

The liveability of a city is judged by the health, wellbeing and the quality of life of people living within it. Although difficult to define precisely, urban liveability can be measured both subjectively for example, by asking people how they feel about their quality of life in their cities and objectively for example, by examining social and economic measures for urban populations such as income, wealth, education, health, economic and community infrastructure assets, opportunities and services.

This chapter examines objective and subjective measures that relate to liveability in Australian cities. The first section discusses how wellbeing and liveability have been measured using indexes that combine indicators together. The second section examines the concepts of inequality, equity and social inclusion/exclusion and how they affect urban liveability. Dimensions of liveability, including accessibility, housing, health, active travel and safety are then explored. The final section looks at community wellbeing and volunteering.

This year maps are used in State of Australian Cities reporting. Case studies are used in the text however the full range of maps can be viewed using the [supplementary online map application](#).

Key findings

- Liveability indexes measure the broader aspects of cities beyond the traditional economic indexes, looking at both objective and subjective measures.
- The UN-Habitat City Prosperity Index is an important contribution to objective measurement and international comparison of cities. Melbourne ranks highly on prosperity and quality of life.
- The Australian Property Council's Liveability Index is a subjective index of 11 of Australia's major cities. The Council's 2012 rankings were unchanged from 2011 with Adelaide ranked as the nation's most liveable city.
- The median incomes of households in Australia have risen substantially in real terms, with particularly strong growth between 2003–04 and 2009–10. Growth was particularly strong for households at the top and bottom end of the scale. Income growth was widespread in a geographic sense across Perth, while more strongly concentrated on the inner parts of Melbourne and other cities.
- Unemployment in Australia has halved since the 1990s and this has been an important factor in the increase in incomes at the lower end of the scale. The fall in unemployment has been particularly marked in those areas of cities where it was previously very high.
- In the larger major cities, unemployment rises with distance from the city centre. There is also a decrease in skill levels with distance – this may be contributing to unemployment.

- Part-time employment and underemployment have also increased in the major cities, particularly among women working in retailing and hospitality.
- In Australia's larger cities, home renters predominate in the centre while outright homeowners are generally found in the middle suburbs. In the outer suburbs new homes are being purchased – this is the so-called 'mortgage belt'. On the fringes of cities there is an outer belt of home renters. This outer belt of renters appears to be little studied.
- Cities are becoming increasingly stratified by age as well as income, skills and employment. There was been a pronounced shift of persons aged over 65 away from the inner and middle parts of cities towards the outer areas between 2001 and 2011.
- Rates of walking and cycling fell throughout the 1990s before recovering in the first decade of the century. The proportion of journeys to work made by bicycle is now the highest it has been in 40 years.

City liveability indexes

Over the past two decades, there have been national and international efforts to develop new measures of progress for countries and cities that capture more than the simply economic factors of Gross Domestic Product (GDP) (OECD 2013a). As discussed in *State of Australian Cities 2012*, some indexes of liveability are produced by private corporations for specific audiences. The Economist Intelligence Unit's *Global liveability report* and the Mercer *Quality of living survey* fall into this category.

Other measures of progress are under development, both internationally and in Australia. These new measures are intended to help inform and improve government policy and decision making. The Organisation of Economic Cooperation and Development (OECD) *Better life index* (2013a) is a leading international index developed to compare countries on measures of wellbeing and quality of life. The OECD has identified 11 topics as essential to wellbeing in terms of material living conditions (housing, income, jobs) and quality of life (community, education, environment, governance, health, life satisfaction, safety and work-life balance).

For the past three years Australia has ranked first in the Better Life Index overall. Indicators similar to those used in the Better Life Index are found in two Australian reports: the Australian Bureau of Statistics (ABS) *Measures of Australia's progress* (2012a) and the *Sustainable Australia 2013* report (National Sustainability Council 2013), both covered in *State of Australian Cities 2012*.

UN-Habitat City Prosperity Index

The City Prosperity Index was developed by the United Nations Human Settlements Program (UN-Habitat 2012) to gauge how well cities support the wellbeing of their populations. It defines prosperity more broadly than economic prosperity by introducing five other dimensions: productivity, infrastructure, quality of life, equity and environmental sustainability (see Table 5-1).

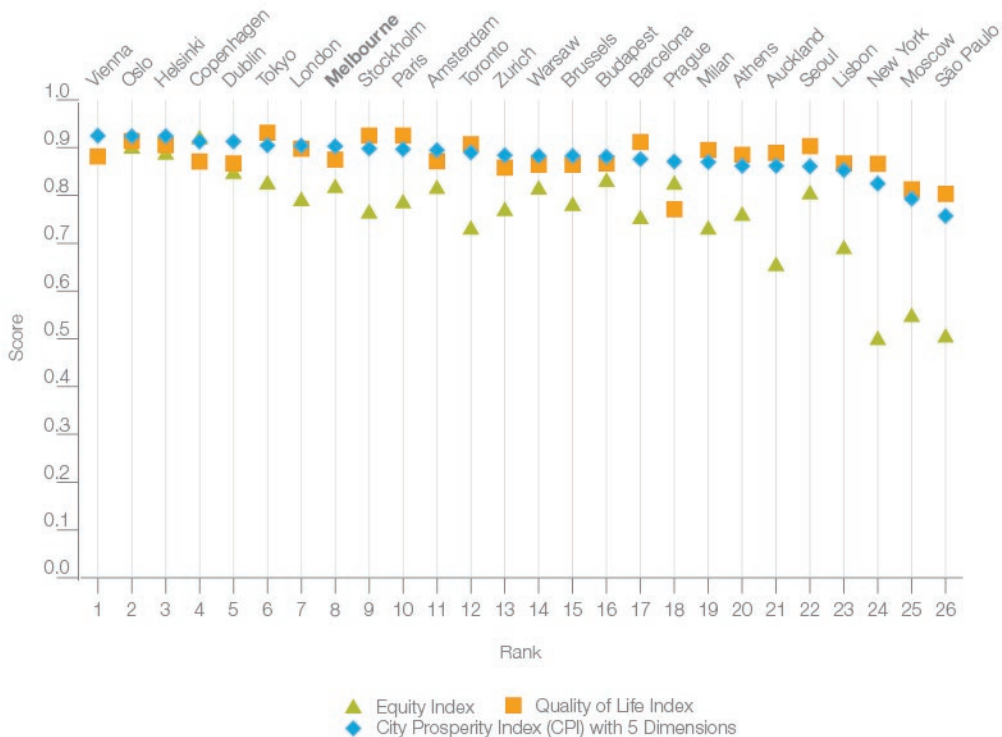
Table 5-1 UN-Habitat City Prosperity Index dimensions

Dimensions	Definitions/variables
Productivity	The productivity index is measured through the city product, which is composed of variables such as capital investment, formal/informal employment, inflation, trade, savings, export/import and household income/consumption. The city product represents the total output of goods and services (value added) produced by a city's population during a specific year.
Quality of life	This index is a combination of three sub-indices: education, health sub-index and public space.
Infrastructure development	This index combines two sub-indices: one for infrastructure proper, and another for housing.
Environmental sustainability	This index is made of three sub-indexes: air quality (PM10), CO ₂ emissions and indoor pollution.
Equity and social inclusion	This index combines statistical measures of inequality of income/consumption (Gini coefficient) and inequality of access to services and infrastructure.

Source: UN-Habitat 2012

Importantly, the City Prosperity Index focuses on individual cities and therefore shows variations in economic, environmental and social outcomes between cities within the same country. It also shows variations between cities across the five dimensions. Figure 5-1 shows the scores on the City Prosperity Index, Equity Index and Quality of Life Index for the top ranked cities from a sample of 70 world cities.

Figure 5-1 UN Habitat City Prosperity Index and Equity Index, 2012



Source: UN-Habitat 2012

There is relative consistency between the scores of high-ranked cities on the combined City Prosperity Index and the Quality of Life Index but less consistency between the overall scores and the scores from the Equity Index. Melbourne was the only Australian city in the sample and was ranked eighth overall. Its Equity Index score was lower than its Quality of Life Index score. The gap between Equity Index score and Quality of Life score was larger than the gap for the top five cities but smaller than for the more highly ranked cities of London or Tokyo.

Subjective measures of wellbeing and liveability

The data used in composite indexes such as the UN–Habitat City Prosperity Index provide useful information about the status of populations (their health, education, income etc.) and provision of resources, and these are important indicators of wellbeing and liveability. However, the indexes do not provide information about people’s experience of living in cities, their satisfaction with their quality of life or how liveable they perceive their cities to be (that is, subjective dimensions of wellbeing and liveability).

The OECD (2013a) recently released *Guidelines on measuring subjective well-being*, which provides a framework for internationally comparable and robust data to better measure how people evaluate and experience their lives.

Other methods can be used to find out how people rate their own wellbeing and the liveability of their cities – for example, in-depth interviews and focus groups. Ipsos Australia provides qualitative research on issues that affect quality of life in Australian cities, published as the Ipsos Mind and Mood Report, now in its 35th year. The report is based on conversations among small groups in people’s homes. The following feature article gives insight into the subjective views of residents of Australia’s four largest cities – Sydney, Melbourne, Brisbane and Perth (Dudley 2013).



Chowder Bay, Sydney.

Image courtesy of Mosman Council

Mind and mood report – big city living

Contributed by Ipsos

The following material about living in Australia's largest cities – Sydney, Melbourne, Brisbane and Perth – was gathered from participants in Ipsos focus group conversations between April 2011 and March 2013.

Table 5-2 shows the five most commonly expressed responses to the question: 'What would you say are the three most important issues facing your State/city/region'? The issues given for rating were health care, crime, cost of living, transport and housing. The table shows the different ratings between Sydney, regional New South Wales (NSW) and other Australian metropolitan areas and how these concerns have changed over the period from 2011 to 2013.

Table 5-2 Top issues of concern raised by IPSOS Mind and Mood participants, 2011–13

Key concerns	Sydney (per cent)	Other Australian major cities (per cent)	Regional New South Wales (per cent)
Health care	44	49	56
Crime	34	31	34
Cost of living	33	32	30
Transport	33	26	21
Housing	30	22	21

Source: Ipsos Australia 2013

The top five concerns for Sydney residents in order of importance are health care and hospitals (44 per cent) crime (including law and order, violence and antisocial behaviour) (34 per cent), the cost of living (33 per cent), transport (33 per cent) and housing (30 per cent). Transport and housing were of more concern to those in Sydney than those in the rest of NSW (33 per cent versus 21 per cent, and 30 per cent versus 21 per cent respectively), with health care a higher priority for regional residents (56 per cent versus 44 per cent). Compared to other capital cities, those living in Sydney are slightly less concerned about health care (44 per cent versus 49 per cent) but significantly more worried about transport and housing (33 per cent versus 26 per cent and 30 per cent versus 22 per cent respectively).

These general statistics give an indication of some broad issues of concern and differences between locations, but qualitative research can also show how these issues are experienced and explain what might be underlying the issues. Each of the issues is explored in more detail below.

Health care

Health care and hospitals are currently the leading issue of concern for Australians. However, Sydney residents are comparatively less concerned than those in regional NSW or in other metropolitan cities.

Stories about misdiagnosis, waiting times for hospital beds and appointments with health professionals are discussed frequently by Ipsos research participants. A lack of confidence with the public system and the knowledge that, with an ageing population, these systems will face increased pressure in the not-too-distant future leads some participants to discuss the benefits of the private health system. However, some consumers are less than impressed by the level of rebate offered on many health services.

This lack of confidence has also put discussion about preventive health strategies on their agenda. There are discussions about the need to exercise more, eat more healthily and perhaps get the occasional Botox injection to fight off the onslaught of ageing.

Crime

City dwellers report that they feel vulnerable in their own neighbourhoods as well as in the community at large. Frequent media reports of shootings, rapes and gang-related violence support this anxiety. The following comment is an example:

'What concerns me as a father of a young family is the violence. The Merrylands shootings, the Guildford shootings, the Auburn shootings. Yes we have the cops, the government, but I don't have faith in that system. The bikies, the gangs – surely they don't have that much power.'

In the same way that the Cronulla riots are the poster story for cultural conflict, the attack on Jillian Meagher in Melbourne's Brunswick has resonated strongly with Australians in many capital cities. It seemed to be emblematic of their concern about violent crime. Some women in our research reported responding to this fear by arming themselves.

While walking the streets might be fraught with danger, so could driving on them. Research participants in suburban areas report that young drivers' hooning is another reason to feel unsafe in the streets.

Cost of living

Despite the fact that Australia has a strong currency, relatively low interest rates and low unemployment figures compared with other developed nations, consumers are pessimistic about the Australian economy.

During the Global Financial Crisis (GFC), city workers worked harder and smarter to keep the ship afloat, often for no immediate reward of a pay rise or bonus. People feel they are still working long hours without additional reward and are very anxious about job security. They believe that employers are replacing full-time positions with contract roles so they can more efficiently manage their workforces in response to fluctuating market conditions. Even those in the Public Service who were previously viewed as 'untouchable' are considered to be vulnerable in the current climate.

'What we are going through in big corporates, the downsizing and restructuring, exactly the same thing is going on in government. We are all headed down the same track.'

Frequent news headlines about the latest well-known Australian manufacturer or service organisations downsizing, closing doors or moving operations offshore, together with stories of family and friends losing their jobs, have convinced Australians that changing jobs can be a risky proposition and that retrenchments are on the rise.

'There is no security in the workplace for anybody now.'

There is also a perception that the cost of groceries, petrol, utilities and other necessities are rising faster than real wages, which fuels concerns about employment.

Transport

Discussions about the difficulty of city living and commuting are a regular feature of Ipsos research participant discussions. Consumers report their frustrations about infrastructure planning, their anxiety about driving on gridlocked roads and having to board trains and buses filled to capacity during peak hours.

'It's anywhere from an hour to two hours to get to work. [My husband] leaves before 6.30am and comes home around 7pm.'

Transport infrastructure planning is not seen as keeping pace with current demand or future needs. When tollways are built, drivers complain that they can barely cope with current traffic and will soon become a 'parking lot' as usage increases. Those on the road all day in trades and service industries have to factor the dramas of travel between sites into their pricing structures and work schedules, as well as the rising price of fuel.

Interviewee 1: 'Travelling is a major factor when I quote for stuff. If I have to go somewhere for a job, that's dollars for me.'

Interviewee 2: 'If you quote for two-hour job but it takes you two hours to get there, it's really a four-hour job. And there are the tolls.'

Many see investment in rail networks to service growing outer suburbs as important, but they believe that a lack of will and funds stymie plans and frustrate commuters.

Housing

Immigration policy is a popular topic among Australians. Discussions reveal that people are torn between the benefits of population growth, namely economic prosperity, and concerns about the potential hazards of rising unemployment and cultural conflict.

Capital cities are seen as the likely destination for new immigrants; however, interviewees feel that, given that streets are already crowded, job markets are tight and housing stock is low, new immigrants could be a threat to their quality of life. Many interviewees believe that owning their own home is very important. They are concerned about whether home ownership will become a reality for them given that housing stock is falling and housing prices are rising.

Government

Australians are looking to government at all levels to focus on long-term policies to reduce commuting times, ensure good quality housing, health care and hospitals, increase employment, and implement immigration and law and order policies that ease their concerns about violent crimes on their doorstep. They want to be confident that big city living will deliver better quality of life into the future. Interviewees believe that challenges seem to be escalating and are not being tackled head on.

Qualitative research like the Ipsos *Mind and Mood* is a valuable contribution to the understanding of urban liveability and wellbeing. Its questions and research tools add to Australia's body of knowledge and help clarify and explain issues that are otherwise considered subjective.

In Australia, subjective dimensions of wellbeing are monitored in a variety of ways by State and Territory governments, local government and research groups. *Community indicators Victoria* (McCaughey Centre 2013) is a well-established community indicator framework that uses local level data and the Australian Unity Wellbeing Index monitors subjective dimensions through a national survey.

Wellbeing of Australians affected by bushfires and floods

In 2011 the Australian Centre on Quality of Life at Deakin University (Weinberg and Cummins 2012) conducted a special survey to investigate the impact of natural disasters on people who continue to live in disaster-affected areas. The survey sought to determine whether the floods in North Queensland between December 2010 and February 2011 and the fires in Victoria in the period January through February 2009 continued to affect subjective views about wellbeing of people still living in those areas. The survey involved 600 people from Victoria and 615 from Queensland and used the Personal Wellbeing index.

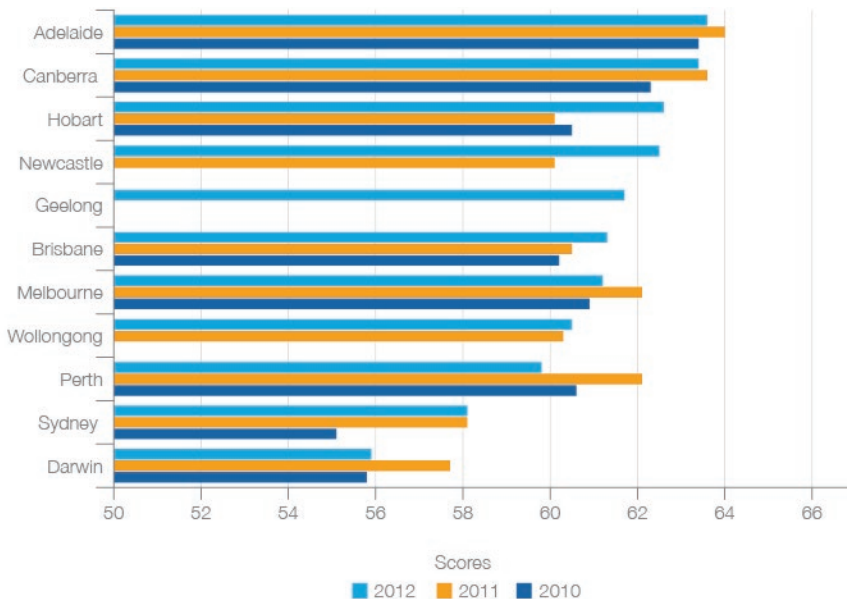
The survey found that people living in disaster-affected communities had an increased satisfaction with their personal safety and with their community, although their overall wellbeing remained within the normal range. The wellbeing of those who suffered home damage also remained in the normal range and their satisfaction with safety and community remained high. However, the satisfaction of people with health problems or who were concerned about security or their present level of personal success rated lower in wellbeing.

Property Council of Australia's My City Survey

Auspoll has developed subjective measures of city liveability for their *My city survey*, conducted for the Property Council of Australia (Auspoll 2013). A sample of residents in 11 different cities are surveyed about liveability in their cities and the responses to the 17 attributes included the survey are combined into an overall liveability score. The results of the survey have been reported in the last two State of Australian Cities reports.

The *My city* Liveability Index score for each Australian city in 2012 is shown in Figure 5-2. Adelaide has consistently been rated as the most liveable city, closely followed by Canberra. Both Hobart and Newcastle ranked higher in 2012 than 2011 (in third and fourth place), while Perth and Melbourne rankings have fallen slightly. Sydney and Darwin are ranked as the least liveable cities in Australia.

Figure 5-2 Property Council of Australia's My City Liveability Index, 2010–12



Source: Auspoll 2013

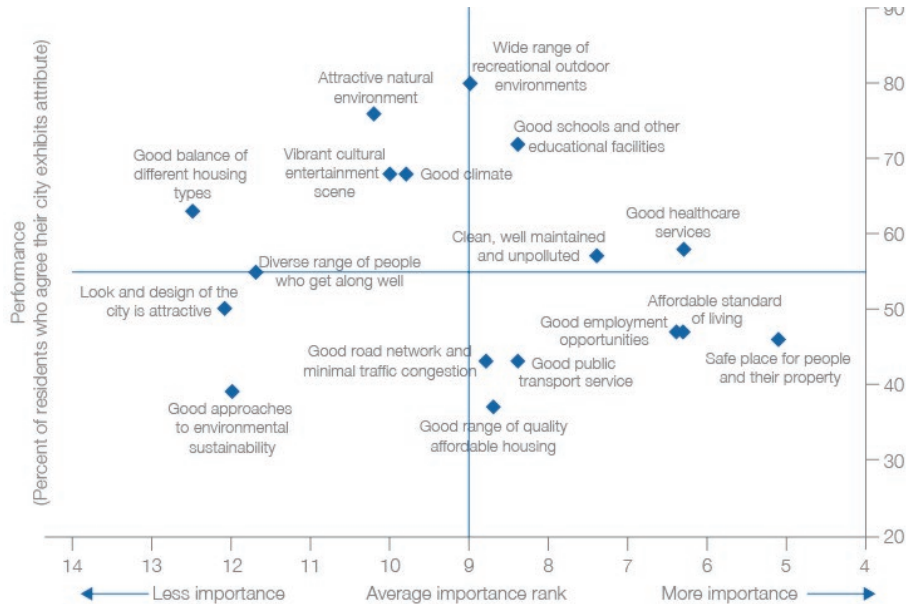
The most important of the 17 attributes that make up the liveability index were:

- safety – it is a safe place for people and their property
- cost of living – it is an affordable place to have a good standard of living
- health – there are good health care services
- employment – there are good employment and economic opportunities
- quality of the environment – the city is clean, well maintained and unpolluted.

These rankings were similar to the findings of the Ipsos research. The only attribute in the Auspoll *My city survey 2012* whose perceived importance had declined since 2011 in all cities other than Darwin was 'having good employment and economic opportunities'. This is consistent with Ipsos' research in which concerns about employment security were set within the broader scope of an uncertain national and international economic climate.

Figure 5-3, taken from responses to the Auspoll *My city survey* 2012, shows how people rated the importance of different attributes of liveability against their personal rating of their city's performance on these attributes. The attributes that people rate as most important for liveability and those on which most cities perform well are quality of the environment, availability of good health care services, good educational facilities and presence of a wide range of outdoor recreational environments. Attributes that were considered most important but that cities did not perform as well on were safety, affordability, employment, economic opportunities and mass transit services.

