



Chapter 5

Liveable cities support the health, wellbeing and the quality of life of people who live and work in them. The way they are planned, designed, built and managed can enhance or detract from liveability. The physical characteristics that contribute to the liveability of cities include land use, built form, quality and conservation of public spaces and natural environments, efficiency of transport networks, accessibility to work, education, health and community services and social and recreational opportunities.

Less tangible to city liveability are broader societal and cultural characteristics of places and communities within cities. The cultural characteristics of cities reflect both historical and contemporary ways of living, the values and meaning attached to places, objects, activities and events, the application of technologies and the interaction with the natural environment in which cities are located.

The social aspects of cities include social capital and social cohesion that contribute to a sense of trust and inclusion. While the physical, social and cultural characteristics of cities are what define and distinguish them, there is a growing consensus about indicators of positive social outcomes that can be used to measure liveability.

One of the three primary goals of the National Urban Policy is to enhance the liveability of our cities by promoting better planning, urban design and affordable and equitable access to resources and opportunities including recreational, cultural and community facilities. In working towards this goal the National Urban Policy sets out four broad objectives – to:

- facilitate the supply of appropriate mixed income housing
- support affordable living choices
- improve accessibility of movement around cities and reduce dependence on private motor vehicles
- support community wellbeing.

To achieve liveability, or what internationally renowned architect and urban designer Jan Gehl (2010, p. 6) calls 'better urban quality', there must be 'greater focus on the needs of the people who use cities'. It is necessary, therefore, to understand the different needs of diverse groups of people who live in our cities, and how their needs may change over time. In this way, Australians will enjoy more liveable cities.

Summary indicators

Dimension	Indicators
Quality of life	World Happiness Index Mercer Quality of Living Index The Economist Intelligence Unit Liveability Indexes
Global city liveability Resident-assessed liveability	The Economist Intelligence Unit Liveability Indexes Property Council of Australia City Liveability Index
Wellbeing	Happy Planet Index
Equality	Australian Early Development Index
Health	Life expectancy Indigenous population Walkability
Safety	Road safety Crime rates
Affordability National Centre	Mercer Cost of Living Index NATSEM Cost of Living Housing costs and affordability
Accessibility	Access to public transport services Active Travel Access and use of broadband internet
Community wellbeing	Participation in sporting, cultural and leisure activities

Key findings

- Australia ranks in the top five countries across almost all of the dimensions of the Organisation for Economic Co-operation and Development (OECD) Better Life Index except for work–life balance, because 14 per cent of employees work very long hours, much higher than the OECD average of nine per cent. When all topics are weighted equally, Australia ranks as one of the top three countries in the world for overall quality of life.
- Australia is ranked ninth on the United Nations World Happiness Index.
- Melbourne has been ranked first on the 2012 The Economist Intelligence Unit Global Cities Liveability Index for the second year in a row. Sydney was ranked sixth, Perth eighth and Adelaide ninth.
- The 2011 Mercer Quality of Living Index shows a slight but continued decline in ranking for Sydney and Brisbane since 2009, from 10th to 11th for Sydney and from 34th to 37th for Brisbane. Meanwhile Melbourne, Perth and Adelaide maintained their relative positions of 18th, 21st and 30th respectively. For the first time Canberra has been included in the Mercer Quality of Living survey and was ranked above Adelaide and Brisbane, at 26th position in 2011.
- A greater proportion of residents in Australian cities ranked their city as highly liveable in 2011 in the My City survey than was the case in 2010. Adelaide has retained its place as the most highly ranked city by its residents for overall liveability.

- There has been an increase in the proportion of families with children living in higher-density residential dwellings. In Sydney in 2011, 43 per cent of people living in flats, units or apartments were part of families with children. A quarter of those households were one-parent families.
- The proportion of the population that is Aboriginal or Torres Strait Islander is largest in Darwin (9.2 per cent) and smallest in Melbourne (0.5 per cent). However, Sydney's Indigenous population (54,747 people) is the largest in the country. Although proportionally the smallest, Melbourne's Indigenous population (18,206) is almost double that of Darwin (11,100).
- One indicator of mental health is rates of mental health care plans prepared by general practitioners. Data for 2009–10 show that small metropolitan areas have higher rates than non-metropolitan areas. This possibly suggests that there may be a higher prevalence of mental illness in metropolitan areas than elsewhere but it could also reflect the better ratio of general practitioners to population in cities than country areas. In either case, Melbourne has the highest rate among the major metropolitan areas. The rates also suggest that, in the case of New South Wales and Queensland, non-capital cities have higher rates than their state capital counterparts.
- While Australian cities may be expensive for international visitors, the cost of living for Australian residents of Australia's capital cities has been relatively stable for over two decades. Sydney is the most expensive city with the highest average costs for electricity, mortgage interest, transport and recreational activities.
- Early life is an important social determinant of health. Results from the 2009 Australian Early Development Index (AEDI) shows that a smaller proportion of children are 'developmentally vulnerable' in metropolitan areas than in country Australia, except in Queensland where rates of developmental vulnerability were higher in metropolitan areas than for metropolitan and country Australia.
- Of the capital cities, Hobart has the highest proportion of people who walk to work whilst Perth has the lowest. Darwin has the highest proportion of people who cycle to work whilst Sydney has the lowest.

Measuring liveability

There has been growing public interest in understanding the relationships between the economic, environmental and social aspects of life. Nationally and internationally, governments have responded by trying to measure whether there are signs of progress or regression between these factors. In recent years there have been over 70 so-called 'indicator projects' internationally and around 50 projects in Australia that aim to measure societal and community progress and wellbeing. These range in scope from a focus on local communities to state-wide, national and international initiatives.

Quality of life

In 2010, the Organisation for Economic Co-operation and Development (OECD), in partnership with a range of other international institutions, established the Global Project on Measuring the Progress of Societies (OECD 2011). It recommended a rethink of measurement systems and launched an international discussion on what are important economic, environmental and social goals and whether these are adequately reflected in national and international metrics. This work led to the development of the Better Life Index and other projects like the United Nations commissioned research on happiness.

Measures of Australia's Progress 2.0

The Australian Bureau of Statistics (ABS) has produced an annual Measures of Australia's Progress report since 2002 (ABS 2012a). It is based on a core set of headline indicators and a larger subset of supplementary indicators, though very few of the indicators are specific to cities. The report presents progress across measures of economic performance, social wellbeing and the environment but the question remains as to whether these really represent what most Australians care about. For this reason, and to take account of international work in this area such as the Better Life Index, the ABS has conducted a nation-wide consultation on what matters to most Australians. The report, *Aspirations for our nation: a conversation with Australians about progress*, (ABS 2012a) released in November 2012, provides an account of the consultation. The aspirations that emerged range across four domains of society, economy, environment and governance. These consultation results and expert statistical advice will be used to develop a revised set of indicators for the next edition of Measures of Australia's Progress to be released in 2013. For more information see www.abs.gov.au.

OECD Better Life Index

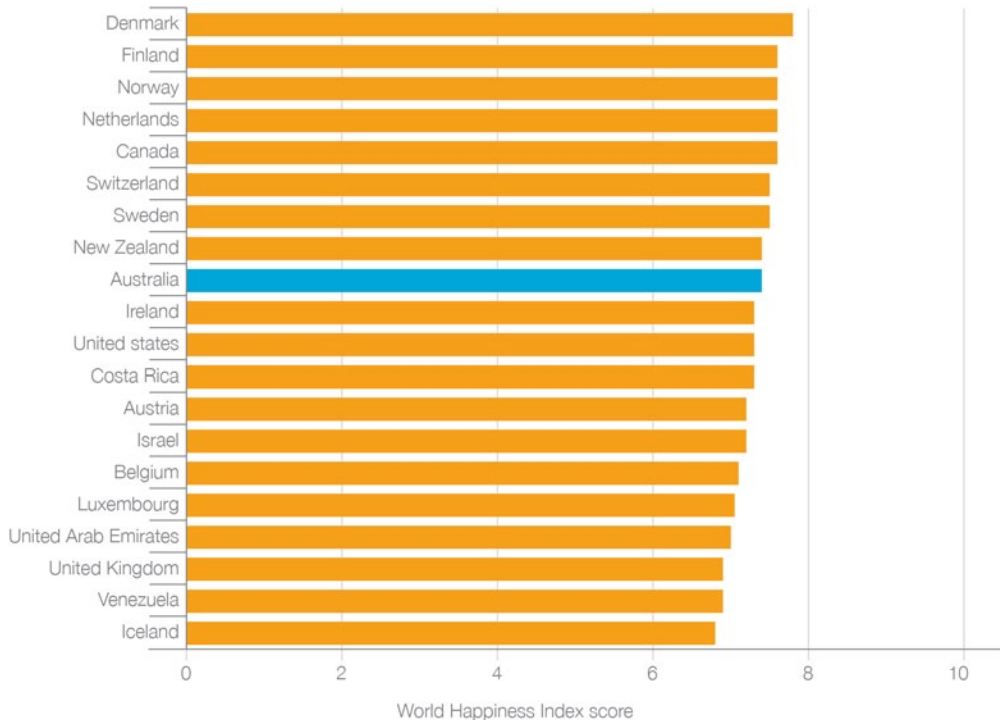
State of Australian Cities 2011 referred to the *OECD Better Life Index*, which showed Australia as one of the top ranked countries in the world when it came to wellbeing. The OECD has continued to improve the way it reports on wellbeing. The OECD's Better Life Index now takes into account differences in rankings within countries, including comparisons between genders, and between the top 20 per cent and the bottom 20 per cent of society. The indicators that comprise the Better Life Index are drawn from issues of housing, education, income, employment, social supports, environment, civic engagement, health, safety, life satisfaction and work-life balance. Australia ranks in the top five countries across almost all of these topics except for work-life balance because 14 per cent of Australians work very long hours, much higher than the OECD average of nine per cent.

World Happiness Report

In 2012 the *World Happiness Report* (Helliwell, Layard and Sachs 2012) was commissioned for the April 2nd United Nations Conference on Happiness (mandated by the United Nations General Assembly). The report has been produced in response to a recent world-wide call to look at happiness and absence of misery as criteria for government policy rather than just economic measures. The report reviews the level of happiness in countries around the world.

The report finds that the countries with the highest rankings were northern European and Scandinavian countries and those ranked least are in sub-Saharan Africa. The analysis of country scores found that happier countries tend to be richer countries. More important for happiness than income though are social factors like the strength of social support, the absence of corruption and the degree of personal freedom. Australia is ranked ninth on the World Happiness Index (Figure 5-1).

Figure 5-1 World Happiness Index, top 20 countries 2012



Source: Helliwell, Layard and Sachs 2012

Liveability and productivity

There is an acknowledged link between the characteristics of cities that enhance the health, wellbeing and life satisfaction of their communities and productivity outcomes. Cities that support healthy living, social inclusion and civic engagement and offer good quality housing, education, employment, accessibility and amenity are more likely to develop, attract and retain talented and enterprising people, business and innovation. Liveability has been acknowledged as important for international competitiveness, particularly in the context of the growing financial and business sectors that are highly concentrated in city centres (see Chapter 3 Productivity).

The Economist Intelligence Unit (EIU) Liveability Index

A measure of liveability that has been developed to specifically identify cities that would be attractive to highly-skilled people is the EIU's international liveability ranking (EIU 2012a). *State of Australian Cities 2011* noted that Melbourne ranked first among 140 cities in 2011 in the EIU liveability ranking and in 2012 Melbourne has retained its top rank. Four Australian capital cities are ranked in the top 10. However, as can be seen in Figure 5-2, Australian cities have not increased their actual scores; rather, the scores of other top ranked cities have declined. In 2012 Melbourne, Sydney and Adelaide had the same score as they did in 2009, but both Melbourne and Sydney improved their ranking while Adelaide remained in the same position. In contrast, Perth's score and rank both declined between 2009 and 2012.

Figure 5-2 Economist Intelligence Unit Global Cities Liveability Index scores for top 10 ranked cities 2009 and 2012



Note: Adelaide and Auckland were ranked 11th and 12th in 2009 and 9th and 10th in 2012 with the same score.
Source: EIU 2009 and 2012a Global Cities Liveability Index rank and scores

The purpose of the EIU liveability ranking is to quantify a range of factors that might affect an individual's lifestyle in any given location and allow for direct comparison between locations. Every city is assigned a rating of relative comfort for over 30 qualitative and quantitative factors across five broad categories: stability, healthcare, culture and environment, education and infrastructure. Each factor in each city is rated as acceptable, tolerable, uncomfortable, undesirable or intolerable. For qualitative indicators, a rating is awarded based on the judgment of in-house analysts and in-city contributors. For quantitative indicators, a rating is calculated based on the relative performance of a number of external data sets.

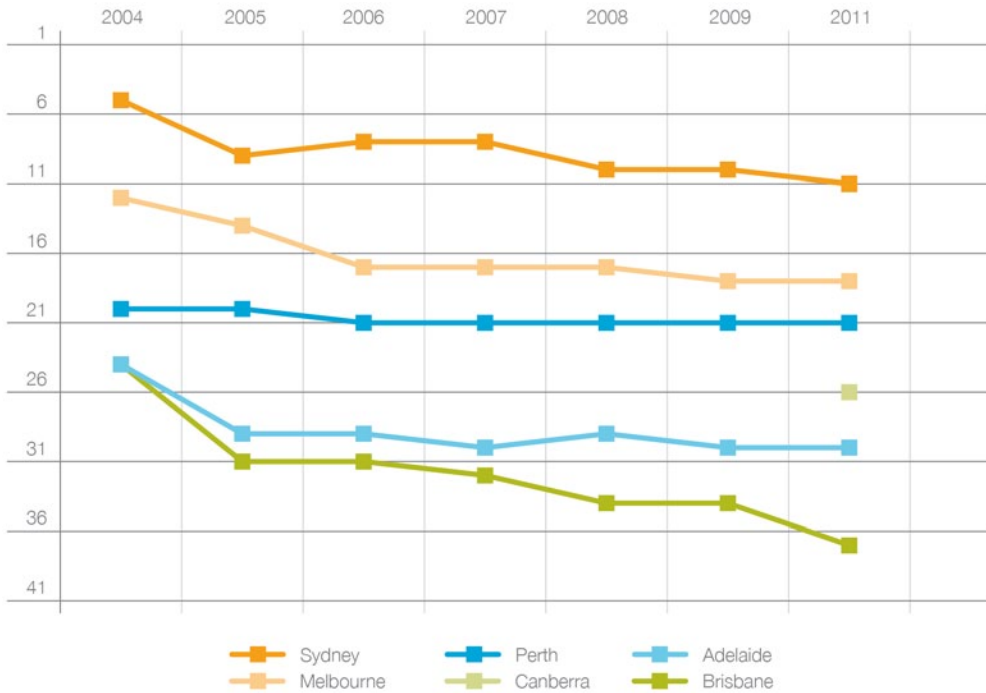
Mercer Quality of Living Index

Another commercially developed index of liveability noted in *State of Australian Cities 2010* is the Mercer Quality of Living Index. Like the EIU Liveability ranking, the Mercer Quality of Life Index is targeted at international investment and expatriate professionals intending to move to cities for work. It is based upon externally sourced data and provides an indication of how 'attractive' cities may be to investors and international talent, revealing a tangible connection between liveability and productivity.

State of Australian Cities 2010 noted that Australian cities had declined relative to other cities in the international quality of living rankings by Mercer Consulting. Updating these results, the 2011 Mercer Quality of Living Index shows a slight but continued decline in ranking for Sydney from 10th to 11th between 2009 and 2011, Brisbane's ranking has declined from 34th to 37th and Melbourne, Perth and Adelaide maintained their relative positions of 18th, 21st and 30th respectively, as shown in Figure 5-3. For the first time Canberra has

been included in the 2011 Mercer Quality of Living Index and debuts above Adelaide and Brisbane, at 26th position.

Figure 5-3 Mercer Quality of Living Index change in rankings for selected Australian capital cities 2004–11



Source: Mercer Human Resource Consulting 2011

Liveability and sustainability

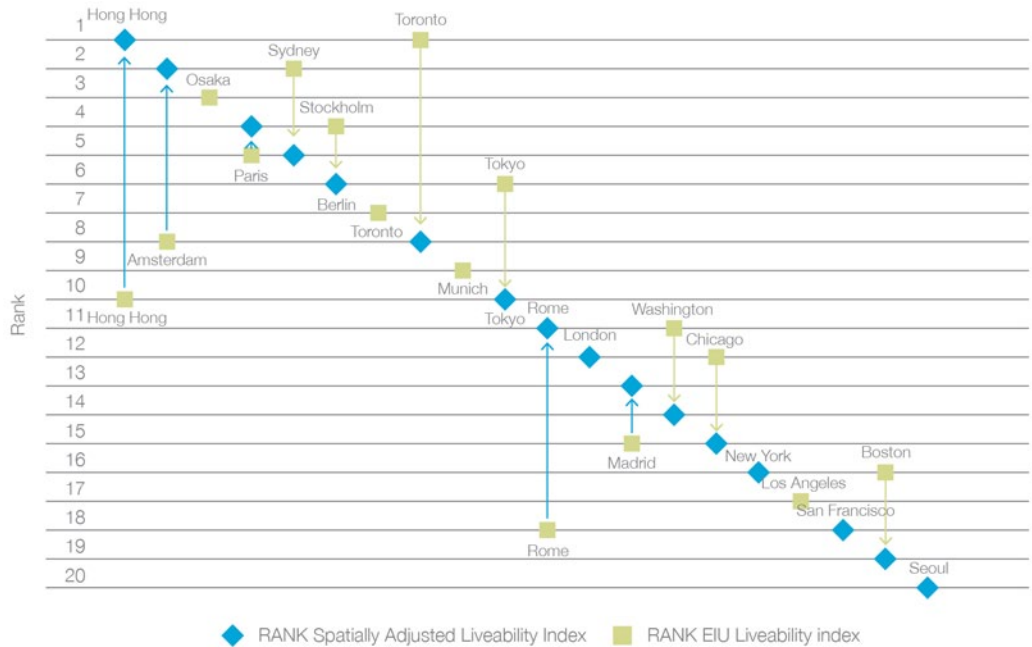
A limitation of measuring liveability using the EIU liveability index and the Mercer Quality of Living Index is that physical features of cities and their locations such as climate, terrain, population density and natural environments are not taken into consideration. These features not only contribute to overall liveability but have implications for sustainability. This section considers the connections between liveability and sustainability and recent attempts to analyse these connections. The *EIU Spatially Adjusted Liveability Index* (EIU 2012b) includes some physical features of cities that have an impact on sustainability, like density and open space, while Newton's (2012) liveability and sustainability comparisons bring together ecological footprints with liveability ratings. Each type of analysis has advantages and disadvantages, but both underscore the need to consider the liveability of cities in relation to the impact on the environment.

