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AUSTRALIA**
INSTITUTE

Population Dynamics in Regional Australia

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Level 2, 53 Blackall Street
Barton ACT 2600

02 6260 3733
www.regionalaustralia.org.au

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RAI Research and Policy

Project supervisor: Jack Archer, Deputy Chief Executive Officer

Contributing analysis, editorial and review:

- Su McCluskey, Chief Executive Officer
- Blake Ford, Leader, Major Research Projects
- Chris Swan, Leader, [In]Sight and Data Projects
- Jennie Dwyer, Policy Advisor
- Annemarie Ashton-Wyatt, Senior Researcher
- Tai Nguyen, Researcher
- Morgan Rennie, Researcher

All RAI research is informed by the expertise of the RAI Research Advisory Committee. Members in 2014 were:

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- Professor Andrew Beer, University of Adelaide
- Professor Graeme Hugo, University of Adelaide
- Professor John Tomaney, University College of London
- Tim Shackleton, Director, Virtual Health

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Executive Summary

This report seeks to understand the contemporary dynamics of population change in Australia's Regional Development Areas (RDAs). The major factors, key drivers and influences of population change are considered in this report. They include ageing of the Australian population, economic drivers, the role of international and internal migration, temporary migration and environmental and climate change considerations and how they influence the distribution of population across the RDAs. The 2011 Australian Census of Population and Housing is analysed, showing great diversity between regions around national trends. The level of contemporary population growth and the relative contribution of natural increase, international and internal migration and ageing to these trends highlight the diversity across regions. This report shows that non-metropolitan regions are not static, homogenous and declining but are in fact diverse, dynamic and heterogeneous. Key trends have emerged for coastal, inland and metropolitan areas experiencing different rates and types of population growth and decline.

There is a clear pattern of growth in coastal areas, areas around major regional cities and in mining regions; conversely, areas that have seen population decline tend to be inland. In terms of population growth, there has been a gradual shift away from the south-eastern areas; a function of structural changes in the last 35 years. On the other hand, Western Australia and Queensland have increased their share of the national population. In these states in particular, coastal areas have seen dynamism and growth driven by factors such as the mining boom has profoundly influenced population dynamics. The creation of a cyclical Fly-in/Fly-out (FIFO) and Drive-in/Drive-out (DIDO) workforce from intra- and interstate locations do not necessarily yield benefits to the local communities. Unfortunately, key challenges regarding infrastructure provision, housing affordability and the economic viability of local services and businesses in mining communities are exacerbated by the weakness of data on this proportion of temporary migrants whose occurrence is significantly greater than indicated by the Census.

In a similar vein, there is also a lack of clarity on the number of temporary migrants in coastal areas as tourists, holidaymakers on weekends and holidays and those who have a second home in those areas are not captured in the Census. The sustainable growth of permanent and temporary flows to coastal areas is partly attributed to the sea change phenomenon. The potential and rapid growth of non-metropolitan coastal communities is an important issue with the approaching retirement of baby boomers. The evident growth of older populations (65 plus years) in almost all coastal RDAs, especially in the south and south-east is a pre-cursor of an influx of baby boomers who have demonstrated a proclivity to move to seaside non-metropolitan locations upon retirement. Older Australians are traditionally the least mobile, however, early indications suggest baby boomers will have higher rates of mobility than earlier generations. This is highlighted by the fact that only five RDAs (mainly near capital cities and tourist areas) have high growth of their less than 65 years and low growth rates of their over 65+ years population. There is considerable variation in patterns of ageing between local areas, impacted by both ageing in place and residential mobility. These variations are important to better plan services, communities, infrastructure and support systems for both the current and future generations of older people in regional Australia. A cultural shift on the perceptions of ageing is also required as most discussion has viewed the older population as a challenge or burden. However, this cohort will be the most educated, diverse, and wealthy with an unparalleled body of experience and regional areas should seek to develop innovative ways to utilise them for the social and economic sustainability of their communities.

The ubiquitous outmigration of young adults from regional areas is detrimental to regional development. The ageing of these areas is also impacted by the movement of baby boomers into retirement which will require replacement workers. This is evident in the overall decrease of Australia-born in 2006-11, which reflects the steady low birth rate and impact of international migration. However a new era of international migration has dawned and will be important in the next decade. International migration is increasingly fundamental to regional development in Australia. International migration has the ability to 'offset' population decline in some regional areas. Some inland and wheat-sheep belt areas have seen their dwindling Australia-born population 'propped' up by the increase of their overseas-born population. Although immigrants will continue to concentrate in large 'gateway' cities, they will also be increasingly significant in regional Australia. Retention strategies need to be incorporated alongside policies attracting migration to regional areas. There is a need to consider facilitating immigration to fill labour shortages in regions with real economic potential. The key is not to stem the inevitable outflow of youth who yearn to see the world, but to focus on attracting those who are slightly older (in their 30s and 40s) and likely to be in the early stages of family formation. There is little evidence to suggest that former rural residents and those living in metropolitan areas will not relocate and they should not be excluded from regional population strategies.

The potential of a region's growth and sustainability is also underpinned by environmental factors. Balancing the pressure for growth against constraints called for by environmental and climate change considerations is a dilemma for policy makers. Significant outmigration and below average population growth in RDAs affected by the drought (e.g. Orana, Murray, Riverina and Murraylands-Riverland) underline how water and population policy needs to be an integrated process. Changes in agricultural practices must be considered to cope with the seasonality and reliability of rainfall. Environmental constraints and the potential impact of climate change is an important consideration. This is in line with the Grattan Institute Report (2011), it is crucial to distinguish areas with potential for self sustaining population growth and those without.

Recognising new forms of temporary mobility and factors influencing contemporary forms of internal and international migration is essential to formulate effective policies for sustainable growth in RDAs. Future policy and research directions need to focus on assisting the adjustment of new migrants in rural and regional Australia, particularly in mining communities. A deeper understanding of rural attitudes and issues towards new immigrants will help facilitate settlement. Challenges lie not only in the need for better models of funding but also in the way populations are enumerated. A clear understanding of population dynamics is an important priority as it will help maximise the benefits of population change for regional developments and in communities outside of major cities.

Introduction

Population is often regarded as the static backdrop against which economic, social, political and environmental forces are played out. However, populations are constantly changing as both a cause and consequence of those forces. Moreover, because change in population, while continuous, is incremental rather than sudden it tends to 'creep up' on us. At a Census a snapshot is taken at a single point in time allowing changes to be quantified and assessed.

This report uses the results of the 2011 Australian Census of Population and Housing to make such an assessment. It seeks to understand the contemporary dynamics of population change in Australia's Regional Development Areas (Figure 1.1). There is considerable variation in regions in their population dynamics. There has been a strong pattern of growth in the national population in recent years but there has been considerable diversity between regions in the extent to which these national trends have been reflected. This is especially the case in the nation's non-metropolitan regions which comprise 30.5 percent of the national population. They tend to be neglected in considerations of the nation's demography which explicitly or implicitly focus on metropolitan communities. Non-metropolitan populations are sometimes depicted as static, homogeneous, declining, conservative or moribund but in fact they are as dynamic, heterogeneous and diverse.

This study examines contemporary dynamics in the Australian regional population and seeks to bring out not only the diversity in those patterns but the potential and challenges associated with them. Population change is not simply a function of economic change. It has important and complex relationships with economic development – both in cause and effect directions. People are important. They are the most important resource in regional communities and understanding changes in their growth or decline, composition and distribution is an important prerequisite to effective development policy.

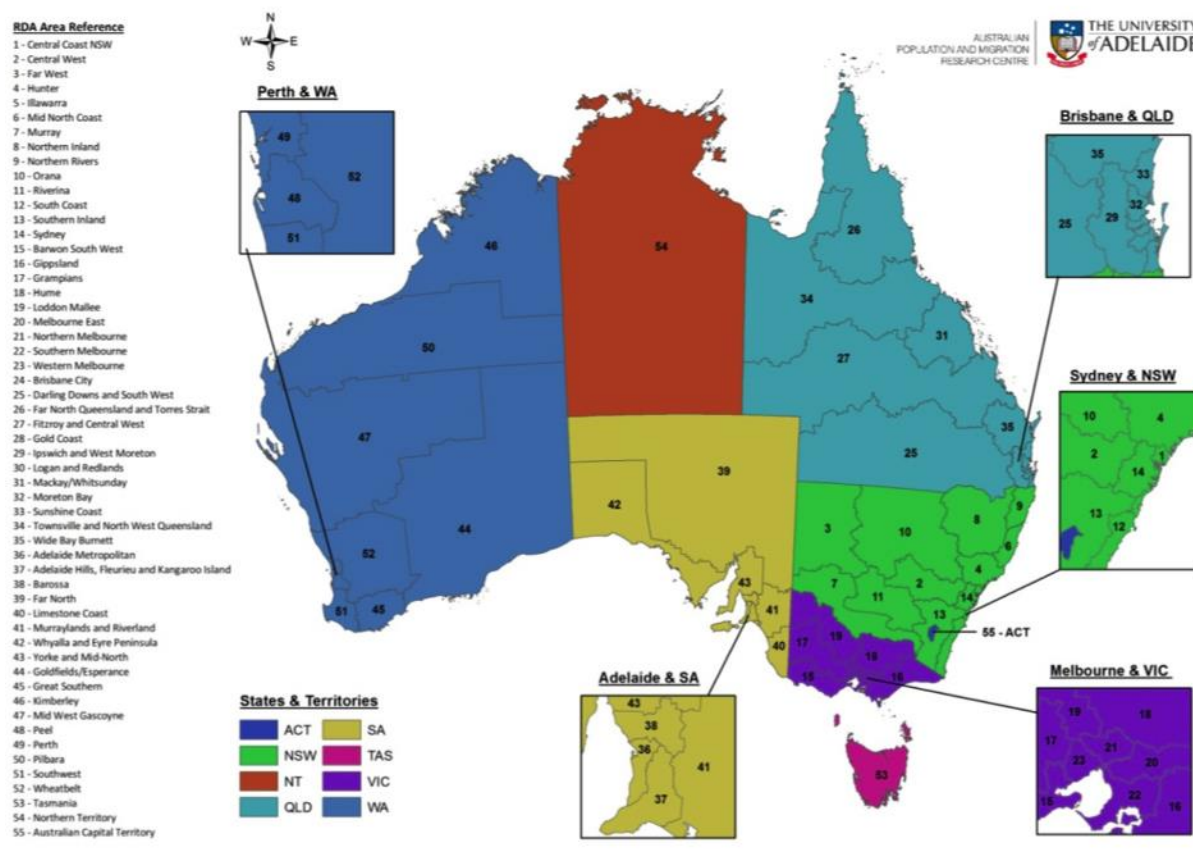


Figure 1.1: Australia: Regional Development Areas (RDAs)

Population and regional development

The role of population in development has been part of the ongoing debate about population size in Australia (Pincus and Hugo [eds.], 2012). This debate has been strongly polarised between the promoters of continued rapid population growth on the one hand and those of little or no growth on the other hand. The former group argue that population increase in and of itself is a driver of development while the latter see it compromising efforts to reach environmental sustainability. The relationship between population growth, economic development and environmental sustainability, however, is more complex. As Figure 1.2 shows, these relationships are complex and two-way. Population change can facilitate and bolster regional economic development by providing skilled and unskilled labour needed for the economic potential of a region to be realised. The lack of an appropriately skilled labour force can be a severe constraint on regional development. However, as a Grattan Institute Report (Daley and Lancy, 2011, 3) clearly demonstrates, population growth is not a substitute for that economic potential and doesn't create growth in and of itself. It 'cannot make economic water run uphill'. Hence population is a key element and facilitator of regional development but not a simplistic cause of that development. Disregard of this has resulted in misguided and unsuccessful government investment in schemes designed to attract people to areas where there is no sustainable economic potential. However, population is an important factor in realising the potential in regions which do have resources.

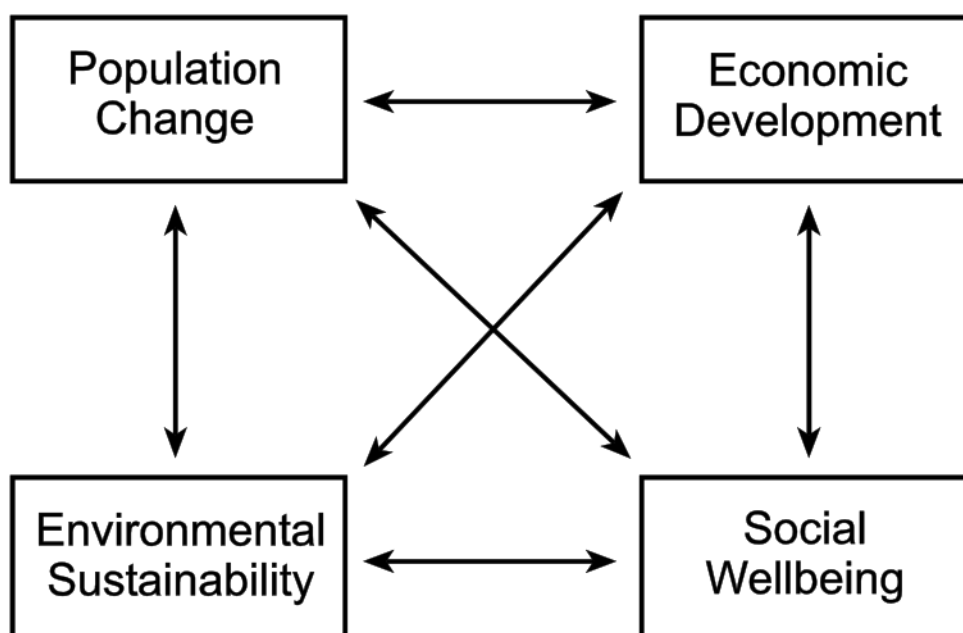


Figure 1.2: The Relationship Between Population Change, Economic Development, Social and Environmental Sustainability

Similarly, environmental degradation is often seen simply as a function of population growth. However, the relationship is much more complex. Certainly population growth can put pressure on local environments, especially fragile ecological areas like coasts. However, it is the way in which land is settled that also is important. Moreover, population growth can have positive environmental effects through such developments or better environmental stewardship being possible where there is a prosperous local economy as opposed to a declining community without community leaders.

There are no simplistic one-way deterministic relationships between population change on the one hand and regional development, economic sustainability and social wellbeing on the other. Nevertheless there are relationships so that understanding the contemporary dynamics of population change in regions is a crucial element and prerequisite to designing appropriate, effective and equitable regional development policy.

How do regional populations change?

To understand the dynamics of population change in regions it is necessary to disaggregate that change in terms of the processes which are bringing it about. The processes whereby the population of a region undergoes change are depicted in Figure 1.3. The dynamics of population change at the regional level are the result of the combined impact of three demographic processes:

- Natural increase – the excess of births over deaths (although fertility and mortality rates differ between areas).
- Net internal migration – the difference between the number of people moving into an area from elsewhere in Australia and the number of residents moving to other parts of Australia.
- Net international migration – the difference between the numbers settling in an area from overseas and the number of residents moving overseas.

Hence, attempts to exert an influence on future population distribution would require policies and programs which intervene to change fertility, mortality, internal or international migration at a regional level. Discussions of changing population dynamics in Australian regions tend to focus only on internal migration into and out of these areas but it is important to recognise that fertility, mortality and international migration also are influential. Recent developments in all of these processes in RDAs are considered in subsequent chapters.

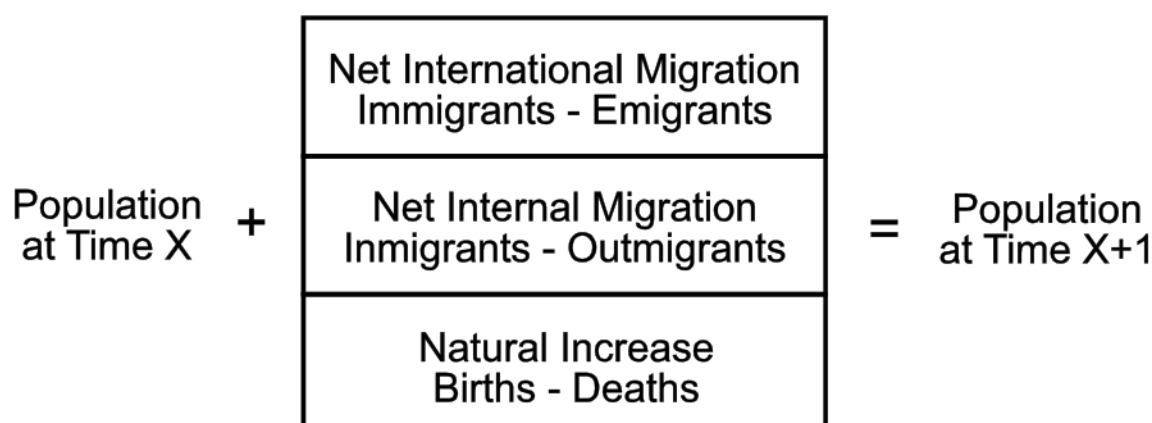


Figure 1.3: Intercensal Population Change in Regions

It is important also to briefly discuss two other dimensions of population dynamics in contemporary regional areas. The first relates to temporary migration. The migration depicted in Figure 1.3 reflects more or less permanent internal and international migrations with people changing their usual place of residence. However, at any one time in regional areas there are people temporarily present who often have significant impacts on development. It is important to recognise that there can be significant shifts in the population at different times due to the influx or departure of substantial numbers of people on a temporary basis. For example, coastal sea change localities experience considerable fluctuations in the number of people in them with significant increases on weekends and in holidays, especially during summer. Moreover, because the Australian population Census is taken in late winter and mid-week it is likely that the population enumerated on Census night comprises overwhelmingly the permanent resident population, especially in the southern part of Australia. At any one time people actually in an area comprise three components as indicated in Figure 1.4.

The Census is very effective at capturing the permanent resident population (a in Figure 1.4), not only because most are likely to be 'at home' on Census night but also because if they are enumerated elsewhere in Australia, and/or reported as being temporarily away by members of their household who are at home, they will be reallocated to the region as part of the Usual Resident Population. Also, by identifying visitors in the Census count population Census data can give an indication of (c in Figure 1.4) on the day the Census is taken. However, in sea change localities this is often the lowest point of their seasonal population. The Census gives no information on short-term visitors (b in Figure 1.4).

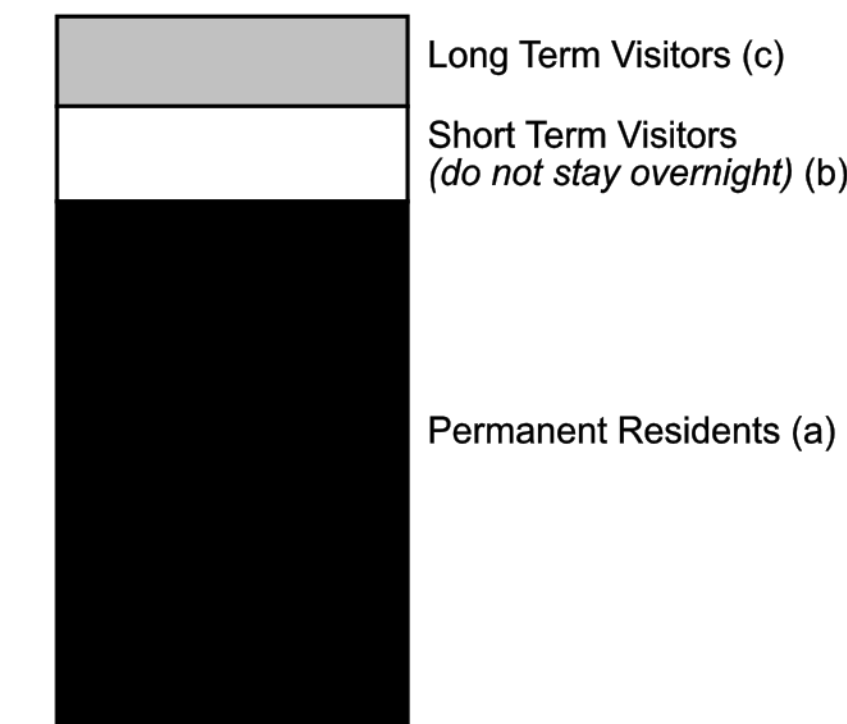


Figure 1.4: Model of Population in an Area at a Point in Time

While many temporary migrants are not captured in the Census it is important to recognise that they can be a significant element in regional population dynamics.

Another important element in regional population dynamics is age structure. While the ageing of the population is perhaps the most important contemporary population trend from a national economic perspective (Swan, 2010), there is enormous variation between regions with respect to the current and impending future age structure. As a result of different fertility, mortality and migration histories, regions vary widely in the balance of dependent child, working and older retired populations. This mix of different age structures has important implications locally for the supply of workers and for the demand for services.

It is important to recognise that different age groups in the population grow at different rates because of variations in the size of different age cohorts. This is due to the history of natural increase and net migration of an area. Hence in examining contemporary population dynamics it is not enough to look only at the rate of growth of the total population. Accordingly, in this study changes in age structure in regions will be examined. Before examining regional variations in population dynamics it is necessary to briefly outline recent and impending change in Australia's national population.

National population growth

The long-term pattern of growth of Australia's population is shown in Figure 1.5. The striking feature of Figure 1.5 is the exceptional nature of the post-World War II period in Australia's demographic history. The population has more than trebled and has grown consistently.

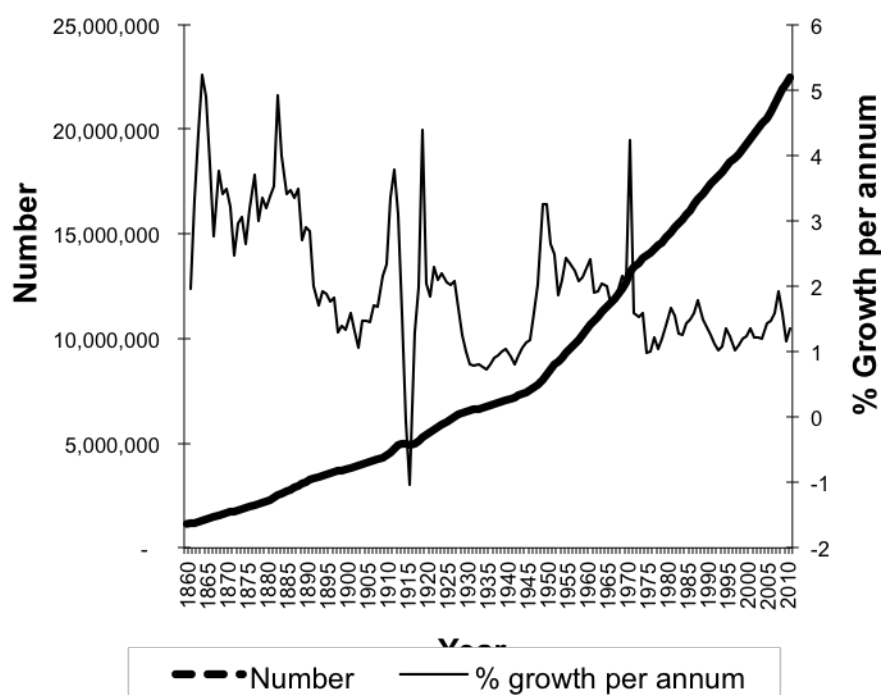


Figure 1.5: Australia: Growth of the Population, Year Ending 31 December, 1860-2011

Source: ABS Australian Historical Statistics and ABS Estimated Resident Population Data

While there have been periods of relatively slow growth during economic downturns there have not been the extended periods of very slow growth that characterised the first one and a half centuries of European settlement. Australia's population growth rate reached 2.2 percent in 2008-09 which was the highest rate since the 1960s and was twice the rate at which the world's population was increasing at that time (ABS, 2011a, 14). Subsequently, the growth rate has fallen to 1 percent per annum (2011-12) but still is very high not only by high income country standards but globally as well (ABS, 2012a).

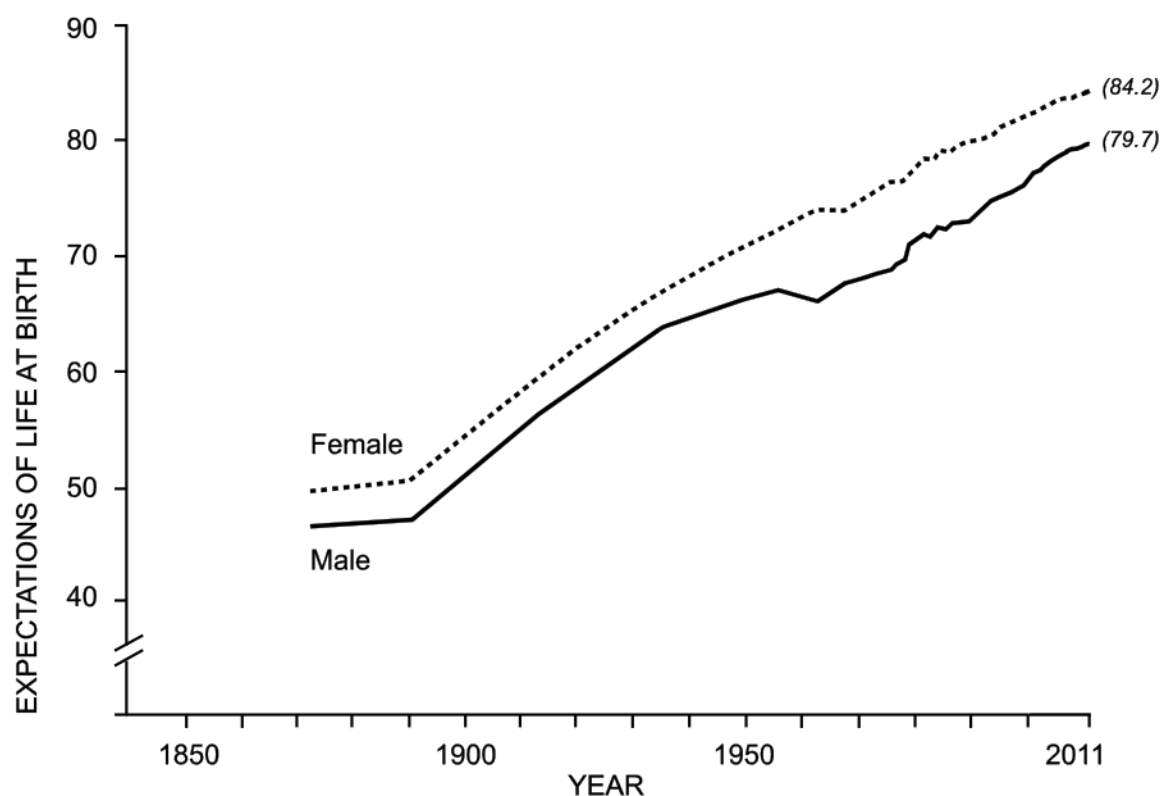


Figure 1.6: Australia: Life Expectancy at Birth, 1870-2011

Source: Hugo, 1986 and ABS, Deaths Australia, various issues

Like other countries, Australia has experienced a demographic transition from a high fertility, high mortality regime to the present low fertility, low mortality situation. Figure 1.6 depicts the substantial improvement in life expectancy which has added 13 years of extra life to the average Australian since World War II. The decline in fertility has taken a different trajectory as is shown in Figure 1.7 where the long-term decline trend was punctuated by the postwar baby boom which has had profound implications for the contemporary and future Australian population (Swan, 2010). Australia's fertility remains at relatively high levels by high income country standards and has helped to keep natural increase positive and substantial whereas in several OECD countries deaths now outnumber births.

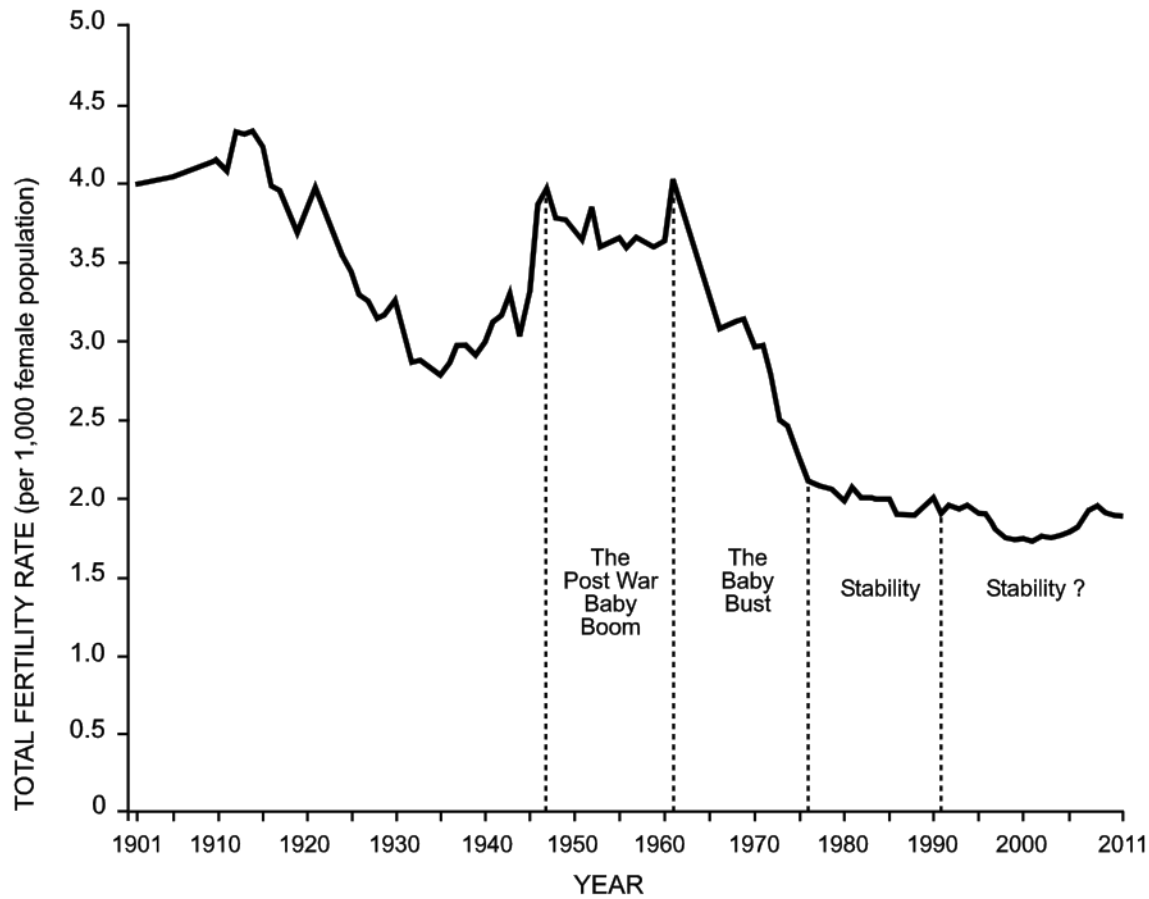


Figure 1.7: Total Fertility Rate Australia, 1860-2011

Source: CBCS, Demography Bulletin; ABS, Births Australia, various issues

Australia's population growth has been, and is being, shaped by international migration, more than any other middle sized or large nation. Currently half of Australia's population are permanent or temporary immigrants or their Australia-born children (Hugo, 2010). Figure 1.8 depicts the levels of net migration and natural increase since 1860 and some striking trends are in evidence. Again, the distinct nature of the postwar period during which net migration has consistently been at a high level is striking although fluctuations with the economic situation are apparent. Without the effect of postwar migration the Australian population would be some 9 million persons less than at present.

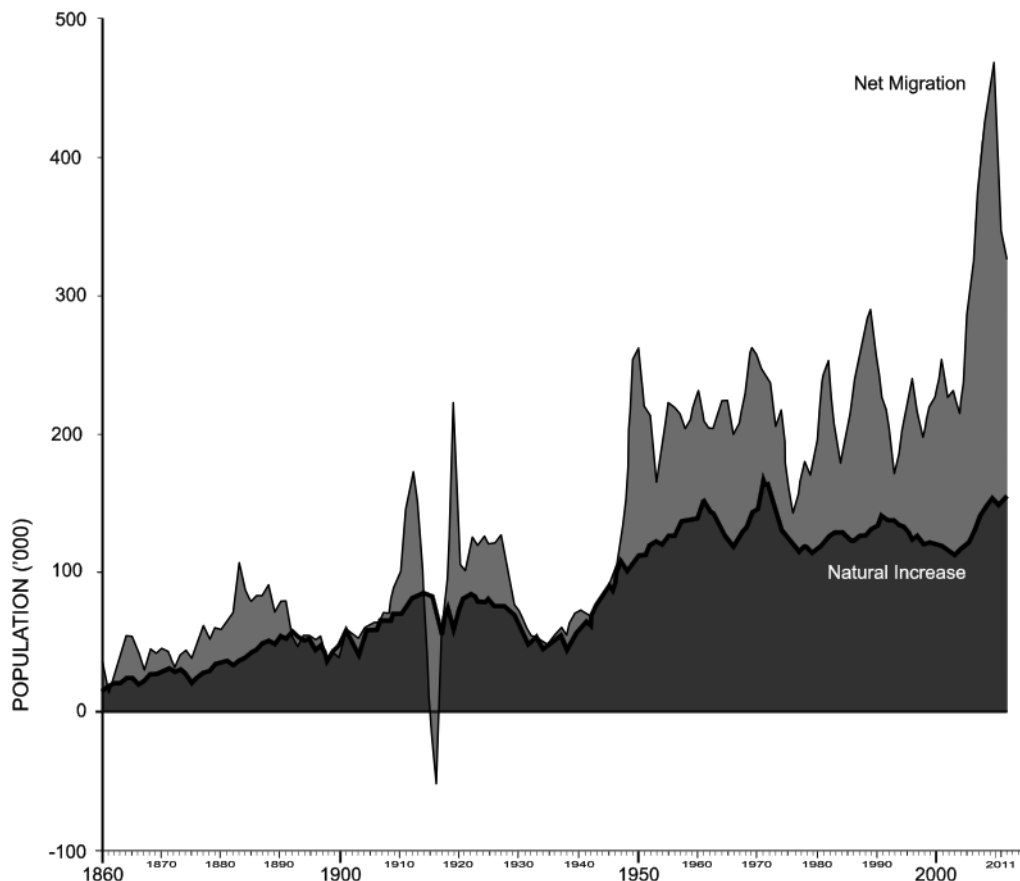


Figure 1.8: Australia: Natural Increase and Net Migration, 1860-2011

Source: Australian Bureau of Statistics; Borrie, 1994

There has been a great deal of discussion about Australia's future population which has been to some extent polarised around arguments for a 'big Australia' (Ridout, 2010) and stabilising population as quickly as possible (Carr, 2010). An alternative argument (Hugo, 2010), however, suggests that while Australia needs population growth in the short to medium term to counterbalance the retirement of baby boomers from the workforce and meet a net annual increase in the number of jobs of around 200,000 per year, in the longer term it would be desirable to work toward a demographically stable population.

Despite these varying positions the standard set of population projections for Australia produced by the Australian Bureau of Statistics (2008a) which are based largely on a continuation of the trends of the 2005-08 period over the next 40 years. Table 1.1 shows the three main scenarios of future growth which are included in the ABS projections. Each scenario is based upon a set of assumptions relating to fertility, mortality and net overseas migration (NOM). The future population that could be anticipated under the three scenarios is presented in Table 1.1 and it can be seen that the total population in 2056 will vary between 42.5 million (Series A) and 30.9 million (Series C) and the Series B figure of 35.5 million being considered the most likely.

Table 1.1: Australia: Main Projection Series

ASSUMPTIONS					PROJECTED POPULATION AT 30 JUNE	
			Life expectancy at birth(a)			
	Total fertility rate(b)	Net overseas migration(c)	Males	Females	2056	2101
	babies per woman	persons	years	years	million	million
Series A	2.0	220 000	93.9	96.1	42.5	62.2
Series B	1.8	180 000	85.0	88.0	35.5	44.7
Series C	1.6	140 000	85.0	88.0	30.9	33.7

.....

(a) From 2056.
 (b) From 2021.
 (c) From 2010–11 in Series A and C. From 2007–08 in Series B.

Source: ABS, 2008a

The key issue for national development, however, is not so much the numbers but the composition of the population. In particular, the issue of ageing is of the utmost significance. Figure 1.9 depicts the current age structure of Australia. Of particular importance to note is the post World War II baby boom generation born between 1946 and 1966. It will be noted in Figure 1.9 that this period of high fertility has created a significant bulge in the age pyramid. Baby boomers make up 28 percent of the Australian population but 41 percent of the current workforce. The fact that they are on the verge of entering the retirement years means that Australia, like other high income countries, faces a considerable challenge because:

- The numbers aged 65 years and over will double in the next two decades producing considerable pressure on aged care and health services.
- Their proportion of the total population will also increase substantially, leading to:
 - Problems in maintaining the size of the workforce, let alone cope with the workforce growing by a net 200,000 per annum at the moment;
 - Ageing within the workforce which will lead to reduced productivity;
 - A decline in the ratio of workers to aged dependents causing difficulty in funding aged care services and health services.

Accordingly, many would argue that Australia needs to maintain population growth in the short to medium term to cope with that ageing.

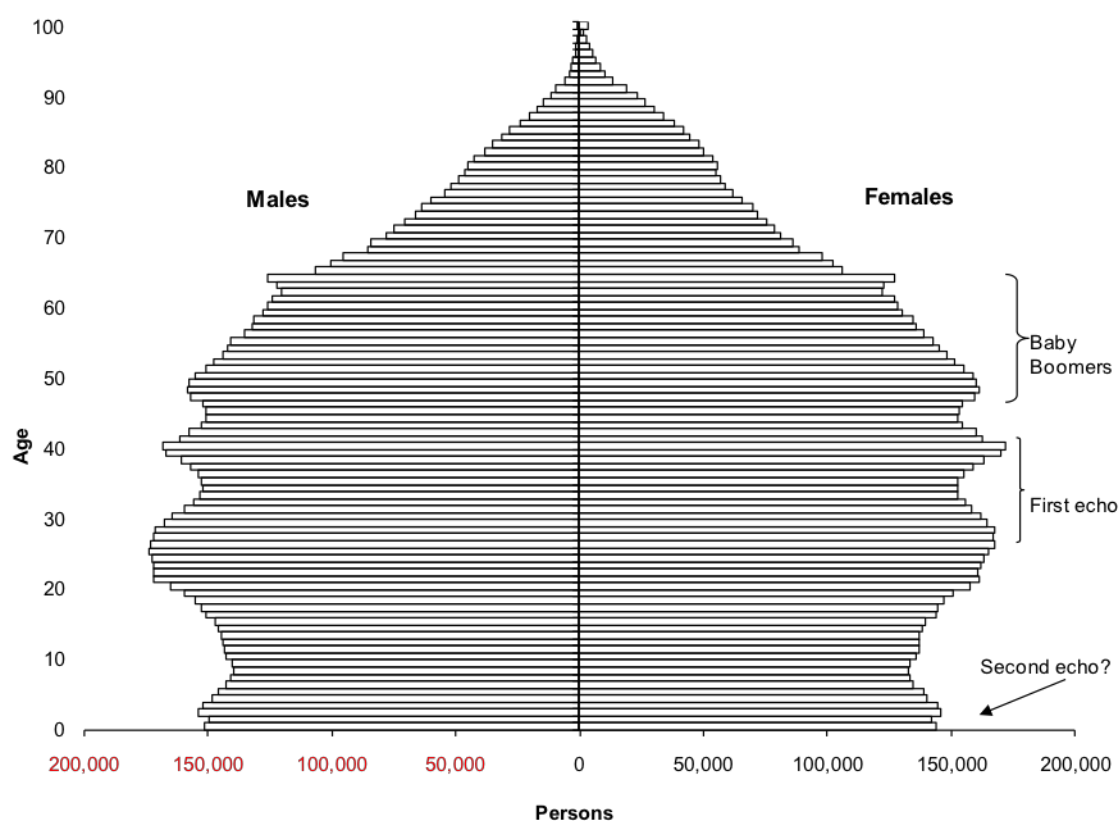


Figure 1.9: Australia: Age-Sex Structure of the Population, June 2011

Source: ABS Estimated Resident Population data

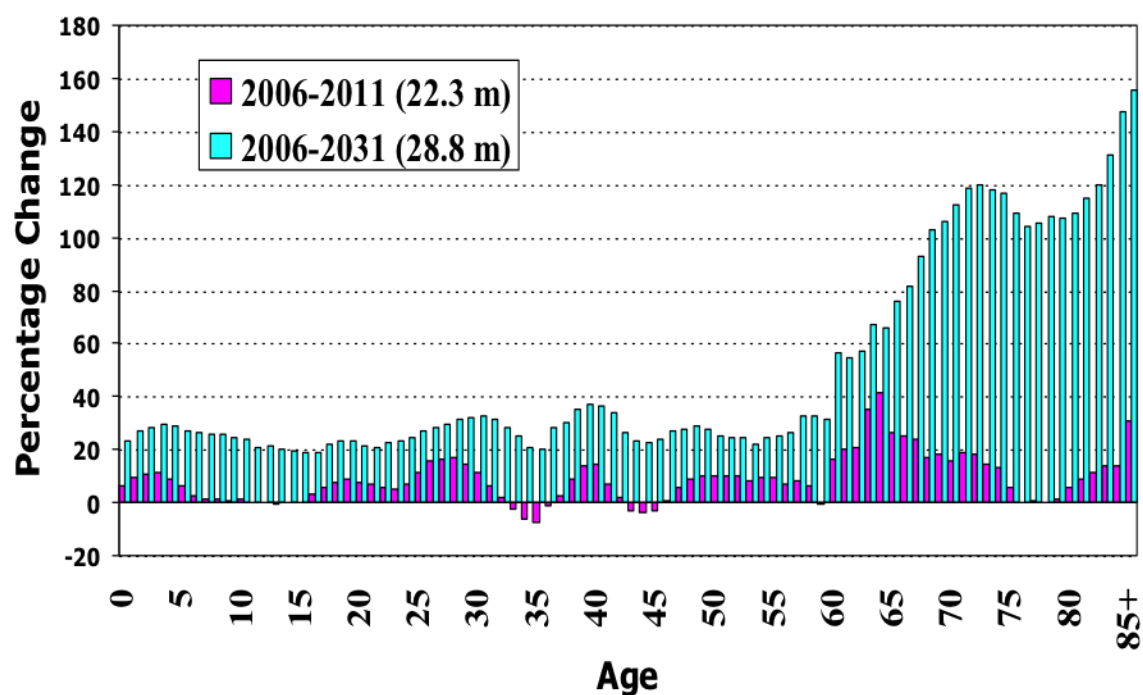


Figure 1.10: Structural Ageing: Australia: Change by Age: 2006-11; 2031 (Series B)

Source: ABS 2008 Projections

The ageing factor is well demonstrated in Figure 1.10 which indicates that the bulk of net population growth in Australia over the next quarter century will be in the older age groups, even under a quite optimistic growth scenario. The extent to which this pattern varies between regions is of critical significance to their regional development and this will be examined in later chapters.