Figure 5-3 **Quadrant analysis – how Australians rank the importance and performance of their cities on attributes of liveability, 2012**



Source: Auspoll 2013

These findings are explored in more detail below.

Australian Youth Survey

Subjective views about liveability vary according to one's age, income and other social and demographic characteristics. Any attempt to measure liveability and wellbeing must take account of different ages, ethnicities, abilities and religions and localities so that they can be as accurate as possible.

An online survey of 15,351 people aged 15 to 19 years (Mission Australia 2012) found that in 2012 the top three concerns of men and women in that age group were the economy and financial matters (34 per cent and 29 per cent respectively); managing population growth (28 per cent overall) and alcohol and drugs (22 per cent overall). The top three issues in 2011 and 2010 were the environment (37 per cent); alcohol and drugs (30 per cent); and equity and discrimination issues (22 per cent). The changing sentiment among young people suggests that concerns about employment and economic opportunities, as indicated in both

the Ipsos research and My City Survey, does not necessarily hold from year to year as they might for older Australians.

Access to gainful employment and economic opportunity is nonetheless fundamental to individual wellbeing. As described in Chapter 1 of this report (Introduction), population concentration and the economic activity of cities give large numbers of people access to the economic resources and opportunities that support their quality of life. However, benefits such as access to education and employment, economic opportunity and other liveability attributes are not equally enjoyed by all city dwellers.

Income change

A recent Productivity Commission paper *Trends in the Distribution of Income in Australia* noted that between 1988–89 and 2009–10 the median incomes of households in Australia rose substantially in real terms, with particularly strong growth between 2003–04 and 2009–10. This increase has mainly been driven by growth in labour force earnings arising from employment growth; more hours worked (by part-time workers); and increased hourly wages (Greenville et al. 2013). However, the paper also notes that while income levels have increased across all income groups, the increases have been uneven: the rate of growth is higher at the ‘top end’ than at the ‘bottom end’. Incomes for those in the middle of the distribution have also become less concentrated around the average.

For lower income households, growth has been driven by increased workforce participation and employment, whereas for higher income households it has been driven by higher wages. For middle income households both drivers are evident. Importantly, while most Australian households do not report significant ‘capital and other’ income, a small number do report significant income in this category. This is thought to be responsible for much of the recent increase in measured gross income inequality (Greenville et al. 2013).

Inequality refers to differences between groups of people in the amount of social and economic resources and opportunities that contribute to their quality of life and wellbeing – for example, income, wealth, education and health. Inequalities in wealth and income both within and between societies are associated with poorer population health and wellbeing (Wilkinson and Pickett 2010). They are also a root cause of crime and social disorder and can lead to economic and civil instability (Stiglitz 2012). Although urbanisation can help large numbers of people gain access to economic opportunities and resources (thereby alleviating poverty), inequality can result in poverty and social disadvantage that can be highly concentrated and entrenched.

In Australia, consistent with findings at a global level, incomes in the capital cities are generally higher than in non-metropolitan areas. In 2009–10 average disposable household incomes in the capital cities in Australia were 19 per cent above those outside the capital cities. The largest disparity in mean household incomes between a capital city and the rest of the State was in Victoria, where the average household income in Melbourne was 23 per cent higher than in the rest of the State (ABS 2011a).

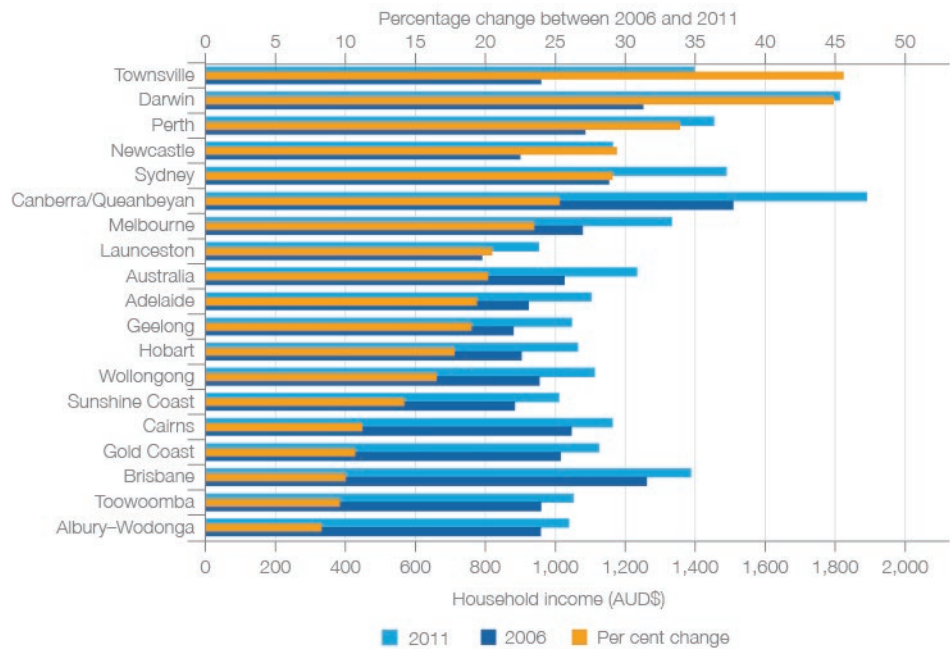
These changes underlie the recently observed increases in summary measures of inequality in Australia (such as the Gini Coefficient) for individual and household incomes. At the individual level, the key drivers are the widening dispersion of hourly wages of full-time employees and (to a lesser extent) the relatively stronger growth in part-time employment. At the household level, the key driver has been capital income growth among higher income

households. The impact of growing dispersion of hourly wages on the distribution of labour income has been offset by increased employment of household members and a decline in the share of jobless households.

The Productivity Commission paper also notes the substantial impact that government taxes and transfers have had on the distribution of household income. Following initial adjustments after the introduction of the GST in the early 2000s, real growth in the value of direct and indirect transfers contributed to growth in incomes for low income households, substantially reducing measured inequality.

Figure 5-4 shows the change in income in Australia's major cities between 2006 and 2011. While there has been a large variation in income growth between cities, the overall rate of growth for major cities has been reasonably strong.

Figure 5-4 Income change in Australian major cities, 2006–11

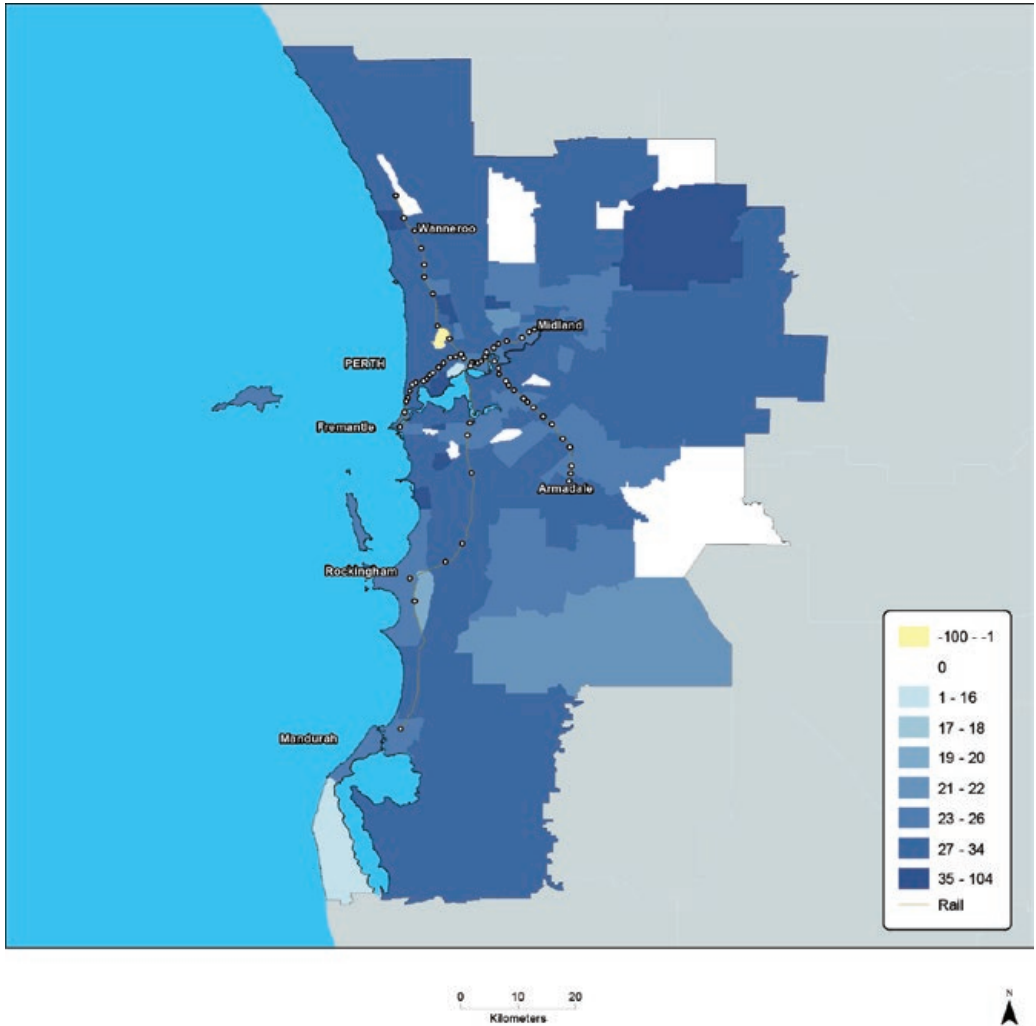


Source: ABS Census 2006, 2011

Household incomes in Perth grew 34 per cent between 2006 and 2011. The high rates of income growth in Perth shown in Map 5-1 illustrates that the benefits of the resources industry in Perth have spread relatively evenly to other areas. Another measure of the strength of Perth's income growth is that, according to the ABS's Socio-Economic Indexes for Areas (SEIFA), it is home to four of Australia's five most advantaged local government areas (LGAs) and only three LGAs are below the national average (Clarke 2013).

According to the SEIFA index, the LGAs of Darwin, Palmerston and Litchfield in the Greater Darwin area are relatively advantaged. However, they are outside the top 22 Western Australian LGAs, some of which are non-metropolitan. The ACT does not have LGAs, but ACT as a whole has by far the highest SEIFA score of any Australian state or territory. The highest scoring suburbs are Forrest and Barton.

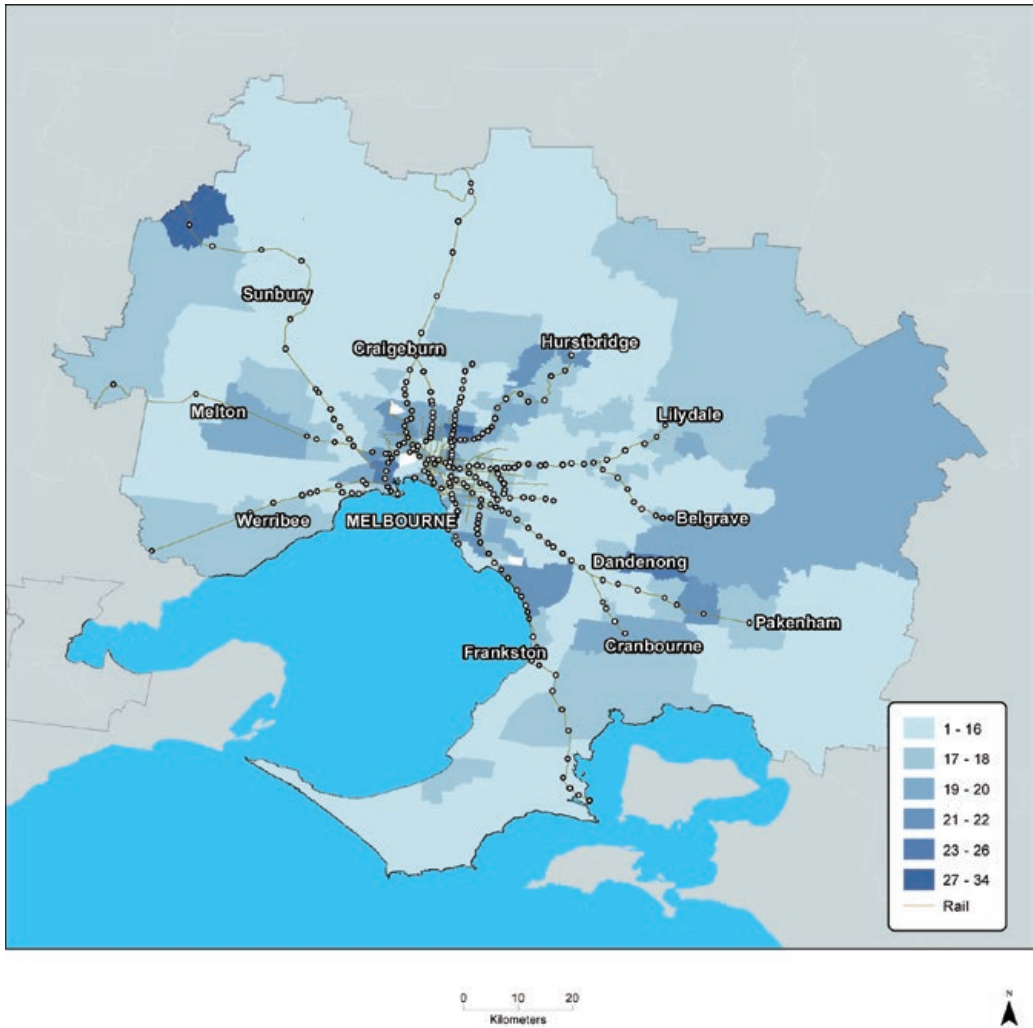
Map 5-1 Change in average total income from all sources in Perth, 2006–11



There are significant income growth differences between Perth and other major Australian cities. Income growth was relatively small in the north-east of Perth around Swan Valley, along the outer south-eastern corridor following the Armadale train line and to the east of Rockingham. These areas traditionally have lower income households and more social housing. This comparatively even income growth compared to similar sectors in other Australian cities is possibly because there are fewer jobs in Perth in the manufacturing sector. Perth's geographical isolation means that arguably it has never had the necessary conditions to develop significant manufacturing industries, other than those serving the immediate needs of its residents. Historically, it has been cheaper to import all manufactured goods from the eastern states or overseas.

The effect on incomes due to the loss of transformative jobs (manufacturing, utilities and construction) and their replacement by service employment (finance, business and research) can be seen in all of Australia's major cities and is most clearly expressed by the map of Melbourne's income growth (Map 5-2).

Map 5-2 Change in average total income from all sources in Melbourne, 2006–11



Melbourne has experienced income growth across all areas, but outside the inner ring of suburbs it has been patchy. The corridor stretching north from Williamstown on the south-western edge of the CBD to Maribyrnong and then east to Northcote has experienced significant growth. In the 1980s and 1990s these suburbs formed the backbone of Melbourne’s manufacturing heartland. Like western Sydney and northern and western Adelaide, they suffered major net job losses as those industries declined. In 1996 half of the households in Northcote and Maribyrnong had incomes in the lower two-fifths of Melbourne household incomes (Atkinson 2011). Since then, there has been significant improvement in incomes in these suburbs as more people have taken advantage of their relative proximity to the CBD where there is a greater concentration of relatively higher-paid, knowledge-intensive jobs. This has seen average household income in Northcote and Maribyrnong move into Melbourne’s top 25 per cent (ABS 2011a).

While the concentration of higher-paid, knowledge-intensive jobs in Melbourne's CBD and immediate surrounds has increased, the relative advantage of inner suburbs has brought with it gentrification and the associated increased price of housing has displaced many lower income households. This applies particularly to those in the private rental market and lower income earners looking to buy in inner areas (Atkinson 2011).

Unemployment

In Australia an unemployed person refers to an individual aged 15 years or over who is not employed during the reference week (one week a month over 12 months of the Labour Force Survey) and:

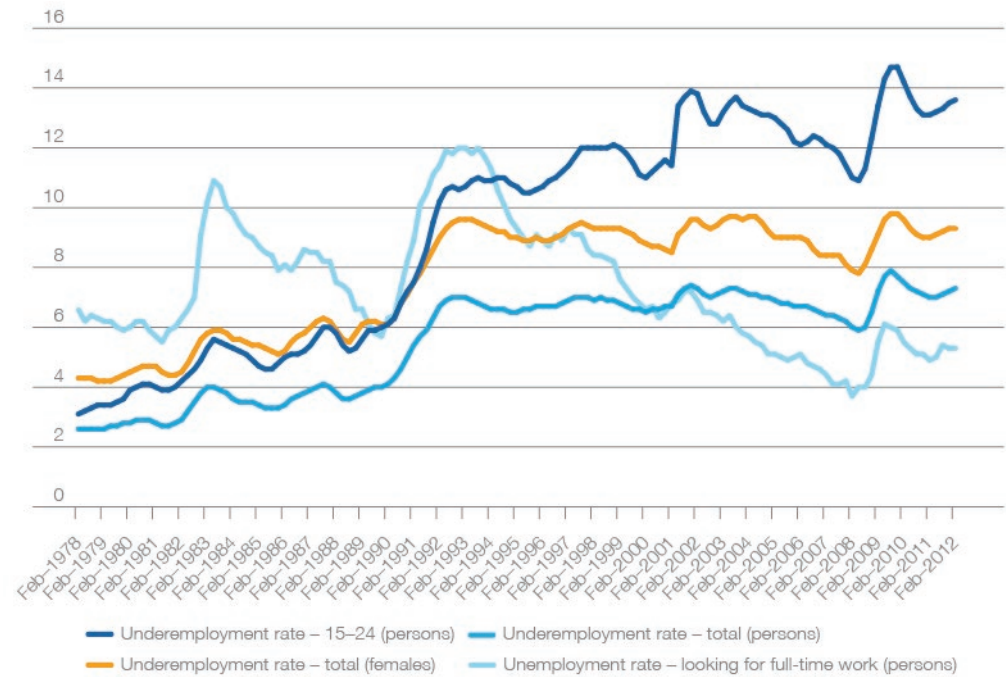
- has actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and was available for work in the reference week or
- was waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then (ABS 2007).

Employed people are defined as individuals who work for at least one hour per week for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers, and including family businesses).

For most of the last two decades, the unemployment rate has declined as a result of Australia's strong economic growth. In the early 1990s the national unemployment rate was above 10 per cent. By 2008 it had declined to four per cent before settling in a band between 4.9 and 5.6 per cent since the beginning of 2010 (ABS 2012d). The reduction in unemployment rates has paralleled a growth in underemployment. Before the recession in the early 1990s the unemployment rate was 5.9 per cent and the underemployment rate was 4.1 per cent. Currently the unemployment rate is 5.6 per cent, but underemployment has increased to around eight per cent in the last 12 months (ABS 2012d).

The changes in the underemployment rate can be largely attributed to the steady increase in part-time work from 15 per cent in February 1978 to 30 per cent in May 2010 (ABS 2010b). Generally, industries that have a large proportion of part-time workers have a higher rate of underemployed workers. These industries also tend to employ mostly women and younger workers (see Figure 5-5). For example, in February 2010, 57 per cent of workers in the accommodation and food services industry were working part-time and 55 per cent of workers were women. This industry had the highest proportion of underemployed workers, at 20 per cent. Retail trade, which also had a high number of part-time and female workers, had the second highest proportion of underemployed workers, at 15 per cent (ABS 2012d). Underemployment is also more common for those workers with lower levels of qualifications.

Figure 5-5 Underemployment rates in Australia, 1978–2011



Source: ABS 2012d, Labour Force, Australia, cat no. 6202.022 and 6202.02

While underemployment is not as problematic to workers as unemployment, it can have long-term consequences for career progression, earning potential and retirement income. This is of particular concern as the majority of Australia’s underemployed workers are women who already have lower average earnings and retirement income than men.

The Census data used for the city comparisons below does not report the levels of underemployment in the above areas but the evidence suggests it would be more evident in areas that are relatively disadvantage.

The feature of unemployment that is of most relevance to cities is the unevenness of its incidence – both spatially and socially – and the persistence of these differences over time.

In social terms, a wide range of data shows that the unemployed tend to differ from average members of the workforce in relation to their occupational position, human capital endowments, and various demographic characteristics including, gender, age, marital status and ethnicity – with some combinations of characteristics yielding dramatically increased risks of being unemployed at any point in time.

Geographically, comparably strong differences are evident both on a neighbourhood basis, within towns or cities and on a regional or sub-regional basis within countries. There also seems to be a high degree of continuity in both the social and geographic patterns, with some settlements, neighbourhoods and population groups facing recurrent risks of high unemployment (Gordon 2001).

A 2009 paper commissioned by the Australian Government’s Social Inclusion Board (Vinson 2009) noted that localities with a markedly high level of disadvantage are

often characterised in terms of perceived behavioural shortcomings – such as residents' lack of commitment to improving their situation, indifferent motivation generally, unlawful conduct, and parents' inadequate attention to child rearing. Indeed, it has been argued on occasion that the dominant cause of residents' plight resides in their own behaviour. However, research that attempts to identify the foundations of locational disadvantage has come to different conclusions and these have significant impacts on liveability.