EIU Spatially Adjusted Liveability Index

In an attempt to expand the scope of the EIU Liveability Index, the EIU held a competition to develop new ways to measure and visualise the liveability of cities (EIU 2012b). The winning entry by Filippo Lovato expresses liveability through a broader range of indicators and with a change to methodology. The new ranking is expressed as both a score and a map indicator to take account of variations in the physical characteristics of the natural and built environment between cities.

The EIU's Spatially Adjusted Liveability Index includes a new set of variables relating to the natural environment – namely, coverage of green space, like parklands – to score how 'green' a city is as well as data on pollution levels, world heritage and natural landscapes. The index also uses Google maps to assess the built environment and score features such as the spatial extent and density of urban development to score 'sprawl'. Other variables include the isolation of the city relative to other cities and connectivity by air travel to other international cities. Using this new methodology, a quite different ranking of cities emerged which has Hong Kong as the top ranked city (EIU 2012b). Sydney retains a top 10 ranking in the Spatially Adjusted Liveability Index. Other top ranked cities on the EIU Liveability Index, such as Melbourne, Vienna and Vancouver, were not included in the sample of 70 cities for the Spatially Adjusted Liveability Index. However, the results illustrated in Figure 5-4 show a relative decline in ranking for spread out cities like Sydney and Toronto when spatial characteristics are considered. On the other hand, higher density cities like Hong Kong, Amsterdam and Rome improved their ranking on the Spatially Adjusted Liveability Index, compared to the conventional EIU Liveability Index.

Figure 5-4 EIU Spatially Adjusted Liveability Index 2012



Source: EIU 2012b

The Spatially Adjusted Liveability Index highlights how different results for city rankings can be achieved by using different variables. Whether characteristics like international connectivity and urban form are as important to liveability as other variables is open to debate.

Ecological footprint and liveability

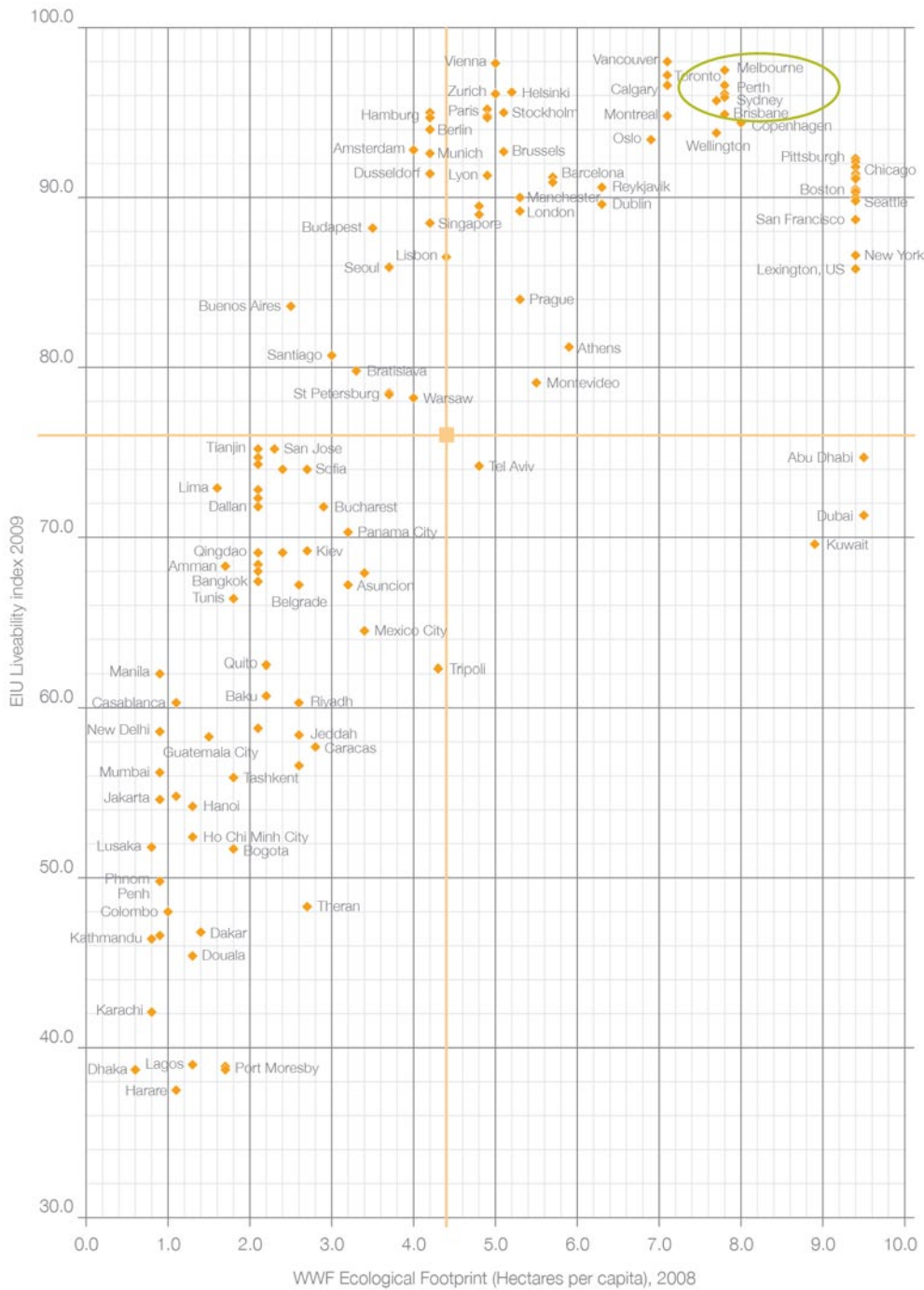
A methodology to better understand the relationship between liveability and sustainability has been suggested by Peter Newton (2012). He combines data from the EIU liveability rankings for cities with the data for national ecological footprints as assessed by the World Wildlife Fund (see Figure 5-5). An 'ecological footprint' is an accounting concept for sustainability that estimates the amount of productive land and water that a population requires to support its current level of consumption and waste production. The ecological footprint metrics that Newton uses have been calculated for 160 countries (WWF 2008) though not individual cities because the indicators and data are not yet standardised for that smaller scale.

Gold Coast.

Image courtesy of Sara Stace



Figure 5-5 Newton’s liveability–sustainability nexus for cities in 2010



Source: Newton 2012

It is apparent that there are clusters of cities from the same region that share similar liveability and sustainability ratings. For example, the Australian capital cities of Melbourne, Sydney, Brisbane, Perth and Adelaide rank highly on liveability but also score high on resource consumption. American cities are clustered together with more moderate ratings for liveability but still high levels of resource consumption. In contrast, there is a group of cities that rates relatively highly for liveability but has a lower than average ecological footprint. The group comprises Buenos Aires, Santiago, Dusseldorf, Munich, Budapest, Amsterdam, Warsaw, Moscow, St Petersburg, Singapore, Bratislava and Seoul. It would seem that liveability does not need to come at the cost of sustainability and Newton (2011) indicates there are pathways available for cities to wind back urban consumption, including technological innovation, better urban design, household behaviour change and new forms of urban governance.

Liveability in Australian cities

In Australia, the idea of seeking resident views of liveability has been adopted by the Property Council of Australia City Liveability Index. Because liveability is highly subjective, it is particularly useful to consider the views of residents and their perceptions of how well their city supports individual and community wellbeing. Surveys of populations are widely used to provide insights into perceptions about liveability. Although surveys such as the Australian City Liveability survey described in the next section, have drawbacks such as under-representing some groups, they can be helpful in understanding what can contribute to or detract from the liveability of cities.

Property Council of Australia (PCA) Australian City Liveability Index

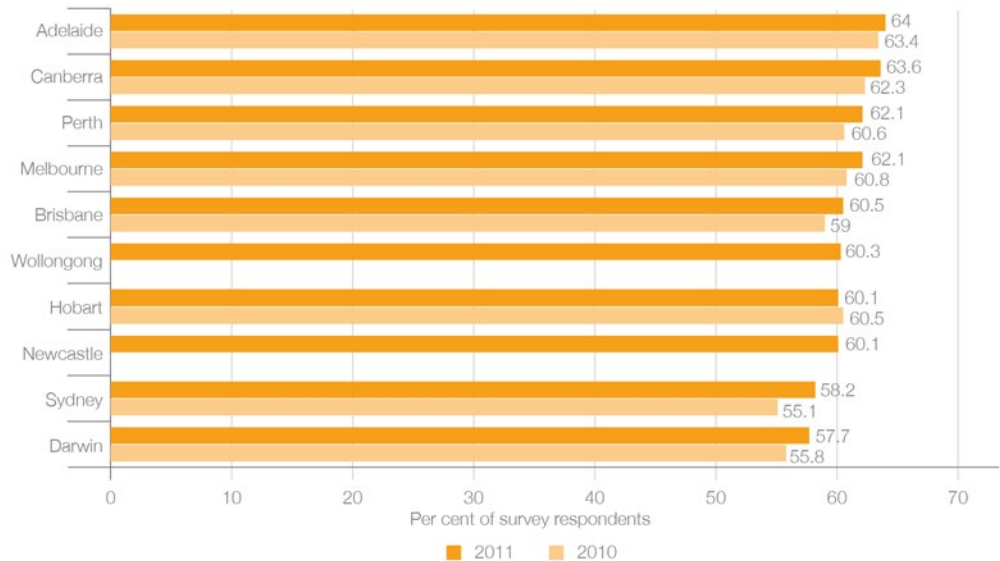
The Australian City Liveability Index was developed by AUSPOLL (2012) for the Property Council of Australia to better understand attitudes about cities. As reported in *State of Australian Cities 2011*, the index is based on a survey of Australian city residents which asks them to rank their city against 17 attributes that relate to safety, accessibility, affordability, health, diversity of social, cultural and recreational opportunities, congeniality, environmental sustainability and quality of urban design and amenity.

In this case ‘liveability’ is defined as the degree to which a city meets the needs and preferences of the residents who live there. The ‘liveability index’ is accordingly a function of both:

- the importance that residents place on particular attributes of a city
- the performance of their city on each of these attributes.

In other words, the attributes of a city that are more important to its residents contribute relatively more to the overall ‘liveability score’. Conversely, the attributes that its residents feel are less important contribute a relatively small amount to overall liveability. The PCA Liveability Index has been updated for 2011 and now includes two regional cities – Newcastle and Wollongong. The latest survey, conducted in December 2011, was completed by 5,231 Australians (Figure 5-6).

Figure 5-6 Property Council of Australia (PCA) Australian City Liveability Index scores 2010 and 2011

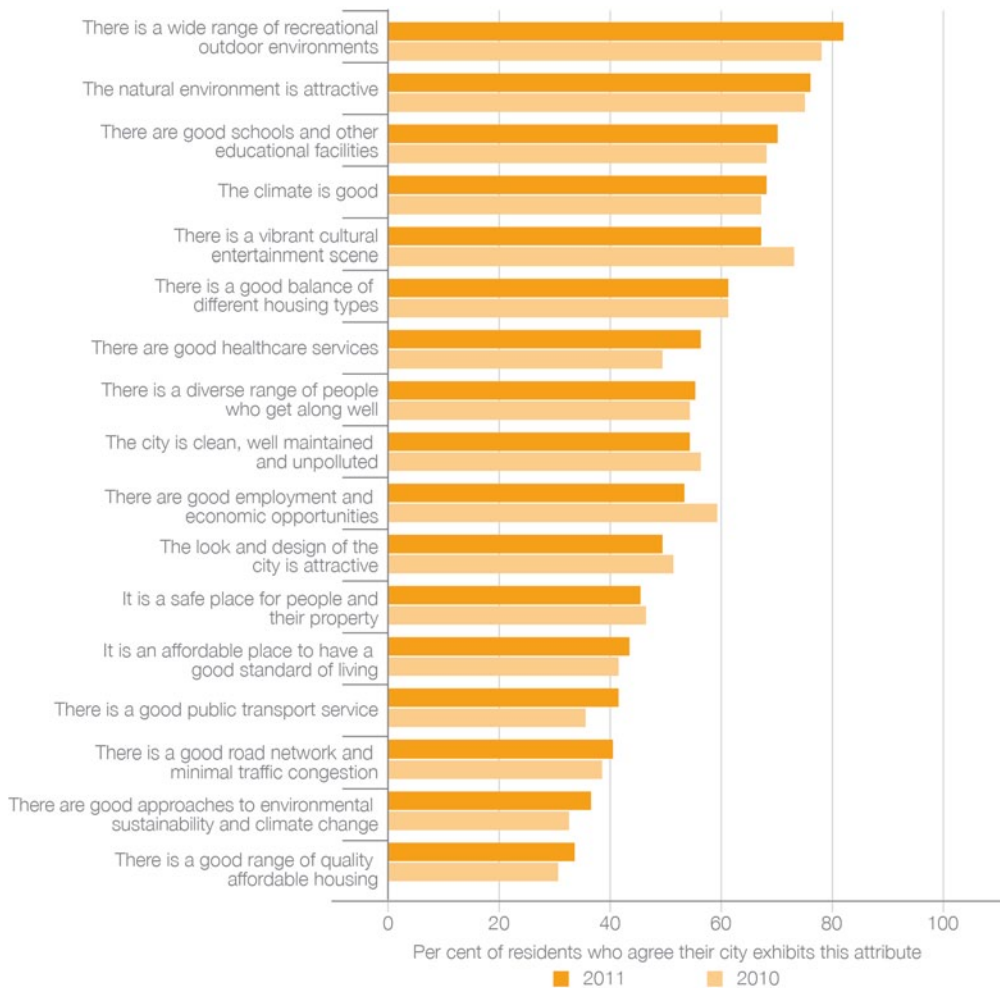


Source: AUSPOLL 2012, Liveability Index compiled from My City survey data

Overall the majority of residents in each of Australia’s capital cities rate their city as liveable. There was an increased proportion of residents who ranked their city as highly liveable in all cities and, as was the case in 2010, Adelaide was the most highly ranked city.

Across the attributes that make up the PCA Australian City Liveability Index, the range of outdoor recreational facilities and the attractiveness of the natural environment were the attributes that scored most highly among the 10 cities surveyed. At the other end of the scale, the approaches to environmental sustainability and the range of affordable housing scored worst across the cities, as shown in Figure 5-7.

Figure 5-7 City average performance on each attribute PCA Australian City Liveability Index 2010 and 2011

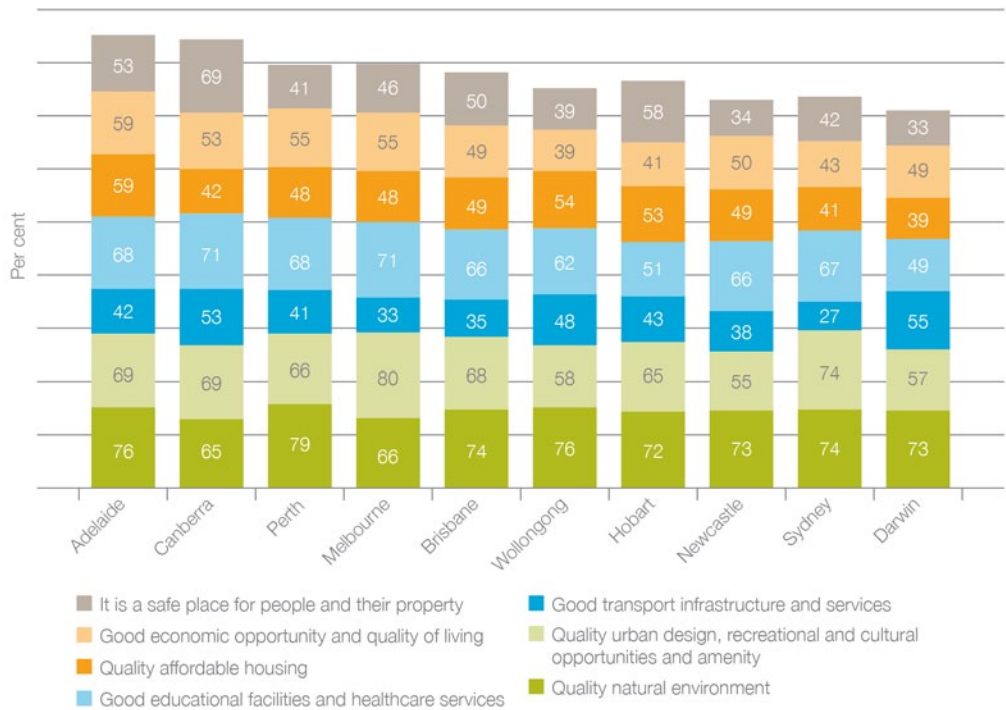


Source: AUSPOLL 2012

While there was greater consensus between residents in 2011 than 2010 on attributes such as city transport and health care services, there was a notable decline in the proportion of residents who agreed that their city had good employment and economic opportunities or a vibrant cultural entertainment scene.

