0
Thamarrurr (NT)	1 665	2 394	729	4.6
Total Remote	462 531	483 085	20 554	0.5
Total Australia	19 413 240	21 955 256	2 542 016	1.6

Note: The presentation of the top five average annual population growth and absolute population increase by SLA excludes SLAs with a population below 500 in 2001. Asterisks (*) denote SLAs that appear in both categories.

Source: BITRE analysis of ABS (2010b).

22 The area calculation is based on the SLA Remote classification used in this publication.

Natural population growth is a driver of population growth in remote Australia. The top five remote SLAs with a high percentage natural population growth rate are listed in Table 32. A feature of the remote area SLAs with high natural population growth rates is the high proportion of indigenous residents. Warraber, Mer and Dauan are part of the Torres Strait Islands off the coast of the Cape York Peninsula, while Injinoo is positioned on the adjacent mainland. This illustrates a finding by the ABS that '[i]n 2008, the total fertility rate for Aboriginal and Torres Strait Islander females was estimated to be 2.52 children per woman, compared with 1.97 children per woman for all Australian females' (ABS 2010c).

T 32 Remote–top five percentage increase in natural population growth, 2001 to 2009

Statistical Local Area	Natural growth 2001 to 2009 (percentage of the 2001 population)	Population growth 2001 to 2009 (percentage of the 2001 population)	Population growth 2001 to 2009 (absolute increase)	Proportion of residents that are Indigenous in 2006 (per cent)
Warraber (QLD)	25.6	23.1	54	95.5
Thamarrurr (NT)	23.2	43.8	729	92.7
Mer (QLD)	22.8	21.7	97	96.5
Injinoo (QLD)	22.5	12.3	54	95.7
Dauan (QLD)	21.6	36.6	44	94.8

Notes: SLAs with an absolute population growth of less than 40 have been excluded. Natural growth rates refer to births minus deaths within the SLA.

Source: ABS (2010b; 2007a; 2007c; 2009a; 2009b).

As previously highlighted in Chapter 1, the SLA population change map of Australia (Figure 2) is dominated by declining populations in the centre of the country, illustrating that 44 per cent of remote Australian SLAs experienced population declines between 2001 and 2009.

Table 33 presents the remote area SLAs with the lowest average annual population growth rates and largest absolute population declines between 2001 and 2009. The defining feature of most of these regions is that they have a strong industry base in agriculture, particularly sheep, beef and grain. For example, 24 per cent of Walgett employees, in the north of NSW, were employed in the sheep, beef and grain sectors in 2006. Hugo (2010a) points out areas with declining populations include many wheat-sheep farming areas, a range of small and medium-sized country towns and some regional industrial and mining areas. Many of these areas are relatively distant from capital cities or regional cities, and do not offer the amenity associated with the 'tree change' and 'sea change' rural areas discussed earlier in this report.

Another feature is the predominance of inland eastern states among these regions with declining populations because of the impact of the drought over almost the entire period under study. This was highlighted by the Bureau of Meteorology (BOM) (2008) with the Manager of the Bureau's NSW Climate Service centre stating that '[t]he last year in which there was widespread above-average rainfall across much of inland NSW was 2000. Since then eastern Australia has had a succession of years with generally below average [rainfall], with two extremely dry years, 2002 and 2006, associated with El Niño events'.

Finally, as highlighted previously in Chapter 2, while economic growth from the resources boom has brought population growth to some remote areas, other regions such Laverton and Leonora experienced significant population falls, despite the existence of large gold mines nearby. This may be due a shift towards fly-in fly-out (FIFO) operations, with access from Kalgoorlie-Boulder and Perth (BITRE 2010a).

T 33 Remote–top five total population declines and average annual population declines, 2001 to 2009

Remote SLAs	Estimated resident population 2001	Estimated resident population 2009	Population growth 2001 to 2009	Annual average growth 2001 to 2009 (per cent)
Unincorp. Far North (SA)*	3 335	1 700	–1 635	–8.1
Walgett (NSW)	8 328	7 209	–1 119	–1.8
Bourke (NSW)*	3 951	3 070	–881	–3.1
Balonne (QLD)	5 580	4 847	–733	–1.7
Carnarvon (WA)	6 723	6 166	–557	–1.1
Laverton (WA)	1 202	760	–442	–5.6
Dalwallinu (WA)	1 882	1 352	–530	–4.1
Boulia (QLD)	577	448	–129	–3.1
Total Remote	462 531	483 085	20 554	0.5
Total Australia	19 413 240	21 955 256	2 542 016	1.6

Notes: The presentation of the top five average annual population growth rates and absolute population increases by SLA excludes SLAs with a population below 500 in 2001. Asterisks (*) denote SLAs that appear in both categories.

Source: BITRE analysis of ABS (2010b).

In other words, this analysis illustrates the patchy population growth patterns for remote Australia. Some large increases in population are associated with mining activities, natural population growth rates, tourism and selected agricultural industries. Some of the large population declines were in regions that had a strong dependence on agriculture that have been particularly affected by drought or mining regions that can be serviced by a large centre or where mining operations were being scaled down or were recently closed.

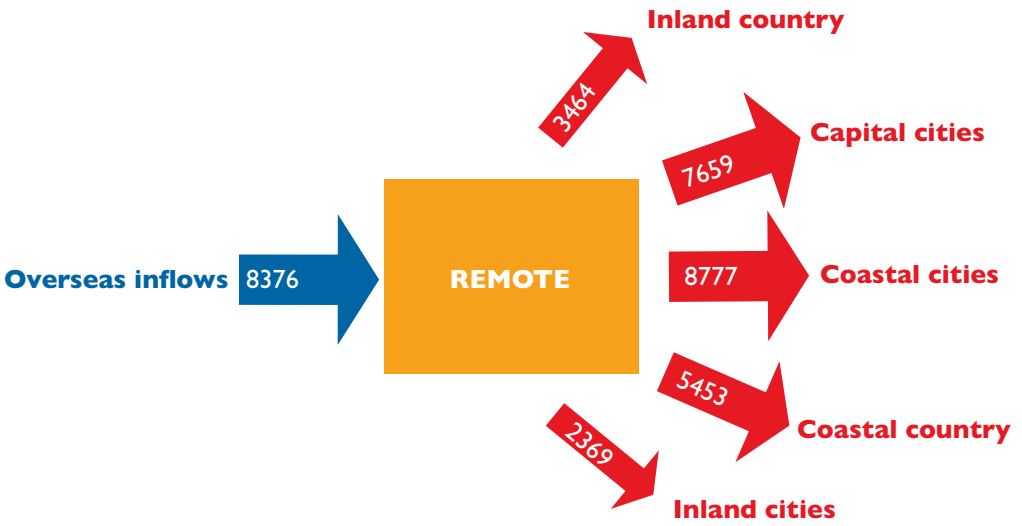
Population mobility 2001 to 2006

The defining feature of the population migration trends in remote Australian regions between 2001 and 2006 is of migration away from remote areas. Figure 16 presents the net-migration flows for remote areas from 2001 to 2006, along with a table of the inward and outward migration flows. The table illustrates that in comparison to other regional classifications a substantially smaller number of people move both from and to remote locations. Remote locations experienced a net-migration outflow to all other regional classifications with the largest in- and out-migration flow occurring to and from capital cities. However, the largest net migration loss of over 8500 people from remote locations was towards the coastal cities.

Table 34 presents gross migration flows between 2001 and 2006 by age profile. The ages at which people are leaving remote Australia are principally in the young and old age brackets. In contrast, for persons aged between 25 and 34 years, remote locations have a small but positive net-migration flow that may reflect young adults (mostly from capital cities), taking advantage of economic opportunities in selected remote locations, particularly mining.

As previously highlighted in Chapter 1 the data is based on 2006 census responses. Hence, those people that moved overseas between 2001 and 2006 are omitted, so the figure can give the misleading impression that there has only been an inward flow from overseas.

F 16 Net-migration flows for remote classification, from 2001 to 2006



Regional classification	Overseas	Capital city	Coastal city	Inland city	Coastal country	Inland country
Remote in-migration	8 376	30 577	13 136	3 837	10 980	11 607
Remote out-migration	na	38 236	21 913	6 206	16 433	15 071
Remote net-migration	8 376	–7 659	–8 777	–2 369	–5 453	–3 464

Notes: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution. NA denotes that data is unavailable.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

T 34 Remote—in- and out-migration by various age brackets, 2001 to 2006

Age bracket	In-migration remote	Out-migration remote	Difference
5 to 14 years	10 781	19 584	–8 803
15 to 24 years	11 539	17 953	–6 414
25 to 34 years	17 796	17 395	401
35 to 54 years	21 945	29 781	–7 836
55 to 64 years	5 755	8 217	–2 462
Over 65 years	2 440	4 771	–2 331

Notes: This table is based on people movements between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Table 35 lists the five SLAs that experienced the greatest net-migration inflows and outflows, between 2001 and 2006. Three of the top five SLAs with positive net-migration are mining regions, namely Emerald, East Pilbara and Ravensthorpe. All of these regions experienced strong employment growth, particularly Ravensthorpe. A discussion of the Ravensthorpe SLA is provided in Box 4.

The region of Mount Isa experienced the largest net outward migration between 2001 and 2006. Mount Isa is a mining town with 27 percent of employed residents working in this sector in 2006 (BITRE 2009). However, Mount Isa had a fall in employment but not in mining. In fact, mining employment grew by 391 jobs but the region experienced large employment losses in construction (176 jobs), retail trade (174 jobs), property & business services (146 jobs), and manufacturing (117 jobs) (BITRE 2009). Port Hedland also has a strong mining component with 19 per cent of employed persons working in this sector, but mining employment declined between 2001 and 2006, contributing to the fall in overall employment. Employment grew in the surrounding SLAs of Ashburton, Roebourne and East Pilbara.

T 35 Remote SLA migration flows—top 5 highest and lowest net-migration, from 2001 to 2006

Remote SLAs	Internal in-migration	Overseas arrivals	Internal out-migration	Net migration	Employment change 2001 to 2006 (per cent)
Emerald (QLD)	4 230	431	3 950	711	18.2
East Pilbara (WA)	1 965	279	1 685	599	14.1
Dalrymple (QLD)	1 086	37	699	424	2.2
Port Lincoln (SA)	2 470	136	2 309	297	10.4
Ravensthorpe (WA)	621	86	453	254	66.3
Mount Isa (QLD)	4 504	576	6 615	–1 535	–5.6
Port Hedland (WA)	2 970	471	4 763	–1 322	–12.0
Walgett (NSW)	1 014	60	2 133	–1 059	–13.9
Katherine (NT)	2 312	144	3 223	–767	–7.8
Balonne (QLD)	895	43	1 618	–680	–13.9

Notes: This table is based on the people's movement between 2001 and 2006. This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a significant proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Box 4 Ravensthorpe–Mining in Western Australia

The SLA of Ravensthorpe has two urban centres, the town of Ravensthorpe (approximately 550 kilometres south-east of Perth) and the coastal town of Hopetoun. Ravensthorpe SLA had a population of 1504 people in 2001 and over the eight years to 2009 its population fluctuated dramatically. Figure 17 illustrates the percentage changes in the SLA's population against changes in total Australian population from 2002 to 2009. These dramatic changes in population provide an illustration of how a single project can influence settlement and migration patterns.

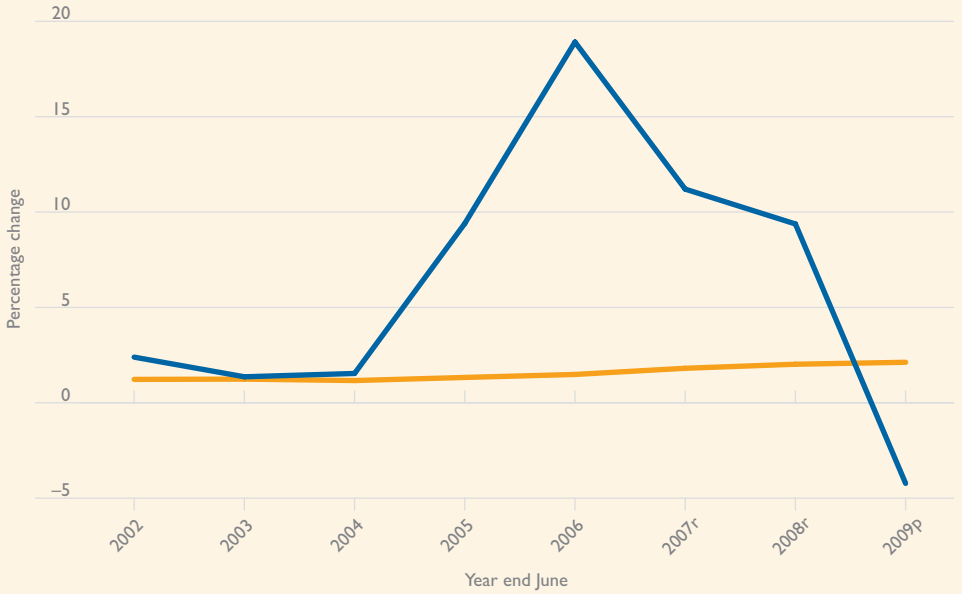
After a period of stable growth from 2002 to 2004, the population of Ravensthorpe SLA rose substantially between 2004 and 2005. The dramatic increase coincided with the 2004 BHP Billiton announcement for 'the development of a mine, treatment plant and associated infrastructure near Ravensthorpe' (BHP Billiton 2004). The following year, with construction fully underway, Ravensthorpe's population increased 19 per cent.

After this peak, population continued to grow substantially faster than the national rate up until the opening of the mine in May 2008. Between 2008 and 2009, there was a substantial drop in the population as a result of BHP Billiton announcement, on 21 January 2009, of the 'indefinite suspension of the Ravensthorpe Nickel Operation' because 'of the diminished prospects for profitability' (BHP Billiton 2009). Closure of the project resulted in substantial loss of local employment. The impact on housing is illustrated by BHP Billiton confirming that 'it would be repurchasing houses from employees who were original recipients of financial assistance from the company to build or buy a house in the communities of Hopetoun, Ravensthorpe and Esperance' (BHP Billiton 2010).

In December 2009 BHP Billiton signed an agreement to sell the Nickel operation in Ravensthorpe to First Quantum Minerals Australia Pty Ltd, a wholly owned subsidiary of First Quantum Minerals Ltd. The sale was finalised on February 10 the following year and the company states that it plans to 'spend the next 12 months constructing two crushing plants' (First Quantum 2010).

Hence, population changes can occur very quickly in either direction because of changing economic opportunities

F 17 Population percentage change for Ravensthorpe SLA and Australia, 2002 to 2009



Source: ABS (2010b)

This also provides an illustration of the wider impacts large projects can have in remote areas on the development of local infrastructure. For example, the Shire of Ravensthorpe (2010) outlined a series of changes that occurred through the construction and opening of the Nickel mine, such as:

- In 2005, a new airport was built between the towns and an air service commenced.
- In 2006, extensive housing development in Hopetoun, along with the commenced construction of a new school.
- In 2008, the opening of the Ravensthorpe Entertainment Centre.

The analysis of the migration patterns for remote locations suggests strong connections between population changes, the economy and local amenities.

As highlighted in Box 4, population changes can occur very quickly in either direction with changing economic fortunes. A region with a single dominant industry will be more vulnerable to economic shocks, in comparison to regions with a more diversified economic industry structure. These shocks influence private investment decisions with individuals assessing the risks. If they regard the economic shock to be short lived or have adverse consequences they would be reluctant to make an investment. Thus, remote locations with a single dominant industry view the diversification of their local economy as a critical step to their long-term resilience. For example, Regional Development Australia Pilbara has resolved to conduct annual Think Tank meetings with key industry leaders to develop the Pilbara and diversify the economy (RDA Pilbara 2010).

Other issues that have been raised include housing shortages, skill shortages, cost of living, temporary working arrangements and inadequate infrastructure. For example, between 2004 and 2008, the 'major resources boom in Western Australia produced significant labour shortages across the trades and in a range of sectors, including hospitality, in Perth and regional areas as workers left for the high pay on offer on resources projects' (NRSET 2010, p. 1). These issues influence the rate of population change and propensity of people to migrate to remote locations.

National Resources Sector Employment Taskforce (NRSET) (2010, p. 3) found that '[o]ne of the major concerns in submissions and consultations was the effect of housing shortages and soaring accommodation costs in population centres near resources projects, which affects the willingness and financial capacity of people from many work disciplines to relocate'. A region that has been affected is the Pilbara as highlighted by the Pilbara ACC (2008) in regards to quality of life issues. 'In a recent community survey conducted by the Town of Port Hedland, fewer than 6 out of 10 residents said they would still be there in three years. Apart from cost of living, the main reasons they will leave are:

- lack of educational opportunities for their children;
- the lack of community facilities; and
- to go home' (ACC 2008, p. 7).