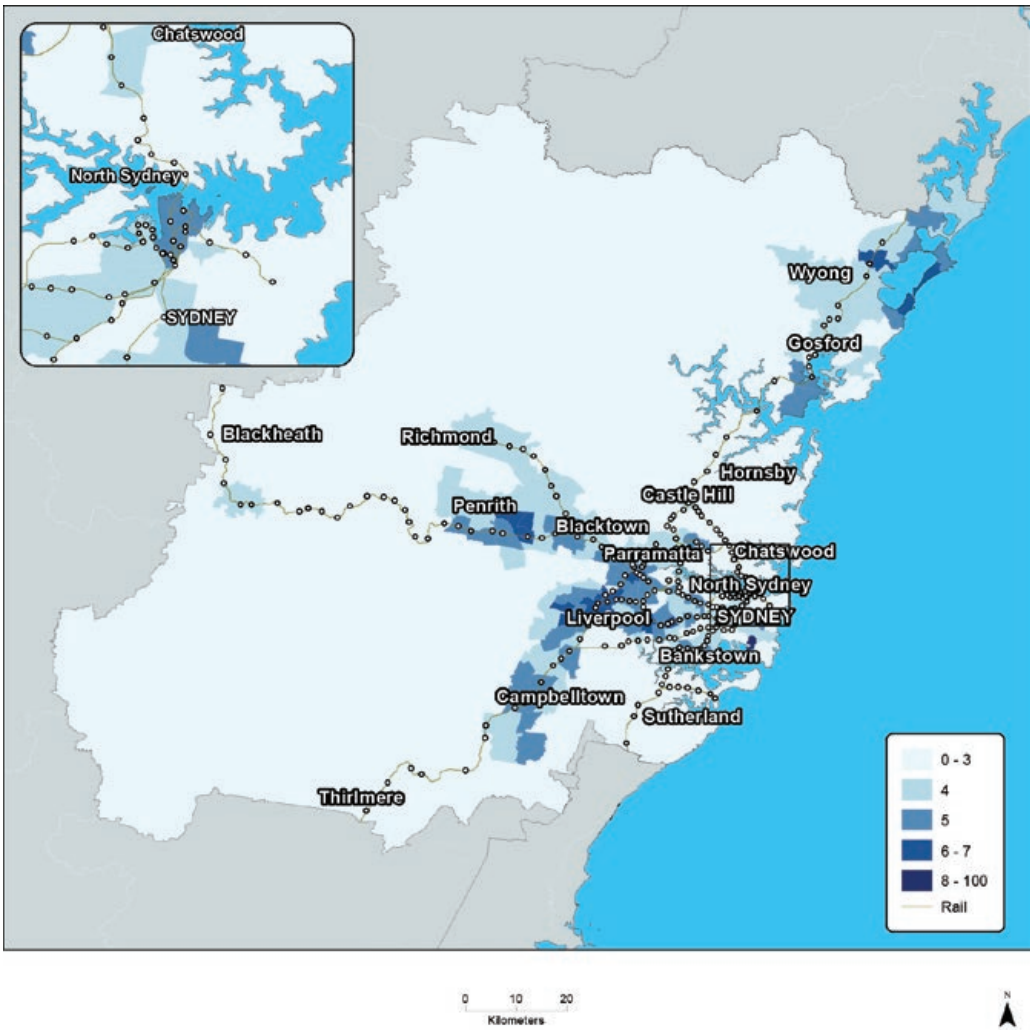
One hundred and fifty years after Mayhew (1861) mapped the spatial concentrations of illiteracy, unemployment, crime and teenage marriage in England and Wales, there is ample evidence that concentrations of geographical disadvantage of the kind he discovered continue to be a feature of Australia's social landscape. Furthermore, there is evidence (Gregory and Hunter 1995) of a growing concentration of urban poverty in Australia, one consequence of which can be a cycle of increasing disadvantage in certain locations.

A report of the Melbourne Metropolitan Board of Works (Little 1974) based on socioeconomic status found a clear concentration of social problem areas in central Melbourne and a collection of socioeconomically advantaged areas in the east and south of Melbourne. A high correlation was found between male unemployment and social dysfunction, suggesting that the former could be used as a proxy for the relative social dysfunction of an area. It has also been concluded that anything that affects the unemployment rate in a locality will influence, either directly or indirectly, the incidence of social dysfunction (Bright and Walker 1994). An Australian study of Newcastle in the 1970s (Vinson and Homel 1975) also found a high correlation between employment, education and social dysfunction.

Sydney and Hobart are used in this report to demonstrate the variance in city unemployment levels. Unemployment maps for other Australian major cities can be viewed using the [supplementary online map application](#). They show areas characterised by lower skilled occupations, lower education levels and a higher prevalence of individuals with interrupted work histories (thus remaining susceptible to higher unemployment when growth is weaker). The maps also show areas characterised by a greater number of professional households and higher educational outcomes that experience relatively smaller shifts in the unemployment rate.

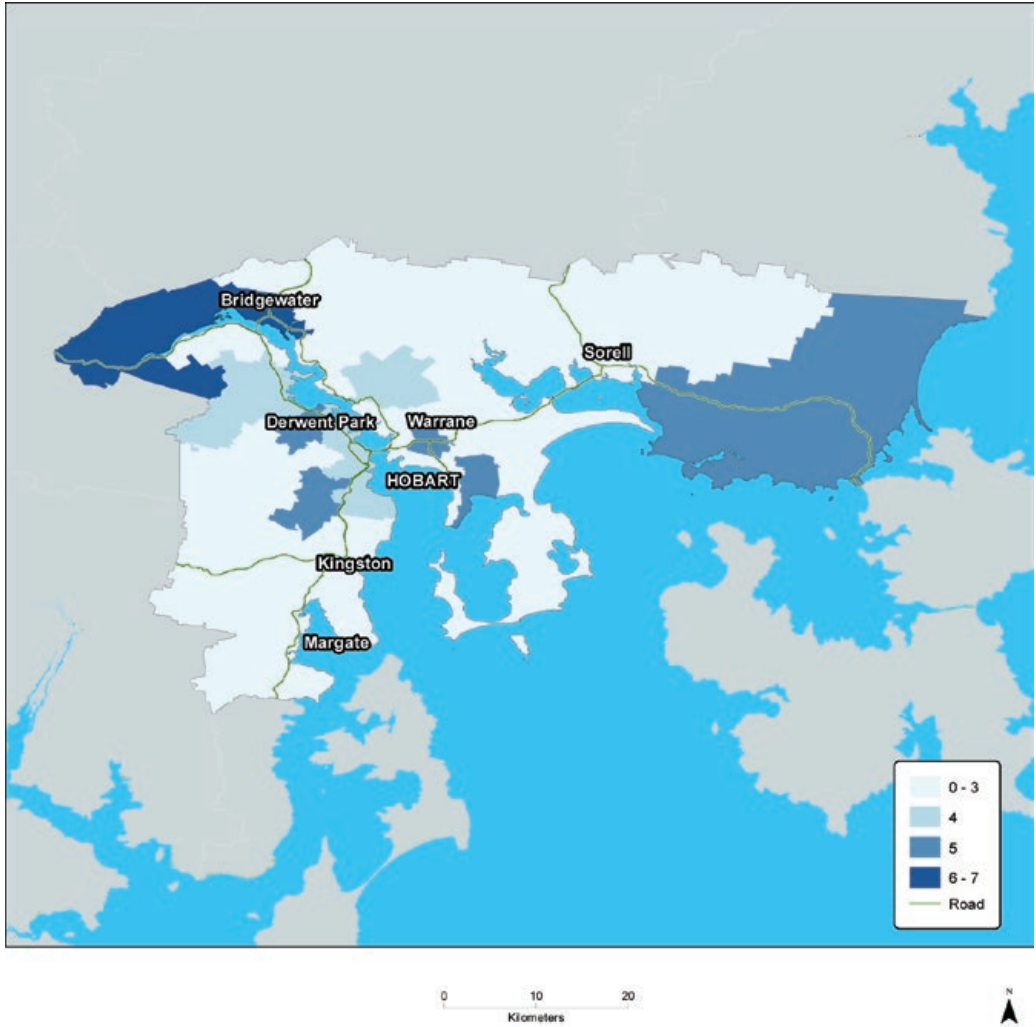
Map 5-3 shows the proportion of unemployed people in Sydney at the 2011 Census. The map shows a wide range of areas of Sydney with higher levels of unemployment. The western and south-western corridors have high concentrations and relatively small reductions in unemployment over the past decade.

Map 5-3 Proportion of persons aged 15 to 74 years unemployed in Sydney, 2011



In 2001–11 Hobart’s unemployment rate fell significantly from 9.2 per cent to 5.7 per cent, as shown in Map 5-4. Like Sydney, in relatively disadvantaged areas of Hobart – for example, the Bridgewater and Gagebrook Statistical Area 2 (SA2) to the north and the Rokeby and Clarendon Vale SA2 to the south-east – there were significant declines from 31.5 per cent to 14.6 per cent and from 17.4 per cent to 9.2 per cent respectively (ABS Quickstats). In the relatively affluent and centrally located Sandy Bay SA2 there was a small decrease from 6.5 to 6.2 over the same period (ABS Quickstats).

Map 5-4 Proportion of persons aged 15 to 74 years unemployed in Hobart, 2011



Despite positive growth in employment, Map 5-3 and Map 5-4 show areas with relatively persistent high unemployment levels. An examination of the employment and education mix of the areas mentioned above provides an insight into this issue.

Campbelltown and Liverpool both have approximately the same levels of full-time work (63 per cent) and part-time work (24 per cent) and the same number of people with tertiary education or higher (10 per cent). In both areas, people were mostly employed in clerical then administrative, technical and trades and professional occupations, which collectively make up approximately 48 per cent of the workforce.

The rate of full-time employment in North Sydney is proportionally higher at almost 72 per cent, while part-time employment is 20 per cent. A total of 25.4 per cent of people have a bachelor degree or higher and, perhaps crucially, people were most commonly employed as professionals (43.6 per cent) and managers (20.2 per cent), comprising almost 64 per cent of the workforce.

In Hobart, similar differences exist between the areas of relative advantage and those of relative disadvantage, but the quantum is greater. For example, in Bridgewater–Gagebrook less than two per cent of people have a bachelor degree or higher, compared to more than 44 per cent in the Sandy Bay SA.

A crucial similarity between the relative areas of advantage and disadvantage in the maps is their proximity to the CBD. While some areas like North Sydney and Sandy Bay have been areas of relative advantage since the 1960s, other inner city areas such as the inner west of Sydney which as recently as the 1990s were considered relatively disadvantaged with high unemployment rates, are now becoming relatively advantaged. The inner areas of many cities retain pockets of high unemployment. However, gentrification has produced notable shifts in the socio-demographic composition of centrally located neighbourhoods (disproportionate increases in professional workers, high income households, two-earner childless couples and the well-educated (Atkinson 2011). Such processes have caused unemployment rates to fall in these areas and evidence suggests unemployment rates may flatten over time as the workforce becomes more resilient to economic change.

Housing

Housing affordability

Housing affordability is a significant issue for new and existing households in Australia's major cities. Housing affordability is an individual's ability to pay for their housing. The ABS (2010a) measures housing affordability as a percentage of household spending. Affordability is low if 30 per cent or more of gross household income is spent on rent or mortgage payments. This definition is not uniform across all sectors when reporting on housing affordability.

The affordability of dwellings is influenced by a range of factors including interest rates, the price of homes and the level of household income (ABS 2010a). Also, the imputed value of higher income due to access to a wider base of well-paid jobs contributes significantly to what people can afford to pay or borrow. For renters, the affordability issue comes down to income-to-rental payment ratio, value for money, distance to employment and lifestyle preferences, each of which are largely dependent on how much renters earn, their household structure and their age.

State of Australian Cities 2012 examined housing price increases over the past two decades and the significant rises in the price of housing closer to city centres – a flow-on effect from the wider employment base and higher paying jobs becoming more concentrated in capital city CBDs. Housing markets in cities both exemplify and exacerbate socioeconomic inequalities in cities. Areas that are close to jobs, services and high amenity have higher house and land prices and attract higher income earning households. Lower income households are increasingly concentrated in locations with fewer services and less access to employment. This creates imbalances in equity and liveability.

Housing affordability in Australia's capital cities has been adversely affected by price increases, particularly over the past three decades. Given that real estate markets are affected by population growth, high levels of in-migration (people moving to the city), the growth of the mining sector and an already low supply of houses, there will continue to be strong demand for housing and, potentially, a smaller pool of affordable housing as competition becomes greater.

The 2013 Propell National Valuers' survey of the Australian housing market summarises house price data between 2012 and 2013 in capital cities (Propell National Valuers 2013). House prices in Darwin increased by 5.9 per cent to a median \$579,500 between 2012 and 2013, while in Perth a 3.5 per cent increase saw the median house price rise to \$470,000 over the same period. In Brisbane, growth in Queensland's mining areas is contributing to housing demand in the city. When combined with population growth, this places further pressure on house prices. Competition among buyers is high for the affordable housing that is available. The median price for a house in Brisbane rose to \$428,000 in 2013.

In Sydney over the same period, house prices increased by 3.75 per cent, lifting the median price to \$608,000.

Adelaide experienced a 1.9 per cent increase in house prices from 2012 to 2013, raising the median price to \$411,000. In Melbourne the median house price rose 1.6 per cent to \$445,000. Although this is a smaller increase than in Sydney, it will still have an effect on housing affordability.

As shown in Figure 5-4, each of these cities experienced different rates of household income growth between 2006 and 2011. Adelaide's average household income increased by almost 20 per cent, Melbourne's by about 23 per cent and Sydney's by almost 30 per cent.

Melbourne's housing affordability illustrates the significance of those households spending 30 per cent or more of their gross household income on mortgage payments (this is generally referred to as 'mortgage stress'). Real Estate Institute of Victoria's data (2013) illustrates some differences between suburbs in this regard. In the Melbourne LGA of Greater Dandenong in the south-east, 39.6 per cent of households were in mortgage stress compared with the inner east Melbourne LGA of Banyule, where 27.1 per cent of households were in mortgage stress.

Melbourne's housing affordability rates are similar to those in other capital cities in terms of the number of households experiencing mortgage stress and its unequal distribution. In addition to population and in-migration pressures, there is a growing demand for affordable housing from single-person or two-person households (the fastest-growing household types).

The lack of affordable housing choices in Australia's major cities is also likely to affect older people whose incomes often fall once they retire. Retirees who are renting may be forced to move further out to more affordable dwellings, while those looking to use the equity of their existing family home may need to downsize if they wish to move closer to the city. Increasing house prices benefit retirees who wish to move out of the city, as shown in Chapter 2 (Population and settlement).

Those on average or below average incomes who wish to buy an affordable detached dwelling may find that these dwellings have poorer access to jobs and public transport. Land and house packages on the periphery of cities can produce more affordable housing choices to ease the demand for growing families. However, they may have poor access to employment opportunities, particularly high-skill, high paid jobs. According to Rawnsley and Spiller (2012) between 1994 and 2000 the distance from the CBD to suburbs that are affordable for a household on average earnings is estimated to have increased from about 10 kilometres to about 24 kilometres. By 2009 this distance was almost 40 kilometres and there were no suburbs within 10 kilometres of the CBD that were affordable for households on an average income (Rawnsley and Spiller 2012, p. 151).

Attempts to improve housing affordability – for example, by relaxing minimum site area requirements for new dwellings and by increasing densities – have had some success. The next section examines the number of dwellings in Adelaide that are owned outright, those being purchased and those being rented. Adelaide is used as a case study because it clearly shows emerging patterns that are evident in other capital cities. While Adelaide is one of the smallest capital cities, it shares with the other capitals large journey to work distances, particularly in the south, and high concentrations of jobs in the CBD relative to the suburbs.

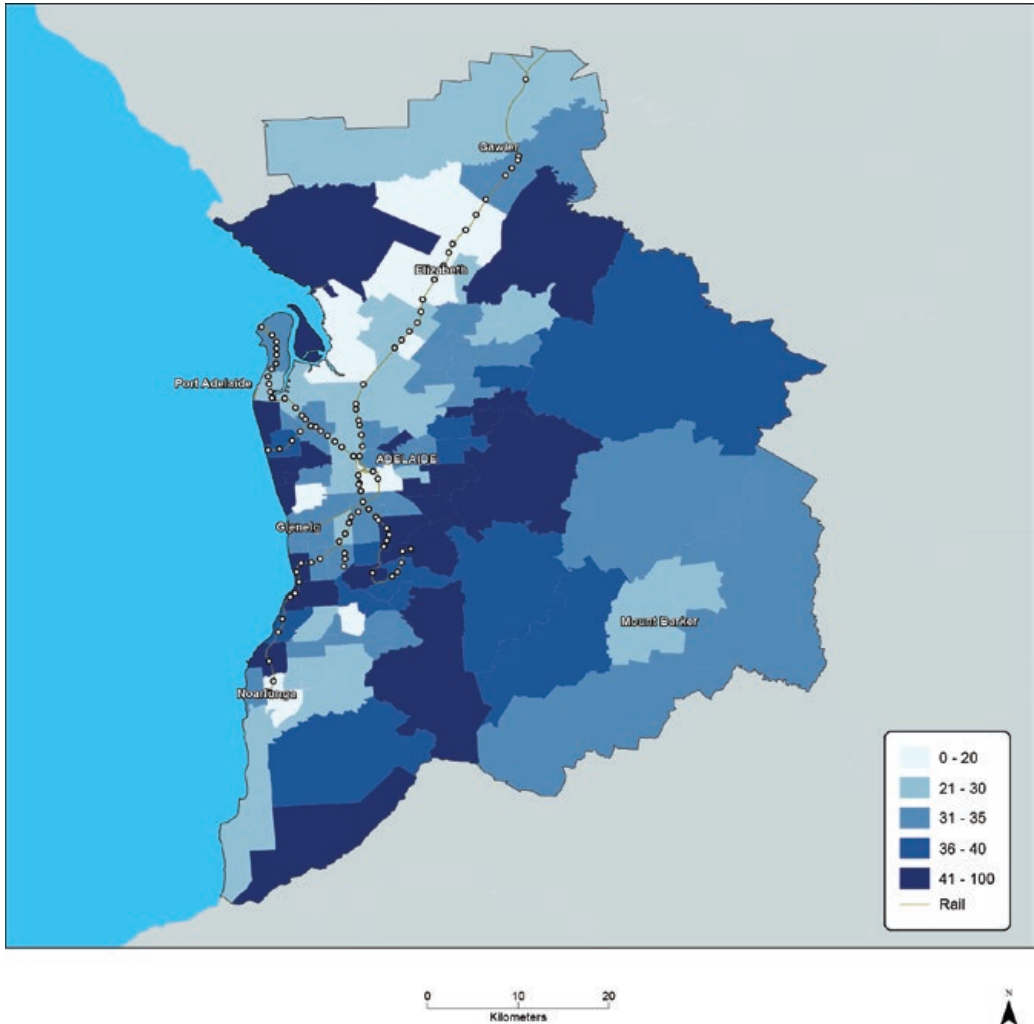
Dwellings owned outright

The sections below present examples of information that can be found in the *State of Australian Cities 2013* online maps for each major city. These maps can be viewed using the [supplementary online map application](#).

Map 5-5 shows the proportion of Adelaide's dwellings owned outright by occupants. There are lower proportions of outright dwelling ownership in Adelaide's CBD and to the north of the city covering Elizabeth. The highest proportion of dwellings owned outright is on Torrens Island and Garden Island in Barker Inlet at Port Adelaide, although this is due to them being ancillary to industrial activity.

There are distinctly higher proportions of outright ownership around 10 to 20 kilometres from Adelaide CBD, notably the beachside suburbs of Brighton and West Lakes, as well as in the area running from the outer east of Adelaide down to the far south, taking in the Adelaide Hills and Mount Barker. Further south there is a significant number of large farming properties which explains the high proportion of outright ownership in that area. There is a lower proportion of home ownership in the band about five to 10 kilometres around the Adelaide CBD.

Map 5-5 Proportion of dwellings that are owned outright in Adelaide, 2011



Mortgaged dwellings

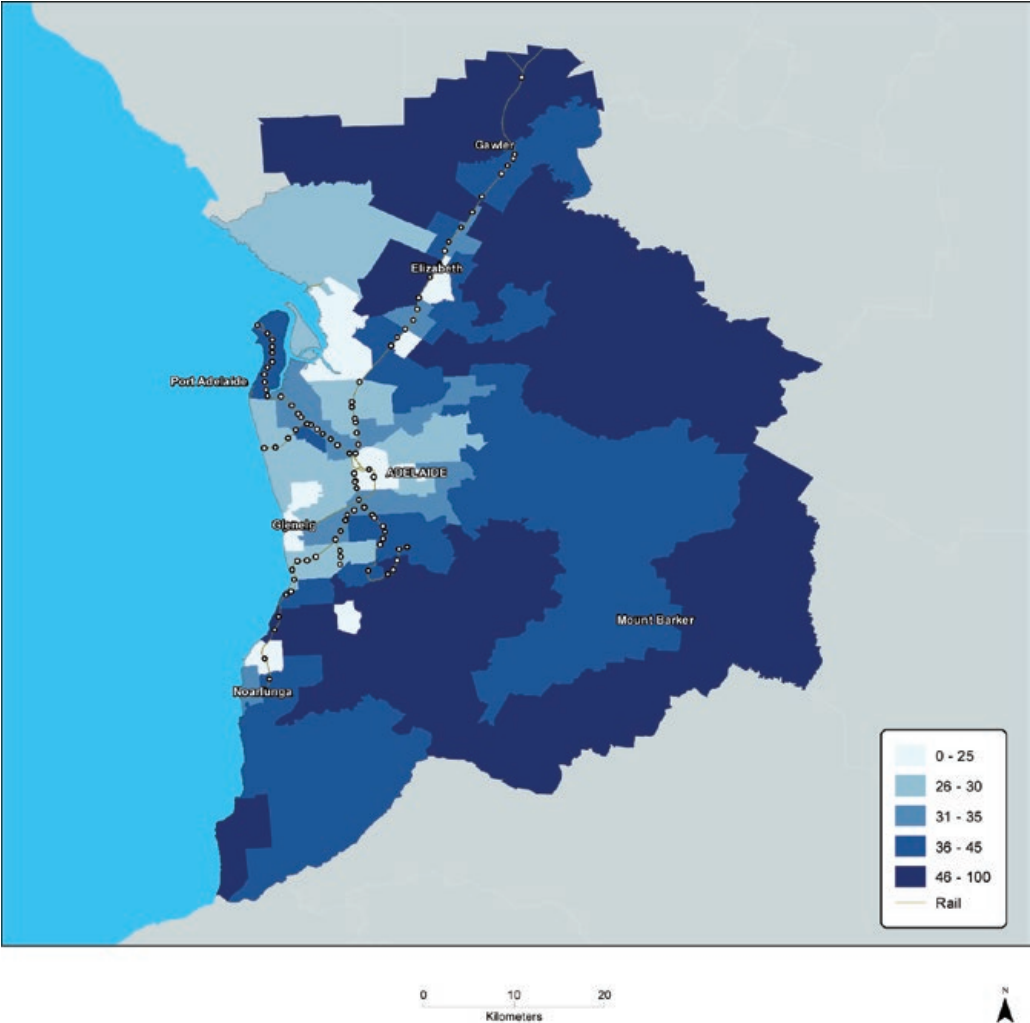
The quality and location of a property are primary considerations for buyers. For example, homeowners may want to be able to walk to the shops or the nearest bus stop. They are not just buying a property, they are seeking the lifestyle that comes with it. For young professionals, direct access to the city could positively affect their work and social life. Families may prefer dwellings close to a school so that they can reduce commuting and increase family time.