There were some notable variations between cities in relation to the different attributes that residents agreed were true for their city. Figure 5-8 shows a summary of the responses to the attributes for each city in the My City survey. It suggests that while Adelaide is the most highly rated city overall, the other cities display their particular strengths in one or more attributes. For example Canberra, was most highly rated for safety, education, health facilities and services while Perth rated the quality of its natural environment (climate and attractive natural features) higher than any other city. Melbourne equalled Canberra for the highest proportion of people who agreed that it had good education and health facilities and services and was most highly ranked for its quality of urban design and amenity.

Figure 5-8 PCA Australian City Liveability Index of survey respondents who agreed or strongly agreed that the selected liveability attribute was true for their city, 2011



Note: Percentage shown for safety attribute is for a single attribute only. All other percentages are averaged across responses for more than one complementary attribute. Data courtesy of the Property Council of Australia.

Source: AUSPOLL 2012

A majority of people in Adelaide, Wollongong and Hobart agreed that their city had quality affordable housing while Darwin had the highest proportion of people who agreed that their city had good transport infrastructure and services. Sydney on the other hand was rated least well in terms of transport services.

Liveable Cities Program

In 2011 the Australian Government committed funding to support state, territory and local governments in meeting the challenges of improving the quality of life in our capitals and major regional cities through the Liveable Cities Program. Grants were allocated to projects which aimed to:

- encourage residential developments that were affordable, adaptable and accessible, with good access to services and public transport
- create or enhance mixed-use precincts that optimise public transport use, such as the creation of transit malls and the redevelopment of public spaces
- develop strategic plans for major regional cities with populations greater than 100,000 in line with the COAG criteria for capital city strategic planning systems, including the identification and preservation of critical infrastructure corridors, sites and buffers.

There were successful projects in most of Australia's major cities through the Liveable Cities Program. The projects included new urban developments, revitalising existing centres, improving transport options, reducing car dependency and traffic congestion, expanding affordable housing and tackling the challenges of climate change. Although each project differed, all aimed to make cities more liveable. These projects should provide useful examples that can be applied elsewhere. For more information see www.nationbuildingprogram.gov.au/funding/liveablecities/index.aspx

Granite Hill looking south, Perth, Western Australia.

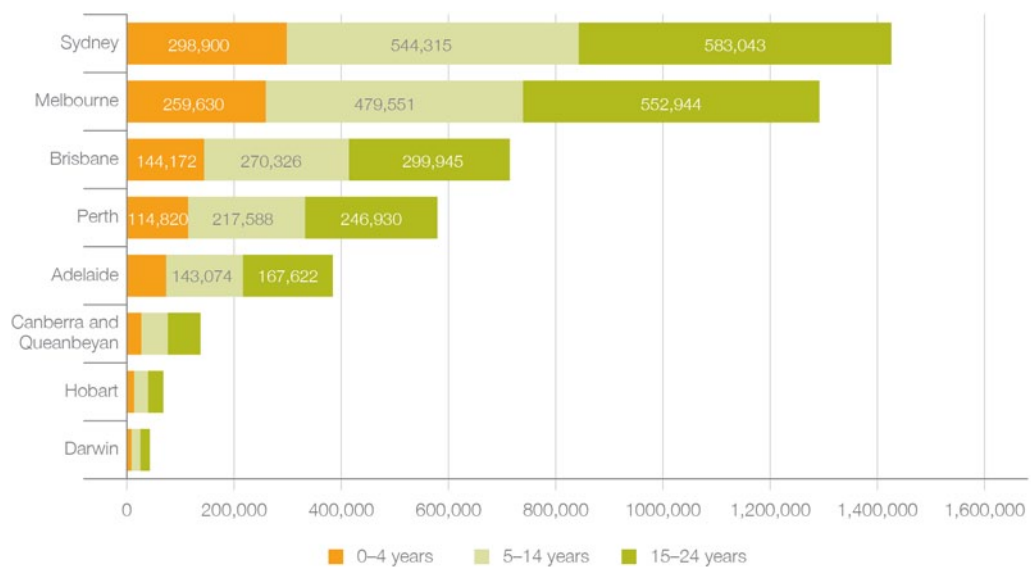
Image courtesy of Western Australian Department of Planning



Cities for people of all ages and abilities

People’s needs change throughout their lives and therefore an important marker of liveability of cities is how well they support the wellbeing of people at different life stages. Discussion about an ageing population usually focuses on productivity, but an increasing proportion and number of older people will require different housing, better access to health and transport services, more accessible public transport and pedestrian areas that are easier to manage by people with poor mobility. At the same time, population growth and changing patterns of urban settlement (as noted in Chapter 2 Population and Settlement) mean that some localities within cities also have growing numbers of young children (Figure 5-9).

Figure 5-9 Number of children and young people by age group in capital cities, 2011



Source: ABS 2012e

In the past, outward urban expansion has been largely associated with residential development for families in single detached houses. Inner city residential apartment dwellings have been typically targeted at single or couple households. However, over the past two decades housing and lifestyle preferences have changed considerably, as discussed in the recent reports by the Grattan Institute (Kelly et al. 2012b, 2011a, 2011b).

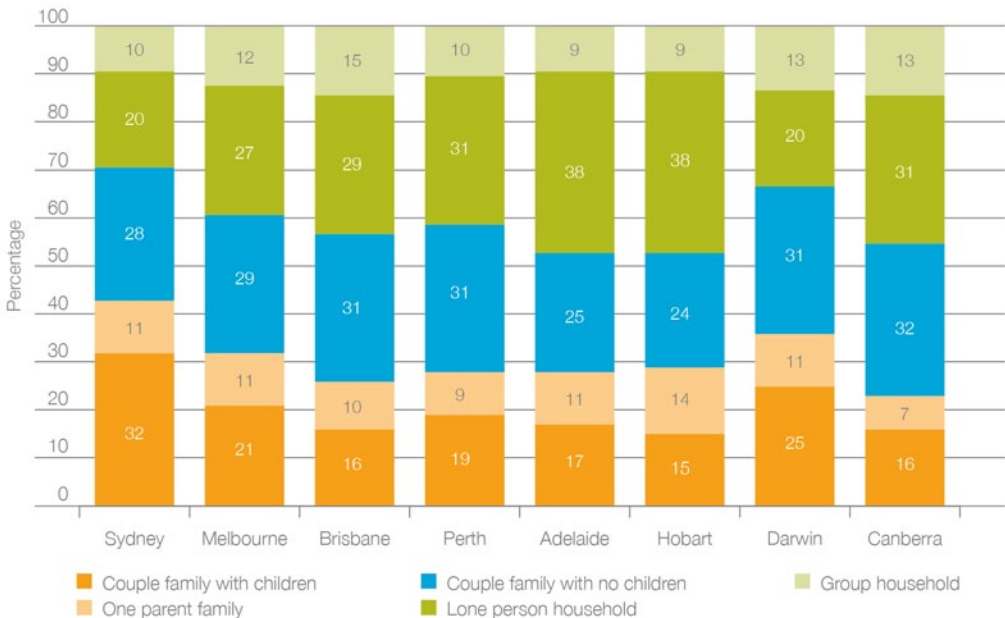
Alongside changes in residential development from population growth and changing settlement patterns, we are seeing changing family configurations and living arrangements (Liu and Easthope 2012). The demographic profiles of inner, middle and outer suburbs in Australian cities vary as people who remain within their local areas grow older. As argued recently in the Grattan Institute report *Tomorrow’s suburbs* (Kelly et al. 2012b), our cities and their suburbs must be able to adapt and adjust to demographic and social changes. This requires more thoughtful planning and urban design.

Child-friendly cities

An increase in inner city populations in the capital cities over the past decade or two has resulted in a notable growth in the numbers of young children in the inner city areas of some but not all cities.

Inner cities now tend to have higher proportions of multi-unit residential dwellings and, with the growth in numbers of family households with children in inner city areas, there has been an increase in the proportion of children living in higher-density residential dwellings. This is especially evident in Sydney. In 2011, 43 per cent of people living in flats, units and apartments were part of families with children, and a quarter of these households were in one-parent families (Figure 5-10).

Figure 5-10 Proportion of people living in flats, units or apartments by household composition, capital cities, 2011



Note: Persons enumerated on Census night in occupied private dwellings in one-family households only.

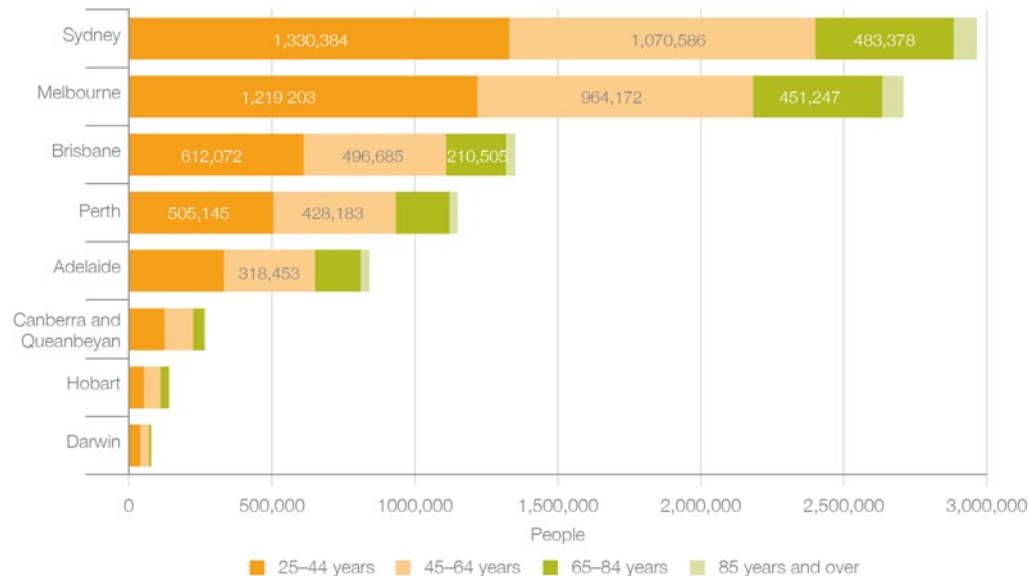
Source: ABS 2012e

The growing numbers of children living in apartments in inner city areas has renewed attention on the needs of children and young people in the planning and design of the built environment (Fincher and Iveson 2008, Freeman and Tranter 2011, NSW Commission for Children and Young People 2012). A 1996 United Nations initiative known as ‘child-friendly cities’ was established in 1996 to guide cities and other systems of local governance in the inclusion of children’s rights (UNICEF 2012). ‘Child friendly cities’ principles have been adopted by a number of local councils across Australia. In Wollongong, for example, Healthy Cities Illawarra is coordinating a range of activities to encourage young people to help plan their locality. Child Friendly by Design (CFbD) works with agencies, organisations and local governments across Australia to make child- and family-friendly places and spaces. For example, the CFbD project has involved children, young people and families directly in the development of the Wollongong 2022 Community Plan to make sure facilities and services address their needs (Healthy Cities Illawarra 2012).

Aged-friendly cities

While many families move house as family composition changes, others choose to remain living in the same home or locality for much of their lives. Many older people prefer to ‘age in place’ rather than opt to move away from family, friends and/or familiar surrounds. Again, actual population numbers (as shown for working age and older groups in Figure 5-11), rather than proportions, are more relevant for city planners, local authorities and service providers.

Figure 5-11 Number of people aged 25 and over in capital cities, 2011



Source: ABS 2012e

As people age they find things such as self-care and personal mobility more difficult. The availability of suitably designed housing, neighbourhoods, commercial centres, public space and transport has an influence on the health and wellbeing of people of all ages but particularly affects the level of independence, mobility and social interaction enjoyed by older people.

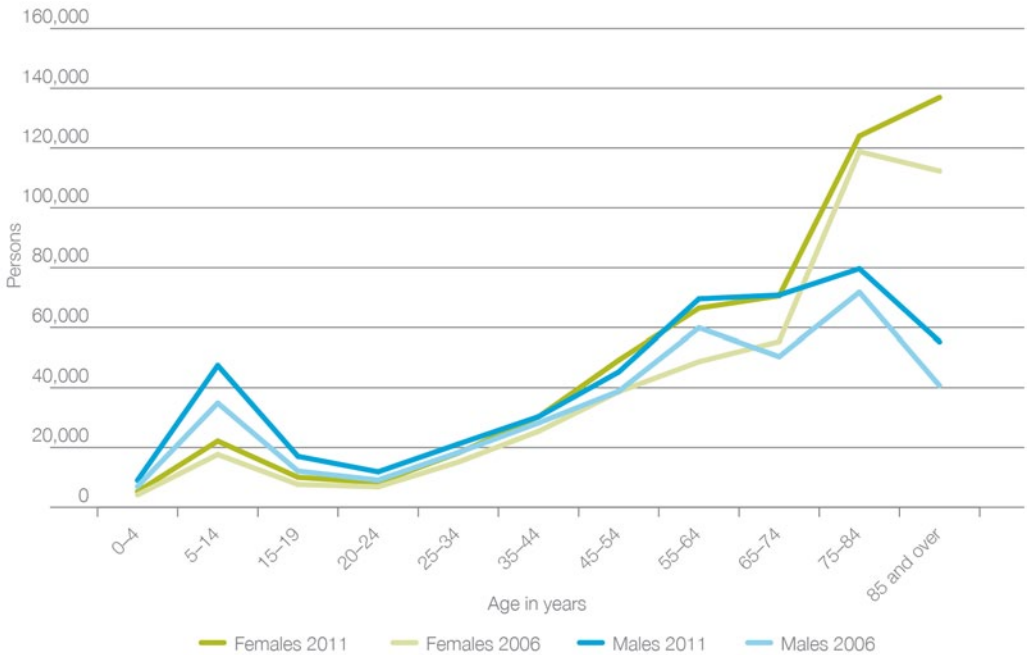
People with disability

According to the *United Nations Convention on the Rights of Persons with Disabilities*, ‘disability’ arises from the combination of impairments and barriers that ‘hinder ... full and effective participation in society on an equal basis with others’. The impairments can include ‘long-term physical, mental, intellectual or sensory impairments’. Barriers can be attitudinal or environmental (AHIW 2012).

The 2009 ABS Survey of Disability, Ageing and Carers (ABS 2012b) found that the proportion of the population that reported a disability in Australia in 2009 was 18.5 per cent or 4,026,020 people. This represents a slight decrease from 20.4 per cent in 2003, attributed to a smaller proportion of people with disabilities such as asthma and heart disease (ABS 2012b).

The ABS *Census of Population and Housing* (ABS 2012e and 2007) measures the number of people with a disability by asking how much help they need with a core activity, as shown in Figure 5-12. The 'Core Activity Need for Assistance' indicator measures the number of people with a profound or severe disability defined as needing help or assistance in one or more of the three core activity areas of self-care: mobility and communication because of a disability, long-term health condition (lasting six months or more) and old age.

Figure 5-12 Number of persons in need of assistance for a core activity, Australia, 2006 and 2011



Source: ABS 2007, 2012e

There are four categories that relate to the degree of severity of disability: profound, severe, moderate and mild. With the ageing of the population the number of people with severe or profound disability is projected to more than double over the next 40 years from 1.4 million to 2.9 million, representing a significant increase in demand on services for these people and their carers. Improving the wellbeing of people living with a disability is the focus of the *National Disability Strategy 2010–2020*.

Council of Australian Governments (COAG) National Disability Strategy 2010–2020

In 2008 the Council of Australian Governments (COAG) signed a National Disability Agreement which ratified the United Nations Convention on the Rights of Persons with Disabilities. Then in 2011 COAG committed to a *National Disability Strategy 2010–2020* to help ensure that the rights of people with disability are protected and promoted and that government policy and programs affecting people with disability, their families and carers support their wellbeing and remove barriers to their contribution to, and participation in, society (COAG 2011).

Under the National Disability Agreement and the Strategy, the Australian and state, territory and local governments committed to an overarching objective that people with disability and their carers have an enhanced quality of life in ‘an inclusive Australian society that enables people with disability to fulfil their potential as equal citizens’ (COAG 2011).

Progress towards this objective has recently been assessed and reported by the COAG Reform Council (2012) against the following three outcomes set out in the National Disability Agreement:

- People with disability achieve economic participation and social inclusion
- People with disability enjoy choice, wellbeing and the opportunity to live as independently as possible
- Families and carers are well supported.

The report, entitled *Disability 2010–11: Comparing performance across Australia* (COAG Reform Council 2012) found that, as one measure of participation, the rates of labour force participation for people with disability had significantly increased in Western Australia, from 54.5 per cent to 62.4 per cent between 2003 and 2009. Although still much lower than the participation rate for people without disability (82.8 per cent), the improvement in Western Australia is particularly notable because nationally the labour participation rate for people with disability (54.3 per cent) has not changed significantly since 2003 (COAG Reform Council 2012).

There are many aspects of cities and urban living that can restrict the quality of life of people with disability. For example, even people with a mild disability, who need no help and have no difficulty with any core activity tasks like self-care, can still have difficulties participating fully in their communities because they:

- use aids and equipment
- cannot easily walk 200 metres
- cannot walk up and down stairs without a handrail
- cannot easily bend to pick up an object from the floor
- cannot use public transport
- can use public transport but need help or supervision
- may need no help or supervision but have difficulty using public transport (ABS 2012b).