Population Change

Introduction

The Australian population debate has been dominated by the numbers issue – How many Australians? A Big Australia vs a Small Australia? What is Australia's Carrying Capacity? What is Australia's Optimal Population? This dichotomisation and simplification is unfortunate because the challenges and opportunities presented by population change in Australia over the next few decades are as much to do with population composition and spatial distribution as they are about numbers. The present preoccupation with gross numbers has not always characterised the population debate in Australia. Concerns about population distribution go back a century and indeed were often front and centre in the debate.

This chapter examines patterns of population change in Australian regions. At the outset, however, a few comments are made regarding Australia's unique population distribution.

Population distribution – mobility and stability

In discussing Australia's population distribution, one is confronted with a striking paradox of mobility and stability. On the one hand Australians are one of the most mobile societies in the contemporary world. The 2011 Census indicated that 14.5 percent of Australians had moved their permanent place of residence in the last year and 37.7 percent in the last five years. Table 2.1 shows that more Australians move home each year than any other country. Rates of migration over five years, however, are higher in New Zealand, USA and Canada. Moreover, 27 percent of the Australian population was born in another country, the highest proportion for any middle-sized or large country. In addition, at any one time there are almost one million foreigners in Australia on some form of temporary visa; and about one million Australians reside abroad. Hence the Australian population is one of the most residentially mobile in the world.

Table 2.1: Percentage of Population that Changed Usual Residence in the Preceding One Year or Five Years, National Censuses

One-year interval			Five-year interval		
Country	Census year	Percent moved	Country	Census year	Percent moved
Australia	2011	14.6	New Zealand	2006	54.7
Canada	2006	13.3	USA	2000	44.3
England	2001	10.7	Canada	2006	38.5
Ireland	2006	10.1	Australia	2011	37.7
Italy	2001	5.1	Switzerland	2000	36.1
Cyprus	2001	3.8	France	2006	34.0
			Israel	1995	28.2
			Japan	2010	22.4
			Malaysia	2000	17.1
			Mauritius	2000	12.0

Source: Professor Martin Bell, University of Queensland

On the other hand, there has been a great degree of stability in the overall spatial structure of the national population distribution. Almost a century ago the geographer Griffith Taylor (Powell, 1984, 87) argued that the structure of Australian population distribution had been fixed by the 1870s and his argument is still substantially sound.

Figure 2.1 shows the centre of gravity of the Australian population since 1861 and indicates that it has moved very little over the subsequent 150 years. Despite massive population growth the basic structure of the spatial distribution of the population has remained fairly stable. This is in contrast to the United States where there has been significant westward and southward shift in the centre of gravity of the population distribution over the same period (Plane and Rogerson, 1994).

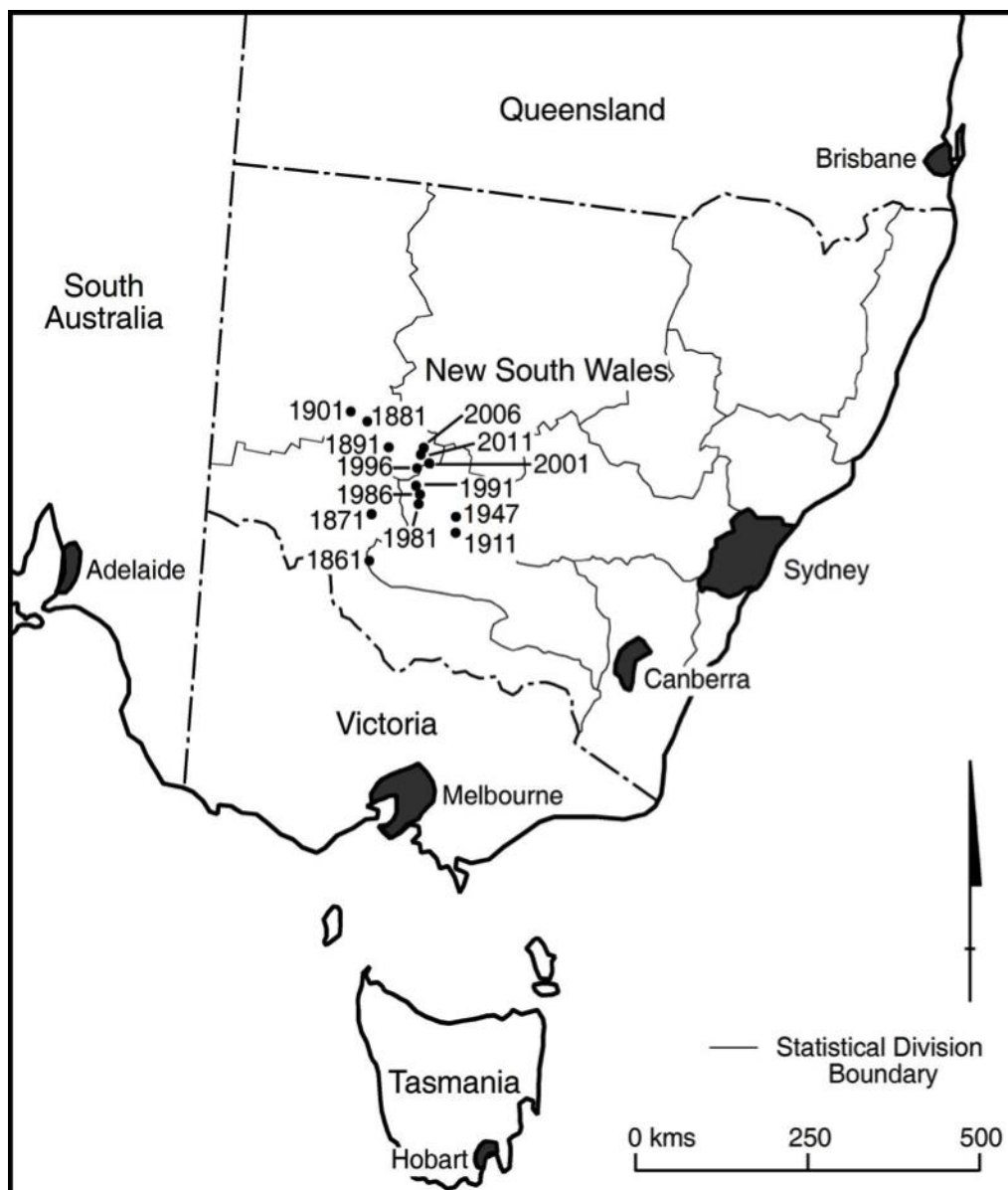


Figure 2.1: Australia: Centre of Gravity of Population, 1861-2011

Source: Calculated from ABS Censuses and ABS Regional Population Growth, Australia, various issues

Moreover, despite a popular narrative of massive internal migration from non-metropolitan to metropolitan areas, there is also a high degree of stability in the proportions of the national population living in metropolitan, other urban and rural areas.

Figure 2.2 indicates that there has been relatively little change over the last few decades in the proportions of the national population living in the three main sections of state categories identified by the ABS.

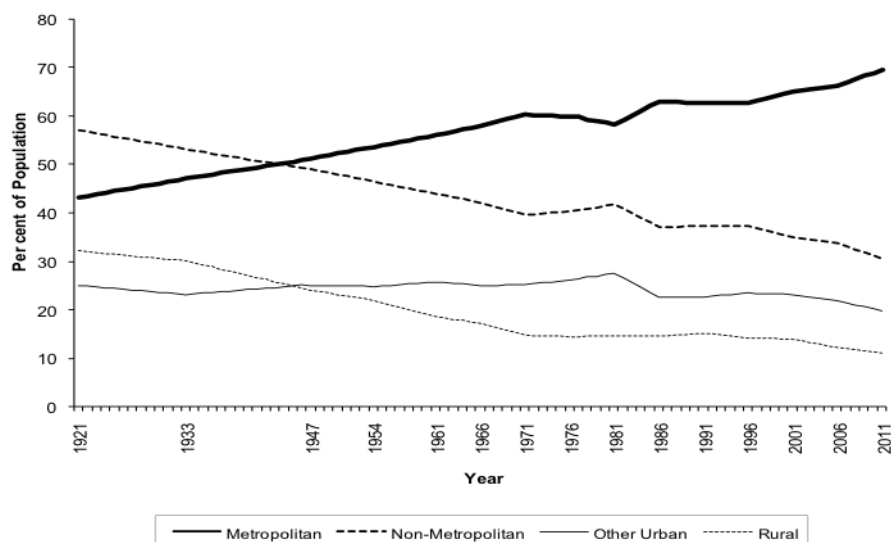


Figure 2.2: Australia: Changing Distribution of the Population Between Urban and Rural Sectors, 1921-2011

Source: Australian Censuses, 1921-2011

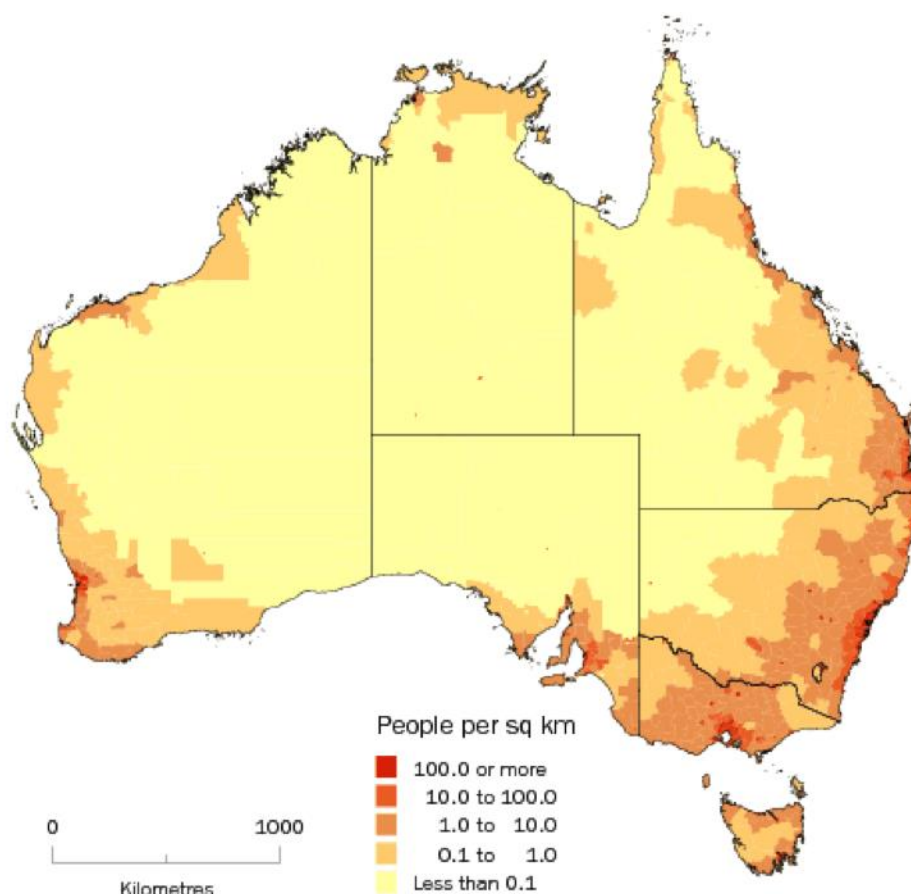


Figure 2.3: Australia: Population Density by SLA, 2011

Source: ABS, 2012b

As well as being relatively stable, the Australian population distribution and settlement system are distinctive. Figure 2.3 shows the spread of population across Australia is quite uneven involving:

- A low population density of 2 persons per km².
- A high level of urbanisation – 89 percent live in urban areas.
- A concentration within capital cities – 65 percent.
- A strong coastal orientation with 82 percent living within 50km of the coast.
- An uneven density – 90.5 percent of the people live on 0.22 percent of the land area with a density of 100 persons or more per km² while 0.34 percent of the population live on 84.2 percent of the land area at a density of 0.1 persons or less per km².

Patterns of population growth

Just as there are considerable variations in population density across Australia, there are wide differences in rates of population growth. First of all there have been significant differences in the rate of growth of the population of the states and territories.

Table 2.2 shows that in recent years Queensland has been the fastest growing state but in 2011-12 it will be noted that Western Australia has overtaken it as the impact of the mining boom in that state is increasingly felt. South Australia and Tasmania are the slowest growing states and Victoria has been growing faster than New South Wales in recent years. Table 2.2 shows there has been an overall shift away from the south-eastern states to the northern and western parts of the country.

In 1947 the states of New South Wales, Victoria, South Australia and Tasmania accounted for 78.4 percent of the national population, but by 2011 they had 66.7 percent of the total. The offsets were that Queensland increased its share from 14.6 percent to 20.3 percent and Western Australia from 6.6 percent to 10.4 percent. This has been a function of structural change in the Australian economy in the last 35 years, with the south-eastern states, heavily reliant on manufacturing, suffering substantial losses of jobs in this sector.

Table 2.2: Australia: Distribution of Population between States and Territories, 1947-2011 and Growth Rate 2006-12

State/Territory	Percent of National Population						Annual Growth Rate	
	1947	1961	1976	1996	2001	2006	2006-11	2011-12
New South Wales	39.4	37.3	35.5	33.9	33.8	33	1.4	1.1
Victoria	27.1	27.9	26.9	24.6	24.7	24.8	1.5	1.6
Queensland	14.6	14.4	15.2	18.2	18.7	19.7	2.3	1.9
South Australia	8.5	9.2	9.1	8.1	7.8	7.6	1.1	1.0
Western Australia	6.6	7	8.4	9.6	9.8	9.9	2.6	3.3
Tasmania	3.4	3.3	2.9	2.6	2.4	2.4	0.8	0.2
Northern Territory	0.1	0.2	0.7	1	1	1	1.8	1.5
Australian Capital Territory	0.2	0.6	1.5	1.7	1.6	1.6	1.8	1.9
Total (percent)	100	100	100	100	100	100	1.8	1.6
Total (million)	7.6	10.5	13.9	18.3	19.4	19.6		

Source: Rowland, 1982, 25; ABS, *Australian Demographic Statistics, various issues*

Another way to examine differences in population growth in Australia is in considering remoteness areas.

Table 2.3 shows that there has been over the last decade or so a systematic pattern with a decline in rates of population growth with increasing remoteness. In the late 1990s this translated into a population decline in remote areas. However, in more recent times with the increase in national population growth rates and the effects of the mining boom in remote areas, there has been an increase in population in remote areas, although the fastest rate of growth remains in the megacities and closely settled areas of inland Australia.

Table 2.3: Australia: Population Change by Remoteness Area, 1996-2010

Remoteness Area Category	Population Change	Growth Rate (%) pa			
	1996-2006 ('000)	1996-2001	2001-06	2008-09	2009-10
Major Cities of Australia	2069.2	1.8	1.4	2.2	1.8
Inner Regional Australia	330.2	0.3	1.4	2.1	1.8
Outer Regional Australia	9.3	-0.7	0.8	1.7	1.2
Remote Australia	-12.2	-0.7	0.0	0.9	0.8
Very Remote Australia	-5.7	-0.5	-0.2	1.2	1.1
Total	2390.8	1.2	1.3	2.1	1.7

Source: *Australian Bureau of Statistics*

Although there has been little change in the proportions of the national population living within metropolitan and non-metropolitan Australia, there have been substantial shifts within these sectors. Figure 2.4 shows contemporary patterns of population change by statistical local area, with a clear pattern of growth being concentrated in coastal areas and areas around major regional cities and a few internal mining areas. On the other hand, those losing population tend to be located inland. It has been argued by some (e.g. Holmes, 1994) that there are two regional Australias – the coastal areas challenged by dynamism and growth, and inland Australia experiencing stability or decline. Certainly there is considerable variation across regional Australia in economic and demographic development.

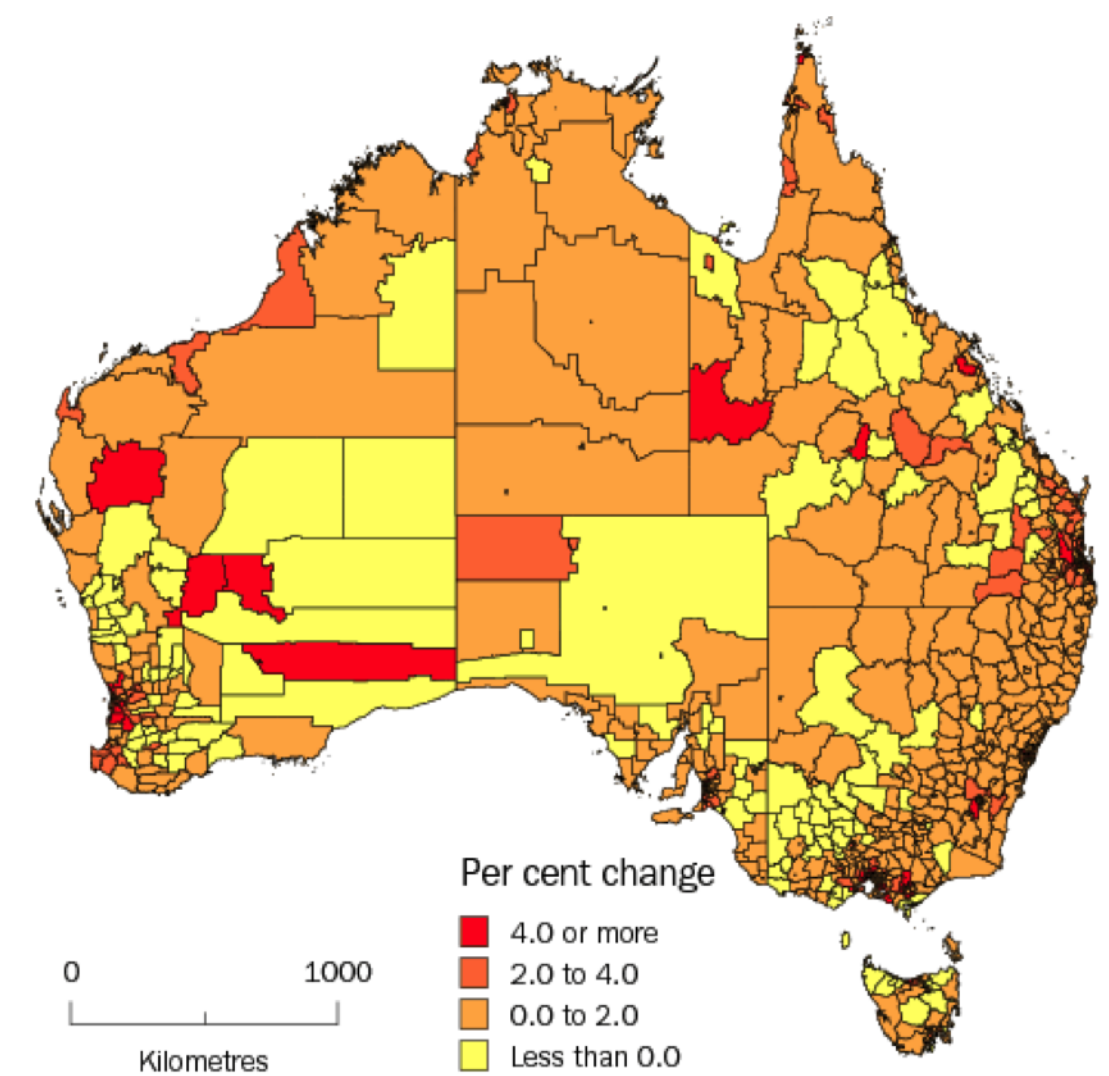


Figure 2.4: Australia: SLA Population Change, 2009-10
Source: ABS, 2011a

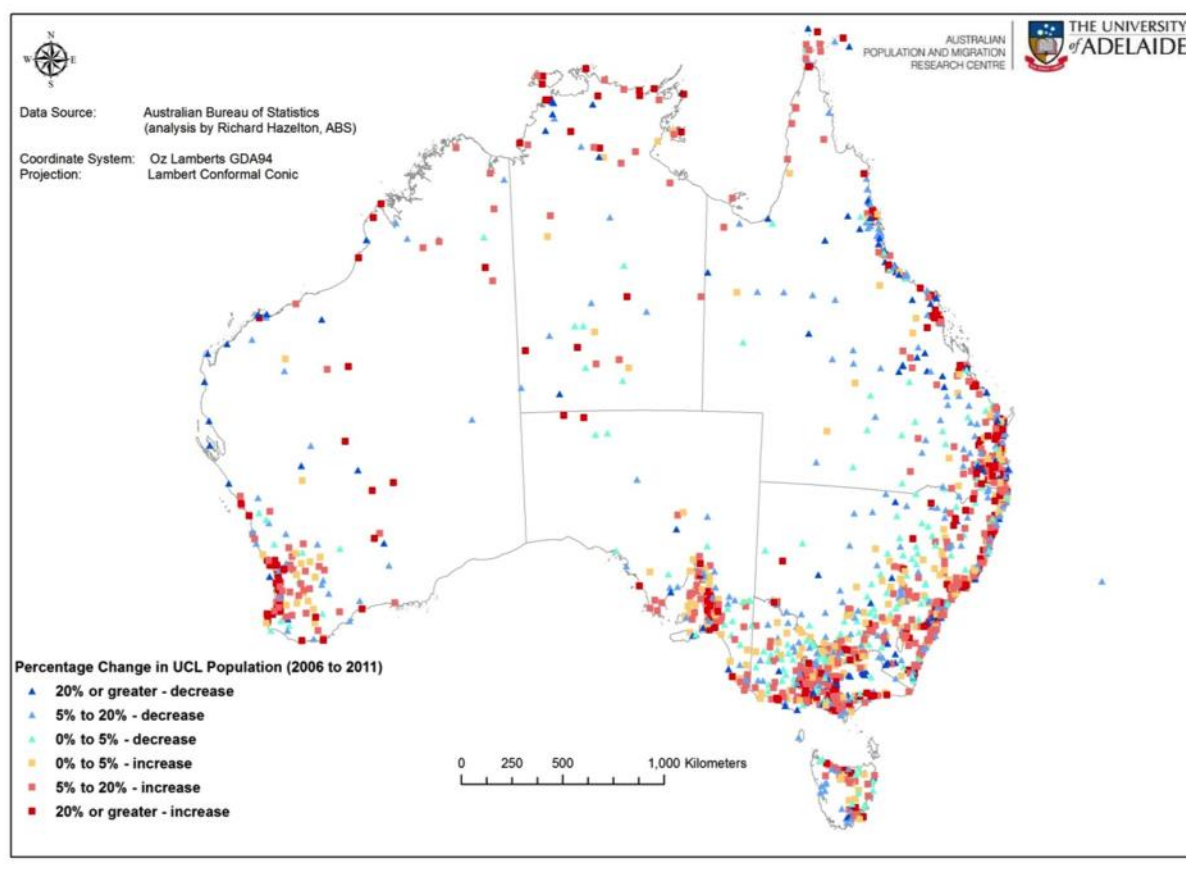


Figure 2.5: Australia: Population Change in Country Towns, 2006-11

Source: Australian Censuses of 2006 and 2011

This is more evident in Figure 2.5 which shows the growth and decline rates of urban and rural places across Australia. It avoids the problem of Figure 2.4 where small changes in numbers of people in vast, lightly settled remote areas can distract the picture. By focusing on points rather than areas a clearer pattern of the dynamics emerges. While the coastal-inland dichotomy does have some meaning, it is important to recognise that there are some important exceptions to the pattern of internal decline. There has been significant growth in some areas including:

- Many mining communities, especially in remote areas.
- Some regional cities.
- Some resort tourist destinations in favourable ecological locations like alpine and river areas.
- Along some key transport routes like the Hume Highway.
- 'Free change' areas in the areas surrounding major cities.

We will now look at differences between RDAs in recent population growth.

Population change in RDAs, 2006-11

The diversity in population growth is evident in Table 2.4 which indicates the average annual population growth in RDAs over the 2006-11 intercensal period. They are ranked from the fastest to the slowest growing and a map of RDAs was given as Figure 1.1 It should be noted that these indicate the pattern of place of enumeration, not place of usual residence. Hence it indicates the population distribution on the night of the Census. It also should be noted that the

RDA regions are large and often contain sub-areas with varying patterns of population growth.

The key patterns evident in the table are as follows:

- It is notable that several mining areas, especially those in north-west Western Australia, are the most rapidly growing areas. The role of the mining boom is readily apparent with most of these areas being in Western Australia and, to a lesser extent, Queensland.
- Also prominent in those areas with above-average (more than 1.6 percent per annum) growth was the growth areas of capital cities, especially in Melbourne, Brisbane, Perth and ACT. This reflects the very high national growth rates during the most recent intercensal period and especially the impact of international migration.
- A third group of rapidly growing areas are the peri-urban surrounds just beyond the built-up areas of capital cities. It is interesting that the ABS in 2011 introduced new definitions of the Major Capital Cities which extended beyond the edge of the urban fabric to include these fast-growing areas within commuting distance of the city centre of capitals. Some of these rapidly growing areas were Ipswich-West Moreton, Moreton Bay, Logan and Redlands around Brisbane, South-west and Wheatbelt in Perth, and Adelaide Hills, Fleurieu, Kangaroo Island and Barossa in Adelaide.
- Some coastal non-metropolitan areas outside of the capitals also had rapid growth. This was especially the case in Queensland where Mackay/Whitsunday, Gold Coast, Townsville and North-west Queensland, Far North Queensland and Torres Strait and Sunshine Coast all grew at above-average rates.

Table 2.4: Average Annual Growth Rate by RDA, 2006-11

RDA Name	General Geographic Classification	Average Annual Growth Rate, 2006-11
Pilbara	Remote	9.4
Peel	Rural	4.8
Kimberley	Remote	3.7
Western Melbourne	Urban	3.5
Ipswich and West Moreton	Peri-Urban/Rural	3.3
Moreton Bay	Peri-Urban	3.0
South-west	Rural	2.9
Perth	Urban	2.6
Mackay/Whitsunday	Rural	2.4
Gold Coast	Peri-Urban	2.2
Mid West Gascoyne	Remote	2.0
Goldfields/Esperance	Remote	2.0
Northern Melbourne	Urban	2.0
Townsville and North West Queensland	Remote	2.0
Australian Capital Territory	Urban	1.9
Far North Queensland and Torres Strait	Remote	1.9
Logan and Redlands	Peri-Urban	1.9
Southern Melbourne	Urban	1.9
Fitzroy and Central West	Rural	1.8
Adelaide Hills, Fleurieu and Kangaroo Island	Peri-Urban/Rural	1.8
Brisbane City	Urban	1.7
Sunshine Coast	Peri-Urban	1.7
Barossa	Rural	1.7
Northern Territory	Remote/Urban	1.7
Wide Bay Burnett	Peri-Urban/Rural	1.5
Gippsland	Rural	1.5
Darling Downs and South West	Rural	1.4
Sydney	Urban	1.3
Grampians	Rural	1.3
Adelaide Metropolitan	Urban	1.1
Barwon South West	Rural	1.1
Hunter	Peri-Urban/Rural	1.1
Central Coast NSW	Peri-Urban	1.0
Great Southern	Rural	1.0
Far North	Remote	1.0
Illawarra	Peri-Urban	0.9
Central West	Rural	0.9
Southern Inland	Rural	0.9
Hume	Rural	0.9
Mid North Coast	Rural	0.8
Wheatbelt	Rural	0.8
Tasmania	Rural/Urban	0.7
Loddon Mallee	Rural	0.7
South Coast	Rural	0.7
Melbourne East	Urban	0.7
Yorke and Mid-North	Rural	0.6
Northern Rivers	Rural	0.6
Northern Inland	Rural	0.4
Limestone Coast	Rural	0.3
Murraylands and Riverland	Rural	0.3
Orana	Rural	0.2
Riverina	Rural	0.2
Whyalla and Eyre Peninsula	Remote	0.2
Murray	Rural	0.0
Far West	Remote	-0.3

Source: ABS Census data 2011

It is interesting in Table 2.4 that only one RDA recorded a decline in its population over the 2006-11 period. This was Far West in the remote west of NSW which contains the centre of Broken Hill and has experienced a long standing pattern of slow population decline. It is notable in Table 2.4 that the slowest growing RDAs are all rural or remote areas in the wheat-sheep belt or more remote grazing areas. During the 2006-11 period many experienced a prolonged drought which took a significant toll on population. Hence some irrigation areas are included in the slowest growing RDAs, including Riverina and Murraylands and Riverland in South Australia. It is interesting too that the older parts of some capital metropolitan areas grew at below the national average – Melbourne East, Sydney and Adelaide Metropolitan. Another group of slower growing RDAs included industrial regional centres like Whyalla and Eyre Peninsula, Illawarra and Barwon South West indicating that some of these cities have been experiencing limited growth of job opportunities.

The patterns evident in Table 2.4 largely reflect the coastal-inland contrast discussed earlier. However, it is important to bear in mind that the RDAs are quite heterogeneous and often include both growing and declining areas. Nevertheless, some distinct patterns are apparent. It is important now to disaggregate these trends in terms of the various demographic processes contributing to them. In the remainder of this chapter we will examine differences in the RDAs in natural increase, while internal and international migration will be considered in the next two chapters.

Mortality

As was indicated earlier, Australia has experienced a significant decline in mortality and increase in life expectancy over recent decades. There are, however, some differences between groups and areas in the extent to which these improvements have occurred. Table 2.5, for example, shows the monotonic increase in both infant mortality and standard mortality rates with remoteness. This is a function of several factors including the greater distances that residents of remote areas have to travel to health services. In addition, the Aboriginal population have a significantly higher level of mortality than the remainder of the population and they are more strongly represented in remote areas. However, it is also important to note that people outside of the major cities also have higher incidence of a range of risk factors as is evident in Table 2.6 which shows higher levels of smoking, drinking and obesity than in the cities. Moreover, Figure 2.6 indicates that deaths from motor accidents are greater than in the large cities.

Table 2.5: Australia: Infant Mortality Rate and Standardised Mortality Rates for Males and Females aged 15-64, 2003-07

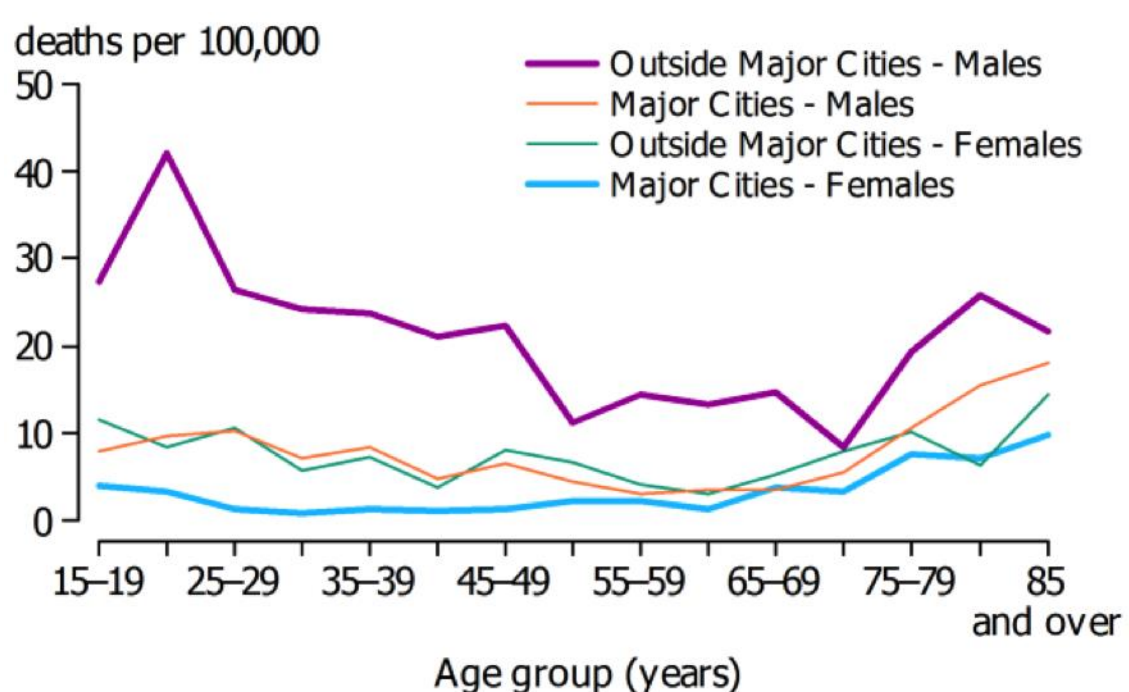
Accessibility/Remoteness Index	IMR	SMR	SMR
		Males 15-64	Females 15-64
Very accessible	4.2	91	93
Accessible	5.0	107	106
Moderately accessible	5.7	119	113
Remote	6.5	151	154
Very remote	10.5	245	271

Source: PHIDU

Table 2.6: People Outside Major Cities Undertaking Health Risk Behaviours, 2007-08

	Proportion of People (Percent)	Ratio to Major Cities
Current daily smoker	21.1	1.30
Risky drinker – long-term risk	15.2	1.32
Risky drinker – short-term risk	40.8	1.24
Overweight/obese	65.7	1.13
Sedentary/low exercise level	73.4	1.03
Met guidelines for fruit and vegetable consumption	8.5	1.55

Source: ABS, 2011b, 14



* Causes of death data for 2008 are preliminary and subject to a revisions process. See *ABS Causes of Death, 2008: Technical Note 1* (cat. no. 3303.0).

Figure 2.6: Death Rates* from Transport Accidents, 2008

Source: ABS, 2011b, 17

Hence other things being equal, the higher mortality rates with increased remoteness would mean that population growth rates would decline regularly with increasing distance from the capital cities. This, however, is only part of the story with respect to natural increase. We need to consider trends in fertility.

Fertility

It was shown earlier that Australian fertility has been relatively stable over the last three decades although a small increase has occurred since the early 2000s. The overall Australian Total Fertility Rate (TFR) of 1.9 is above average for OECD countries. There are significant variations in fertility between areas within Australia and this is evident in Figure 2.7. This indicates a clear pattern of higher levels of fertility outside of capitals in each state. Indeed in NSW, Victoria, Queensland, Western Australia, Tasmania and the Northern Territory fertility levels in non-metropolitan areas are around or above replacement level.

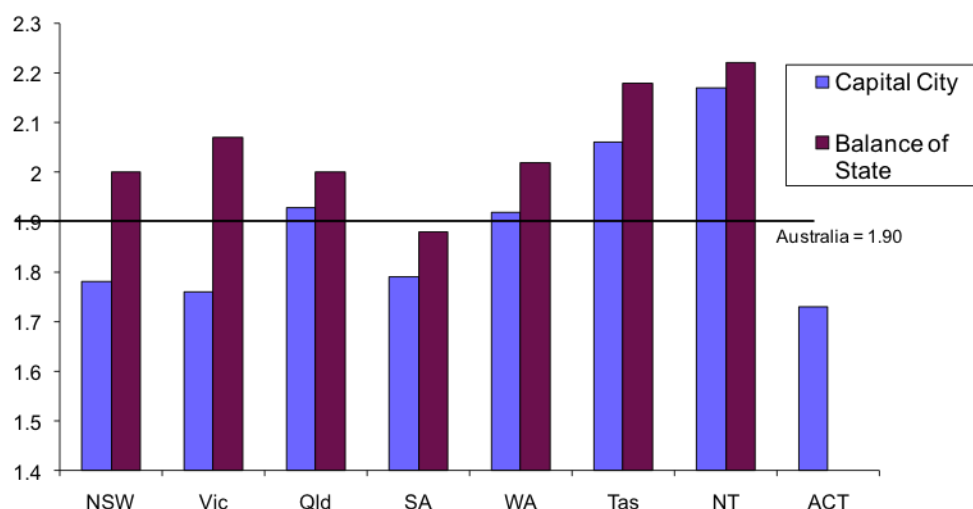


Figure 2.7: Australia: Total Fertility Rates by State and Location, 2008

Source: ABS, unpublished data

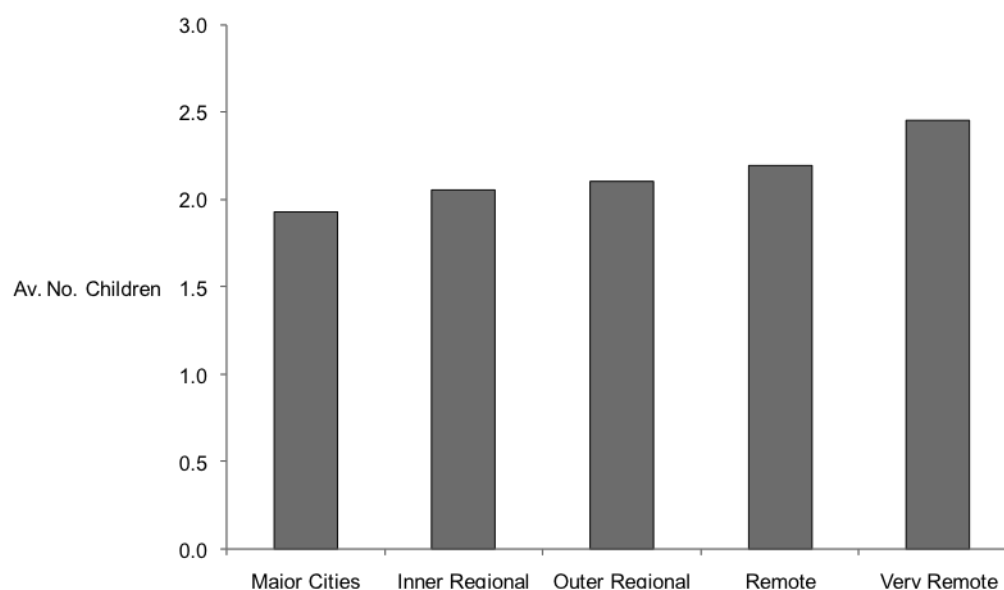


Figure 2.8: Average Number of Children Under 15 Years in Families with Children by Remoteness Areas, 2006

Source: ABS 2006 Census

Hence other things being equal, population growth rates in non-metropolitan areas would be greater than those in large cities if only fertility was considered. This higher fertility means that families tend to be larger outside of the capitals. Figure 2.8, for example, shows the increase in the average number of children in families with increasing remoteness. This is clearly important from a service provision perspective. This higher fertility, to some extent, is cancelled out by the higher levels of mortality discussed in the previous section but we will now turn to patterns of natural increase in the RDAs.

Natural increase in RDAs

Natural increase (births minus deaths) is a major element in Australia's population growth. Figure 2.9 shows that it has accounted for around half of Australia's postwar population growth and continues to be significant. Table 2.7 shows the contribution that natural increase made to population growth in RDAs over the 2006-11 period. As is to be expected, the

largest gains are in the capital metropolitan regions. Nevertheless, there are substantial natural increases in the growth areas of non-metropolitan Australia such as the mining communities of Far North Queensland, Townsville and North West Queensland and Hunter. Only two RDAs experienced overall negative natural increase (that is, more deaths than births) in this period: Yorke and Mid North in South Australia (-12) and South Coast in New South Wales (-251).

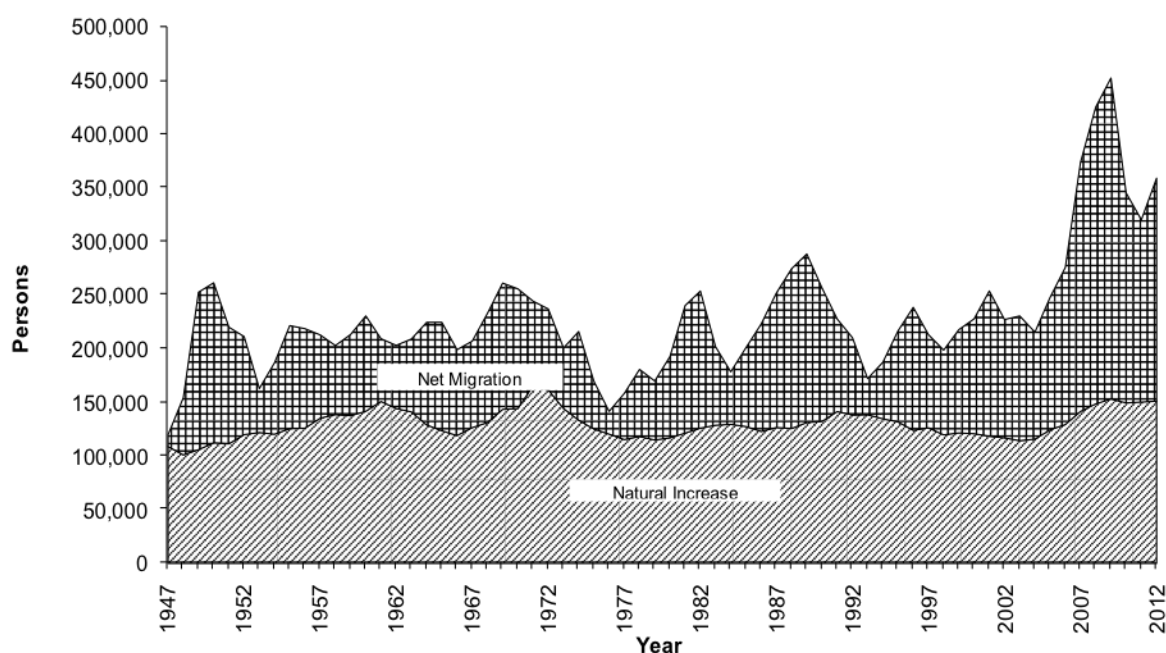


Figure 2.9: Australia: Total Population Growth Showing the Natural Increase and Net Migration Components, 1947-2012

Source: ABS 1997 and ABS Australian Demographic Statistics, various issues

Table 2.7: Top 20 RDAs by Natural Increase Population Numbers, 2006-11

	RDA name	Location	Natural Increase 2006-2011 adjusted to financial year
1	Sydney	Urban	179,867
2	Perth	Urban	65,025
3	Southern Melbourne	Urban	45,376
4	Brisbane City	Urban	42,700
5	Western Melbourne	Urban	40,091
6	Northern Melbourne	Urban	37,674
7	Melbourne East	Urban	26,087
8	Adelaide Metropolitan	Urban	26,010
9	Logan and Redlands	Peri-urban	22,600
10	Gold Coast	Peri-urban	16,926
11	Moreton Bay	Peri-urban	16,454
12	Northern Territory	Urban/Remote	13,893
13	Far North Queensland & Torres Strait	Remote	13,488
14	Ipswich and West Moreton	Peri-urban	13,376
15	Townsville & North West Queensland	Remote	13,140
16	Tasmania	Urban/Rural	11,962
17	Hunter	Peri-urban/Rural	11,539
18	Fitzroy and Central West	Rural	10,864
19	Darling Downs and South West	Rural	9,923
20	Mackay/Whitsunday	Rural	8,091

Source: Natural increase data is derived from births and deaths data in ABS publications 3301.0 Births Australia and 3302.0 Deaths Australia

However, both these regions showed positive overall population change using ERP data, particularly the South Coast in NSW with an overall population increase of 4,627 people. This reflects the fact that these areas both experience substantial immigration of retirees so that they have relatively mature age structures which results in deaths outnumbering births.