Map 5-6 shows that the highest proportions of dwellings being purchased are in a wide semicircle from the north through the east to the south, ranging in distance from between 15 and 40 kilometres from the city. In the north, Mawson Lakes and Salisbury North have the greatest proportions of dwellings being purchased. The expansion of the Gawler township in the north and nearby greenfield developments at Roseworthy have resulted in an increase in the proportion of dwellings being purchased in those areas. To the south of the CBD, the

growth in the proportion of dwellings being purchased has been strong in the Mitcham LGA around the new greenfield development at Blackwood Park in the Craighburn Farm estate.

Map 5-6 shows that some areas of Adelaide have very low proportions of dwellings being purchased. Some of those areas overlap with areas with low proportions of dwellings owned outright, such as to the north of the city, around parts of Elizabeth and in the city itself. Some areas with high proportions of outright ownership, such as Glenelg, show low proportions of dwellings being purchased. In some areas on the map – for example, around Noarlunga – it can be seen that low proportions of dwellings are being purchased.

Map 5-6 Proportion of dwellings that are being purchased in Adelaide, 2011



Rented dwellings

Data on rental dwellings is only available for Australia's capital cities. The number of properties in capital cities that are rented has increased for a number of reasons. The cost of living combined with rising house costs has reduced buyer activity while the increase in single-person households and the increased number of new inner city apartments, particularly in Melbourne, Sydney, Brisbane and Adelaide, have contributed to this trend. Rental vacancies may well be starting to rise, with the national vacancy rate being 0.2 per cent higher in 2013 than in 2012 (SQM Research 2013).

In the capital cities, vacancy rates currently range between less than one per cent in Perth and 2.7 per cent in Melbourne. The national average for vacancy rates is 1.9 per cent. The Real Estate Institute of Australia (REIA) collects information on the proportion of rental properties that are vacant in capital cities. It defines 'vacancy rate' as the proportion of habitable rental premises that are vacant. Melbourne was the only capital city where vacancy rates have remained static between 2012 and 2013. Hobart experienced the largest fall in vacancy rates between 2012 and 2013 of 0.3 per cent (from 2.4 per cent to 2.1 per cent). In Adelaide, the rate fell from 1.4 per cent to 1.3 per cent. There was an increase in vacancy rates in all other capitals. The biggest increase was in Canberra (0.7 per cent), followed by Darwin (0.5 per cent), Perth (0.4 per cent), Sydney (0.2 per cent) and Brisbane (0.1 per cent).

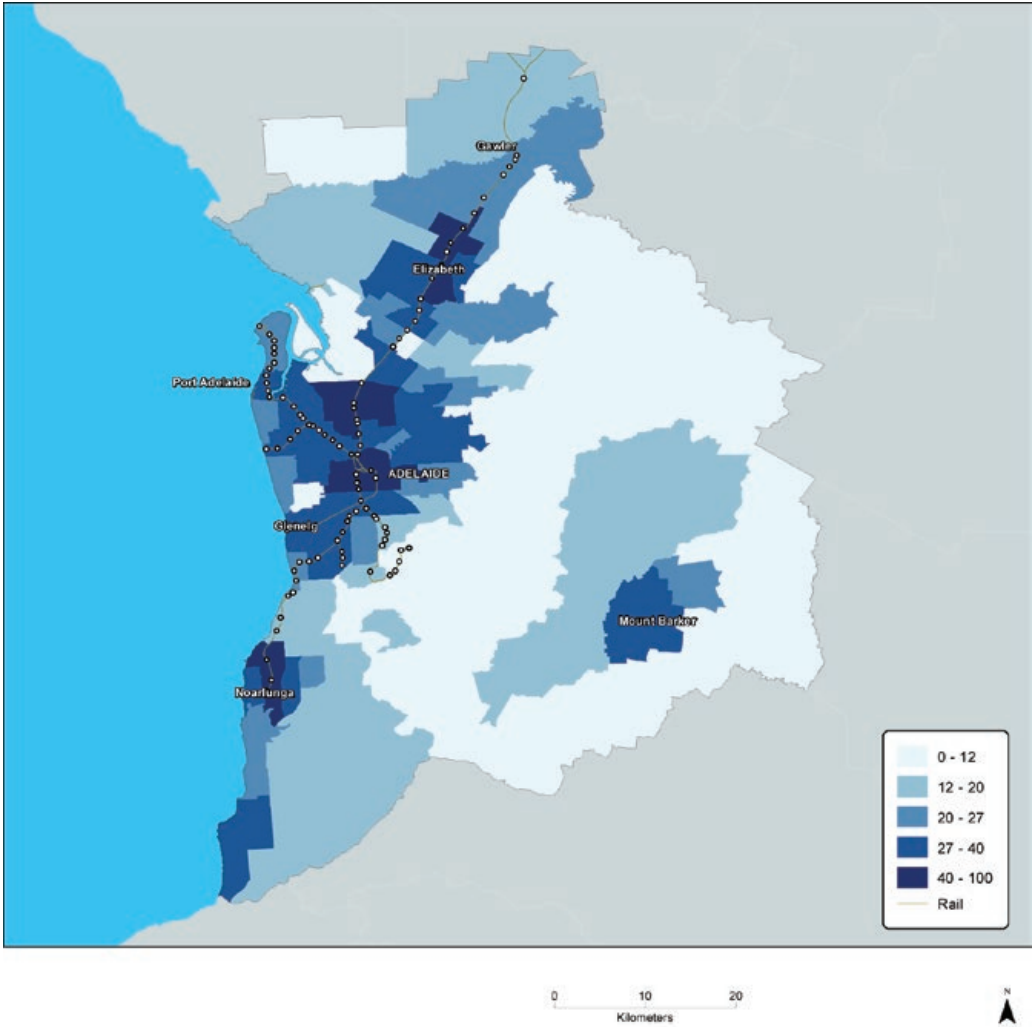
Map 5-7 shows that the proportion of Adelaide's rented dwellings are more tightly clustered around the CBD than dwellings owned outright or under purchase. The highest proportion of rented dwellings in inner Adelaide is in the inner ring LGAs of West Torrens (including the suburbs of Mile End, Thebarton and Underdale) and in the eastern LGA of Norwood, Payneham and St Peters (including the suburbs of Kent Town, Norwood, Kensington and Stepney). The two other areas of highest proportions of rented dwellings are in Elizabeth to the north and Noarlunga in the south, also areas with far fewer dwellings owned outright or being purchased.



Albury-Wodonga.

Image courtesy of Daayna Marsh

Map 5-7 Proportion of dwellings that are rented in Adelaide, 2011



Livable Housing Australia

Livable Housing Australia (LHA) – a partnership between community and consumer groups, government and industry – promotes safer, more comfortable and more accessible homes for all Australians at all stages of life. LHA advocates the mainstream, voluntary adoption of its Livable housing design guidelines, which use three levels of performance – silver, gold and platinum – ranging from basic through to those homes that comply with 16 elements to achieve the top platinum rating. LHA's vision is for all new houses in Australia to achieve silver level certification by 2020.

The first project to be built to platinum level was Cootharinga, North Queensland's supported housing project in Townsville. Cootharinga supports and houses people with disabilities and has done so for more than 60 years. It has facilities in Townsville, Cairns, Mackay and regions in between.

The Cootharinga project's vision was for two homes, built with funding from the Commonwealth Government's Supported Accommodation Innovation Fund (SAIF), to be 'smart, green and accessible'. The houses are situated within a residential area with access to public amenities and resources. In appearance and design the houses are similar to other homes in the neighbourhood, with modifications designed to meet different needs.



Cootharinga liveable housing, Townsville.
Image courtesy of Livable Housing Australia

The pavilion design consists of two homes, both with two bedrooms, as well as a self-contained staff sleepover dwelling with a single bedroom. The need for steps and ramps has been eliminated through careful design, and equal access to all areas of the building and site has been provided. Wide doors (970 millimetres) allow for mobility. Walls are reinforced, which allows grab rails to be fitted.

Industry has embraced the guidelines as a methodology for measuring the design features of a home. Major developer Lend Lease has recognised that liveability is an important contributor to a resident's ongoing comfort and enjoyment of their home within a retirement village and is aiming to achieve the first certification for its new development in Canberra. Isabella Gardens will consist of 122 independent

living villas with two- and three-bedroom options and is aiming for gold certification. Lend Lease recognises that 'liveable housing design is key to providing our customers with homes that are adaptable to their future needs'.

The designs provide continuous, step-free pathways from the front boundary to the front door. A wide, set-back driveway gives residents and their visitors space to park and open

car doors. The homes are designed for residents to age in place and are accessible for those with reduced mobility. Slip-resistant tiles in wet areas reduce the risk of falls, while switches, powerpoints, taps and doorhandles are easy to use. Single-storey designs, with wide internal doorways, corridors and spacious kitchens, laundries, bedrooms and living spaces, make the homes liveable.

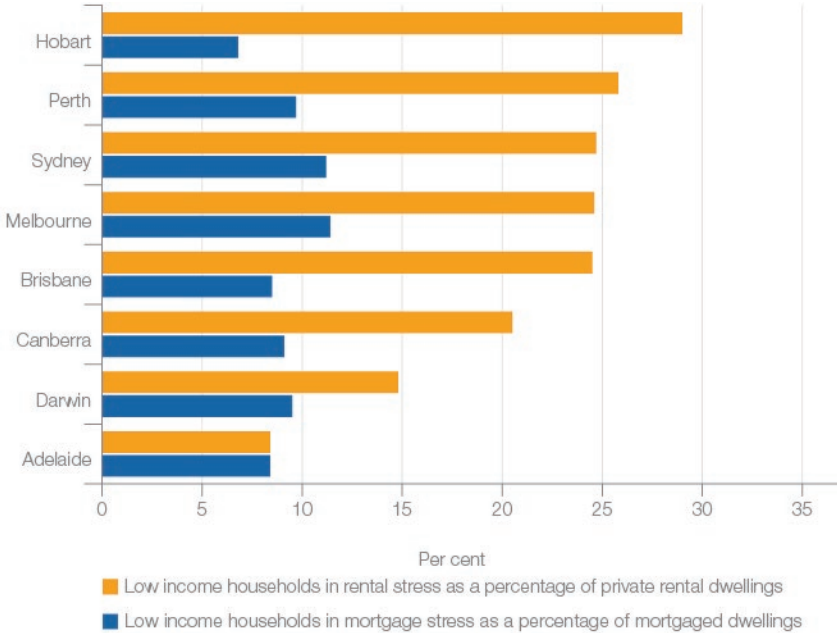
For more information see www.livablehousingaustralia.org.au.

There is a relationship between housing tenure type, age group and the decision people make to age in place or move elsewhere (Olsberg and Winters 2005). Many older private renters in particular fear that they may be forced to move when they grow older because of financial difficulties (Olsberg and Winters 2005). Housing type can influence whether people can age in place. People living in flats, particularly public housing flats, are more likely to move into residential care when they are older (Bridge et al. 2008).

Housing and social inclusion

Housing tenure is related to social inclusion. Social exclusion arises when individuals are prevented from fully participating in society due to multiple, intersecting problems such as poor health, unemployment and inadequate education. Stone et al. (2013) investigated the nature of the housing experience among socially included and excluded households. They found that 80 per cent of those in public housing are socially excluded households. Perhaps surprisingly, roughly equal proportions of outright owners and private renters (41 and 39 per cent respectively) could be considered to be socially excluded, followed by 16 per cent of purchasing households. Factors contributing to social exclusion among outright owners were more often age and life-stage related whereas social exclusion among private renters was more likely to be associated with limited income and education levels.

The impact that housing has on social inclusion and disadvantage will vary according to household type. International literature suggests that the housing circumstances in which children are raised significantly affects their development and wellbeing and may be an important part of the transmission of intergenerational and neighbourhood disadvantage (Dockery et al. 2013). Low-income households, (including those renting) whose housing costs take up more than 30 per cent of household income are regarded as experiencing housing stress. Ongoing housing stress is strongly and significantly related to social exclusion for both purchaser owners and private renters (Stone et al. 2013). Figure 5-6 shows the proportions of low-income households in rental and mortgage stress across the capital cities. In 2011 Hobart had the highest proportion of low-income renters in rental stress but, conversely, the smallest proportion of households in mortgage stress. Sydney and Melbourne had the highest rates of mortgage stress among low income households in the capital cities.

Figure 5-6 Low-income households in housing stress in capital cities, 2011

Source: PHIDU 2013a from ABS Census 2011

Homelessness

Homelessness is a complex social challenge and an extreme form of housing insecurity, social disadvantage and social exclusion.

The ABS defines a person as being homeless if they do not have suitable accommodation alternatives and their current living arrangement:

- is in a dwelling that is inadequate
- has no tenure or has initial tenure that is short and not extendable
- does not allow them to have control of, and access to, space for social relations (2012b).

Homelessness may be the cause of, or the result of, disadvantage and social exclusion. The disadvantage and social exclusion may persist even after a person is no longer homeless. The 2010 ABS General Social Survey (ABS 2011b) found that there were 2.1 million adults (13 per cent) in Australia who had experienced a period without a permanent place to live and were classified as having experienced homelessness at some time in their lives. Common reasons for homelessness included family, friend or relationship problems (50 per cent), tight housing or rental markets (23 per cent) and financial problems (22 per cent).

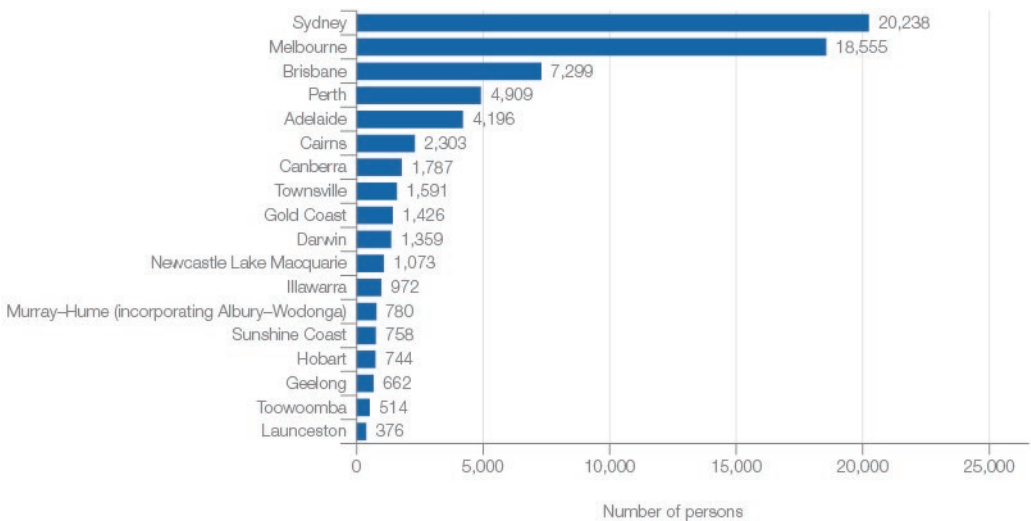
Homelessness is not just an individual or social issue; it also has implications for the economy. A recent national survey of 190 case-managed clients across four States found that people at risk of homelessness are heavy users of health, justice and welfare services (Zaretsky et al. 2013). They are also more likely to have children placed in out-of-home care and to be evicted from a public tenancy. Compared to the total population, the cost of health services to people experiencing homelessness was estimated to be between

\$22,824 per year higher for single men and \$4,254 per year higher for tenancy support clients. This represents both a cost to government and a potential cost saving to government where support is provided to prevent homelessness and its recurrence.

Although it is not possible to count the number of people who are homeless directly from a Census question, the ABS uses Census data to derive estimates. Using the ABS estimates, the COAG Reform Council found that from 2006 to 2011 the number of ‘rough sleepers’ fell six per cent from 7,247 to 6,813 but overall homelessness went up by 17 per cent due to increases in severe crowding (that is, usual residents of dwellings which needed four or more extra bedrooms to accommodate them adequately) and temporary accommodation (41,390 people were living in severely crowded dwellings, 9,859 more than in 2006). The COAG Reform Council notes that most of these people were in either major cities, particularly Sydney and Melbourne or remote Indigenous communities (COAG Reform Council 2013, p. 6).

The estimated numbers of homeless people in each of the major cities are shown in Figure 5-7. These numbers include people living in improvised dwellings, tents or sleeping out, people in supported accommodation for the homeless, people staying temporarily in other households, boarding houses or other temporary lodging and people living in ‘severely’ crowded dwellings. The estimates do not include people in other marginalised housing such as caravan parks.

Figure 5-7 Estimated number of homeless persons in major cities, 2011

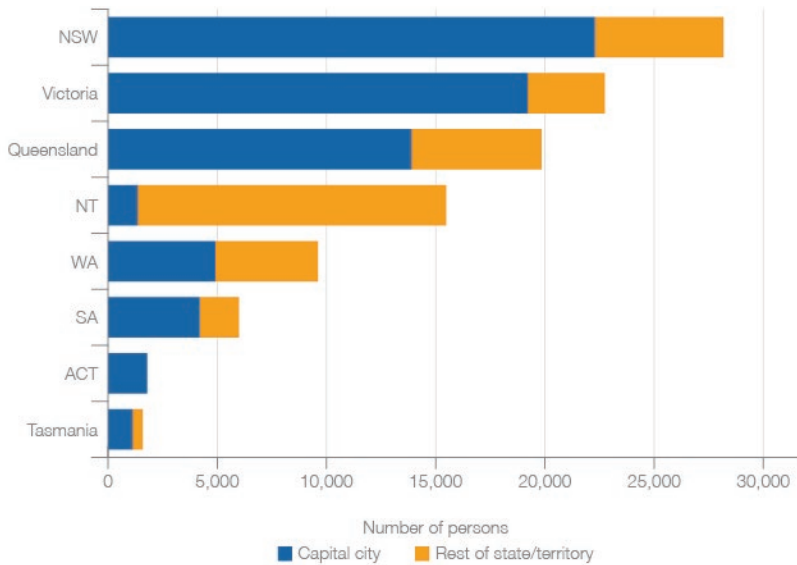


Note: Estimates relate to Greater Capital City Statistical areas (for capital cities) and Statistical Area Level 4 boundaries (for regional cities). Albury and Wodonga are represented by the larger regions of Murray Statistical Area Level 4 and Hume Statistical Area Level 4 respectively.

Source: ABS 2012b

Homelessness is largely concentrated in the capital cities, as shown in Figure 5-8. In Queensland in 2011, 43.4 per cent of the population and 70 per cent of homeless population lived in Brisbane. In Western Australia the distribution of homelessness between Perth, and the rest of the State was more even (51 per cent and 49 per cent respectively). By contrast, in the Northern Territory 91 per cent of the homeless population and people at risk of homelessness lived outside Darwin.

Figure 5-8 Distribution of homelessness between major cities and rest of State/Territory, 2011



Source: ABS 2012b

In many cities, homelessness is most visible in the inner city areas. The estimates suggest that although the largest proportions of homeless people are indeed found in the inner areas, there were also substantial numbers and concentrations of homeless people in other centres within Australia's four largest cities (Table 5-3).

Table 5-3 Distribution of homelessness in Sydney, Melbourne, Brisbane and Perth, 2011

Greater capital city statistical area	Statistical Area Level 4	Estimated number of homeless people	Homeless as a percentage of homeless population in selected capital cities
Sydney	City and Inner South	4,473	22.1
	Inner South West	2,253	11.1
	Parramatta	2,137	10.6
	Sydney South West	2,103	10.4
Melbourne	Inner	4,927	26.6
	South East	3,511	18.9
	West	2,782	15.0
Brisbane	Inner City	1,943	26.6
	South	1,219	18.7
	Ipswich	1,157	15.9
	Logan Beaudesert	1,066	14.6
Perth	Inner	986	20.0
	South East	1,286	26.0
	South West	1,035	21.0

Source: ABS 2012b

Towards a better understanding of homelessness: Journeys Home – a longitudinal study of factors affecting housing stability

In 2008 the Australian Government released a white paper on homelessness, The Road Home, which identified as a key concern a lack of research and data on homelessness. The Australian Government subsequently invested \$11.4 million over four years towards a National Homelessness Research Agenda to develop a better understanding of all aspects of homelessness. This has recently been extended to 2013–14.

The research agenda includes the first large-scale longitudinal survey of factors affecting housing stability in Australia, known as Journeys Home, run by the Melbourne Institute of Applied Economic and Social Research at the University of Melbourne. The Journeys Home survey follows the lives of more than 1,600 Australians who are homeless or at risk of homelessness. It will provide information about the living and housing challenges that people may be facing (Chigavazira et al. 2013).

The survey and ongoing research will help to establish a big picture of the demographics of homelessness and trends in housing instability and improve understanding of what differentiates people who have been able to move out of homelessness from those who have not.

For more information see http://melbourneinstitute.com/journeys_home.