Suitable housing

Older people and people with disability may be helped with everyday activities and mobility at home and in their communities by improved design of housing, neighbourhoods and transport. Increased application of universal housing design is being promoted nationally by Livable Housing Australia.

Universal Design Guidelines 2008.

Image courtesy of Landcom NSW





The Livable Housing Design (LHD) Guidelines reflect a consensus guideline for liveable design that has achieved industry, community and government endorsement. These practical, common-sense guidelines describe easy living design features that are inexpensive to incorporate into the home design and deliver huge social and economic dividends for future generations of Australians.

Livable Housing Australia (LHA) is the national organisation responsible for championing the adoption of liveable housing design principles in all new homes built in Australia. It also administers the formal accreditation process for dwellings that achieve the performance standards set out in the LHD Guidelines.

The guidelines provide technical advice on the features that make a home easier and safer to live in for people of all ages and abilities.

Through adopting the LHD Guidelines, dwellings are designed to:

- be easy to enter
- be easy to navigate in and around
- be capable of easy and cost-effective adaptation
- be responsive to the changing needs of home occupants.

There are three levels of performance: silver, gold and platinum and seven core elements as follows:

1. A safe and continuous path of travel from the street entrance and/or parking area to a dwelling entrance that is level
2. At least one level (step-free) entrance into the dwelling
3. Internal doors and corridors that facilitate comfortable and unimpeded movement between spaces
4. A toilet on the ground (or entry) level that provides easy access
5. A bathroom that contains a hobless (step-free) shower recess
6. Reinforced walls around the toilet, shower and bath to support the safe installation of grabrails at a later date
7. A continuous handrail on one side of any stairway where there is a rise of more than one metre.



To achieve a silver, gold or platinum liveability rating, dwellings need to be assessed by a registered LHA Assessor at both the 'design' and 'as-built' stage of the development. The silver, gold and platinum ratings represent a trusted quality mark that attests to the enhanced liveability of a dwelling. For more information on this assessment and verification pathway see www.liveablehousingaustralia.org.au

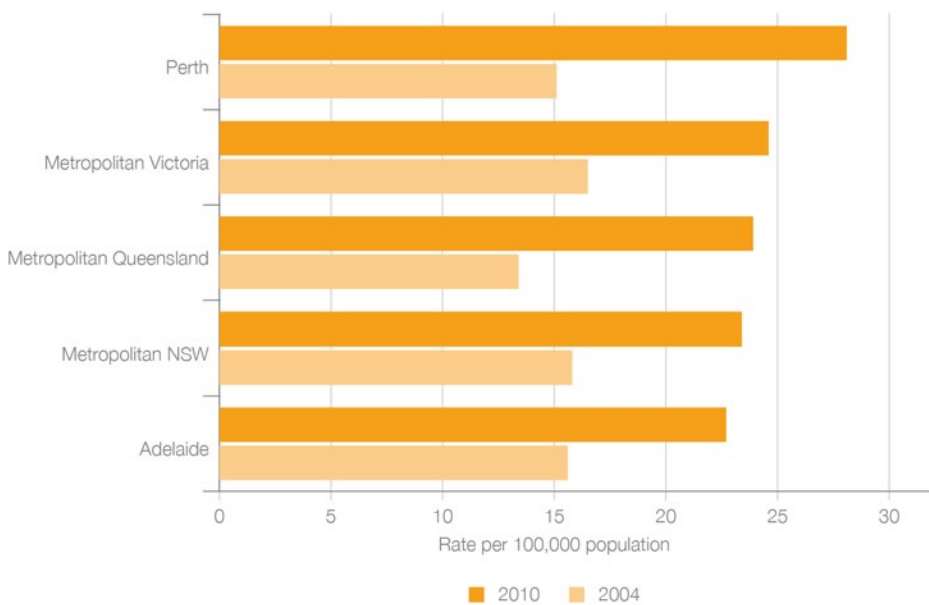
Residential aged care and in-home community care

When health deteriorates to such a degree that a person becomes very frail or ill and can no longer be cared for adequately in their present accommodation, high-level care in a nursing home may become necessary. High-level care provides 24-hour nursing and personal care with support for the activities of daily living, including dining, showering, continence management, rehabilitation and medications.

An alternative to nursing in their own home care is Community Aged Care, which offers low dependency level care for older people who are frail and/or disabled whether they live with their spouse, family or on their own.

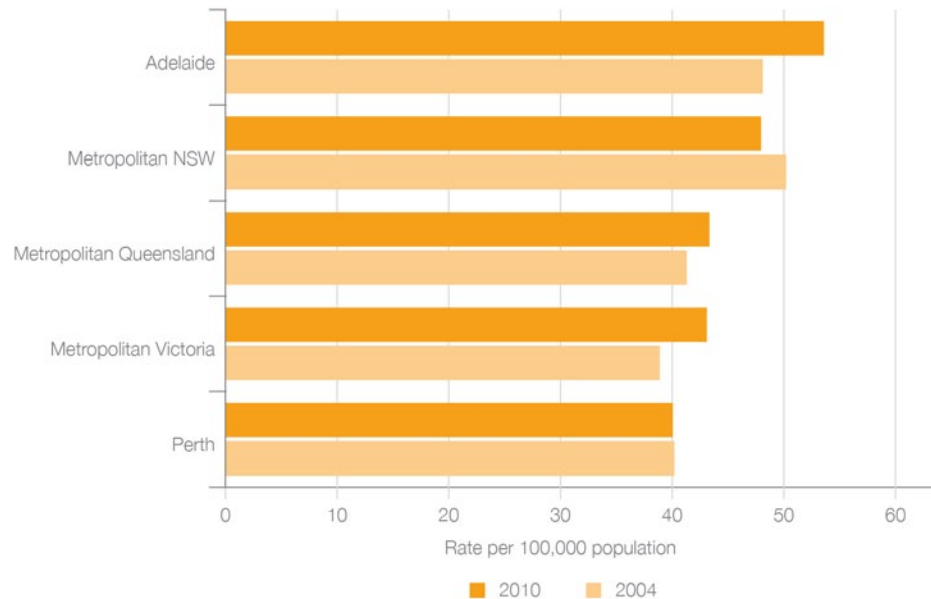
Ageing of the population is expected to increase demand for community care and high-level residential care places in all cities. Figures 5-13 and 5-14 show recent rates of provision.

Figure 5-13 Community care places for population 70 years and over, large capital cities



Source: Data compiled by PHIDU 2012, using data from the Department of Health and Ageing, June 2004 and 2010 and ABS Estimated Resident Population, 2004 and 2010

Figure 5-14 High-level residential care places for population aged 70 years and over in residential care



Source: Data compiled by PHIDU 2012, using data from the Department of Health and Ageing, June 2004 and 2010 and ABS Estimated Resident Population, 2004 and 2010

Inequality

The level of wellbeing of the Australian population is high when compared to many overseas countries. However, these statistics hide substantial differences in the health and wellbeing of specific groups within our population. Although this is most evident for Aboriginal and Torres Strait Islander peoples, there are also many other disadvantaged groups in Australia.

The OECD has recently reported a growing inequality of income in almost all OECD countries over the past two decades. On average, people in the top 20 per cent earn five times as much as the bottom 20 per cent although in some countries the gap is much smaller.

In cities, income inequalities are most evident in suburbs and at the neighbourhood level, where socioeconomic disadvantaged populations are concentrated (Pawson et al. 2012). Data for the Socioeconomic Index for Areas based on the 2011 Census will be available for analysis in the 2013 edition of the *State of Australian Cities* report.

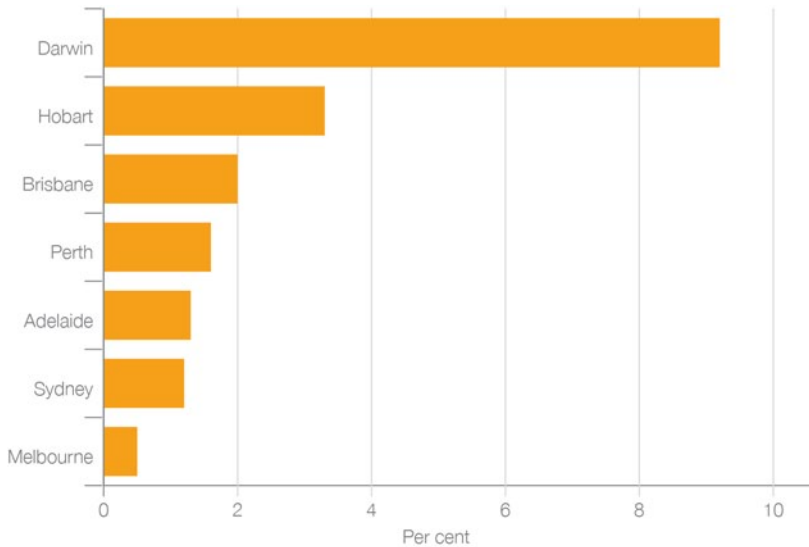
Closing the Gap for Aboriginal and Torres Strait Islander peoples

Health and wellbeing varies greatly between people of Aboriginal and Torres Strait Islander origin and the non-Indigenous population. In 2011 there were 548,370 people identified as being of Aboriginal and/or Torres Strait Islander origin counted in the Census (ABS 2012e). Of these people, 90 per cent were of Aboriginal origin, six per cent were of Torres Strait Islander origin and four per cent identified as being of both Aboriginal and Torres Strait Islander origin. These proportions have changed very little over the last 10 years.

The Northern Territory has the largest proportion of Aboriginal and Torres Strait Islanders – just under 27 per cent of the population identified and were counted as being of Aboriginal and/or Torres Strait Islander origin in the 2011 Census. In all other jurisdictions, four per cent or less of the population were of Aboriginal and/or Torres Strait Islander origin. Victoria has the lowest proportion at 0.7 per cent of the state total.

In the capital cities, the proportion of the population who were Aboriginal or Torres Strait Islander was largest in Darwin (9.2 per cent) and smallest in Melbourne (0.5 per cent), as shown in Figure 5-15.

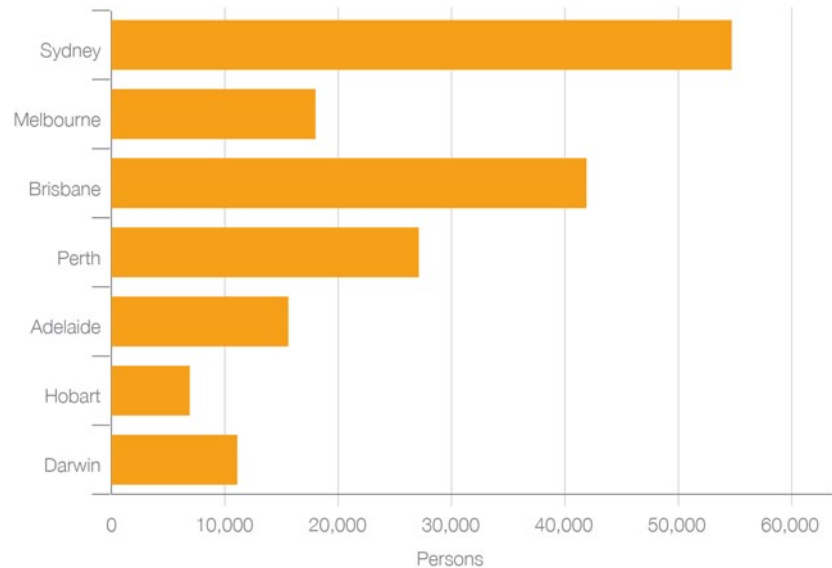
Figure 5-15 Population of Aboriginal and Torres Strait Islander people as a proportion of total population in capital cities, 2011



Source: ABS 2012e

The proportional distribution of the Indigenous population is not replicated in population size. Figure 5-16 shows that at the 2011 Census Sydney's Indigenous population (54,747 people) was the largest among the capital cities and, although proportionally the smallest, Melbourne's Indigenous population (18,206) was almost double that of Darwin (11,100).

Figure 5-16 Number of Aboriginal and Torres Strait Islander people in capital cities, 2011



Source: ABS 2012e

Social inclusion

In 2012 the Australian Government's Social Inclusion Unit released the second edition of its report *Social Inclusion in Australia: How Australia is faring*, tracking progress against a range of indicators.

The report assesses six indicators across economic, personal and social domains, finding that around 640,000 people, or approximately five per cent of Australia's working age population, continue to experience three or more of the selected disadvantages.

The report finds that disadvantage remains concentrated geographically, noting that those in the lowest socioeconomic areas are 20 per cent less likely to complete Year 12 or equivalent and more than twice as likely to feel unsafe walking alone in their local area than those in the least disadvantaged areas (Australian Government 2012).

The extent to which disadvantage is exacerbated by spatial factors has implications for social equity, as multiple disadvantage can have a 'compounding and persistent effect, reinforcing barriers to getting ahead and increasing the likelihood of other related problems later in life' (Australian Government 2012, p. 6). The provision of public transport, for example, 'has an important role to play in facilitating social equity, by providing individuals who are economically, physically and socially disadvantaged with basic mobility and necessary access to public services including markets, employment, health services, and education' (Krygsman et al. in Hensher and Chen 2010, p. 1).

Healthy living

The health of urban populations is linked to the physical environments and socioeconomic factors that affect lifestyles.

In most OECD countries the biggest contributors to poor health are tobacco smoking, alcohol consumption, obesity, unhealthy diet and lack of physical activity.

Life expectancy

The ABS collects a wide range of health information from the National Health Survey, the Survey of Disability, Ageing and Carers, the Survey of Mental Health and Wellbeing, and the Patient Experience Survey. These health surveys are not collected annually but can provide an indication of health trends.

Australia's male and female combined life expectancy figure is 81.4 years, higher than the rate in the UK, Canada, New Zealand and the USA (ABS 2012c). Over the past 10 years, life expectancy at birth has improved nationally by 2.7 years for males and just under 1.8 years for females. Based on current mortality rates, a boy born in 2009–2011 can expect to live to 79.7 years, while a girl can expect to live to 84.2 years (ABS 2012c). While city data is not readily available, there are some notable differences in life expectancy between states and territories with the Australian Capital Territory having the highest life expectancy for males (81 years) and females (84.8 years) and the Northern Territory the lowest (74.9 for males and 80.5 for females).

As noted in *State of Australian Cities 2011*, the life expectancy for Aboriginal and Torres Strait Islander people is significantly lower than that of the non-Indigenous population. In the period 2005 to 2007, life expectancy at birth was estimated to be 67.2 years for Aboriginal and Torres Strait Islander males – around 12 years less than life expectancy at birth for non-Indigenous males (78.7 years). Similarly, the estimated life expectancy at birth for Aboriginal and Torres Strait Islander females was 72.9 years – around 10 years less than life expectancy at birth for non-Indigenous females (82.6 years) (ABS Yearbook 2012).

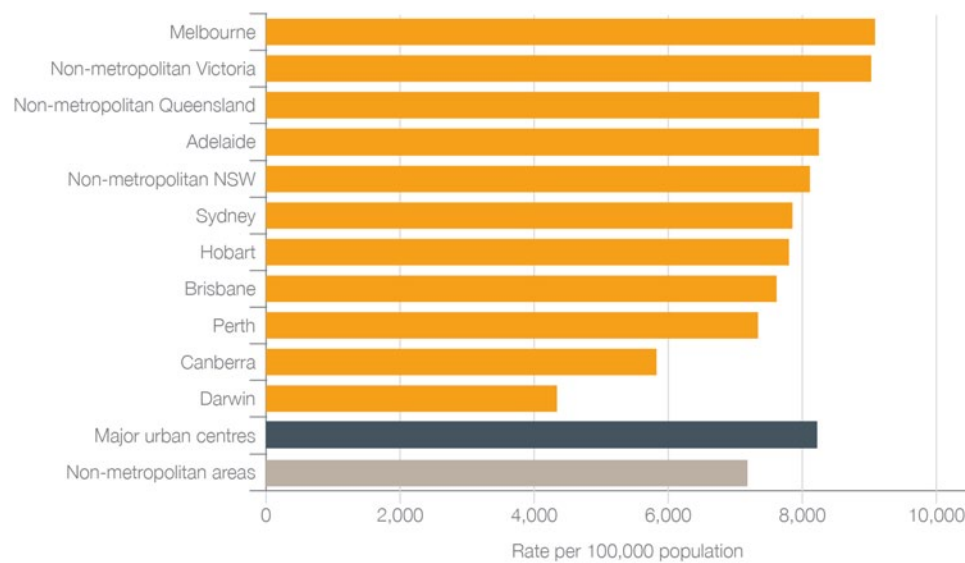
Mental health

Depression is a common mental disorder that can be chronic or recurrent. It can substantially impair an individual's ability to take care of his or her everyday responsibilities and lead to long-term poor health. The World Health Organization (WHO) estimates that by 2020, depression will be the second leading cause of disability (WHO 2001) and by 2030 it is expected to be the largest contributor to disease burden (WHO 2008).

A range of personal, social and environmental factors including living conditions, can influence rates of depression within populations. Rates of diagnosis are one way to gauge the mental health of populations. They can also indicate the availability of medical practitioners as a starting point for examining the influences of environmental factors. For example, through the Better Access Program, local general practitioners (GPs) prepare mental health care plans for patients. The number of plans prepared is one indicator of the number of people presenting with mental health concerns. The rates of mental health care plans prepared by GPs for 2009–10 (Figure 5-17) show that metropolitan areas have higher rates than non-metropolitan areas. Melbourne has the highest rate among the major metropolitan areas.

The rates also suggest that in the case of New South Wales and Queensland, non-capital cities have higher rates than their state capital counterparts.