In fact, while 52 of the 55 RDAs had positive rates of natural increase (more births than deaths) a high proportion of RDAs (37) had higher values of population growth than natural increase, suggesting population mobility plays an important role in population increase within Australia.

Table 2.8: Regional Development Areas (RDAs): Selected Components of Population Change, 2006-11

RDA Name	Natural Increase 2006-11	Natural Increase as % of Population Change 2006-11	Net Migration 2006-11	Net Migration as % of Population Change 2006-11	Population Change 2006-11
Central Coast NSW	3512	23.3	11545	76.7	15057
Central West	3555	49.4	3642	50.6	7196
Far West	131	-37.1	-484	137.1	-353
Hunter	11539	36.1	20465	63.9	32003
Illawarra	6753	54.2	5698	45.8	12450
Mid North Coast	568	5.7	9439	94.3	10006
Murray	2082	1553.7	-1948	-1453.7	134
Northern Inland	3800	124.3	-744	-24.3	3056
Northern Rivers	2480	28.5	6223	71.5	8702
Orana	2995	228.8	-1686	-128.8	1309
Riverina	4350	348.0	-3100	-248.0	1250
South Coast	-251	-4.6	5707	104.6	5456
Southern Inland	4609	52.6	4149	47.4	8757
Sydney	179867	68.8	81389	31.2	261256
Barwon South West	6820	35.8	12217	64.2	19036
Gippsland	3669	20.9	13880	79.1	17548
Grampians	3899	28.9	9578	71.1	13476
Hume	6133	55.4	4938	44.6	11071
Loddon Mallee	5838	54.1	4948	45.9	10786
Melbourne East	26087	78.2	7266	21.8	33353
Northern Melbourne	37674	47.3	41924	52.7	79597
Southern Melbourne	45376	40.8	65923	59.2	111298
Western Melbourne	40091	30.8	90086	69.2	130176
Brisbane City	42700	49.5	43632	50.5	86331
Darling Downs and South West	9923	59.6	6738	40.4	16661
Far North Queensland and Torres Strait	13488	55.5	10823	44.5	24310
Fitzroy and Central West	10864	54.8	8944	45.2	19807
Gold Coast	16926	32.2	35669	67.8	52594
Ipswich and West Moreton	13376	35.0	24893	65.0	38268
Logan and Redlands	22600	61.8	13960	38.2	36559
Mackay/Whitsunday	8091	39.8	12227	60.2	20318
Moreton Bay	16454	32.3	34505	67.7	50958
Sunshine Coast	7634	29.8	17951	70.2	25584
Townsville and North West Queensland	13140	54.3	11039	45.7	24178
Wide Bay Burnett	5911	29.4	14197	70.6	20107
Adelaide Metropolitan	26010	42.1	35835	57.9	61845
Adelaide Hills, Fleurieu and Kangaroo Is	2217	23.5	7203	76.5	9419
Barossa	1676	32.2	3522	67.8	5198
Far North	1212	97.5	31	2.5	1243
Limestone Coast	1985	230.8	-1125	-130.8	860
Murraylands and Riverland	1246	145.4	-389	-45.4	857
Whyalla and Eyre Peninsula	1605	352.6	-1150	-252.6	455
Yorke and Mid-North	-12	-0.5	2299	100.5	2287
Goldfields/Esperance	3750	65.3	1996	34.7	5745
Great Southern	1579	60.7	1024	39.3	2602
Kimberley	2342	29.1	5717	70.9	8059
Mid West Gascoyne	2984	43.5	3876	56.5	6859
Peel	2261	10.5	19344	89.5	21604
Perth	65025	33.9	126736	66.1	191760
Pilbara	3973	13.8	24838	86.2	28810
South-west	5951	29.6	14120	70.4	20071
Wheatbelt	2563	93.2	186	6.8	2749
Tasmania	11962	67.6	5745	32.4	17706
Northern Territory	13893	80.1	3458	19.9	17351
Australian Capital Territory	N/A		N/A		0
Total	734891				1613775

Table 2.8 shows for each of the RDAs the contribution of natural increase and net migration to their population growth between 2006 and 2011. It will be noted that the proportion of population growth which is made up of natural increase varies widely. In some RDAs where it exceeds 100 percent, the natural increase of population was more than cancelled out by net

migration losses. These were all inland areas which were influenced by the catastrophic millennium drought of the last decade. It is striking, however, that net migration provides the majority of growth in the fastest growing RDAs. Figure 2.10 shows that population growth at the LGA level has a very distinct pattern. The highest rate of population growth was recorded in East Pilbara in north-west Western Australia. The dominance of mining areas in Western Australia and Queensland is evident in the map but the outer areas and cities also experienced rapid growth. Nevertheless, much of the wheat-sheep belt is actually experiencing population decline.

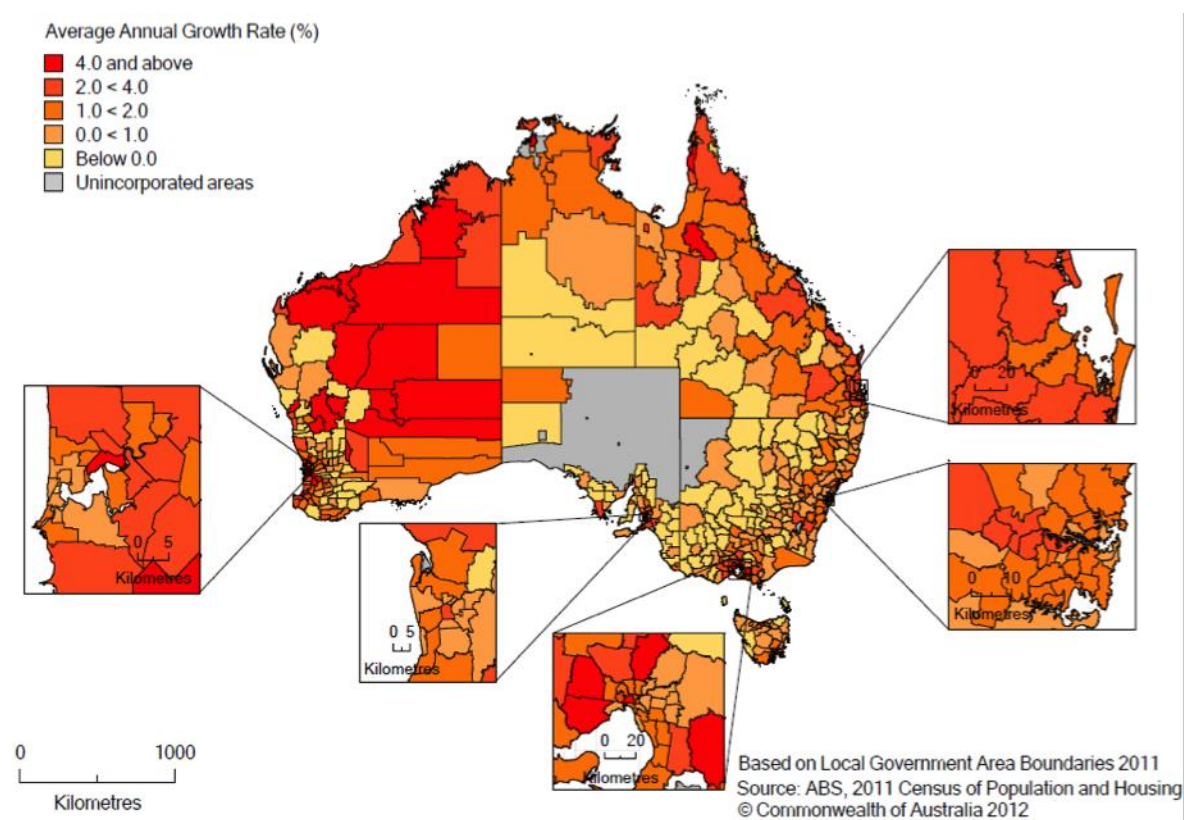


Figure 2.10: Australia: Annual Rate of Population Growth, 2006-11
Source: ABS, 2013a

The ABS (2013a) has recently analysed regional populations, not only from the perspective of population growth but also according to population turnover, which is measured as the number of arrivals and departures in a region between 2006 and 2011 per 1000 residents. The median for all Australia was 441.9. The spatial pattern of population turnover is shown in Figure 2.11. The highest turnover rates are in Queensland and Western Australia, while the lowest is in South-east Australia. As the ABS (2013a, 5) point out:

‘Analysing population growth rates and population turnover rates together is useful because it can provide additional insight into the dynamics of a region’s population and the needs of the community living there.’

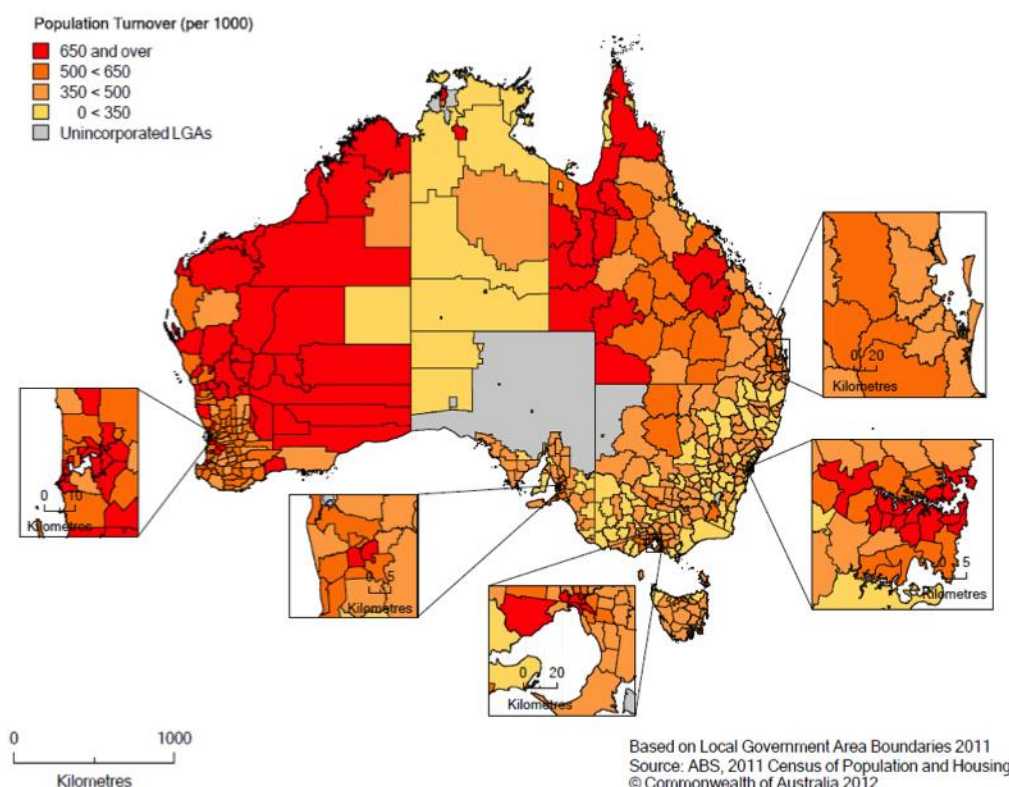


Figure 2.11: Australia: Population Turnover, 2006-11

Source: ABS, 2013a

If a population growth is low but there is high turnover of population it may mean there is a significant change in the demand for services. Figure 2.12 shows areas where there is both high growth and high turnover and the absolute dominance of mining areas in remote and rural areas and also in the peripheral areas of capital cities. At the other extreme are the areas with low growth and low turnover and Figure 2.13 shows that there is a strong pattern in evidence. It is clearly a pattern characteristic of the inland wheat-sheep belt areas of the south-eastern states.

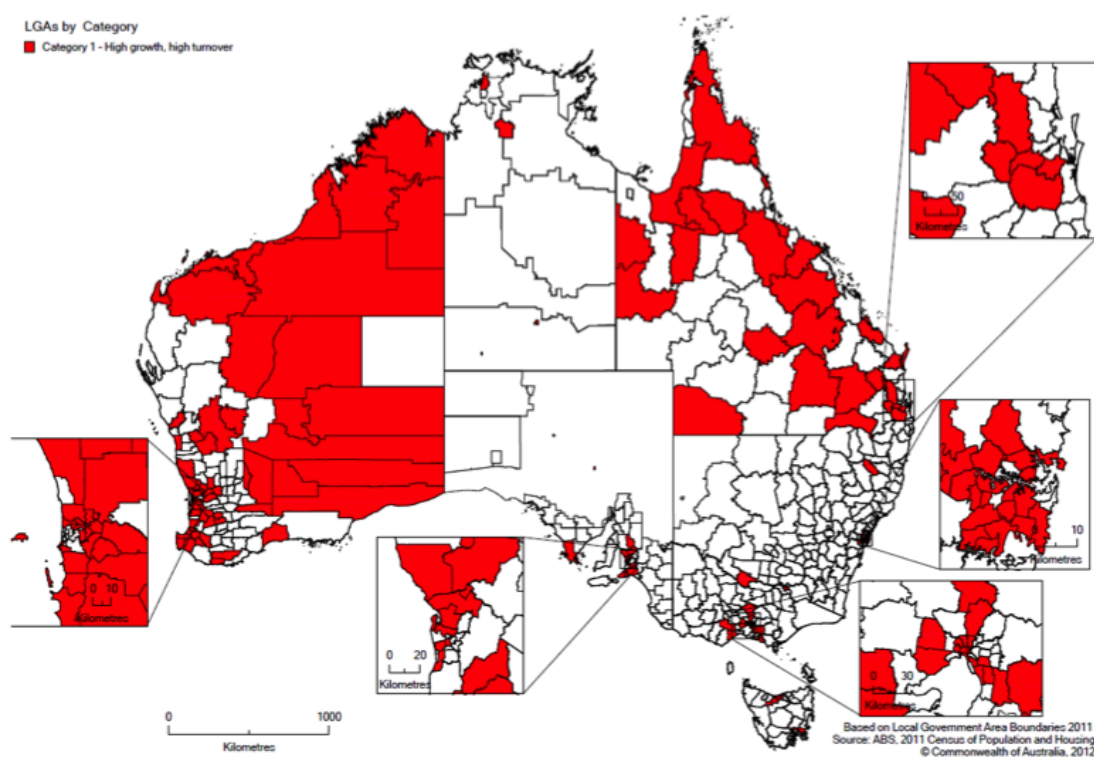


Figure 2.12: Australia: LGAs with High Population Growth and High Population Turnover, 2006-11
Source: ABS, 2013a

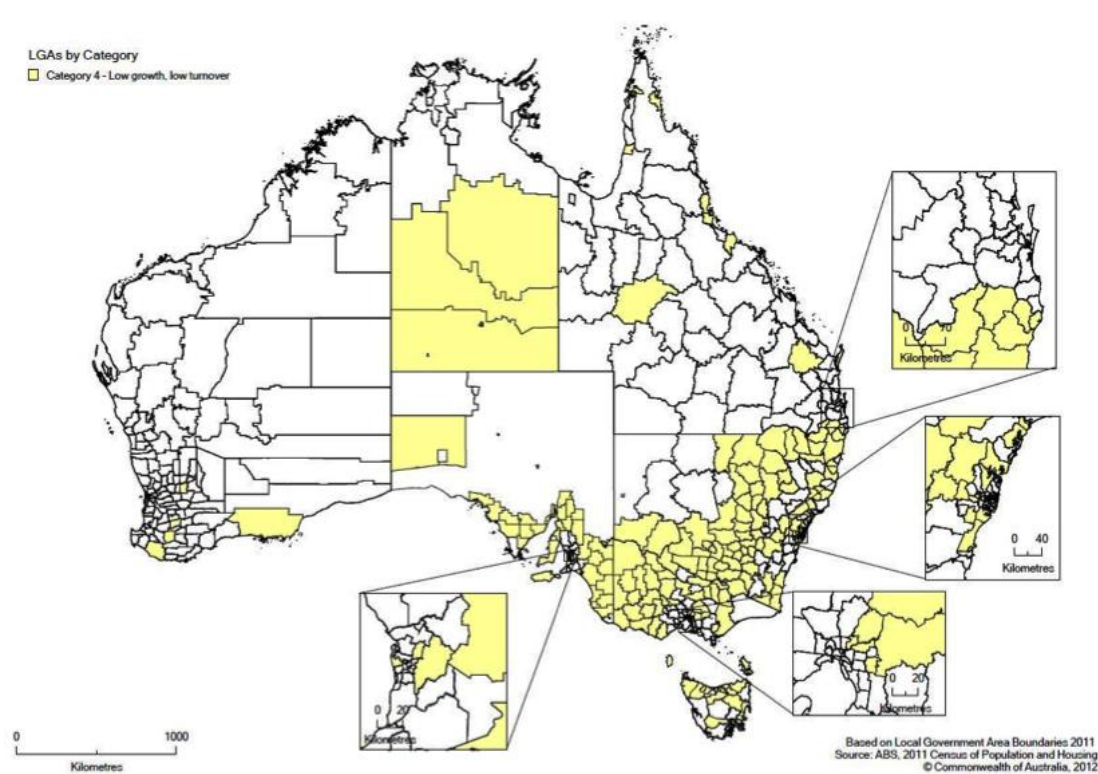


Figure 2.13: Australia: LGAs with Low Population Growth and Low Population Turnover, 2006-11
Source: ABS, 2013a

Internal Migration

Introduction

As was indicated in the last chapter, Australians are among the most residentially mobile in the world with more than a third changing their place of residence between the 2006 and 2011 population Censuses. However, most of them (71 percent in 2001-06; ABS, 2009, 1) change residence within regions; around 2 million of them moved between regions. Outside of coastal cities this internal migration is the main process causing differences in the rate of growth of population between regions.

However, internal migration is of interest, not only because it is the major factor causing differences in the rates of growth of regions. All migration is selective. Migrants are never a representative cross-section of the populations they leave or those they move into Figure 3.1, for example, shows that there is considerable variation between age groups in their propensity to move. As is the case in most countries, mobility is in the young adult age groups.

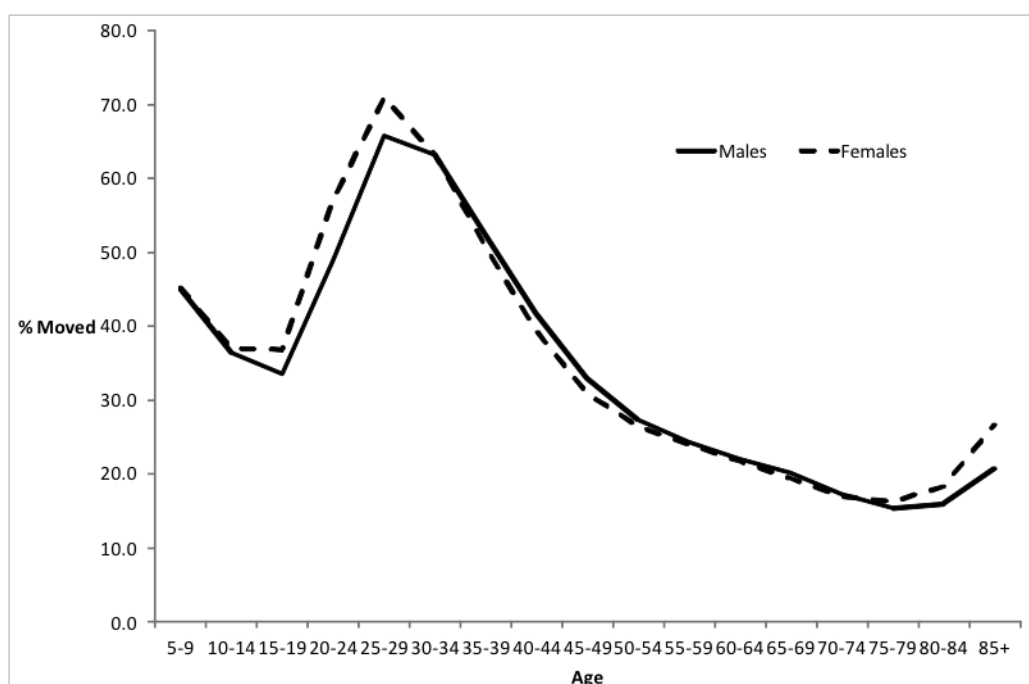


Figure 3.1: Australia: Percent Moved by Sex, 2006-11

Source: ABS 2011 Census

The gain or loss of this group can have important impacts on local economies since they tend to have high productivity but also are important in the social fabric of communities.

In Australia there are a number of other differentials which have been identified in internal migration (Bell and Hugo, 2000).

- Migration levels are higher among the Maori in New Zealand and the Aboriginal Torres Strait Islander population in Australia.
- Immigrants initially have higher mobility than the locally-born but over time their internal migration converges toward the total population.
- Unemployed persons have higher mobility than employed persons.
- Separated and divorced persons move more than the married and never married.
- People living in group households, flats and rented dwellings are more mobile.

- People with higher levels of education are more mobile.
- Persons working in agriculture have the lowest level of mobility.

Hence patterns of internal migration can have important impacts on local regional development through the gain or loss of skilled people, community leaders and others with particular attributes facilitating development. Internal migration then is more than simply a 'numbers game'.

Interstate migration

Figure 3.2 shows the pattern of interstate migration between 2001 and 2006. Some 779,940 persons moved between states over this period and some striking trends are apparent in the diagram. Firstly it is evident that there is a considerable level of reciprocity in the flows. In fact there is a very low level of 'migration effectiveness' not only in interstate migration in Australia but in interregional migration as well. This means that there tend to be significant counterbalancing flows for major flows and that net migration (the difference between in- and outmigration and hence the factor that contributes to overall population growth) tends to be small in relation to the in- and outmigration flows for a single region. It also has to be noted that the composition of inflows and outflows can be quite different so that the overall impact of the migration can be belied by a small net migration. The outflow may be young, skilled and educated while the inflow can be older and unskilled so that the developmental effects may be larger than is indicated by net migration data.

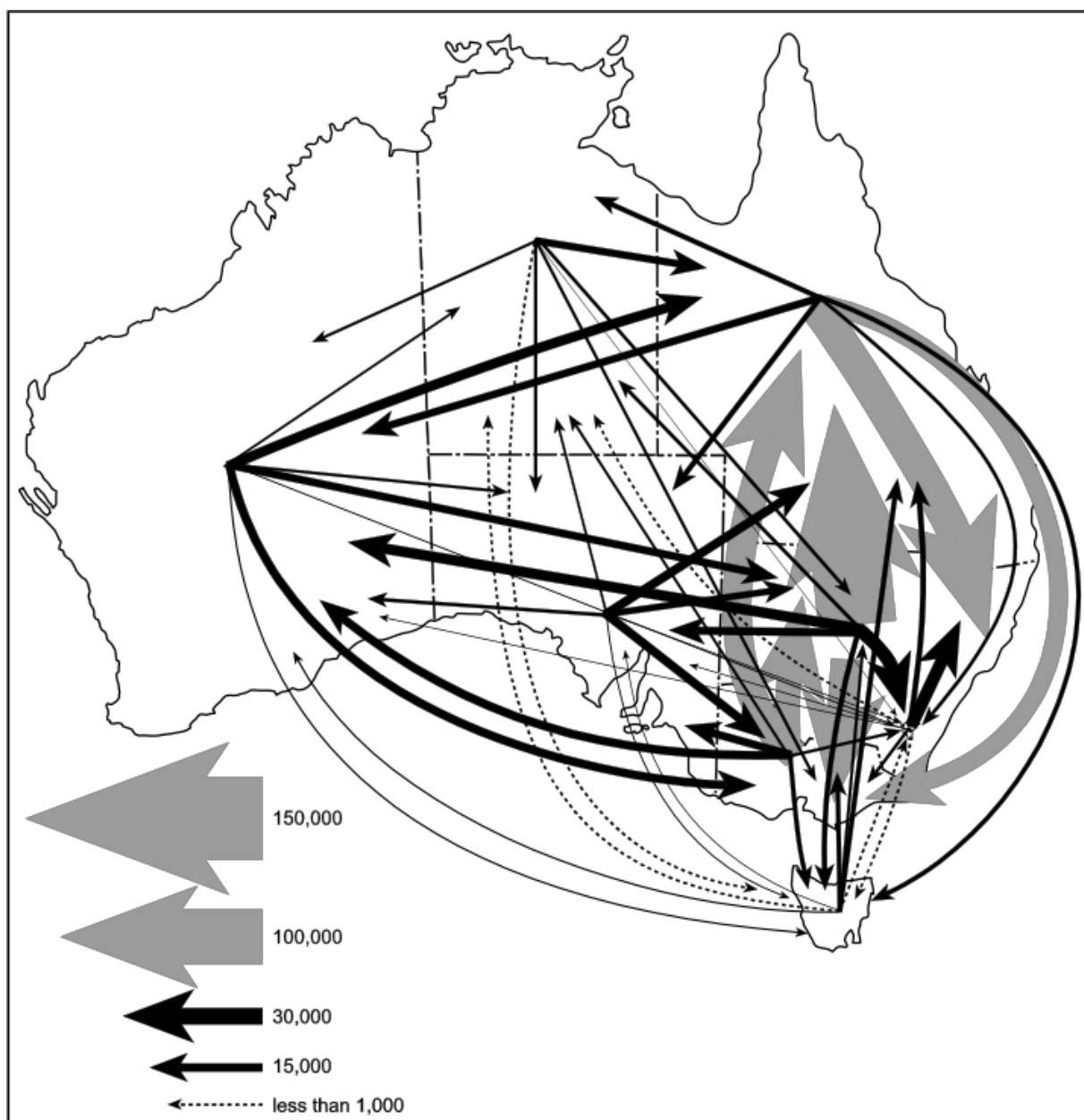


Figure 3.2: Australia: Interstate Migration, 2001-06
Source: ABS Census

Figure 3.2 shows the dominance of the east coast in the flows and especially the significance of Queensland as a destination. Queensland has been the major destination for interstate migrants and this is evident in the diagram. Nevertheless it should also be noted that there are considerable reciprocal flows. The flows to Western Australia are smaller but nevertheless significant. Figure 3.3 shows the pattern of migration in 2011-12 and the greater significance of Western Australia as a destination is in evidence reflecting the recent importance of the mining boom in that state.

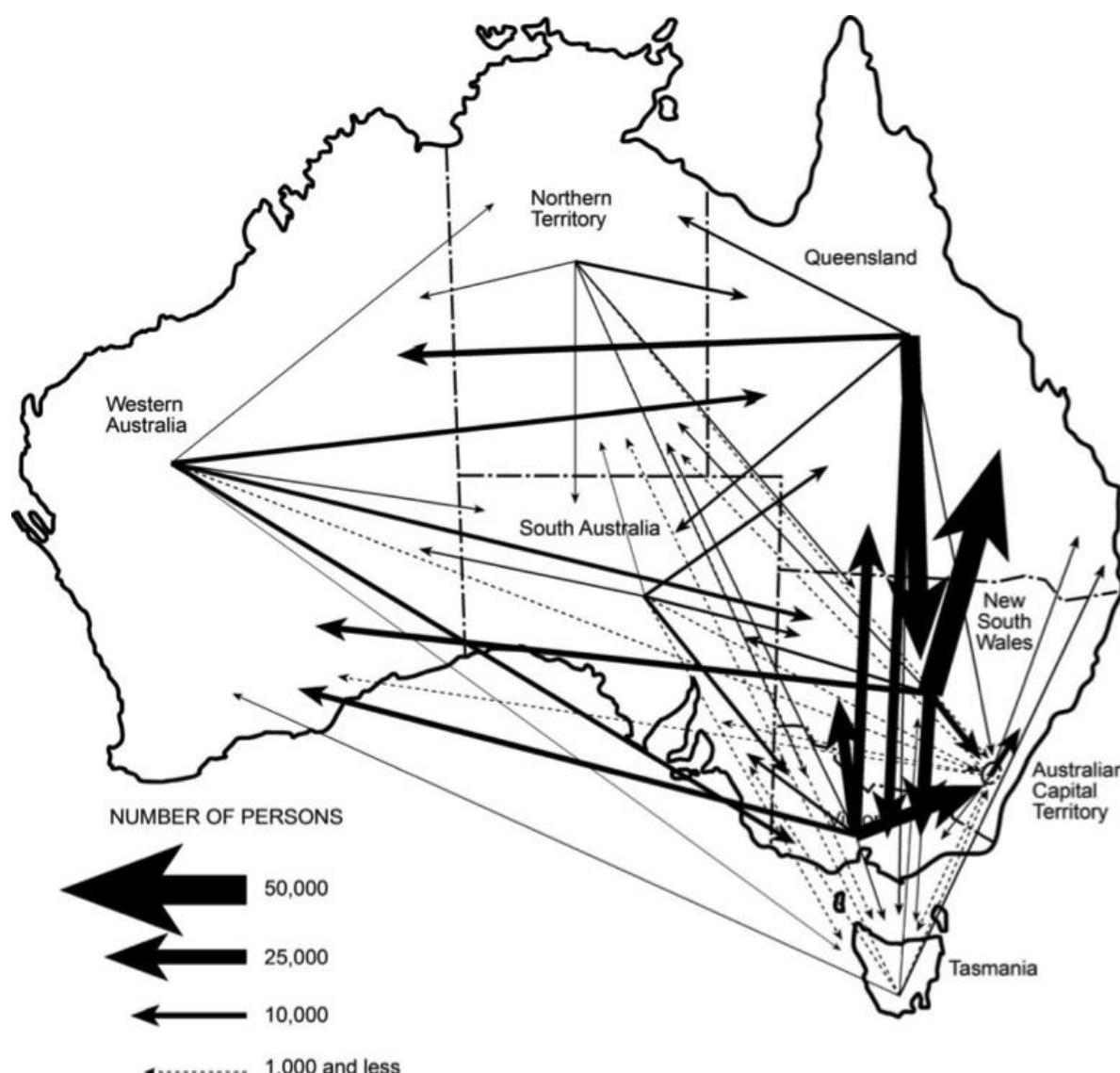


Figure 3.3: Australia: Interstate Migration, 2011-12
Source: ABS, 2013b, 45

Chapter 2 demonstrated that there are considerable variations between the states in the level of population growth and it is important to note that there are significant interstate differences, not only in the patterns of internal migration but in the mixes of natural increase, net internal and net interstate migration shaping the population growth in the states and territories since 2001.

For New South Wales there has been a consistent pattern of net internal interstate migration loss. Over the period 1996-2009, 316,185 more persons left NSW for other states than moved into it. However, this was more than counterbalanced by the fact that 792,586 more people moved into the state from overseas than left to live in another country. Table 3.1 shows that in 2006-11, 92,930 more internal migrants left the state than moved into it but that the net international migration gain was 354,672. Net international migration to the state is now a greater component of growth than natural increase. After NSW, which is overwhelmingly the major net migration loser in terms of interstate migration, South Australia has the second largest net loss (56,999 in 1996-2009 and 18,410 in 2006-11). In South Australia the net gain by overseas net migration was not enough to counterbalance the net interstate migration loss; however, since 2001 there has been a recovery of international migration to that state, so between 2006-11 there was a net gain of 71,163 compared with net interstate loss of

18,410 interstate over that time. Hence in that state until recently, natural increase has been the major component in population growth (which was slow).

The pattern in Victoria is different again. After experiencing small net interstate migration gain in 1996-2001, a small loss was recorded in 2001-06 and a small gain in 2006-11. However, international migration has increased substantially and has become larger than natural increase. In Queensland over the 1996-2006 period, net interstate migration gain was the largest contributor to population growth. However, more recently international migration has had increasing significance in Queensland's population growth, accounting for two thirds of growth in the 2006-11 period. It is interesting that since 2001 Queensland has not only been the fastest growing state but for the first time the numerical increase in the state's population has been greater than that in NSW. Western Australia has been second only to Queensland in net interstate migration gains but international migration has been an important contributor to population growth throughout the entire postwar period in that state (Hugo, 2007).

Table 3.1: Australian States and Territories: Natural Increase, Net Overseas Migration, Net Interstate Migration and Total Population Growth, 2006-11

State/Territory	Natural Increase		Net Overseas Migration		Net Interstate Migration		Total Population Growth
	Number	Percent of Growth	Number	Percent of Growth	Number	Percent of Growth	
New South Wales	224,345	56.7	354,672	89.7	-92930	-23.5	395,381
Victoria	173,942	42.6	318,870	78.2	1858	0.5	407,986
Queensland	177,203	46.2	226,925	59.2	85246	22.2	383,190
South Australia	35,658	50.7	71,163	101.2	-18410	-26.2	70,344
Western Australia	90,368	30.9	176,630	60.3	22946	7.8	292,834
Tasmania	12,071	56.8	8132	38.3	365	1.7	21,244
Northern Territory	14,251	68.8	6686	32.3	-195	-0.9	20,704
Australian Capital Territory	16,140	48.0	13242	39.4	2120	6.3	33,633
Australia*	744,060	45.8	1,176,354	72.3		0.0	1,626,053

* Includes other Territories

Source: ABS Australian Demographic Statistics, various issues

Internal migration and capital cities

Despite the popular narrative of population growth in Australian capital cities being driven by rural-urban migration, it is evident that the cities have varied in the extent to which internal migration has contributed to their growth. Table 3.2 shows the estimated components of growth in the most recent intercensal period for the five largest cities. During the first two postwar decades, net migration gains from elsewhere in Australia were only minor elements in the massive growth experienced by the nation's two largest cities, dwarfed by the net gain of immigrants from overseas, which accounted for more than half of this expansion. During the 1976-96 period, however, a quite different pattern was in evidence, with a substantial net internal migration loss being recorded in both large cities, although international migration remained an important source of growth, especially in Sydney.

Some differences are evident in the most recent decade. In 1996-2001 there was a reduced net loss in Sydney, perhaps associated with the growth created by the 2000 Olympic Games. Since then, however, the massive net interstate migration losses have resumed with a net loss of 121,000 in 2001-06 and 103,913 in 2006-11. In Melbourne there were small net interstate migration gains in 1996-2001 but a net outmigration of 18,000 in 2001-06 and 13,410 in 2006-11. Hence Sydney, and to a much lesser extent Melbourne, rather than being a magnet attracting large numbers from elsewhere in Australia, have been important sources of internal migrants to the rest of Australia, while the fact that international migrants have

disproportionately settled in Australia's two largest cities has been the major migration driver of their growth.

Unlike Sydney and Melbourne, the three other mainland state capitals recorded significant net internal migration gains in the first two postwar decades, especially in the case of Brisbane. International migration gains were substantially larger than internal gains in Adelaide and Perth but equivalent in size in Brisbane. In the 1976-86 period, however, the impact of structural change in the economy on manufacturing saw Adelaide's rate of growth fall from being much higher than that in Brisbane and Perth in 1947-66 to being less than half of the rate in the other two cities. During the 1986-91 intercensal period, however, Brisbane was the most rapidly growing city and the major element in this growth was net internal migration gains. Perth, on the other hand, grew less quickly and recorded a small net loss of migrants to other parts of Australia but had a major net gain of overseas-born migrants – a gain two and a half times larger than that of Brisbane. There was thus a distinctive difference in the net migration gains being recorded by Australia's fastest growing capitals, with internal migrants being prominent in Brisbane and overseas-born being overwhelmingly dominant in Perth. In Adelaide there was a small internal migration gain between 1986 and 1991 and a more substantial net gain of overseas migrants which accounted for a quarter of the modest growth recorded by the southern capital.

Table 3.2: Sydney, Melbourne, Brisbane, Perth and Adelaide: Estimated Components of Population Change, 2001-2006

		Natural Increase	Net International Migration	Net Internal Migration	Total Migration	Total Population Increase
Sydney	000s	159	84	-121	-37	122
	Percent	130.3	68.9	-99.2	-30.3	100
Melbourne	000s	121	124	-19	105	226
	Percent	53.5	54.9	-8.4	46.5	100
Brisbane	000s	66	27	43	70	136
	Percent	48.5	19.9	31.6	51.5	100
Perth	000s	49	53	3	56	105
	Percent	46.7	50.5	2.9	53.3	100
Adelaide	000s	21	22	-10	12	33
	Percent	63.6	66.7	-30.3	36.4	100

Source: ABS unpublished data

In the most recent intercensal period it will be noticed that Perth and Brisbane have continued to experience growth from internal migration, especially Brisbane, which is a major sink of internal migration in Australia. Adelaide, however, like all of South Australia has had a significant net loss due to internal migration. International migration has increased in significance in Brisbane and retained its importance in Perth.

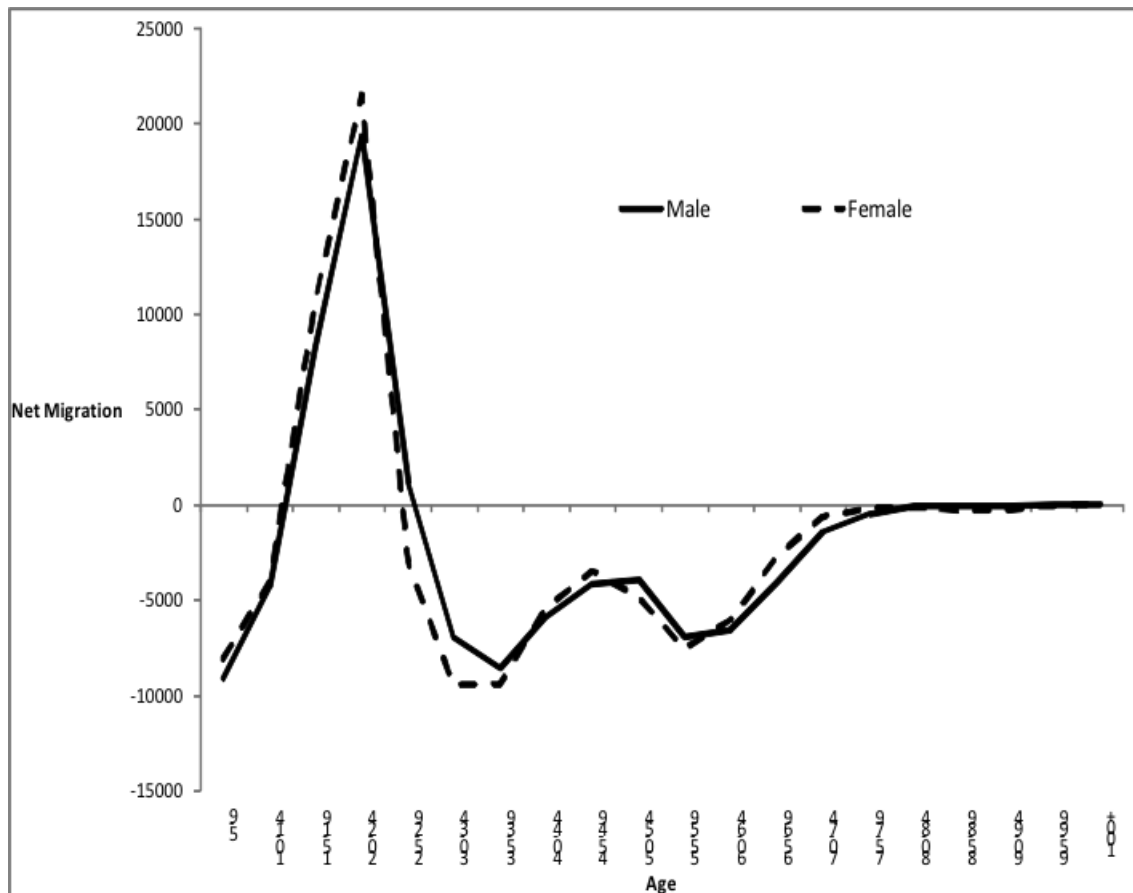


Figure 3.4: Australia-Born Internal Net Migration Capital Cities from Non-Metropolitan Statistical Divisions by Age and Sex, 2001-06

Source: ABS 2006 Census

Although there were net internal migration losses in the largest metropolitan centres it is important to note that there were some important differences according to age. Figure 3.4 shows the net migration of the Australia-born for Australian capital city statistical divisions in 2001-06. It will be noted that there were net losses for all age groups except the young adult ages. Clearly, for young Australians leaving school, getting their first job and entering higher education often means moving from non-metropolitan areas to capital cities.

It is interesting, however, to look at the pattern for 2006-11. At the outset it must be stressed that for 2011 the ABS adopted a new geographical category of Capital City. In earlier Censuses capital cities were spatially defined by Statistical Division boundaries which more or less accorded with the built-up urban fabric of capitals. However, in 2011 a new category was introduced as part of the Australian Statistical Geographical Classification (ASGC) being replaced by a new system (ASGS – Australian Standard Geographical System). This category of Capital Cities involved substantially extending the boundaries of the capitals to include their commuting zones. Hence they include the peri-urban areas which in the past have been the most rapidly growing part of non-metropolitan Australia. As a result when we calculate the net migration profile for the Australia-born a somewhat different pattern is evident compared with Figure 3.4. Figure 3.5 shows that the net gain of young adults is evident but there is also a net gain of younger families. These are the groups who especially move into the peri-urban areas surrounding capitals. It is interesting, however, to note that there are significant net gains of the Australia-born in the late 50s and 60s suggesting a strong pattern of net outward retirement migration from the capitals.