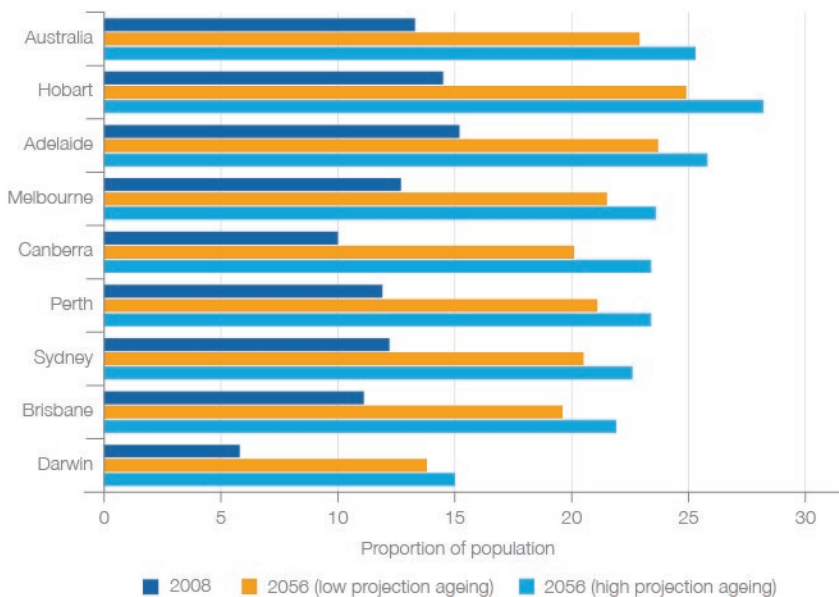
Ageing in cities

Three years ago, the first of the 'baby boomers' – those born in the two decades following World War II – turned 65. The economic and social effect of this is now starting to be felt as baby boomers start to move out of the workforce and pursue their preferences for retirement. These preferences will drive health, housing and other outcomes for the ageing population and there will be differences in the composition of ageing populations within and between major cities and regions. For example, some regional areas attract retirees and are experiencing more rapid ageing of their populations. In others, the population will age as a result of young adults leaving to seek opportunities in the major cities (Hillman 2007).

The ABS (2008) estimates that the median age of Australians will increase from 37 years in 2008 to between 42 and 45 years in 2056. The proportion of people over 65 years of age is forecast to almost double over the same period from 13 per cent to between 23 and 25 per cent.

Figure 5-9 shows projected increases in the proportion of the population aged over 65 in the capital cities over the next half century (ABS 2008). All capital cities are predicted to experience significant growth in the share of this age group, which in some cases may more than double. Of the capital cities, Hobart is forecast to move ahead of Adelaide to have the largest share of those aged 65 and over in 2056 (between 25 and 28 per cent of the city's population), and Darwin is predicted to continue to have the lowest proportion of older people (between 14 and 15 per cent).

Figure 5-9 Proportion of population aged 65 and over in capital cities, 2008 and 2056 (low and high population ageing projections)



Source: ABS 2008

Older Australians generally rate themselves as having poorer health than younger people and are more likely to require health services (ABS 2012c). An ageing population will thus place growing pressures on health services and rising health care costs which the Australian Government's *2010 Intergenerational Report* predicts will account for two-thirds of the total increase in government spending by 2050 (Treasury 2010).

As the population ages, the suitability and affordability of housing for older people will become increasingly important for governments. While there are substantial economic and social benefits of older people living in their own homes into later life (Bridge et al. 2008), the degree to which 'ageing in place' is an option for older people depends on the suitability of the design features of their dwelling and the neighbourhood, as well as the availability of services. LHA's *Livable Housing Design Guidelines* is an attempt to encourage and mainstream the provision of safer, more comfortable and accessible homes for Australians at all stages of life.

Map 5-8 uses Brisbane as a case study for showing the change in proportion of those aged 65 and over in a major city between 2001 and 2011, providing an insight into urban retirement settlement patterns. It shows a pronounced movement of older people away from inner city suburbs to smaller townships in coastal and semi-rural areas. These areas, including Moreton Bay to the north, Lockyer Valley and Somerset to the west, Logan to the south and Redland to the east, may be in demand among older people because they offer cheaper housing and convenient access to the city and its health care facilities and social networks.

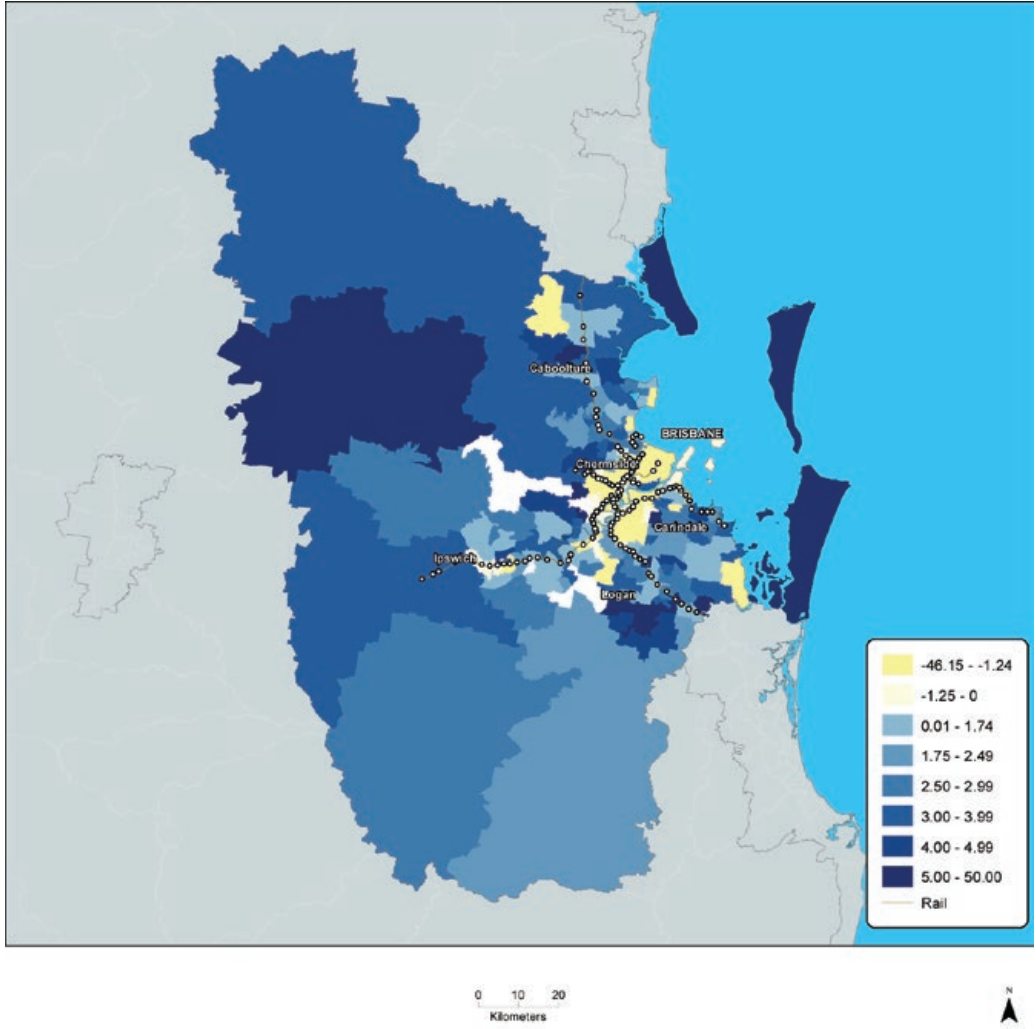
Map 5-8 also shows that there has been strong growth in the proportion of the population aged 65 and over in some middle suburban areas of Brisbane. This is possibly a result of baby boomers choosing to age in place in the established family home, close to health care and other services.



City Markets, Cairns.

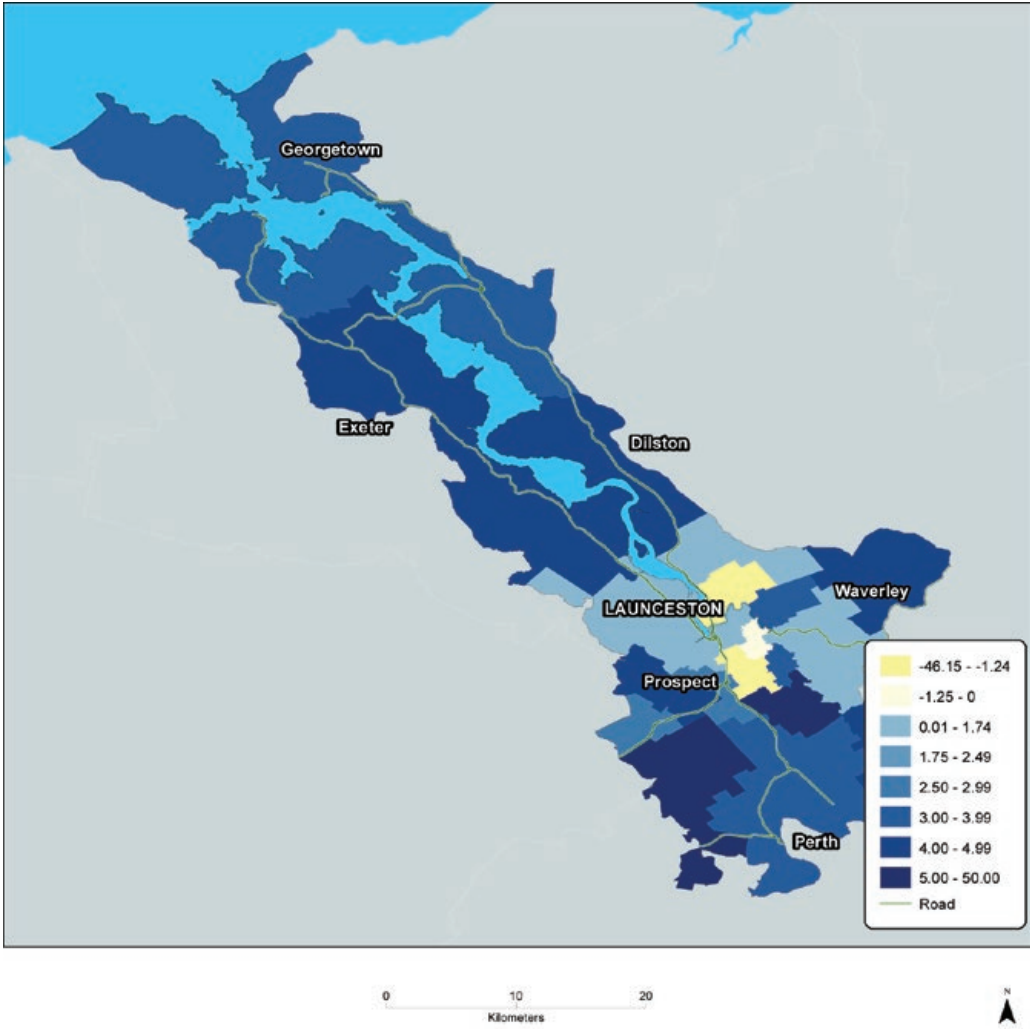
Image courtesy of Chay Garde

Map 5-8 Change in the proportion of the population aged 65 years and over in Brisbane, 2001–11



Changes in the proportion of the population aged 65 and over between 2001 and 2011 in Launceston suggest that smaller major cities are experiencing similar patterns of outward migration by older people, with retirees seeking out coastal and semi-rural areas in proximity to urban centres. Map 5-9 reveals that while the proportion of the inner city population aged 65 and over in Launceston declined during this period, regional areas along the Tamar Valley and south of the city experienced strong growth in the proportion of older people.

Map 5-9 Change in the proportion of the population aged 65 years and over in Launceston, 2001–11



Given the health care needs of older people, outward migration of retirees from established urban areas could have substantial implications for government spending, as more resources may need to be diverted to smaller towns to meet the needs of their growing populations of older people.

Active travel

The term 'active travel' refers to walking and cycling as a means of transport. Active travel can improve liveability in cities because of there are fewer cars crowding the roads and the exercise gained brings health benefits. More people choosing to walk or cycle also improves opportunities for social interaction in cities (Giles-Corti et al. 2010).

Who walks and cycles?

For some people, walking and cycling offer sustainable alternatives to cars and mass transit for everyday journeys, particularly short trips to and from shops, schools, universities, workplaces and mass transit. Rates of active travel are influenced by a number of factors, including personal characteristics such as age, gender and location. In 2011, 5.1 per cent of all commuting trips in the major cities were undertaken by walking (3.8 per cent) or cycling (1.3 per cent), up from 4.6 per cent of trips in 2001 but down slightly from 5.2 per cent in 2006 (BITRE 2013a).

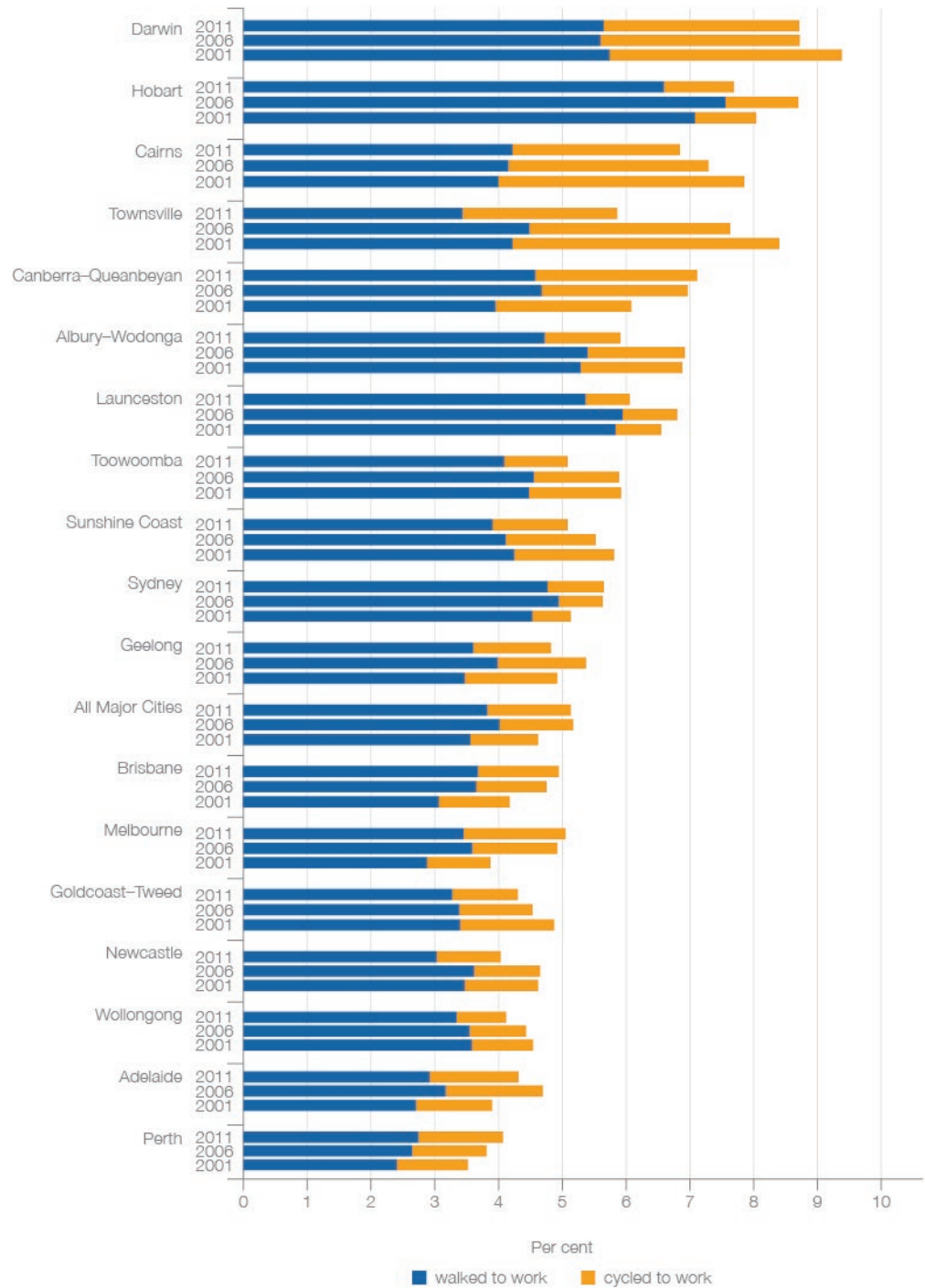
Figure 5-10 shows that walking was the dominant active travel mode for commuting trips in all major cities in 2011 (BITRE 2013a).



Convention Centre, Wavebeach, Darwin.

Image courtesy of Sara Stace

Figure 5-10 Journey to work mode share of walking and cycling, 2001, 2006 and 2011



Note: For each city, the three columns represent data for 2001, 2006 and 2011.

Source: BITRE 2013a (unpublished) analysis of ABS Census of Population and Housing 2001, 2006 and 2011

The share of trips to work made on foot was highest in Hobart (6.6 per cent of all commuting trips in 2011), Darwin (5.7 per cent) and Launceston (5.4 per cent). Rates of cycling were highest in Darwin (3.1 per cent), Cairns (2.6 per cent), Canberra (2.5 per cent) and Townsville (2.4 per cent). Figure 5-10 also shows that the combined rate of walking and cycling tends to be higher in the smaller cities than in the larger ones. In the 2011 Census, the smallest capital cities – Canberra (7.1 per cent), Hobart (7.7 per cent) and Darwin (8.7 per cent) – as well as Townsville (5.9 per cent), Cairns (6.9 per cent), Launceston (6.1 per cent) and Albury-Wodonga (5.9 per cent) recorded the highest proportion of walking and cycling for journeys to work. This may reflect the fact that jobs in smaller cities are more likely to be within walking or cycling distance for a larger share of the population.

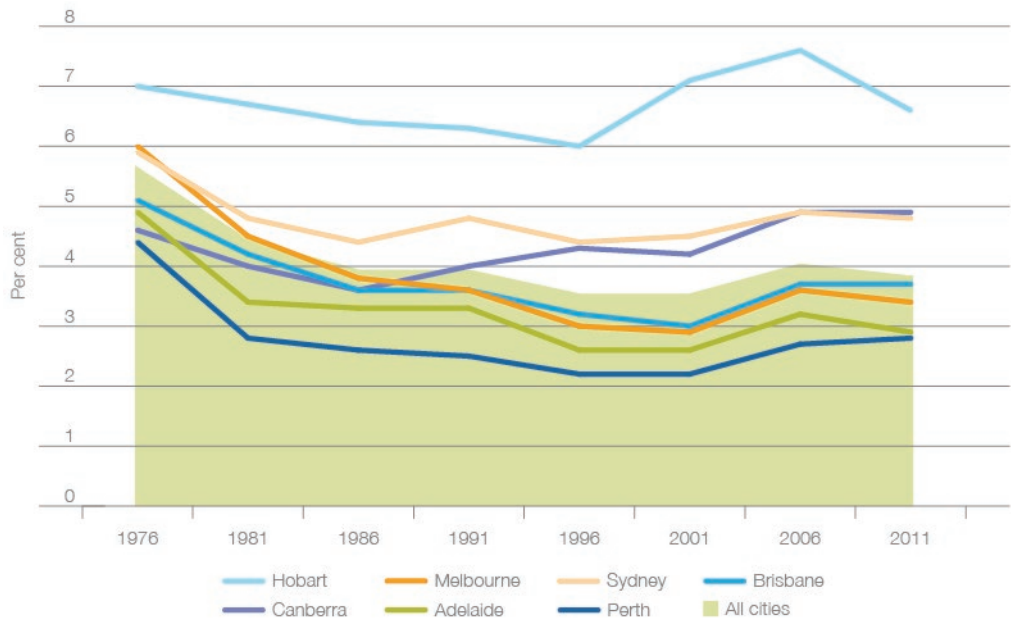
Of the five Australian cities with over a million people, only Sydney had a combined proportion of active travel to work (5.7 per cent) above the average for all 18 major cities (5.3 per cent) in the 2011 Census. Melbourne, Brisbane, Adelaide and Perth had higher rates of cycling than Sydney but much lower rates of walking.

The major cities with the highest rates of active travel for journeys to work were found in both warmer cities (Darwin, Cairns and Townsville) and cooler cities (Hobart, Canberra, Launceston and Albury-Wodonga), showing that above-average levels of active travel can occur regardless of weather.

The capital cities recorded low increases in the overall active travel mode share between 2001 and 2011 with the exception of Hobart where active travel mode share decreased, and Darwin where there was no change. Analysis of ABS Census data by the Bureau of Infrastructure, Transport and Regional Economics found between 2001 and 2011, the six largest capital cities shared a common trend of increased active travel and mass transit use and reduced private vehicle use, while the smaller major cities all experienced reduced active travel use and (apart from Geelong) increased private vehicle use (BITRE forthcoming).

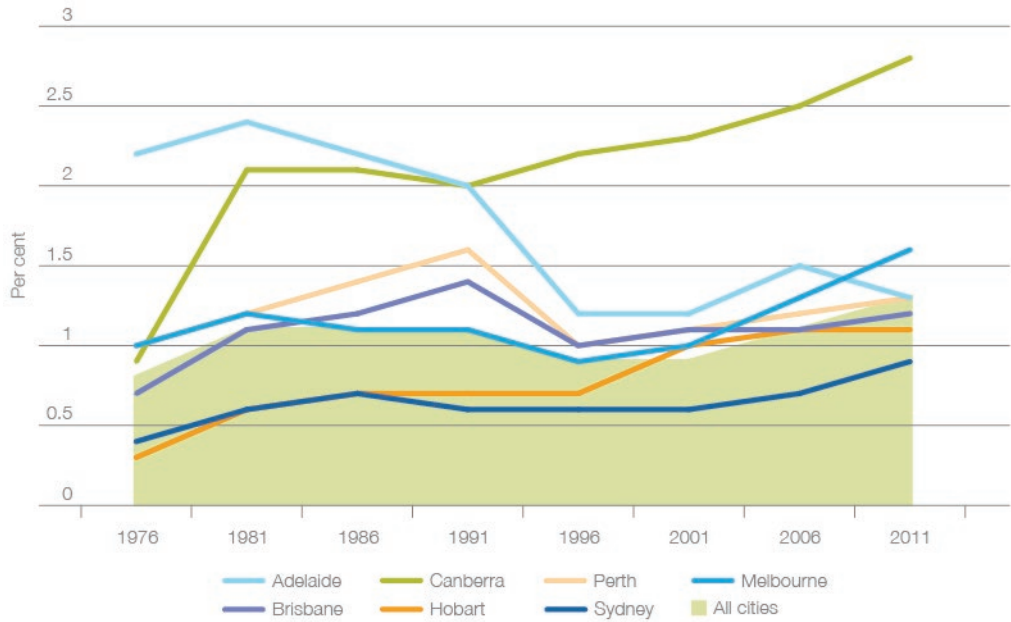
Figures 5-11 and 5-12 show the walking and cycling to work patterns in the eight capital cities since 1976. The data reveals a steady decline in rates of walking across all capital cities between 1976 and 1996, followed by increases between 1996 and 2006 and then a slight decline in the mode share of walking between 2006 and 2011. Rates of cycling across the capital cities dipped slightly between 1991 and 2001 before growing since 2001 to reach levels higher than the previous peak in 1981.