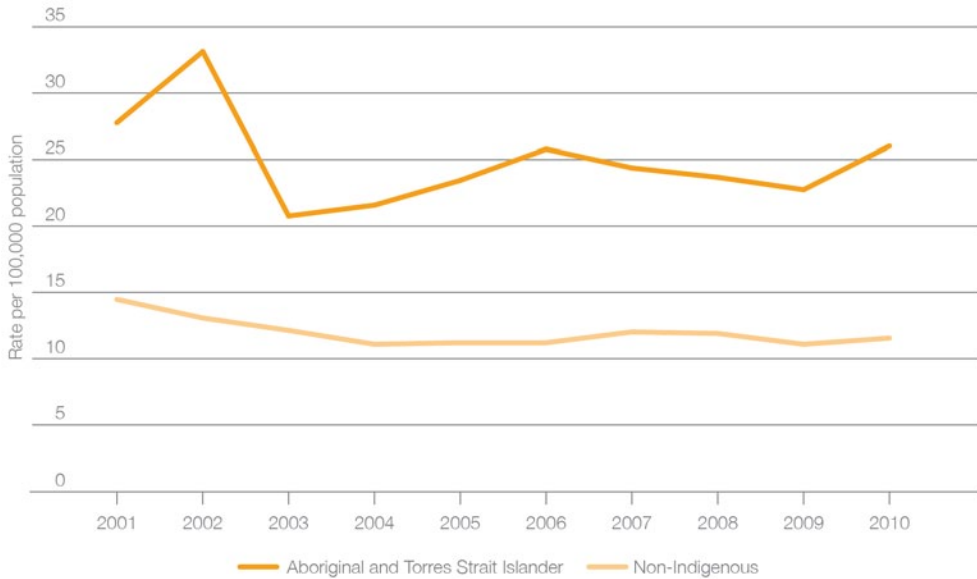
Figure 5-17 Better Access Program: Preparation of mental health care plans by GPs, 2009–10, rate per 100,000 population



Source: PHIDU 2012

Mental health is another issue where health inequalities are evident for Australia’s Indigenous people. The rate of suicides among Aboriginal and Torres Strait Islanders is double that of the non-Indigenous population and the gap has changed little over the past 10 years (Figure 5-18).

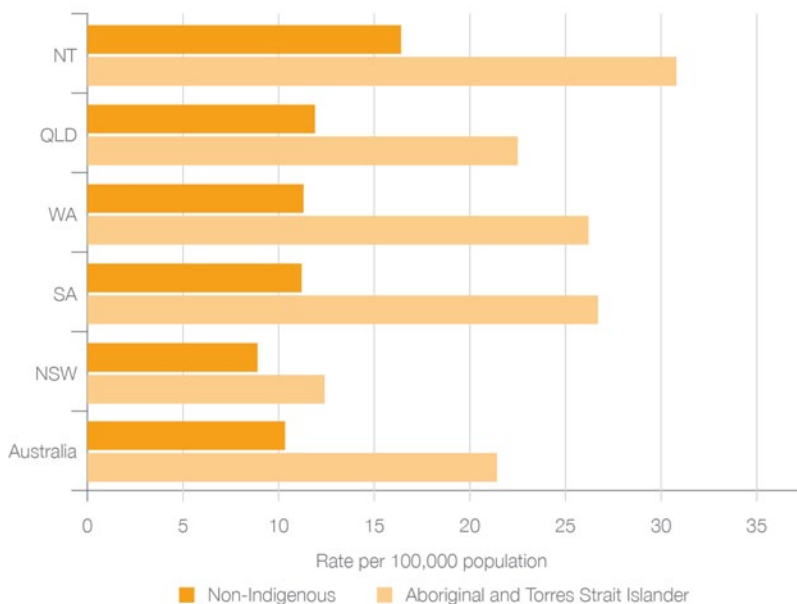
Figure 5-18 Age standardised suicide rate per 100,000 population by Indigenous status, Australia, 2001–10



Source: ABS 2010

There is a significant difference in suicide rates between the states, with New South Wales having the lowest suicide rates over the period 2001 to 2010 and the smallest gap between suicide rates for Indigenous and non-Indigenous population (Figure 5-19).

Figure 5-19 Age standardised suicide rate by Indigenous status for five states, 2001–10



Source: ABS 2010

Social determinants of health

Although life expectancy rates and socioeconomic equality in Australia are relatively good by international standards, people with lower incomes experience a greater prevalence of long-term health conditions. The most socioeconomically disadvantaged people are twice as likely to have a long-term health condition as people who are the least disadvantaged.

International research points to factors that determine a person's health. Some of these relate to personal behaviours, but others relate to the difference in socioeconomic status and how these interact. Pregnancies where the mother doesn't smoke, drink or take drugs are understood to be fundamental to a child's lifelong development. So too is the learning that occurs in a child's first three years of life. School completion, successful transition into work, secure housing and access to resources necessary for effective social interaction are all determinants of a person's lifelong health. This research on the social determinants of health culminated in the World Health Organisation making a series of recommendations in its 2008 *Closing the Gap Within a Generation* report (WHO 2008).

In 2010 the Catholic Health Australia (CHA) and the National Centre for Social and Economic Modelling (NATSEM) released the first CHA-NATSEM Report on Health Inequalities *Health lies in wealth: Health inequalities in Australians of working age* (Brown and Nepal 2010). That report investigated socioeconomic inequalities in health outcomes and lifestyle risk factors of Australians of working age and showed that socioeconomic gradients in health exist in Australia.

Early years: Australian Early Development Index (AEDI)

Recognising the importance that early life experience has on long-term health and wellbeing led to the development of the AEDI to measure child welfare in early life. In 2009, the AEDI collected data on 261,147 Australian children (97.5 per cent of the estimated five year old population) in their first year of full-time school between 1 May and 31 July (DEEWR 2011).

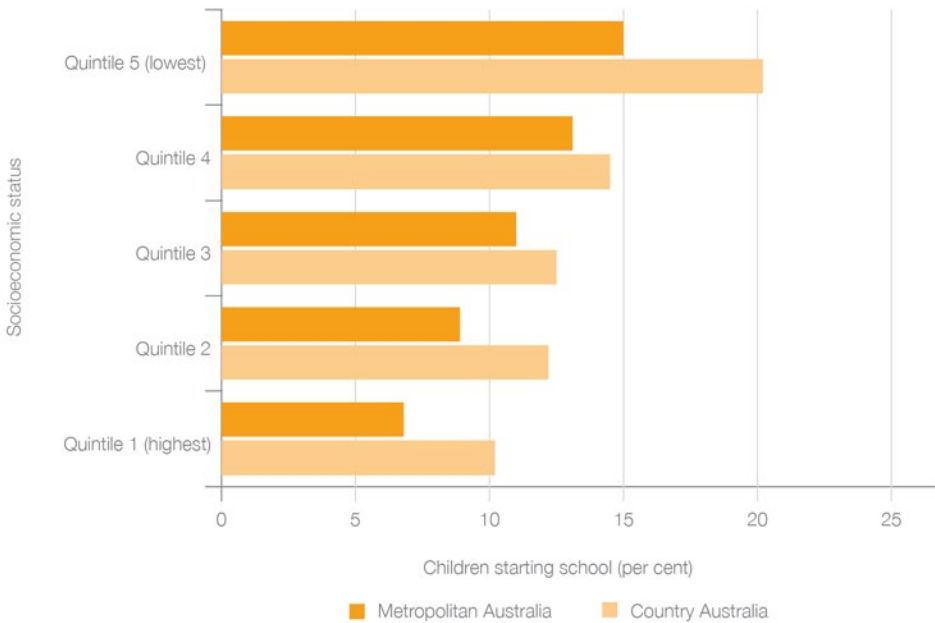
Skate action at Port Kennedy Skate Park.

Image courtesy of City of Rockingham, Perth



The initial results provide communities and schools with information about how local children have developed by the time they start school across five areas: physical health and wellbeing, social competence, emotional maturity, language and cognitive skills (schools-based), and communication skills and general knowledge. They show disparities between country and metropolitan areas (Figure 5-20).

Figure 5-20 Developmentally vulnerable children by socioeconomic group and region, AEDI 2009



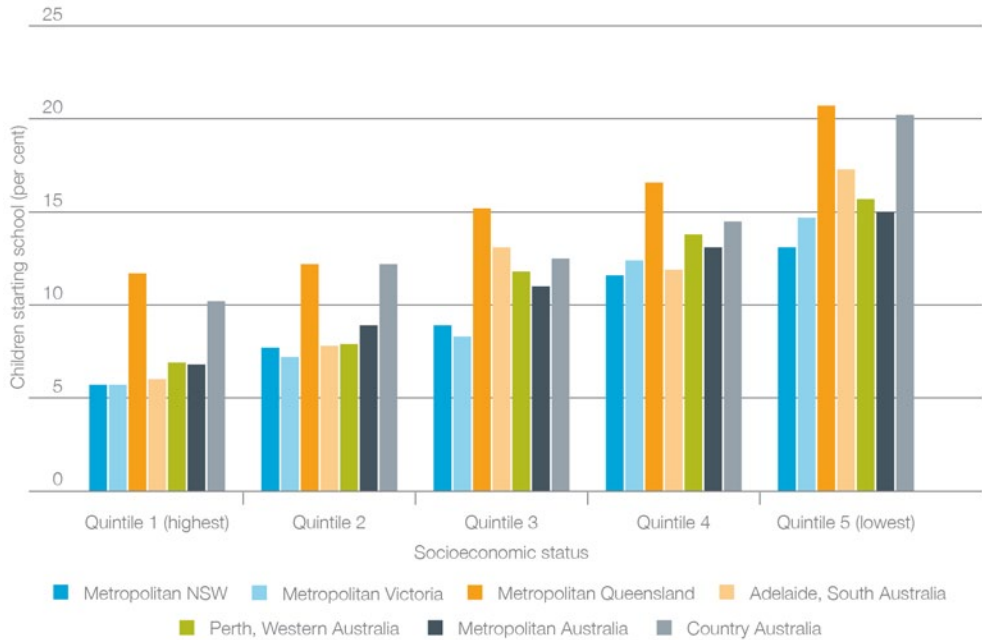
Note 1: Metropolitan includes the capital cities and any urban centre with a population of 100,000 or more at the 2006 Census. These urban centres are Newcastle, Wollongong (NSW), Geelong (VIC), Gold Coast – Tweed Heads and Townsville–Thuringowa (QLD).

Note 2: Per cent of children starting school who were reported as developmentally vulnerable on two or more domains on the Australian Early Development Index (AEDI) in 2009.

Source: PHIDU 2012 based on AEDI scores for 2009

Although in Figure 5-21, a smaller proportion of children appear to be developmentally vulnerable in metropolitan areas than in country Australia, this is not the case in all jurisdictions. There are considerable differences between metropolitan areas across Australia. As shown in Figure 5-21, a greater proportion of children were reported to be developmentally vulnerable on two or more domains across all socioeconomic quintiles in metropolitan Queensland than in other metropolitan areas and country areas. Further analysis is required to determine the reasons for this, however, the greater distance between Queensland's regional cities and Brisbane may be one contributing factor.

Figure 5-21 **Developmentally vulnerable children by socioeconomic group, selected states, AEDI 2009**



Note 1: Metropolitan includes the capital cities and any urban centre with a population of 100,000 or more at the 2006 Census. These urban centres are Newcastle, Wollongong (NSW), Geelong (VIC), Gold Coast – Tweed Heads and Townsville–Thuringowa (QLD).

Note 2: Per cent of children starting school who were reported as developmentally vulnerable on two or more domains on the Australian Early Development Index (AEDI) in 2009.

Source: PHIDU 2012 based on AEDI scores for 2009

Physical activity

There are few other lifestyle or health interventions that are as beneficial for individual and public health as regular physical activity (Sallis, Millstein and Carlson 2011). There is reasonable evidence to suggest that better designed streets, paths and roadways can encourage more physical activity for transport and recreation. These include a well-connected street network, safe off-road bicycling and walking pathways, accessible quality open space and low traffic volumes (Sallis, Millstein and Carlson 2011).

Walkable neighbourhoods

Many people walk to their local shops, cafes or services such as the post office or library. Others walk on a daily basis to their place of work or study. Most public transport journeys start and end with a walk from a bus stop or train station.

Walkability refers to the extent to which the built environment supports or hinders walking in terms of safety, connectivity and convenience. Walking is not only healthy but it helps to ease traffic congestion and reduce emissions (Queensland Department of Transport and Main Roads 2011). Walkable neighbourhoods can provide ease of access to employment, education and services.

Measuring walkability

Melbourne University's Place, Health, and Liveability Program is developing an open source walkability tool in collaboration with the University of Western Australian. The walkability tool will initially be used to calculate a walkability index for Victoria, to be subsequently applied across Australia. This work is being funded by the Australian Urban Research Infrastructure Network.

Walk Score (www.walkscore.com) is a public walkability index developed in the United States that assigns a numerical walkability score to any address in a number of countries, including Australia. It calculates a direct-line distance between retail, food, school, entertainment and recreational facilities, providing a useful guide to the walkability of a location. Walk Score is increasingly being used by home purchasers in considering the desirability of the location of a prospective home.

Captain Cook Highway intersection, Cairns.

Image courtesy of Chay Garde



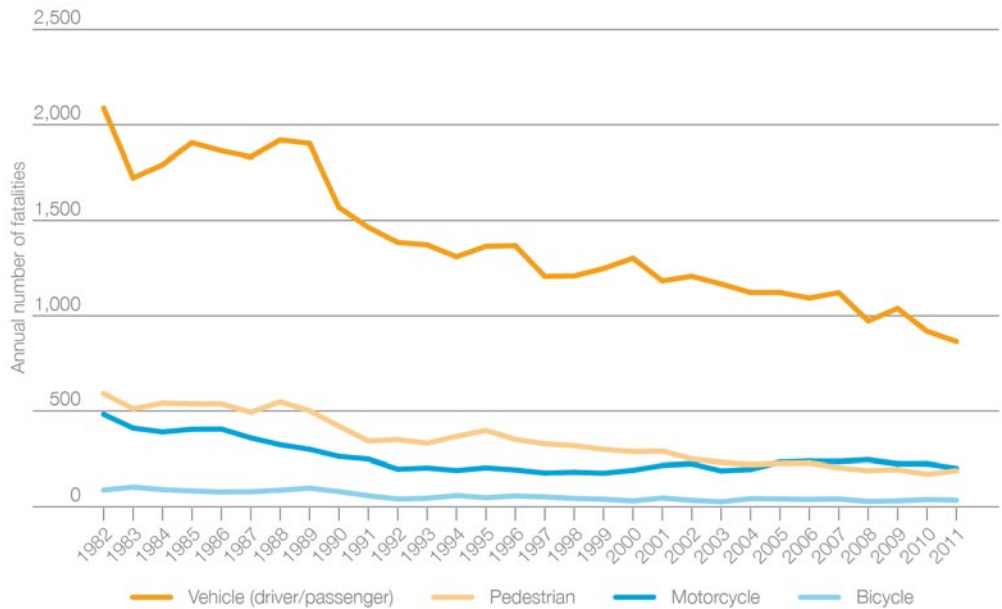
Safety

An individual's sense of safety for themselves, their families and their property is an important attribute of liveability, as reflected in surveys such as the My City survey noted earlier in this chapter. A sense of safety is generally associated with actual or perceived rates of injury or death, such as by motor vehicle crashes or at the hands of other people through assault, damage to property or theft.

Road safety

In May 2012, BITRE published the annual *Road Deaths Australia – 2011 Statistical Summary*. This report focuses on fatalities based on jurisdiction, age group and other characteristics.

Figure 5-22 Road fatalities in Australia by road user type, 1982–2011



Source: BITRE 2012a

As shown in Figure 5-22, there has been an average annual decline of 3.1 per cent in the total number of road fatalities over all categories in Australia between 1982 and 2011 (BITRE 2012a).

The National Road Safety Strategy, agreed by Commonwealth, state and territory transport ministers, presents a plan to reduce both deaths and serious injuries on Australian roads by at least 30 per cent over the decade to 2020.

Children and older people are especially vulnerable as pedestrians and road users. A greater proportion of children and young people aged up to 25 years and older people aged over 65 years use public transport. This means that at transport interchanges, bus stops and train stations design for pedestrian safety is especially important.

Crime prevalence and perception

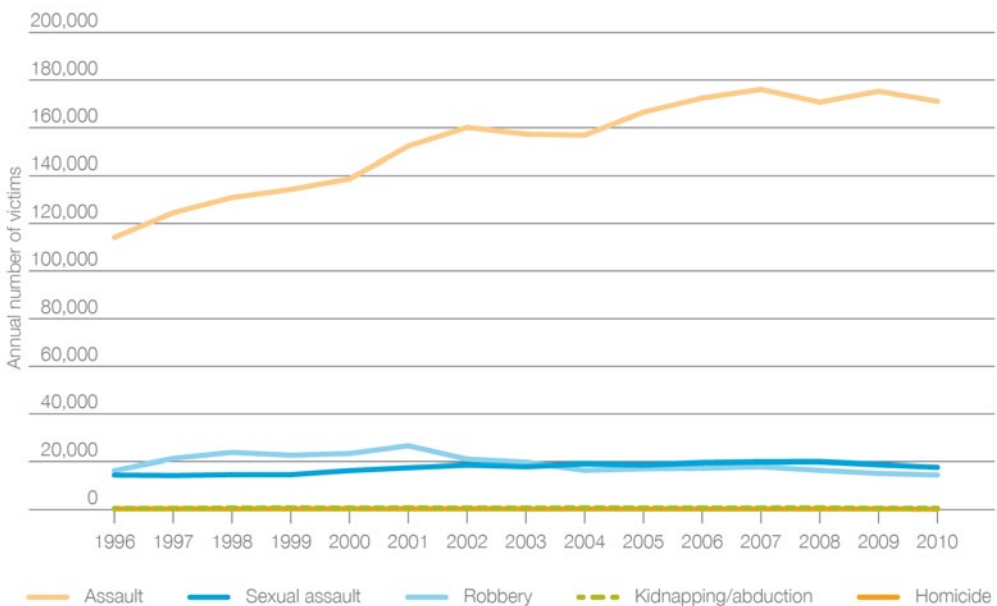
Are Australian cities safe compared to other cities around the world? Measuring safety is very difficult and only broad observations are possible. There are a number of ways to compare crime rates between countries. One way is by comparing rates of a signature crime like homicide, which in Australia are the lowest they have been for a century (ABS 1997, Dearden and Jones 2009). On this measure, Australia sits in the middle of the band of countries in northern Europe. There is a similar pattern for both property and violent crime more generally, suggesting that rates in Australian cities, taken as a whole, are about the level of most cities in northern Europe and much safer than many cities around the world (UNODC 2012).