This highlights the matter of the fly-in fly-out (FIFO) and drive-in drive-out (DIDO) operations by the resources industries in remote locations. NRSET (2010, p.3) states that the 'FIFO/DIDO workforce is important for resources projects, particularly in the construction phase but also in ongoing operations ... Flights are now operating from Melbourne, Sydney and Brisbane to many regional mining centres'. It also illustrates that various industries operating in remote locations need to operate in a wider labour market than the local labour pool.

The measurement of FIFO and DIDO is difficult. It is not captured adequately through the census or other datasets because of the transitory nature of the workforce. For example, 'FIFO workers employed at mine sites in the Goldfields on a "two weeks on/one week off" basis would expect to spend approximately eight months of the year in the Goldfields regions. However, many FIFO workers, who have a residence and family elsewhere in Australia, report this family base as their place of usual residence' (ABS 2003b). To capture the more complex nature of labour mobility, the ABS completed a survey in 2008 on labour mobility and intentions for Western Australia, which is ideal for this analysis because this state has a high proportion of regions classified as remote and is also an integral part of the resources boom. The survey found that '[o]ne aspect of the resources boom was that many people working in the mining industry and associated industries were working as fly-in fly-out workers' (ABS 2008b, p. 8). In fact, within Perth only 4 per cent worked directly in the mining industry but of these individuals 72 per cent worked outside of Perth (ABS 2008b). The mining sector is also influencing other sectors with people moving towards mining from other industries. For example, '[i]n the two years prior to October 2008, a large proportion of people in construction (17 per cent), information media & communications (25 per cent) and administrative support industries (13 per cent) had moved into the mining industry' (ABS 2008b, p. 12).

Haslam McKenzie (2008, slide 5) has listed a range of reasons for the development of fly-in fly out such as, 'cost of building and maintaining remote towns, cost and difficulty of closing towns, technology has enabled shorter mine life ... [and] access to qualified labour force—more global

than local'. However, the impact of FIFO on remote communities does come at some cost because 'there is no community commitment or sense of place' and 'limited local investment or expenditure' (Haslam McKensize 2008, slide 3).

In terms of interstate and overseas migration the same ABS (2008b) survey found that around two-thirds of the 55 700 people that moved to WA (within the two years prior to October 2008) from interstate lived in the Perth area while the remainder lived in regional WA. In contrast, a greater proportion of overseas migrants moved to Perth with the split being 84 per cent living in Perth and 17 per cent living in regional WA. 'This may be explained by interstate migrants having moved there specifically to take up employment opportunities in the mining industry in areas outside Perth, whereas overseas migrants may be more concerned with getting established in a new country and accessing resources in the metropolitan area that enable re-settlement' (ABS 2008b, p. 10).

In sum the analysis of migration flows in remote areas suggests a strong influence from the economy and local amenities. These influences include:

- The dominance of one industry makes a region more prone to economic shocks, which can impact on the migration patterns and population level in the region. This then can also influence infrastructure and private investment decisions.
- Businesses operating in remote locations operate in a wider labour market than the local labour pool and fly-in fly-out and drive-in drive-out is part of this structure.
- Quality of life issues are an important factor in the decision to relocate (or not) to remote locations.

Summary

Remote Australia covers an area of 6.3 million kilometres but represents only 2.2 per cent of the country's population in 2009. The population in remote regions grew by 20 500 people between 2001 and 2009, at an annual average rate of 0.5 per cent, which is the slowest of all the regional classifications.

Remote locations experienced outward net-migration flows to all other regional classifications with the largest loss to coastal cities, closely followed by capital cities. However, migration flows broken down by age reveals that for persons aged between 25 and 34 years, remote locations experienced a small positive net-migration flow, which may reflect young adults (mostly from capital cities) taking advantage of economic opportunities in selected remote locations.

Some remote regions that have experienced strong population growth are in mineral producing areas and the mineral resources boom has fuelled migration to these regions. Population growth has also occurred in attractive remote coastal locations and some regions with large Indigenous communities. Yet, 44 per cent of remote SLAs experienced a decline in population between 2001 and 2009, with many of these areas having agriculture as a major source of employment.

The economy and local amenities are factors that have a strong influence on settlement patterns in remote locations, especially for those regions with a resource industry base. The interrelationship is present though a number of avenues such as the dominance of one industry, industries operating in a spatially wide labour market and quality of life issues.

CHAPTER 7
Population outlook

Key points

- Population change will be a key driver influencing the shape of Australia in the long term.
- Population growth across different areas is projected to follow a similar pattern to growth that has occurred over the past ten years, albeit at a slightly slower speed.
- The proportion of older Australians is projected to increase substantially.
- There are spatial differences in the ageing of the population, with coastal areas ageing faster and remote locations having a far younger age profile.
- Economic shocks will continue to influence the spatial distribution of employment and in turn impact on the settlement patterns that occur over time.
- Population growth will pose challenges and opportunities, such as providing infrastructure and delivering services to a growing and spatial dispersed population, along with caring for the environment.

Introduction

The Australian Treasury has highlighted four key forces that will influence Australia in the long term. These include:

- emergence of China and India in an increasingly globalised world;
- an ageing and growing population;
- technological change; and
- climate change (Henry 2010).

Hence, a key component for Australia's development and the well being of Australians is the management of a growing but ageing population. In response, the federal government released a *Sustainable Population Strategy* (2011), in May 2011.[23]

A trigger for the policy development was the release of Treasury's (2010) *Australia to 2050: future challenges—the 2010 Intergenerational Report (IGR)*. The report outlines that 'Australia faces a complex mix of long-term challenges—an ageing and growing population, escalating pressures on the health system, and an environment vulnerable to climate change. These challenges will place substantial pressure on Australia's economy, living standards and government finances over the next 40 years' (Treasury 2010, p. vii). Hence the '[c]ontinued population growth creates challenges including the provision of infrastructure and government services to an increasing population and protecting the environment. Government must prepare for these challenges through long-term and strategic planning' (Treasury 2010, p. 21).

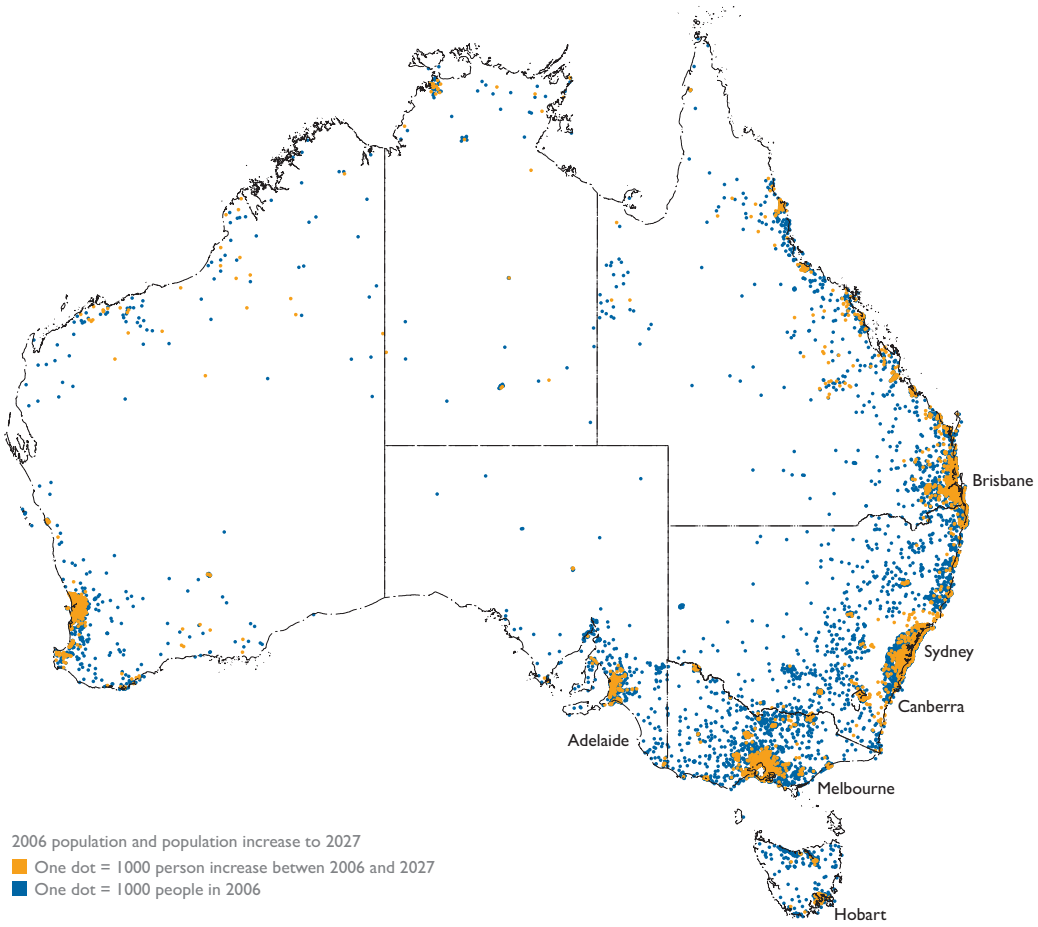
23 Prime Minister Gillard stated that 'I have called for the development of a sustainable population strategy so we can take stock, weight the evidence and chart the right path for our nation's future' (ALP 2010).

The report highlights that over the previous 40 years population has grown on average by 1.4 per cent per annum to approximately 22 million in 2010.[24] Over the next 40 years, the population growth rate is expected to drop on average to 1.2 per cent per annum and Australia's total population is projected to reach 35.9 million by 2050 (Treasury 2010).

At a lower level of spatial disaggregation the Department of Health and Ageing commissioned the ABS to project Australia's population at the SLA level between 2007 and 2027. These projections assume that the 'fertility (birth rates), mortality (death rates) and migration underpinning the projections are primarily based on historical patterns and trends specific to each area' (DHA 2009).

Figure 18 presents the population of Australia in 2006 in blue and projected population growth in orange to 2027. The overwhelming feature is the continued population growth along the eastern seaboard, particularly around the capitals of Sydney, Melbourne and Brisbane. On the western side of the country, Perth dominates the projected population patterns as well as population growth in the south-west corner of the state. All capital cities are projected to account for the majority of the absolute population growth within their respective states.

F 18 **Australia's population in 2006 and projected population growth to 2027**



Source: ABS (2010b) and DHA (2009).

24 As of March 2010, Australia's population was 22 271 900 (ABS 2010a).

Table 36 presents the population projections by the regional classifications between 2007 and 2027. Australia's capital cities are projected to grow at a rate of 1.4 per cent per annum between 2007 and 2027, matching the national average. Coastal cities are the only regional classification projected to grow faster than capital cities, at an annual average of 1.7 per cent. All other regional classifications are projected to grow slower than the national average, with both coastal country areas and inland cities projected to grow by 1.1 per cent per annum and inland country areas by 0.4 per cent per annum. The only difference in the ranking from the regional classifications presented Table 2 (in regards to population growth from 2001 to 2009) is that remote areas are projected to grow faster than inland country areas.

T 36 Population projections by regional classifications, 2007 to 2027

Regional classification	Population in 2007*	Population in 2027*	Average annual growth (per cent), 2007 to 2027
Capital cities	13 373 099	17 830 383	1.4
Coastal cities	2 942 408	4 127 028	1.7
Inland cities	859 877	1 068 286	1.1
Coastal country	1 692 880	2 124 583	1.1
Inland country	1 674 816	1 827 983	0.4
Remote	469 568	554 686	0.8
Australia	21 012 648	27 532 949	1.4

Note: Asterisk (*) denotes estimates are based on projections.

Source: DHA (2009)

These regional classifications only present part of the picture. As also presented earlier in Chapter 2, urbanisation has been a longstanding trend in the formulation of Australia's development and utilising these projections reveals that the expansion of urban areas is expected to continue. In 2009, there were 18 Australian cities with a population of more than 100 000 people and classified as major cities by the Major Cities Unit's *State of Australian Cities 2010* report. A further 14 cities had a Statistical District population of between 50 000 and 100 000 people in Australia in 2009. Of these 14 Statistical Districts, by 2027, 6 are likely to qualify as major cities, with Mandurah, Mackay, Bendigo, Ballarat, Bunbury and Hervey Bay all projected to have populations of more than 100 000, bringing the total number of major cities in Australia to 24 by 2027. Of these emerging major cities, Hervey Bay is projected to add the most number of people between 2009 and 2027 (44 700 persons), followed by Bunbury (37 500), Mandurah (36 600) and Mackay (35 000). Cities projected to grow to more than 50 000 people by 2027 include Port Macquarie, Queanbeyan, Tamworth and Shepparton.

Hence, Australia's settlement patterns into the future suggest a further expansion of existing urban areas with an increasing number of major cities, but also the continued growth of coastal areas.

Age

Australia's population is ageing. Treasury forecasts that between 2010 and 2050 the number of persons aged between 65 and 84 will more than double, while persons over the age of 85 will quadruple, from 0.4 million people in 2010 to 1.8 million in 2050 (Treasury 2010). The increase in the older demographic results in a 7 percentage point drop in the proportion of working age people to 60 per cent in 2050 (Treasury 2010). 'As a consequence, there will be relatively fewer people of working age to support an increasing number of older Australians'

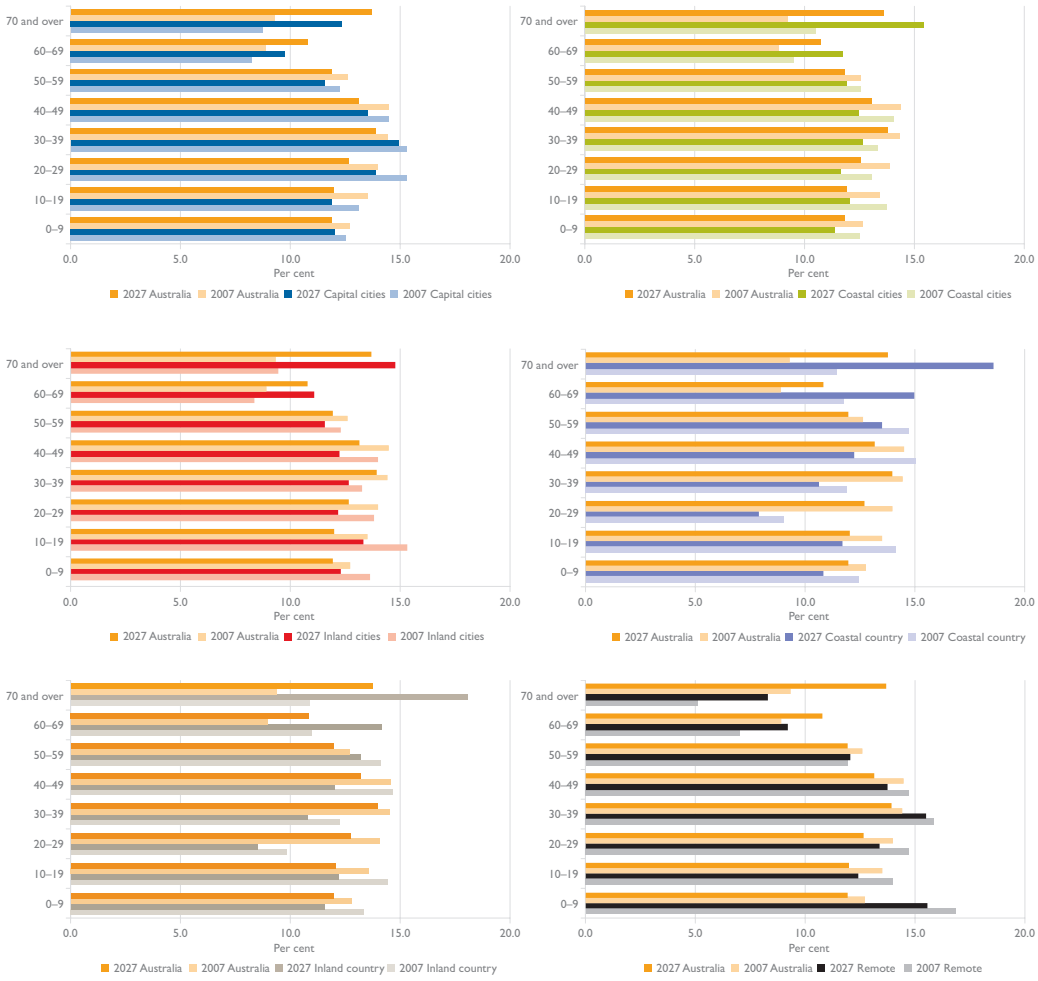
(Treasury 2010, p. 4). This will place pressure on the Government's financial position and its ability to support services, especially in regards to health services and result in labour shortages in various industries. Thus raising the participation rate would reduce the effect.