Figure 5-11 Walking trips as a proportion of all trips to work, capital cities (except Darwin), 1976–2011



Source: Mees and Groenhart 2012

Figure 5-12 Cycling trips as a proportion of all trips to work, capital cities (except Darwin), 1976–2011



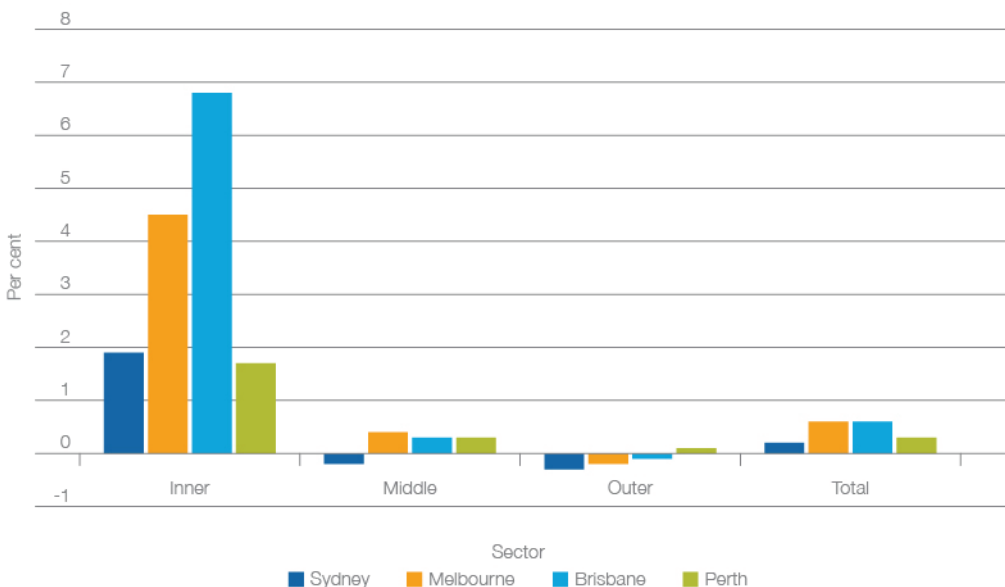
Source: Mees and Groenhart 2012

Despite the slight decline in active travel mode share for journeys to work between 2006 and 2011, the total number of these trips continued to grow. Approximately 304,000 walking and cycling trips to work were made in the major cities each day in 2006; this grew to almost 339,000 by 2011 (BITRE 2013a). The growth in the number of walking and cycling trips in the absence of growth in active travel mode share can be attributed to population growth during this period and presumably indicates growing pressure on existing pedestrian and cycling infrastructure. In Sydney, for example, a 0.1 percentage point increase in the mode share of active travel between 2006 and 2011 (from 5.6 to 5.7 per cent of all commuting trips) translated to an 11 per cent increase in the number of active travel trips to work in the same period. More than 100,000 trips to work were undertaken on foot or by bicycle in Sydney each day in 2011, up from about 90,000 in 2006.

Across all 18 major cities, the mode share of active travel increased slightly between 2001 and 2006 before declining marginally between 2006 and 2011. Between 2001 and 2011, the share of journeys to work made on foot or by bicycle in most non-capital major cities declined, with the largest falls recorded in the Queensland cities of Townsville, Toowoomba, Cairns and the Sunshine Coast. Within cities, rates of walking and cycling can vary greatly. Mees and Groenhart (2012) have suggested that the growth in rates of walking and cycling in the capital cities since the mid-1990s has been fuelled by strong population growth in inner city areas, typically characterised by good walkability and proximity to a variety of destinations including employment, schools, shops and other services.

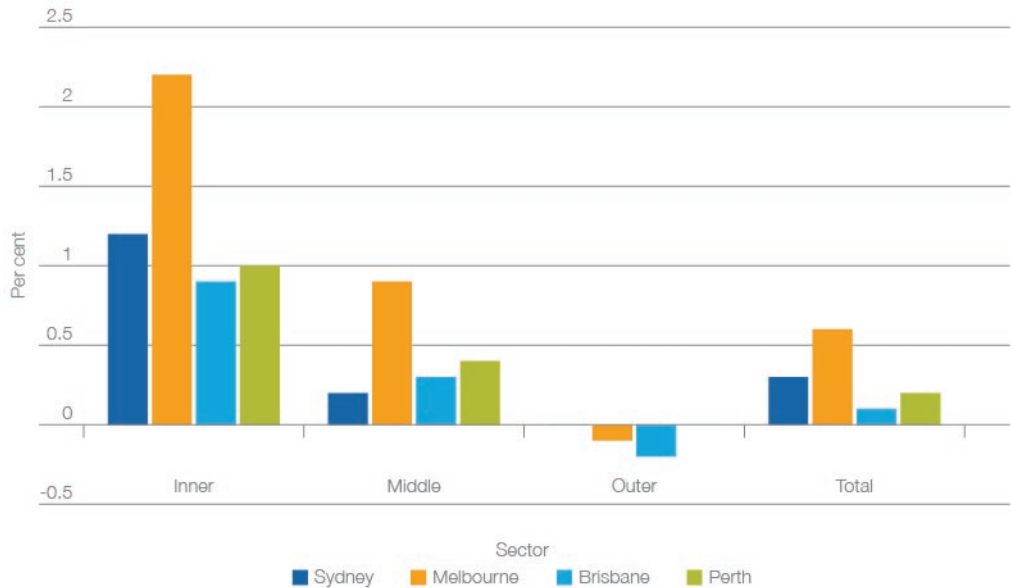
Figures 5-13 and 5-14 show the change in walking and cycling mode share between 2001 and 2011 for Sydney, Melbourne, Brisbane and Perth by urban sector, based on distance from the city centre. In each of the cities, relatively large increases in walking and cycling mode share in inner areas were offset by marginal increases in the middle suburbs (and a small decrease in walking mode share in Sydney), while the outer suburbs experienced little change in or declining rates of walking and cycling.

Figure 5-13 Change in walking to work mode share by sector in selected major cities, 2001–11



Source: BITRE 2013a analysis of ABS Census of Population and Housing 2001 and 2011

Figure 5-14 Change in cycling to work mode share by sector in selected capital cities, 2001–11



Source: BITRE 2013a analysis of ABS Census of Population and Housing 2001 and 2011

Health benefits from increasing active travel

Planning, transport and urban design policies affect active travel behaviour. They influence the location and proximity of mass transit, green space and local amenities. The design of neighbourhoods and streets can do a lot to encourage walking and cycling (NSW Centre for Epidemiology and Research 2010).

Australia’s transport and health organisations have recognised that physical inactivity is a major driver of the increase in obesity (Moving People 2030 Taskforce 2013, p. 106). The rate of overweight and obese Australians has grown from 56 per cent in 1995 to 63 per cent currently. This includes three in four Australians aged between 65 and 74 (ABS 2012c).

Walking and cycling for transport purposes can provide important health benefits by building adequate levels of physical activity (Giles-Corti et al. 2010) into everyday routines. Health guidelines for Australian adults recommend a minimum of 30 minutes of moderate-intensity exercise daily to help prevent heart disease, stroke, diabetes and some cancers, as well as reduce the risk of injury and promote mental wellbeing (Department of Health and Ageing 2005). Walking trips undertaken as part of a mass transit trip – for example, walking to the local train station or bus stop – can result in significant increases in physical activity and improved health (Rissel et al. 2012).

In Australia, little research has been undertaken to understand the wider impacts, costs and benefits – such as health benefits – that could come from improving urban infrastructure to build in more walking and cycling opportunities.. The World Health Organization (WHO) has developed a possible tool to measure the health impacts of such investment, which has recently been used in Auckland, New Zealand (see feature box below).

Case study: Health economic assessment tool (HEAT) for cycling and walking

The health economic assessment tool (HEAT) is an online resource to estimate the economic savings resulting from reductions in mortality as a consequence of regular cycling and/or walking. HEAT for cycling was first launched by the World Health Organisation (WHO) in 2009, with an updated online version for walking and cycling published in 2011 (WHO 2011).

Intended for use by planners and traffic engineers at all levels of government, HEAT is based on available evidence with parameters that can be adapted to fit specific situations. The tool calculates answers to the question: 'If x people cycle or walk y distance on most days, what is the economic value of mortality rate improvements?'

HEAT can be applied in many situations, including:

- planning a new piece of cycling or walking infrastructure by modelling the impact of different levels of cycling or walking to produce a benefit–cost ratio; and
- valuing the mortality benefits from current or prospective levels of cycling or walking, such as benefits from cycling or walking to a specific workplace, across a city or in a country.

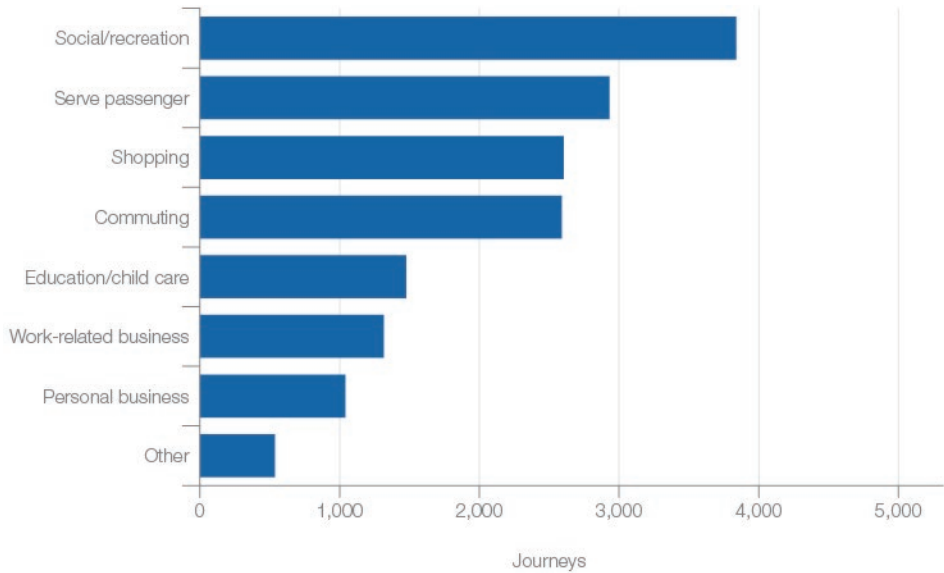
In New Zealand, HEAT has been used to evaluate the possibility of adding cycling and pedestrian facilities to the Auckland Harbour Bridge. The bridge, built in 1959, has no active travel infrastructure and may only be crossed by motor vehicles. Based on hypotheses for the number of cyclists that would use the bridge for regular commuting, HEAT calculated the mortality benefits and economic savings from the establishment of such cycling and pedestrian infrastructure. For every 1,000 adults who regularly commute by bicycle across the bridge, annual savings were estimated to be NZ\$1,529,000 (WHO 2013a).

Walking for non-work journeys

ABS Census travel data currently examines walking in major cities by looking at journeys to work. However, most journeys on an average weekday are undertaken for a variety of purposes other than travelling to work or education, such as socialising, shopping or personal business. Walking accounts for a much higher share of non-work journeys than of commuting trips.

Travel surveys by some state governments, such as the annual Household Travel Survey for Sydney, provide mode share information for *all* journeys. Unfortunately, this data is not nationally consistent. On an average weekday in Sydney in 2011, there were 16.3 million journeys (NSW Bureau of Transport Statistics 2012, p. 31). Figure 5-15 shows that just one-third of weekday journeys in Sydney were for work or study or any other work-related purposes (NSW BTS 2012, p. 32).

Figure 5-15 Journeys in Sydney on an average weekday, by purpose
(all transport modes), 2011



Source: NSW BTS 2012

In 2011 nearly as many journeys were made on an average weekend day in Sydney (15.2 million) as on an average weekday (16.3 million), and the number of journeys on weekends has been growing at twice the rate of weekday journeys for more than a decade (NSW BTS 2012, p. 31).

For travel purposes other than commuting, walking plays a far greater role. For example, while only six per cent of commuting journeys in Sydney are recorded as walking journeys, walking accounts for nearly 23 per cent of *all* journeys undertaken, regardless of purpose (NSW BTS 2013, p. 1). This includes 29 per cent of journeys for social/recreational purposes, 28 per cent of shopping journeys and 21 per cent of personal business journeys (NSW BTS 2012, p. 34). Within Sydney’s CBD, 93 per cent of all trips – around 1.2 million trips a day – are undertaken on foot (Transport for NSW 2012, p. 37).

Most journeys involving other modes of transport also include at least one walking trip – for example, to or from a bus stop, train station or parked car. By recording only the primary mode of transport for each journey, Census data overlooks these walking trips. This shortcoming of travel data collection processes is not unique to Australia. National travel surveys in many other OECD countries also underestimate the proportion of walking in total journeys (ITF 2012, p. 19).

Case study: Brisbane City Council Active School Travel Program

Travel to school has changed markedly in Australia since the 1970s, from predominantly active modes (particularly walking) to mainly car trips (Van der Ploeg et al. 2008). Taking children to school by car can have an impact on health, levels of inactivity and independence skills, as well as contributing to congestion in peak periods. Programs to encourage walking and cycling to school often seek to address the concerns about personal and road safety held by parents.

Brisbane City Council's Active School Travel (AST) program is one such initiative that aims to change travel behaviour by increasing the number of school students who walk, cycle, carpool or use mass transit on all or part of the journey to and from school. Each year the council selects a number of primary schools for the program and helps them to develop a school travel plan to encourage children and parents to consider more active and sustainable transport modes.

The AST program began in 2004 and each year a number of initiatives are implemented to achieve a reduction in the number of car trips made to and from Brisbane schools, such as:

- **Park + Stride:** encourages students with no alternative but to be driven to school to walk the final part of their journey. A site is selected which is five or 10 minutes walking distance from the school and parents are encouraged to drop their children off there.
- **Walking School Bus:** a group of children walk to and/or from school with trained and approved walk leaders from the school community. The 'bus' walks along a set route to and/or from school, picking up or dropping off children along the way at designated stops, similar to a normal bus route.
- **Bike Skills Training:** training is delivered to a chosen year level in four one-hour sessions (Healthy Spaces and Places 2013).

In 2012, the AST program worked with 19 primary schools in Brisbane, resulting in an 18 per cent decrease in car trips to school and a reduction of 1.92 million vehicle kilometres travelled annually, a 14 per cent increase in students walking to school and a three per cent increase in carpooling trips (Brisbane City Council 2013, p. 4).

Increasing active travel for local trips

A recent study of more than 1,000 residents moving to new housing developments in Perth shows how planning decisions and the type of infrastructure provided can encourage greater levels of walking for transport and recreation. (Giles-Corti et al. 2013). The study pointed to the health and liveability benefits of neighbourhoods that include an integrated range of residential, commercial, cultural, institutional or industrial uses. It found that where shopping facilities, schools and health services, for example, are built within the new housing development; residents are more likely to walk.

While the link between mixed-use developments and healthy, walkable neighbourhoods is well-known, Giles-Corti et al. (2013) suggest there is a gap between the knowledge and how it is put into practice.

Road safety concerns for pedestrians and cyclists

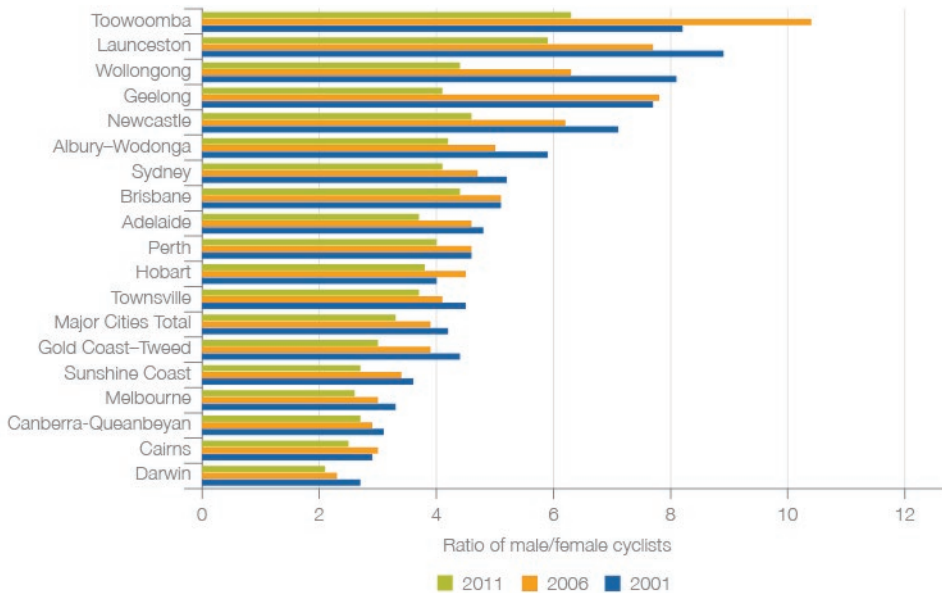
Pedestrians and cyclists are highly vulnerable road users. Globally there are 270,000 pedestrian fatalities every year, and in 2011 the World Health Organization launched the Decade of Action for Road Safety 2011–2020 to draw attention to the needs of pedestrians (WHO 2013b).

National data on road fatalities shows that some groups such as children and older Australians are higher-risk pedestrians and cyclists than others. For example, while pedestrians made up 13 per cent of road fatalities across all age groups in 2012, 25 per cent of people over the age of 70 killed on Australian roads was a pedestrian (26 per cent). Older Australians are particularly vulnerable pedestrians, and so are children (Devlin et al. 2010). Twenty-one per cent of road fatalities involving those aged 16 and under were pedestrians (BITRE 2013b), almost certainly due to inexperience and a lack of risk perception. (Devlin et al. 2010).

While women walk more on an average weekday than men (NSW BTS 2012, p. 44), two in three pedestrians killed last year were male (BITRE 2013b, p. 11). Data from the Office of Road Safety in Western Australia shows that male pedestrian deaths in Western Australia often occur at night or on the weekend, and in many cases may be attributed to drugs or alcohol (WA Office of Road Safety 2010, p. 2).

Nine in 10 cycling fatalities in Australia in 2012 were male (BITRE 2013b, p. 11). This may partly reflect the prevalence of male cyclists with more than 75 per cent of cyclists travelling to work being male (Mees and Groenhardt 2012, p. 18). ABS Census data for journeys to work shows there were 4.2 male cyclists for every female cyclist in the major cities in 2001 (Figure 5-16). By 2011 this ratio had declined to 3.3 males for every female cyclist, meaning that the proportion of female cyclist commuters had grown. Nevertheless, the cycling gender gap remains pronounced. In 2011 every major city reported at least two male cyclists for every female cyclist.

Figure 5-16 Ratio of male/female cyclists for journeys to work, 2001, 2006 and 2011



Source: BITRE 2013a (unpublished) analysis of ABS Census of Population and Housing 2001, 2006 and 2011

In a national survey of women and cycling earlier this year, the most commonly cited factors preventing women from cycling were the speed and volume of traffic (51.6 per cent of surveyed women) and aggression from other road users (45.9 per cent) (Cycling Promotion Fund and Heart Foundation 2013, p. 15). This may explain some of the imbalance in the ratio of male to female cyclists.

A recent national survey of children and cycling has revealed similar safety concerns and found that just 11 per cent of surveyed school students rode a bicycle to school (Cycling Promotion Fund and Heart Foundation 2012, p. 6). Surveyed parents reporting that personal and road safety concerns were the main reasons their children did not cycle to school (Cycling Promotion Fund and Heart Foundation 2012, p. 10).

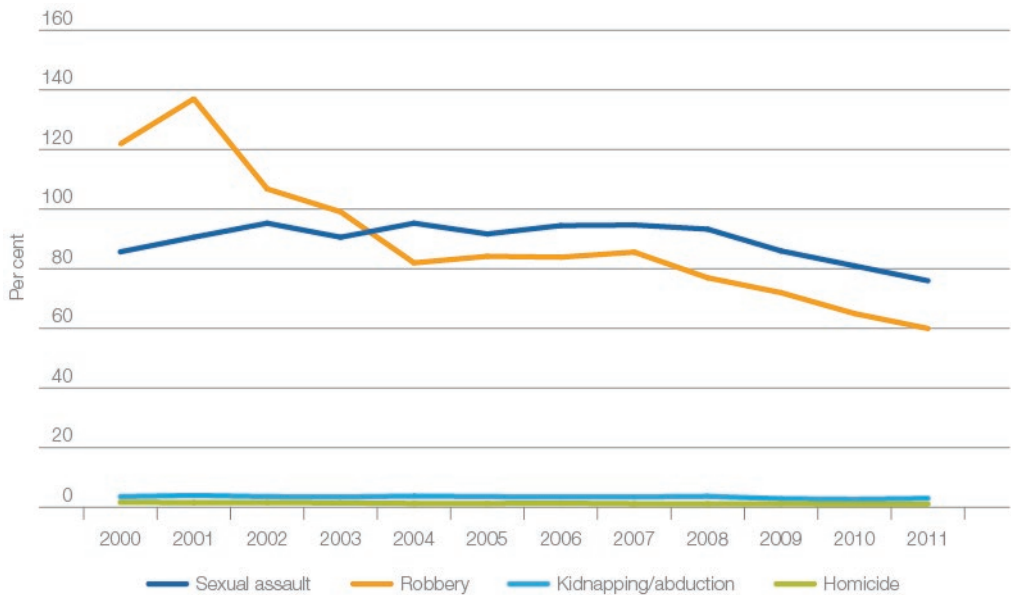
Crime and crime prevention

While crime rates in Australia have declined in the past decade, community perceptions are known to frequently overstate actual crime levels. This can mean that people continue to feel unsafe in their community even as conditions improve (Davis and Dossetor 2010). Overcoming the inhibiting effects of fear of crime on everyday behaviour, such as while walking to or from shops, mass transit or work, requires an understanding of not only actual but also perceived crime levels.