Recording crime in Australia

Crime in Australia is mainly measured by two methods: police records and crime victimisation surveys. Police records from states and territories are aggregated by the ABS using the Australian and New Zealand Standard Offence Classification (ANZSOC) to accommodate the differences in how crime is categorised across jurisdictions in Australia. Though much improved, the system is far from perfect and a description of the police data issues can be found in the Australian Institute of Criminology's *Australian Crime: Facts and Figures 2011* publication, the source of the data in this section.

Crime is commonly divided into two types: violent crime and robbery. Figure 5-23 shows that most types of violent crime in Australia have been stable or falling over the last decade, and numbers of assault victims have been relatively stable since around 2005 after rising during the 1990s.

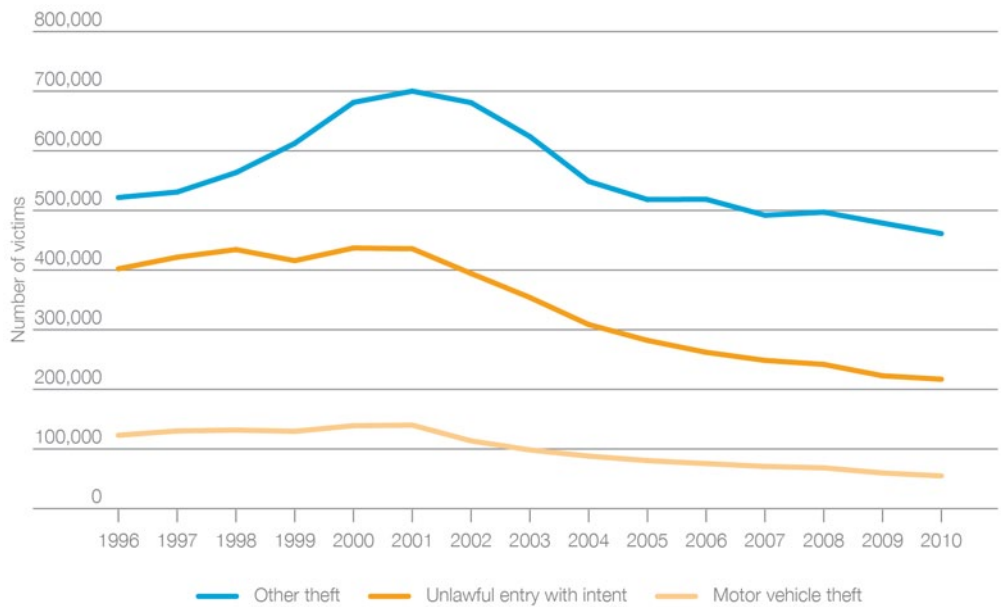
Figure 5-23 Number of victims of selected violent crimes, Australia, 1996–2010



Source: Australian Institute of Criminology 2012

The rates of property crime in Australia, as in most developed countries, have fallen steeply since around 2000, as shown in Figure 5-24. There seems little general agreement on the cause of this, although improved economic conditions and improved security are thought to play a part.

Figure 5-24 Victims of property crime, Australia, 1996–2010



Source: Australian Institute of Criminology 2012

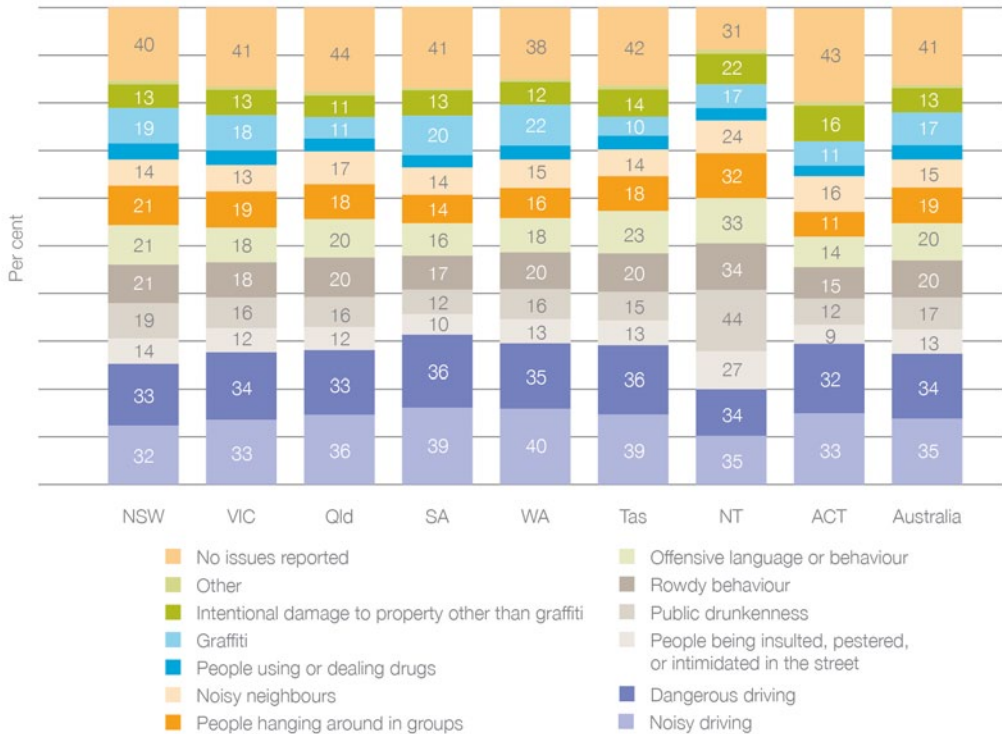
Crime rates vary significantly across states and territories as well as within cities. Despite the common perception that living in a country area is safer, some regional towns have crime rates that far exceed capital cities (Goh and Moffatt 2012).

Perceived social disorder

The perception of crime can sometimes be worse than reported crime. Perceptions of levels of crime and feelings of safety in a particular area may be based on personal experience or observation of a range of activities that are considered to signify social disorder. Social disorder refers to antisocial behaviour that may or may not constitute a criminal offence – for example, public drunkenness, noisy neighbours and offensive language or behaviour. This can detract from people’s subjective estimation of the liveability of the areas in which they live, work or travel through. Perceived levels of crime can also be influenced by media reports of social disorder within an area.

Data about perceived social disorder in local areas is available from the ABS Multi-household survey. In the 2010–11 survey a total of 26,405 households or 81 per cent of the sampled households fully responded to the questions on perceived social disorder. While city level data is not available, the results at state and territory level (Figure 5-25) show that the highest proportion of residents who perceived their area as not having any issues with social disorder to report lived in Queensland (44 per cent), the Australian Capital Territory (43 per cent) and Tasmania (42 per cent). Conversely, the Northern Territory and Western Australia had above the Australian average proportion of people who reported at least one issue of social disorder.

Figure 5-25 Perceived social disorder issues in local area, by state and territory, 2010–11



Source: ABS 2012f

The data on perceived social disorder suggests that driving behaviours, including noisy driving or dangerous driving, were the most commonly reported acts of social disorder in each jurisdiction except for the Northern Territory, where public drunkenness was the most frequently reported concern.

Variation in crime rates within cities

Crime rates are strongly influenced by socioeconomic conditions and as such vary significantly across cities (Wortley and Mazerolle 2008). Data at the local government level can give some idea of the extent of variation. Some local government areas of Sydney, for example, have 10 times the violent crime rate of others (Goh and Moffatt 2012). Since it is known that crime will be further concentrated in a small segment of these local government areas (Ratcliffe and McCullagh 1999, Cozens 2011), it follows that the crime victimisation risk is significant in particular places and times and very low in others. The feature article contributed by Dr Bruce Doran from the Fenner School of Environment and Society at the Australian National University, explores how the perception of risk of crime in particular places affects the way people move through cities.

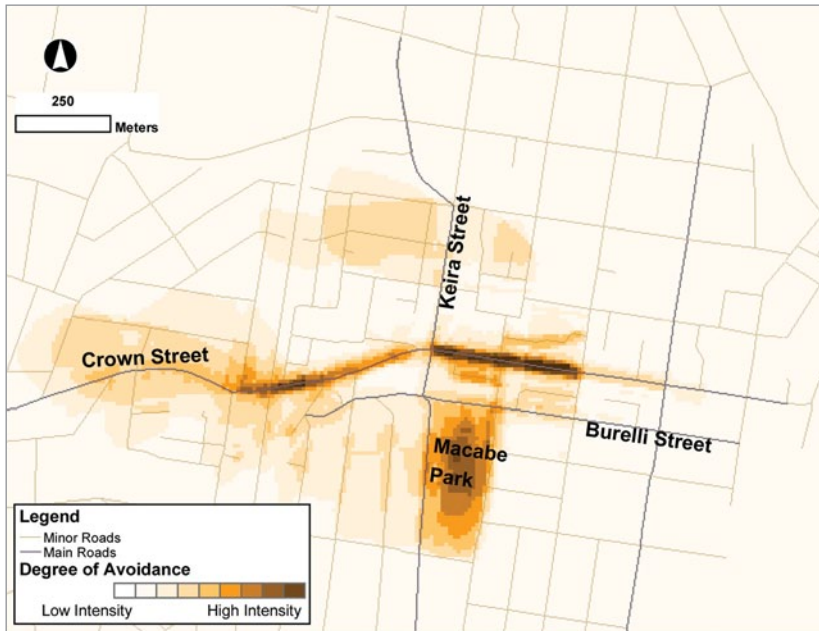
Mapping behavioural responses to fear of crime

Fear of crime began to emerge as an issue of concern in the 1960s when national and international crime surveys began to incorporate questions relating to the public's perception of crime. Such surveys generally used variations of the question '*How safe do you feel walking alone at night in your neighbourhood*', an approach that has endured and is now the global measure. The findings from fear of crime surveys have been consistently alarming with between 20 and 30 per cent, and in some cases up to 60 per cent, of respondents indicating that they feel unsafe in their neighbourhoods. Victims of crime, people of non-Caucasian origin, the elderly and women are generally found to have higher levels of fear than the rest of society. Further, fear of crime has been found to be a problem in areas with low rates of crime as well as areas with high rates of crime (Figure 5-26).

One of the most deleterious impacts of fear of crime is that it prompts behavioural responses which, in turn, can have an influence on quality of life. This has given rise to numerous media reports that fearful people can become 'prisoners in their own homes', an assertion that captures public and policy attention. In this regard, fear of crime can be seen as a form of social exclusion because, through avoiding areas perceived as dangerous, individuals have limited access to public facilities or services.

From a management perspective, the public traditionally look towards police services as the primary institution responsible for addressing fear of crime. Indeed, reducing fear and promoting safety are often enshrined in the mission statements of police agencies. Former NSW Police Commissioner Ken Moroney has gone so far as to state that fear of crime 'is as debilitating as the crime itself' (Cameron, 2002). Despite such recognition, to date there have been few tools available to police to investigate fear of crime. Recent research in Australia and other countries has started to use mapping approaches to investigate fear of crime (e.g. Barker 2010, Doran and Burgess 2011, Khom 2009). The spatial outputs from such work delineate where and when people are afraid of crime. Such information can be used directly in strategic responses to reduce fear of crime. For example, a mapping project in Wollongong (see Doran and Burgess 2011) identified the areas that people working in the CBD were avoiding due to their personal fear of being robbed, beaten or attacked. The outputs, when analysed at a collective level, showed that 'hotspots' of fear were well defined and varied according to time of day.

Figure 5-26 Fear of crime hotspots in the central business district of Wollongong between 5:30pm and 7pm

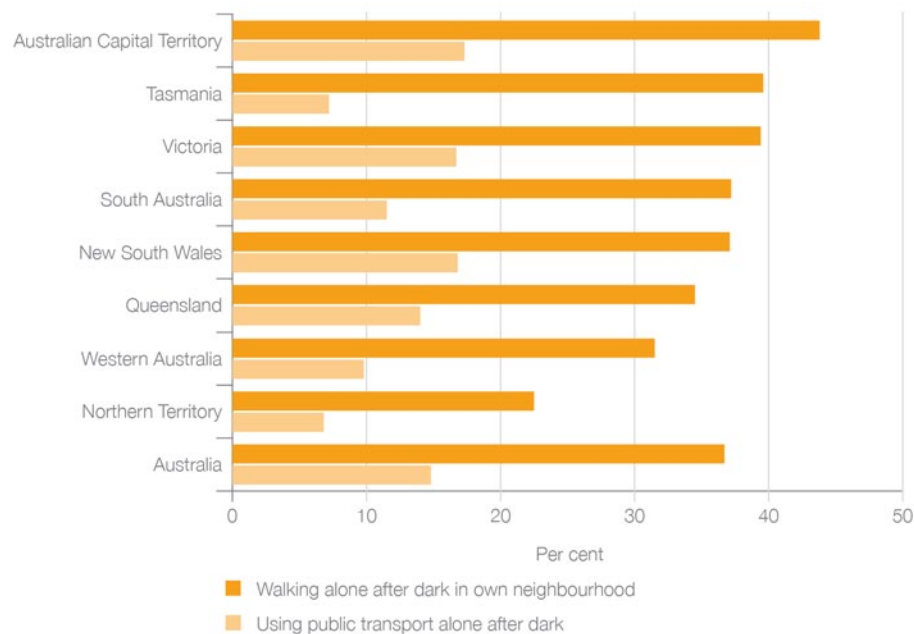


Source: Doran and Burgess 2011, p. 122

When combined with spatial data on crime and disorder, it became clear that the Wollongong City Council (WCC) could play a significant role in fear reduction initiatives through city centre revitalisation strategies. Further, the fear mapping outputs were used to identify lead and partnership agencies in relation to specific programs set out in the crime prevention plan for the CBD (WCC 2007). Of note was the fact that the WCC often identified the NSW Police as having a supporting role, rather than a lead role, and that other city centre management partners could also make significant contributions. When similar fear mapping techniques were used in conjunction with an ongoing initiative in the Kings Cross area of Sydney, the findings were used to assess the effectiveness of high-visibility policing and to uncover underlying motivations for fear of crime in the area. Given that most local government organisations and police agencies have access to Geographic Information Systems (GIS) through trends towards 'spatially-enabled' government, there would seem to be many further avenues for developing localised fear mapping programs.

Individual perceptions of safety vary not only by specific locations in cities but also how safe they feel moving around. How safe people feel travelling by different modes of transport is collected by the ABS in the crime victimisation survey (ABS 2012f). The data is not available at the city level but the state and territory results (Figure 5-27) suggests that a greater proportion of people feel safe in the Australian Capital Territory than other states and territories, and that the Northern Territory is considered least safe.

Figure 5-27 Feelings of safety described by persons aged 15 years and over, by states and territories – proportion of persons who reported they feel safe or very safe travelling alone after dark by mode, 2008–09



Note: Refers to mainly urban areas only.
Source: ABS 2010

Affordable living

In cities where the cost of living is relatively low, people in the lower income groups can still generally meet their needs. However, where the cost of living and housing is high, people in the lowest socioeconomic brackets can experience multiple disadvantages.

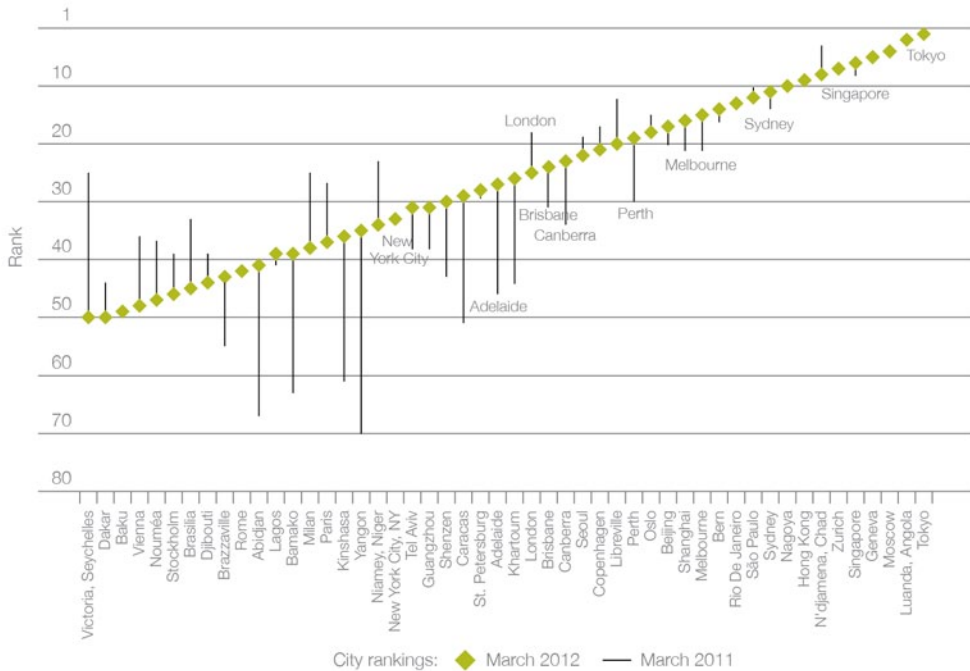
Cost of living

International cost of living ranking

Similar to the quality of life or liveability rankings, Mercer Ltd undertakes an annual cost of living survey to measure the comparative cost of living for expatriates (from the United States of America) in 214 major cities world-wide (Mercer 2012). The survey compares over 200 items in each location, including housing, transport, food, clothing, household goods and entertainment, using New York City as the base city and the US dollar as the base currency.