But, more fundamentally the productivity of the economy will be an important factor in the future development of the nation. Productivity is the ability to create goods and services from a given amount of inputs. Productivity is vital for economic growth because it provides a foundation for long-term sustainable development and in turn improves living standards. As the Treasury Intergenerational report states '[p]roductivity is the key to higher economic growth in the face of an ageing population' (Treasury 2010).

However, while Australia's population will age there will be spatial differences in the distribution of ageing as illustrated by Figure 19, which presents the projected age profiles by regional classification. The population projections from the Department of Health and Ageing imply:

- Across all regional classification areas the proportion of persons in older age brackets is projected to increase, while the proportion of persons aged below 60 years will decrease between 2007 and 2027.
- The 2027 projected age profile of capital cities closely matches the national age profile. The largest differences are a higher proportion of young adults (20 to 39 years) and a lower proportion of persons aged over 60 years.
- The largest variances from the national projected age profile are in coastal country and inland country areas. These regions are projected to have substantially lower proportions of persons in the young adult category (20 to 39 years), and at the same time a substantially higher proportion of persons in the older age brackets (over 60 years).
- The proportion of persons aged over 70 years in coastal and inland country areas between 2007 and 2027 will grow at a rate that is almost twice as fast as the national trend.
- Remote locations have a different age profile to the national average in projected years—2007 and 2027. The age profile for remote Australia is younger, with a higher proportion of persons aged below 59 years, especially for persons aged below 9 years of age. This young age profile translates to a substantially lower number of people aged over 60 for both projected time periods.

F 19 Projected age profiles for the regional classifications, from 2007 to 2027



Source: BITRE analysis of DHA 2009

The future impacts of an ageing population have been considered in a number of studies such as the Productivity Commission's 2005 report entitled *Economic Implications of an Ageing Australia.* Aspects that will have to be considered include:

- Different age groups have different economic requirements, which result in changes in a region's economic characteristics as its population ages.
- Behavioural adjustment and life stage demands, especially involving labour supply and household saving, may influence the economic consequences of future generations.
- Labour shortages may impact a range of factors such as wages, unemployment, education, immigration and population movements.
- Health care and community services (e.g. aged care) may become a larger sector in the economy—these are labour intensive and non-tradeable (BTRE 2008).

As a result the consequences of an ageing population are important. Not only in terms of the greater number of older people in the community but also the provision of services to spatially dispersed cohorts.

Infrastructure and urban planning

An OECD (2006) study into competitive cities found that '[e]ffective governance of cities depends on leadership from the national government to encourage reform'. This feeds into the Commonwealth government development of a National Urban Policy. Moreover, the Council of Australian Governments (COAG) reform council has also been commissioned to:

- 'review capital city strategic planning systems against agreed national criteria';
- 'support continuous national improvement in capital city strategic planning'; and
- 'build and share knowledge of best practice planning approaches' (DIT 2010).

Adequate infrastructure to support future population growth will influence the effective development of Australia's communities and settlements. There has been considerable public discussion about the adequacy of Australian infrastructure. For example, the Business Council of Australia (BCA) (2005) reported (more in terms of economic infrastructure) that 'an internal paper … on the infrastructure requirements of continued high growth (i.e. 4 per cent per annum) for the next 20 years points to a shortfall of approximately $50 billion in new capital stock required for road, rail and water assets.' At the more local level, in 2006, a study by PricewaterhouseCoopers (PwC) for the Australian Local Government Association identified a $14.5 billion backlog in Local Government infrastructure renewals nationally.

Fundamentally however, the infrastructure demands of communities, and the costs involved with meeting those demands, depend on a number of factors. Population growth is likely to be a primary driver of demand for electricity and water infrastructure, and some transport infrastructure, along with community infrastructure such as hospitals, schools and other service provision. The ability to cater for this extra demand for infrastructure stemming from population growth will also depend on the extent to which existing infrastructure is fully utilised, changes in expectations of infrastructure provision and the marginal cost. There is evidence that it is generally less expensive, per person, to provide infrastructure in areas where population is more concentrated, such as major cities (see Coombs and Roberts 2007). More generally though, there is no agreement upon what level of infrastructure should be considered 'adequate'.

Employment

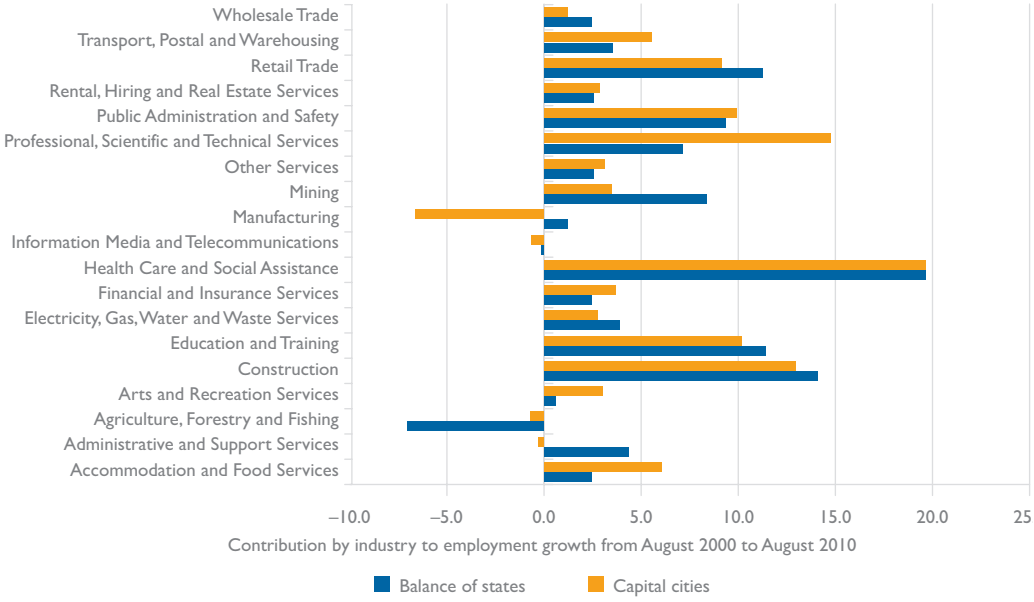
The Australian economy has undergone substantial changes over the previous decades and this will continue into the future. These changes have included the rise of service industries along with decline of the manufacturing and agriculture sectors. Projections of future employment are difficult because changes in demand both domestically and internationally can have profound influences on the future shape of the economy, which in turn impacts on the spatial distribution of the population. These changes can also transform the nature of work and the skills that will be required.

As Hugo and Bell (1998, p. 126) have pointed out 'good jobs' that demand high levels of skill but also offer higher remuneration and job security are increasingly becoming concentrated (primarily in the major metropolitan centres), whereas 'less desirable' jobs, characterised by lower wages and less security, have a greater level of dispersion. Hence, the OECD (2006) has highlighted that '[s]uccessful cities attract talented young highly-skilled workers, are centres of innovation and entrepreneurship and are competitive locations for global and regional headquarters. The proximity of universities to research and production facilities means cities are where new products are developed and commercialised. More than 80 per cent of patents are filed in cities'. To illustrate the difference, Figure 20 presents the contribution to employment growth for capital cities and state balances by industry classification, from 2000 to 2010.

The industry that made the largest contribution to employment growth for both capital cities and balance of states was the Health care & social assistance industry at just under 20 per cent for both. The second largest contributor to employment growth for capital cities, however, is in the sector of professional, scientific & technical services at 15 per cent. This strong growth is double the contribution that this sector made to the balance of states.

The second largest contributor to employment growth for the balance of states category was the construction industry at 14 per cent, similar to the contribution to capital cities also. Two industries that provided more employment growth for balance of states over capital cities were the mining and administration & support services industries reflecting the growth in the resources sector and government employment. Two industries that experienced declining employment were manufacturing in capital cities and agricultural, forestry & fishing for the balance of the state.

F 20 Contribution to employment growth by industry for capital cities and balance of state, from 2000 to 2010



Note: Darwin is not presented in the ABS figures as such the whole of the Northern Territory is included in the balance of state, while Canberra has been allotted to the capital cities estimates.

Source: ABS (2010d)

The demand for employment spatially will also impact on the economy and migration patterns. Skills Australia (2010, p. 27) points out that '[s]ome 15 percentage points separate states and territories with the lowest and highest [labour] participation rates'. The report goes on to illustrate that regional workforce participation rates change over time. In 1986, high participation rates were reported in or near the Australian Capital Territory but 'by 2006, four of the top five high participation areas were located in rural Western Australia, reflecting growth in mining and related industries' (Skills Australia, p. 27). Moreover, the ABS has projected that 'participation rates in regional coastal areas will continue to fall as these areas attract retirees' (Skills Australia, p. 27).

An industry projected to increase its demand for labour is in the resources sector. A study by the National Resources Sector Employment Taskforce (NRSET) estimated that 'construction jobs on new projects could peak at 45,000 in 2012 and 2013'. Also, '[e]mployment growth in mining operations is expected to be 4.9 per cent per annum over the next five years, creating around 61,500 new jobs by 2015 due to increased production, driven by demand from Asia' (NRSET 2010, p.2).

Environment

The environment has been a key driver in the settlement patterns of Australia, such as along river systems. In turn, settlements have impacted on the environment raising issues that include air and water quality, food security, biodiversity, land values and climate change.

The management of the country's environment will play an important role in the future development of Australia's social and economic development. For example, the Murray Darling Basin Authority (MDBA) has released 'the Guide to the proposed Basin Plan to present proposals to the community for discussion. These proposals are about the key decisions the Authority is required to make under the Water Act 2007 (Cwlth), in particular the new limits on water that can be taken from the Basin, known as long-term average sustainable diversion limits (SDLs), which will apply to both surface water and groundwater' (MDBA 2010, p. ix).

The water reforms are seen as a way 'to strike a long-term balance between meeting the needs of the environment and those of a growing economy and population' (MDBC 2010, p. xiv). The transition for the Basin region will face 'significant challenges and risks' (MDBC, p. xiv). The MDBC 'recognises that the impacts of the necessary adjustments fall on the current generation of farmers and irrigators, industries and communities', however, the MDBC regards that if action is not taken 'irreversible environmental, economic and social decline' will occur (MDBC 2010, p. xiv).

Moreover, Nicholls (2008) identifies several potential impacts of increasing extreme weather patterns in Australia, such as:

- 'more droughts over most of Australia by 2030';
- 'increased frequency of extreme fire danger days (except Tasmania)'; and
- 'increases in intensity of heavy daily rainfall events, although there appears likely to be considerable spatial variation'.

Changes in climate will place pressure on the management of settlements and their distribution. For example, the Department of Climate Change has highlighted that rising sea levels will

result in 'significant change to Australia's coastal zone in coming decades' (DCC 2009, p. 6). Hence, the changes in coastal environment must be considered in regional decision-making (DCC 2009), especially in terms of town planning and purchase of coastal frontage homes.

Summary

Population change will be a key factor influencing the shape of Australia in the long-term. The projected future population growth of the regional classifications described in this report follow a similar pattern to growth that has occurred over the past ten years, but at a lower speed. However, the proportion of older Australians is projected to increase substantially, raising social expenditure and place pressure on the government financial position. Spatial differences in an ageing population are projected to result in coastal areas ageing faster and remote locations having a far younger age profile.

Population growth poses challenges and opportunities for policymakers and society more broadly on matters such as providing infrastructure and delivering services to a growing and spatially-dispersed population, along with caring for the environment.

CHAPTER 8
Conclusions

Australia's population was just under 22 million people in 2009, up by over 2.5 million from 2001, and is projected to grow to 36 million by 2050 (Treasury 2010). These figures however do not convey the spatial differences in the population growth patterns which are far more complex. This report has attempted to address this by describing the key trends and providing a discussion of some of the drivers for the nation's settlement patterns and trends through a spatial analysis based on regional classifications.

Population location and movement

Key features of the nation's internal population growth patterns this century are:

- **Australia has one of the most urbanised settlement structures in the world,** with capital cities containing 64 per cent of the nation's population in 2009. It has been described as having a 'metropolitan primacy' structure. In contrast, remote Australia covering an area of 6.3 million kilometres represents only 2 per cent of the population.
- **The great majority of population relocations occur within regions or cities,** rather than between them. For example, much of the migration to outer suburbs has been intracity migration, rather than intercity or interregional movement between 2001 and 2006, often driven by housing and accessibility considerations. These outer suburbs have been the strong growth areas for the nation's capitals.
- **Population change has been variable** throughout the country with some regions growing quickly while others experienced population declines. Strong growing regions include many coastal cities. The population of coastal cities as a group grew faster than Australia, between 2001 and 2009. In fact, 14 coastal cities had population growth rates higher than that of Australia. Of these, seven of the ten fastest growing coastal cities were located in Queensland, and a further one was located on the Queensland border.
- **Most regional cities with rapid population growth were located on the coast** and had significant tourism and leisure industries. Their attractiveness and high amenity levels are factors in Australian's longstanding preference for living by the coast. This is still the case in 2009, with the Gold Coast, Sunshine Coast, Hervey Bay and Cairns still growing strongly, for example.
- In absolute terms, **capital cities grew by over 1.6 million people, representing 65 per cent of overall population growth** from 2001 to 2009. This illustrates the importance of capital cities to the country's overall population growth. International arrivals were a substantial contributor to the growth in capital city populations. Capital cities are the main entry point

for international arrivals to Australia. In 2006, half of all new residents in Australia's capital cities (people who had moved there within the past five years) were international arrivals. Capital cities do not stand alone but are part of a network of complex migration flows between capital cities and other regional areas.

- While most address changes are local in nature, **interregional migration is significant enough to alter the spatial population footprint.** Figure 21 presents the migration flow chart (between 2001 and 2006) by regional classification (customised), along with overseas arrivals. The chart presents only internal migration flows that are over 30 000 people. Focussing on the larger population movements between regions two major features stand out:

  1. Overseas and regional Australian migrants heading for the capital cities. These are often younger people driven by economic, educational and to a lesser extent social imperatives.
  2. Relocation from the capital cities to regions, especially to coastal areas. These people are characterised by being older (and presumably wealthier) making lifestyle choices.

Drivers of internal migration

Although each individual's migration decision is different and reflects a large number of personal economic and social opportunities and preferences, the overall patterns of migration suggest some key drivers. The flows in Figure 21 reflect some of these drivers:

1. **The attraction of coastal, high amenity and urban lifestyles.**

   Coastal regions significantly drew people from other regions as illustrated by over 335 000 people moving from a capital city to the seaside. Australians have shown a strong preference for coastal living, urban areas and high amenity regional locations.

   The preference for urban areas and high amenity locations can also be driven by lifestyle choices. For example, rather than focusing on accommodation needs as their highest priority, longer-distance movers reported that they relocated primarily to be closer to family and friends, followed by lifestyle. Environment, employment prospects and services (for example, accessing services for health reasons) also rated highly.

2. **Life stages—the effects of youth and aging**

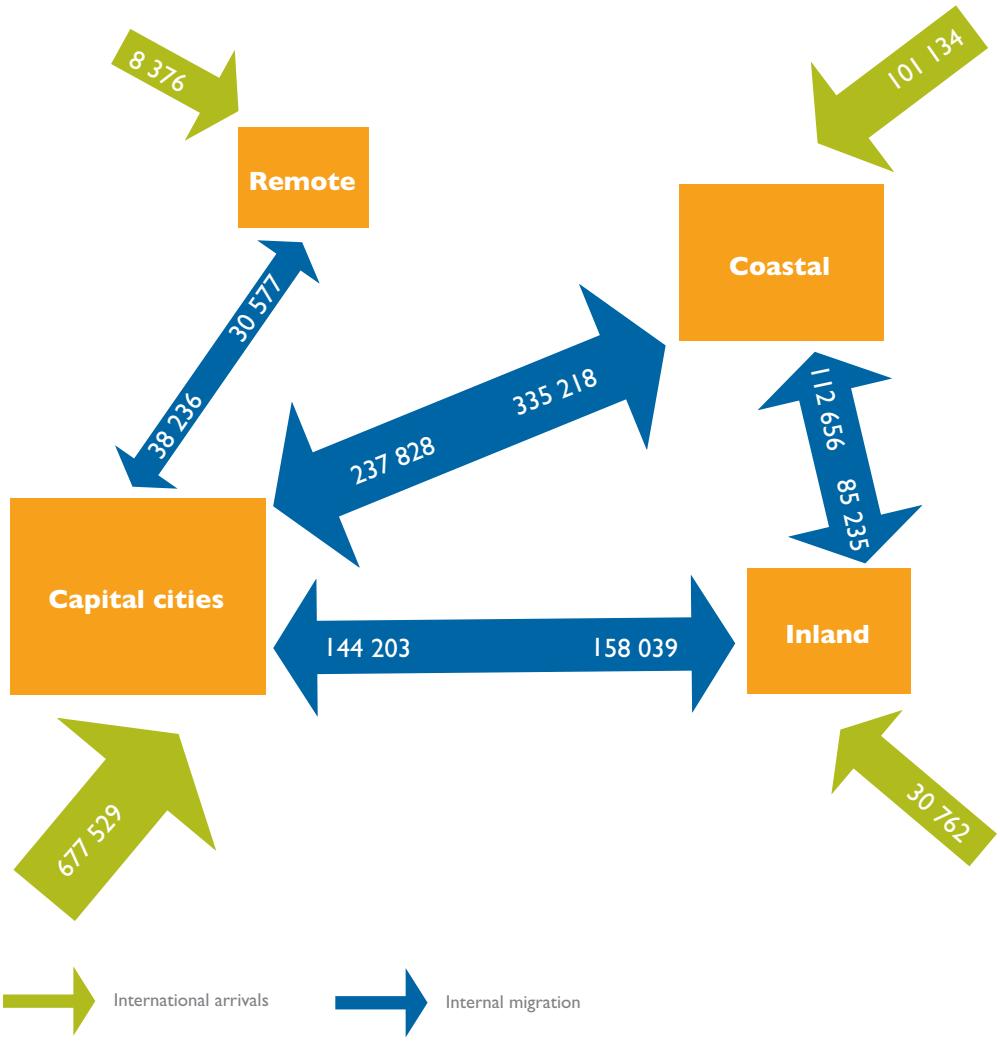
   Life stage effects are evident in the choices of young people to move out of rural areas and into urban locations for education and employment opportunities. In contrast, while younger people tend to move to urban areas, many older people are moving towards regional locations for lifestyle reasons. Many of these new residents have been categorised as 'sea changers', especially amongst the older generation moving from a capital city to retire by the coast.