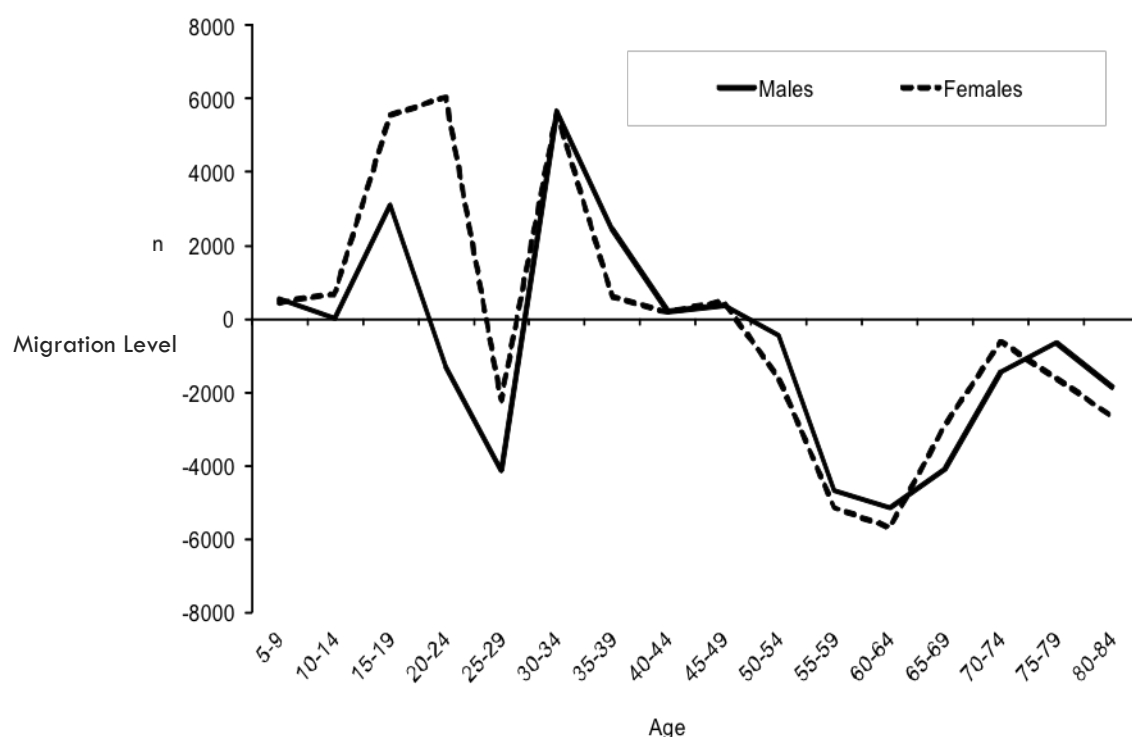


Figure 3.5: Australia: Capital Cities Migration Profile of Australia-Born, 2006 and 2011
Source: ABS 2006 and 2011 Censuses

Internal migration in RDAs

The number of immigrants from elsewhere in Australia who moved in between 2006 and 2011 in each RDA are shown in Table 3.3 along with the number of persons who left over the same period. Some of the largest inflows are in capital cities but there are also large flows in the opposing direction. Some of the patterns evident in Table 3.3 include the following:

- It is interesting that over a third (38.2 percent) of RDAs experienced a net migration loss between 2006 and 2011. That is, more people left the region than moved into it.
- Net migration loss areas are dominantly areas in the wheat-sheep belt and areas in remote areas which do not have substantial mining activity. However, the most substantial net migration losses were in the built-up areas of the major cities. This is despite the strong push in Australia to increase the density in built-up parts of the cities.
- On the other hand, the largest growth by net migration is in the expanding peripheries of capital cities.
- The other major areas of net migration gain were coastal RDAs, the areas around capital cities which are at or beyond the limit of daily commuting.
- Mining areas also have substantial net migration gains.

Table 3.3: Immigration, Outmigration and Net Migration 2006-11, RDA Areas Australia

RDA name	Inmigration	Outmigration	Net Migration
Western Melbourne	142410	125280	17130
Moreton Bay	60412	44401	16011
Gold Coast	66343	51109	15234
Sunshine Coast	47842	35374	12468
Ipswich and West Moreton	50231	38464	11767
Wide Bay Burnett	48180	37731	10449
Hunter	96481	86284	10197
Peel	24687	14653	10034
Gippsland	36277	27923	8354
Central Coast NSW	42322	36233	6089
Barwon South West	45206	39121	6085
Grampians	35547	29912	5635
Mid North Coast	37814	32217	5597
Adelaide Hills, Fleurieu and Kangaroo Island	24150	19137	5013
South-west	31662	26989	4673
Pilbara	19854	15379	4475
Australian Capital Territory	44121	40476	3645
South Coast	23752	20412	3340
Northern Rivers	43781	41042	2739
Southern Inland	33891	31225	2666
Barossa	14137	11600	2537
Townsville and North West Queensland	41987	40058	1929
Tasmania	82850	80961	1889
Loddon Mallee	40094	38477	1617
Southern Melbourne	214760	213315	1445
Illawarra	30103	28790	1313
Mackay/Whitsunday	29121	27808	1313
Darling Downs and South West	39207	38101	1106
Hume	39721	38676	1045
Yorke and Mid-North	12028	11174	854
Fitzroy and Central West	35562	34944	618
Central West	24725	24216	509
Mid West Gascoyne	11879	11571	308
Far North Queensland and Torres Strait	37009	36961	48
Northern Melbourne	140285	140535	-250
Great Southern	8776	9244	-468
Kimberley	7120	7802	-682
Whyalla and Eyre Peninsula	7594	8358	-764
Far West	1863	2831	-968
Far North	3747	4721	-974
Murray	17914	19169	-1255
Limestone Coast	8761	10098	-1337
Murraylands and Riverland	9016	10381	-1365
Northern Inland	25799	27221	-1422
Wheatbelt	14582	16624	-2042
Logan and Redlands	60958	63065	-2107
Goldfields/Esperance	10967	13520	-2553
Orana	15864	18964	-3100
Northern Territory	38474	42106	-3632
Perth	304506	308298	-3792
Riverina	19361	23173	-3812
Brisbane City	122770	135706	-12936
Adelaide Metropolitan	193605	207127	-13522
Melbourne East	143694	176158	-32464
Sydney	619945	708632	-88687

Source: ABS 2006, 2011 Census Data

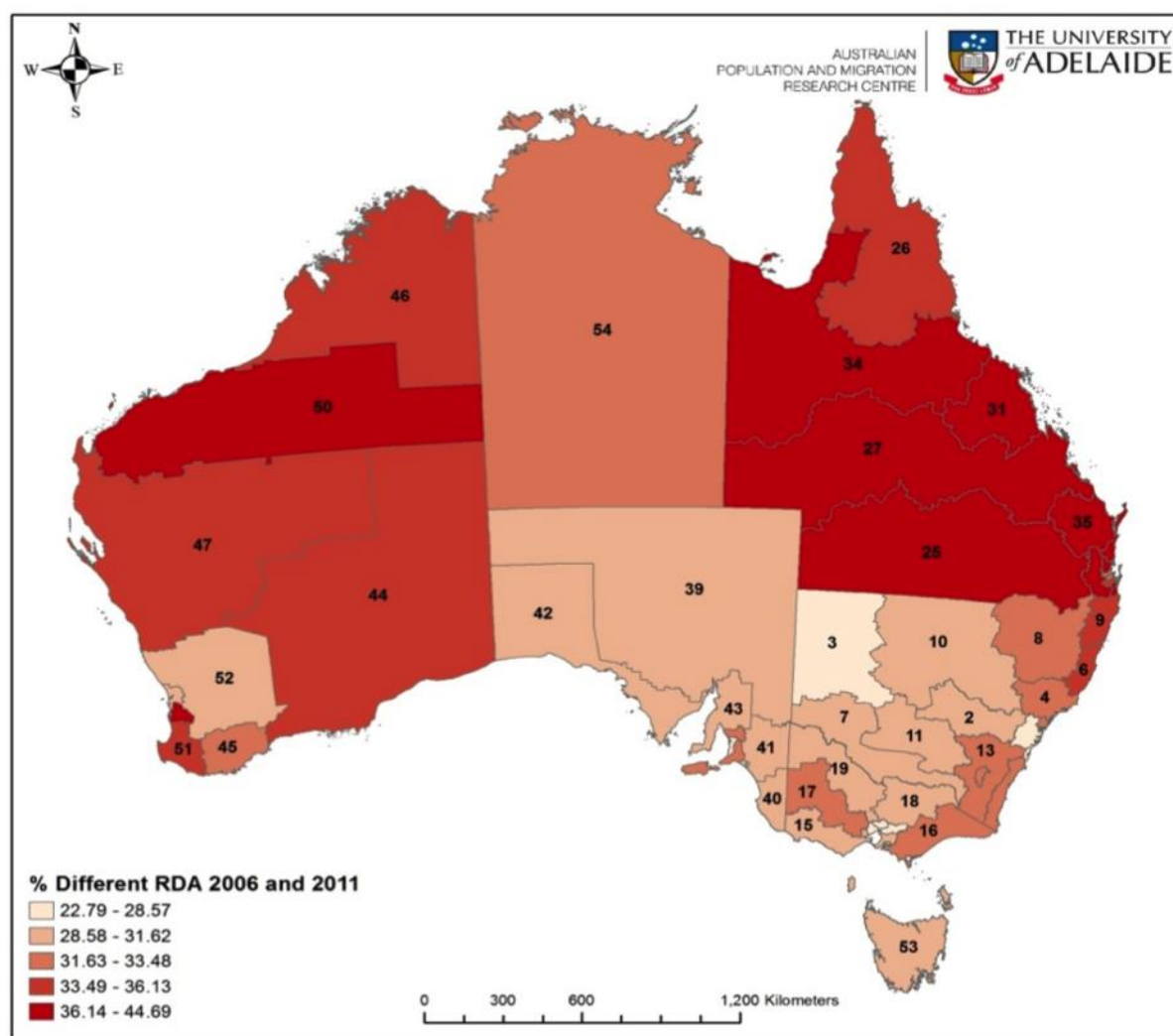


Figure 3.6: Australia: Percent Lived in a Different RDA Five Years Ago by RDA, 2011

Source: ABS Census data 2006, 2011

It is interesting to look at the areas most and least influenced by internal migration over the 2006-11 period. Figure 3.6 shows the proportion of the RDA population in 2011 that had moved in from elsewhere in Australia in the five years before the Census. Those with the highest proportions are listed in Table 3.4 and there is a clear pattern in evidence in both the table and map. The strong message is that relatively internal migration is a much more significant element in population growth in non-metropolitan areas than in Australia's capital cities.

Table 3.4: Top 20 RDAs with Highest Proportion of Inmigrants, 2006-11

RDA Name	General Geographic Classification	Total Population 2011	% of Total Population Who Moved From Another RDA in the Past 5 Years
Pilbara	Remote	59,899	44.6
Sunshine Coast	Peri-Urban	306,908	39.6
Gold Coast	Peri-Urban	494,502	38.2
Wide Bay Burnett	Rural	273,269	38.2
Peel	Rural	107,608	37.9
Mackay/Whitsunday	Rural	166,810	37.8
Townsville and North West Queensland	Remote	251,522	37.7
Ipswich and West Moreton	Peri-Urban/Rural	259,954	37.4
Fitzroy and Central West	Rural	222,916	37.2
Darling Downs and South West	Rural	252,938	37.1
Moreton Bay	Peri-Urban	378,046	37.0
Goldfields/Esperance	Remote	57,416	36.1
Mid West Gascoyne	Remote	62,955	35.6
South-west	Rural	154,520	35.3
Far North Queensland and Torres Strait	Remote	254,309	35.1
Mid North Coast	Rural	246,947	34.6
Logan and Redlands	Peri-Urban	416,718	34.4
Kimberley	Remote	34,795	34.2
Northern Rivers	Rural	277,285	33.9
Brisbane City	Urban	1,041,841	33.4

Source: ABS 2011 Census data

The two main types of areas where internal migrants make up a high proportion of local populations are the mining areas of Western Australia and Queensland and the coastal communities of Queensland. Some of the latter areas also have had significant development of mining activity during the intercensal period. It is very striking that Queensland and Western Australian non-metropolitan RDAs are strongly dominantly in Table 3.4 showing the importance of internal migration in the growth of mining and coastal resort/retirement areas in Australia.

Turning to the other side of the coin, it is interesting to identify those RDAs which have the lowest proportions of their populations made up of internal inmigrants and a high percentage of their residents had not moved since the 2016 enumeration. The pattern of 'sedentariness' is depicted in Figure 3.7. As would be expected, it is the obverse pattern to Figure 3.6 a concentration of sedentary areas in the south-eastern corner of Australia.

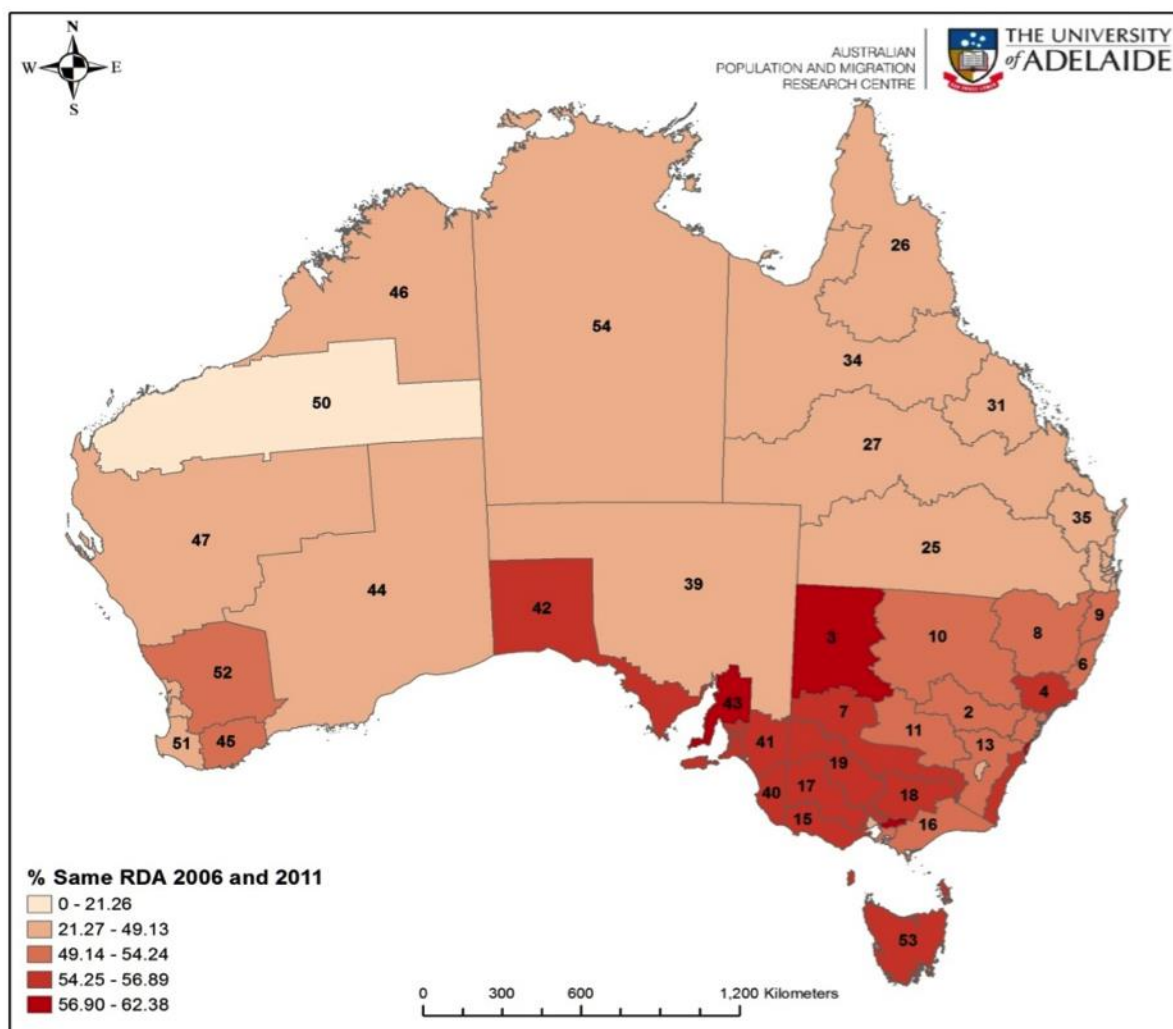


Figure 3.7: Australia: Percent Lived in Same RDA Five Years Ago by RDA, 2011

Source: ABS Census data 2006, 2011

The 20 RDAs with the highest proportions of sedentary populations are listed in Table 3.5. The dominance of wheat-sheep belt internal areas is readily apparent. The more closely settled non-metropolitan parts of NSW, Victoria, South Australia and South-east Western Australia is evident. It is interesting too that some metropolitan areas also show up as being fairly sedentary. These are built-up areas of capitals which recorded little housing expansion between 2006 and 2011. Seven of the 20 areas in Table 3.5 are in South Australia.

Table 3.5: Top 20 RDAs with Highest Proportion of Persons Who Lived in the Same RDA 5 Years Ago, 2006-11

RDA Name	General Geographic Classification	Total	% of Population Who Lived in the Same RDA at the 2006 Census
Far West	Remote	20,512	62.3
Melbourne East	Urban	988,784	59.4
Yorke and Mid-North	Rural	73,316	58.5
Illawarra	Peri-Urban	276,007	57.9
Murraylands and Riverland	Rural	67,650	56.8
Limestone Coast	Rural	63,076	56.3
Barossa	Rural	64,831	56.1
Loddon Mallee	Rural	304,569	55.8
Whyalla and Eyre Peninsula	Remote	55,724	55.6
Murray	Rural	111,177	55.4
Hume	Rural	262,573	55.3
Adelaide Metropolitan	Urban	1,125,191	55.3
Barwon South West	Rural	360,380	55.2
Adelaide Hills, Fleurieu and Kangaroo Is.	Peri-Urban/Rural	114,741	55.2
Tasmania	Rural/Urban	494,173	55.1
South Coast	Rural	160,500	54.8
Hunter	Peri-Urban/Rural	620,531	54.8
Grampians	Rural	220,880	54.6
Northern Melbourne	Urban	858,899	54.4
Central West	Rural	167,636	54.2

Source: ABS 2011 Census data

As has been indicated before, it is important to reiterate that there is considerable variation in population growth trends within RDAs which can be quite heterogeneous. It is interesting, therefore, to identify the fastest and slowest growing local government areas (LGAs) for the 2006-11 period. It is interesting that in both the fastest and slowest growing areas it is non-metropolitan localities which are dominant. Table 3.6 indicates the 10 fastest growing LGAs. Not surprisingly, it is the rapidly developing mining communities that dominate the rapidly growing areas although it is interesting that Central Perth also grew by 8.1 percent per annum between 2006 and 2013.

Table 3.6: Top 10 LGAs, 2006 and 2011

Local Government Area	2006	2011pr	Growth Rate 2006-11	Metro/Non Metro LGA
Leonora (S)	1508	2690	12.3	Non-Metro
East Pilbara (S)	7007	12489	12.3	Non-Metro
Menzies (S)	238	411	11.5	Non-Metro
Wiluna (S)	738	1241	11.0	Non-Metro
Laverton (S)	786	1318	10.9	Non-Metro
Yalgoo (S)	264	432	10.4	Non-Metro
Perenjori (S)	566	925	10.3	Non-Metro
Ashburton (S)	6561	10488	9.8	Non-Metro
Boddington (S)	1448	2261	9.3	Non-Metro
Perth (C)	12456	18377	8.1	Metro

Source: ABS

On the other hand, all of the 'bottom' 10 LGAs which experienced substantial population declines of more than 3 percent per annum are depicted in Table 3.7. All are within the wheat-sheep belt or remote pastoral areas.

Table 3.7: Bottom 10 LGAs, 2006 and 2011

Local Government Area	2006	2011pr	Growth Rate 2006-11	Metro/Non Metro LGA
Coorow (S)	1269	1091	-3.0	Non-Metro
Trayning (S)	413	351	-3.2	Non-Metro
Cue (S)	343	289	-3.4	Non-Metro
Wujal Wujal (S)	348	292	-3.4	Non-Metro
Mukinbudin (S)	606	503	-3.7	Non-Metro
Upper Gascoyne (S)	308	249	-4.2	Non-Metro
Mullewa (S)	982	729	-5.8	Non-Metro
Mount Marshall (S)	655	483	-5.9	Non-Metro
Maralinga Tjarutja (AC)	112	80	-6.5	Non-Metro
Carnamah (S)	799	552	-7.1	Non-Metro

Source: ABS

Again, also, it is important to stress the selectivity of internal migration. Figure 3.8 shows the pattern of net migration for all non-metropolitan areas and it shows a major net loss of young adults as young people move to the capital cities in search of higher education, a greater number and variety of job opportunities and the 'bright lights' of large city life.

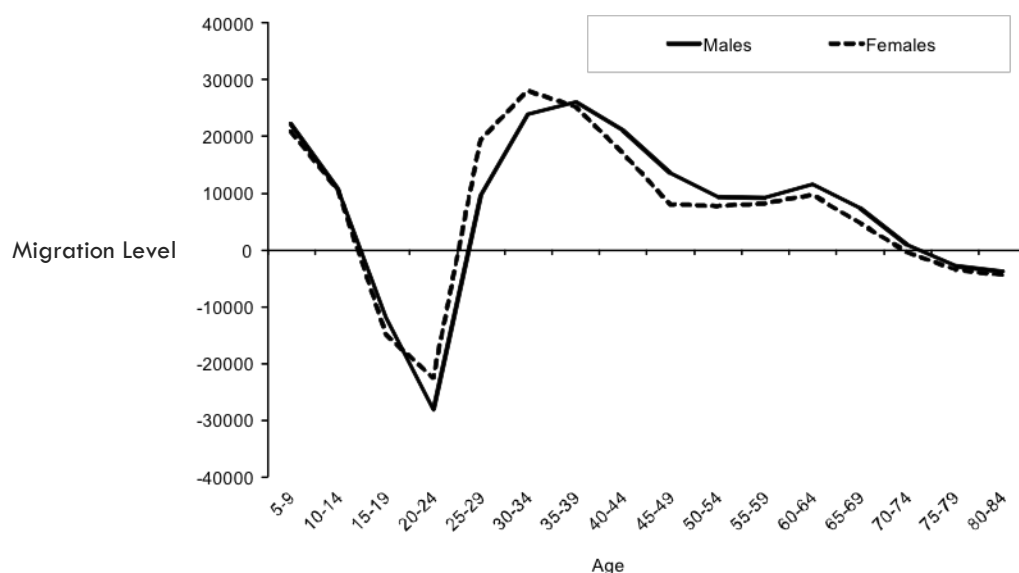


Figure 3.8: Australia Rest of States: Age-Sex Specific Net Migration Estimates, 2006-11
Source: ABS 2011 Census

Looking at the overall pattern of net internal migration gain in non-metropolitan areas, Table 3.8 shows the areas that experienced the most significant gains over the last three intercensal periods. Clearly there is a dominance of coastal areas and those adjoining cities in the earlier two periods but mining areas have increased in importance in the most recent period. Queensland and Western Australia are especially important in recent years.

Table 3.8: Non-Metropolitan Statistical Divisions Experiencing Net Migration Gains in 2001-06 and 2006-11

State	Statistical Division	2001-06			Statistical Division	2006-11		
		In	Out	Net		In	Out	Net
NSW	Hunter	56227	46571	9656	Hunter	51153	40702	10451
	Illawarra	38907	38018	889	Illawarra	37082	32143	4939
	Richmond-Tweed	33463	27320	6143	Richmond-Tweed	28203	25987	2216
	Mid-North Coast	44656	34402	10254	Mid-North Coast	38234	31586	6648
	South Eastern	34138	27637	6501	Central West	19920	19715	206
	Murray	17419	17211	208	South Eastern	30318	26943	3375
VIC	Barwon	25594	20929	4665	Barwon	28498	20182	8316
	Central Highlands	18792	16384	2408	Central Highlands	21120	15288	5832
	Loddon	23066	19457	3609	Loddon	23137	17999	5138
	Goulburn	26683	25207	1476	Goulburn	24275	24216	59
	Ovens-Murray	13378	12913	465	Ovens-Murray	12686	11974	712
	East Gippsland	10724	9923	801	East Gippsland	10584	8725	1859
	Gippsland	18564	16992	1572	Gippsland	21731	14847	6884
QLD	Gold Coast	80925	51613	29312	Gold Coast	65098	49410	15688
	Sunshine Coast	54049	33488	20561	Sunshine Coast	47586	34781	12805
	West Moreton	15916	13811	2105	West Moreton	20097	15187	4910
	Wide Bay-Burnett	49735	33937	15798	Wide Bay-Burnett	43130	32305	10825
	Darling Downs	33136	29960	3176	Darling Downs	30264	27406	2858
	Fitzroy	28229	26347	1882	Fitzroy	26827	25229	1598
	Mackay	25784	20638	5146	Mackay	24581	22670	1911
	Northern	32276	27372	4904	Northern	30555	26049	4506
	Far North	29403	26932	2471	Far North	26495	26296	199
SA	Outer Adelaide	24584	17109	7475	Outer Adelaide	26794	18938	7856
	Yorke and L North	7435	6858	577	Yorke and L North	7950	6207	1743
					Eyre	4242	4104	138
WA	South West	34235	23430	10805	South West	35486	22846	12639
					Central	9765	8912	853
					Pilbara	19171	14157	5014
					Kimberley	6602	6355	247
TAS	Southern	6821	6290	531	Southern	7823	6691	1132
	Northern	13325	11789	1536	Northern	11569	10941	628
	Mersey-Lyell	10267	10026	241	Mersey-Lyell	9420	8893	527
ACT					ACT - Bal	1017	133	884

Source: ABS, 2006 and 2011 Censuses

The New South Wales pattern of net migration has a quite distinctive spatial pattern which is also present in the other states. It is apparent that net international migration gain plays a much lesser role in the growth of population in non-metropolitan areas, even in those that are experiencing significant expansion. This is evident in Table 3.9 which shows for the state of New South Wales the in-, out- and net migration for 2006-2011 in Sydney and three non-metropolitan zones parallel to the coast, together with the number of immigrants who arrived between 2001 and 2006 and 2006 and 2011. In the growing coastal non-metropolitan areas there were 42,009 recent immigrants but 392,380 immigrants had moved in from elsewhere in Australia and there was a net internal migration gain of 61,071. The pattern of net internal migration loss increases with distance from the coast and the number of recent immigrants decreases. This mix of interstate and international migration contribution to growth is indicative of patterns across Australia.

Table 3.9: New South Wales: Regions, Internal Migration 2001-11 and Immigrants Who Arrived in Australia Between 2001 and 2011

NSW Region	2001- 06			2006- 11			Immigrants Arrived	
	In	Out	Net	In	Out	Net	2001- 06	2007- 11
Sydney	122,179	243,191	121,012	102,614	206,527	103,913	196,212	254,029
Coastal	207,391	173,948	33,443	184,989	157,361	27,628	16,897	25,112
Central	71,833	86,971	-15,138	66,150	74,098	-7,948	4,409	7,746
Western	19,733	20,612	-879	17,305	19,189	-1,884	771	1,837

Source: ABS 2006 and 2011 Censuses

The spatial patterning of net internal migration in Australia is evident in Figure 3.9 and Figure 3.10 which show the patterns for the last two intercensal periods. In 2001-06 there is a striking pattern of net gains down the east coast in the south-east and south-west. This pattern of growth in coastal areas and around the capitals was a long established one in Australia (Bell and Hugo, 2000). Much of this pattern is evident in 2006-11 but the impact of the mining boom is evident in the substantial growth in north-western Western Australia. In 2001-06 the entire remote pastoral area and much of the wheat-sheep zone was an area of net migration loss. The impact of the mining boom in recent years, however, is apparent in Figure 3.10.

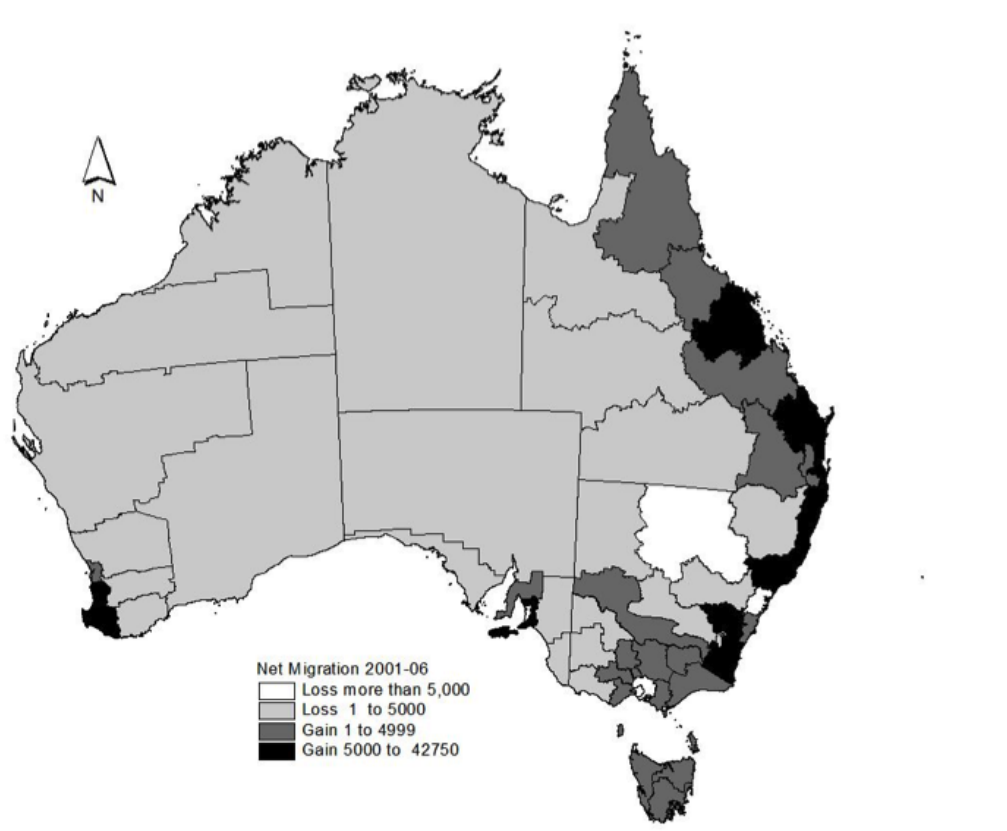


Figure 3.9: Australia Non-Metropolitan Statistical Divisions: Net Migration Gains, 2001-06

Source: ABS 2006 Census

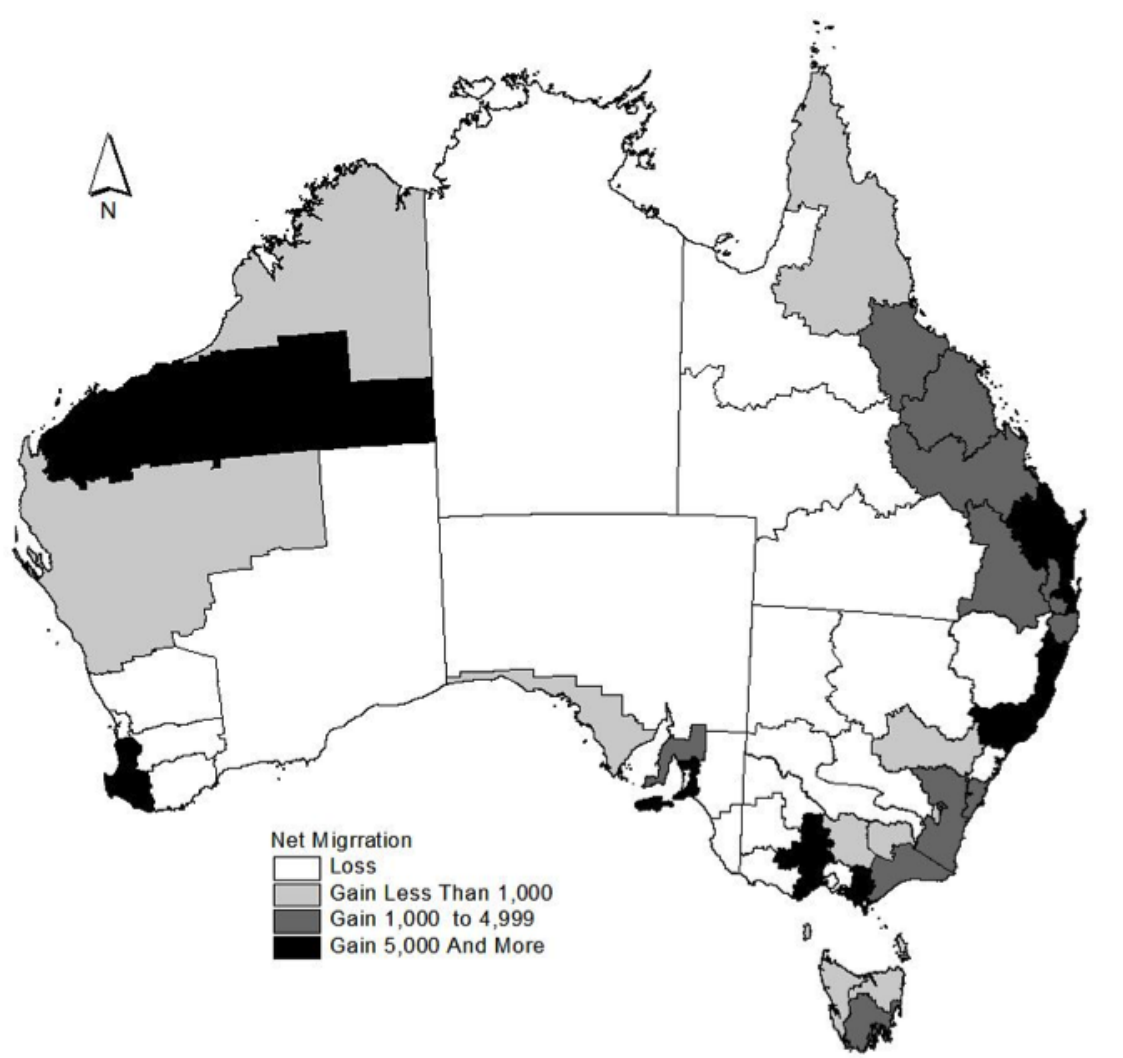


Figure 3.10: Australia Non-Metropolitan Statistical Divisions: Net Migration Gains, 2006-11
Source: ABS 2011 Census

Temporary migration

Much of the current report is based on the results of the 2011 Australian Census of Population and Housing. One of the most basic characteristics of censuses is that they assign people to a particular point on the Earth's surface – their usual place of residence. However, in the contemporary world of high personal mobility people spend considerable amounts of time at locations other than their usual residence. It is important, then, to be able to relate population counts to a range of places and to raise the question of whether a range of population geographies can be identified which recognise the significance of temporary migration and the fact that the actual population in areas can vary significantly around the usual residence population identified in the population Census. It is argued here that temporary migration is of greater relative significance in regional Australia than in capital cities. Hence it is considered important to have some consideration of temporary migration here.

Recognition of the significance of temporary migration in temporarily increasing the population of particular areas in Australia at particular times is not new. In analysing the results of the Australian Population Census of 1981, Hugo (1986, 117) wrote that we should not:

‘... ignore temporary changes in place of residence since such movements can lead to substantial seasonal shifts in the demand for goods and services’.

He went on to analyse data from the 1981 Census on the population away from their usual residence on the night of the Census. More recently an excellent body of work on temporary migration of various types in Australia has been undertaken by geographers at the University of Queensland (Bell, 2004; Bell and Ward, 1998; Charles-Edwards, 2011; Charles-Edwards et al., 2008; Hanson and Bell, 2007). Another important paper by McKenzie, Martin and Paris (2008) examines the ‘part-time’ population of Victorian non-metropolitan areas and demonstrates their significance and the implications for distributing general revenue between areas.

The key issue is that the population of many parts of regional Australia varies substantially according to the time of day, time of week and time of year so the question needs to be asked whether we can take a snapshot of these different populations as well as the ‘permanent’ population captured in the Census. For many parts of regional Australia there is a difference between the ‘permanent’ residents who are captured on the night of the Census in August (that is, mid-week and in winter) and ‘temporary’ residents who are in the area at other times.

Temporary mobility in Australia, and in many parts of the world, is on the rise. It is increasing because of a reduction in the time and money costs of travelling as well as structural changes in the way economic activity is organised. This has allowed a reduction in the traditional bond restricting one’s place of residence to be close to one’s place of work and allowed people to range more widely in their work, social and recreational activity. One clear indication of this in Australia is in the population Census. In 2006, nearly one million Australians (925,743) were away from their home on the night of the Census. By 2011, however, this number had increased by 10.8 percent to 1,026,986. In Table 3.10, data from the 2006 Census are presented to show the number of persons in selected LGAs who were away from their usual place of residence on the night of the Census. These are temporary migrants, absent from home for a range of reasons associated with work or pleasure. It is strongly apparent that all are in non-metropolitan areas.

We can identify the following patterns in these 20 LGAs which underlie their large temporary populations in 2006.

- Alpine resort areas which have an influx of holiday makers during the winter season.
- Dominant are mining locations where the phenomenon of FIFO work was well established in 2006.
- Locations with defence force installations which also have substantial mobility in their populations.
- Some northern and western coastal resort areas which experience an influx of holiday makers from the south during winter. This includes several localities which have a significant influx of ‘grey nomads’ from the south during winter.

Table 3.10: Local Government Areas with Largest Temporary Residential Populations, 2006

Local Government Area	At home	Elsewhere in Australia	Overseas visitor	Total	At home	Elsewhere in Australia	Overseas visitor	Total
	Top 20 in Australia							
	Number				Percent			
Snowy River	6762	12135	494	19391	34.9	62.6	2.5	100.0
Wiluna	599	1014	20	1633	36.7	62.1	1.2	100.0
Laverton	661	1068	9	1738	38.0	61.4	0.5	100.0
Burke	433	715	21	1169	37.0	61.2	1.8	100.0
Mataranka	230	370	23	623	36.9	59.4	3.7	100.0
Yalgoo	196	263	8	467	42.0	56.3	1.7	100.0
Shark Bay	755	1093	193	2041	37.0	53.6	9.5	100.0
Exmouth	1893	2185	144	4222	44.8	51.8	3.4	100.0
Timber Creek	184	201	20	405	45.4	49.6	4.9	100.0
Nebo	2266	2082	17	4365	51.9	47.7	0.4	100.0
Bulloo	322	279	0	601	53.6	46.4	0.0	100.0
Leonora	1267	1063	15	2345	54.0	45.3	0.6	100.0
Upper Gascoyne	267	229	11	507	52.7	45.2	2.2	100.0
Etheridge	752	675	72	1499	50.2	45.0	4.8	100.0
Murchison	103	82	0	185	55.7	44.3	0.0	100.0
East Pilbara	5940	4696	79	10715	55.4	43.8	0.7	100.0
Carpentaria	1805	1343	41	3189	56.6	42.1	1.3	100.0
Sandstone	105	74	0	179	58.7	41.3	0.0	100.0
Meekatharra	1006	708	21	1735	58.0	40.8	1.2	100.0
Dundas	957	674	27	1658	57.7	40.7	1.6	100.0

Source: 2006 Population Census

The same data for the 2011 Census are shown in Table 3.11. In 2011 eleven of the top 20 LGAs from 2006 remain in the top 20. The highest proportion of persons whose residence was elsewhere was in Burke (65.6 percent). Snowy River was the only other top 20 LGA with more than 60 percent of its population usually resident elsewhere. A further three LGAs had more than 50 percent of their populations comprised of persons who usually lived elsewhere. One noticeable trend is the increased number of temporary residents in places like Diamantina and Barcoo which reflects the flooding which occurred in Central Australia and attracted a considerable tourist population. Mining communities are strongly in evidence in both Table 3.10 and Table 3.11 reflecting the increasing significance of the FIFO and drive-in/drive-out phenomenon in mining communities in regional Australia.

Table 3.11: Persons Away From Home, Census 2011, Selected LGAs

Local Government Area	At home	Elsewhere in Australia	Overseas visitor 2011	Total	At home	Elsewhere in Australia	Overseas visitor 2011	Total
	Top 20 in Australia				Percent			
	Number				Percent			
Burke	466	911	12	1389	33.5	65.6	0.9	100.0
Snowy River	6967	11579	464	19010	36.6	60.9	2.4	100.0
Shark Bay	759	1205	185	2149	35.3	56.1	8.6	100.0
Exmouth	2148	2455	139	4742	45.3	51.8	2.9	100.0
Diamantina	245	275	14	534	45.9	51.5	2.6	100.0
Bulloo	354	349	11	714	49.6	48.9	1.5	100.0
Etheridge	786	763	65	1614	48.7	47.3	4.0	100.0
Wiluna	1090	907	20	2017	54.0	45.0	1.0	100.0
Leonora	2397	1928	21	4346	55.2	44.4	0.5	100.0
Yalgoo	381	308	10	699	54.5	44.1	1.4	100.0
Laverton	1151	919	19	2089	55.1	44.0	0.9	100.0
McKinlay	933	744	30	1707	54.7	43.6	1.8	100.0
Cue	247	182	5	434	56.9	41.9	1.2	100.0
Sandstone	94	70	4	168	56.0	41.7	2.4	100.0
Carpentaria	1835	1280	29	3144	58.4	40.7	0.9	100.0
Barcoo	305	195	7	507	60.2	38.5	1.4	100.0
Ashburton	9133	5749	174	15056	60.7	38.2	1.2	100.0
Wyndham-East Kimberley	6966	4548	402	11916	58.5	38.2	3.4	100.0
Isaac	21011	12834	195	34040	61.7	37.7	0.6	100.0
Carnarvon	5311	3320	226	8857	60.0	37.5	2.6	100.0

Turning to RDAs, we examine them from two perspectives from both the sending and receiving areas. First of all, we consider it from the viewpoint of sending areas. It is clear from Table 3.12 that the largest RDAs sending temporary workers to other RDAs are the capital cities. One of the significant elements in the growth of coastal resort areas in Western Australia, Queensland and South Australia is the fact that many FIFO mining workers establish their families in attractive resort communities from which they travel to remote work places. It is interesting, however, that some of the larger RDAs in the wheat-sheep belt also are sending out temporary workers to improve their economic base.

Table 3.12: Top 20 RDAs with Highest Number of Persons Away from their Usual Place of Residence (Elsewhere in Australia) on Census Night 2011

RDA Name	General Geographic Classification	Total Population 2011	Elsewhere in Australia, Census Night 2011
Sydney	Urban	4,079,444	128,471
Perth	Urban	1,627,759	75,147
Southern Melbourne	Urban	1,282,996	50,625
Adelaide Metropolitan	Urban	1,125,194	46,079
Brisbane City	Urban	1,041,840	41,053
Melbourne East	Urban	988,777	37,409
Hunter	Peri-Urban/Rural	620,526	31,164
Tasmania	Rural/Urban	494,164	29,075
Northern Melbourne	Urban	858,898	28,379
Western Melbourne	Urban	810,136	25,262
Gold Coast	Peri-Urban	494,503	20,895
Barwon South West	Rural	360,387	20,335
Loddon Mallee	Rural	304,565	17,280
Sunshine Coast	Peri-Urban	306,912	17,276
Wide Bay Burnett	Peri-Urban/Rural	273,267	17,123
Gippsland	Rural	255,717	16,780
Australian Capital Territory	Urban	356,585	16,654
Hume	Rural	262,577	15,959
Darling Downs and South West	Rural	252,942	15,732
Logan and Redlands	Peri-Urban	416,715	15,705

Source: ABS 2011 Census data

A quite different pattern is evident when the temporary outmigrants is expressed as a percentage of the sending population in Table 3.13. It is interesting that the majority of areas sending out temporary migrants which are large in proportion to the population in the origin, are in rural and remote areas. It is interesting that some mining areas show up in this group. This reflects the fact that a considerable number of FIFO workers actually regard the mining community as their usual place of residence but were away from the community as part of the FIFO sequence on the night of the Census. The striking pattern, however, is the dominance of non-mining RDAs in the wheat-sheep and pastoral areas as sending areas of temporary migrants. This points to the fact that residents in rural Australia, especially the wheat-sheep belt, are increasingly supplementing their incomes by working in other regions, especially in the buoyant mining industry. As drought, commodity prices, the high Australian dollar, increased mechanisation etc. have led to attrition of local economies, off-farm employment has become of increasing significance. This has long been a pattern with some family members working in the local town to supplement family farm incomes.