Figure 5-28 shows that, for Australian capital cities, the six cities surveyed have risen in the cost of living city rankings in the past year, indicating that they have become relatively more expensive cities to live and work in.

Figure 5-28 Mercer International – global cost of living city ranking – top 50 cities 2012



Note: Mercer international basket including rental accommodation costs. Base city: New York, United States.

Source: Mercer International Ltd 2012

Two main factors determine a city's position on the cost of living ranking: the relative strength of the currency against the US dollar in the 12 months between ranking and the price movements over the 12-month period compared to those in New York City as the base.

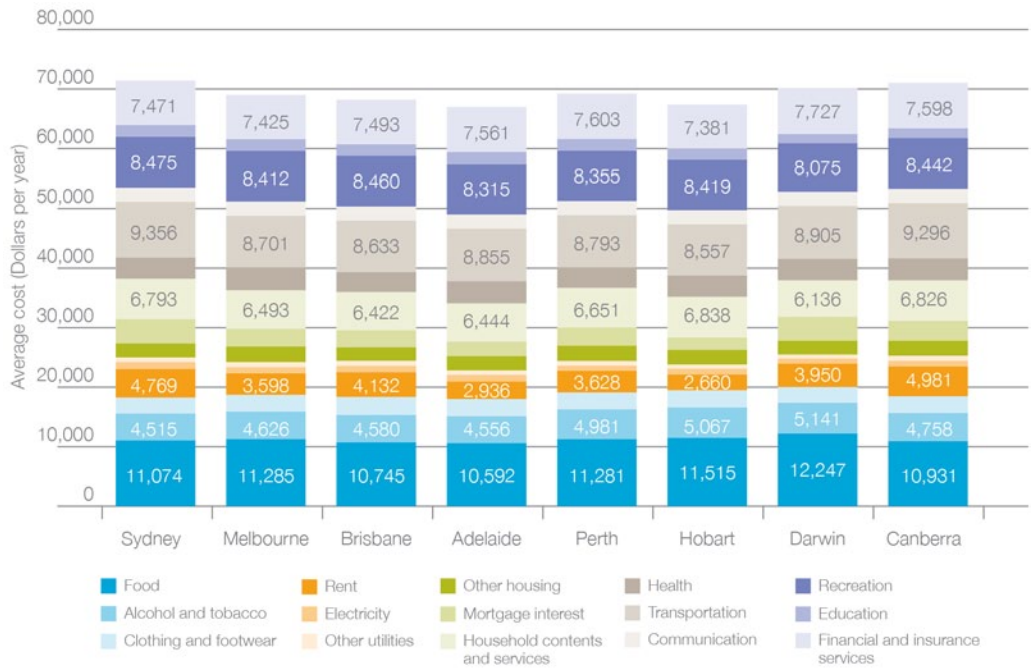
In the case of Australian cities in 2012, the main contributing factor for their increased cost of living has been the strength of the Australian currency to the US dollar which has stayed close to or above parity for the 12 months to March 2012. Nonetheless there have been a number of cost of living increases for different household expenditure items – in particular, housing and transport.

Cost of living in Australian capital cities

While Australian cities may be more expensive for international tourists or workers, the cost of living for Australian residents in Australia's capital cities has been relatively stable for over two decades according to the 2012 AMP NATSEM *Income and Wealth Report* (Phillips, Li and Taylor 2012).

As shown in Figure 5-29, Sydney is the most expensive city among Australian capitals, with the highest average costs for electricity, mortgage interest, transport and recreational activities. Canberra, the second most expensive city, has the highest costs for rent, utilities (other than electricity) and household contents and services. Food, alcohol and tobacco, and financial services and insurance are most expensive in Darwin, while Melbourne has the highest health costs and Perth has the highest education costs. Communication costs are highest in Canberra, Hobart and Darwin (Phillips, Li and Taylor 2012).

Figure 5-29 AMP NATSEM cost of living capital city comparisons 2011

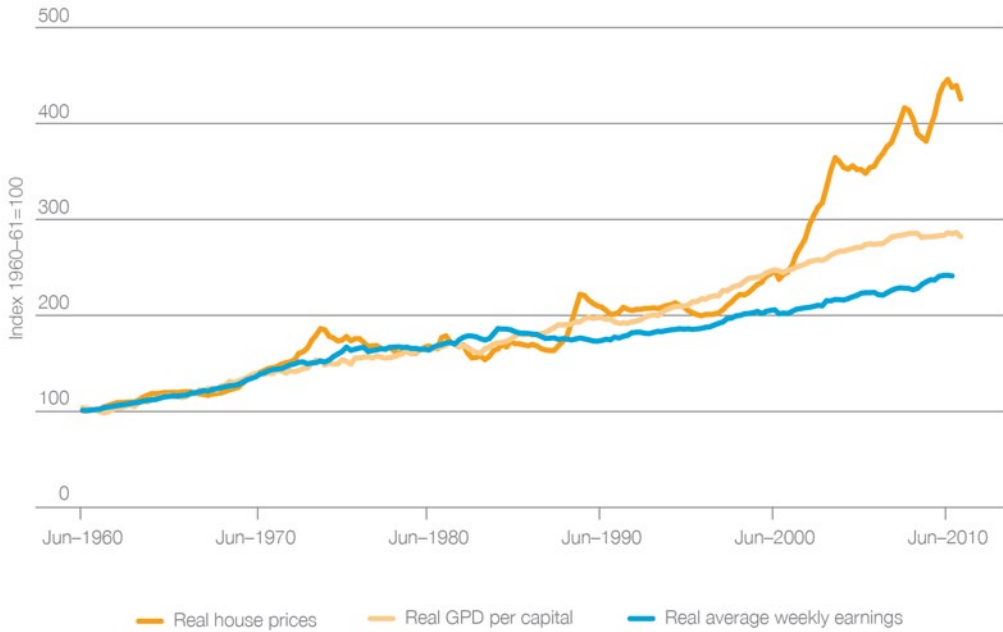


Source: Phillips, Li and Taylor 2012

Housing affordability

The concept of housing affordability does not have a universally agreed definition. For this report, the term ‘housing affordability’ aligns with the National Housing Supply Council definition. It is housing that is affordable for households on low to middle incomes, when housing costs are low enough to enable the household to meet other basic long-term living costs. For example, housing costs should be less than 30 per cent of household income for occupants in the bottom 40 per cent of household incomes (National Housing Supply Council 2011). Therefore ‘low income’ households will be defined as households in the lowest 40 per cent of incomes, and ‘housing stress’ will be used to describe households spending more than 30 per cent of household income on housing costs. It is important to note that some households, particularly those in higher income brackets, choose and can afford to spend more than 30 per cent of their income on housing (Productivity Commission 2011). This discussion on housing affordability complements the discussion on housing supply and costs in Chapter 2.

Figure 5-30 Real house prices, GDP per capita and average weekly earnings 1960–2011



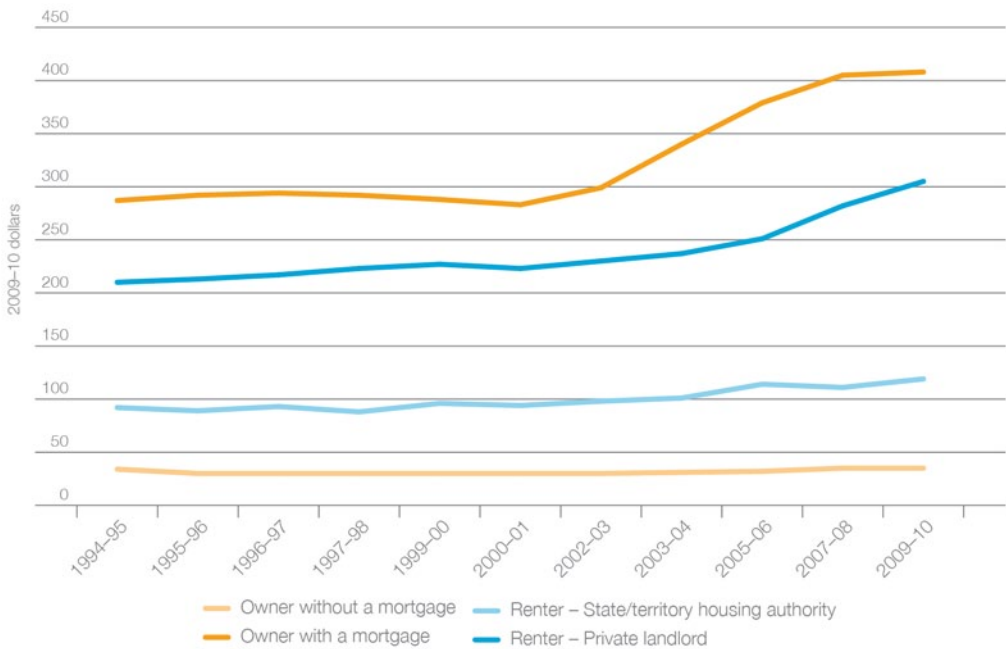
Source: Yates 2011

Real house prices in Australia have become significantly less affordable since 2000 (Figure 5-30). Compared to growth in both average weekly earnings and real GDP per capita, house prices have increased significantly since the turn of the millennium.

Housing and rental stress

Mean housing costs since 1994–95 have increased by around \$100 per week for both renters with private landlords and home owners with mortgages. In both cases, most of this increase has occurred since 2000–01, as shown in Figure 5-31. Activity in the housing market around this time may relate to changes to Capital Gains Tax in late 1999 and the introduction both of the GST on housing and the First Home Owners Scheme in mid-2000 (Australian Government 2008). Simultaneously, no significant change in costs has occurred for renters of government housing or outright home owners.

Figure 5-31 Mean housing costs per week



Source: ABS 2011b

The cost of housing and rent can severely affect low- and middle-income households. Where housing or rental costs are greater than 30 per cent of household income for low- and middle-income households, this creates what is referred to as ‘housing stress’ or ‘rental stress’.

Figure 5-31 illustrates that mean housing costs since 1994–95 to 2009–10 increased by around \$100 per week for both renters with private landlords and home owners with mortgages. In both cases, most of this increase occurred since 2000–01. No significant change in costs has occurred for renters of government housing or outright home owners during this time.

Figure 5-32 illustrates the distribution of housing costs by tenure type. In 2009–10, home owners without a mortgage largely incurred the lowest weekly housing costs, followed by renters of social housing. Renters with private landlords have a higher distribution of weekly housing costs, largely greater than \$150. Home owners with a mortgage appear to generally spend the highest dollar amount per week on housing, with almost 44 per cent spending \$400 or more at this time.

Figure 5-32 Distribution of weekly housing costs 2009–10



Source: ABS 2012e

Figure 5-33 Weekly housing costs as a proportion of gross income 2009–10

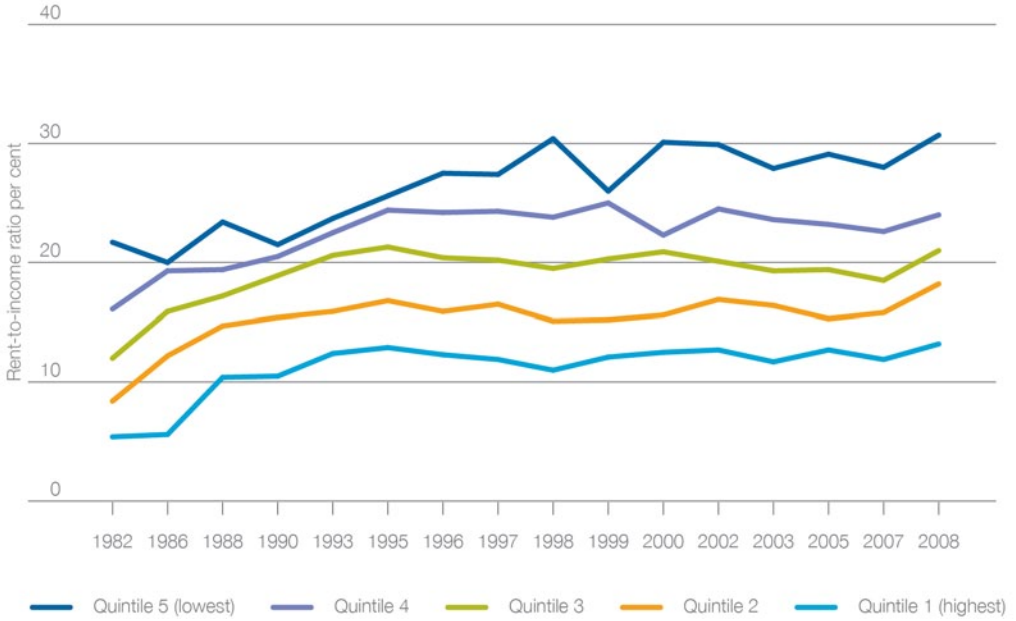


Source: ABS 2011b

Figure 5-33 illustrates that in 2009–10 outright home owners appeared understandably to not experience housing stress, with almost 98 per cent of outright home owners spending 25 per cent or less of their gross income on housing costs. The majority of home owners with a mortgage and renters of both private and government housing also spent less than this proportion of their incomes on weekly housing costs, so were unlikely to be experiencing housing stress. Around 10 per cent of households living in these three types of occupancy arrangements spent 25 to 30 per cent of their gross household income on housing, potentially placing them at risk of housing stress, especially if their household income fell within the lowest income brackets.

If housing stress is defined solely as spending more than 30 per cent of household income on housing costs then in 2009–10 housing stress was experienced by 16.1 per cent of home owners with mortgages, 10.2 per cent of renters of government housing and almost 20.7 per cent of private renters. A further 6.9 per cent of owners with mortgages, 2.7 per cent of renters of government housing and 10.2 per cent of private renters could be said to have been experiencing acute housing stress – that is, spending more than 50 per cent of their household income on housing costs.

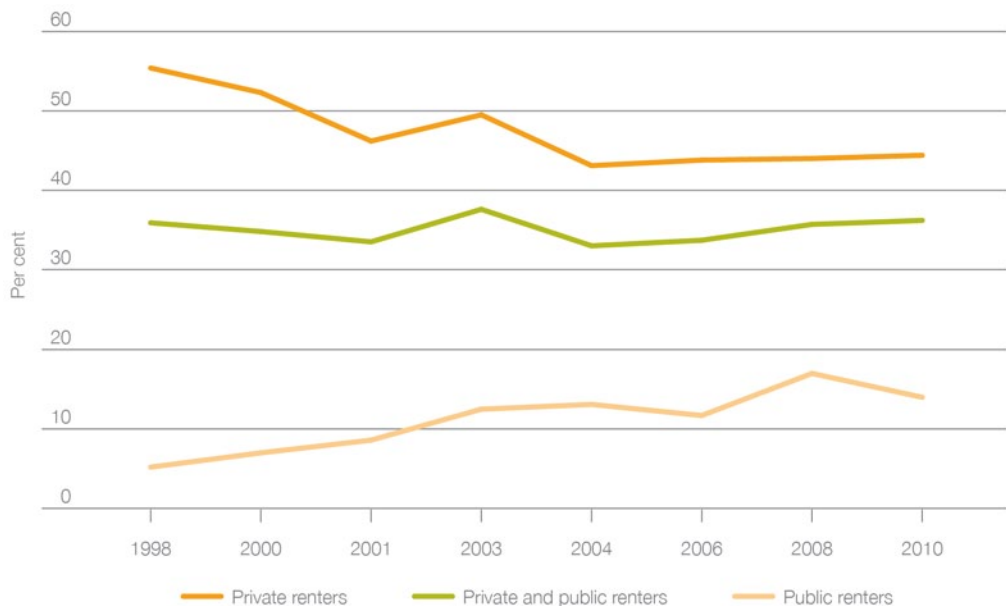
Figure 5-34 Rental affordability (rent to income ratio) by income quintile 1982–2011



Source: Richards 2012

Rental cost pressures, as measured by the ratio of rental costs to household income, increased over the period 1982 to 2000. Figure 5-34 shows that rental affordability appears to have been relatively stable in the decade since 2000. From 2002 to 2011, households in the lowest income bracket have been particularly at risk of housing stress because the rent to income ratio has remained at between 28 per cent and 31 per cent for that group.

Figure 5-35 Low-income private and public renters in rental stress(a)(b) – 1998–2010(c)



Note: (a) 2008 estimates are not directly comparable with previous cycles due to improvements in income collection.
 (b) Households with nil and negative income are excluded.
 (c) Year ending 30 June.

Source: ABS 2012a

Overall, housing has become less affordable over the past decade. While social housing costs per week have increased only slightly, a significant portion of social housing occupants appear to have recently been experiencing housing stress. The proportion of low-income households experiencing rental stress has also increased quite significantly in the past two decades (Figure 5-35). Significant increases in real house prices since 2000 appear related to notably increased costs for both home owners with mortgages and private renters.

Accessibility

Accessibility is used here to mean access to the resources and opportunities that support wellbeing and social inclusion – and thereby broader social and economic prosperity. Cities with good accessibility mean that the spatial distribution of social and economic opportunities and the transport systems that connect people to them, allow people to meet their needs within reasonable time and at a reasonable cost.