3. **Economic considerations—education, jobs and services**

   Economic drivers are also having an influence on settlement patterns and migration flows. Currently, the resources boom is particularly pertinent, with some mining areas, such as the Pilbara and the Bowen Basin, experiencing strong population growth. This is particularly the case for some remote regions have atypical population growth. The impact of the resources boom on settlement manifests itself through a number of

interacting factors, such as the dominance of one industry, industries operating in a spatially wide labour market and quality of life issues (e.g. education and health services). Nevertheless, remote Australia experienced net-migration outflow to all other regional classifications with the largest loss to coastal cities, closely followed by capital cities. However, migration flows broken down by age reveals that for persons aged between 25 and 34 years, remote locations experienced a small net-migration inflow, which may reflect young adults (mostly from capital cities) taking advantage of economic opportunities in these selected remote areas.

F 21 Gross migration flows by custom regional classification and international arrivals, from 2001 to 2006



Note: This table is based on people movements between 2001 and 2006 and only included flows of over 30 000 people (except for overseas inflows). This table only shows those migrants with a known place of usual residence in 2001. Table 1 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Future development patterns

A country's population is never static. The forces that shape a population include natural growth, migration and demographic changes. Added to these are the existing spatial distribution and settlement patterns, changing consumer preferences, life stage demands, the environment and the economy, and the difficulty of making confident predictions about future development patterns. However at a broad level a few features stand out as being important determinants. These include:

- Australian's continuing preference for coastal living;
- the key role of capital cities and ongoing interactions with regional areas;
- the ageing of Australia's population; and
- the importance of age—young people moving to urban areas for education and employment, while significant sections of the older generation migrate to regional areas for lifestyle considerations.

These broad features will play an important part in the future development of Australia's population footprint. Consequently, the projected population of the regional classification follows a similar pattern to population growth that has occurred over the past ten years. However, the proportion of older Australians is projected to increase substantially placing pressure on governments' ability to provide financial support and (particularly health) services. Spatial differences in the ageing population will also occur with coastal areas ageing faster, while remote locations have a far younger age profile.

Population change will be a key component to the changes in the Australian economy and social fabric into the future. The overall broad trends of the dominance of capital cities, Australia's preference for coastal living and attraction of high amenity inland regions will most likely continue and pose challenges and opportunities for policymakers and society more broadly on matters such as infrastructure provision, service delivery, an ageing labour force and environmental changes.

APPENDIX A
Geographic boundaries

The analyses of population change and migration flows are based on six broad geographical areas utilising the 2006 Australian Statistical Geographical Classification (ASGC). These six regional classifications are:

Capital cities—Capital city Statistical Divisions (SDs) from each of the states and territories as defined by the ABS.

Coastal cities—ABS Statistical Districts which are primarily urban and have 25 000 persons or more. These cities border the coastline or have their geographic centre within 50 kilometres of the coast.

Inland cities—ABS Statistical Districts which are primarily urban and have 25 000 persons or more. These cities do not border a coastline or have their geographic centre within 50 kilometres of the coast.

Coastal country areas—Statistical Local Areas (SLAs) that borders the coastline or has their geographic centre within 50 kilometres of the coast and not classified as remote or very remote (based on the ABS Remoteness structure) or a coastal city.

Inland country areas—SLAs whose geographic centre is not within 50 kilometres of the coast and not classified as either an inland city (based on Statistical Districts) or as remote or very remote (based on the ABS Remoteness structure).

Remote areas—Any SLA region that is predominantly classified as remote or very remote under the 2006 ABS Remoteness Structure (SLAs located within the Capital city SD under the ASGC but classified as remote under the Remoteness Structure are here classed as part of the relevant capital city).

Several ABS spatial classifications are used in this report. They are:

Statistical Divisions

Because the ABS has created a unique Statistical Division for each of Australia's capital cities, this report uses Statistical Divisions for statistical analysis relating to capital cities.

ABS Statistical Divisions are defined area which represents large, general purpose, regional type geographic areas. Statistical Divisions represent relatively homogeneous regions characterised by identifiable social and economic links between the inhabitants and between the economic units within the region, under the unifying influence of one or more major towns or cities. They

cover, in aggregate, the whole of Australia without gaps or overlaps. They do not cross state or territory boundaries.

Statistical Districts

This report uses Statistical Districts for statistical analysis relating to regional cities.

The ABS Statistical District classification is a defined area which bounds a large predominantly urban area outside the capital city Statistical Divisions. A Statistical District consists of one or more urban centres in close proximity to each other, with a total population of 25 000 or more. The boundaries of Statistical Districts are defined to contain the anticipated urban spread of the area for a period of at least twenty years (ABS 2006a).

Statistical Local Areas

ABS Statistical Local Areas are local government areas, or parts thereof. Where there is no incorporated body of local government, Statistical Local Areas are defined to cover the unincorporated areas. SLAs cover, in aggregate, the whole of Australia without gaps or overlaps (ABS 2006a).

Urban Centre/Locality

An Urban Centre is generally defined as a population cluster of 1000 or more people. A Locality is generally defined as a population cluster of between 200 and 999 people (ABS 2006a).

Appendix tables A 1 to 6 present the six regional classifications concordance by 2006 ASGC SLAs.

TAA 1 Capital cities regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	105051100	Botany Bay (C)	105403950	Holroyd (C)
	105054800	Leichhardt (A)	105406251	Parramatta (C)–Inner
	105055200	Marrickville (A)	105406252	Parramatta (C)–North-East
	105057201	Sydney (C)–Inner	105406253	Parramatta (C)–North-West
	105057204	Sydney (C)–East	105406254	Parramatta (C)–South
	105057205	Sydney (C)–South	105450900	Blue Mountains (C)
	105057206	Sydney (C)–West	105453800	Hawkesbury (C)
	105106550	Randwick (C)	105456351	Penrith (C)–East
	105108050	Waverley (A)	105456354	Penrith (C)–West
	105108500	Woollahra (A)	105530751	Blacktown (C)–North
	105154150	Hurstville (C)	105530752	Blacktown (C)–South-East
	105154450	Kogarah (A)	105530753	Blacktown (C)–South-West
	105156650	Rockdale (C)	105554100	Hunter's Hill (A)
	105157151	Sutherland Shire (A)–East	105554700	Lane Cove (A)
	105157152	Sutherland Shire (A)–West	105555350	Mosman (A)
	105200351	Bankstown (C)–North-East	105555950	North Sydney (A)
	105200353	Bankstown (C)–North-West	105556700	Ryde (C)
	105200355	Bankstown (C)–South	105558250	Willoughby (C)
	105201550	Canterbury (C)	105600501	Baulkham Hills (A)–Central
	105252851	Fairfield (C)–East	105600503	Baulkham Hills (A)–North
	105252854	Fairfield (C)–West	105600505	Baulkham Hills (A)–South
	105254901	Liverpool (C)–East	105604001	Hornsby (A)–North
	105254904	Liverpool (C)–West	105604004	Hornsby (A)–South
	105301450	Camden (A)	105604500	Ku-ring-gai (A)
	105301501	Campbelltown (C)–North	105655150	Manly (A)
	105301504	Campbelltown (C)–South	105656370	Pittwater (A)
	105308400	Wollondilly (A)	105658000	Warringah (A)
	105350150	Ashfield (A)	105703101	Gosford (C)–East
	105351300	Burwood (A)	105703104	Gosford (C)–West
	105351521	Canada Bay (A)–Concord	105708551	Wyong (A)–North-East
	105351524	Canada Bay (A)–Drummoyne	105708554	Wyong (A)–South and West
	105357100	Strathfield (A)	205054601	Melbourne (C)–Inner
	105400200	Auburn (A)	205054605	Melbourne (C)–S'bank-D'lands

(continued)

TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	205054608	Melbourne (C)–Remainder	205504974	Monash (C)–Waverley East
	205055901	Port Phillip (C)–St Kilda	205504975	Monash (C)–Waverley West
	205055902	Port Phillip (C)–West	205506981	Whitehorse (C)–Box Hill
	205056351	Stonnington (C)–Prahran	205506984	Whitehorse (C)–Nunawading E.
	205057351	Yarra (C)–North	205506985	Whitehorse (C)–Nunawading W.
	205057352	Yarra (C)–Richmond	205553672	Knox (C)–North-East
	205101181	Brimbank (C)–Keilor	205553673	Knox (C)–North-West
	205101182	Brimbank (C)–Sunshine	205553674	Knox (C)–South
	205103111	Hobsons Bay (C)–Altona	205554411	Maroondah (C)–Croydon
	205103112	Hobsons Bay (C)–Williamstown	205554412	Maroondah (C)–Ringwood
	205104330	Maribyrnong (C)	205607451	Yarra Ranges (S)–Central
	205105063	Moonee Valley (C)–Essendon	205607452	Yarra Ranges (S)–Dandenongs
	205105065	Moonee Valley (C)–West	205607453	Yarra Ranges (S)–Lilydale
	205204651	Melton (S)–East	205607454	Yarra Ranges (S)–North
	205204654	Melton (S) Bal	205607456	Yarra Ranges (S)–Seville
	205207261	Wyndham (C)–North	205650911	Bayside (C)–Brighton
	205207264	Wyndham (C)–South	205650912	Bayside (C)–South
	205207267	Wyndham (C)–West	205652311	Glen Eira (C)–Caulfield
	205255251	Moreland (C)–Brunswick	205652314	Glen Eira (C)–South
	205255252	Moreland (C)–Coburg	205653431	Kingston (C)–North
	205255253	Moreland (C)–North	205653434	Kingston (C)–South
	205300661	Banyule (C)–Heidelberg	205656352	Stonnington (C)–Malvern
	205300662	Banyule (C)–North	205752671	Gr. Dandenong (C)–Dandenong
	205301891	Darebin (C)–Northcote	205752674	Gr. Dandenong (C) Bal
	205301892	Darebin (C)–Preston	205801452	Cardinia (S)–North
	205353271	Hume (C)–Broadmeadows	205801453	Cardinia (S)–Pakenham
	205353274	Hume (C)–Craigieburn	205801454	Cardinia (S)–South
	205353275	Hume (C)–Sunbury	205801612	Casey (C)–Berwick
	205405713	Nillumbik (S)–South	205801613	Casey (C)–Cranbourne
	205405715	Nillumbik (S)–South-West	205801616	Casey (C)–Hallam
	205405718	Nillumbik (S) Bal	205801618	Casey (C)–South
	205407071	Whittlesea (C)–North	205852171	Frankston (C)–East
	205407075	Whittlesea (C)–South-East	205852174	Frankston (C)–West
	205407076	Whittlesea (C)–South-West	205905341	Mornington P'sula (S)–East
	205451111	Boroondara (C)–Camberwell N.	205905344	Mornington P'sula (S)–South
	205451112	Boroondara (C)–Camberwell S.	205905345	Mornington P'sula (S)–West
	205451113	Boroondara (C)–Hawthorn	305011067	Bowen Hills
	205451114	Boroondara (C)–Kew	305011143	City–Inner
	205504211	Manningham (C)–East	305011146	City–Remainder
	205504214	Manningham (C)–West	305011187	Dutton Park
	205504971	Monash (C)–South-West	305011227	Fortitude Valley

(continued)

TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	305011274	Herston	305071034	Aspley
	305011277	Highgate Hill	305071037	Bald Hills
	305011304	Kangaroo Point	305071045	Banyo
	305011315	Kelvin Grove	305071053	Bellbowrie
	305011378	Milton	305071064	Boondall
	305011421	New Farm	305071072	Bracken Ridge
	305011427	Newstead	305071075	Bridgeman Downs
	305011454	Paddington	305071078	Brighton
	305011481	Red Hill	305071084	Brookfield (incl. Brisbane Forest Park)
	305011525	South Brisbane	305071121	Carseldine
	305011528	Spring Hill	305071127	Chapel Hill
	305011607	West End	305071135	Chermside
	305011631	Woolloongabba	305071138	Chermside West
	305031004	Albion	305071167	Darra-Sumner
	305031007	Alderley	305071173	Deagon
	305031026	Ascot	305071176	Doolandella-Forest Lake
	305031031	Ashgrove	305071184	Durack
	305031048	Bardon	305071203	Ellen Grove
	305031132	Chelmer	305071211	Everton Park
	305031151	Clayfield	305071217	Ferny Grove
	305031162	Corinda	305071222	Fig Tree Pocket
	305031206	Enoggera	305071236	Geebung
	305031241	Graceville	305071288	Inala
	305031244	Grange	305071296	Jamboree Heights
	305031255	Hamilton	305071301	Jindalee
	305031271	Hendra	305071306	Karana Downs-Lake Manchester
	305031293	Indooroopilly	305071318	Kenmore
	305031312	Kedron	305071323	Kenmore Hills
	305031345	Lutwyche	305071326	Keperra
	305031424	Newmarket	305071353	McDowall
	305031446	Nundah	305071375	Middle Park
	305031506	St Lucia	305071383	Mitchelton
	305031522	Sherwood	305071386	Moggill
	305031533	Stafford	305071408	Mount Ommaney
	305031536	Stafford Heights	305071435	Northgate
	305031558	Taringa	305071442	Nudgee
	305031574	Toowong	305071451	Oxley
	305031618	Wilston	305071465	Pinjarra Hills
	305031623	Windsor	305071467	Pinkenba-Eagle Farm
	305031634	Wooloowin	305071473	Pullenvale
	305071018	Anstead	305071484	Richlands

(continued)

TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	305071487	Riverhills	305111251	Gumdale-Ransome
	305071514	Sandgate	305111265	Hemmant-Lytton
	305071517	Seventeen Mile Rocks	305111331	Kuraby
	305071556	Taigum-Fitzgibbon	305111337	Lota
	305071567	The Gap	305111356	MacGregor
	305071585	Upper Kedron	305111364	Manly
	305071593	Virginia	305111367	Manly West
	305071596	Wacol	305111372	Mansfield
	305071604	Wavell Heights	305111394	Moreton Island
	305071612	Westlake	305111402	Mount Gravatt
	305071653	Zillmere	305111405	Mount Gravatt East
	305091015	Annerley	305111413	Murarrie
	305091042	Balmoral	305111416	Nathan
	305091086	Bulimba	305111456	Pallara-Heathwood-Larapinta
	305091097	Camp Hill	305111463	Parkinson-Drewvale
	305091102	Cannon Hill	305111492	Robertson
	305091108	Carindale	305111495	Rochedale
	305091113	Carina	305111498	Rocklea
	305091116	Carina Heights	305111503	Runcorn
	305091157	Coorparoo	305111511	Salisbury
	305091195	East Brisbane	305111541	Stretton-Karawatha
	305091214	Fairfield	305111547	Sunnybank
	305091247	Greenslopes	305111552	Sunnybank Hills
	305091258	Hawthorne	305111571	Tingalpa
	305091282	Holland Park	305111588	Upper Mount Gravatt
	305091285	Holland Park West	305111601	Wakerley
	305091391	Moorooka	305111615	Willawong
	305091397	Morningside	305111626	Wishart
	305091432	Norman Park	305111637	Wynnum
	305091563	Tarragindi	305111642	Wynnum West
	305091645	Yeerongpilly	305150552	Beaudesert (S)–Pt A
	305091648	Yeronga	305202002	Bribie Island
	305111001	Acacia Ridge	305202005	Burpengary-Narangba
	305111012	Algester	305202008	Caboolture (S)–Central
	305111023	Archerfield	305202013	Caboolture (S)–East
	305111057	Belmont-Mackenzie	305202014	Caboolture (S)–Hinterland
	305111091	Burbank	305202015	Caboolture (S)–Midwest
	305111094	Calamvale	305202016	Deception Bay
	305111123	Chandler-Capalaba West	305202018	Morayfield
	305111154	Coopers Plains	305253962	Ipswich (C)–Central
	305111198	Eight Mile Plains	305253965	Ipswich (C)–East