Table 3.13: Top 20 RDAs with Highest Proportion of Persons Away from their Usual Place of Residence (Elsewhere in Australia) on Census Night 2011

RDA Name	General Geographic Classification	Total Population 2011	% of RDA Elsewhere on 2011 Census Night
Kimberley	Remote	34,793	8.8
Great Southern	Rural	55,363	8.3
Far North	Remote	24,524	8.1
Mackay/Whitsunday	Rural	166,812	8.0
Wheatbelt	Rural	71,153	8.0
Mid West Gascoyne	Remote	62,948	7.9
Pilbara	Remote	59,894	7.6
South-west	Rural	154,518	7.5
Peel	Rural	107,607	7.4
Whyalla and Eyre Peninsula	Remote	55,728	7.2
Goldfields/Esperance	Remote	57,413	7.1
Yorke and Mid-North	Rural	73,323	7.1
Far West	Remote	20,510	7.0
South Coast	Rural	160,500	6.9
Orana	Rural	115,647	6.9
Fitzroy and Central West	Rural	222,913	6.9
Northern Territory	Remote/Urban	201,972	6.7
Limestone Coast	Rural	63,079	6.7
Gippsland	Rural	255,717	6.6
Northern Inland	Rural	176,249	6.5

Source: ABS 2011 Census data

A new element has been many cover longer distances as temporary migrants to substitute for deficiencies in local job opportunities. One example of such movement has been from drought-prone areas of northern Eyre Peninsula, South Australia, to mining communities at Roxby Downs (Hugo and Smailes, 2007). This has occurred to such an extent that Roxby Downs has sometimes been referred to as 'Kimba North'.

Table 3.14: Top 20 RDAs Receiving Highest Number of Persons from Elsewhere in Australia on Census Night 2011

RDA Name	General Geographic Classification	Total Population 2011*	Persons in RDA from Elsewhere in Australia, Census Night 2011
Sydney	Urban	4,120,359	119,633
Perth	Urban	1,626,038	55,382
Brisbane City	Urban	1,063,832	46,116
Adelaide Metropolitan	Urban	1,125,131	37,682
Western Melbourne	Urban	836,060	36,846
Southern Melbourne	Urban	1,276,833	34,869
Gold Coast	Peri-Urban	520,686	34,580
Far North Queensland and Torres Strait	Remote	285,665	34,131
Northern Territory	Remote/Urban	222,280	28,908
Mackay/Whitsunday	Rural	183,315	27,384
Hunter	Peri-Urban/Rural	617,948	26,291
Fitzroy and Central West	Rural	235,191	25,951
Townsville and North West Queensland	Remote	264,359	25,460
Pilbara	Remote	80,724	24,494
Melbourne East	Urban	984,268	24,153
Northern Melbourne	Urban	859,328	23,190
Sunshine Coast	Peri-Urban	319,094	23,152
Tasmania	Rural/Urban	488,430	21,171
Southern Inland	Rural	206,265	20,610
Wide Bay Burnett	Peri-Urban/Rural	277,976	18,756

* This uses Place of Enumeration Data

Source: ABS 2011 Census data

Turning to the receiving destination area perspective, Table 3.14 shows that the largest numbers were in capital cities. This is not surprising with the large numbers of tourists and business travellers in the capitals on the night of the Census. The other significant groups are Queensland coastal resort areas which reflects the longstanding Australian pattern of 'snowbird' seasonal migration during winter from southern states, especially Victoria to the warm climes of Queensland (Mings, 1997). The 'grey nomad' temporary migration of retirees following these spatial patterns are also significant.

Table 3.15: Top 20 RDAs with Highest Proportions of Temporary Immigrants from Elsewhere in Australia on Census Night 2011

RDA Name	General Geographic Classification	Total Population 2011	Population from Elsewhere in Australia	Percentage of Total RDA Population*
Kimberley	Remote	50,114	16,965	33.9
Pilbara	Remote	80,724	24,494	30.3
Mid West Gascoyne	Remote	73,970	14,927	20.2
Mackay/Whitsunday	Rural	183,315	27,384	14.9
Far North	Remote	26,382	3,715	14.1
Goldfields/Esperance	Remote	62,127	8,337	13.4
Northern Territory	Remote/Urban	222,280	28,908	13.0
Far North Queensland and Torres Strait	Remote	285,665	34,131	11.9
Fitzroy and Central West	Rural	235,191	25,951	11.0
Southern Inland	Rural	206,265	20,610	10.0
Townsville and North West Queensland	Remote	264,359	25,460	9.6
Far West	Remote	21,193	2,028	9.6
Orana	Rural	117,012	8,970	7.7
Sunshine Coast	Peri-Urban	319,094	23,152	7.3
Whyalla and Eyre Peninsula	Remote	55,819	3,958	7.1
Wide Bay Burnett	Peri-Urban/Rural	277,976	18,756	6.7
Gold Coast	Peri-Urban	520,686	34,580	6.6
Darling Downs and South West	Rural	255,463	16,929	6.6
Northern Rivers	Rural	282,165	18,131	6.4
Wheatbelt	Rural	70,542	4,474	6.3

* This uses Place of Enumeration Data

Source: ABS 2011 Census data

Table 3.15 shows the RDAs which have the largest percentages of their Census populations made up of temporary migrants on the night of the Census. The dominance of mining communities in remote areas and coastal resort communities is clearly in evidence. In fact, a third of the Census population in Kimberly and Pilbara in Western Australia were visiting FIFO workers. Of the 20 RDAs in this group, 12 are in Western Australia and Queensland reflecting the crucial significance of the mining boom in temporary migration. This is underlined in Figure 3.11. From an RDA perspective it is clear that the relative significance of remote mining areas in temporary migration is strikingly apparent. However, the alpine population of the Great Australian Alps and coastal resort communities in Queensland also are evident in the map.

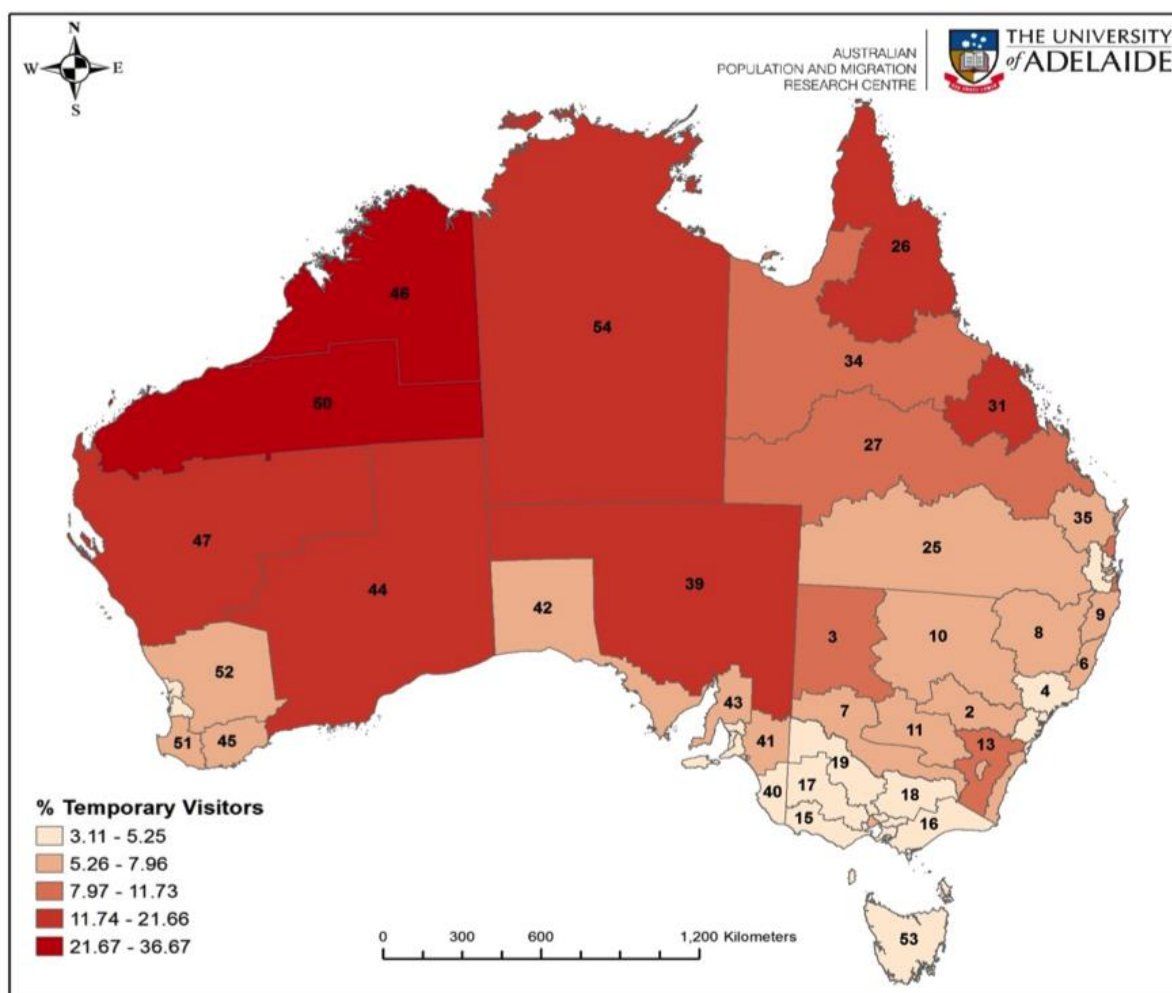


Figure 3.11: Australia by RDA: Proportion of Temporary Migrants from Elsewhere in Australia Present on Census Night, 2011

Source: ABS Census 2011

While the focus in this study is on RDAs, it is important to remember that there is considerable heterogeneity within these large areas. From the perspective of temporary migration, seasonal mobility to coastal resort areas has important impacts on populations in selected local government areas, especially in coastal communities. Some of this seasonal movement is detected in the Census in the large visitor population in coastal Queensland LGAs. However, for most coastal areas a mid-week, mid-winter Census is not going to detect significant seasonal fluctuations in population due to temporary migration.

This can be illustrated with reference to a recent study of nine coastal communities (Hugo and Harris, 2012). This used a survey of several homeowners and the national tourist survey to obtain an estimate of the Estimated Full Time Resident Equivalent Population (EFTR) they make up. It totals the days spent by second homeowners and visitors to hotels, motels, caravan parks etc. and converts it to an EFTR. Table 3.16 presents the results for the 9 study areas. It indicates that overall there were 142,811 EFTRs to add to the 628,838 resident population enumerated at the Census. This is equivalent to an extra 22.8 percent to be added to the population. The proportions varied between 17.1 percent in Mandurah in Western Australia and 34.2 percent in Surf Coast.

Table 3.16: Level of Population Generated by Non-Resident Owned Dwellings (Holiday Homes) and Tourist Accommodation

	Cairns	Byron	Shoalhaven	Eurobodalla	East Gippsland	Surf Coast	Mornington Peninsula	Busselton	Mandurah	Total
Population, Census, 2011	156,169	29,209	92,812	35,741	42,196	25,870	144,608	30,330	69,903	626,838
Unoccupied dwellings, Census 2011	7,151	2,050	13,634	7,013	4,954	7,000	27,022	4,252	7,555	80,631
Derived population in unoccupied dwellings	15,040	2,971	11,866	7,175	4,974	5,967	25,940	5,306	10,210	96,100
Derived population in tourist accommodation	13,615	2,283	10,855	4,121	3,621	2,881	4,451	3,123	1,761	46,711
Sum Temporary population from unoccupied dwellings and tourist accommodation (net of day trippers and visitors staying with relatives and friends)	28,655	5,254	22,721	11,296	8,595	8,848	30,391	8,429	11,971	142,811
Derived population in unoccupied dwellings as percent of population at Census, 2011	9.6	10.2	12.8	20.1	11.8	23.1	17.9	17.5	14.6	15.3
Derived population in tourist accommodation as percent of population at Census, 2011	8.7	7.8	11.7	11.5	8.6	11.1	3.1	10.3	2.5	7.5
Combined estimated populations as percent of population at Census, 2011	18.3	18.0	24.5	31.6	20.4	34.2	21.0	27.8	17.1	22.8

Source: Hugo and Harris, 2012

Conclusion

In summarising the internal migration data from the 2006 Australian Census, the ABS (2009) identified the following cities and regions which experienced rapid growth with internal migration a significant component of that growth. These are shown in Table 3.17 and it is apparent that these areas have continued to experience substantial internal migration and growth. The dominance of coastal areas, especially in Queensland and South-west Western Australia, is evident. The chief addition over the 2010-11 period has been the increased significance of mining communities, especially in Western Australia and Queensland in becoming significant magnets for population growth in regional areas.

Table 3.17: Net Internal Migration and High Growth in Selected Major Population Regions, 2001-06

	August 2001 to August 2006			
	People Arriving '000	People Leaving '000	Net Internal Migration '000	Net Internal Migration (Percent)
Brisbane	178.0	138.3	39.7	2.4
Gold Coast- Tweed	89.7	55.2	34.5	7.2
Sunshine Coast	48.3	30.8	17.5	9.0
Hervey Bay	14.5	7.3	7.2	16.1
Townsville	30.9	24.5	6.5	4.9
Mandurah	15.2	9.1	6.2	10.0
Cairns	22.9	17.9	5.0	4.6
Toowoomba	22.9	18.8	4.2	3.9
Mackay	15.9	12.0	3.9	5.9
Bunbury	11.0	7.7	3.3	6.4

Source: ABS, 2009, 1

International Migration

Introduction

As was indicated in Chapter 1, international migration has long been a major element in Australian population growth. This has especially been the case when net migration accounted for 61.3 percent of population growth between 2006 and 2011 compared with 46.5 percent between 2001 and 2006. Postwar settlement of immigrants in Australia has been largely focused on major capital cities, especially Sydney and Melbourne (Hugo, 2011a).

In the last decade, however, while most immigrants continue to settle in the largest cities, there has been an increase in the numbers settling outside these gateways. The numbers of overseas-born persons living outside these capital cities increased from 771,574 in 2001 to 1,001,645 in 2011 – an increase of 30 percent. At the same time the numbers living in the capitals increased by 29 percent, although in 2011, 81 percent of the overseas-born still lived in the capitals. This similarity in growth represents a small shift but a significant one since there has been a reversal of longstanding trends of substantially greater growth in the capitals. Similar changes have been observed in other immigrant destination countries. In the United States there has been a significant decentralisation of immigrant settlement. Indeed Massey and Capoferro (2008, 28) show that: ‘something quite dramatic happened toward the end of the 20th Century to reconfigure the geography of the “new” immigration to the United States’ and Hirschman and Massey (2008, 3) indicate that ‘immigrants now settle in small towns as well as large cities and in the interior as well as the coasts’.

Much the same has occurred in mainland Europe (Jentsch, 2007), notably Spain (Oliva, 2010) and Greece (Kasimis, 2008), the United Kingdom (Green, Hoyos, Jones and Owen, 2009), Canada (Carter et al., 2008) and New Zealand (Spoonley and Bedford, 2008). There has been a strong trend in high income, destination countries toward some deconcentration of immigrant settlement. A distinctive part of the Australian experience, however, has been explicit policy intervention to facilitate immigrant settlement beyond the major cities.

Recent immigrant settlement patterns

One of the defining features of postwar international migration settlement in Australia is that it has been overwhelmingly focused on large metropolitan centres. The rapid industrialisation of the early postwar decades, and increasing urbanisation, saw a significantly greater level of concentration in capital cities among the overseas-born than the Australia-born between 1947 and 2001 (Table 4.1). Over that period the number of overseas-born living outside of the capitals increased at 2 percent per annum, but in the capitals grew at twice this rate so that the proportion living in those cities increased from 62 to 81 percent. Each intercensal period saw an increasing proportion of overseas-born in the capitals.

Table 4.1: Distribution of Overseas-Born Population Between Capital Cities and Rest of States, 1947, 2001, 2006 and 2011

	1947		2001		2006		2011		Growth Rates		
	Number	%	Number	%	Number	%	Number	%	1947 - 2001	2001 -06	2006 -11
Major Capital Cities	453368	61.8	3307577	81.1	3557486	80.6	4278495	81.0	3.75	1.47	3.76
Rest of States	280004	38.2	771574	18.9	857873	19.4	1001645	19.0	1.89	2.14	3.15
Total	733372	100.0	4079151	100.0	4415359	100.0	5280140	100.0	3.23	1.60	3.64

Source: ABS Censuses

However, a small but significant change occurred in the 2001-06 period. For the first time since World War II there was a faster increase in the overseas-born living outside the capital cities than within them so there was a small increase in the proportion living in non-metropolitan areas. In 2006-11 there was a return to a slightly faster rate of growth in the capital cities and hence a small reduction in the proportion living outside the capitals. Nevertheless a rapid growth occurred in both the capitals and non-metropolitan areas during this period of unprecedentedly high national immigration (Table 4.1). Similar rapid growth in both gateway cities and more dispersed locations during periods of rapid national migration gains was also observed in the United States (Hirschman and Massey, 2008, 7). This pattern of increasing urbanisation of the overseas-born has been particularly marked for recently arrived immigrants. Concentration in the capitals was especially evident for people from culturally and linguistically diverse (CALD) backgrounds (Table 4.2). The proportion of new arrivals settling in capitals was 89 percent for those arriving in 1981-86 but by 1996-2001, 90 percent of new arrivals settled in capital cities compared with 86.2 percent of those who had been in Australia longer than five years. The pattern is present but less marked among those from mainly English-speaking (MES) countries with 77 percent and 70 percent respectively.

Table 4.2: Number and Percentage of Overseas-Born Persons Resident in Capital Cities by Origin and Length of Residence, 1986, 2001, 2006 and 2011

	0-4 Years		5+ Years	
	Number	Percent	Number	Percent
1986				
MES Origin	142,722	76.9	890,809	73.2
LOTE Origin	240,864	88.6	1,245,254	83.8
Total Overseas-Born	383,586	83.9	2,136,063	79.0
2001				
MES Origin	145,936	77.0	936,796	70.2
LOTE Origin	307,781	90.1	1,762,488	86.2
Total Overseas-Born	453,717	85.4	2,699,284	79.9
2006				
MES Origin	173,293	74.2	943,568	69.4
LOTE Origin	416,389	88.8	1,857,957	86.8
Total Overseas-Born	589,682	83.9	2,801,525	80.0
2011				
MES Origin	225,518	74.3	1,047,149	69.2
LOTE Origin	617,114	87.7	2,205,445	87.4
Total Overseas-Born	842,633	83.7	3,252,594	80.6

Source: ABS Censuses

The increasing significance of immigrant settlement is apparent when the growth is considered according to remoteness areas. Table 4.3 shows a striking pattern: whereas 80.6 percent of the overseas-born live in major cities the fastest rates of growth have been in outer regional and remote areas reflecting the increased significance of the mining industry in attracting not only internal but also international migrants.

Table 4.3: Australia: People Born Overseas by Remoteness Area, 2001 and 2006

Remoteness Area	Overseas-Born 2001 (‘000)	Overseas-Born 2006 (‘000)	Percent Overseas-Born 2001	Percent Overseas-Born 2006	Growth Rate 2001-06
Major Cities	3409.0	4825.6	83.0	80.6	7.20
Inner Regional	431.7	668	10.5	11.2	9.12
Outer Regional	208.9	378.8	5.1	6.3	12.64
Remote	35.0	75.1	0.9	1.3	16.50
Very Remote	19.5	36.1	0.5	0.6	13.11
Total	4105.6	5983.6	100.0	100.0	7.82

Source: ABS 2001 and 2006 Censuses

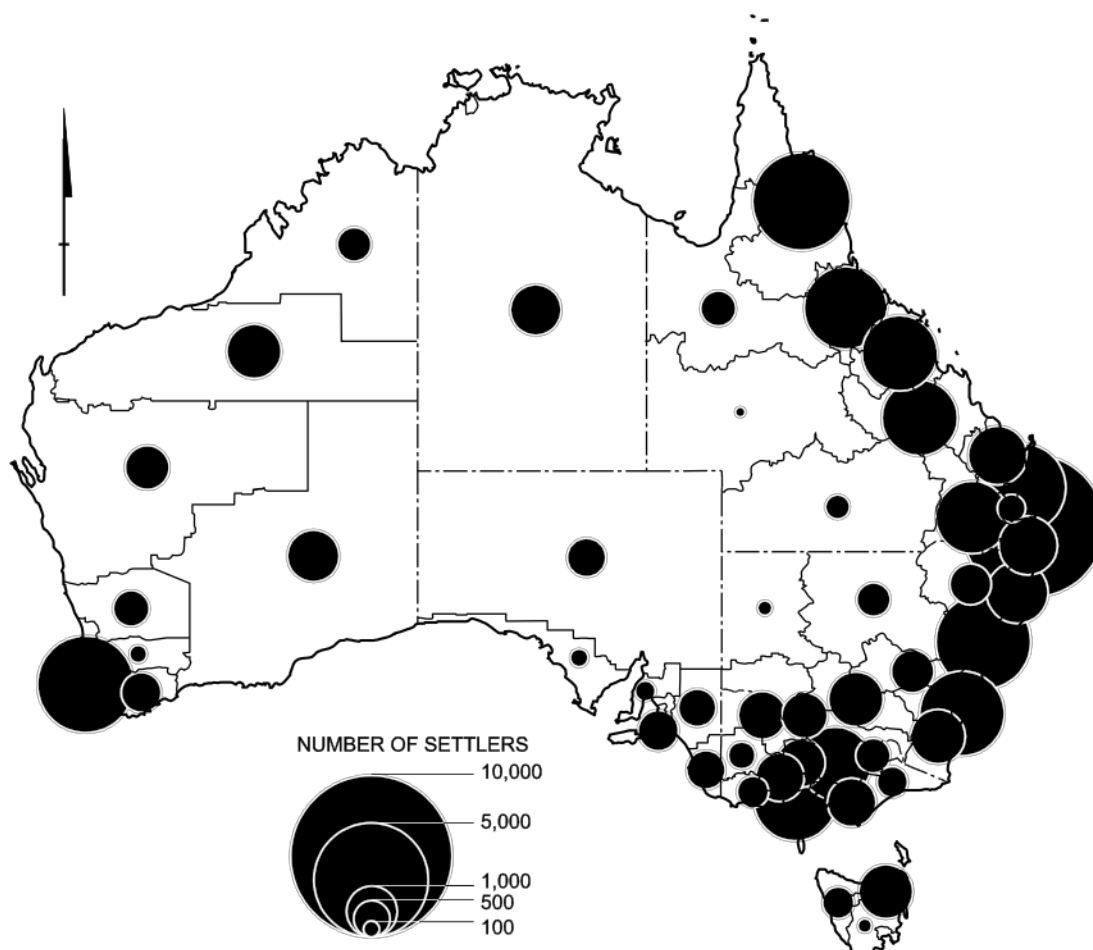


Figure 4.1: Australia: Settlers Arriving in the Last 3 Years by Non-Metropolitan Statistical Divisions, July 2009 to June 2012

Over the 2009-12 period some 15 percent of all permanent arrivals gave non-metropolitan destinations upon their arrival in Australia. However, it is apparent that some immigrants move to non-metropolitan areas after spending some time initially in capital cities so these data may understate the extent of settlement in non-metropolitan areas, although of course the reverse can also occur. The places nominated by 2009-12 arrivals as their destination shown in Figure 4.1 emphasise that a substantial number nominated non-metropolitan locations.

Refugee settlement in non-metropolitan Australia

Settlement of refugees in non-metropolitan Australia has a long history. In the immediate postwar years Australia initiated its first substantial organised immigration of non-British settlers – Displaced Persons (DPs) – from Eastern Europe (Kunz, 1988; Price, 1990). One condition was that they were obliged to work for their first two years in Australia in a location identified by the government. Many such places were in non-metropolitan areas which were suffering significant labour shortages such as the Snowy Mountains Scheme in New South Wales and Victoria, and the Hydro Electric Commission in Tasmania, but also in isolated rural communities and even railway sidings needing unskilled workers (Hugo, 1999; Kunz, 1988). They also included expanding industrial provincial cities such as Wollongong, Geelong and Newcastle. Many of the DPs were highly qualified but unable to use their particular skills or have their qualifications recognised (Kunz, 1975, 1988). Many gravitated to the major cities after their two years were up but significant numbers remained in provincial communities like Cooma in New South Wales, the centre of the Snowy Mountains Scheme, and elsewhere.

While DP migration subsided in the mid-1950s, subsequent attempts were made by governments to settle refugee-humanitarian immigrants in non-metropolitan areas. With the influx of Vietnamese refugees in the 1970s and 1980s, the federal government worked with NGOs for settlement in regional centres like Whyalla in South Australia (Viviani, Coughlan and Rowland, 1993). Backing these initiatives local NGOs had indicated that they would support and assist refugee settlement in those areas and the government provided some additional support. However, many of the refugees also gravitated to large metropolitan centres like Sydney and Melbourne where there were large Vietnamese communities and the opportunity to access social and economic support. Even regional centres lacked both formal multicultural services or substantial ethnic communities to provide informal support.

The most significant government efforts to facilitate refugee-humanitarian newcomers settling in non-metropolitan areas, however, have come in this century. In 2003 a Department of Immigration and Citizenship (DIAC) Review of Settlement Services for Migrants and Humanitarian Entrants recommended that more refugees be settled in non-metropolitan areas, and DIAC developed a new approach for identifying and establishing regional locations for humanitarian settlement in 2005 (DIAC, 2009). This approach focused on so-called 'unlinked migrants' or refugee-humanitarian settlers who did not have established family linkages upon arrival in Australia. The Department set up a number of criteria to identify particular regional areas which would be selected for directed settlement of humanitarian immigrants: a population of more than 20,000, existing migrant communities, evidence of community acceptance of immigrants, an accessible location, and the availability of appropriate employment opportunities and service infrastructure (especially health and education).

Communities did not have to meet all these criteria but did need to meet most in order to qualify, and communities selected by DIAC received some resources to support services for the settlers.

The program has had a significant impact on patterns of refugee-humanitarian settlement in Australia. Figure 4.2 shows that the proportion of refugee-humanitarian settlers initially moving to communities outside the capitals has quadrupled to one in five over the last decade.

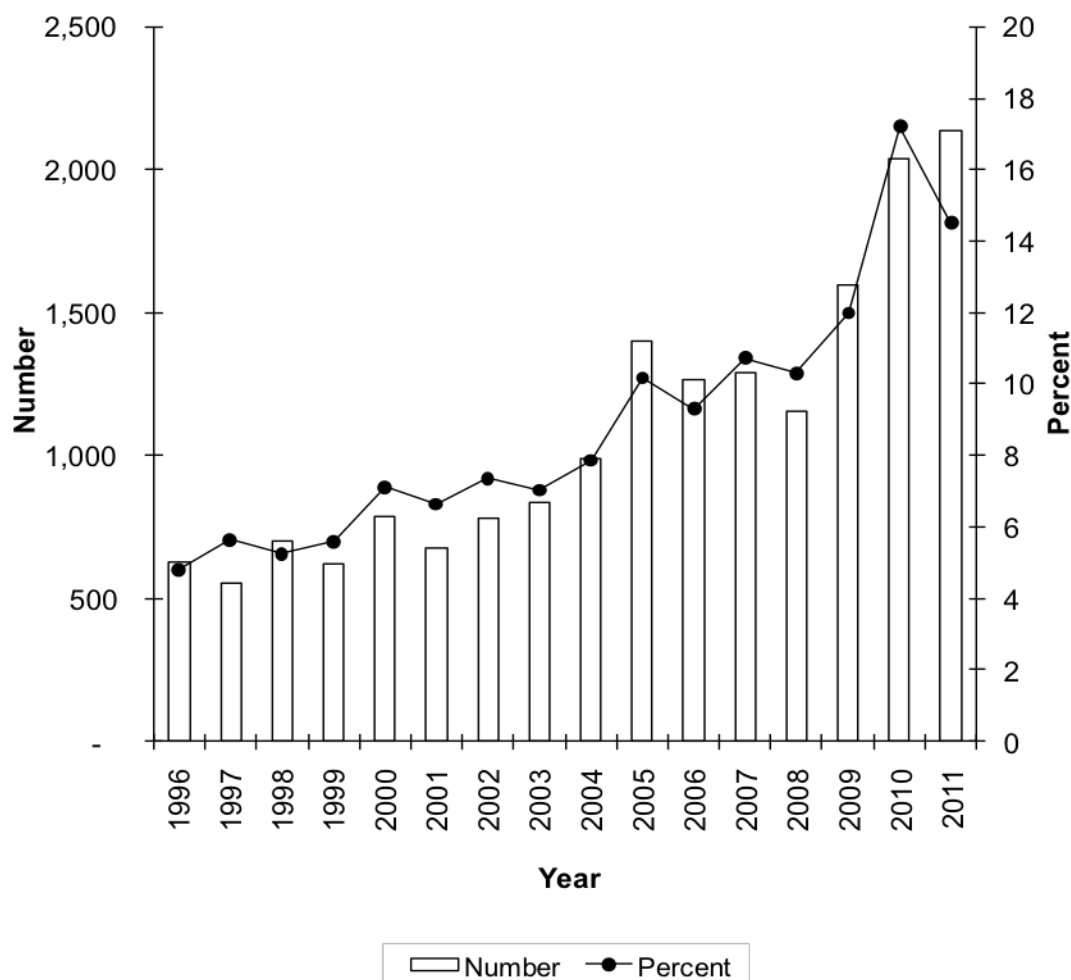


Figure 4.2: Australia: Settlement of Refugee-Humanitarian Settlers Outside Capital Cities, 1996-2011
Source: DIAC, unpublished data

An increasing role for government in the geography of migrant settlement

The 2001-06 intercensal period saw for the first time in several decades a reversal of the trend of increasing concentration of new migrant arrivals in capital cities. Government policy is playing a role in this change. During the early postwar period, Australian immigration policy was overwhelmingly concerned with shaping the scale and composition of the immigration intake and there were few attempts to influence where immigrants settled after arrival. It was not until the mid-1990s that the government considered major initiatives to substantially shape where immigrants settle. The sustainability of rural and regional communities became an important item on the national agenda with the establishment of a federal government department of regional development and the initiation of various programs to facilitate regional development. Simultaneously, states which were lagging economically, like South Australia, were pressing for immigration to assist their economic development.

In 1996 the annual meeting of Commonwealth, State and Territory Ministers for Immigration and Multicultural Affairs established a working party to examine ways in which a higher proportion of migrants might settle in regional Australia and in states which were lagging economically, and a number of initiatives followed. A State Specific and Regional Migration Scheme (SSRM) was initiated in 1996 to attract immigrants to areas which were receiving small intakes. Several visa categories were added to the scheme and a range of modifications

made over subsequent years to enable employers, state and local governments and families in designated lagging economic regions to sponsor immigrants without them having to fully meet the stringent requirements of the Australian Points Assessment Scheme. That scheme focused on skill, restricting most SSRM visa categories to people who narrowly miss reaching the high pass threshold of the Points Assessment Scheme. The new regional program (The Regional Sponsored Migration Program, RSMS) sought to offer:

greater flexibility for employers by recognising that labour market conditions are complex and that labour supply is limited in many regional and remote communities. Some concessions offered through the RSMS include the capacity for employers to nominate a greater range of occupations and a lower salary requirement compared to other temporary and permanent employer sponsored visas (DIAC, 17).

Some categories required settlers to live in a designated area as a temporary resident for three years, after which their degree of adjustment would be assessed and they would be given permanent residence, and the right to settle anywhere in Australia. Foreign students who study in an institution in a designated area got five bonus points in the Points Assessment Test. A 'Regional 457' (Long-term Business Migrants) visa was also developed, giving regional bodies a greater role in supporting sponsorships in regional Australia. It allowed them to grant exceptions from the gazetted minimum skill and salary requirements for positions nominated under temporary business visas in regional and low population growth areas.

Table 4.4: Australia: Top 10 Source Countries - Total RSMS, 2006-07 to 2010-11

Citizenship	2006-07	2007-08	2009-09	2009-10	2010-11
Philippines	105	380	979	1,812	2,451
United Kingdom	944	1,171	1,631	1,595	1,296
South Africa	666	984	1,621	1,413	975
India	220	415	850	1,301	1,489
People's Republic of China	255	349	792	1,294	1,106
Zimbabwe	298	258	424	302	252
Republic of Korea	59	156	236	206	452
Sri Lanka	35	67	112	166	184
Other	1,202	1,282	2,167	2,124	2,915
Grand Total	3,784	5,062	8,811	10,213	11,120

Source: DIAC, 2012, 18

The growing significance of RSMS was evident with numbers trebling between 2006-07 and 2010-11 as employers increasingly recognised this means of acquiring skilled workers (Table 4.4). Queensland (28 percent), South Australia (18 percent), Victoria (14 percent) and Western Australia (14 percent) are the main users of the program (DIAC, 2012, 18). The occupations of those selected (Table 4.5) reflects skill shortages in regional areas, especially in medical professions, tourism, skilled artisans, meat processing and farming. Regional authorities and employers became increasingly aware of the RSMS. In South Australia, for example, the state government appointed Migration Officers to each of the Regional Development Boards to facilitate recruitment and settlement of settlers in regional parts of the state. At no time since Federation have regional based organisations and employers been so involved in immigration policy and operations.

Table 4.5: Australia: Main RSMS Occupations - Primary Applicants, 2009-10*

Occupation	2009-10	2010-11
Registered nurse	717	562
Cook	228	655
Motor mechanic	166	217
Welder (first class)	149	266
Chef	111	208
Metal fabricator	108	125
Slaughter person	106	135
General medical practitioner	74	117
Farm overseer	73	125
University lecturer	60	79
Agricultural technical officer	57	108
Restaurant and catering manager	52	85
Other	1,866	2,072
Total	3,979	4,764

* Occupation data is only available for primary applicants within the Skill Stream

Source: DIAC, 2012, 18

One strategy that DIAC developed to meet labour shortages in non-metropolitan areas was Labour Agreements:

enabling a business to employ specialised overseas workers when no other visa program meets the employer's needs. Labour Agreements are most commonly used by businesses seeking semi-skilled labour or by those in the on-hire and meat industries. They are a form of negotiated contract to employ overseas workers when workers cannot be found in the local labour market (DIAC, 2012, 18-19).

Labour Agreements are most usually applied in regional areas and in 2011 there were 123 with 84 under negotiation (DIAC, 2012, 19). They involved substantial negotiation and were strongly criticised by unions, especially in the light of increasing unemployment among manufacturing workers due to closure of enterprises in south-eastern Australia in 2011-12. Labour Agreements were identified by DIAC as a way to meet the substantial labour demands created by the expansion of the mining industry, especially in Western Australia where it was difficult to attract workers from the east coast.

Drivers of immigrant settlement in regional Australia

The involvement of government policy is part of a complex set of factors which lay behind increasing settlement of skilled immigrants and refugee-humanitarian entrants in regional Australia. The availability of jobs is a *sine qua non* for immigrant settlement and labour shortages and demand in particular sectors in particular regions have been important drivers. A number of dimensions to this demand include shifts in global demand for regional based industries – agriculture, mining and tourism – restructuring of specific industries in Australia, the heavy outmigration of young Australians from regional areas and the effects of cumulative causation and chain migration.

The Australian economy has experienced significant structural change over recent decades with declining employment in agriculture and manufacturing and increases in mining and services. Employment in agriculture, forestry and fishing in Australia declined from 380,900 in 1981 to 249,827 in 2011. However, the proportion of overseas-born in this sector increased from 10 to 14 percent over the period. While migrants are still underrepresented compared with the Australia-born, their involvement is increasing, although it is still mainly in the intensive horticulture and irrigated agriculture sectors in the Murray-Darling Basin and in the immediate

hinterlands of large cities. This trend is especially significant in light of the Head of the Australian Treasury's comments that the percentage of the Australian workforce engaged in agriculture will increase from the current 2 percent of GDP to 5 percent in 2050 due to increasing global and regional food security issues as well as increasing demand for quality food among Asia's burgeoning middle classes (Parkinson, 2012).

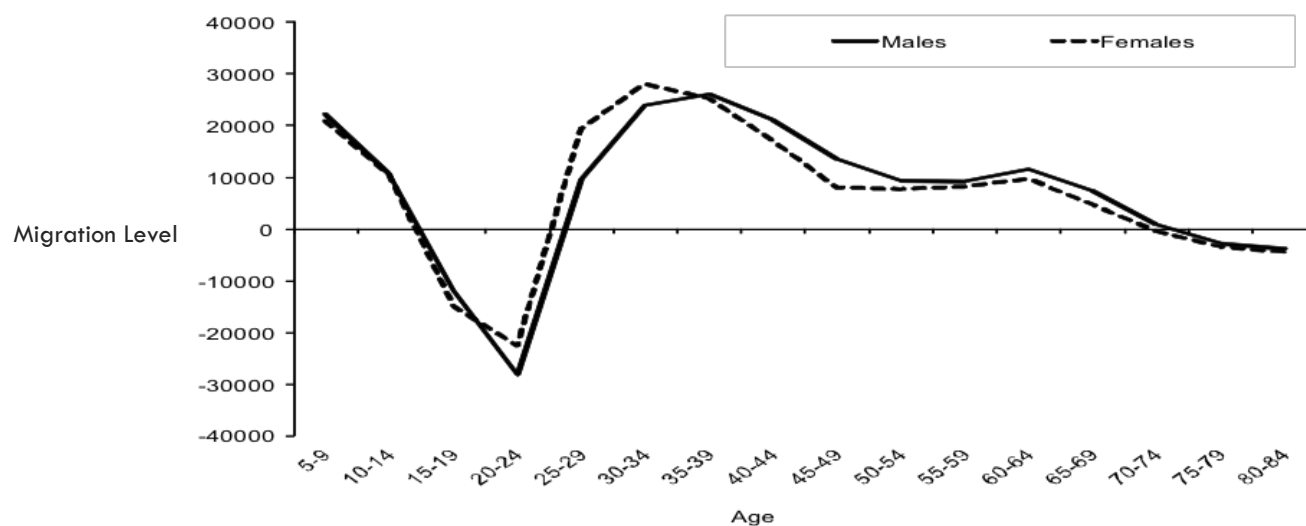
In the United States a key area of increasing employment of immigrants outside the major gateway areas has been in the restructured food processing industries. As Leach and Bean (2008, 55) point out: 'The industry reduced production costs by relocating to rural areas and deskilling production processes while simultaneously working to weaken labour unions, thus increasing the need to recruit immigrant labour to reduce labour costs'. Some 60 percent of food processing in the United States is now in rural areas (Kandel, 2009). In Australia this pattern is most evident in the meat processing and abattoir industries which have been decentralised to regional communities, creating a significant demand for workers in those communities. The jobs in the industry are low paid, low status, manual jobs eschewed by local Australians creating a demand for immigrant labour. In the United States: 'The presence and expansion of poorly paid jobs that are difficult, dirty and sometimes dangerous, in small towns and rural areas is a common thread in many "new destination" areas' (Hirschman and Massey, 2008, 8). The meat processing industry in non-metropolitan Australia has been a major employer of immigrants. Refugee-humanitarian settlers have been an important source of such labour while some meat processing operations have bought in workers from such countries as China under labour agreements. In South Australia, for example, abattoirs in Murray Bridge and Port Wakefield have entered into labour agreements to bring in experienced Chinese meat processing workers.

While the numbers of Australians employed in the mining industry is still small (176,560 in 2011, less than 2 percent of the workforce) it is the most rapidly growing industry sector expanding by 65 percent over the 2006-11 period. The immigrant engagement in the industry is around the average for the entire workforce (23 percent) but it has increased with 40,894 overseas-born employed in 2011. Mining industry operations are almost exclusively located in regional areas but only 62.7 percent of those working in mining in 2011 lived outside of the capital cities. This is a function of both corporate and administrative activity in mining being located in cities and also reflects the 'fly-in/fly-out' and 'drive-in/drive-out' phenomenon which is dominant in the industry (ABS, 2008b; see Chapter xx, Parliament of Australia, 2013). Nevertheless, the overseas-born living outside the capitals working in mining increased from 10,944 to 17,893 over the 2006-11 period. In discussions of labour shortages in regional mining activity, especially in Western Australia, immigration has loomed large (ABS, 2008b). There has been strong opposition from unions to the proposal of some mining companies to use Labour Agreements to bring in overseas workers.

A third sector of the economy that has a strong regional presence and, until recently, was expanding rapidly, is tourism worth A\$24 billion in 2010-11. In recent years the industry has been hit by the high level of the Australian dollar but it has been a major beneficiary of the Asian economic boom of the last two decades with seven of the 10 most valuable Australian tourist markets being in Asia (TRA, 2012). Immigrants have long been an important element in the regional tourist workforce with language factors being of some importance, especially for areas attracting large numbers of Asian tourists (Bell and Carr, 1994). Other areas of labour demand which have been important for immigrants have been the expanding regional universities and health and education services. Health services are of increasing significance with ageing of the regional populations being exacerbated by significant levels of retirement migration, especially to coastal areas.

One of the key elements in the explanation of increased immigrant settlement in non-metropolitan areas, however, is not so much related to expansion of new employment opportunities so much as to the outmigration of local young people from non-metropolitan areas. This has also been identified as an important factor in the emergence of new regional immigrant communities in the United States, where Donato et al. (2008) put forward the concept of 'offset counties', where immigrant growth offsets a population decline among natives. They show that 3.5 percent of non-metropolitan counties that sustained population growth only did so because an increase in foreign-born outweighed a decrease in the native-born; this is only the tip of the iceberg since there is a more widespread pattern of a net gain of the overseas-born offsetting the loss of native-born population. Critically this offsetting is often in younger working age and family age groups, hence overseas-born net migration gains have a major impact on non-metropolitan communities through, firstly, meeting important labour shortages, both high and low skilled, which are crucial for the local economic sustainability. Secondly, since they are often young families they play an important role in the social sustainability of those communities by creating demand for local goods and services, particularly in health and education. In addition they play a crucial role in the social life of communities in volunteering, participation in sport and other organisations. This 'offset' factor has become increasingly significant in Australia. There is a longstanding pattern of outmigration of young adults in their late teens and early 20s from non-metropolitan Australia (Hugo, 1974), evident in the most recent intercensal period. Figure 4.3(a) represents age-sex specific estimates of net migration derived by the Life Table Survival Ratio method (Hugo, 1994) for all areas outside of the capital cities in 2006-11, and shows a clear pattern of substantial net migration losses of the total population in the late teens and early 20s but net gains in the young dependent child and other adult ages. It is therefore a myth that there is an overall 'stampede' to Australian capital cities within Australia, since that is true only of the young adult population and the net flow is in the opposite direction for other ages. Despite considerable variation the net loss of young people is characteristic of all non-metropolitan areas, even those which are growing overall like coastal communities. Its economic and social impacts are magnified because of the important roles that this age group play.