The Australian Institute of Criminology estimates that crime costs Australia around \$36 billion per year, or about four per cent of national GDP (AIC 2013a). This includes the cost of property loss, medical costs and lost output and productivity. Violent crime in Australia has been decreasing in the past decade (Figure 5-17). Sexual assault (76 per 100,000 population in 2011) and robbery (60 per 100,000) make up the vast majority of violent crimes, while rates of kidnapping/abduction (3 per 100,000) and homicide (1.1 per 100,000) are much lower.

Crime trends

Figure 5-17 Violent crime in Australia (per 100,000 population), 2000–11

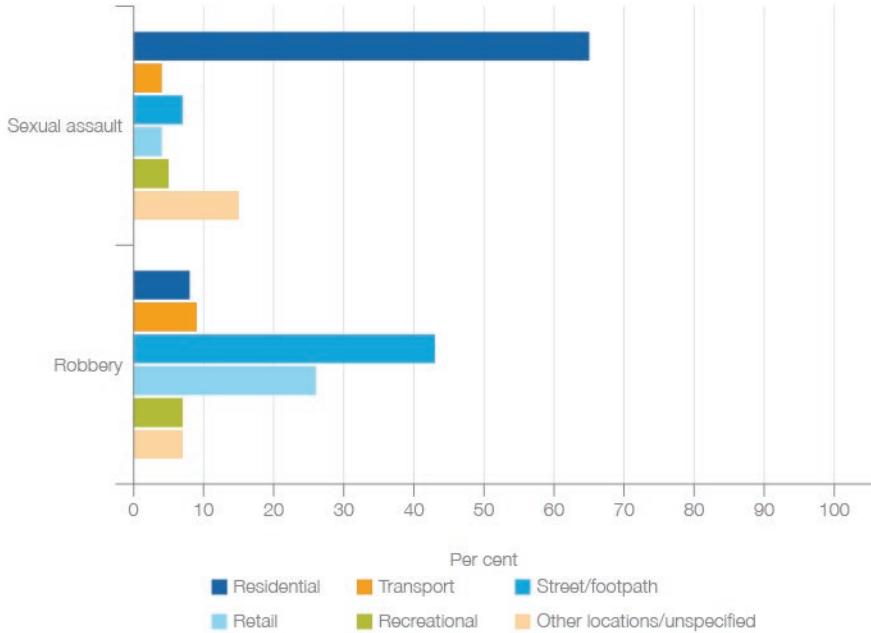


Source: AIC 2013b

Property crime (break and enter, burglary and other offences such as shoplifting and pick-pocketing) occurs at a much higher rate than violent crime, and the number of property crimes increased across all categories in 2011. Nearly half of all property crimes occur in a retail setting (31 per cent) or on the street (14 per cent) (AIC 2013b, p. 10).

Violent crimes and crimes against property in Australia occur in a variety of settings. For example, analysis of data on sexual assaults and robbery shows that nearly two in three sexual assaults in Australia in 2011 occurred in residential dwellings, whereas robberies most commonly occurred on the street or in retail premises (Figure 5-18) (AIC 2013b).

Figure 5-18 Sexual assault and robbery in Australia by location type, 2011



Source: AIC 2013b

Distribution of crime

Certain types of crime occur more frequently in particular locations. Better understanding of the relationship between locations and types of crime can help governments, communities and individuals reduce or overcome the fear and risk of crime. For example, crime mapping by the NSW Bureau of Crime Statistics and Research (2013) has shown that non-domestic violence related assault tends to be concentrated in ‘hotspots’ around retail and commercial areas, both in the central business district and suburban shopping strips. Similarly, national data indicates that three in four robberies occur in public places, particularly in retail areas, on transport or on the street. Nearly half of all property crime in Australia occurs in public spaces such as shopping areas (AIC 2013b).

Theories suggest crime rates are influenced by the permeability of street networks, with improved accessibility of a location improving its attractiveness to offenders, and by the neighbourhood density, because higher density areas offer more targets and opportunities for crime (Cozens 2011).

Crime prevention

As described earlier, crime and fear of crime can be a significant deterrent to undertaking everyday activities and has been found to affect particular groups, such as women and the aged, more profoundly (Roman and Chalfin 2008).

For example, mass transit operators can address fear of crime experienced by passengers on services and at stops and stations by implementing measures such as camera surveillance, visible staff and suitable lighting. However, journeys do not start or end upon boarding or

alighting from a bus, tram or train. Transport users may feel more vulnerable travelling to and from the stop or station to their home, the workplace, education or services. The challenges of addressing crime both in the home and on the street are explored in the following feature article.

Safety in the city for women – and everyone

Dr Carolyn Whitzman, Associate Professor in Urban Planning, University of Melbourne

The rape and murder of 29-year-old Jill Meagher in an inner northern Melbourne suburb in September 2012 sparked a new wave of concern about safety in the city for women. But what do we know about violence against women in Australian cities? Where does it occur and is it increasing? What works to prevent violence? And what can all levels of government, along with the private sector and civil society, do to prevent violence?

Assaults reported to the police have increased over the past 15 years in many Australian cities. Across the country, reported assaults increased from 114,156 in 1996 to 171,083 in 2010, while reported sexual assaults increased from 14,542 to 17,757 during the same period (AIC 2011, p. 2). What we do not know is whether *actual* violence, as measured by victimisation surveys, is increasing. In 2002–03, Australia participated in an International Violence Against Women Survey, which found that 57 per cent of women had experienced some form of physical and/or sexual violence since the age of 16. However, only 14 per cent of women who experienced violence from an intimate partner, and 16 per cent who experienced violence from someone else, had reported the most recent incidence to the police (Mouzos and Makkai 2004, p. 101). There is some anecdotal evidence that violence is being reported more often to the police. For instance, in Victoria, the annual crime rate increased in the 2011–12 financial year, the first time in 12 years that it has done so. This is attributed by Victorian police to improved policies and practices on responding to intimate partner violence, with reported family violence offences increasing by 23 per cent over the previous year (Bucci 2013). However, in the absence of regular and consistent victimisation surveys by either the Commonwealth or State governments, it is impossible to say with any certainty whether violence in cities is increasing or decreasing.

Based on both victimisation survey and police reports, however, it is possible to conclude that the majority of violence in cities does not occur ‘on the street’. In 2010, 63 per cent of sexual assaults and 61 per cent of murders occurred in homes (AIC 2011, p. 8). While the location of assaults is a little more equally shared between public and private locations (45 per cent in the former, 35 per cent in the latter), there is a sharp differentiation by gender and type of assault. Women are most commonly assaulted by a male family member in the home, while men are most commonly assaulted by a male stranger in ‘community’ settings (AIC 2011, pp. 20–2).

A number of meta-evaluations by the International Centre for the Prevention of Crime (2008) and the World Health Organization (2004) have demonstrated proven ways that communities can help prevent violence and improve safety. These proven methods often go well beyond the ‘usual suspects’ of increased policing, more lighting and closed circuit television (CCTV). While CCTV, in conjunction with increased lighting, shows some promise in certain circumstances towards some crimes (for instance, reducing

theft of motor vehicles in car parks), it is expensive to set up, implement and maintain, particularly if the cameras are to be monitored by police or other security professionals (NCCPP 2011). The approach recommended by all of these meta-evaluations stresses an integrated planning approach, involving policing and justice but also health and social services, education, local businesses, social housing, and planning/design. For instance, it would do little good to improve police responses to intimate partner violence if nearby legal, counselling and social services are not improved to assist women who are being assaulted in their homes to make a choice whether they stay in their homes and seek an intervention order or leave, often with their children in tow (Whitzman 2008, p. 85).

Yet it is exactly this uncoordinated approach that is currently being followed in Melbourne and other major cities. In Wyndham, an outer suburb of Melbourne that is the fastest growing Local Government Area in Australia, reported assaults increased by 32 per cent between 2011 and 2012. Over the same period, family violence related requests to Women's Health West, the main local family violence service, increased by 40 per cent (Little 2013). Yet this service is facing severe cutbacks from the State government and waiting lists for emergency or longer-term social housing for women trying to escape violence is growing (personal communication with CEO of Women's Health West, 22 April 2013).

In order to effectively create safer cities, a broader understanding of both violence and integrated planning is necessary. Providing basic community infrastructure is the essential ingredient of effective violence prevention. Since intimate partner violence commonly begins during pregnancy, and we know that children's early years are key to adult developmental outcomes, maternal and child health workers need adequate training to detect and respond to suspected family violence. Programs in pre-schools and schools to model positive approaches to conflict and engender respectful relationships in older children and youth are a vital part of the picture. Providing educational and employment opportunities to young men aged 15 to 24 who are out of school and work (the group most 'at-risk' for crime and violence) makes cities safer, as does providing sufficient social housing and income security so that women do not have to risk homelessness in order to escape violence. Making public space safer includes not only increased 'eyes on the street' through land use mix and improving the quality of public spaces but also increasing public awareness campaigns promoting positive anti-violence messages in all public places (from train stations to the internet). The bottom line is integrated planning for both better public space design and improved and coordinated social and health service provision at the local (suburb or Local Government Area) level (Whitzman 2008).

A final essential ingredient in making cities safer is to strengthen the indicators used in monitoring and evaluating community-based strategies. As stated earlier, we as a nation do not know whether violence is increasing (which would be bad news), whether more violence is being reported to the police (which would be promising news), or whether violence is being dealt with effectively (which would be good news if it led to an outcome of reduced violence, including repeat violence). Regular victimisation surveys, either as part of state-wide population health surveys or as a national exercise, are essential, as are triangulating police, victimisation and social service data to discover whether interventions are having the desired effect.

Role of local government in crime prevention

Local governments play an important role in localised crime prevention. Not only they do they coordinate initiatives with police and community-based organisations, but they often also are responsible for managing urban design interventions that affect actual and perceived levels of crime (Morgan et al. 2012). A report published by the Australian Institute of Criminology has identified a variety of measures successfully used by local councils to curb crime and anti-social behaviour, including alcohol-related violence in entertainment precincts and licensed premises, youth violence and violence in residential neighbourhoods. Measures included community patrols, mobilisation and awareness, and application of crime prevention through environmental design (CPTED) principles such as improved street lighting (Morgan et al. 2012).

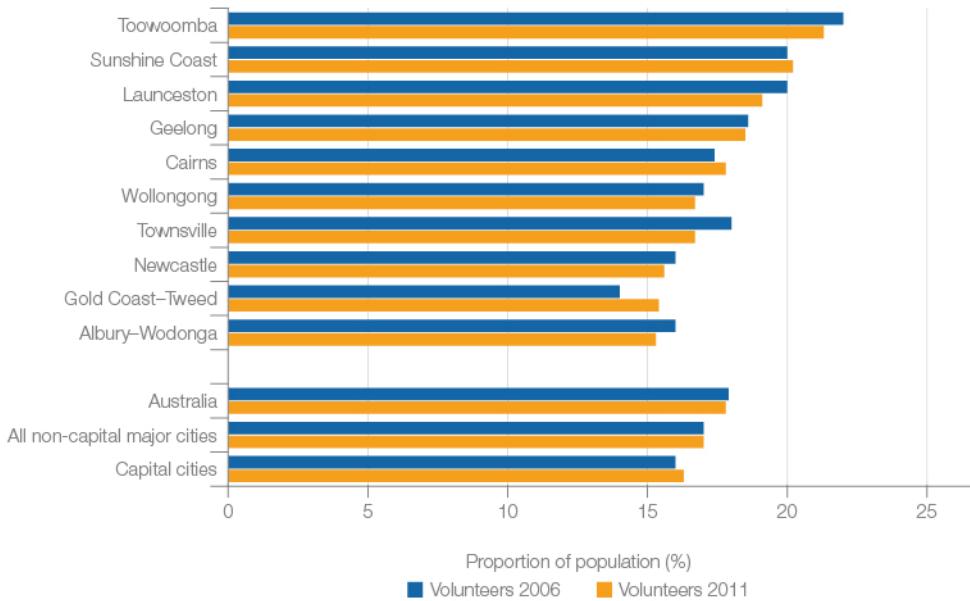
The Australian Government has funded several programs that provide assistance to localised crime prevention initiatives. For example, the National Crime Prevention Fund is a \$40 million program that will support measures in high-crime areas to address societal disconnection such as youth mentoring programs and the rollout of CCTV systems in established trouble spots. The \$15 million Safer Suburbs program announced in 2007 also provided funding for the installation of CCTV systems as well as improved street lighting for local communities. A further \$5.42 million was committed to the program in 2010.

Volunteering

In *The Good Life* (2013), Hugh Mackay concludes that what makes for 'a good life' is not the sum of security, wealth, status, postcode, career success and levels of happiness. Rather, the good life is defined by the capacity for selflessness, the quality of relationships and a willingness to connect with others in a useful way.

One way in which people 'connect with others in a useful way' is by volunteering. Rates for volunteering were reported for the capital cities in the *State of Australian Cities 2012* report. Here this data is compared to the data for the regional major cities (Figure 5-19). In the regional major cities, rates of volunteering are highest in Launceston, Sunshine Coast and Toowoomba, and lowest in Gold Coast – Tweed, Newcastle and Albury-Wodonga. Broadly speaking, rates of volunteering are higher in smaller towns and cities than in larger ones. Volunteering is more prevalent in the regional major cities than in capitals and most prevalent in smaller communities.

Figure 5-19 Volunteers aged 15 years and over as a proportion of the total population in major regional cities, 2006 and 2011



Source: PHIDU 2010, PHIDU 2013b

Celebrating the Centenary of Canberra

Contributed by Robyn Archer AO, Creative Director, Centenary of Canberra

On 12 March 1913, Prime Minister Andrew Fisher, Minister for Home Affairs King O'Malley, Governor-General Lord Denman and Lady Denman stood at the foundation stones located in the middle of a large paddock and named the new capital of a young nation. It was Lady Denman who had the honour of announcing that it would be called Canberra. Spontaneous cheers erupted, perhaps because it was a dignified and meaningful choice as opposed to some of the competition, such as 'Kangaremu', 'Shakespeare' and 'Sydbrisdadho'.

On 12 March 2013 the Prime Minister, the Minister for Regional Australia and the Governor-General and her consort again took their places at the stones (now marginally relocated for the building of new Parliament House, 25 years old this year) and reflected on that moment 100 years earlier, while Chief Minister of the ACT Katy Gallaher raised a toast to Canberra. The descendants of the Governor-General, the current Lord and Lady Denman, were present, as was John Fisher, descendant of Prime Minister Fisher.

The Centenary of Canberra is being celebrated as a whole-year program, with a number of purposes in mind. First, it celebrates the noble beginnings of this still young and growing regional city and reinvokes the idealism and aspirations of that moment in history. The desire for a new capital was never just a stoush between Sydney and Melbourne; it was a deep and significant national dialogue which inspired some remarkable reflections on the hopes for this nation, and what a capital should symbolise. The optimism of the time

is reflected in the National Museum of Australia's exhibition *Glorious Days: Australia 1913*, and many of the noble sentiments and speeches can be found in Dr David Headon's book *The Symbolic Role of the National Capital*.

In the lead-up to 2013, a number of milestones were celebrated – homage to the surveyors like Scrivener, plaques placed at the border markings, a contemporary photographic competition entitled *Show Us Your Limits*, and the centenary of the ceding of land from New South Wales on 1 January 1910. Predictably, there has been a clear focus on the international competition for the capital, advertised in 1911, and the winner, announced in 1912 as Walter Burley Griffin of Chicago. While *Glorious Days* set the context, the National Archives of Australia brought out the beautiful evidence of original entries, including Marion Mahony Griffin's exquisite and rarely seen renderings in *Design 29: the Making of a Capital*, and the National Library of Australia presented *Dream of a Century: The Griffins in Australia*. The competition, a bold move announced within six months of the first major city planning summit in London in October 1910, was celebrated 100 years later with CAPITheticAL – an international design competition for a hypothetical Australian capital for the 21st century. Administered by the Australian Institute of Architects, it drew 1,200 registrations and in the end 112 entries from 27 countries. The winners were announced 14 March 2013 (you can see the results at www.capithetical.com.au). Responding to the competition's provocations about sustainability, the Asian century and questions about what a capital should be and what its symbolic role is, entrants took on the challenge with intelligence, sensitivity and boldness worthy of the Griffins.

The first objective was to enlighten Canberrans and everyone else (both Australians and internationals) about the history of the national capital and its noble origins. The second objective was to point out every Australian's connection to the capital. While Canberra is much more than just a host to federal government, and that was its original purpose, we are all connected precisely because of that core function. In a democracy that retains compulsory voting, we are obliged every few years to vote for those who will come to Canberra and determine how the country is run; it is an important responsibility for those who enjoy the benefits of a free country. The significance of this does not elude the 160,000-plus year six schoolchildren who visit their capital every year under the Pacer program or those 'new' Australians who have risked all to be part of this democracy. They find the national monuments appropriately iconic.

The 'Australian story' is told best, at any time, in any year, in Canberra. The capital is unique amongst Australian cities in that its national cultural institutions hold in trust for the Australian people our finest treasures. Access to the National Library of Australia (which holds every book published in Australia), the National Museum of Australia, the Australian War Memorial, the National Australian Archives, the Mint, the Museum of Australian Democracy, Parliament House, the National Gallery of Australia, the National Portrait Gallery and the Australian Botanic Gardens, as well as Geology Australia and the developing Rock Garden on the shores of Lake Burley Griffin, allows us to understand how Australia has evolved from pre-history to the present. In addition, the visionary new National Arboretum Canberra, Questacon and its new Technology Learning Centre, CSIRO Discovery, and the Australian Institute of Sport all contribute to our scientific knowledge. With these treasures in mind, there is a kind of obligation for *all* Australians to tap into their capital, by physical presence or digital interaction, which goes beyond any motive of local tourism.

And then there is a matter of local pride. Most Canberrans appear to be fed up with the jokes that are made about their home. Alongside the loftier aspirations of the Centenary to invite Australians to re-imagine their capital are simpler matters of local pride. A rich cultural, sporting and ideas calendar has produced a bounce in the capital. Canberra's first international cricket match was held under beautifully designed new lights at Manuka oval. The Australian Women's Golf Open was held for the first time at Royal Canberra. Sold-out theatre seasons presented great dance and theatre from every state and territory. At the actual birthday's Parties at the Shops, when residents created and participated in local walk-to celebrations across the ACT, village life was recognised and enjoyed.

In the lead-up to the Centenary Year, the ACT Government conducted a healthy series of conversations about the future of Canberra. Citizens participated wholeheartedly and contributed to forward-thinking ideas about the value of things like a light-rail system, the need to address issues of ageing and sustainability, the need for greater density in the centre and the desire for that density to be well designed. The Centenary Year will see any number of new pieces of infrastructure and development realised or begun: these include the National Arboretum Canberra, the restoration of Constitution Avenue, the completion of the new Canberra Airport, the 8-star rated Nishi apartments, complete with 8-screen Palace cinema, bicycle shop and commissioned public art, the Boundless all-abilities Children's Playground, the Red Centre Garden at the Australian Botanic Gardens, Questacon's new Technology and Learning Centre and the gradual development of the Kingston Foreshore and arts precinct.

2013 is a bumper year for Canberra as a home to 370,000 Australians; in its physical and symbolic national role of hosting Federal Government; and, on behalf of all Australians, holding and safeguarding their national treasures. You get the feeling that the Centenary Year is just a harbinger of many good things to come in this unique 21st century Australian regional city.

Conclusion

There is ample evidence that Australian cities have many of the attributes of liveability, though there are specific areas where there is scope for improvement. Housing and labour markets strongly influence patterns of socio-economic advantage and disadvantage and exacerbate income and wealth inequality. However, the spatial distribution of, and access to, resources and opportunities that support health and wellbeing (like education, green space and cultural and recreational facilities) can help moderate rising urban inequality. And it is this rising inequality that poses the greatest challenges to the long-term liveability of our cities.

Chapter 5 references

Australian Bureau of Statistics (ABS) 2006, *National Health Survey: summary of results 2004–05*, cat. no. 4364.0, Canberra.

ABS 2007, *Labour Statistics: Concepts, Sources and Methods*, cat. no. 6102.0.55.001, Canberra.

ABS 2008, *Population Projections, Australia, 2006 to 2101*, cat. no. 3222.0, Canberra.

ABS 2010a, *Measures of Australia's progress*, cat. no. 1370.0, Canberra.

ABS 2010b, *Australian Social Trends*, cat. no. 4102.0, Canberra.

ABS 2011a, *Household Income and Income Distribution, Australia, 2009–10*, cat. no. 6523.0, Canberra.

ABS 2011b, *General Social Survey: Summary Results, Australia, 2010*, cat. no. 4159.0, Canberra.

ABS 2012a, *Measures of Australia's Progress: summary indicators, 2012*, cat. no. 1370.0.55.001, Canberra.

ABS 2012b, *Census of Population and Housing: Estimating homelessness, 2011*, cat. no. 2049.0, Canberra.