(continued)

TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	305253966	Ipswich (C)–North	305506268	Thorneside
	305253974	Ipswich (C)–South-West	305506271	Thornlands
	305253976	Ipswich (C)–West	305506273	Victoria Point
	305304601	Browns Plains	305506276	Wellington Point
	305304603	Carbrook-Cornubia	305506283	Redland (S) Bal
	305304605	Daisy Hill-Priestdale	405052030	Gawler (T)
	305304608	Greenbank-Boronia Heights	405055681	Playford (C)–East Central
	305304612	Kingston	405055683	Playford (C)–Elizabeth
	305304615	Loganholme	405055684	Playford (C)–Hills
	305304618	Loganlea	405055686	Playford (C)–West
	305304623	Marsden	405055688	Playford (C)–West Central
	305304631	Rochedale South	405055891	Port Adel. Enfield (C)–East
	305304634	Shailer Park	405055894	Port Adel. Enfield (C)–Inner
	305304637	Slacks Creek	405057141	Salisbury (C)–Central
	305304642	Springwood	405057143	Salisbury (C)–Inner North
	305304645	Tanah Merah	405057144	Salisbury (C)–North-East
	305304651	Underwood	405057146	Salisbury (C)–South-East
	305304654	Waterford West	405057148	Salisbury (C) Bal
	305304656	Woodridge	405057701	Tea Tree Gully (C)–Central
	305304663	Logan (C) Bal	405057704	Tea Tree Gully (C)–Hills
	305405951	Albany Creek	405057705	Tea Tree Gully (C)–North
	305405957	Bray Park	405057708	Tea Tree Gully (C)–South
	305405958	Central Pine West	405101061	Charles Sturt (C)–Coastal
	305405961	Dakabin-Kallangur-M. Downs	405101064	Charles Sturt (C)–Inner East
	305405963	Griffin-Mango Hill	405101065	Charles Sturt (C)–Inner West
	305405971	Hills District	405101068	Charles Sturt (C)–North-East
	305405973	Lawnton	405105895	Port Adel. Enfield (C)–Coast
	305405974	Petrie	405105896	Port Adel. Enfield (C)–Park
	305405978	Strathpine-Brendale	405105897	Port Adel. Enfield (C)–Port
	305405988	Pine Rivers (S) Bal	405108411	West Torrens (C)–East
	305456201	Clontarf	405108414	West Torrens (C)–West
	305456204	Margate-Woody Point	405108899	Unincorp. Western
	305456206	Redcliffe-Scarborough	405150070	Adelaide (C)
	305456208	Rothwell-Kippa-Ring	405150121	Adelaide Hills (DC)–Central
	305506251	Alexandra Hills	405150124	Adelaide Hills (DC)–Ranges
	305506254	Birkdale	405150701	Burnside (C)–North-East
	305506257	Capalaba	405150704	Burnside (C)–South-West
	305506262	Cleveland	405150911	Campbelltown (C)–East
	305506264	Ormiston	405150914	Campbelltown (C)–West
	305506265	Redland Bay	405155291	Norw. P'ham St Ptrs (C)–East
	305506267	Sheldon-Mt Cotton	405155294	Norw. P'ham St Ptrs (C)–West

(continued)

TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	405156510	Prospect (C)	505158767	Wanneroo (C)–South
	405157981	Unley (C)–East	505201820	Cockburn (C)
	405157984	Unley (C)–West	505203150	East Fremantle (T)
	405158260	Walkerville (M)	505203431	Fremantle (C)–Inner
	405202601	Holdfast Bay (C)–North	505203432	Fremantle (C)–Remainder
	405202604	Holdfast Bay (C)–South	505204830	Kwinana (T)
	405204061	Marion (C)–Central	505205320	Melville (C)
	405204064	Marion (C)–North	505207490	Rockingham (C)
	405204065	Marion (C)–South	505250210	Armadale (C)
	405204341	Mitcham (C)–Hills	505250490	Belmont (C)
	405204344	Mitcham (C)–North-East	505251330	Canning (C)
	405204345	Mitcham (C)–West	505253780	Gosnells (C)
	405205341	Onkaparinga (C)–Hackham	505257700	Serpentine-Jarrahdale (S)
	405205342	Onkaparinga (C)–Hills	505257840	South Perth (C)
	405205343	Onkaparinga (C)–Morphett	505258510	Victoria Park (T)
	405205344	Onkaparinga (C)–North Coast	605050410	Brighton (M)
	405205345	Onkaparinga (C)–Reservoir	605051410	Clarence (C)
	405205346	Onkaparinga (C)–South Coast	605051511	Derwent Valley (M)–Pt A
	405205347	Onkaparinga (C)–Woodcroft	605052610	Glenorchy (C)
	505051310	Cambridge (T)	605052811	Hobart (C)–Inner
	505051750	Claremont (T)	605052812	Hobart (C)–Remainder
	505052170	Cottesloe (T)	605053611	Kingborough (M)–Pt A
	505055740	Mosman Park (T)	605054811	Sorell (M)–Pt A
	505056580	Nedlands (C)	705051004	Alawa
	505056930	Peppermint Grove (S)	705051008	Anula
	505057081	Perth (C)–Inner	705051011	Bayview-Woolner
	505057082	Perth (C)–Remainder	705051014	Brinkin
	505057980	Subiaco (C)	705051018	City–Inner NT
	505058570	Vincent (T)	705051024	Coconut Grove
	505100350	Bassendean (T)	705051028	Fannie Bay
	505100420	Bayswater (C)	705051034	Jingili
	505104200	Kalamunda (S)	705051038	Karama
	505106090	Mundaring (S)	705051044	Larrakeyah
	505108050	Swan (C)	705051048	Leanyer
	505154171	Joondalup (C)–North	705051052	Lee Point-Leanyer Swamp
	505154174	Joondalup (C)–South	705051054	Ludmilla
	505157914	Stirling (C)–Central	705051058	Malak
	505157915	Stirling (C)–Coastal	705051064	Marrara
	505157916	Stirling (C)–South-Eastern	705051068	Millner
	505158761	Wanneroo (C)–North-East	705051074	Moil
	505158764	Wanneroo (C)–North-West	705051078	Nakara

(continued)

TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	705051084	Narrows	805100459	Belconnen Town Centre
	705051088	Nightcliff	805100549	Belconnen–SSD Bal
	705051094	Parap	805100729	Bruce
	705051098	Rapid Creek	805101179	Charnwood
	705051104	Stuart Park	805101629	Cook
	705051108	The Gardens	805102139	Dunlop
	705051114	Tiwi	805102259	Evatt
	705051118	Wagaman	805102619	Florey
	705051124	Wanguri	805102709	Flynn
	705051128	Winnellie	805102889	Fraser
	705051134	Wulagi	805103249	Giralang
	705051138	City–Remainder NT	805103879	Hawker
	705101169	East Arm	805103969	Higgins
	705102802	Bakewell	805104149	Holt
	705102804	Driver	805104779	Kaleen
	705102806	Durack NT	805105139	Latham
	705102808	Gray	805105409	McKellar
	705102811	Gunn-Palmerston City	805105589	Macgregor ACT
	705102814	Moulden	805105679	Macquarie
	705102818	Woodroffe	805105949	Melba
	705102824	Palmerston (C) Bal	805106669	Page
	705202304	Litchfield (S)–Pt A	805107569	Scullin
	705202308	Litchfield (S)–Pt B	805107659	Spence
	805050089	Acton	805108649	Weetangera
	805050189	Ainslie	805151269	Chifley
	805050639	Braddon	805151719	Curtin
	805050909	Campbell	805152439	Farrer
	805051449	City ACT	805153069	Garran
	805051889	Dickson	805154239	Hughes
	805051989	Downer	805154419	Isaacs
	805052169	Duntroon	805155319	Lyons
	805053609	Hackett	805155859	Mawson
	805055049	Kowen	805156489	O'Malley
	805055229	Lyneham	805156849	Pearce
	805055769	Majura	805156939	Phillip
	805056389	O'Connor	805158109	Torrens
	805057209	Reid	805201089	Chapman
	805057479	Russell	805202079	Duffy
	805058289	Turner	805202529	Fisher
	805058559	Watson	805204059	Holder
	805100279	Aranda	805207389	Rivett

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TAA 1 Capital cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Capital cities	805207749	Stirling	805403519	Gungahlin
	805207839	Stromlo	805403529	Gungahlin-Hall–SSD Bal
	805208469	Waramanga	805403689	Hall
	805208739	Weston	805403819	Harrison
	805208829	Weston Creek-Stromlo–SSD Bal	805406039	Mitchell
	805250339	Banks	805406249	Ngunnawal
	805250609	Bonython	805406279	Nicholls
	805250819	Calwell	805406719	Palmerston
	805251359	Chisholm		
	805251549	Conder		
	805252349	Fadden		
	805253159	Gilmore		
	805253289	Gordon		
	805253339	Gowrie		
	805253379	Greenway		
	805254509	Isabella Plains		
	805254869	Kambah		
	805255489	Macarthur		
	805256129	Monash		
	805256579	Oxley ACT		
	805257289	Richardson		
	805258019	Theodore		
	805258189	Tuggeranong–SSD Bal		
	805258379	Wanniassa		
	805350369	Barton		
	805351809	Deakin		
	805352789	Forrest		
	805352979	Fyshwick		
	805353429	Griffith		
	805353789	Harman		
	805354329	Hume		
	805354589	Jerrabomberra		
	805354959	Kingston ACT		
	805356219	Narrabundah		
	805356309	Oaks Estate		
	805356759	Parkes		
	805357029	Pialligo		
	805357119	Red Hill ACT		
	805357929	Symonston		
	805358919	Yarralumla		
	805400239	Amaroo		

TAA 2 Coastal cities regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Coastal cities	110051720	Cessnock (C)	307103527	Coolangatta
	110054651	Lake Macquarie (C)–East	307103533	Currumbin
	110054653	Lake Macquarie (C)–North	307103555	Main Beach-South Stradbroke
	110054655	Lake Macquarie (C)–West	307103562	Mermaid Wtrs-Clear Is. Wtrs
	110055050	Maitland (C)	307103563	Miami
	110055903	Newcastle (C)–Inner City	307103573	Palm Beach
	110055904	Newcastle (C)–Outer West	307103576	Paradise Point-Runaway Bay
	110055905	Newcastle (C)–Throsby	307103585	Southport
	110056400	Port Stephens (A)	307103587	Surfers Paradise
	115054400	Kiama (A)	307153502	Ashmore-Benowa
	115056900	Shellharbour (C)	307153525	Carrara-Merrimac
	115058451	Wollongong (C)–Inner	307153531	Coombabah
	115058454	Wollongong (C) Bal	307153534	Currumbin Valley-Tallebudgera
	115076951	Shoalhaven (C)–Pt A	307153535	Currumbin Waters
	120057554	Tweed (A)–Tweed-Heads	307153537	Elanora
	120057556	Tweed (A)–Tweed Coast	307153543	Helensvale
	120074851	Lismore (C)–Pt A	307153547	Hope Island
	125011801	Coffs Harbour (C)–Pt A	307153551	Kingsholme-Upper Coomera
	125033751	Hastings (A)–Pt A	307153564	Molendinar
	210052751	Bellarine–Inner	307153566	Mudgeeraba-Reedy Creek
	210052752	Corio–Inner	307153567	Nerang
	210052753	Geelong	307153568	Oxenford-Maudsland
	210052754	Geelong West	307153572	Pacific Pines-Gaven
	210052755	Newtown	307153578	Parkwood-Arundel
	210052756	South Barwon–Inner	307153581	Pimpama-Coomera
	215016730	Warrnambool (C)	307153582	Robina
	307053461	Beenleigh	307153592	Varsity Lakes
	307053463	Bethania-Waterford	307153593	Worongary-Tallai
	307053466	Eagleby	309052132	Caloundra (C)–Caloundra N.
	307053471	Edens Landing-Holmview	309052133	Caloundra (C)–Caloundra S.
	307053473	Jacobs Well-Alberton	309052135	Caloundra (C)–Kawana
	307053476	Mt Warren Park	309054902	Maroochy (S)–Buderim
	307053481	Ormeau-Yatala	309054905	Maroochy (S)–Coastal North
	307053493	Wolffdene-Bahrs Scrub	309054907	Maroochy (S)–Maroochydore
	307103508	Biggera Waters-Labrador	309054911	Maroochy (S)–Mooloolaba
	307103511	Bilinga-Tugun	309054914	Maroochy (S)–Nambour
	307103514	Broadbeach-Mermaid Beach	309054917	Maroochy (S)–Paynter-Petrie Creek
	307103515	Broadbeach Waters	309055752	Noosa (S)–Noosa-Noosaville
	307103517	Bundall	309055755	Noosa (S)–Sunshine-Peregian
	307103521	Burleigh Heads	309055756	Noosa (S)–Tewantin
	307103523	Burleigh Waters	315051810	Bundaberg (C)

(continued)

TAA 2 Coastal cities regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Coastal cities	315051981	Burnett (S)–Pt A	350052072	Cairns (C)–Northern Suburbs
	315073751	Hervey Bay (C)–Pt A	350052074	Cairns (C)–Trinity
	330053151	Fitzroy (S)–Pt A	350052076	Cairns (C)–Western Suburbs
	330054551	Livingstone (S)–Pt A	510015110	Mandurah (C)
	330056350	Rockhampton (C)	510016230	Murray (S)
	330102101	Calliope (S)–Pt A	510031190	Bunbury (C)
	330103350	Gladstone (C)	510031401	Capel (S)–Pt A
	340054762	Mackay (C)–Pt A	510032661	Dardanup (S)–Pt A
	345057001	Aitkenvale	510033991	Harvey (S)–Pt A
	345057003	City	535033500	Geraldton (C)
	345057007	Cranbrook	535033851	Greenough (S)–Pt A
	345057012	Currajong	615052211	George Town (M)–Pt A
	345057014	Douglas	615054011	Launceston (C)–Inner
	345057015	Garbutt	615054012	Launceston (C)–Pt B
	345057018	Gulliver	615054211	Meander Valley (M)–Pt A
	345057023	Heatley	615054611	Northern Midlands (M)–Pt A
	345057026	Hermit Park	615055811	West Tamar (M)–Pt A
	345057027	Hyde Park-Mysterton	620050611	Burnie (C)–Pt A
	345057031	Magnetic Island	620050811	Central Coast (M)–Pt A
	345057033	Mt Louisa-Mt St John-Bohle	620051610	Devonport (C)
	345057034	Mundingburra	620053811	Latrobe (M)–Pt A
	345057038	Murray	620055411	Waratah/Wynyard (M)–Pt A
	345057041	North Ward-Castle Hill		
	345057044	Oonoonba-Idalia-Cluden		
	345057047	Pallarenda-Shelley Beach		
	345057051	Pimlico		
	345057054	Railway Estate		
	345057058	Rosslea		
	345057062	Rowes Bay-Belgian Gardens		
	345057065	South Townsville		
	345057068	Stuart-Roseneath		
	345057071	Vincent		
	345057074	West End		
	345057078	Wulguru		
	345106801	Kelso		
	345106804	Kirwan		
	345106807	Thuringowa (C)–Pt A Bal		
	350052062	Cairns (C)–Barron		
	350052065	Cairns (C)–Central Suburbs		
	350052066	Cairns (C)–City		
	350052068	Cairns (C)–Mt Whitfield		

Source: ABS (2006d)