It is interesting, however, to examine the patterns of net migration separately for the Australia-born and immigrant populations. Figure 4.3(b) depicts the age-sex net migration pattern for the Australia-born and the pattern of net loss in the young adult ages for the total population is evident although the loss in the adolescent and young adult ages is greater and the net gains in the late 20s and 30s are less evident. However, if one examines the pattern for the overseas-born in Figure 4.3(c) it is apparent that there is a clear offsetting impact. There are net gains in all but the very oldest age groups¹ but they are most marked in the 20s and 30s ages. In fact, while there was a net loss of 106,835 Australia-born aged 15-24 between 2006 and 2011 there was a net gain of 28,994 overseas-born in those age groups. Hence the immigration of overseas-born negated over a quarter of the net loss of young Australia-born in the 15-24 age group. Moreover, in the 25-29 age group there was only a small net gain of Australia-born in non-metropolitan areas (1,797) but a much larger gain of the overseas-born (27,193).



¹ The estimates for the oldest ages are the least reliable in the CTSR technique

Figure 4.3a: Australia: Rest of State Migration Profile, Total population 2006-11

Source: ABS 2006 and 2011 Censuses

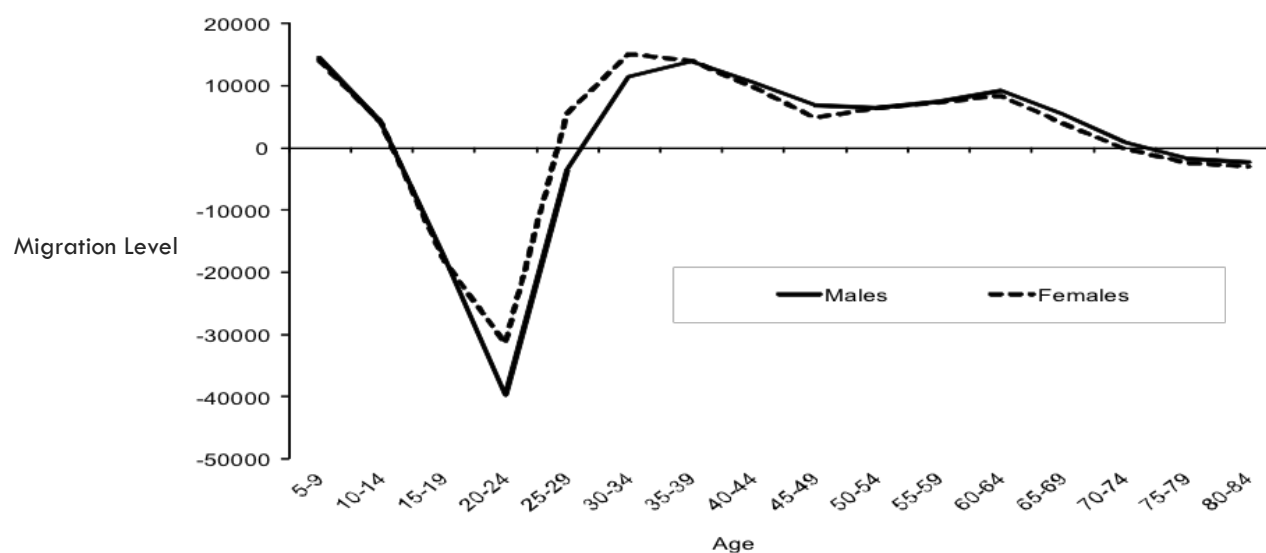


Figure 4.3b: Australia: Rest of State Migration Profile, Australia-born population 2006-11

Source: ABS 2006 and 2011 Censuses

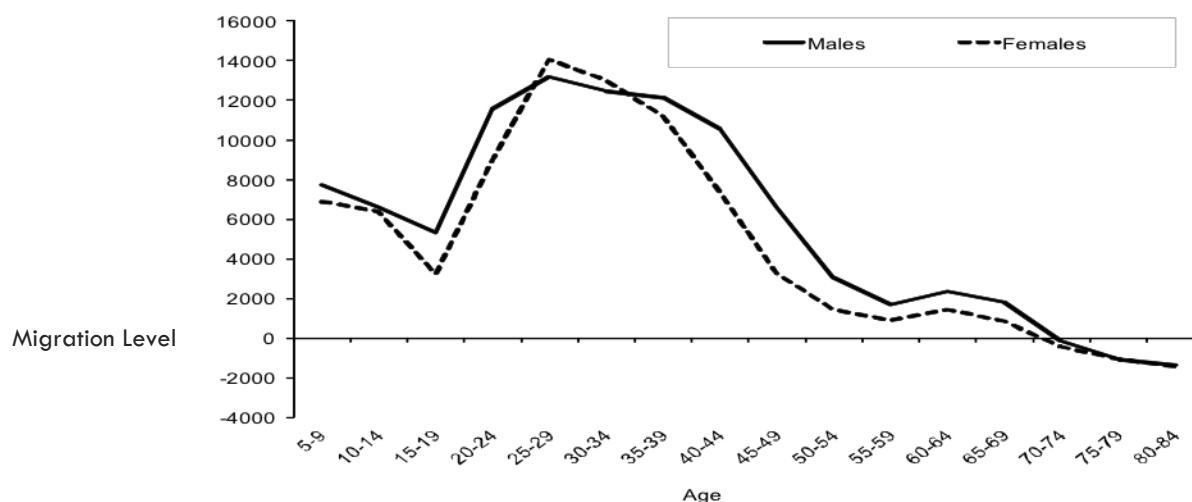


Figure 4.3c: Australia: Rest of State Migration Profile, Overseas-born population 2006-11

Source: ABS 2006 and 2011 Censuses

Hence if the 15-29 age group is considered overseas-born, net migration cancels out half of the net loss of the Australia-born. Hence, in examining the drivers of growth of the overseas-born in non-metropolitan Australia there is clearly a 'replacement' factor which operates. Moreover, if we consider the 30-45 prime working age groups the net gain of the overseas-born (66,636) is almost as large as the net gain of the Australia-born (74,345). The fundamental role of overseas migration in providing the non-metropolitan workforce is clear.

Social networks and institutions of mutual support lead to immigrant concentrations developing through pioneer migrants supporting and encouraging migration of family and friends to join them. As Hirschman and Massey (2008, 10) point out: 'Each pioneer immigrant commonly creates the potential for additional immigration through network-driven processes of cumulative causation, and eventually for the creation of satellite settlements in nearby towns where immigrant niches can be reproduced.' The latter has clearly been the case, for example, in the south-east region of South Australia where small immigrant concentrations have developed in a number of localities as a result of a major concentration in the regional centre of Naracoorte. Chain migration has a long history in the development of concentrations of immigrants in non-metropolitan Australian communities (Hugo, 1975). A study of recent immigrant settlers in non-metropolitan communities found that for more than half, family and friends were the main source of information about the community in which they settled (Collins, 2009, 29). Hence as the numbers of immigrants settling in non-metropolitan areas increases, the potential for chain migration also increases.

Recent immigrant settlement in RDAs

Focusing on persons who indicated at the 2011 Census that they were overseas five years earlier at the time of the 2006 Census, Table 4.6 shows the 20 RDAs with the largest numbers of recent migrants. Expectedly the largest numbers are in Sydney but it is interesting that Perth and Brisbane also have large numbers. The Gold Coast and Sunshine Coast join the capital cities and peri-urban areas around capital cities that have the largest numbers of newcomers.

Table 4.6: Top 20 RDAs with Highest Number of Persons Who Lived Overseas in Last Five Years, 2006-11

RDA Name	General Geographic Classification	Total Population 2011	Arrived from Overseas in Last 5 years
Sydney	Urban	4,079,423	297,430
Perth	Urban	1,627,756	151,031
Brisbane City	Urban	1,041,841	97,621
Southern Melbourne	Urban	1,282,987	88,860
Western Melbourne	Urban	810,135	76,154
Adelaide Metropolitan	Urban	1,125,191	66,404
Melbourne East	Urban	988,784	65,797
Northern Melbourne	Urban	858,899	55,639
Gold Coast	Peri-Urban	494,502	37,219
Australian Capital Territory	Urban	356,587	22,873
Logan and Redlands	Peri-Urban	416,718	20,765
Moreton Bay	Peri-Urban	378,046	16,109
Sunshine Coast	Peri-Urban	306,908	13,581
Hunter	Peri-Urban/Rural	620,531	11,697
Tasmania	Rural/Urban	494,173	11,543
Northern Territory	Remote/Urban	201,989	10,809
Far North Queensland and Torres Strait	Remote	254,309	9,973
Ipswich and West Moreton	Peri-Urban/Rural	259,954	9,309
Townsville and North West Queensland	Remote	251,522	8,671
Barwon South West	Rural	360,380	8,343

Source: ABS 2011 Census data

If we examine the RDAs with the largest percentage of their resident populations who are made up of recent immigrants, Table 4.7 shows that the capital cities are also prominent. It is interesting, however, that Sydney only is the 6th largest, perhaps reflecting the fact that Sydney's dominance of recent migrants has been reducing over the last decade (Hugo, 2011a). It is interesting, however, that there are some mining RDAs which are prominent in the regions which have the highest percentage of their populations made up by recent immigrants. In addition, Gold Coast and Sunshine Coast also appear. In the past, rapid growth in these areas has been predominantly from internal migration but clearly international migration is becoming of increasing significance.

It is also interesting to identify the RDAs with the largest numbers of overseas visitors that are predominantly tourists, and, to a lesser extent, business visitors. Table 4.8 shows that it is capital cities and the main tourist destinations in the Northern Territory, coastal Queensland and Tasmania which are prominent. The areas where overseas visitors make up the highest percentage of population counted at the Census enumeration are shown in Table 4.9. It is interesting that it is not only coastal resort areas which have a high population. Mining areas like Kimberly have a high percentage of overseas visitors. This suggests that it is not just tourists but working holiday makers and other temporary migrants who are moving to mining areas.

Table 4.7: Top 20 RDAs with the Highest Proportion of Persons Who Lived Overseas in the Last 5 Years, 2006-11

RDA Name	General Geographic Classification	Total Population 2011	Percentage
Western Melbourne	Urban	810,135	9.4
Brisbane City	Urban	1,041,841	9.3
Perth	Urban	1,627,756	9.2
Gold Coast	Urban	494,502	7.5
Pilbara	Remote	59,899	7.4
Sydney	Urban	4,079,423	7.2
Goldfields/Esperance	Remote	57,416	7.1
Southern Melbourne	Urban	1,282,987	6.9
Melbourne East	Urban	988,784	6.6
Northern Melbourne	Urban	858,899	6.4
Australian Capital Territory	Urban	356,587	6.4
Adelaide Metropolitan	Urban	1,125,191	5.9
Northern Territory	Remote/Urban	201,989	5.3
Logan and Redlands	Peri-Urban	416,718	4.9
Peel	Rural	107,608	4.9
Sunshine Coast	Peri-Urban	306,908	4.4
Moreton Bay	Peri-Urban	378,046	4.2
South-west	Rural	154,520	4.1
Far North Queensland and Torres Strait	Remote	254,309	3.9
Kimberley	Remote	34,795	3.9

Source: ABS 2011 Census data

Table 4.8: Top 20 RDAs with Highest Percentage of Temporary Overseas Visitors on Census Night 2011

RDA Name	General Geographic Classification	Number of Overseas Visitors 2011	Percentage of All Overseas Visitors
Sydney	Urban	49,759	23.0
Perth	Urban	18,046	8.4
Brisbane City	Urban	16,929	7.8
Western Melbourne	Urban	14,342	6.6
Far North Queensland and Torres Strait	Remote	12,799	5.9
Gold Coast	Peri-Urban	12,497	5.8
Southern Melbourne	Urban	9,585	4.4
Melbourne East	Urban	8,753	4.1
Adelaide Metropolitan	Urban	8,338	3.9
Sunshine Coast	Peri-Urban	6,304	2.9
Northern Melbourne	Urban	5,620	2.6
Northern Territory	Remote/Urban	4,957	2.3
Australian Capital Territory	Urban	3,656	1.7
Wide Bay Burnett	Peri-Urban/Rural	3,073	1.4
Townsville and North West Queensland	Remote	2,592	1.2
Mackay/Whitsunday	Rural	2,523	1.2
Hunter	Peri-Urban/Rural	2,298	1.1
Northern Rivers	Rural	2,206	1.0
Logan and Redlands	Peri-Urban	2,190	1.0
Tasmania	Urban/Rural	2,174	1.0
Total Overseas Visitors		216,055	

* This uses place of enumeration data

Source: ABS 2011 Census data

Table 4.9: Top 10 RDAs with Highest Proportions of Overseas Visitors Compared with Local Population on Census Night 2011

RDA Name	General Geographic Classification	Total Population 2011	Overseas Visitors 2011*	Percentage of Total Population
Far North Queensland and Torres Strait	Remote	285,665	12,799	4.5
Kimberley	Remote	50,114	1,411	2.8
Gold Coast	Peri-Urban	520,686	12,497	2.4
Northern Territory	Remote/Urban	222,280	4,957	2.2
Sunshine Coast	Peri-Urban	319,094	6,304	2.0
Western Melbourne	Urban	836,060	14,342	1.7
Brisbane City	Urban	1,063,832	16,929	1.6
Mid West Gascoyne	Remote	73,970	1,098	1.5
Mackay/Whitsunday	Rural	183,315	2,523	1.4
Sydney	Urban	4,120,359	49,759	1.2

* This uses place of enumeration data

Source: ABS 2011 Census data

The overseas-born population in RDAs

This next section of the report explores the change in net number and average annual growth rates of the overseas-born population between the 2006-11 Censuses across Australian RDAs. The 'overseas-born' includes both migrants who recently arrived in Australia and long-term migrants. These figures are compared with data from the previous Census periods 2001-06 and also with changes in net number and average annual growth figures of the Australia-born population across RDAs to determine any unique patterns for the overseas-born. These analyses will also look at the proportion of overseas-born living in each RDA and determine any substantial changes between the 2001, 2006 and 2011 Censuses. Recent migrant arrivals across RDAs will also be examined to determine what impact overseas migrants have on the population of local areas.

The average annual growth rate of the overseas-born population across all areas of Australia was positive in the most recent period (2006-11). This reflects a net increase of 941,033 overseas-born migrants arriving in Australia from 2006 to 2011. Overall only three RDAs have lower average annual growth rate of the overseas-born in the most recent period (2006-11) compared with the previous period (2001-06). These areas are South Coast (Sydney and surrounds), Wide Bay Burnett (Brisbane and surrounds) and the Sunshine Coast (Brisbane and surrounds).

Table 4.10 shows the RDAs which experienced an average annual growth rate of the overseas-born population that was greater than the national average for overseas-born. Mining areas of Western Australia and Queensland experienced the highest average annual growth rates. The areas of most substantial increase in the recent period are Pilbara, Kimberley, Mid-West Gascoyne and the Northern Territory. These RDAs had an average annual growth rate of the overseas-born population that was negative or below the national average in the previous period (2001-06). The RDAs of Peel, South-west, Mackay/Whitsunday, Moreton Bay and Western Melbourne had average annual growth rates well above the national average for the overseas-born in both the 2001-06 and the 2006-11 period.

Table 4.10: RDAs with Above Average Annual Rates of Growth for the Overseas-Born Population*, 2006-11

RDA Name	State	General Geographic Classification	Average Annual Growth % 2001-06	Average Annual Growth % 2006-11
Pilbara	WA	Remote	1.0	20.1
Kimberley**	WA	Remote	-2.3	15.3
Peel	WA	Rural/Remote	4.7	8.6
Ipswich and West Moreton	QLD	Peri-Urban	3.3	7.7
South-west	WA	Rural	2.3	7.1
Mackay/ Whitsunday	QLD	Rural	3.7	7.0
Goldfields/ Esperance	WA	Rural	1.7	7.0
Fitzroy and Central West	QLD	Rural	2.4	6.7
Moreton Bay	QLD	Peri-Urban	4.0	6.3
Mid West Gascoyne**	WA	Rural	-0.5	6.2
Western Melbourne	VIC	Urban	3.0	6.2
Northern Territory**	NT	Remote/Urban	-0.1	6.1
Overseas-Born Total			1.5	4.0

* Table includes areas experiencing an annual average growth rate of 6 percent or more.

** These areas experienced a negative average annual growth rate in the 2001-06 period and higher than average positive average annual growth rate in the 2006-11 Census period.

Source: ABS 2011 Census data

It is interesting to compare the trends in growth among the Australia-born population with those of the overseas-born population. Overall, the average annual growth rate for the Australia-born population from 2006-11 was much lower than that of the overseas-born population (1.3 percent and 4 percent respectively). When comparing average annual growth rates across RDAs for the Australia-born population from 2006-11, Pilbara (8.4 percent), Peel (4.7 percent), Kimberley (3.4 percent) and Ipswich and West Moreton (3 percent) were also the areas that experienced that highest average rates of annual growth. In line with the overseas-born population, Kimberley and Mid-West Gascoyne are recent growth areas. These RDAs experienced negative average annual growth from 2001-06 among the Australia-born population and positive average annual growth from 2006-11. In contrast to the trends among the overseas-born population, Brisbane RDA had higher than average rates of annual growth for the overseas-born population (5.7 percent) from 2006-11 and lower than average annual growth rates for the Australia-born population (0.9 percent).

Table 4.11 shows the RDA areas that experienced a rate of average annual growth for the overseas-born population that was well below the national average from 2006-11. These are mainly wheat-sheep belt areas in the states of New South Wales and South Australia. Looking at the average annual growth rates for these areas from 2001-06, all of these areas shown in the table also had negative or below average annual growth rates for the overseas-born population from 2001-06.

Table 4.11: RDAs with Below Average Annual Rates of Growth for the Overseas-Born Population*, 2006-11

RDA Name	State	General Geographic Classification	Average Annual Growth % 2001-06	Average Annual Growth % 2006-11
Whyalla and Eyre Peninsula**	SA	Remote	-1.1	0.5
Far West**	NSW	Remote	0.5	0.6
South Coast	NSW	Rural	1.2	1.0
Illawarra	NSW	Peri-Urban	-1.0	1.1
Far North	SA	Remote	1.1	1.2
Yorke and Mid-North	SA	Rural	0.8	1.4
Orana**	NSW	Rural	-0.5	1.7
Barossa	SA	Rural	0.8	1.9
Southern Inland	NSW	Rural	0.8	2.0
Barwon South West	NSW	Rural	0.7	2.0
Overseas-Born Total			1.5	4.0

* Table includes areas experiencing an annual average growth rate of 2 percent or less.

** RDAs that also experienced very low rates of average annual growth for the Australia-born population

Source: ABS 2011 Census data

The impact of international migration

This section of the report examines the role migration (particularly that of new arrivals) plays in population change in metropolitan and non-metropolitan LGAs in Australia. Australia has a long history of overseas migration, particularly as a receiving country for immigrants. In the five years preceding the 2011 Census the rate of new arrivals from overseas increased dramatically due to changes in national immigration policy. This is clearly apparent when looking at the net number of international migrants (NIM) for 2006 and 2011 in Table 4.12. What is also apparent is the overall decrease in the proportion of the population who are Australia-born over this time period, and this is evident across both metropolitan and non-metropolitan Australia; indicative of Australia's steady low birth rate and the impact increased international migration has played in Australia.

Table 4.12: Overseas-Born, Net International Arrivals and Australia-Born as a Percentage of the Australian Population 2006-11

Year	Australia		Non-Metropolitan Australia		Metropolitan Australia	
	2006	2011	2006	2011	2006	2011
% Population Australia-born	76.1	73.9	86.3	84.9	68.5	66.0
% Population Overseas-born	23.9	26.1	13.7	15.1	31.5	34.0
Total Population	18,458,997	20,276,234	7,868,026	8,544,612	10,590,971	11,731,622
Number of net international migrants (NIM)	311,435	876,204	89,931	216,268	221,504	659,936
NIM as % of Overseas-born	7.1	16.6	8.4	16.7	6.6	16.5
NIM as % of Total Population	1.7	4.3	1.1	2.5	2.1	5.6

Source: ABS Census Data 2011 (based on Usual Place of Residence)

Net international migration plays an integral role in determining both the size and demographic composition of the population at the national level. The settlement patterns of new arrivals will, in part, determine the demographic composition of different regions within Australia and also influence rates of population change. Table 4.12 shows that net

international migration gain has increased in both metropolitan and non-metropolitan regions, although at a slightly greater rate in metropolitan areas.

Table 4.13 shows that in the intercensal period from 2006 to 2011 only two metropolitan LGAs (1.6 percent) experienced population decline; compared with 16 (12.6 percent) metropolitan LGAs experiencing decline in the 2001 to 2006 intercensal period. This is in stark contrast to non-metropolitan LGAs where population decline was more widespread. In the 2001 to 2006 intercensal period 203 non-metropolitan LGAs (46.9 percent) had overall population decline; with 139 (32.1 percent) in 2006 to 2011 showing population decline.

In addition to this, a further 79 metropolitan LGAs (62.2 percent) and 175 non-metropolitan LGAs (40.4 percent) experienced a positive rate of population change that was lower than the Australian national average of 1.6 percent from 2006 to 2011. This suggests that high rates of population growth were limited to just over a third of all metropolitan LGAs and just over a quarter of non-metropolitan LGAs in Australia.

Table 4.13: Australia-Born and Overseas-Born Population Change for Metropolitan and Non-Metropolitan LGAs, 2006-11

Population Change 2006-11	Metropolitan LGAs (n=126**)	Non-Metropolitan LGAs (n=433)
Overall Population Decrease	2	139
Overall Population Increase	125	294
Increase in both Australia-born and Overseas-born populations	115	*278
Decrease in both Australia-born and Overseas-born populations	0	32
Increase in Australia-born pop. and decrease in Overseas-born pop.	0	*14
Decrease in Australia-born pop. and increase in Overseas-born pop.	11	*109

* LGAs with zero population change was considered positive

** There were 127 LGAs selected as metropolitan but all data was not available for the ACT LGA

Source: ABS Census data 2011 (based on Usual Place of Residence)

Table 4.13 also shows the patterns for Australia - and overseas-born and some interesting trends are evident. It shows that in around a quarter of non-metropolitan LGAs (109) there was a decline in the Australia-born population between the 2006 and 2011 Censuses but an increase in the overseas-born population. This clearly points to international migration playing an increasingly important role in the population dynamics of non-metropolitan Australia. In the United States this pattern of an influx of immigrants counterbalancing an outflow of the native population is referred to as 'offset population' (Donato, Tolbert, Nucci and Kawano, 2008).

Another group of LGAs of interest are those that showed increases in both the Australia-born population and the overseas-born population, but where growth in the overseas-born population greatly exceeded that of the Australia-born population. This balance of population change suggests that low population growth in some LGAs was augmented by a significant increase in the overseas-born population; contributing to both sustaining the local economy and a shift in the demographic character of the region as a result of migration. Both of these LGA types will now be explored in detail.

The spatial patterning of LGAs in the various categories in Figure 4.13 is shown in Figure 4.4. It is especially noticeable that gains of both overseas- and Australia-born are evident in the mining areas of WA, NT and Queensland as well as the coastal areas and the areas outside the commuting zone but adjoining metropolitan areas. Of particular interest are the offset

LGAs where there is a net gain of overseas-born but a net loss of Australia-born. This is particularly characteristic of inland areas of the wheat-sheep belt.

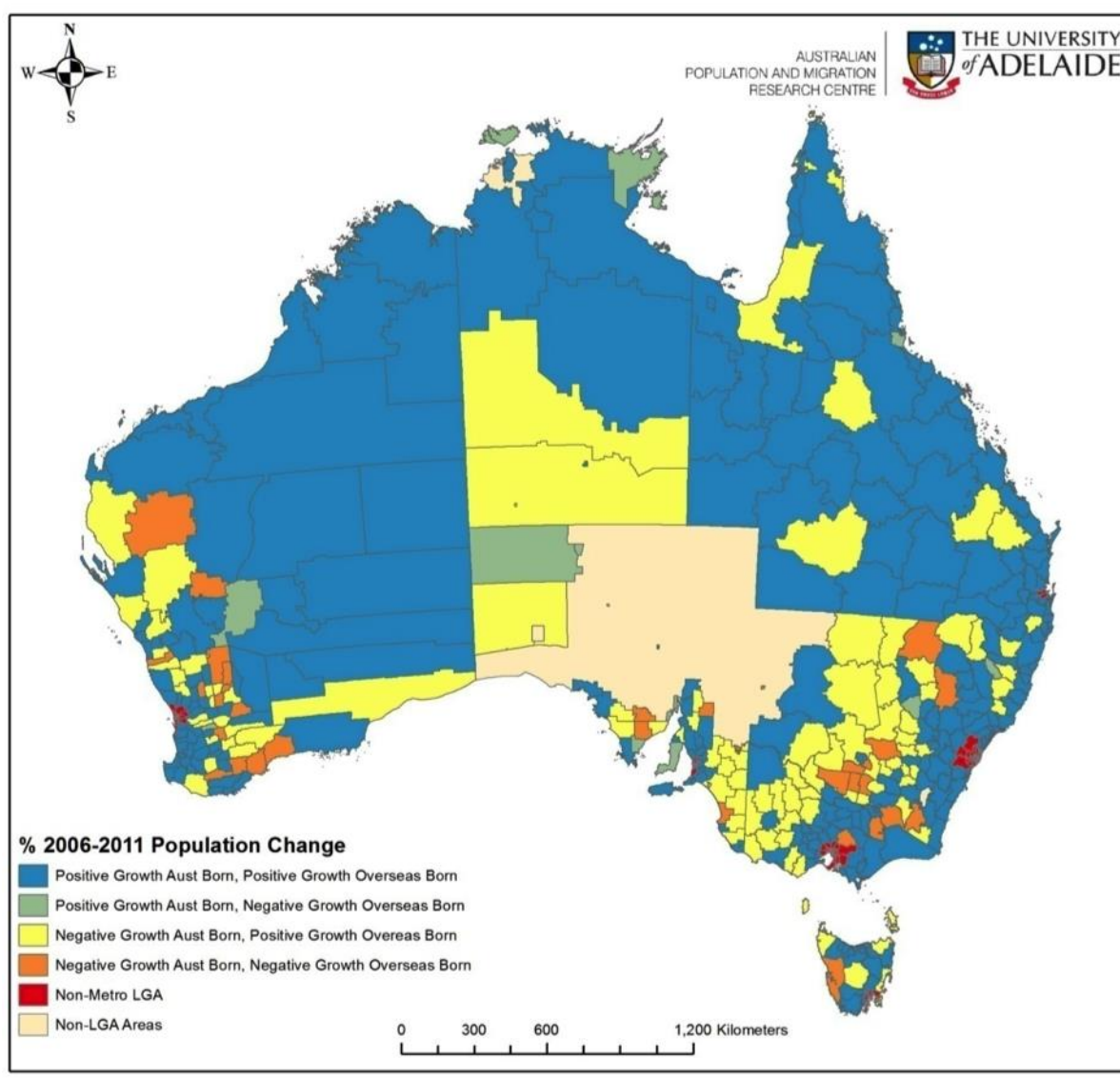


Figure 4.4: Growth Australia-Born and Overseas-Born Population, 2006-11, All Australia LGAs
Source: ABS Census data 2006, 2011

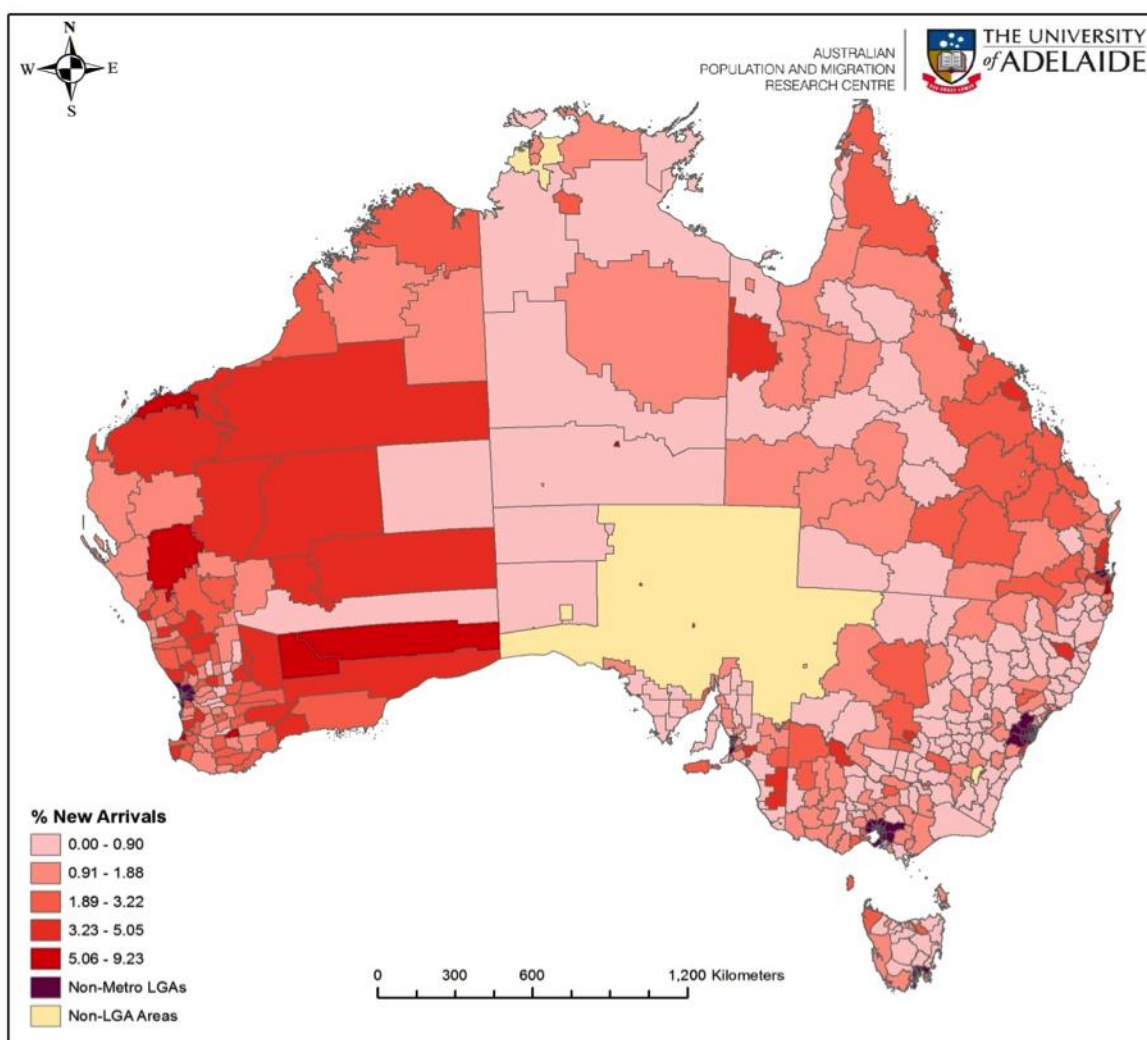


Figure 4.5: New Migrant Arrivals (2006-11) as a Proportion of the Total Population of LGA, All Australia LGAs

Source: ABS Census data 2006, 2011

It is apparent that new arrivals are an important element in these offset LGAs. It is clear that there is an emerging but subtle shift in the settlement patterns of new migrants in non-metropolitan Australia, driven by both clear policy changes and severe labour shortages in rural areas where low fertility and an ageing population have been exacerbated by the outmigration of youth. The spatial distribution of new arrivals is shown in Figure 4.5; they are depicted as a percentage of the total resident population. It is immediately apparent that new arrivals are most prominent in the mining areas of Western Australia but also are significant across many rural and remote areas. Immigrants add an element of diversity to what, in many rural and regional areas, has been a long history of Anglo-Celtic settlement. Many of these rural areas may be struggling to adapt to the demographic changes both in terms of providing migrant-specific services within the health, education, housing and employment sectors but also socially in being able to provide informal community support through established ethnic specific community groups. This dearth in both formal and informal support services may place a strain on local services and communities however this can be countered by the increases in population to maintain local economies and local services. The adjustment of these new migrants to rural and regional Australia, and the adjustments that are made within these communities to these changes, will need to be the focus of future rural policy directions and research in the future, focusing on the experiences of integration and settlement in Australia and on the social and economic fabric of the rural regions themselves.

Ageing

Introduction

As was demonstrated in Chapter 1, ageing is perhaps the most significant change occurring in the Australian population and the greatest challenge over the next three decades (Swan, 2010). However, while ageing is now squarely a priority on the national agenda, there are two dimensions which receive limited attention:

- Firstly, as Jackson (2004, 77) points out, while sustained ageing is much discussed at the national level in Australia ‘... its regional and subregional manifestations have seen relatively little press’.
- Secondly, the discourse on ageing has been focused on the challenges it presents and not on the opportunities. A ‘medical’ model of ageing as a problem and burden on the health system has been dominant.

This chapter considers ageing as an important element in the dynamics of population change at a regional level in Australia. It is important to recognise that ageing occurs at different rates across regions with important implications for service demand and provision but also, as will be argued, for regional development. Over time regional populations change, not only through births, deaths, immigration and outmigration but also because of ‘ageing in place’ of the resident populations. Because regional populations often have concentrations of particular age groups compared with the national population, their progress into different age groups over time can massively change the economic and social processes and needs in those regions.

Ageing in metropolitan and regional Australia

There has been some discussion in Australia among the differences which exist between the age structures of the states and territories, with South Australia and Tasmania being somewhat older than the other states and the Northern Territory being significantly younger. On the other hand, there has been less discussion of differences between the two-thirds of the population living in capital cities and the third living in regional areas. It may be surprising to note in Figure 5.1 that regional Australia is older than capital city populations. This figure overlaps the contemporary regional and capital city age structures and shows that regional population has an overrepresentation of dependent children (aged 5-14) and of people aged over 50.

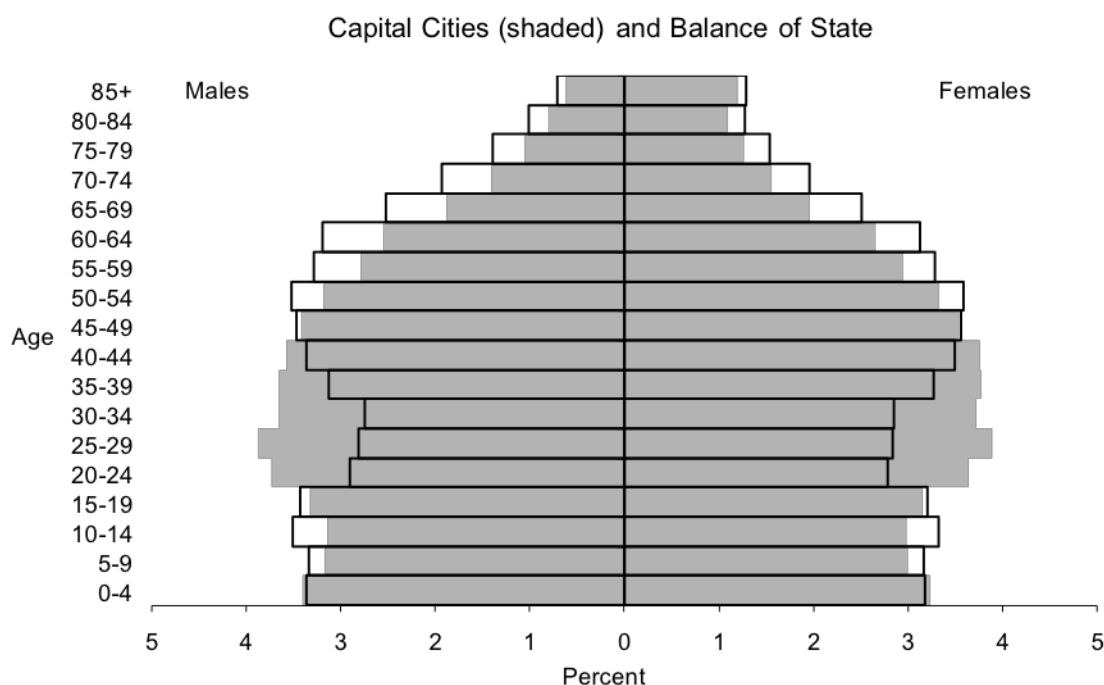


Figure 5.1: Australia: Age-Sex Structure of Capital Cities and Rest of State, 2011

Source: ABS 2011 Census

The older age structure of regional Australia is despite regional areas having higher levels of mortality. It is in fact due to a double selectivity in migration between capital cities and regional areas.

- Age selectivity of migration from non-metropolitan to metropolitan areas involving overrepresentation of young adults.
- Age selectivity of migration from metropolitan to non-metropolitan areas involving overrepresentation of the 50+ population.

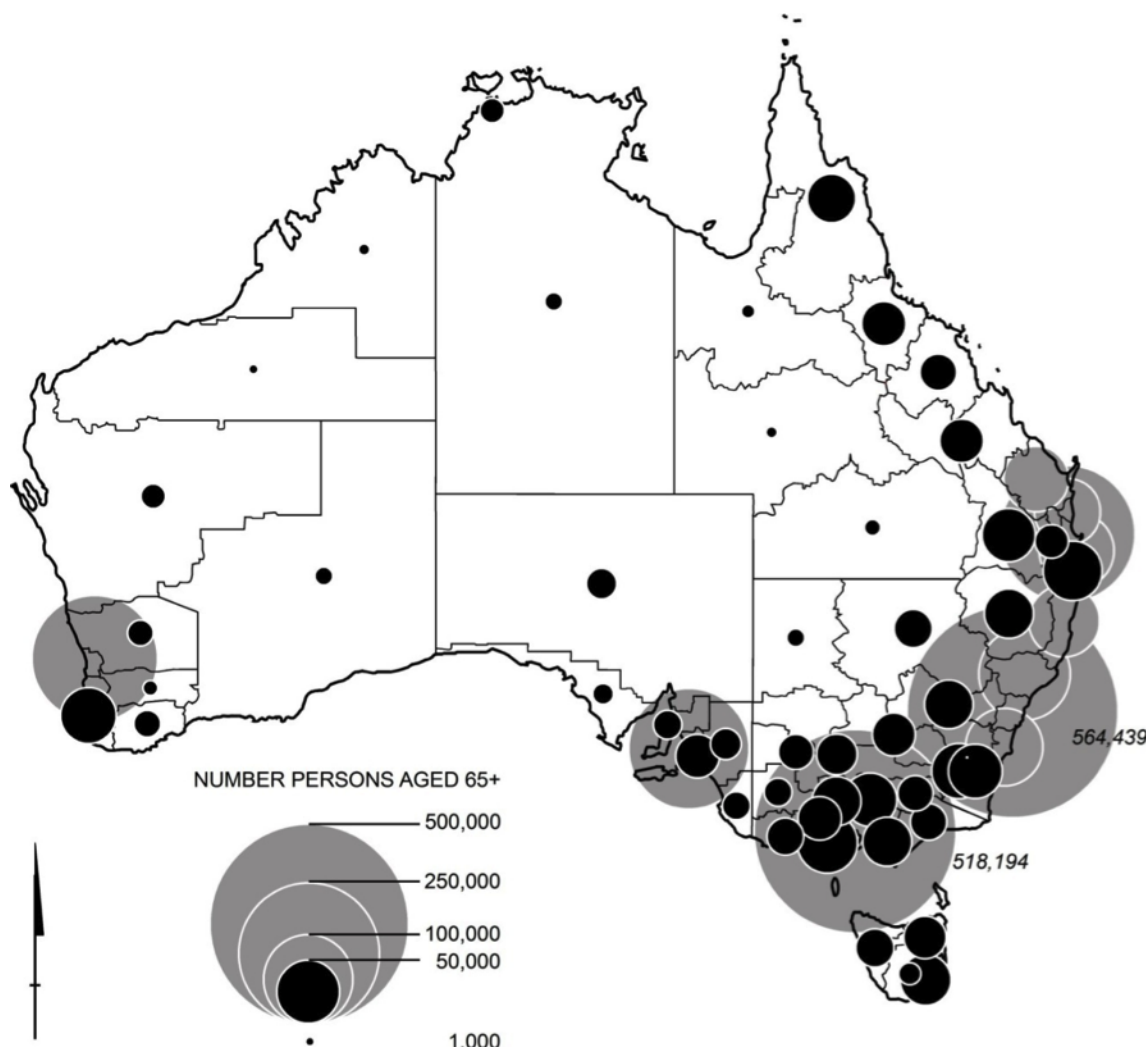


Figure 5.2: Australia: Total Persons Aged 65 Years and Over, 2011
Source: ABS 2011 Census

Accordingly, as Figure 5.2 shows, while the majority of older Australians live in capital cities there is a significant representation in regional areas. Like the total population, the older regional population is concentrated in the coastal, south-eastern and south-western parts of the nation. Table 5.1 shows that there are, however, somewhat different patterns between the 'young' aged (65-74) and the 'older' aged (75+). There is a greater concentration of the young aged in regional areas reflecting the fact that there is a strong pattern of migration of people in their 80s and 70s from regional to capital cities. This often occurs with the death of a spouse, the loss of personal mobility through disability or losing driver's licence among people in their late 70s and 80s. Many of these move to seek to be closer to medical services or to family to care for them in old age. Many are also former retirement migrants who moved out of cities on retirement to a resort location. Nevertheless, between 2006 and 2011 both the old-old and young-old increased the share who were living outside the capital cities.

Table 5.1: Australia: Aged Population in Metropolitan and Non-Metropolitan Areas, 2011

	Metropolitan Areas 2006	Non Metropolitan Areas 2006
Population 65-74		
Number	942,136	680,716
% of Total Residents	6.8	8.9
% of Australia 65-74	58.1	41.9
Population 75+	833,623	549,813
% of Total Residents	6.0	7.2
% of Australia 75+	60.3	39.7

Source: ABS 2011 Census

Ageing in RDAs

Table 5.2 shows the RDA areas with the largest increase in the proportion of the population in the area aged 65+ years from 2001 to 2006 and 2006 to 2011. This shows areas where the older population is increasing at a faster rate relative to the younger population in the area. This increase can be attributed to a number of things: ageing in place for the older population, positive immigration to the area of older people, out-movement of the younger population or several of these factors combined.

Several RDA areas have been at the top of the list in terms of increase in the proportion of the population aged 65+ in both the 2001 to 2006 and 2006 to 2011 time periods. These RDAs are Adelaide Hills, Wide Bay Burnett, Wheatbelt, Great Southern, Murraylands and Riverland and Orana. Areas that have recently experienced a boom in mining or other industry and have become attractive to younger workers (Peel, Kimberley and Mid West Gascoyne) have come off the list in 2006 to 2011 as areas that are more rapidly ageing.