ABS 2012c, *Australian Health Survey: first results 2011–12*, cat. no. 4364.0.55.001, Canberra.

ABS 2012d, *Labour Force, Australia*, cat.no. 6202.022, Canberra.

ABS 2013a, *Australian Health Survey: Health Service Usage and Health Related Actions, 2011–12*, cat. no. 4364.0.55.002, Canberra.

ABS 2013b, *Profiles of Health, Australia, 2011–13*, cat. no. 4338.0, Canberra.

ABS 2013c, *2011 Census Datapack 3rd release: Time series profile*, cat. no. 2069.0.30.008, Canberra.

ABS 2013d, *Labour Statistics: Concepts, Sources and Methods*, cat. no. 6102.0.55.001, Canberra.

ABS 2013e *2006 Census of Population and Housing*, Canberra.

ABS 2013f *2011 Census of Population and Housing*, Canberra.

Department of Health and Ageing 2005, *An active way to better health: National Physical Activity Guidelines for Adults*, Commonwealth of Australia, Canberra.

AIC (Australian Institute of Criminology) 2011, *Australian Crime: Facts and Figures*, Commonwealth of Australia, Canberra.

AIC 2013a, *Costs of crime*, Commonwealth of Australia, Canberra, http://www.aic.gov.au/crime_community/communitycrime/costs.html [accessed 22 May 2013].

AIC 2013b, *Australian crime: facts and figures 2012*, Commonwealth of Australia, Canberra.

AIHW (Australian Institute of Health and Welfare) 2012, *Australia's Health 2012*, Australia's health series no.13, cat. no. AUS 156, Commonwealth of Australia, Canberra.

AIHW 2013, *Hospitalisations due to falls by older people, Australia: 2009–10*, Injury research and statistics series, no. 70, cat. no. INJCAT 146, Commonwealth of Australia, Canberra.

Atkinson R, Wulff M, Reynolds M, and Spinney A 2011, *Gentrification and displacement: the household impacts of neighbourhood change*, Final Report No. 160, Australian Housing and Urban Research Institute, Melbourne.

Auspoll 2013, *My City: the People's Verdict 2012*, Report prepared for the Property Council of Australia, Sydney, [https://www.propertyoz.com.au/library/B per cent20-per cent20FULL per cent20REPORT.pdf](https://www.propertyoz.com.au/library/B%20per%20cent20FULL%20REPORT.pdf) [accessed 7 March 2013].

Australian Property Monitors, *Median property trends for Australian properties* viewed 21 June 2013, <http://apm.com.au/> [accessed 17 July 2013].

Bai X, Nath I, Capon A, Hasn N and Jaron D 2012, 'Health and wellbeing in the changing urban environment: complex challenges, scientific responses, and the way forward', *Current opinion in Environmental Sustainability*, 2012, 4: 465-472.

BITRE 2013a (unpublished), analysis of ABS Census of Population and Housing 2001, 2006 and 2011, Canberra.

BITRE 2013b, *Road Deaths Australia: 2012 Statistical Summary*, BITRE, Canberra.

BITRE (forthcoming), *Population growth, jobs growth and commuting flows in Australia's largest cities—a comparative analysis*, BITRE, Canberra.

BOP Consulting 2012, *World Cities Culture Report 2012 Mayor of London and the Greater London Authority*, UK, <http://www.worldcitiesculturereport.com/> [accessed 14 May 2013].

Bridge C, Phibbs P, Kendig H, Mathews M and Cooper B 2008, *The costs and benefits of using private housing as the 'home base' for care for older people: secondary data analysis*, AHURI Final Report No. 115, Australian Housing and Urban Research Institute, Sydney.

Bright C and Walker J 1994, 'Police Resource Allocation', in Biles D and McKillop S (eds.) *Criminal Justice Planning and Coordination*, proceedings of an Australian Institute of Criminology Conference, 19–21 April, 1993.

Brisbane City Council 2013, *Active School Travel: 2012 Evaluation Report*, Brisbane.

Bucci, N 2013 'Police Chief Warns on Rising Cases', *The Age*, April 22 2013.

Chigavazira A, Johnson G, Moschion J, Scutella R, Tseng YP and Wooden M 2013, *Journeys Home, Research report no. 2, Findings from Waves 1 and 2*. Report prepared for the Department of Families, Housing, Community Services and Indigenous Affairs, Commonwealth of Australia. http://melbourneinstitute.com/journeys_home/research/reports.html [accessed 3 June 2013].

Clarke, T 2013 'WA boom state confirmed – four Perth suburbs among Australia's top five', *Perth Now*, March 28, <http://www.perthnow.com.au/news/western-australia/was-boom-state-status-confirmed-by-stats/story-fnhocxo3-1226608522875#sthash.fwNI8pqk.dpuf> [accessed 9 July 2013].

Collins DJ and Lapsley HM 2008, *The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004/2005*, National Drug Strategy Monograph, series no. 66, Department of Health and Ageing, Commonwealth of Australia, Canberra.

Council of Australian Governments (COAG) Reform Council 2013, *National Affordable Housing Agreement, Homelessness 2011–12: Comparing performance across Australia*, Report to the Council of Australian Governments, <http://www.coagreformcouncil.gov.au/media/inbrief/2013-06-05/homelessness-2011-2012-comparing-performance-across-australia> [accessed 5 June 2013].

Cozens P 2011, 'Urban planning and environmental criminology: towards a new perspective for safer cities', *Planning Practice and Research*, 26(4):481-508.

Currie G, Delbosc A and Mahmoud S 2010, *Perceptions and realities of personal safety on public transport for young people in Melbourne*, Conference paper from 33rd Australasian Transport Research Forum 2010, Canberra.

Cycling Promotion Fund and Heart Foundation 2012, *Active travel to school: 2012 survey findings*, selected data from results 'reasons why children are not allowed to ride a bike to school'.

Cycling Promotion Fund and Heart Foundation 2013, *Women and cycling survey 2013*, selected data from results 'reasons that prevent women from cycling?'.

Davis B and Dossetor K 2010, *(Mis)perceptions of crime in Australia*, Trends and issues in crime and criminal justice, no.396, Australian Institute of Criminology, Canberra.

Department of Infrastructure and Transport 2012, *State of Australian Cities 2012*, Commonwealth of Australia, Canberra.

Devlin A, Hoareau E, Logan D, Corben B & Oxley J 2010, *Toward Zero Pedestrian Trauma: Literature Review and Serious Casualty Analysis*, presented at the 2010 Australasian Road Safety Research, Policing and Education Conference, Canberra.

Dockery AM, Ong R, Colquhoun S, Li J and Kendall G 2013, *Housing and children's development and wellbeing: evidence from Australian data*, AHURI Final Report No.201, Australian Housing and Urban Research Institute, Melbourne.

D'Souza G and Cassells R 2012, *Youth Social Exclusion – a new index for Australian Areas*, Presentation to the Australian Institute of Family Studies Conference, Melbourne, 2012, <http://www.natsem.canberra.edu.au/publications/?search-type=keywords&q=youth> [accessed 19 March 2013].

Dudley D 2013, *Big City Living – an insight into the current social issues on the minds of capital city dwellers*, Paper prepared for the Department of Infrastructure and Transport based on the *Ipsos Mind and Mood Report*, Ipsos, Sydney.

Edwards D and Marks G 2008, Preliminary report on university participation, access and entry in Victoria, Appendix 4 in *Victorian Government Submission to Review of Australian Higher Education*, Government of Victoria, Melbourne.

Florida, R 2002, *The rise of the creative class: and how it's transforming work, leisure, community and everyday life*, Basic Books, USA.

Giles-Corti B, Foster S, Shilton T and Falconer R 2010, 'The co-benefits for health of investing in active transportation', *NSW Public Health Bulletin*, 21(5-6):122-127.

Giles-Corti B, Bull F, Knuiman M, McCormack G, Van Niel K, Timperio A, Christian H, Foster S, Divitini M, Middleton N and Boruff B 2013, 'The influence of urban design on neighbourhood walking following residential relocation: longitudinal results from the RESIDE study', *Social Science and Medicine*, 77:20-30.

Gordon I 2001, 'Unemployment and Spatial Labour Markets: Strong Adjustment and Persistent Concentration', written to appear as chapter 3 in R. Martin and P. Morrison (eds.) 2001, *Geographies of Labour Market Inequality*, UK.

Greenville J, Pobke C and Rogers N 2013, *Trends in the Distribution of Income in Australia*, Productivity Commission Staff Working Paper, Productivity Commission, Canberra.

Gregory R and Hunter B 1995, *The macro-economy and the growth of ghettos and urban poverty in Australia*, Centre for Economic Policy Research Discussion Paper no. 325, Canberra.

Hay, A and Shaz, K 2012 *Parking and mode choice in Sydney: Evidence from the Sydney Household Travel Survey*, Conference paper from 35th Australasian Transport Research Forum 2012, <http://www.atrf.info/papers/index.aspx> [accessed 14 November 2012].

Healthy Spaces and Places 2013, *Healthy Spaces and Places – case studies*, Planning Institute of Australia, Canberra, [http://www.healthyplaces.org.au/userfiles/Brisbane per cent20Council per cent20School per cent20Travel per cent20Program.pdf](http://www.healthyplaces.org.au/userfiles/Brisbane%20Council%20School%20Travel%20Program.pdf) [accessed 15 May 2013].

Hillman, K 2007, 'The migration of non-metropolitan towards the cities', *Research developments*, 17(4).

ID.Blog 'Socio-economic index of advantage/disadvantage – what are the results?' April 5 2013, <http://blog.id.com.au/2013/australian-demographic-trends/socio-economic-index-of-advantagedisadvantage-what-are-the-results/> [accessed 9 July 2013].

Ipsos Australia 2013, *Ipsos Mind and Mood Report*, Sydney.

ICPC (International Centre for the Prevention of Crime) 2008, *International Compendium of Crime Prevention Practices*, ICPC, Montreal, Canada.

International Transport Forum 2012, *Pedestrian Safety, Urban Space and Health*, OECD Publishing.

Lee N, Sissons P and Jones K 2013, *Wage inequality and employment polarisation in British cities*, The Work Foundation, Lancaster University, United Kingdom.

Little F, Morozow O, Rawlings S and Walker J 1974, *Social Dysfunction and Relative Poverty in Metropolitan Melbourne*, Advocate Press, Melbourne.

Little L 2013, 'Wyndham Family Violence Rise 'Challenge' for Police', *Wyndham Weekly*, April 30.

Llewellyn-Smith D 2012, *Roy Morgan Unemployment Leaps Again*, Houses and Holes in the Australian Economy, <http://www.macrobusiness.com.au/2012/07/roy-morgan-unemployment-leaps-again/> [accessed July 2013].

Lowe M, Whitzman C, Badland H, Davern M, Hes D, Aye L, Butterworth I and Giles-Corti B 2013, *Liveable, healthy, sustainable: What are the key indicators for Melbourne neighbourhoods?*, Research Paper 1, Place, Health and Liveability Research Program, University of Melbourne, http://mccaugheycentre.unimelb.edu.au/research/health_and_liveability [accessed 15 May 2013].

Mackay H 2013, *The Good Life*, Macmillan Australia, Sydney.

Manning M, Smith C and Mazerolle P 2013, *The societal costs of alcohol misuse*, Australia trends and issues in crime and criminal justice no. 454, Australian Institute of Criminology, Canberra, http://www.aic.gov.au/publications/current_per_cent20series/tandi/441-460/tandi454.html [accessed 22 May 2013].

Marans R and Stimson R (eds) 2011, *Investigating Quality of Urban Life. Theory, Methods and Empirical Research*, Social Indicators Research Series, Volume 45, Springer, Dordrecht.

Mayhew 1861, *London Labour and the London Poor*, Vol. 4, Reprinted: Augustus M. Kelly, USA, 1967.

McCaughey Centre 2013, *Community Indicators Victoria*, website hosted by the McCaughey Centre, School of Population Health, University of Melbourne, <http://www.communityindicators.net.au/> [accessed 22 May 2013].

McCrea R, Marans R, Stimson R and Western J 2011, 'Subjective measurement of Quality of Life using primary data collection and analysis of survey data', Chapter 3 in Marans R and Stimson R (eds) *Investigating Quality of Urban Life: Theory, Methods and Empirical Research*, Social Indicators Research Series, Volume 45, Springer, Dordrecht.

Mees P and Groenhart 2012, *Transport Policy at the Crossroads: travel to work in Australian capital cities 1976-2011*, School of Global, Urban and Social Studies, RMIT, Melbourne.

Mission Australia 2012, *Mission Australia's Youth Survey 2012*, Mission Australia, Sydney.

Morgan A, Boxall H, Lindeman K and Anderson J 2012, *Crime prevention interventions for implementation by local government*, Research and Public Policy Series no.120, Australian Institute of Criminology, Canberra, http://www.aic.gov.au/publications/current_per_cent20series/rpp/100-120/rpp120.html [accessed 22 May 2013].

Morton A and Edwards L (2013), *Community Wellbeing Indicators: Measures for Local Government*, Australian Centre of Excellence for Local Government, Sydney.

Mouzos J and Makkai T 2004, *Women's Experiences of Male Violence: Findings from the Australian Component of the International Violence Against Women Survey (IVAWS)*, Research and Public Policy Series no. 56, Australian Institute of Criminology, Canberra.

Moving People 2030 Taskforce 2013, *Moving Australia 2030: A transport plan for a productive and active Australia*, Canberra.

NCCPP (National Community Crime Prevention Programme) 2011, *CCTV as a Crime Prevention Measure*, Commonwealth of Australia, Canberra.

National Housing Supply Council (NHSC) 2012, *Housing Supply and Affordability – Key Indicators, 2012*, National Housing Supply Council Unit, Commonwealth of Australia, Canberra.

National Housing Supply Council (NHSC) 2013, *Housing Supply and Affordability Issues 2012–2013*, National Housing Supply Council Unit, Commonwealth of Australia, Canberra.

National Sustainability Council 2013, *Sustainable Australia Report 2013, Conversations with the future*, Department of Sustainability Environment Water Population and Communities, Commonwealth of Australia, Canberra.

NSW Bureau of Crime Statistics and Research 2013, *Local government area hotspot maps: assault – non-domestic violence related*, NSW Department of Attorney General and Justice, Sydney, http://www.bocsar.nsw.gov.au/Lawlink/bocsar/ll_bocsar.nsf/pages/bocsar_lga_crimemaps [accessed 22 May 2013].

NSW BTS (Bureau of Transport Statistics) 2011, *Statistics in the 2011 Transport Customer Survey Report*, Electronic Publication No. E2011-01-TCS, Transport for NSW, Sydney, <http://www.bts.nsw.gov.au/Statistics/Transport-Customer-Survey/Transport-Customer-Survey?FolderID=216> [accessed 20.12.2012].

NSW BTS 2012, *2010/11 Household Travel Survey: summary report 2012 release*, Transport for NSW, Sydney.

NSW BTS 2013, *Transfigures – active transport in Sydney: walking*, Transport for NSW, Sydney.

NSW Centre for Epidemiology and Research 2010, *The health of the people of NSW – Report of the Chief Health Officer*, Summary Report, NSW Department of Health, Sydney.

NZ Ministry for the Environment 2002, *Live+Work+Play – livable urban environments: process, strategy, action*, Government of New Zealand, Wellington, New Zealand, <http://www.mfe.govt.nz/publications/rma/live-work-play-jun02/information> [accessed 11 June 2013].

OECD (Organisation for Economic Cooperation and Development) 2011, *Divided we stand Why Inequality Keeps Rising*, OECD, France, www.oecd.org/social/inequality.htm [accessed 8 May 2013].

OECD 2013a, *OECD Guidelines on Measuring Subjective Well-being*, OECD, France, <http://www.oecdbetterlifeindex.org/2013/03/how-to-measure-happiness-and-why-it-matters/> [accessed 9 May 2013].

OECD 2013b, *Crisis squeezes income and puts pressure on inequality and poverty*. New Results from the OECD Income Distribution Database, OECD, France, www.oecd.org/social/inequality.htm [accessed 20 May 2013].

Olsberg D and Winters M 2005, *Ageing in place: intergenerational and intrafamilial housing transfers and shifts in later life*, AHURI Final Report No. 88, Australian Housing and Urban Research Institute, Melbourne.

Propell National Valuers 2013, *Australian housing market overview: May 2013*, <http://www.propellvaluers.com/research-reports/australian-housing-market-overview-may-2013.html> [accessed 22 June 2013].

PHIDU (Public Health Information Development Unit) 2010, *Social Health Atlas of Australia 2010*, University of Adelaide, Adelaide, http://www.publichealth.gov.au/data/a-social-health-atlas-of-australia_2010.html [accessed 11 June 2013].

PHIDU 2013, *Social Health Atlas of Australia: Statistical Local Area and Local Government Area 2013*, University of Adelaide, Adelaide, http://www.publichealth.gov.au/data/social-health-atlas-of-australia-per-cent3a-statistical-local-area-and-local-government-area_-published-2013.html [accessed 11 June 2013].

Rawnsley T & Spiller M 2012, 'Housing and urban form: a new productivity agenda' in R Tomlinson (ed.) *Australia's unintended cities, the impact of housing on urban development*, CSIRO Publishing, Melbourne.

Real Estate Institute of Victoria, *Housing affordability update*, viewed 23 June 2013, http://www.reiv.com.au/News_Publications/News%20Archive.aspx?newsID=%7BAA081ABA-1ACB-4FC9-AB0D-4DB224E72BA8%7D&title=Housing%20affordability%20update

Roman C and Chalfin A 2008, 'Fear of walking outdoors: a multilevel ecologic analysis of crime and disorder', *American Journal of Preventive Medicine*, 34(4):306-312.

Rissel C, Curac N, Greenaway M and Bauman A 2012, 'Physical activity associated with public transport use – a review and modelling of potential benefits', *International Journal of Environmental Research and Public Health*, 9:2454-2478.

Social Inclusion Unit 2012, *Social Inclusion in Australia: How Australia is faring, 2nd Edition*, Australian Social Inclusion Board, Commonwealth of Australia, Canberra.

SQM Research 2013, 'Residential property vacancies keep rising', *Vacancy Rates Media Release - May 2013*, <http://www.sqmresearch.com.au/media.php> [accessed 23 June 2013].

Stanley J 2010, *The Value of Melbourne's route bus services*, report prepared for BusVic.

Stiglitz J 2012, *The price of inequality*, Penguin Books, United Kingdom.

Stone W, Reynolds M and Hulse K 2013, *Housing and social inclusion: a household and local area analysis*, AHURI Final Report No.207, Australian Housing and Urban Research Institute, Melbourne.

Sugiyama, T, Leslie, E, Giles-Corti, B, Owen N, 2008, 'Associations of neighbourhood greenness with physical and mental health: do walking, social coherence and local social interaction explain the relationships?' *Journal of Epidemiology and Community Health* 2008;62(9).

Thomas J 2009, *The Social Environment of Public Transport*, PhD thesis, University of Wellington, New Zealand.

Translink 2013, *The SEQ Bus Network Review*, Queensland Government, Brisbane, http://translink.com.au/travel-information/service-updates/seq-bus-network-review-2013?utm_source=translink&utm_medium=secondary-tile&utm_content=june-2013&utm_campaign=seq-bus-network-review# [accessed 14 May 2013].

The Treasury 2010, *Australia at 2050*, Commonwealth of Australia, Canberra.

Transport for NSW 2012, *NSW Long Term Transport Master Plan – discussion paper*, Government of NSW, Sydney.

United Nations Human Settlements Program (UN-Habitat) 2012, *State of the World's Cities 2013/2013: Prosperity of cities*, <http://www.unhabitat.org> [accessed 4 December 2012].

Van der Ploeg H, Merom D, Corpuz G and Bauman A 2008, 'Trends in Australian children travelling to school 1971–2003: burning petrol or carbohydrates?', *Preventive Medicine*, 46:60–62.

Vinson T and Homel R 1974, *Crime and Disadvantage. The coincidence of medical and social problems in an Australian city*, *The British Journal of Criminology*, January, 21–31.

Vinson T 2009, *Markedly socially disadvantaged localities in Australia: their nature and possible remediation*, DEEWR, Canberra.

WA Office of Road Safety 2012, *Road Safety Fact Sheet: Pedestrians*, Government of Western Australia, Perth.

WA Public Transport Authority 2012, *Passenger Satisfaction Monitor 2012*, Government of WA, Perth, <http://www.transperth.wa.gov.au/AboutUs/Surveysandstatistics.aspx> [accessed 20 December 2012].

Weinberg MK and Cummins RA 2012, *The wellbeing of Australian – Bushfires and Floods: following up on the effects of fires in Victoria and Floods in Queensland*, Australian Unity Wellbeing Index Survey 25.1 report Part A: Report, Deakin University, Melbourne.

Wilkinson R and Pickett K 2010, *The spirit level: why equality is better for everyone*, Penguin Books, UK.

Whitzman, C 2008, *The Handbook of Community Safety, Gender and Violence Prevention: practical planning tools*, Earthscan, United Kingdom.

WHO (World Health Organisation) 2004, *Preventing Violence: a guide to implementing the recommendations of the world report on violence and health*, WHO, Switzerland.

WHO 2011, *Health economic assessment tools (HEAT) for walking and for cycling*, WHO, Denmark.

WHO 2013a, Transport and health – examples of applications of the health economic assessment tool (HEAT) for cycling, WHO, <http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/Transport-and-health/activities/promotion-of-safe-walking-and-cycling-in-urban-areas/quantifying-the-positive-health-effects-of-cycling-and-walking/health-economic-assessment-tool-heat-for-cycling-and-walking/examples-of-applications-of-heat-for-cycling> [accessed 4 April 2013].

WHO 2013b, *Make Walking Safe: a brief overview of pedestrian safety around the world*, WHO, Switzerland.

Zaretzky K, Flatau P, Clear A, Conroy E, Burns L and Spicer B 2013, *The cost of homelessness and the net benefit of homelessness programs: a national study*, AHURI Final Report No.205, Australian Housing and Urban Research Institute, Melbourne.