TAA 3 Inland cities regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name
Inland cities	13005731 1	Tamworth Regional (A)–Pt A
	13501260 1	Dubbo (C)–Pt A
	14003047 1	Bathurst Regional (A)–Pt A
	14020615 0	Orange (C)
	14505618 1	Palerang (A)–Pt A
	14505647 0	Queanbeyan (C)
	15005775 1	Wagga Wagga (C)–Pt A
	15505005 0	Albury (C)
	15505337 1	Greater Hume Shire (A)–Pt A
	22005057 1	Ballarat (C)–Central
	22005057 2	Ballarat (C)–Inner North
	22005057 3	Ballarat (C)–North
	22005057 4	Ballarat (C)–South
	23005478 1	Mildura (RC)–Pt A
	23505262 1	Gr. Bendigo (C)–Central
	23505262 2	Gr. Bendigo (C)–Eaglehawk
	23505262 3	Gr. Bendigo (C)–Inner East
	23505262 4	Gr. Bendigo (C)–Inner North
	23505262 5	Gr. Bendigo (C)–Inner West
	23505262 6	Gr. Bendigo (C)–S'saye
	24005283 1	Gr. Shepparton (C)–Pt A
	24505335 1	Indigo (S)–Pt A
	24505667 1	Towong (S)–Pt A
	24505717 0	Wodonga (RC)
	25505083 1	Baw Baw (S)–Pt A
	25505381 1	Latrobe (C)–Moe
	25505381 4	Latrobe (C)–Morwell
	25505381 5	Latrobe (C)–Traralgon
	25505381 8	Latrobe (C) Bal
	32001215 1	Cambooya (S)–Pt A
	32001255 1	Crow's Nest (S)–Pt A
	32001420 1	Jondaryan (S)–Pt A
	32001645 1	Rosalie (S)–Pt A
	32001690 1	Toowoomba (C)–Central
	32001690 3	Toowoomba (C)–North-East
	32001690 5	Toowoomba (C)–North-West
	32001690 6	Toowoomba (C)–South-East
	32001690 8	Toowoomba (C)–West
	53001428 1	Kalgoorlie/Boulder (C)–Pt A

Source: ABS (2006d)

TAA 4 Coastal country regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Coastal country	110102700	Dungog (A)	255200744	Bass Coast (S) Bal
	110103400	Great Lakes (A)	255206171	South Gippsland (S)–Central
	115106952	Shoalhaven (C)–Pt B	255206174	South Gippsland (S)–East
	115108350	Wingecarribee (A)	255206175	South Gippsland (S)–West
	120100250	Ballina (A)	255208529	French Island
	120101350	Byron (A)	255208649	Bass Strait Islands
	120104854	Lismore (C)–Pt B	307200553	Beaudesert (S)–Pt B
	120106611	Richmond Valley (A)–Casino	307203538	Guanaba-Springbrook
	120106612	Richmond Valley (A) Bal	309102136	Caloundra (C)–Hinterland
	120107558	Tweed (A)–Pt B	309102138	Caloundra (C)–Rail Corridor
	125050600	Bellingen (A)	309104918	Maroochy (S) Bal
	125051736	Clarence Valley (A)–Coast	309105758	Noosa (S) Bal
	125051737	Clarence Valley (A)–Grafton	315101984	Burnett (S)–Pt B
	125051804	Coffs Harbour (C)–Pt B	315102532	Cooloola (S) (excl. Gympie)
	125055700	Nambucca (A)	315102535	Cooloola (S)–Gympie only
	125103350	Greater Taree (C)	315103754	Hervey Bay (C)–Pt B
	125103754	Hastings (A)–Pt B	315104000	Isis (S)
	125104350	Kempsey (A)	315104950	Maryborough (C)
	145150550	Bega Valley (A)	315105100	Miriam Vale (S)
	145152750	Eurobodalla (A)	315106850	Tiaro (S)
	210102757	Greater Geelong (C)–Pt B	330152104	Calliope (S)–Pt B
	210106080	Queenscliffe (B)	330153154	Fitzroy (S)–Pt B
	210106493	Surf Coast (S)–East	330154554	Livingstone (S)–Pt B
	210106495	Surf Coast (S)–West	330155350	Mount Morgan (S)
	210151751	Colac-Otway (S)–Colac	340100950	Bowen (S)
	210151754	Colac-Otway (S)–North	340101700	Broadsound (S)
	210151755	Colac-Otway (S)–South	340104765	Mackay (C)–Pt B
	210152758	Greater Geelong (C)–Pt C	340105050	Mirani (S)
	215051832	Corangamite (S)–South	340106550	Sarina (S)
	215055493	Moyne (S)–North-West	340107330	Whitsunday (S)
	215055496	Moyne (S)–South	345151900	Burdekin (S)
	215058469	Lady Julia Percy Island	345153800	Hinchinbrook (S)
	215102411	Glenelg (S)–Heywood	345156831	Thuringowa (C)–Pt B
	215102413	Glenelg (S)–Portland	345157084	Townsville (C)–Pt B
	250052111	E. Gippsland (S)–Bairnsdale	350100200	Atherton (S)
	250052113	E. Gippsland (S)–Orbost	350102078	Cairns (C)–Pt B
	250052115	E. Gippsland (S)–South-West	350102200	Cardwell (S)
	250156811	Wellington (S)–Alberton	350102800	Douglas (S)
	250156814	Wellington (S)–Rosedale	350102900	Eacham (S)
	250156815	Wellington (S)–Sale	350104150	Johnstone (S)
	255200741	Bass Coast (S)–Phillip Is.	350107600	Yarrabah (S)

(continued)

TAA 4 Coastal country regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Coastal country	410050314	Barossa (DC)–Barossa	515100084	Albany (C) Bal
	410050315	Barossa (DC)–Tanunda	515102730	Denmark (S)
	410053650	Light (RegC)	515107210	Plantagenet (S)
	410053920	Mallala (DC)	525051680	Chittering (S)
	410150125	Adelaide Hills (DC)–North	525052590	Dandaragan (S)
	410150128	Adelaide Hills (DC) Bal	525053570	Gingin (S)
	410154551	Mount Barker (DC)–Central	535151610	Chapman Valley (S)
	410154554	Mount Barker (DC) Bal	535153854	Greenough (S)–Pt B
	410200221	Alexandrina (DC)–Coastal	535154060	Irwin (S)
	410200224	Alexandrina (DC)–Strathalbyn	610051512	Derwent Valley (M)–Pt B
	410208050	Victor Harbor (C)	610053010	Huon Valley (M)
	410208750	Yankalilla (DC)	610053612	Kingborough (M)–Pt B
	415050430	Barunga West (DC)	610054812	Sorell (M)–Pt B
	415051560	Copper Coast (DC)	610055010	Southern Midlands (M)
	415058831	Yorke Peninsula (DC)–North	610055210	Tasman (M)
	415058969	Unincorp. Yorke	615102212	George Town (M)–Pt B
	415108130	Wakefield (DC)	615104013	Launceston (C)–Pt C
	420107800	The Coorong (DC)	615104212	Meander Valley (M)–Pt B
	420109109	Unincorp. Murray Mallee	615105812	West Tamar (M)–Pt B
	425053360	Kingston (DC)	615150210	Break O'Day (M)
	425056860	Robe (DC)	615151810	Dorset (M)
	425102250	Grant (DC)	620100612	Burnie (C)–Pt B
	425104620	Mount Gambier (C)	620100812	Central Coast (M)–Pt B
	425108344	Wattle Range (DC)–West	620101210	Circular Head (M)
	435058540	Whyalla (C)	620103210	Kentish (M)
	435155120	Northern Areas (DC)	620103812	Latrobe (M)–Pt B
	435156451	Port Pirie C Dists (M)–City	620105412	Waratah/Wynyard (M)–Pt B
	435156454	Port Pirie C Dists (M) Bal	710050700	Coomalie (CGC)
	435204830	Mount Remarkable (DC)		
	435206090	Port Augusta (C)		
	510101404	Capel (S)–Pt B		
	510101890	Collie (S)		
	510102664	Dardanup (S)–Pt B		
	510102870	Donnybrook-Balingup (S)		
	510103994	Harvey (S)–Pt B		
	510108820	Waroona (S)		
	510150280	Augusta-Margaret River (S)		
	510151260	Busselton (S)		
	510205180	Manjimup (S)		
	510206300	Nannup (S)		
	515100081	Albany (C)–Central		

Source: ABS (2006d)

TAA 5 Inland country regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Inland country	110103050	Gloucester (A)	145103314	Goulburn Mulwaree (A) Bal
	110105650	Muswellbrook (A)	145103700	Harden (A)
	110107000	Singleton (A)	145106184	Palerang (A)–Pt B
	110107620	Upper Hunter Shire (A)	145107640	Upper Lachlan (A)
	120104550	Kyogle (A)	145108710	Yass Valley (A)
	125051738	Clarence Valley (A) Bal	145108750	Young (A)
	130103550	Gunnedah (A)	145201000	Bombala (A)
	130103660	Gwydir (A)	145202050	Cooma-Monaro (A)
	130104201	Inverell (A)–Pt A	145207050	Snowy River (A)
	130104920	Liverpool Plains (A)	150102000	Coolamon (A)
	130107314	Tamworth Regional (A)–Pt B	150102200	Cootamundra (A)
	130150111	Armidale Dumaresq (A)–City	150103500	Gundagai (A)
	130150112	Armidale Dumaresq (A) Bal	150104300	Junee (A)
	130153010	Glen Innes Severn (A)	150104950	Lockhart (A)
	130153650	Guyra (A)	150105800	Narrandera (A)
	130154202	Inverell (A)–Pt B	150107350	Temora (A)
	130157400	Tenterfield (A)	150107500	Tumut Shire (A)
	130157650	Uralla (A)	150107754	Wagga Wagga (C)–Pt B
	130157850	Walcha (A)	150153450	Griffith (C)
	130205300	Moree Plains (A)	150153850	Hay (A)
	130205750	Narrabri (A)	150154750	Leeton (A)
	135052604	Dubbo (C)–Pt B	150155550	Murrumbidgee (A)
	135052950	Gilgandra (A)	155102300	Corowa Shire (A)
	135055271	Mid-Western Regional (A)–Pt A	155103374	Greater Hume Shire (A)–Pt B
	135055850	Narromine (A)	155107450	Tumbarumba (A)
	135058020	Warrumbungle Shire (A)	155107700	Urana (A)
	135058150	Wellington (A)	155150650	Berrigan (A)
	140070473	Bathurst Regional (A)–Pt B	155151860	Conargo (A)
	140070850	Blayney (A)	155152500	Deniliquin (A)
	140071400	Cabonne (A)	155154250	Jerilderie (A)
	140074870	Lithgow (C)	155155500	Murray (A)
	140075274	Mid-Western Regional (A)–Pt B	155157800	Wakool (A)
	140076100	Oberon (A)	155200300	Balranald (A)
	140150800	Bland (A)	155208200	Wentworth (A)
	140152350	Cowra (A)	160101250	Broken Hill (C)
	140152900	Forbes (A)	210152491	Golden Plains (S)–North-West
	140154600	Lachlan (A)	210152492	Golden Plains (S)–South-East
	140156200	Parkes (A)	215051831	Corangamite (S)–North
	140158100	Weddin (A)	215055491	Moyne (S)–North-East
	145101050	Boorowa (A)	215102412	Glenelg (S)–North
	145103311	Goulburn Mulwaree (A)Goulburn	215106261	S. Grampians (S)–Hamilton

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TAA 5 Inland country regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Inland country	215106264	S. Grampians (S)–Wannon	240104901	Moira (S)–East
	215106265	S. Grampians (S) Bal	240104904	Moira (S)–West
	220102911	Hepburn (S)–East	240151011	Benalla (RC)–Benalla
	220102912	Hepburn (S)–West	240151014	Benalla (RC) Bal
	220105151	Moorabool (S)–Bacchus Marsh	240154250	Mansfield (S)
	220105154	Moorabool (S)–Ballan	240156430	Strathbogie (S)
	220105155	Moorabool (S)–West	240158249	Mount Buller Alpine Resort
	220150260	Ararat (RC)	240158349	Mount Stirling Alpine Resort
	220155991	Pyrenees (S)–North	240204851	Mitchell (S)–North
	220155994	Pyrenees (S)–South	240204854	Mitchell (S)–South
	225053191	Horsham (RC)–Central	240205621	Murrindindi (S)–East
	225053194	Horsham (RC) Bal	240205622	Murrindindi (S)–West
	225055811	N. Grampians (S)–St Arnaud	240208149	Lake Mountain Alpine Resort
	225055814	N. Grampians (S)–Stawell	245103352	Indigo (S)–Pt B
	225056890	West Wimmera (S)	245106701	Wangaratta (RC)–Central
	225102980	Hindmarsh (S)	245106704	Wangaratta (RC)–North
	225107631	Yarriambiack (S)–North	245106705	Wangaratta (RC)–South
	225107632	Yarriambiack (S)–South	245150111	Alpine (S)–East
	230101271	Buloke (S)–North	245150112	Alpine (S)–West
	230101272	Buloke (S)–South	245156672	Towong (S)–Pt B
	230104782	Mildura (RC)–Pt B	245158109	Falls Creek Alpine Resort
	230152250	Gannawarra (S)	245158309	Mount Hotham Alpine Resort
	230156611	Swan Hill (RC)–Central	250052117	E. Gippsland (S) Bal
	230156614	Swan Hill (RC)–Robinvale	250156812	Wellington (S)–Avon
	230156616	Swan Hill (RC) Bal	250156813	Wellington (S)–Maffra
	235101671	C. Goldfields (S)–M'borough	255100834	Baw Baw (S)–Pt B East
	235101674	C. Goldfields (S) Bal	255100835	Baw Baw (S)–Pt B West
	235102628	Gr. Bendigo (C)–Pt B	255107458	Yarra Ranges (S)–Pt B
	235103943	Loddon (S)–North	255108209	Mount Baw Baw Alpine Resort
	235103945	Loddon (S)–South	312053050	Esk (S)
	235105431	Mount Alexander (S)–C'maine	312054250	Kilcoy (S)
	235105434	Mount Alexander (S) Bal	312100555	Beaudesert (S)–Pt C
	235204131	Macedon Ranges (S)–Kyneton	312100800	Boonah (S)
	235204134	Macedon Ranges (S)–Romsey	312103250	Gatton (S)
	235204135	Macedon Ranges (S) Bal	312104450	Laidley (S)
	240101371	Campaspe (S)–Echuca	315100700	Biggenden (S)
	240101374	Campaspe (S)–Kyabram	315102330	Cherbourg (S)
	240101375	Campaspe (S)–Rochester	315102950	Eidsvold (S)
	240101376	Campaspe (S)–South	315103300	Gayndah (S)
	240102834	Gr. Shepparton (C)–Pt B East	315104300	Kilkivan (S)
	240102835	Gr. Shepparton (C)–Pt B West	315104350	Kingaroy (S)

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TAA 5 Inland country regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Inland country	315104400	Kolan (S)	420053794	Loxton Waikerie (DC)–West
	315105150	Monto (S)	420054210	Mid Murray (DC)
	315105450	Mundubbera (S)	420056671	Renmark Paringa (DC)–Paringa
	315105500	Murgon (S)	420056674	Renmark Paringa (DC)–Renmark
	315105650	Nanango (S)	420059039	Unincorp. Riverland
	315105900	Perry (S)	420103080	Karoonda East Murray (DC)
	315107450	Wondai (S)	420105040	Murray Bridge (RC)
	315107500	Woocoo (S)	425055090	Naracoorte and Lucindale (DC)
	320052154	Cambooya (S)–Pt B	425057630	Tatiara (DC)
	320052350	Chinchilla (S)	425108341	Wattle Range (DC)–East
	320052400	Clifton (S)	435155400	Orroroo/Carrieton (DC)
	320052554	Crow's Nest (S)–Pt B	435155540	Peterborough (DC)
	320052650	Dalby (T)	435201830	Flinders Ranges (DC)
	320053600	Goondiwindi (T)	510100630	Boddington (S)
	320053900	Inglewood (S)	510200770	Boyup Brook (S)
	320054204	Jondaryan (S)–Pt B	510200840	Bridgetown-Greenbushes (S)
	320055000	Millmerran (S)	515051050	Broomehill (S)
	320055550	Murilla (S)	515054340	Katanning (S)
	320056050	Pittsworth (S)	515054550	Kojonup (S)
	320056454	Rosalie (S)–Pt B	515058120	Tambellup (S)
	320056600	Stanthorpe (S)	515059380	Woodanilling (S)
	320056700	Tara (S)	515102240	Cranbrook (S)
	320057120	Waggamba (S)	520050910	Brookton (S)
	320057150	Wambo (S)	520052310	Cuballing (S)
	320057262	Warwick (S)–Central	520056440	Narrogin (T)
	320057263	Warwick (S)–East	520056510	Narrogin (S)
	320057265	Warwick (S)–North	520057140	Pingelly (S)
	320057266	Warwick (S)–West	520058610	Wagin (S)
	325056400	Roma (T)	520058680	Wandering (S)
	330150350	Banana (S)	520058890	West Arthur (S)
	330152850	Duaringa (S)	520059100	Wickepin (S)
	340105700	Nebo (S)	520059170	Williams (S)
	345152300	Charters Towers (C)	525055600	Moora (S)
	350103700	Herberton (S)	525058540	Victoria Plains (S)
	350104850	Mareeba (S)	525100560	Beverley (S)
	410050311	Barossa (DC)–Angaston	525102450	Cunderdin (S)
	415101140	Clare and Gilbert Valleys (DC)	525102940	Dowerin (S)
	415102110	Goyder (DC)	525103710	Goomalling (S)
	420050521	Berri & Barmera (DC)–Barmera	525106650	Northam (T)
	420050524	Berri & Barmera (DC)–Berri	525106720	Northam (S)
	420053791	Loxton Waikerie (DC)–East	525107350	Quairading (S)