Table 5.2: Top 10 RDA Areas with the Largest Percent Change in the Proportion of the Total Population Aged 65+, 2001-06 and 2006-11

2001-06			2006-11		
RDA name	% Pop 65+ 2006	Change in % pop aged 65+ (2001-06)	RDA name	% Pop 65+ 2011	Change in % pop aged 65+ (2006-11)
Peel	17.7	2.6	Adelaide Hills*	17.9	2.4
Wheatbelt	13.9	2.3	Wide Bay Burnett*	20.5	2.3
Orana	14.9	2.0	South Coast	23.4	2.3
Kimberley	10.4	2.0	Murray	18.2	2.1
Wide Bay Burnett	18.2	1.8	Southern Inland	15.6	2.1
Adelaide Hills	15.5	1.8	Wheatbelt*	15.9	2.0
Yorke and Mid-North	19.8	1.7	Mid North Coast	21.9	1.9
Northern Inland	15.4	1.7	Great Southern*	16.2	1.9
Murraylands and Riverland	16.1	1.6	Murraylands and Riverland*	18.0	1.9
Great Southern	14.3	1.6	Orana*	16.8	1.9
Mid West	14.3	1.6			
Gascoyne	14.3	1.6			
RDA Average	13.3	0.7	RDA Average	14.0	0.7

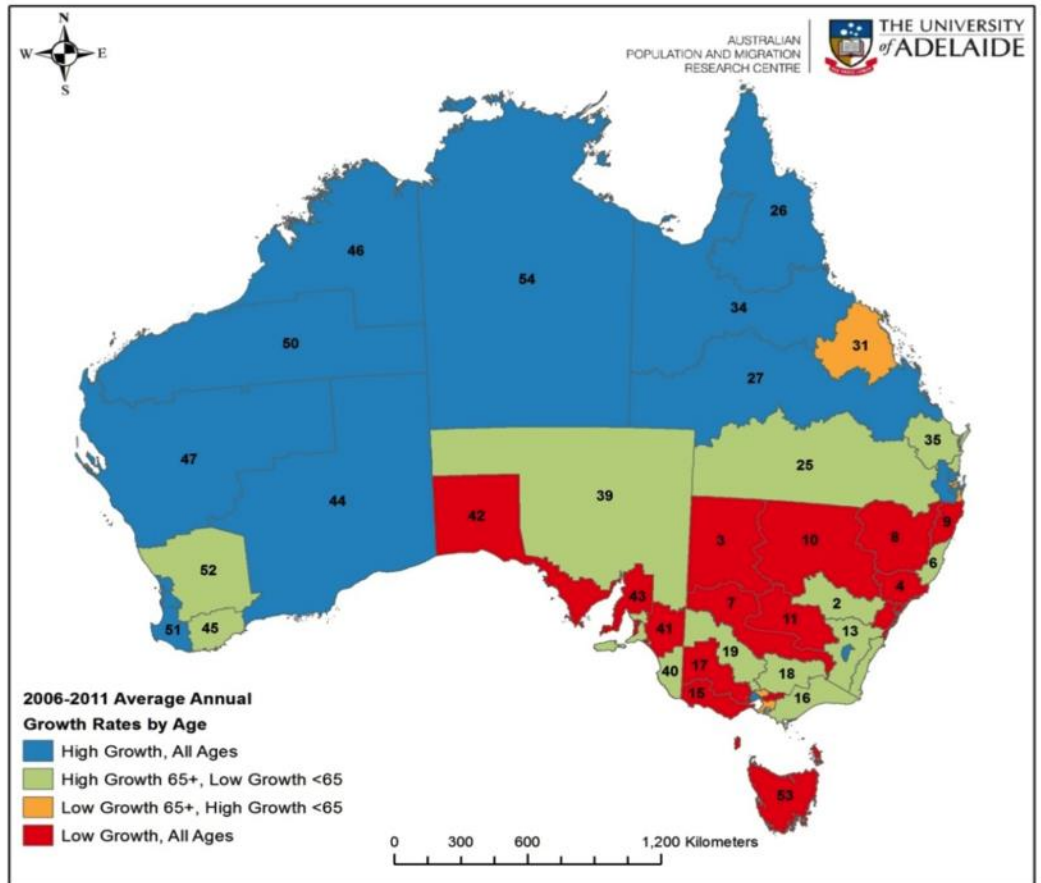
* Indicates RDA area was also in the top 10 for increase in proportion of the population aged 65+ from 2001-06.

Source: ABS 2011 Census data

It is well known that Australia's older population is growing at a faster rate than the younger population. Overall the average annual growth rate of Australia's population aged 65+ across all RDA areas from 2006 to 2011 was 2.8 percent. This compared with a 1.5 percent average annual growth rate for the population aged less than 65 years (and a 1.6 percent average annual growth rate for Australia's total population) in the same period. Growth rates for both age groups have accelerated since the last Census period 2001 to 2006, when the average annual growth rate for the population aged 65+ years was 2.3 percent and 1 percent for the younger population.

Distilling out areas with high growth rates of the population aged 65+ and low growth rates of the population aged less than 65 allows us to look at areas that are experiencing more rapid growth in the older population (rather than general overall growth). Figure 5.3 shows the areas of high and low growth across Australian RDAs for the population aged less than 65 and the population aged 65+. Much of Queensland, Western Australia and the Northern Territory experienced growth across all age groups in the past five years. Several inland RDA areas of New South Wales, Tasmania and parts of Victoria and South Australia experienced below average growth of all population age groups from 2006-11. Only five RDA areas saw high growth of the population aged less than 65 and low growth of the population aged 65+ in the past five years and these areas were all coastal tourist areas or near capital cities: Northern Melbourne, Southern Melbourne, Brisbane City, Gold Coast, Mackay/Whitsunday.

Figure 5.3: Growth of RDA Areas by Age <65 and 65+, Australia 2006-11



Source: ABS Census data 2006, 2011

Above-average growth of the 65+ population is evident in almost all coastal RDAs. In Queensland and Western Australia this is generally accompanied by above-average growth of the rest of the population while in south-eastern Australia there is low growth of the 65+ population. It will be noted that there are also significant inland areas in south-west and south-east Australia where rapid growth of the 65+ population has occurred with low growth of the rest of the population. The latter is because the growth of the older population is predominantly due to ageing in place while in coastal areas there has been some in-movement of older people.

Migration

Table 5.3 shows net migration of the population aged 60+ years, the pre-retirement population (aged 50 to 59) and the young population (aged 15 to 24) from 2006 to 2011 in the RDAs with above-average growth of the older population. These figures do not include international arrivals or departures. The positive net migration for the population aged 60+ years in all of these areas, except Wheatbelt and the Far North, indicates growth of the 65+ population is due to movement into the area by the older population to some extent. The overall negative net mobility for the population aged 60+ years to the Far North and Wheatbelt RDA areas indicates growth in the 65+ years population is due to ageing in place rather than immigration of older people. Wide Bay Burnett RDA had the greatest total overall net gain in population aged 60+ years from 2006 to 2011 due to mobility. It is apparent that all RDA areas shown in this table had negative net migration for the young population aged 15 to 24 years. The Wheatbelt had a small net gain due to mobility in the pre-retirement age group of 50-59 years, but negative net migration for the other age groups. Apart from the Wheatbelt and Limestone Coast RDA areas, net migration patterns of the 50-

59 years (or 'pre-retirement') age group were the same as those of the 60+ years age group.

In addition to overall net gains and losses of the population aged 60+ years across RDA areas due to mobility it is interesting to consider the extent to which these movements are happening intrastate or interstate. Some patterns become apparent, for instance the vast majority of arrivals and departures occurring in RDA areas in Western Australia are intrastate movements rather than interstate. This attests to the great distance from Western Australia to other major population centres. The majority of the arrivals and departures from RDA areas in the state of South Australia are also intrastate, with the exception of Limestone Coast; this RDA is equidistant from both Adelaide and Melbourne. The RDA areas which are well established retirement areas, such as the Sunshine Coast and South Coast, are drawcards for retirees nationwide and are also relatively close to state borders; therefore they attract a higher proportion of arrivals from interstate compared with other RDA areas.

Table 5.3: Net Migration, Population Aged 60+, 50-59 and 15-24 Populations, Ageing RDA Areas, 2006-11*

RDA name	Net Migration Population Aged 15-24	Net Migration Population Aged 50-59	Net Migration Population Aged 60+
Adelaide Hills, Fleurieu and Kangaroo Is.	-1238	906	1728
Barossa	-584	235	604
Central West	-1229	159	407
Darling Downs and South West	-2219	520	1100
Far North	-165	-98	-225
Gippsland	-3040	1908	2811
Great Southern	-1384	191	232
Hume	-4148	751	1553
Limestone Coast	-1235	-100	203
Loddon Mallee	-4060	662	1625
Mid North Coast	-5460	1741	3384
South Coast	-3600	1714	2556
Southern Inland	-2803	696	908
Sunshine Coast	-2346	2093	3713
Wheatbelt	-2180	228	-140
Wide Bay Burnett	-4216	2816	4389

Note: Data were organised in 10 year age increments for the mobility variable therefore the 60+ rather than 65+ age group was used to explore mobility.

* Does not include international arrivals or departures

Source: ABS 2011 Census data

Consequently, these areas also have a higher proportion of interstate departures compared with other areas. All coastal RDA areas in the eastern seaboard states of New South Wales, Queensland and Victoria except Darling Downs and Gippsland had over 20 percent of arrivals and departures in the 60+ years age group arriving from or leaving to go interstate. The Central West RDA in New South Wales had a different pattern to the other eastern states with a higher proportion of intrastate arrivals and departure; this RDA is located inland west of Sydney and likely reflects older people moving between Sydney and this RDA or moving in from other areas in New South Wales to be closer to the capital city.

Key Emerging Trends and Policy Implications

Introduction

Earlier chapters have examined in some detail contemporary trends in population dynamics in Australia's regions. It has disaggregated the processes of natural increase (births minus deaths), internal migration both permanent and temporary, international migration and ageing. This has demonstrated strongly the great diversity between regions in Australia around national trends. This diversity is evident not only in terms of the level of contemporary population growth but in the relative contributions of natural increase, internal and international migration and ageing to those trends.

In this chapter we will distil from this analysis a number of key trends relating to population dynamics in Australian regions and discuss some of their implications for regional development and policy. Our focus here is predominantly on areas outside of the capital cities. Debates about Australia's population distribution go back more than a century (Hugo, 2011b) and there is also a long history of attempts by government to intervene to influence population distribution, especially to attract population growth to areas outside the capitals. Before discussing the key trends and policy implications emerging from the present study we will briefly review some of these earlier attempts to intervene to influence population dynamics in regional Australia.

Past efforts to influence population dynamics in regional areas

Debates on Australia's population go back to the early 19th Century (Hugo, 2011c). However, concerns about the distribution of the population and the balance between urban and rural populations began to be expressed only in the early years of Federation (Borrie, 1994, 203). Environment had played an important role in shaping Australia's population development but it was not until the 1920s that there was a substantial public discourse on this issue. Until then the dominant philosophy was to expand Australia's population to facilitate development (Hugo, 2011b). This philosophy gathered strength in the early years of Federation. Powell (1984, 86) demonstrates that Brady's (1914) work 'Australia Unlimited' was representative of the prolific booster literature of the time. It proclaimed a mix of imperialist, nationalist, racist and expansionist sentiments underpinned by a faith in the nation's unlimited resources; these optimistic views were embraced by many in government, the media and in industry. However, as Borrie (1994, 202) points out, this optimism was increasingly being countered by scientists who questioned the ability of Australia to absorb unlimited population growth, especially in regional areas. While there were many such commentators, the geographer Griffith Taylor (1922, 1928) was the most outspoken and controversial. He argued not only that environmental limitations were a major constraint on Australia's 'carrying capacity' but also greatly restricted the parts of the continent that could be closely settled.

The early decades of the post World War II period represented a high point of concern about population distribution in Australia and the potential and practice of decentralisation. There had been a history in Australia of anxiety about the 'balance' between urban and rural populations (Borrie, 1994, 203) and this was part of the thinking behind land settlement schemes following the two world wars (Rowland, 1979). However, in the 1950s and 1960s the focus of the discussion of decentralisation moved from agricultural expansion and rural depopulation to a concern with rapid growth and emerging diseconomies in Australian cities. There was discussion about relocation of manufacturing and service activities into non-metropolitan areas rather than an extension of agriculture at the centre of decentralisation policy. State governments produced reports on decentralisation (e.g. Development Council of

NSW, 1969) and there was debate on how much encouragement of decentralisation was desirable, and whether it should be more selective (Hefford, 1965). By the late 1960s the focus was on selective decentralisation and especially the potential role of ‘growth centres’ in decentralising population and encouraging growth in regional areas (Australian Institute of Urban Studies, 1972). By the early 1970s, the concentration of the Australian population in capital cities had reached unprecedented levels and was attracting increasing concern (Vipond, 1989). Neutze (1965) had analysed the increasing diseconomies apparent in Australian cities; there was concern that large cities added to income inequalities (Stretton, 1970); and there was increasing pressure to develop a coherent national urban development strategy (Lloyd and Troy, 1981). With the development of the Cities Commission and the Department of Urban and Regional Development in 1972 the newly elected Labor federal government saw Canberra become involved in settlement and population distribution for the first time in the postwar era (Logan et al., 1975; Logan and Wilmoth, 1975). A National Growth Centre Policy was developed and investment in regional centres like Albury-Wodonga was initiated (Cities Commission, 1974). Moreover, there were the beginnings of a search for developing a comprehensive national settlement policy (Nielson, 1976). Such was the level of activity that in 1978, Pryor (1977) was able to compile an impressive list of state and federal authorities and specific policy measures related to decentralisation. However, as Whitelaw and Maher (1988, 133) pointed out: ‘Attempts to create a national settlement strategy in the early 1970s lost momentum with a change in government.’

Since then, from time to time interest in regional development has flared in the federal arena but there has been no attempt to develop a comprehensive national settlement policy. The establishment of Regional Australia in 2010 as a separate Federal Government department has signalled the continuation of government interest in development of regional areas. The continuity of this interest is reflected in the Australian government responses to the United Nations’ (2010) triennial surveys on national population strategies. While the official position on other aspects of population (population size and growth, immigration, emigration etc) has consistently been satisfaction with the existing situation, this has not been the case for the spatial distribution of population (United Nations, 2010). Table 6.1 shows that in the 1970s and 1980s it was indicated that a major change was desired although more recently this has been modified to a ‘minor change’. Nevertheless, government concern to change the national population distribution has been a consistent element in all postwar federal governments regardless of the party in power, but that concern has not been translated into any significant action. Four decades ago, Day (1972, 1) pointed out:

‘Since around the turn of the century decentralisation has been a commendable but unexciting part of the conventional wisdom. No one has ever been opposed to it. A great deal of lip service has been paid to it.’

Table 6.1: Views of Australian Government Regarding Population Spatial Distribution Size and Growth, 1976-2009

Year	View on Spatial Distribution	View on Population Size and Growth
1976	Major change desired	Satisfactory
1986	Major change desired	Satisfactory
1996	Minor change desired	Satisfactory
2009	Minor change desired	Satisfactory

Source: *United Nations, 2010*

This assessment remains essentially valid. An important contribution was made in a recent report by the Grattan Institute (Daley and Lancy, 2011). This argued that government funding of regional development has been flawed because it has failed to differentiate between regions with the potential for self-sustaining growth and those without this potential. Partridge et al (2009) posits that any rural development policy objective needs to include sustained population growth. The economies of scale in service provision require a population

threshold to benefit from a national rural policy. This will in turn result in a circular causation effect between population growth, retention and quality of life, access to services and economic opportunities (Partridge et al., 2009, 5). There is also some evidence that proximity to larger or more urbanised centres is a crucial ingredient in regional development (e.g. OECD, 2009; Partridge, 2007 et al). In a similar vein, Burstein (2007) recommends that successful immigration attraction and retention policies should focus on growing communities that are close to or adjacent to metropolitan regions and that rural and non-adjacent metropolitan regions should only be served by temporary migration programs. Regardless of the approach or strategy adopted in regional development it will always involve attraction and/or retention of people to regional areas. It is the argument of this report that the first step must be to have a clear understanding of the existing population dynamics. In the rest of this chapter we will identify some of the trends in population dynamics identified in this report which have significant implications for regional development.

Migration and regional development

It is the argument of this report that migration is fundamental to regional development in Australia. Stockdale (2006) goes so far in the Scottish case to insist that migration is a prerequisite for rural economic regeneration. She argues that:

‘... a national level Government and academic attention is focusing on population dynamics and positive migration policies, one should not forget that the current national problems of ... ageing have existed among some rural communities for a considerable time.’

These arguments are especially relevant to Australia where in the postwar period migration has been seen as a fundamental part of economic development strategy and there has been substantial policy intervention to shape the scale and composition of migration. Internally, within Australia, however, migration has not been seen as a fundamental ingredient of regional development. There have been some exceptions and the introduction of the State Specific and Regional Migration program after 1996 (Hugo, 1999) is one of these. The complexity of population dynamics in regional Australia has been demonstrated in this study. Indeed the migration issues at a regional level could be seen as more pressing yet, as Stockdale (2006, 354) points out:

‘... in contrast to the urgency to address the national trend these same long-term ... problems have not been met with similar pro-active policies.’

The additional complexity at the regional level is injected by the ubiquitous net outmigration of young adults from even the fastest developing regional areas and the higher level of ageing than in metropolitan areas. This outmigration is not compatible with endogenous development (Stockdale, 2006, 354) in regional areas.

This outflow of young adults is sometimes seen as fatal to the future viability of regional areas (Muilu and Rusanen, 2003, 296):

‘... young people are in a key position as far as the future of the remote rural areas, in particular, is concerned, for without renewal of their population from within these areas cannot remain viable or maintain their economic functions in the long-term.’

Such attitudes have led to unrealistic policy suggestions of stemming the outflow of young people at the stage of the lifecycle when they are entering the labour force or higher

education and leaving home. The argument here is that policies which seek to stop or significantly reduce such flows are doomed to fail. Experience all over the world is that many young people at this stage of the lifecycle will leave peripheral areas for large metropolitan centres in large numbers. This is partly associated with seeking further education or competing in a more diverse labour market with greater opportunity. However, it is also associated with lifestyle preference, bright lights, seeking adventure and a desire to enhance one's experience. This should not be suppressed among young Australians living in regional and peripheral areas. They shall not just be allowed but should be encouraged to compete in national and global labour markets. Moreover, experience with policies to stop migration of all types, internal and international, rarely are successful.

What of the vacuum left by young, skilled, educated young people with significant social and human capital? If we should not be seeking to stop this outflow, how can it be filled? The answer here also lies in migration but in taking steps to encourage immigration. In saying this, however, we must be mindful of the findings of the Grattan Institute study (Daley and Lancy, 2011) that regional areas vary considerably in their potential for sustained economic growth. Any intervention policy to facilitate immigration must be limited to areas of real economic potential in which newcomers can be readily absorbed in jobs which make use of their particular skills and abilities. As Daley and Lancy (2011, 3) have conclusively demonstrated, 'regional equity' approaches have failed:

'Local job attraction schemes, regional universities, small scale roads and major infrastructure are all expensive but they do not materially accelerate slow growing regions. By not investing in regions where we can get the best return for our taxpayer dollars we sacrifice higher overall productivity and economic growth.'

As they also point out, this does not mean ignoring areas with little or no real potential for economic growth. As they point out (Daley and Lancy, 2011, 3):

'Smaller and slower growing parts of rural and regional Australia remain great places to live and should not be left without services that increase wellbeing – such as schools, hospitals, transport and other community facilities. In many cases these services are what regional development policies are really funding. However, these should be clearly recognised as subsidies to be justified on equity or social grounds, rather than hoping that they will generate self-sustaining economic growth.'

In areas of substantial real economic potential, however, undoubtedly the net loss of talented young people does represent a significant barrier to development and there is a need to facilitate immigration to fill the vacuum the outmigrants have left and to provide the types of workers who are needed to develop the full potential of local resources and opportunities. What are the types of interventions relating to migration which should be considered?

Return migration

It has been argued in the case of South Australia (Hugo et al., 2000), which occupies a peripheral position in the Australian space economy like most regional areas, that a 'Bringing Them Back Home' program should be part of any regional migration policy. The fundamentals of such a policy are as follows:

- Research indicates that once young people enter the early family formation stages of the lifecycle (30s and early 40s) their preferences for living areas often change. Closeness to direct family, good schools, a good health system, a secure environment, family housing etc often replace night-life options, high-density housing, café society, international city as priorities in deciding where to live. A longstanding finding of migration between rural and urban areas in Australia (Hugo, 1971) is that there is a significant, although smaller, return migration counterflow to the stream of young outmigrants.
- People from regional areas will not always respond to those changes by returning to their home areas. They often need to be presented with a real opportunity to actualise these preferences.
- To return they must be presented with high quality education, health and recreation choices for their children, a relevant properly remunerated job and appropriate housing. However, they are much easier to attract to a regional area than people without social connections. Nevertheless, most will not come back unless the key elements of jobs and services are there.
- These are a few examples of such policies to build upon but some attempts have been made in the United States (e.g. DeJong and Klein, 1999; Kenworthy, 2000).
- Identifying potential returnees can involve parents in the home community.
- Return migration strategies often are best focused on key individuals with particular skills needed for regional development.
- These policies can be equally applied to former residents, not only in capital cities but also overseas (Hugo, 2011a).

Regional relocation

An irony in Australia is the high level of personal mobility but the difficulty experienced in recruiting labour, especially skilled labour, in many regional areas. In recent years this has been especially highlighted in regional Queensland and Western Australia. This is despite the high levels of displacement of semi-skilled and skilled workers from the contemporary closure of many manufacturing enterprises in south-eastern Australia. The 'Patchwork Economy' of contemporary Australia shows considerable spatial variation in the buoyancy of local economies and in the opportunities in local labour markets.

It is interesting, in a country where so much public policy effort is directed at meeting national skilled labour shortages through international migration, there has been little effort to use migration policy to cope with labour shortages in particular regional areas. It may be that there is scope for internal migration initiatives which facilitate and encourage migration where there are labour shortages which are a barrier to regional development.

Such efforts should take cognisance of what is known about internal migration in Australia. As discussed in the previous sections there are a number of factors which need to be considered if migration is to be encouraged:

- It is often the case that young singles may not be readily attracted to regional areas given their preference for the café society lifecycle of inner capital cities. On the other hand, young families may well be attracted.
- Jobs are not enough to attract internal migrants to regional areas. They are a necessary but not sufficient condition for internal migration for young families. An appropriate job with an appropriate level of remuneration is necessary but what are the types of things which will actually trigger the movement? It is clear that quality education and other services (especially health) for families are a *sine qua non* for family migration, especially for skilled workers. Quality of life, security, recreation

opportunities, social support etc are very important and can be a strength for regional areas seeking to attract internal migrants.

- Retirement migration has been seen in Australia by some regional communities as being inimical to regional development. Older people are perceived as consumers of resources rather than economic contributors. However, research does not support that. Retirement migrants are overwhelmingly the 'young aged', they are selectively drawn from high income groups and they often have considerable skills and qualities which can become an important element in the social and economic life of communities. They can and do contribute to the economic and social sustainability of regional communities.
- Housing is a crucial element in regional migration decisions, especially for family migration. Housing affordability and shortage are seen in Australia as a problem of our major cities, but they represent considerable barriers to family migration to regional areas.

International Migration

As is expanded upon later in this chapter, there is a new era of international migration in regional areas in OECD countries. A recent collection of studies in the United States (Massey [ed.], 2008) demonstrates how, while immigrants settling in gateway cities still far outnumber those moving to regional areas:

'Immigrants now settle in small towns as well as large cities and in the interior as well as on the coasts. Immigrants have discovered the Mid West and the South.'

Immigrants are an increasingly important element in regional labour markets in the United States and it has been shown here that this is also the case in Australia.

International migration is increasingly a strategy which is available to regional authorities to meet labour shortages. A range of mechanisms are available to them to facilitate settlement of skilled immigrants as well as refugee-humanitarian entrants, while temporary migration channels offer mechanisms for meeting seasonal and short-term labour shortages. However, local and regional agencies have been very limited in the extent to which they have been proactive to use these mechanisms.

There is a lack of settlement services available in many regional areas to assist immigrants adjusting to local labour and housing markets and wider aspects of Australian society. In addition, such areas lack the immigrant communities to provide the informal help and support available in capital cities. Hence efforts to attract immigrants must be accompanied by efforts to facilitate and assist their adjustment to the community. There is little knowledge yet regarding the extent of retention of immigrants in regional areas once they have fulfilled the residential requirements of their visas. Effective policies are required not just for attracting immigrants but also for retaining them.

The demography of regional Australia dictates that international migration will increasingly become the major source of new labour in the future. Early experience in some regional communities has been that the social capital in these communities can be effective in counterbalancing the lack of ethnic networks and formal support services in assisting migrants to adjust and remain in those communities. Moreover, several local communities have developed effective policies and programs to harness local social capital in this way (Hugo, 2009).

Coastal communities

One of the most robust and substantial trends in population change in Australia over the last three decades has been the population growth rates well above the national average in coastal communities along the east, south-east and south-western coasts of Australia. Much of this growth has been sustained by so-called 'sea change' migration (Burnley and Murphy, 2004; Salt, 2001, 2004). This study has indicated that these growth trends have been continued during the 2006-11 Census period. In terms of LGAs, Table 6.2 lists the fastest growing coastal areas. It is clear from this list that the coastal factor has combined with the influence of mining to cause very rapid growth in several Western Australian coastal areas. Indeed, if we exclude the mining communities and capital city LGAs, the top 20 list is quite different (Table 6.3). It is apparent from the table that in all areas except one, the growth in 2006-11 was more rapid than in 2001-06.

Table 6.2: Average Annual Growth Rate for the Top 20 Fastest Growing Coastal LGAs

LGA Name	RDA Name	2001	2006	2011	Average Annual Growth Rate	
					2001-06	2006-11
Ashburton	Pilbara	6778	8033	14886	3.5	13.1
East Pilbara	Pilbara	6517	10639	17022	10.3	9.9
Roebourne	Pilbara	15882	19187	29611	3.9	9.1
Wyndham	Western Melbourne	84861	111653	160095	5.6	7.5
Capel	South-west	6516	9841	14077	8.6	7.4
Isaac	Mackay/Whitsunday	18958	24071	33847	4.9	7.1
Port Hedland	Pilbara	13230	13189	18337	-0.1	6.8
Perth	Perth	11128	15844	21833	7.3	6.6
Wanneroo	Perth	80008	108779	148993	6.3	6.5
Northern Peninsula Area	Far North Queensland and Torres Strait	2081	1927	2596	-1.5	6.1
Derby-West Kimberley	Kimberley	9051	8287	10983	-1.7	5.8
Cardinia	Southern Melbourne	45305	56152	72834	4.4	5.3
Chapman Valley	Mid West Gascoyne	873	937	1209	1.4	5.2
Kwinana	Perth	20765	22880	28657	2.0	4.6
Mandurah	Peel	44883	53555	66885	3.6	4.5
Doomadgee	Townsville and North West Queensland	1137	1043	1298	-1.7	4.5
Hope Vale	Far North Queensland and Torres Strait	745	821	1020	2.0	4.4
Rockingham	Perth	70008	82293	101365	3.3	4.3
Melbourne	Western Melbourne	65617	89910	110554	6.5	4.2
Tiwi Islands	Northern Territory	2252	2100	2566	-1.4	4.1
Average					1.1	1.6

Source: ABS 2011 Census

Table 6.3: Average Annual Growth Rate for the Top 20 Fastest Growing Coastal LGAs (excluding mining associated LGAs and capital cities)

LGA Name	RDA Name	2001	2006	2011	Average Annual Growth Rate	
					2001-2006	2006-2011
Northern Peninsula Area	Far North Queensland and Torres Strait	2081	1927	2596	-1.5	6.1
Cardinia	Southern Melbourne	45305	56152	72834	4.4	5.3
Chapman Valley	Mid West Gascoyne	873	937	1209	1.4	5.2
Doomadgee	Townsville and North West Queensland	1137	1043	1298	-1.7	4.5
Hope Vale	Far North Queensland and Torres Strait	745	821	1020	2.0	4.4
Tiwi Islands	Northern Territory	2252	2100	2566	-1.4	4.1
Pormpuraaw	Far North Queensland and Torres Strait	644	576	696	-2.2	3.9
Palm Island	Townsville and North West Queensland	2102	1967	2356	-1.3	3.7
Aurukun	Far North Queensland and Torres Strait	1024	1083	1293	1.1	3.6
Irwin	Mid West Gascoyne	2810	2994	3571	1.3	3.6
Cook	Far North Queensland and Torres Strait	4342	4654	5426	1.4	3.1
Bass Coast	Gippsland	23971	25517	29553	1.3	3.0
Canada Bay	Sydney	59317	65368	75440	2.0	2.9
Denmark	Great Southern Adelaide Hills,	4325	4352	5010	0.1	2.9
Victor Harbor	Fleurieu and Kangaroo Island	10516	11560	13288	1.9	2.8
Alexandrina	Adelaide Hills, Fleurieu and Kangaroo Island	17436	20108	23106	2.9	2.8
Mapoon	Far North Queensland and Torres Strait	236	267	305	2.5	2.7
Auburn	Sydney	55851	64947	74109	3.1	2.7
Copper Coast	Yorke and Mid-North	10535	11193	12716	1.2	2.6
Exmouth (S)	Mid West Gascoyne	4092	4076	4606	-0.1	2.5

Source: ABS 2011 Census

At the Statistical Division level, Table 6.4 shows that in 2001-06 coastal statistical divisions grew at three times the rate of inland statistical divisions, while in the 2006-11 period it was almost 20 percent faster.

Table 6.4: Australia: Statistical Division Region by Year of Arrival and Australia-Born, 2001, 2006 and 2011

Region	5 years or Less	More than 5 years	Total	Australia-born	Total Population
2001					
Coastal	61841	432711	494552	3128653	3848920
Non Coastal	28192	231777	259969	2496657	2921477
Capital Cities	535964	2617029	3152993	7969521	11948881
Total	625997	3281517	3907514	13594831	18719278
2006					
Coastal	79731	455180	534911	3317745	4161976
Non Coastal	37405	230077	267482	2518868	2993401
Capital Cities	635091	2756121	3391212	8208036	12655408
Total	752227	3441378	4193605	14044649	19810785
Av An Growth Rate 2001-06					
Coastal	5.21	1.02	1.58	1.18	1.58
Non Coastal	5.82	-0.15	0.57	0.18	0.49
Capital Cities	3.45	1.04	1.47	0.59	1.16
Total	3.74	0.96	1.42	0.65	1.14
2011					
Coastal	122349	482352	604701	3467772	4452781
Non Coastal	71962	270489	342451	2707851	3166413
Capital Cities	990849	3104378	4095226	8809936	13836529.9
Total	1185160	3857218	5042378	14985559	21455725
Av An Growth Rate 2006-11					
Coastal	8.94	1.17	2.48	0.89	1.36
Non Coastal	13.98	3.29	5.07	1.46	1.13
Capital Cities	9.3	2.41	3.84	1.43	1.8
Total	9.52	2.31	3.76	1.31	1.61

Note: In 2001 five years or less includes 1996 to 2001 and more than 5 years includes less than 1996 and in 2006 five years or less includes 2001 to 2006 and more than 5 years includes less than 2001.

In 2011 five year or less includes Arrived 2006 to 2011 and more than five years includes before 2006.

Source: ABS 2001, 2006 and 2011 Censuses

They grew faster than capital cities in 2001-06, but slower in the 2006-11 period. The recent slowing is understandable given the commonly recognised trend that when levels of immigration are very high, as they were in the 2006-11 period, the growth of gateway cities is faster (Massey ed., 2008). The table shows that the overseas-born population is growing somewhat faster than the Australia-born. However, this is coming off a low base and the overseas-born are still underrepresented in the non-metropolitan coastal communities.

Internal migration is the main reason why non-metropolitan coastal communities are growing faster than their inland counterparts. An ABS (2004) analysis of internal migration trends to sea change areas focused on the high-growth communities. It found that only one-third of new residents to those communities came from capital cities, while the rest were from other non-metropolitan areas. Hence, the growth of coastal areas has, to some extent, been at the expense of inland areas. The ABS report explodes some of the myths about migration to such areas by showing that young adults predominate, they had higher labour force participation

rates than the longstanding residents but they were culturally similar to the existing residents who have less diversity than Australia as a whole.

An important insight into differences in the population dynamics between inland and coastal areas in non-metropolitan Australia is provided in Figure 6.1 which shows the net migration age-sex profile for both areas, and compares them with those in the capital cities. It can be seen that both inland and coastal areas experience net loss of teenagers and young adults. This is characteristic for all non-metropolitan areas, with young people moving to capital cities to further their education, access a larger job market or seek the 'bright lights' of big city life. Accordingly, there is an equivalent net gain in those ages for the capitals. However, there is net loss in the capitals in the ages from around 30 to 70 years. While there are small net gains in these age groups in inland non-metropolitan areas, the highest gains are in coastal areas. There is some evidence of a peaking of net growth in the 30s and around the late 50s and early 60s. The latter is indicative of retirement migration to non-metropolitan coastal areas.

The fact is then that many coastal areas are already experiencing population growth well above the national average. Moreover, much of this growth is of young families. Retirement migration to these areas is significant and while to some extent this creates demand for goods and services and hence for working age population, it is apparent that coastal population growth is more broad based than this.

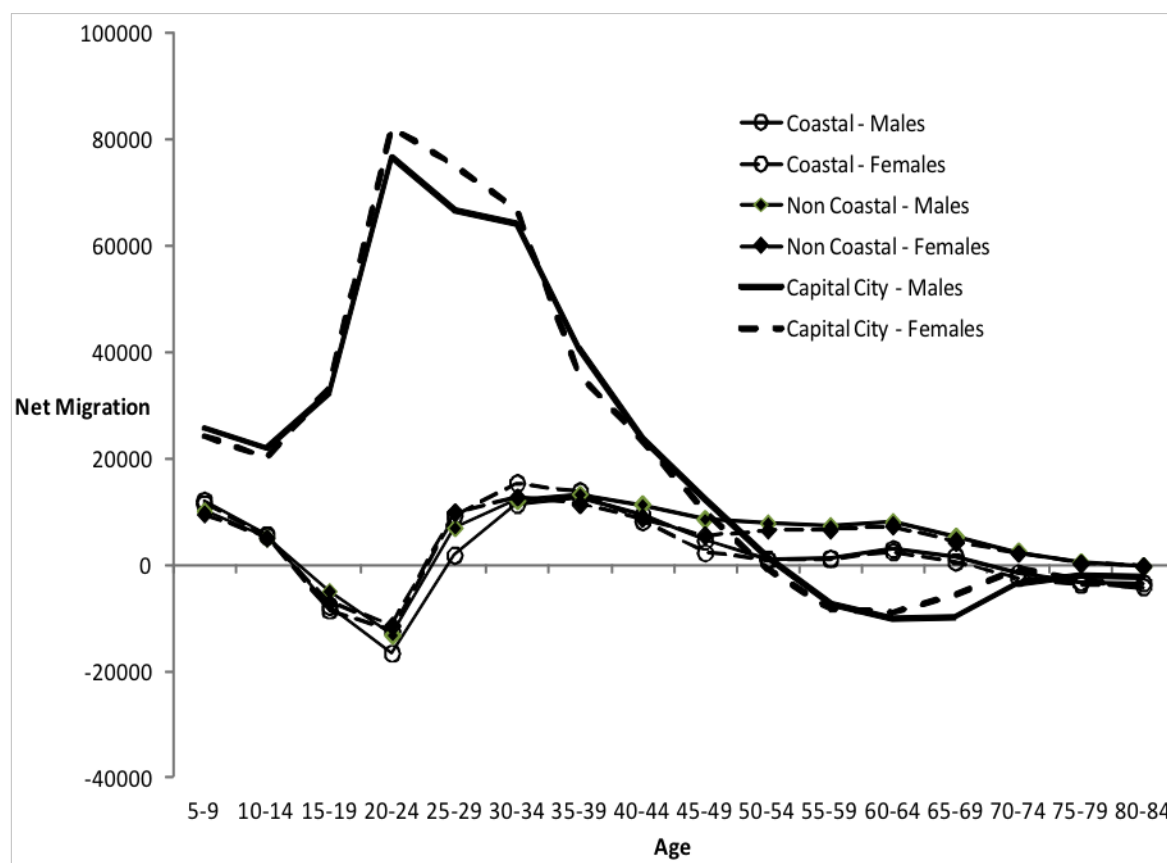


Figure 6.1: Australia: Coastal, Non-Coastal and Capital Cities Age-Specific Net Migration, 2006-11
Source: ABS, 2011 Census, 2006-11

In addition, however, this study has demonstrated that Census data greatly underestimate the number of people who spend considerable periods in sea change areas. One detailed study of nine sea change LGAs found that second homeowners and others staying at hotels, motels,

caravan parks etc add almost a quarter more Equivalent Full-Time Residents to the Census population of these areas. The important point is that for many such areas temporary migration leads to significantly increased populations at particular times of the year. As McKenzie, Martin and Paris (2008) have pointed out, this has important implications because much LGA, state and federal funding is distributed on the basis of Census populations.

Hence one of the issues emerging from this analysis is that the population geography provided by the Australian population Census relates only to people's usual place of residence. However, alternative geographies could be postulated, especially with increasing levels of personal mobility. There can be significant variations in the populations of places according to whether the population count 'snapshot' is taken in winter or summer or a weekday or a weekend. For many regional communities, especially in coastal areas, the Census represents a low point in the number of people present in their area. For some aspects of regional development it is necessary to consider the effects of influxes of temporary migrants into areas.

Another important issue relating to the future development of coastal communities relates to the potential for rapid growth in the populations of many non-metropolitan coastal communities. The impending retirement of Australian baby boomers (who make up 27 percent of the national population) raises a number of issues. The Department of Treasury's Intergenerational Reports (Swan, 2010) have indicated several of the challenges that ageing of the population will present for the national economy. One issue which has been given little consideration, however, is where will baby boomers live during their retirement? Historically, older Australians have been the least mobile group in the population with ageing in place being dominant, as older people have mostly remained in the family home during retirement. There are some indications, however, that in the pre-retirement and early post-retirement stages of the lifecycle, baby boomers will move house more frequently than did earlier generations. Moreover, there are some indications that many of these movers will shift to a seaside non-metropolitan location.

One factor pointing to an impending substantial move of baby boomers to non-metropolitan coastal communities upon retirement is the second home phenomenon. A key fact about most coastal communities is that a significant proportion of their housing stock is made up of holiday homes that are occupied only on weekends or holidays and are owned by absentee rate payers. There is no data collected in the Census of Population and Housing on second homes, but Table 6.5 shows for South Australia the significance of such homes in one coastal area. Baby boomers make up the majority of the owners of second homes; if a substantial proportion retire to them, then significant population growth will result and significant multipliers will see the growth of working as well as retired populations (Jackson and Felmingham, 2002).

Table 6.5: Spencer Gulf LGAs, 2006: Percentage of Dwellings Unoccupied, 2006

Local Government Area	Private Dwellings		Percent Unoccupied	Percent of Assessment Notices Sent Outside LGA
	Occupied	Unoccupied		
Barunga West	1 077	674	38.5	
Copper Coast	4 837	1 979	29.0	35.7
Cleve	853	153	15.2	
Franklin Harbour	571	198	25.7	26.5
Lower Eyre Peninsula	1 651	493	23.0	
Mount Remarkable	1 195	313	20.8	25.5
Port Augusta	5 431	785	12.6	
Port Lincoln	5 454	690	11.2	
Port Pirie City and Districts	7 020	697	9.0	8.0
Tumby Bay	1 098	387	26.1	32.9
Whyalla	9 010	1 086	10.8	11.9
Yorke Peninsula	4 866	3 966	44.9	48.1
Total	43 063	11 421	21.0	

Source: ABS 2006 Census

Some indications of the impending importance of this factor is given in results of a recent study of over 2000 holiday homeowners in nine sea change LGAs (Hugo and Harris, 2012). This study found that almost a third had definite intentions of eventually moving to live full time in their erstwhile holiday homes. Of these, around a half intended for this move to be in the next five years. Figure 6.2 shows that these intending movers are highly concentrated in the baby boomer age group. Clearly then coastal LGAs around Australia can anticipate a significant influx of baby boomers. There may be some delaying of retirement of this group due to the impact of the Global Financial Crisis on superannuation savings but it seems clear that there is an impending increase in the flow of baby boomers into non-metropolitan coastal areas. The fact that most of these immigrants already own housing in those areas means that the migration can occur quickly. These baby boomer immigrants are selectively drawn from higher income groups and can have significant multiplier effects in coastal communities.

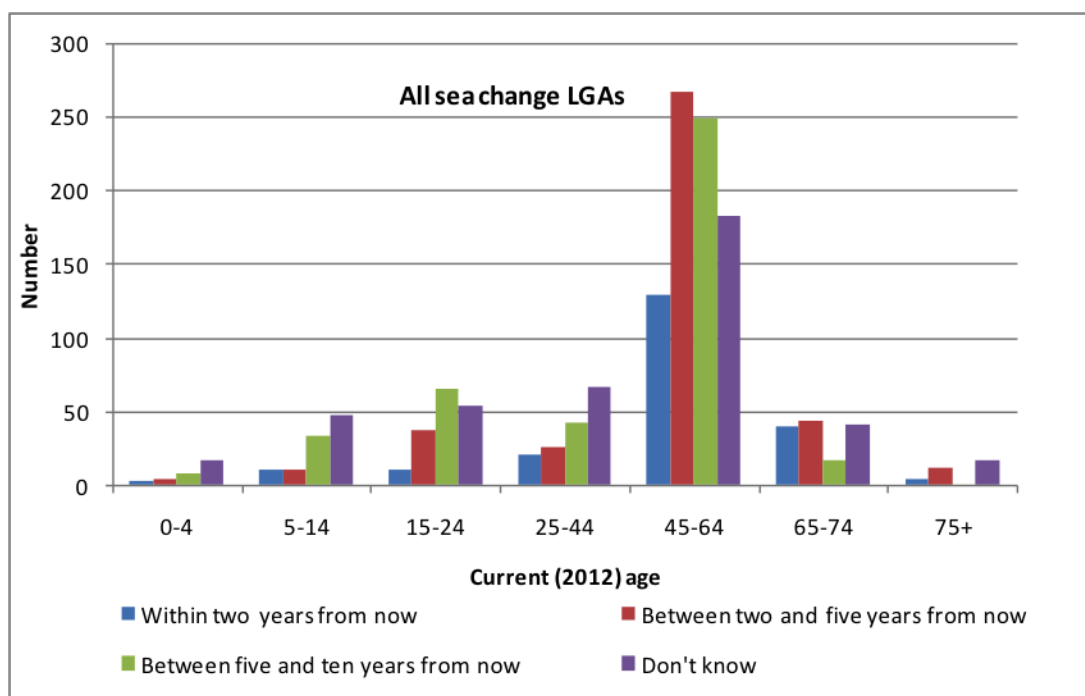


Figure 6.2: Nine Surveyed Sea Change LGAs: Age Structure of Persons Intending to Move to Non-Resident Owned Property, 2012

Source: Hugo and Harris, 2012

In summary, non-metropolitan coastal communities are highly dynamic with the high levels of intercensal population growth in fact underestimating the actual influx of population because of the significance of temporary migration. The strong indications from this study is that they will continue to experience strong growth fuelled to a significant degree by retirement migration of baby boomers. However, tourism and the increased ability of Australians to have a significant separation of distance between their usual residence and their place of work means coastal communities can be anticipated to continue to experience relatively high rates of population growth.