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TAA 5 Inland country regional classification by 2006 SLA concordance (continued)

Regional Classification	SLA code	SLA name	SLA code	SLA name
Inland country	525108190	Tammin (S)		
	525108330	Toodyay (S)		
	525109310	Wongan-Ballidu (S)		
	525109730	York (S)		
	525154410	Kellerberrin (S)		
	525155460	Merredin (S)		
	530051960	Coolgardie (S)		
	535155530	Mingenew (S)		
	610051010	Central Highlands (M)		
	615104612	Northern Midlands (M)–Pt B		
	810059009	Remainder of ACT		

Source: ABS (2006d)

TAA 6 Remote regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Remote	125108859	Lord Howe Island	350100270	Badu (IC)
	135100950	Bogan (A)	350100330	Bamaga (IC)
	135102150	Coonamble (A)	350100770	Boigu (IC)
	135107900	Walgett (A)	350102500	Cook (S)
	135107950	Warren (A)	350102600	Croydon (S)
	135151150	Bourke (A)	350102740	Dauan (IC)
	135151200	Brewarrina (A)	350103030	Erub (IC)
	135151750	Cobar (A)	350103100	Etheridge (S)
	150151600	Carrathool (A)	350103650	Hammond (IC)
	160101700	Central Darling (A)	350103830	Hope Vale (S)
	160108809	Unincorp. Far West	350103840	Iama (IC)
	320056750	Taroom (S)	350103930	Injinoo (S)
	325050300	Balonne (S)	350104420	Kowanyama (S)
	325050650	Bendemere (S)	350104430	Kubin (IC)
	325050850	Booringa (S)	350104570	Lockhart River (S)
	325051750	Bulloo (S)	350104740	Mabuiag (IC)
	325051850	Bungil (S)	350104830	Mapoon (S)
	325055600	Murweh (S)	350104970	Mer (IC)
	325055800	Paroo (S)	350105670	Napranum (S)
	325056150	Quilpie (S)	350105730	New Mapoon (S)
	325057200	Warroo (S)	350106070	Pormpuraaw (S)
	330150500	Bauhinia (S)	350106100	Poruma (IC)
	330153000	Emerald (S)	350106470	Saibai (IC)
	330154100	Jericho (S)	350106480	St Pauls (IC)
	330155850	Peak Downs (S)	350106570	Seisia (IC)
	330157550	Woorabinda (S)	350106950	Torres (S)
	335050150	Aramac (S)	350107090	Ugar (IC)
	335050400	Barcaldine (S)	350107110	Umagico (S)
	335050450	Barcoo (S)	350107170	Warraber (IC)
	335050750	Blackall (S)	350107300	Weipa (T)
	335050900	Boulia (S)	350107570	Wujal Wujal (S)
	335052750	Diamantina (S)	350107650	Yorke (IC)
	335053850	Ilfracombe (S)	355051950	Burke (S)
	335054050	Isisford (S)	355052250	Carpentaria (S)
	335054700	Longreach (S)	355052450	Cloncurry (S)
	335056650	Tambo (S)	355052770	Doomadgee (S)
	335057400	Winton (S)	355053200	Flinders (S)
	340100600	Belyando (S)	355054800	McKinlay (S)
	345152700	Dalrymple (S)	355055250	Mornington (S)
	345155770	Palm Island (S)	355055300	Mount Isa (C)
	350100250	Aurukun (S)	355056300	Richmond (S)

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TAA 6 Remote regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Remote	355058809	Unincorp. Islands	525159030	Westonia (S)
	410102750	Kangaroo Island (DC)	525159660	Yilgarn (S)
	415058834	Yorke Peninsula (DC)–South	530054284	Kalgoorlie/Boulder (C)–Pt B
	420107290	Southern Mallee (DC)	530054970	Laverton (S)
	430051190	Cleve (DC)	530055040	Leonora (S)
	430051750	Elliston (DC)	530055390	Menzies (S)
	430051960	Franklin Harbour (DC)	530056620	Ngaanyatjarraku (S)
	430053220	Kimba (DC)	530103080	Dundas (S)
	430053570	Le Hunte (DC)	530103290	Esperance (S)
	430053710	Lower Eyre Peninsula (DC)	530107420	Ravensthorpe (S)
	430056300	Port Lincoln (C)	535051540	Carnarvon (S)
	430057910	Tumby Bay (DC)	535053360	Exmouth (S)
	430059179	Unincorp. Lincoln	535057770	Shark Bay (S)
	430101010	Ceduna (DC)	535058470	Upper Gascoyne (S)
	430107490	Streaky Bay (DC)	535102380	Cue (S)
	430109249	Unincorp. West Coast	535105250	Meekatharra (S)
	435059389	Unincorp. Whyalla	535105810	Mount Magnet (S)
	435159459	Unincorp. Pirie	535106160	Murchison (S)
	435209529	Unincorp. Flinders Ranges	535107630	Sandstone (S)
	435250250	Anangu Pitjantjatjara (AC)	535109250	Wiluna (S)
	435251330	Coober Pedy (DC)	535109590	Yalgoo (S)
	435254000	Maralinga Tjarutja (AC)	535151470	Carnamah (S)
	435256970	Roxby Downs (M)	535152030	Coorow (S)
	435259589	Unincorp. Far North	535155670	Morawa (S)
	515053640	Gnowangerup (S)	535156020	Mullewa (S)
	515054130	Jerramungup (S)	535156790	Northampton (S)
	515054480	Kent (S)	535157000	Perenjori (S)
	520053010	Dumbleyung (S)	535158260	Three Springs (S)
	520102100	Corrigin (S)	540053220	East Pilbara (S)
	520104620	Kondinin (S)	540057280	Port Hedland (T)
	520104760	Kulin (S)	540100250	Ashburton (S)
	520104900	Lake Grace (S)	540107560	Roebourne (S)
	525102520	Dalwallinu (S)	545053920	Halls Creek (S)
	525104690	Koorda (S)	545059520	Wyndham-East Kimberley (S)
	525109450	Wyalkatchem (S)	545100980	Broome (S)
	525151120	Bruce Rock (S)	545102800	Derby-West Kimberley (S)
	525155880	Mount Marshall (S)	610052410	Glamorgan/Spring Bay (M)
	525155950	Mukinbudin (S)	615152010	Flinders (M)
	525156370	Narembeen (S)	620103410	King Island (M)
	525156860	Nungarin (S)	620155610	West Coast (M)
	525158400	Trayning (S)	710050540	Belyuen (CGC)

(continued)

TAA 6 Remote regional classification by 2006 SLA concordance

Regional Classification	SLA code	SLA name	SLA code	SLA name
Remote	710050759	Cox-Finniss	710400360	Anmatjere (CGC)
	710050770	Cox Peninsula (CGC)	710400400	Arltarlpilta (CGC)
	710104050	Tiwi Islands (CGC)	710401909	Hanson
	710152000	Jabiru (T)	710402320	Ltyentye Purte (CGC)
	710152240	Kunbarllanjnja (CGC)	710403009	Petermann-Simpson
	710153309	South Alligator	710403209	Sandover
	710154809	West Arnhem	710403609	Tanami
	710200809	Daly	710403650	Tapatjatjaka (CGC)
	710202380	Nauiyu Nambiyu (CGC)	710404650	Wallace Rockhole (CGC)
	710203030	Pine Creek (CGC)	710404700	Watiyawanu (CGC)
	710204020	Thamarrurr (CGC)	710405000	Yuendumu (CGC)
	710250330	Angurugu (CGC)		
	710251209	East Arnhem–Bal		
	710251609	Groote Eylandt		
	710252340	Marngarr (CGC)		
	710252409	Nhulunbuy		
	710252500	Numbulwar Numburindi (CGC)		
	710300570	Binjari (CGC)		
	710300600	Borroloola (CGC)		
	710300790	Daguragu (CGC)		
	710301409	Elsey		
	710301809	Gulf		
	710302100	Jilkminggan (CGC)		
	710302200	Katherine (T)		
	710302270	Lajamanu (CGC)		
	710302360	Mataranka (CGC)		
	710302530	Nyirranggulung Mardrulk Ngadberre (CGC)		
	710304030	Timber Creek (CGC)		
	710304409	Victoria		
	710304600	Walangeri Ngumpinku (CGC)		
	710305050	Yugul Mangi (CGC)		
	710350300	Alpurrurulam (CGC)		
	710351350	Elliott District (CGC)		
	710353409	Tableland		
	710353800	Tennant Creek (T)		
	710354009	Tennant Creek–Bal		
	710400201	Alice Springs (T)–Charles		
	710400203	Alice Springs (T)–Heavitree		
	710400205	Alice Springs (T)–Larapinta		
	710400207	Alice Springs (T)–Ross		
	710400208	Alice Springs (T)–Stuart		

Source: ABS (2006d)

APPENDIX B
Background tables

TAB 1 Top 10 Statistical Divisions from which people moved to New South Wales coastal cities, 2001 to 2006

Statistical division of usual residence 2001	Newcastle	Wollongong	Nowra–Bomaderry	Lismore	Coffs Harbour	Port Macquarie
Sydney (NSW)	41.1	45.4	42.9	22.7	34.8	41.1
Overseas	14.6	23.0	8.7	11.0	10.6	8.6
Northern (NSW)	4.4			6.9	7.3	5.6
Brisbane (QLD)	3.2	2.0	2.3	9.4	4.4	2.4
Hunter (NSW)		2.2	2.4	5.5	5.4	7.8
Mid-North Coast (NSW)	6.6			11.9		
Melbourne (VIC)	2.4	1.9	3.0	2.7	3.3	3.3
Central West (NSW)	3.1	2.5	2.8		2.9	4.2
South Eastern (NSW)		4.4	6.9		2.7	
North Western (NSW)	3.3	1.6		2.6		3.3
Canberra (ACT)	2.0	2.2	3.2			2.5
Illawarra (NSW)	2.2			2.6		3.2
Murrumbidgee (NSW)		2.2	3.8			
Richmond–Tweed (NSW)					4.0	
Gold Coast (QLD)				3.9		
Perth (WA)			2.6			
Totals (percentage of all new residents per city)	**82.8**	**87.4**	**78.8**	**79.1**	**75.2**	**81.9**

Note: This table is based on the top ten Statistical Divisions from which people moved to capital cities between 2001 and 2006 (where 'overseas' is counted as a Statistical Division).

This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAB 2 Top 10 Statistical Divisions from which people moved to New South Wales inland cities, 2001 to 2006

Statistical division 2001	Statistical district of usual residence 2006						
	Tamworth	Dubbo	Wagga Wagga	Bathurst	Orange	Albury-Wodonga	Queanbeyan
Sydney (NSW)	25.8	25.5	19.0	44.3	34.8	12.6	11.4
Overseas	7.5	8.1	10.3	8.2	8.8	9.2	12.8
Canberra (ACT)			5.0	2.2		2.4	40.5
North Western (NSW)	11.0			11.8	14.3		
Hunter (NSW)	14.3	7.7	3.2	4.6	4.2		2.3
Central West (NSW)	2.6	17.9	8.5			2.3	2.1
Melbourne (VIC)			4.3			18.5	3.5
Murrumbidgee (NSW)		3.2		3.1	3.3	7.6	3.3
Brisbane (QLD)	4.4	3.0	3.4		2.1	4.1	3.3
Illawarra (NSW)	2.3	3.9	4.1	3.3	2.6		2.7
Mid-North Coast (NSW)	9.2	3.5		3.3	2.5		
South Eastern (NSW)		2.8	5.9	3.1	3.5	2.5	
Northern (NSW)		6.6		3.2	4.0		
Goulburn (VIC)						7.2	
Murray (NSW)			6.7				
Richmond-Tweed (NSW)	2.7						
Darwin (NT)						2.3	
Gold Coast (QLD)	2.1						
Adelaide (SA)							2.1
Perth (WA)							
Total (percentage of all new residents in each city)	**81.8**	**82.1**	**70.3**	**87.2**	**80.0**	**68.7**	**84.0**

Note: This table is based on the top ten Statistical Divisions from which people moved to capital cities between 2001 and 2006 (where 'overseas' is counted as a Statistical Division).

This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAB 3 Top 10 Statistical Divisions from which people moved to Queensland regional cities, 2001 to 2006

	Statistical district of usual residence 2006									
Statistical division of usual residence 2001	Sunshine Coast	Bundaberg	Hervey Bay	Rockhampton	Gladstone	Mackay	Townsville	Cairns	Toowoomba	Gold Coast-Tweed
Brisbane	23.9	18.5	18.6	14.8	16.2	14.5	13.0	11.9	18.5	18.4
Overseas	17.9	9.8	8.0	14.3	11.1	13.7	13.0	22.9	15.6	25.7
Mackay (QLD)		3.4		11.3	4.6		6.4			
Wide Bay-Burnett (QLD)	5.2			10.5	13.6	4.3	3.2		6.0	
Darling Downs (QLD)	3.7	4.6	4.7	4.3	4.9	3.4				1.6
Sydney (NSW)	12.0	7.0	11.2	3.7	4.0	4.5	6.3	9.9	3.5	18.2
Northern (QLD)				3.6	3.7	6.7		5.3		
Gold Coast (QLD)	3.0	6.0	6.6	3.5	3.2	3.1		3.2	4.0	
Far North (QLD)	1.8	3.3		3.4	3.0	4.8	10.1			
Sunshine Coast (QLD)		6.1	6.5	3.1		3.1		2.4	3.8	
Melbourne (VIC)	6.0	2.9	5.2				4.1	7.3		6.5
Fitzroy (QLD)	2.1	7.9	4.0			10.8	3.1		3.9	
Adelaide (SA)	1.5							3.0		1.9
Hunter (NSW)			2.7							1.9
Richmond-Tweed (NSW)			2.5							
North West (QLD)					3.9		5.5			
Darwin (NT)							3.3	2.6		
Perth (WA)								2.9		
Northern (NSW)									4.1	
West Moreton (QLD)									7.3	
South West (QLD)									6.2	
Illawarra (NSW)										1.7
Mid-North Coast (NSW)										2.9
Canberra										1.7
Total (percentage of all new residents in each city)	**77.3**	**69.4**	**70.1**	**72.3**	**68.3**	**68.9**	**68.1**	**71.3**	**73.1**	**80.5**

Note: This table is based on the top ten Statistical Divisions from which people moved to capital cities between 2001 and 2006 (where 'overseas' is counted as a Statistical Division).

This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAB 4 Top 10 Statistical Divisions from which people moved to Victorian regional cities, 2001 to 2006

	Statistical district of usual residence 2006						
Statistical division 2001	Geelong	Warrnambool	Ballarat	Bendigo	Shepparton	La Trobe Valley	Mildura
Melbourne (VIC)	30.3	32.2	27.3	28.9	25.6	36.7	16.7
Overseas	21.1	11.1	11.1	7.9	23.5	12.1	9.6
Central Highlands (VIC)	6.0	5.8		3.8			2.0
Western District (VIC)	5.8		5.9				
Loddon (VIC)	3.9	3.6	5.8		4.8		4.3
Goulburn (VIC)	3.5	4.0	2.5	13.0		2.1	
Sydney (NSW)	2.8			2.0	3.8	2.3	3.8
Brisbane (QLD)	2.3		1.6		2.1	2.8	
Wimmera (VIC)	2.2	3.8	6.4	3.4			2.9
Perth (WA)	1.8					1.7	
Barwon (VIC)		9.1	16.6	2.8		1.5	
South East (SA)		2.9					
Adelaide (SA)		2.7	1.7		2.0	1.2	8.6
Gippsland (VIC)		2.7					
Mallee (VIC)			2.9	9.6	3.5		
Murray (NSW)				2.9	3.8		13.4
Ovens-Murray (VIC)				2.7	3.6		
Murrumbidgee (NSW)					2.1		
East Gippsland (VIC)						18.0	
Gold Coast (QLD)						1.4	
Far West (NSW)							3.9
Murray Lands							3.0
Total (percentage of all new residents in each city)	**79.7**	**78.0**	**81.8**	**76.9**	**74.9**	**79.9**	**68.3**

Note: This table is based on the top ten Statistical Divisions from which people moved to capital cities between 2001 and 2006 (where 'overseas' is counted as a Statistical Division).

This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAB 5 Top 10 Statistical Divisions from which people moved to Western Australian regional cities, 2001 to 2006

	Statistical district of usual residence 2006			
Statistical division 2001	Mandurah	Bunbury	Kalgoorlie/Boulder	Geraldton
South West (WA)			5.9	6.4
Perth (WA)	53.7	33.8	32.0	34.1
Overseas	13.0	19.3	21.0	11.1
Midlands (WA)	4.0	4.6	3.1	7.7
Pilbara (WA)	3.7	5.8	3.1	9.7
South Eastern (WA)	3.4	6.1		4.7
Lower Great Southern (WA)	2.8	4.8	1.7	3.4
Central (WA)	2.8	3.5	3.2	
Sydney (NSW)	2.0		1.6	2.6
Upper Great Southern (WA)	1.5	3.5		
Melbourne (VIC)	1.5	2.0	3.3	1.3
Kimberley (WA)		1.8		2.7
Mersey-Lyell (TAS)			1.9	
Total (percentage of all new residents in each city)	88.6	85.3	76.8	83.6

Note: This table is based on the top ten Statistical Divisions from which people moved to capital cities between 2001 and 2006 (where 'overseas' is counted as a Statistical Division).

This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAB 6 Top 10 Statistical Divisions from which people moved to Tasmanian regional cities, 2001 to 2006

	Statistical district of usual residence 2006	
Statistical division 2001	Launceston (TAS)	Burnie-Devonport (TAS)
Overseas	17.3	9.0
Mersey-Lyell (TAS)	13.7	
Greater Hobart (TAS)	11.1	8.5
Melbourne (VIC)	9.5	10.4
Sydney (NSW)	8.1	8.8
Brisbane (QLD)	4.7	5.5
Perth (WA)	3.6	2.8
Adelaide (SA)	2.7	3.1
Southern (TAS)	2.5	2.2
Gold Coast (QLD)	2.4	2.5
Northern (TAS)		16.1
Total (percentage of all new residents in each city)	75.5	68.9

Note: This table is based on the top ten Statistical Divisions from which people moved to capital cities between 2001 and 2006 (where 'overseas' is counted as a Statistical Division).

This table only shows those migrants with a known place of usual residence in 2001. Table 2 at Appendix C shows that a proportion of people did not answer the 2006 census question about their place of residence in 2001, so the above figures should be treated with some caution.

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAB 7 All Australian Statistical Divisions—total population growth and annual average population growth, 2001 to 2009

	Estimated resident population at 30 June 2001	Estimated resident population at 30 June 2009	Population growth 2001 to 2009	Annual average annual growth 2001 to 2009 (per cent)
Sydney (NSW)	4 128 272	4 504 469	376 197	1.1
Hunter (NSW)	588 071	644 279	56 208	1.1
Illawarra (NSW)	399 987	431 160	31 173	0.9
Richmond-Tweed (NSW)	216 489	241 954	25 465	1.4
Mid-North Coast (NSW)	280 437	309 588	29 151	1.2
Northern (NSW)	181 177	184 822	3 645	0.2
North Western (NSW)	119 796	118 535	–1 261	–0.1
Central West (NSW)	177 660	183 157	5 497	0.4
South Eastern (NSW)	193 062	216 593	23 531	1.4
Murrumbidgee (NSW)	152 466	158 593	6 127	0.5
Murray (NSW)	113 397	118 540	5 143	0.6
Far West (NSW)	24 403	22 731	–1 672	–0.9
Melbourne (VIC)	3 471 625	3 995 537	523 912	1.8
Barwon (VIC)	254 732	285 096	30 364	1.4
Western District (VIC)	100 474	106 268	5 794	0.7
Central Highlands (VIC)	141 536	155 585	14 049	1.2
Wimmera (VIC)	51 430	50 878	–552	–0.1
Mallee (VIC)	90 351	94 736	4 385	0.6
Loddon (VIC)	166 954	183 659	16 705	1.2
Goulburn (VIC)	193 999	210 114	16 115	1.0
Ovens-Murray (VIC)	93 214	99 872	6 658	0.9
East Gippsland (VIC)	80 901	86 812	5 911	0.9
Gippsland (VIC)	159 510	174 671	15 161	1.1
Brisbane (QLD)	1 629 195	1 962 422	333 226	2.4
Gold Coast (QLD)	432 478	571 447	138 969	3.5
Sunshine Coast (QLD)	247 167	323 423	76 256	3.4
West Moreton (QLD)	65 765	80 210	14 445	2.5
Wide Bay-Burnett (QLD)	236 492	293 462	56 970	2.7

continued

TAB 7 All Australian Statistical Divisions—total population growth and annual average population growth, 2001 to 2009 (continued)

	Estimated resident population at 30 June 2001	Estimated resident population at 30 June 2009	Population growth 2001 to 2009	Annual average annual growth 2001 to 2009 (per cent)
Darling Downs (QLD)	210 233	238 463	28 231	1.6
South West (QLD)	27 002	26 277	– 725	–0.3
Fitzroy (QLD)	181 865	214 393	32 527	2.1
Central West (QLD)	12 497	11 302	–1 195	–1.2
Mackay (QLD)	137 539	172 735	35 196	2.9
Northern (QLD)	190 266	227 340	37 074	2.3
Far North (QLD)	224 163	269 650	45 487	2.3
North West (QLD)	34 283	33 979	– 304	–0.1
Adelaide (SA)	1 107 986	1 187 466	79 480	0.9
Outer Adelaide (SA)	113 992	136 623	22 631	2.3
Yorke and Lower North (SA)	44 398	47 052	2 654	0.7
Murray Lands (SA)	68 557	70 426	1 869	0.3
South East (SA)	62 588	65 978	3 390	0.7
Eyre (SA)	34 020	35 556	1 536	0.6
Northern (SA)	80 187	80 489	302	0.0
Perth (WA)	1 392 999	1 658 989	265 990	2.2
South West (WA)	194 129	246 202	52 073	3.0
Lower Great Southern (WA)	53 598	58 851	5 253	1.2
Upper Great Southern (WA)	18 896	19 169	273	0.2
Midlands (WA)	53 568	55 730	2 162	0.5
South Eastern (WA)	55 099	58 727	3 628	0.8
Central (WA)	60 781	64 849	4 068	0.8
Pilbara (WA)	39 461	47 528	8 067	2.4
Kimberley (WA)	32 625	35 009	2 384	0.9
Greater Hobart (TAS)	197 282	212 019	14 737	0.9
Southern (TAS)	34 572	37 456	2 884	1.0
Northern (TAS)	133 115	141 434	8 319	0.8
Mersey-Lyell (TAS)	106 826	112 383	5 557	0.6
Darwin (NT)	106 842	124 760	17 918	2.0
Northern Territory - Bal (NT)	90 926	101 178	10 252	1.3
Canberra (ACT)	318 939	351 868	32 929	1.2
Australian Capital Territory - Bal (ACT)	378	321	– 57	–2.0
Other Territories	2 584	2 438	–146	–0.7

Note: Figures for 'Australian Capital Territory–Balance' and 'Other Territories' Statistical Divisions should be treated with caution due to the very small population sizes involved. A minor fluctuation in population numbers can make what appears to be a big difference to annual average growth rates. The 'Australian Capital Territory–Balance' Statistical Division is that part of the ACT defined by the ABS as being located outside the urban districts of Canberra and the township of Hall. The 'Other Territories' Statistical Division is made up of the Cocos (Keeling) Islands, Christmas Island and Jervis Bay Territory.

Source: BITRE analysis of ABS (2010b).

APPENDIX C
Non-response place of residence

TAC 1 Percentage of residents, 2006, whose 2001 place of residence was not stated, by Statistical Division

Place of residence (statistical division) 2006	Total 2006 population	New arrivals with a known 2001 place of residence (percentage of the 2006 population)	People whose 2001 place of residence was not stated (percentage of the 2006 population)
Sydney (NSW)	4 119 179	8.9	7.8
Hunter (NSW)	589 243	11.0	5.7
Illawarra (NSW)	394 203	11.8	5.7
Richmond-Tweed (NSW)	219 336	17.1	6.4
Mid-North Coast (NSW)	284 673	16.8	5.8
Northern (NSW)	172 393	13.4	5.8
North Western (NSW)	111 214	12.3	6.8
Central West (NSW)	170 897	13.0	5.8
South Eastern (NSW)	197 956	18.6	6.3
Murrumbidgee (NSW)	147 295	12.8	5.6
Murray (NSW)	110 528	16.7	5.6
Far West (NSW)	22 033	11.3	7.4
Off-Shore Areas & Migratory (NSW)	49	61.2	8.2
No Usual Address (NSW)	10 175	64.4	15.1
Melbourne (VIC)	3 592 581	9.3	6.7
Barwon (VIC)	259 013	11.7	5.4
Western District (VIC)	98 856	11.0	5.1
Central Highlands (VIC)	142 220	14.5	6.0
Wimmera (VIC)	48 439	11.7	4.5
Mallee (VIC)	88 604	12.8	5.9
Loddon (VIC)	168 845	14.7	5.5
Goulburn (VIC)	195 241	15.1	5.8
Ovens-Murray (VIC)	92 588	15.5	4.9
East Gippsland (VIC)	80 106	14.4	6.1
Gippsland (VIC)	159 485	12.7	5.9
Off-Shore Areas & Migratory (VIC)	50	38.0	14.0
No Usual Address (VIC)	6 394	65.1	14.1
Brisbane (QLD)	1 763 131	15.2	6.8
Gold Coast (QLD)	482 313	22.6	9.2
Sunshine Coast (QLD)	276 251	23.7	6.6
West Moreton (QLD)	68 628	24.7	6.9
Wide Bay-Burnett (QLD)	254 671	21.1	6.6
Darling Downs (QLD)	213 756	17.5	5.9
South West (QLD)	24 778	17.9	6.5
Fitzroy (QLD)	188 385	16.9	7.8
Central West (QLD)	10 863	21.1	7.0
Mackay (QLD)	150 176	19.5	9.6
Northern (QLD)	196 655	18.7	7.4
Far North (QLD)	231 067	15.8	9.5

continued

TAC 1 Percentage of residents, 2006, whose 2001 place of residence was not stated, by Statistical Division (continued)

Place of residence (statistical division) 2006	Total 2006 population	New arrivals with a known 2001 place of residence (percentage of the 2006 population)	People whose 2001 place of residence was not stated (percentage of the 2006 population)
North West (QLD)	30 936	22.6	13.0
Off-Shore Areas & Migratory (QLD)	98	58.2	12.2
No Usual Address (QLD)	12 805	66.1	15.5
Adelaide (SA)	1 105 832	9.3	5.7
Outer Adelaide (SA)	123 698	21.2	5.5
Yorke and Lower North (SA)	43 875	17.5	5.2
Murray Lands (SA)	66 810	13.6	6.1
South East (SA)	62 234	11.4	5.5
Eyre (SA)	33 340	12.5	6.3
Northern (SA)	75 927	12.9	7.4
Off-Shore Areas & Migratory (SA)	6	50.0	0.0
No Usual Address (SA)	2 618	65.4	13.9
Perth (WA)	1 445 076	12.3	7.5
South West (WA)	207 350	19.2	7.4
Lower Great Southern (WA)	52 597	17.2	7.1
Upper Great Southern (WA)	17 716	19.0	5.9
Midlands (WA)	50 406	22.3	7.5
South Eastern (WA)	51 892	22.5	11.0
Central (WA)	57 429	17.7	9.5
Pilbara (WA)	41 003	32.0	18.2
Kimberley (WA)	29 293	20.8	14.5
Off-Shore Areas & Migratory (WA)	339	42.5	15.3
No Usual Address (WA)	5 986	68.3	15.4
Greater Hobart (TAS)	200 515	12.0	6.4
Southern (TAS)	34 931	20.7	5.8
Northern (TAS)	133 938	11.7	5.7
Mersey-Lyell (TAS)	106 137	10.7	4.9
Off-Shore Areas & Migratory (TAS)	88	62.5	13.6
No Usual Address (TAS)	872	67.7	11.4
Darwin (NT)	105 988	23.4	12.0
Northern Territory - Bal (NT)	84 918	15.7	10.5
Off-Shore Areas & Migratory (NT)	93	32.3	26.9
No Usual Address (NT)	1 900	66.4	17.7
Canberra (ACT)	323 053	17.4	5.4
Australian Capital Territory - Bal (ACT)	272	34.6	5.9
No Usual Address (ACT)	709	70.2	12.8
Other Territories (OTHER)	No data	No data	No data
Off-Shore Areas & Migratory (OTHER)	No data	No data	No data
No Usual Address (OTHER)	No data	No data	No data

Note: New arrival figures above do not include people who came from Statistical Local Areas labelled as 'Undefined' by the ABS (for example 'Undefined Sydney', and 'Undefined NSW').

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

TAC 2 Percentage of residents, 2006, whose 2001 place of residence was not stated, by regional city (Statistical District)

City of residence (statistical district) 2006	Total 2006 population	New arrivals with a known 2001 place of residence (percentage of the 2006 population)	People whose 2001 place of residence was not stated (percentage of the 2006 population)
Newcastle (NSW)	493 474	10.4	5.6
Wollongong (NSW)	263 527	9.6	5.6
Nowra-Bomaderry (NSW)	30 953	13.2	6.7
Lismore (NSW)	30 091	14.2	5.5
Coffs Harbour (NSW)	47 710	17.4	5.9
Port Macquarie (NSW)	39 509	19.4	5.4
Tamworth (NSW)	42 496	12.3	5.4
Dubbo (NSW)	34 316	11.3	7.8
Wagga Wagga (NSW)	52 492	16.5	4.6
Bathurst (NSW)	30 747	15.8	6.7
Orange (NSW)	35 338	12.8	6.2
Albury-Wodonga (NSW/VIC)	96 292	13.2	5.3
Geelong (VIC)	160 987	10.3	5.3
Warrnambool (VIC)	30 395	10.8	6.1
Ballarat (VIC)	85 198	14.0	6.1
Bendigo (VIC)	81 938	13.4	5.4
Shepparton (VIC)	44 597	10.3	6.5
La Trobe Valley (VIC)	73 478	9.8	5.8
Mildura (VIC)	46 037	12.9	6.2
Sunshine Coast (QLD)	209 572	24.7	6.9
Bundaberg (QLD)	59 772	17.2	7.3
Hervey Bay (QLD)	48 153	28.7	6.1
Rockhampton (QLD)	68 836	12.9	8.8
Gladstone (QLD)	42 897	18.9	6.9
Mackay (QLD)	72 848	18.0	8.9
Townsville (QLD)	143 311	20.8	8.1
Cairns (QLD)	122 735	18.6	10.5
Toowoomba (QLD)	114 474	18.5	5.8
Gold Coast-Tweed (QLD/NSW)	527 660	21.2	9.0
Mandurah (WA)	5 080	23.5	8.7
Bunbury (WA)	54 967	16.1	7.1
Kalgoorlie/Boulder (WA)	28 239	23.9	13.1
Geraldton (WA)	31 553	14.8	9.1
Launceston (TAS)	99 677	11.4	5.7
Burnie-Devonport (TAS)	77 410	9.9	5.0
Queanbeyan	35 970	23.4	6.8

Source: BITRE analysis of unpublished ABS data, 2006 Census of Population and Housing.

Note: The 2009 estimated resident population of the New South Wales city of Queanbeyan has been separated out from the capital city of Canberra here, although the ABS defines 'Canberra-Queanbeyan' as one Statistical District. Canberra's population is discussed in the capital city section of this report.

New arrival figures above do not include people who came from Statistical Local Areas labelled as 'Undefined' by the ABS (for example 'Undefined Sydney', and 'Undefined NSW').

Abbreviations and acronyms

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AG	Australian Government
ASGC	Australian Statistical Geographical Classification
ALP	Australian Labour Party
BCA	Business Council of Australia
BITRE	Bureau of Infrastructure, Transport and Regional Economics
BOM	Bureau of Meteorology
COAG	Council of Australian Governments
CSIRO	Australian Commonwealth Scientific and Research Organisation
DCC	Department of Climate Change
DEH	Department of Environment and Heritage
DHA	Department of Health and Ageing
DIMIA	Department of Immigration, Multicultural and Indigenous Affairs
ERP	Estimated Resident Population
MDBA	Murray Darling Basin Authority
NCDC	National Capital Development Commission
NFF	National Farmers' Federation
NOM	Net Overseas Migration
NRSET	National Resources Sector Employment Taskforce
NSW	New South Wales
NT	Northern Territory
OECD	Organisation for Economic Co-Operation and Development
PwC	PricewaterhouseCoopers
Pt	Part

QLD	Queensland
RDA	Regional Development Australia
SA	South Australia
SD	Statistical Divisions
SDT	Statistical Districts
SLA	Statistical Local Areas
SLSA	State Library South Australia
SSD	Statistical Subdivision
TAC	Transport Accident Commission
TAS	Tasmania
TDTF	Tasmanian Department of Treasury and Finance
VIC	Victoria
WA	Western Australia

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