Increased international migration to regional Australia

One of the most striking changes in population dynamics in regional Australia which has been identified and analysed in this study relates to the increased role that international migration is playing in regional population growth. Immigrant settlement in non-metropolitan Australia has a long history but the inmovement of the last decade or so has differed from earlier flows in a number of ways. Firstly it has been diverse in terms of birthplace groups and involving a wider range of visa categories – skilled, family, Working Holiday Makers and students. Secondly it has been more spatially dispersed than early settlements with more settlement in the wheat-sheep belt. It also represents a small but nevertheless significant reversal of the consistent postwar trend of increasing concentration of immigrant settlement in the gateway cities. What of the future? Jordan et al (2011, 260) argue that with the ‘regionalisation’ of Australian immigration policy and the albeit small reversal of the postwar trend in increasing concentration of immigrants in Australian capital cities:

‘the numbers are critical to regional and rural Australia and represent a turning point in Australian immigration history’.

It would seem certain that the role of international migration in non-metropolitan Australia will increase in importance over the next decade.

Although immigrants to Australia will continue to concentrate in large 'gateway cities', they are playing an increasing role in regional Australia. Although much smaller in absolute terms, their impact is nevertheless considerable and it is not exaggerating to suggest that as in the United States there is a new diversity in immigrant settlement (Hirschman and Massey, 2008, 3). There are a plethora of issues associated with the new geography of immigrant settlement which have not been able to be addressed here. The extent to which the new settlers will be retained in those communities in the longer term, the impact and role of the existing populations of those communities, the lack of formal and informal support services for newly arrived migrants, lack of housing, discrimination, language and cultural barriers are just a few.

A key characteristic of the new immigration to non-metropolitan areas is the involvement of new destinations which in the past have experienced little settlement of immigrants from diverse ethnic backgrounds. A strong theme in the research into the new dispersal of immigrant settlement in the United States has examined the challenges of immigrant incorporation in these new destinations (Sanderson and Painter, 2011; Crowley and Lichter, 2009; Farmer and Moon, 2009; Pfeffer and Parra, 2009). In Australia too there is an emerging body of research relating to the adjustment of new immigrants in non-metropolitan communities and their impact on those communities (Wulff et al., 2008; Collins, 2009; Wulff and Dharmalingam, 2008; Forrest and Dunn, 2013; Taylor-Neumann and Balasingam, forthcoming; Hugo, 2008a and b; Jordan et al., 2011).

Studies of the economic and social impact of contemporary immigrant settlement in non-metropolitan Australia remain limited but they are potentially substantial. Economically it is apparent that immigrants are filling shortages of labour in particular niches of local labour markets. In some areas of intensive agriculture, harvest labour is strongly dependent on Working Holiday Makers (Tan et al., 2009; Hay and Howes, 2012). In remote mining areas the resident populations, as opposed to FIFO workers, have a strong representation of recent migrants. The proportions of workers in agriculture, forestry and fishing that were overseas-born increased from 11.8 to 13.8 percent, while for mining it increased from 21 to 23.4 percent between the 2006 and 2011 Censuses (ABS, Census of Population and Housing).

It is in the area of food processing in non-metropolitan areas, however, that recent immigrants have been especially significant. This is similar to the experience in the United States where, as Sanderson and Painter (2011, 403) point out:

'Over the past 30 years, the U.S. food-processing industry has been restructured from a predominately urban enterprise with relatively high rates of unionization and competitive wages into a rural-based industry with very high rates of firm consolidation, sales concentration, precarious forms of employment, higher turnover rates, declining wages, and an expanding Hispanic immigrant workforce.'

Not all of these trends are apparent in Australia but some are and it is especially apparent in the area of meat processing. Reports on the 25 largest operations which had 21,000 workers, and three-quarters of the national total, give some indication of the degree of decentralisation which has occurred. More than three-quarters of all of the more than 50 abattoirs operated by the group are located outside capital cities (Meat and Livestock Industry Journal Supplement, October 2005, 4). Moreover:

'Companies noted again this year the critical shortage of workers available for training and business expansion.'

It is apparent that much of this shortage identified in 2005 has been met with immigrant workers. Sanderson and Painter (2011, 463) report that 58 percent of the meat processing labour force work in non-metropolitan areas. In Australia 57.6 percent work in places with less than 100,000 inhabitants (ABS, 2011 Population Census).

Refugee-humanitarian settlers have been an important element in meeting the shortage of meat processing workers in non-metropolitan Australia, contrasting strongly with the United States where Hispanic chain migration appears to be the dominant process. The 'dirty, dangerous, difficult' characterisation of the work in abattoirs has meant that it is difficult to engage local native workers. Refugee-humanitarian settlers have become important to the sustainability of several abattoirs in rural Australia. A case study of Afghan refugee-settlers in Young, where many work in meat processing, has been undertaken by Stilwell and Grealis (2003). They show that the Federal government policy of settling refugees in non-metropolitan areas assisted in the initial recruitment of workers in meat processing. They demonstrate the substantial economic contribution made by the workers and contrast it to the prevailing national discourse which depict refugees as a 'social problem and economic burden (Stilwell and Grealis, 2003, 247). In some cases owners of regional abattoirs have brought in 457s to meet labour shortages. This, for example, is the case in Port Wakefield, Murray Bridge and Naracoorte in South Australia where workers are sourced from China. In all such cases the towns have had limited previous settlement from culturally diverse countries.

However, it is not only in the meeting of shortages of low-pay, low-skill workers that international migration is having an impact. The SSRM schemes, as was pointed out earlier, are available only for skilled migrants so that the new settlers are adding significantly to the human capital in the communities which they enter (Collins, 2009). Accordingly, Massey and Parr (2012) have demonstrated that the migrant population in regional Australia compared with the Australia-born had significantly higher levels of education, especially among the most recent arrivals. Moreover, they show that while in the past overseas-born groups have experienced relative socioeconomic disadvantage compared with the whole of Australia, the gap has closed as a result of the SSRM schemes. They further argue that increasing migration to regional and rural areas may have a number of benefits:

- Filling skill shortages.
- Help reinvigorate regional economies through the influx of highly educated and skilled groups.

The achievement of these economic benefits, however, is dependent upon migrants being retained in non-metropolitan communities. Under several of the SSRM schemes settlers are required to remain in the communities of initial settlement for their first two years in Australia but then are free to go elsewhere in Australia. Wulff and Dharmalingam (2008) have argued that social connectedness is crucial to ensuring that immigrants remain in their areas of settlement. They use sample survey data to show that while the majority of RSMS settlers have strong social connectedness, it remains weak for over a quarter of the sample. Among the things which enhanced social connectedness were coming from a mainly English-speaking origin, having children and having assistance from sponsors upon arrival.

Traditional stereotypes of non-metropolitan areas depict them as less progressive and more conservative than their city counterparts. As Forrest and Dunn (2013, 1) point out:

'Rural areas have also been perceived as "white" landscapes where cultural diversity and even ethnicity is rarely "seen".'

In their study of South Australia, Forrest and Dunn (2013, 8) found that in the absence of ethnic diversity there were lower levels of tolerance and more conservative attitudes outside of Adelaide than within it. However, there were significant variations in racist attitudes within non-metropolitan areas depending on:

‘... the particular mix of socio-demographic and population diversity circumstances present and social distance associated with each of the groups in the diversity mix.’

Fieldwork in South Australia supports this conclusion. In some communities Afghani, Chinese and Sudanese families have been welcomed while in some others overt racist attitudes have been evident. There is, as Forrest and Dunn (2013, 8) point out, a need for deeper understanding of rural attitudes toward new immigrants if the settlement of these groups is to be facilitated.

International migration is playing an increasing role in the population dynamics of non-metropolitan Australia, just as it is in other OECD countries. The potential role of immigrants in not only meeting labour shortages in particular regional labour markets but in becoming important players in regional development initiatives needs to be better understood. Immigrants have played a disproportionately significant role in Australia’s postwar economic development. They are overrepresented among successful entrepreneurs and leaders in the private and public sectors. Migration is often selective of risk takers, entrepreneurs and people who both create and can take advantage of opportunities. The fact that this inflow has begun and that it is also occurring in other OECD countries is indicative of not only that this trend will continue, but that it represents a significant influx of diversity and talent into regional Australia which has the potential to facilitate regional development.

Ageing and opportunity

The former head of the Australian Treasury, Dr Ken Henry (2009, 3), identified four key forces shaping the Australian economy and forcing a structural transition of that economy, and the first among them was ageing. Moreover, in identifying ageing and population change as crucial to Australia’s future, the first question he asks is: Where will they live? Locational dimensions of ageing and population change are of crucial importance to Australia’s future. It has been shown here that Australia’s regional population is older than that of the capitals. Moreover, the older population of regional Australia is growing faster than that in the cities as is the case in other OECD countries like Canada (Dandy and Bollman, 2008).

The ageing discourse in Australia is usually conceptualised as a ‘problem’ and understandably it presents some important challenges. However, it is also important to consider the potential opportunities it offers. This is especially important in the context of regional Australia because, as has been demonstrated here, the 65+ population make up a higher proportion of regional than capital city populations. Indeed the overrepresentation of the baby boom generation in regional Australia and the increasing permanent and temporary flow of baby boomers into regional, especially coastal, locations is one of the most significant aspects of contemporary population dynamics in regional Australia.

Table 6.6 shows that baby boomers (usually aged between 45 and 65) are more significant in regional Australia than in the capitals. This is important given that their passage into the retirement ages is seen by Henry (2009) as the most important factor influencing future economic change in Australia. Table 6.6 indicates that baby boomers make up 24.4 percent of the population in capital cities but 27.1 percent in regional Australia. Perhaps more importantly they comprise 34.3 percent of the capital’s workforce but 39.4 percent in non-metropolitan areas. Hence the national challenge presented by a growth of the aged

population and the exodus from the workforce of baby boomers will take on an exacerbated form in regional Australia.

Table 6.6: Australia: Baby Boomers, 2006 and 2011

	2006	2011
% Australian Population	27.5	25.4
% Australian Workforce	41.8	36.0
% of Capital Cities	27.2	24.4
% Labour force in Capitals	41.4	34.3
% Non Metropolitan Areas	28.2	27.1
% Labour force in Non-Metro Areas	45.2	39.4

Source: ABS 2006 and 2011 Censuses

What opportunities does this present for regional development?

- The baby boom generation are not only the largest generation to enter the older ages in Australia, they are the most educated, diverse, wealthy and have an unparalleled body of experience. Developing innovative ways in which these assets can be best deployed to their benefit and to those of the wider community is an important priority.
- The baby boom may be a leader in achieving more sustainable settlement outcomes in Australia. Can baby boomers be an important element in sustainable regional development in non-metropolitan areas? They can bring wealth, expertise, demand for services and new ideas into regional areas and they create, rather than need, jobs (Jackson and Felmington, 2002).
- The rapid growth of older population in regional Australia is fuelled by the influx of retirement migrants and the 'ageing in place' of baby boomers in those areas. It must be stressed that these are not the 'old-old'. They are in their 60s. They are overwhelmingly still active. They represent a considerable human resource to regional areas.
- While there is significant outmigrants of older disabled populations from regional areas there is, and will continue to be, rapid growth of older people needing health and other aged care. Much of the discussion around providing such services in Australia, at least implicitly, assumes location in a built-up metropolitan area. Providing services to disabled older populations in regional areas will need innovative and new solutions. However, it will also greatly increase the demand for health and aged care workers in non-metropolitan areas. Again, as Jackson and Felmington (2002) point out, this will lead to a substantial financial flow into these areas.
- Can baby boomers extend the time that Australians spend in the workforce, both as paid workers but increasing too as volunteers? Australia has potentially its largest, best educated, more resourced body of volunteers ever. Can this be translated into more effective environmental stewardship, overcoming problems of providing accessibility and services to disabled and disadvantaged groups and enhancing social capital in regional areas?

This study of population dynamics has demonstrated that older people, especially 'young' retirees, are making, and will continue to make over the next decade, up an increasing proportion of regional populations. A cultural shift away from seeing this purely as a 'health and aged care services problem', to seeing it as an opportunity to facilitate regional development through an unprecedented influx of talent, experience and resources into regional areas is urgently required.

Environmental factors

The second major long-term force identified by Henry (2009, 10) as impacting upon the Australian economy in the longer term is climate change:

‘... in adapting to climate change we will need to reconsider historical assessment of the more hospitable parts of the country: Does it make sense for our population to continue to be concentrated in the south-eastern corner of the continent? How sustainable are traditional patterns of land use in already heavily populated areas?’

As was indicated earlier in this study, environment has long been a major determinant of population distribution and environmental constraints have historically been crucial in shaping patterns of population growth and decline. In the period under study here, south-eastern Australia was impacted by the millennium drought (Whittaker, 2005, 220) between late 2000 and 2010. This indicates some of the types of effects environment can have on population dynamics.

By late 2000, it was clear that much of south-eastern Australia was in drought. In early 2008, the drought that was devastating south-eastern Australia was considered to be without historical precedent, with rainfall totals at record lows in many regions, including many critical to the Murray Darling Basin and Australia’s prime food producing regions. The drought eventually broke by late 2010; however, during this decade of drought many areas within south-eastern Australia experienced major hardship, particularly those regions with a high rate of agricultural industry as their economic base. As weather patterns worldwide and in Australia change in the future the influence on both food production and the people and communities who support food production in Australia cannot be under-estimated. Long-term changes in weather patterns may see long-term changes in population mobility.

The population impacts can be seen by focusing on four RDAs within the Murray-Darling Basin region: Murray, Orana and Riverina in NSW and the Murray Lands-Riverland RDA in SA (Figure 6.3). When examining overall rates of population growth by RDA, Table 6.7 shows all four regions had below average population growth across this 10-year time period. In fact, all four RDAs were in the bottom 10 RDAs for the 2006 to 2011 Census period, while Orana and Murray Lands-Riverland were also in the bottom 10 for the 2001 to 2006 Census period in terms of overall population growth, and Murray and Riverina were in the bottom 20 of all RDAs.

LGA Area Reference

- 1 - Albury
- 2 - Balranald
- 3 - Berrigan
- 4 - Bland
- 5 - Bogan
- 6 - Bourke
- 7 - Brewarrina
- 8 - Carrathool
- 9 - Cobar
- 10 - Conargo
- 11 - Coolamon
- 12 - Coonamble
- 13 - Cootamundra
- 14 - Corowa Shire
- 15 - Deniliquin
- 16 - Dubbo
- 17 - Gilgandra
- 18 - Greater Hume Shire
- 19 - Griffith
- 20 - Gundagai
- 21 - Hay
- 22 - Jerilderie
- 23 - Junee
- 24 - Leeton
- 25 - Lockhart
- 26 - Mid-Western Regional
- 27 - Murray
- 28 - Murrumbidgee
- 29 - Narrandera
- 30 - Narromine
- 31 - Temora
- 32 - Tumbarumba
- 33 - Urana
- 34 - Wagga Wagga
- 35 - Wakool
- 36 - Walgett
- 37 - Warren
- 38 - Warrumbungle Shire
- 39 - Wellington
- 40 - Wentworth
- 41 - Berri and Barmera
- 42 - Karoonda East Murray
- 43 - Loxton Waikerie
- 44 - Mid Murray
- 45 - Murray Bridge
- 46 - Renmark Paringa
- 47 - Southern Mallee
- 48 - The Coorong

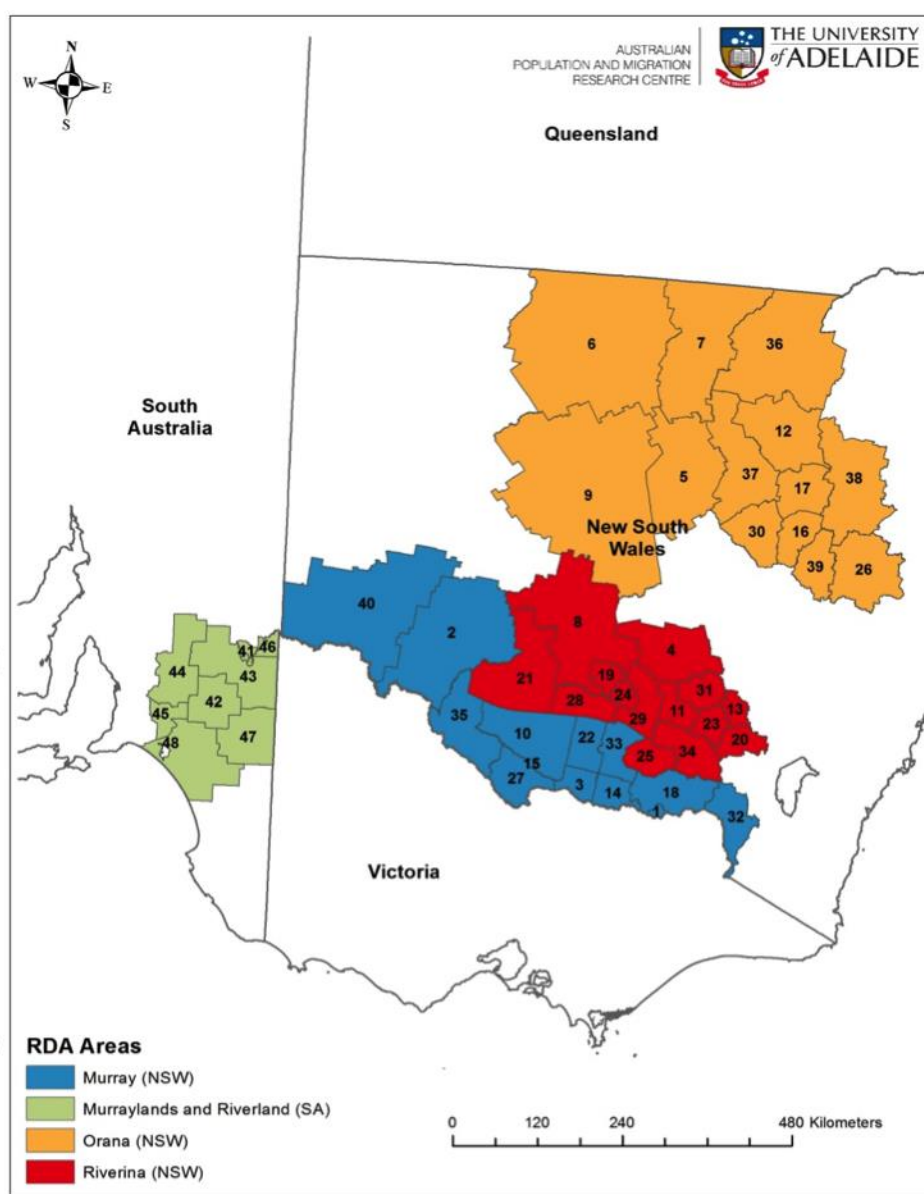


Figure 6.3: Agriculture and Drought Case Study RDA Areas by LGA
Source: ABS Census 2011

It is clear that there has been significant outmigration from these areas. Table 6.8 shows that all four areas figure prominently in the areas which had the smallest proportion of their populations made up by immigrants from other areas.

Table 6.7: Average Annual Growth Rate for Selected Drought-Affected RDAs 2001-11

Average Annual Growth	2001-2006	2006-2011
Australia	1.1	1.6
Murraylands and Riverland	-0.1	0.3
Murray	0.4	0.0
Orana	-0.6	0.2
Riverina	0.1	0.2

Source: ABS Australian Census 2001, 2006 and 2011

Table 6.8: Lowest Ranked RDAs by Percentage of Residents Living in a Different RDA in 2006

RDA Name	Population 'Elsewhere in Australia' in 2006 as a % of Total 2011 LGA
Far West	22.79
Melbourne East	24.48
Northern Melbourne	27.23
Sydney	27.38
Adelaide Metropolitan	28.17
Illawarra	28.45
Western Melbourne	28.57
Murray Lands and Riverland	28.98
Southern Melbourne	29.68
Perth	29.89
Wheatbelt	30.67
Yorke and Mid-North	30.85
Whyalla and Eyre Peninsula	30.86
Far North	30.95
Limestone Coast	31.11
Loddon Mallee	31.18
Murray	31.34
Hume	31.49
Riverina	31.51
Orana	31.54

Source: ABS 2011 Census data

The same pattern of low immigration from other regions of Australia occurred at the LGA level in this study region, with 21 (43.7 percent) of the selected 48 LGAs in the bottom quartile of all LGAs in terms of proportion of the population at the 2011 Census who nominated living elsewhere in 2006. This bottom quartile of LGAs was dominated by rural and remote LGAs (70 percent), with 19 of the bottom 20 LGAs all remote locations. However, in terms of rural LGAs the selected case study RDAs had the highest proportion of any rural region, closely followed by LGAs in the Great Southern and Wheatbelt RDAs in Western Australia (18 of 54 LGAs, 33 percent, in the bottom quartile).

However, within the study region there was a clear trend of higher rates of population mobility (both for elsewhere in Australia and overseas) in the larger regional centres such as Murray Bridge, Albury, Dubbo and Wagga Wagga, as shown in Table 6.9.

Table 6.9: Selected LGAs with the Highest and Lowest Proportions of Population Change 2006-11

Location	Percent at Same Address 2006- 11	Percent Elsewhere in Australia 2006	Percent Overseas in 2006	N= Total Population 2011
Murray RDA	55.42	31.34	1.61	111,177
Albury	**50.61	34.84	*2.58	*47,808
Urana	65.86	**19.45	**0.26	**1,157
Orana	53.39	31.54	1.09	115,647
Cobar	**45.66	35.50	*2.82	4,713
Dubbo	49.91	*35.87	1.23	*38,806
Coonamble	*61.19	25.88	**0.47	4,030
Riverina RDA	54.03	31.51	2.03	144,181
Griffith	54.74	27.42	*3.87	24,362
Wagga Wagga	48.73	*37.50	2.44	*59,460
Lockhart	*64.57	24.54	**0.40	2,995
Murray Lands & Riverland	56.89	28.98	2.01	67,650
Murray Bridge	**50.30	32.84	*3.05	*19,742
Mid-Murray	60.40	26.22	**0.73	8,136
Karoonda-East Murray	*68.22	**18.51	2.13	**1,032
Australia	51.29	30.96	5.57	21,441,480

* Highest percent in the RDA

** Lowest percent in the RDA

Source: ABS 2011 Census data

The exception to this pattern was the Cobar LGA (Orana RDA), where the mining industry has clearly influenced population mobility. From within the selected four RDAs Cobar had the second highest population proportion from other places in Australia and the highest proportion of new residents from overseas at the time of the 2011 Census. This is even more notable if compared to other rural LGAs within the same RDA with a similar population size, such as Coonamble, which had the highest proportion of sedentary population and the lowest rate of immigration from overseas and one of the lowest for immigration from elsewhere in Australia within the Orana RDA.

Only five of the 48 LGAs within the case study region experienced positive net migration (more people arriving than leaving) in the 2006 to 2011 Census period: Albury, Berrigan, Murray, Mid-West Regional and Murray Bridge, as shown in Table 6.10. The most significant net migration losses were in Griffith, Dubbo, Walgett, Hay and Renmark-Paringa.

Table 6.10: LGAs with Positive and Negative Net Migration 2006-11

LGA Name	Total Departures	Total Arrivals	Net Migration	Total Population 2011 (ex. OS visitors)
LGAs with Positive Net Migration				
Murray Bridge	2398	2881	483	19,501
Murray	1272	1721	449	6,884
Albury	7290	7403	113	47,646
Mid-Western Regional	3120	3298	178	22,137
Berrigan	1356	1370	14	7,812
LGAs with Highest Negative Net Migration				
Griffith	3390	1999	-1391	24,335
Walgett	1398	865	-533	6,857
Hay	737	267	-470	3,038
Renmark Paringa	1373	910	-463	9,299
Dubbo	5471	5014	-457	39,381
Deniliquin	1284	837	-447	7,082

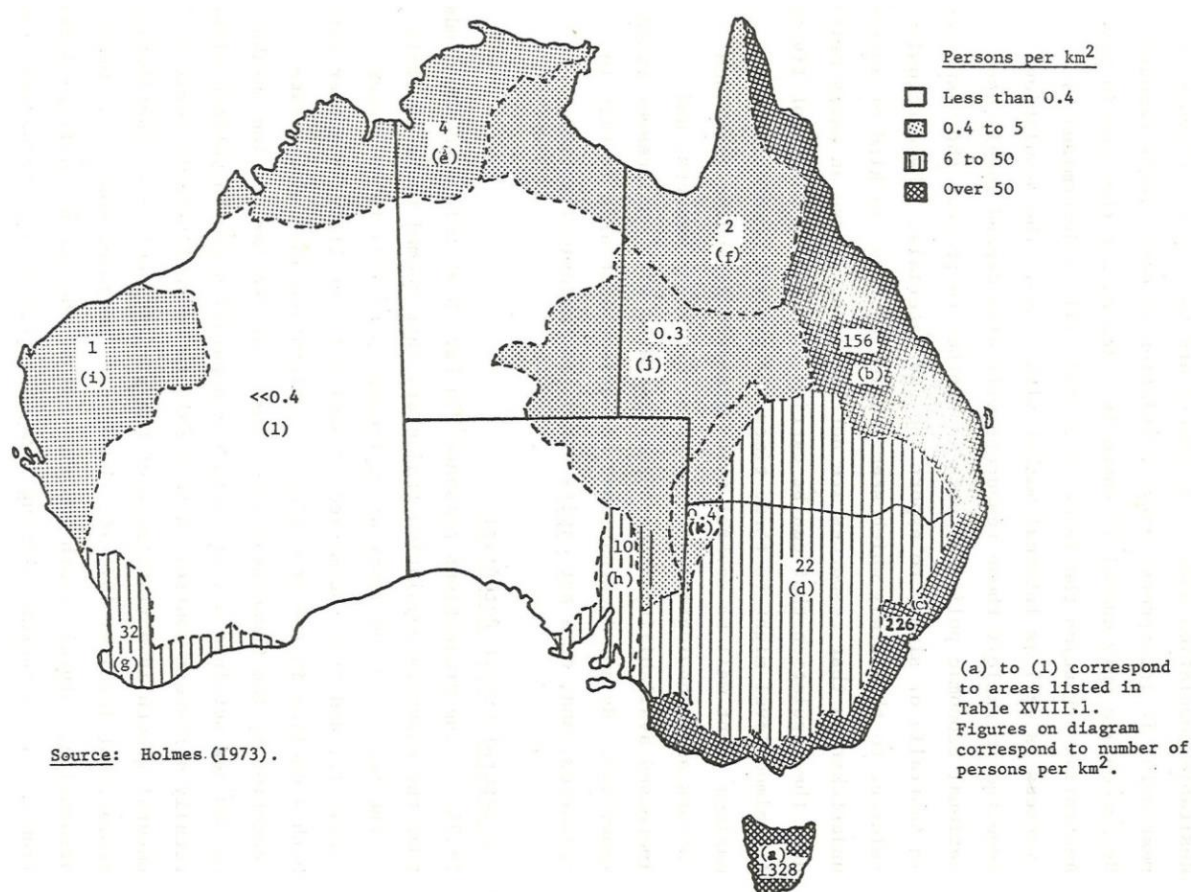
Source: ABS 2011 Census data

Climate change is likely to influence where future growth will occur. Water is a key environmental issue with an all-important population dimension, and so the development of water and population policy needs to be an integrated process. Climate change will result in changes in the availability of water in different areas. While the mismatch between water and population in Australia does not call for a wholesale redistribution of population, nonetheless there are a number of important population dimensions as we face a drier future for south-eastern and south-western Australia: agriculture uses 50 percent of water in Australia (ABS, 2010), hence regional reduction in rainfall and run-off will have consequences for agriculture. The implications for agriculture need to be fully worked through. Do we need to consider some water-intensive agriculture being phased out in south-eastern Australia and more developed in northern Australia and Tasmania where there are assured sustainable water supplies? A study by Holz et al (2010) has suggested that the Australian dairying industry will increasingly relocate to Tasmania as the effects of climate change become more apparent. If the science suggests a redistribution will become necessary, there are a number of population elements which need to be considered:

- The agricultural workforce in Australia is the oldest of any sector (Barr, 2004). To what extent can water-intensive agriculturalists be bought out so they can retire with dignity into local communities and hence maintain the local economies and social networks?
- To what extent can the skills built up in agriculture in areas like the Murray-Darling Basin be utilised to develop new specialised agriculture elsewhere? This was the way the agriculture frontier progressed in Australia in the 19th and 20th centuries, with the new frontiers being settled by farmers with experience in settled areas earlier. How can this process be carried out in the 21st Century to compensate fully those displaced, to facilitate their migration and settlement elsewhere of younger agriculturalists, so as to encourage the growth of new agricultural industries in other, wetter parts of Australia?

In some areas, climate change will make the current patterns of agriculture unsustainable. These include:

- Some irrigated agriculture activities where river or groundwater sources will not be available to the same extent as currently (e.g. in parts of the Murray-Darling Basin).
- Wheat growing areas which are currently marginal, being near the limits of the rainfall necessary for sustainable production (e.g. beyond Goyder's Line in South Australia and in parts of south-western Western Australia). Shifts in the amount, seasonality and reliability of rainfall may make sustainable wheat growing no longer possible.
- There has been a discussion in the wine industry of the implications of climate change for the existing grape growing regions which indicates there may be a need for some relocation of the industry as well as a change in the types of grapes grown.



Source: Holmes (1973).

Figure 6.4: Densities of Maximum Permissible Population and Drainage Divisions of Australia
Source: Holmes, 1973

Four decades ago Holmes (1973) produced a map of Australian water potential, reproduced here as Figure 6.4. This shows the number of people that could be supported in Australian regions if there were no other limiting factors than water. Of course, there are many other limiting factors – soil fertility, rainfall variability, climatic factors etc. Nevertheless, the figure does indicate where water is most abundant. It is interesting that the greatest densities of population that could be supported when water is the only limiting factor are in Tasmania. The south-east and north-east coasts are also capable of supporting large populations. It does also show, however, that South Australia and Western Australia have very low capacity.

The mining boom and regional development

The role of mining in regional development is of considerable contemporary discussion and debate. It is sometimes forgotten that mining has played a major historical role in opening up closer settlement prior to agricultural development across regional Australia (Blainey, 1966). Expansion of mining over the last decade has been massive with its share of national gross value increasing from 4.5 percent in 2003-04 to 10.3 percent in 2011-12 and its value increasing from A\$34,970m to \$142,231m (ABS, 2012c, 35). This is of considerable relevance here. Since most mining operations are located in regional areas, it is to be expected that it has had significant impact on population dynamics in regional areas. Table 6.11, however, shows that a significant proportion of mining employment is in capital cities. Moreover, that employment has increased four times between 2001 and 2011 and its share of total mining employment has increased from 23 to 37.3 percent. This is, of course, partly

due to much administrative and management and other mining backup-related activity being located in large cities. However, it is also a reflection of the increased significance of FIFO and drive-in/drive-out workers who work on site in regional areas but have their usual place of residence in other localities, often capital cities. Nevertheless, the mining employment in regional areas has more than doubled over the last decade and grew by over 10 percent per annum during the 2006-11 intercensal period.

Table 6.1: Australia: Employed in Mining, 2001, 2006 and 2011

	Capitals Number	Percent	Rest of State Number	Percent	Total Number
2001*	16400	23.0	54800	77.0	71200
2006	37096	35.1	68684	64.9	105780
2011	65542	37.3	110092	62.7	175634
%Av An Growth Rate					
2001-06	17.73		4.62		8.24
2006-11	12.06		9.90		10.67

* Note: Data from One percent Sample

* Capital Cities include Sydney, Melbourne, Brisbane, Adelaide and Perth only.

Source: ABS Censuses

Table 6.12: Net Migration of Persons Working in the Mining Industry - Top 10 RDAs

RDA Name	Net Migration
Pilbara	3752
Mackay/Whitsunday	1430
Hunter	739
Goldfields/Esperance	664
Fitzroy and Central West	618
Peel	425
Far North	245
Mid West Gascoyne	230
Townsville and North West Queensland	222
Brisbane City	220

Source: ABS 2011 Census data

Table 6.12 presents the top 10 RDAs according to the net number of 2006-11 migrants working in the mining industry, and the dominance of Western Australia and Queensland is readily apparent. The population mobility characteristics of the three largest net gainers, Pilbara, Mackay Whitsunday and Hunter RDAs, are shown in Table 6.13. The three RDAs attract more intrastate than interstate migrants; this is particularly the case for the Mackay/Whitsunday and Hunter regions. Similarly, the majority of outmigration is to another destination within the state. Nevertheless, interstate migration is significant, especially in Pilbara and Mackay/Whitsunday.

Table 6.13: Departures and Arrivals for Pilbara, Mackay/Whitsunday and Hunter RDAs 2006-11

Departures	Pilbara	Percentage of total departures	Mackay/Whitsunday	Percentage of total departures	Hunter	Percentage of total departures
Total intrastate departures	1729	85.7%	2023	84.8	1858	79.1
Total interstate departures	289	14.3%	363	15.2	492	20.9
Total departures	2018	100%	2386	100%	2350	100%
Arrivals	Pilbara	Percentage of total arrivals	Mackay/Whitsunday	Percentage of total arrivals	Hunter	Percentage of total departure
Total intrastate arrivals	3977	68.9	2835	74.3	2400	77.7
Total interstate arrivals	1793	31.1	981	25.7	689	22.3
Total arrivals	5770	100%	3816	100%	3089	100%
Net Migration	Pilbara	Percentage of total	Mackay/Whitsunday	Percentage of total	Hunter	Percentage of total
Net intrastate migration	2248	59.9	812	56.8	542	73.3
Net interstate migration	1504	40.1	618	43.2	197	26.7
Net migration	3752	100%	1430	100%	739	100%

Source: ABS 2011 Census data

ABS Census data from 2011 analysed by KPMG (The Australian, 18 March 2013) shows the following on FIFO work associated with the mining industry:

- About 100,000 workers fly and drive long distances to jobs in the resource and resource-allied sectors, out of a total of 213,773 Australians who commuted more than 100km to work at the time of the 2011 Census.
- Sydney was the destination for the largest group of workers (19,681) while the mining region of the Pilbara in Western Australia's north was second (18,703) and Queensland's Bowen Basin was third (16,554).
- Many FIFO workers traverse considerable distances.
- Between 2006 and 2011 there was a 79 percent rise in FIFO and drive-in/drive-out in mining areas. The fastest increases were in Western Australia with the number in the Pilbara increasing 173 percent from 6,840 in 2006 to 18,703 in 2011.
- In 2011, 25 percent of the mining workforce commuted long distances to work compared to 22 percent in 2006.
-

These Census data, however, do not capture the full scale and impact of FIFO/DIDO practices in the mining industry in Australia. It is interesting that in a recent House of Representatives Standing Committee on Regional Australia (2013, xix) Report, the first recommendation was:

'The committee recommends that the Commonwealth Government fund the Australian Bureau of Statistics to establish a cross-jurisdictional working group to develop and implement a method for the accurate measurement of:

- the extent of fly-in/fly-out/drive-in/drive-out workforce practices in the resource sector, and
- service populations of resource communities.'

A substantial point made in the report is the weakness of data on FIFO and it reports a number of surveys which indicate that its occurrence is significantly greater than is indicated by

the population Census. A Western Australian study of 100 mine operators covering over 18,000 workers found:

- 37.5 percent of all mining company personnel are FIFO.
- 47 percent were employed by contractors.
- 77.5 percent of contractor personnel were FIFO.

A 2011 study of a single area in Queensland (The Bowen and Galilee Basins) found:

- One in five people living in the area were FIFO.
- Only 43 percent of mining workers were residents of the LGA they worked in.

The thrust of the KPMG report is that the FIFO phenomenon 'shares the benefits' of the mining boom with other parts of Australia. A very different approach is taken in the House of Representatives Standing Committee on Regional Australia (2013) report. It is a more balanced approach recognising the benefits enjoyed by FIFO workers and their communities but also that:

- The practice is damaging the social fabric of some regional communities and eroding liveability in those areas.
- The practice is not delivering prosperity to the regional communities in which mining activities are located to the extent it has during previous mining booms.

The report recognises that FIFO is necessary in some remote mining areas but also that an opportunity to assist development in other areas is being missed. The emphasis should be on developing a policy mix that (p. viii):

'ensure the FIFO/DIDO work practice doesn't become the dominant practice, as it could lead to a hollowing of established regional towns, particularly those inland.'

Temporary migration

One of the striking findings of this study has been a mobility phenomenon which is largely not captured in formal data collection systems like the Australian Census of Population and Housing. The importance of 'temporary' populations in regional Australia has been especially evident in the following areas:

- Coastal and other resort areas where there are substantial stocks of holiday home housing as well as other accommodation which sees the permanent resident population swollen for extended periods seasonally and/or on weekends and holidays.
- Mining and other resource-based communities where the FIFO/DIDO phenomenon now involves more than 100,000 workers.
- The seasonal nature of much economic activity in regional Australia, particularly in agriculture (especially horticulture) and tourism where seasonal workers supplement resident populations at different times during the year.

Table 6.1 4: Implications of Coastal Population Fluctuations

ISSUE	EXAMPLES OF ASSOCIATED COSTS
Infrastructure	
Water supply.	Infrastructure needs to meet summer peak but funding falls on small rate base. Pressure on council capital works budgets and long-term asset planning
Greater demand for waste collection in peak periods.	Costs fall on local council.
Public toilets – need to meet peak capacity. Cleaning costs increase during peak while maintenance costs borne throughout off peak season as well.	Costs fall on local council.
Telecommunications infrastructure encourages semi-permanent residents to stay longer and conduct business – this can have positive spin offs for local economy.	Cost of infrastructure falls on federal and state government.
Traffic and congestion	
Roads and parking strongly affected by seasonal populations	Affects efficient delivery of council services such as meals-on-wheels and garbage collection and emergency services. Introduction of parking meters creates problem of how to tax the visitors not the locals. Affects delivery of emergency services provided by police, ambulance (State Government) and CFA (volunteer).
Law and order	
Summer peak season brings issues of alcohol consumption including underage drinking, public drunkenness, social disharmony, drink driving and assaults.	Increased demand for youth services during peak periods – harm minimisation strategy developed by local authorities (police, health services, Council) especially during schoolies week and New Years Eve. Additional police presence required (see details below).
Major events – cleanup costs.	Phillip Island annual clean up costs for major events is around \$32,000 for Council and community.
Emergency services	
Increase in numbers of vehicle accidents in holiday season due to higher population and increased traffic	
Peak season coincides with fire season - Surf Coast the highest risk fire area in Victoria in terms of fuel availability and location of houses	Volunteer services (CFA, SES), local council, police involved in fire education and in emergency management and logistics. Involvement by State Government agencies during fires. Visitor populations can increase risk of fire ignition.
Surf life saving – demands higher in peak summer season	Increasing need for volunteers. Non-locals may be unfamiliar with local conditions creating higher demands than local population
Boating and recreational fishing	
Increase in boating and fishing activity has created demand for new jetties, moorings, car parks – demand from day visitors who do not form part of the rates base for infrastructure.	Infrastructure cost falls on council whereas demand is coming from non-ratepayers.
Compliance with maritime and conservation laws.	Increasing patrols for marine safety and illegal fishing by Parks Victoria (State Govt).
Increased infrastructure planning for boating facilities.	Cost borne by local and State Government.
Sewerage & wastewater from boats – infrastructure required on moorings.	Cost borne by local and State Government.
Main issue with recreational fishing is littering (not fish stocks).	Refer above for littering costs.
Environmental	
Removal of natural vegetation, introduction of exotic species/weeds.	Parks Victoria, DPI and DSE (State Government) affected.
Disturbance of wildlife habitats by pets, noise, trampling, trail bikes, 4WD, firewood collection.	Local conservation and Landcare groups involved in education and remediation.
Increase in road kill during peak periods.	Wildlife care provided by local volunteer organisations.
Littering.	Great Ocean Road Coastal Committee (Torquay) spends \$59,000 on beach cleaning between October and April. Education programs to reduce littering cost \$15,000-\$20,000.

Source: McKenzie, Martin and Paris, 2008, 67-68

McKenzie, Martin and Paris (2008) use a number of empirical studies in regional Victoria of significant fluctuations in local populations, especially where there is substantial stocks of second homes. Table 6.14 is drawn from their study and looks at some of the implications of fluctuations in coastal population for services and infrastructure. They point out that this presents many challenges in such areas, not least because some state and federal funding is distributed on the basis of the population of communities counted on Census night. It is not just developing better models of funding which take account of these new forms of mobility and substantial fluctuations in local populations which is important here. Recognition of this new mobility and maximising its benefits for regional development in communities outside of the major cities is an important priority.

Conclusion

Any realistic scenario of the Australian population over the next two decades will see the majority of the population continue to live in the nation's major cities; agglomeration economies that flow from concentrations of investment, human capital, infrastructure, facilities and services will ensure that. In a context of changing economic structure, climate change and ageing of the population, however, it is important to ask whether future spatial patterns of population growth will simply replicate those of the last two decades. As Daley and Lancy (2011) have pointed out, governments have tended to divide recurrent and infrastructure funding between regions on the basis of the number of existing residents. As a result, areas of current or impending rapid growth frequently experience a lag in obtaining such funding.

Population dynamics issues – of size, growth, composition and distribution – are going to be crucially important to the Australian economy. Australia's future population will involve growth in the immediate and medium term, and so where that growth occurs is an important matter for the nation's economy, society and environment. Careful consideration, not only of contemporary economic and environmental processes and imperatives, but also of their likely changes over the next two decades, must be central to planning where the growth would be best accommodated. Australia does need a coherent population strategy, but one that cannot, however, be seen purely as a part of economic policy. Rather, it is crucial that environmental sustainability, social inclusion and liveability considerations are also included in the deliberations to develop population-based initiatives. These initiatives must involve considerations of not only 'How many Australians?' but 'Where they will live'.

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