Transport networks and services are critical to accessibility. Information and communication technologies are also important, offering additional ways to reach services and make and maintain social connections.

Transport disadvantage affects the capacity of individuals to ‘traverse urban space to undertake employment and to obtain the various goods and services that contribute to social wellbeing’ (Dodson et al. 2006, p.2). The relative costs of travelling into and around our

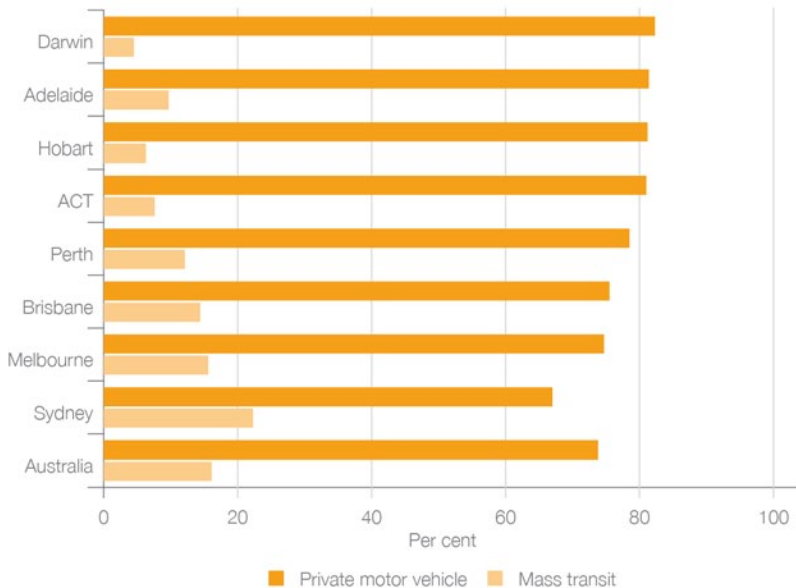
cities to reach essential services such as employment, education and health can influence choices regarding place of residence and place of employment.

Travel to work

Preliminary results for *Methods of Travel to Work* from the 2011 Census (second release) show that travel by private motor vehicle remains the dominant mode for travel to work in each capital city.

The proportion of people whose main mode of travel to work was private motor vehicle was highest in Darwin (82.3 per cent) and lowest in Sydney (67.0 per cent). Conversely, Sydney had the highest proportion of people travelling to work on mass transit systems (22.3 per cent), while Darwin had the least (4.5 per cent), as shown in Figure 5-36.

Figure 5-36 Main mode of travel to work in capital cities, 2011



Note: Employed persons aged 15 years and over who 'went to work' includes people who worked at home, but does not include employed persons who did not go to work.

Source: ABS 2012e

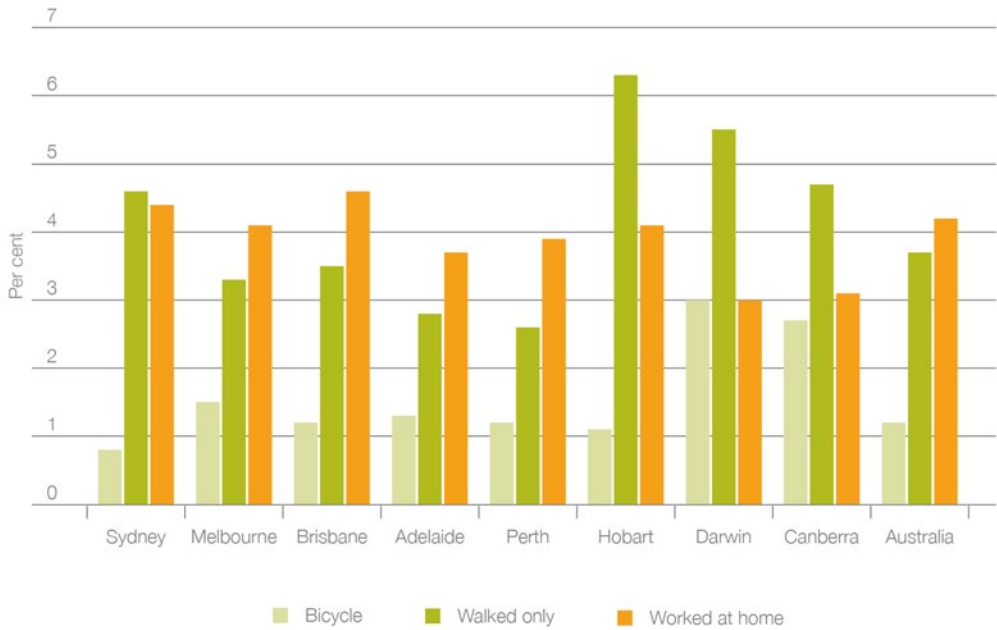
Only a small proportion of people in 2011 walked or cycled as their main mode of travel to work or worked at home.

As Figure 5-37 shows, Hobart had the highest proportion of people who walked (6.3 per cent), while Perth had the lowest (2.6 per cent).

Cycling was the main mode of travel to work for three per cent of people in Darwin, and 2.7 per cent of people in the Australian Capital Territory. Of the larger capital cities, Melbourne had a significantly higher number of people for whom cycling was the main mode of travel to work (1.5 per cent) than Sydney (0.8 per cent).

Across Australia, just over four per cent of people worked at home. This is reflected in the data for capital cities, with slightly higher proportions of people working at home in Brisbane (4.6 per cent) and Sydney (4.4 per cent), and lower proportions in the Australian Capital Territory (3.1 per cent) and Darwin (three per cent).

Figure 5-37 Selected non-motorised modes of travel to work in capital cities



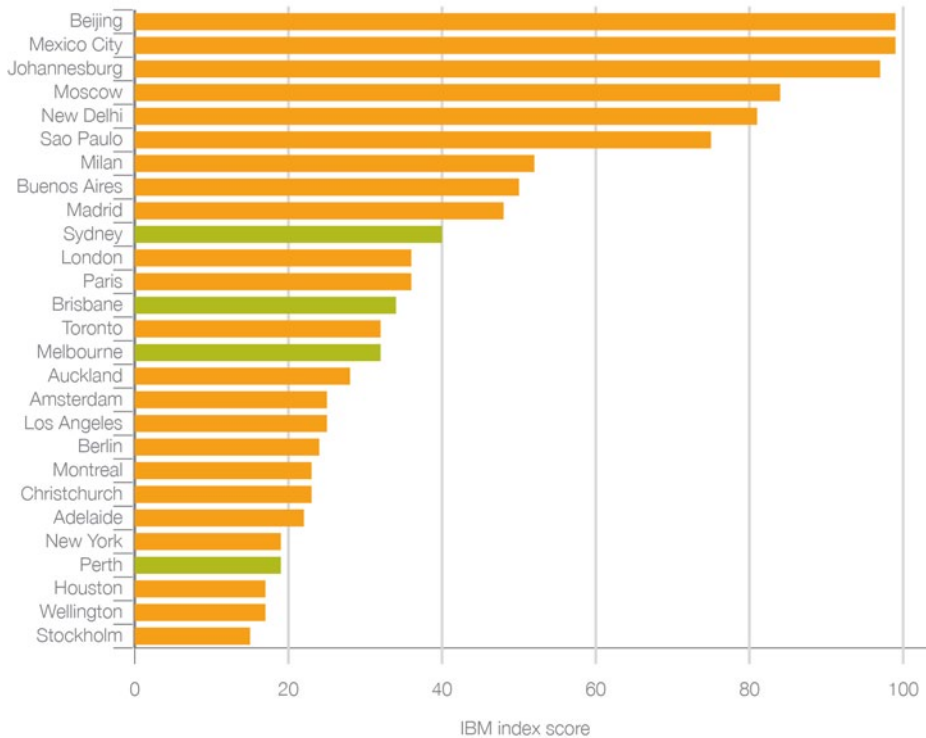
Note: Employed persons aged 15 years and over who ‘went to work’ includes people who worked at home, but does not include employed persons who did not go to work.

Source: ABS 2012e

Even for short distances, the dominant mode of travel is private motor vehicle. The Australian Government’s *Walking, Riding and Access to Public Transport draft report for discussion* (Department of Infrastructure and Transport 2012) shows that of commuters travelling less than five kilometres to work or study, nearly 70 per cent travel by car. This represents nearly 14 per cent of all trips to work. The report explores how governments, businesses and the community can work together to encourage walking and cycling as part of an effective transport system in Australia, as a more sustainable, time efficient and cost effective alternative transport mode option for many short trips.

Australian cities are not unique for high levels of dependence on private motor vehicles. The recent *IBM Australian Commuter Pain Survey, 2011* gauges commuters’ perceptions of the impacts of traffic and related issues. Figure 5-38 shows how commuters in five Australian cities rated those cities for commuter pain. The Australian cities occupy rankings between the middle and lower end of the 27 cities included in the survey.

Figure 5-38 IBM Australian Commuter Pain Survey, 2011



Source: IBM Australia 2011

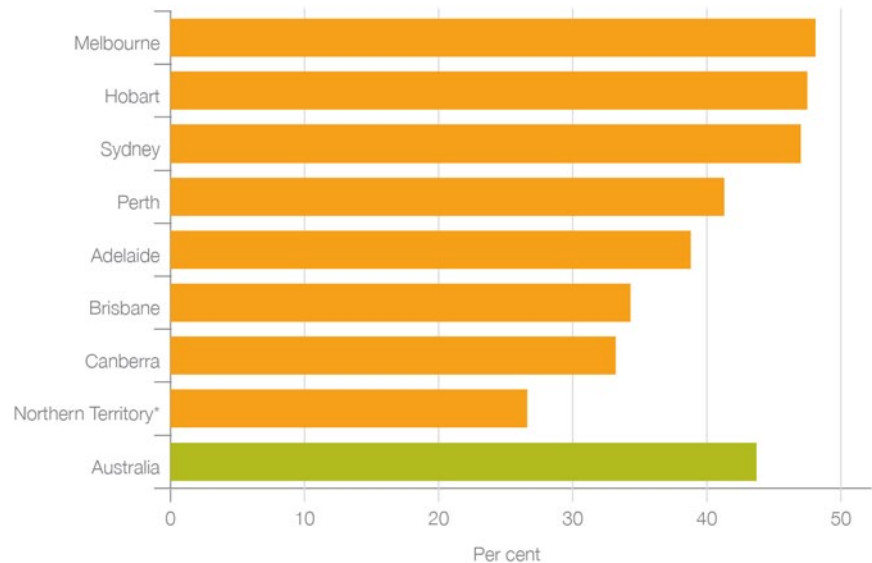
Active travel

Commuter travel represents only one of many travel purposes in cities. In Sydney, for example, commuting accounts for between 15 per cent and 16 per cent of all trips annually (BTS 2012). The average trip distance for commuting in Sydney was 14.4 kilometres in 2010–11. This is around twice as far as trip distances for other purposes such as social and recreational (7.8 kilometres), education and childcare (7.3 kilometres), personal business (6.7 kilometres) and shopping (5.2 kilometres).

Compared to commuting, a greater proportion of trips for these other purposes are made using 'active travel' modes – walking, cycling or public transport. More than a quarter of education and childcare trips (26 per cent) were made using public transport, while walking accounted between one-fifth and one-third of all trips in Sydney in 2010–11 for personal business (21 per cent), shopping (28 per cent) and social or recreational travel (29 per cent) (BTS 2012).

Overall, more than four out of 10 (43.7 per cent) Australian adults who live in a capital city walk for day-to-day trips other than to work or study, but this varies considerably by location (Figure 5-39). Nearly half of Melbourne residents walk regularly for non-commuting purposes, compared to approximately one third of Brisbane residents (ABS 2012d). In Victoria, nine per cent of all trips in the metropolitan area are by public transport and 14.7 per cent are by bicycle or on foot (Department of Transport, Victoria, 2007). Up to 46.1 per cent of trips in the City of Melbourne are by bicycle or on foot, and a further 17 per cent are by public transport. In the City of Sydney, walking accounts for 93 per cent of all internal trips – around 1.2 million trips a day (Transport for NSW 2012).

Figure 5-39 Adults who regularly walk for day-to-day trips, other than to work or full-time study, by capital city



Source: Australian Bicycle Council 2012

Use of different transport modes also varies across age groups. Across the whole of metropolitan Sydney in 2010–11, people aged 70 and over have the highest proportion of walking-only trips (26 per cent) followed by 21–30 and 61–70 year olds (20 per cent for each). The 11–20 year old age group has the highest overall proportion of public transport trips (24 per cent), while the youngest age group (0–10) has the lowest (five per cent) (BTS 2012). Combining walking and public transport the 11–20 year old age group are the most active travellers, with 45 per cent of their trips made using active transport modes (BTS 2012).

Recognising the substantial role of active transport for accessibility, the *Draft Report on Walking, Riding and Access to Public Transport* is seeking public comment prior to the preparation of an Active Travel policy (Department of Infrastructure and Transport 2012). The draft report explores how a national approach might encourage walking and riding as a bigger part of the transport system in Australia’s cities and towns.

The report refers to active travel or active transport where human-powered mobility – such as walking or riding – is used for all or part of a transport journey. A public transport journey (by bus, train, ferry, or tram) is usually accompanied by a walk or ride to the transport stop or station.

All state and territory governments, and many local governments, have policies and programs in place to increase mode share of walking and riding. In addition, the *National Cycling Strategy 2011–16* which has been endorsed by all states and territories as well as the Australian Government, aims to double the participation rate in cycling between 2011 and 2016.

Local government investment in cycling infrastructure

Local governments are largely responsible for building and maintaining local networks in Australia – more than 657,000 kilometres of roadways in total – in addition to off-road walking and cycling routes through parklands and along waterways.

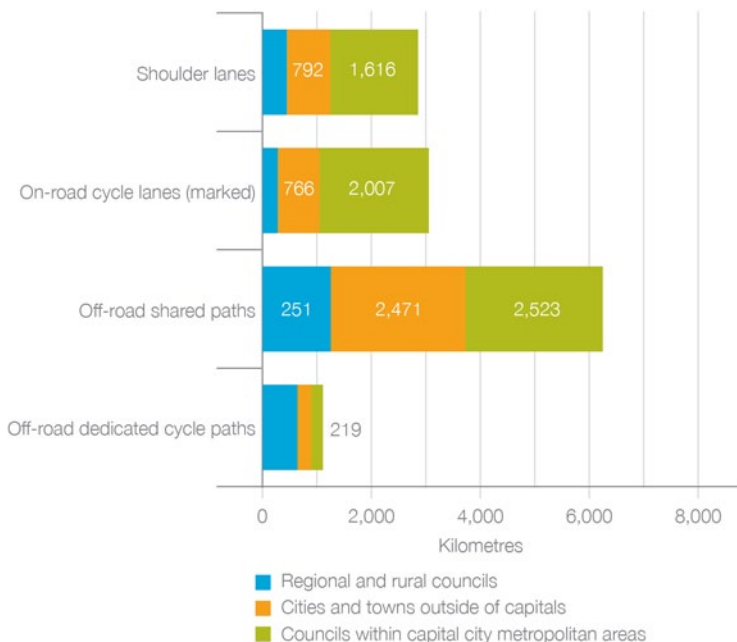
In mid-2011, local governments around Australia participated in a survey commissioned by the Australian Bicycle Council and the Australian Local Government Association, as a follow-up to a similar survey in 2007. Approximately 55 per cent of all local governments in Australia (305 councils) responded to the *Local Government Bicycle Account 2011* survey (Australian Bicycle Council 2012).

Of the councils that took part, more than two-thirds said they either have a bicycle strategy or are working towards one. The survey investigated the topics covered by council bicycle strategies (96 per cent included infrastructure and 75 per cent included bicycle signage), the start and end date of their bicycle strategies, and the extent to which they integrated with other council strategies and plans.

The survey found that 11,704 kilometres of cycling infrastructure had been built by local governments by June 2010. More than half (53 per cent) of the infrastructure was off-road shared paths. Urban-based councils had significantly more cycling infrastructure than non-urban councils.

Responding councils each had an average of 44 kilometres of on-road and 38 kilometres of off-road infrastructure – a significant increase from 2007 when responding councils had an average of 21 kilometres of on-road and 30 kilometres of off-road infrastructure (Figure 5-40).

Figure 5-40 Length of existing local bicycle network, June 2010



Source: Australian Bicycle Council 2012



Bicycle way-finding, Albury-Wodonga.

Image courtesy of Ben Cebuliak

as private philanthropists and community organisations. One such project is the River Cities Renewal Project in Parramatta.

Councils anticipate that, when their planned networks are complete, there will be 9,675 kilometres of off-road and 8,167 kilometres of on-road cycle paths – a total of 17,842 kilometres. This will represent a 52 per cent growth in their networks from 2010 figures.

The total expenditure on bicycle-related resources by responding councils in the 2009–10 financial year was \$72.9 million (\$46.6 million in capital cities, \$18.4 million in non-capital cities and \$7.9 million in rural and regional council areas). The average spend per council increased from \$194,000 in 2007 to \$239,000 in 2010.

The majority of the councils (71 per cent) reported receiving external funding, totalling \$54.7 million in the financial year. Of this, 48 per cent was funded by state governments to 140 recipients, an equal amount of 48 per cent was funded by the Australian Government and four per cent was donated to 17 councils from other organisations such

Cairns.

Image courtesy of Sara Stace



River Cities Renewal Project, Parramatta

A joint project between the Australian and New South Wales governments and Parramatta City Council will form part of a continuous off-road shared path along the northern foreshore of the Parramatta River.



Image courtesy of Parramatta City Council

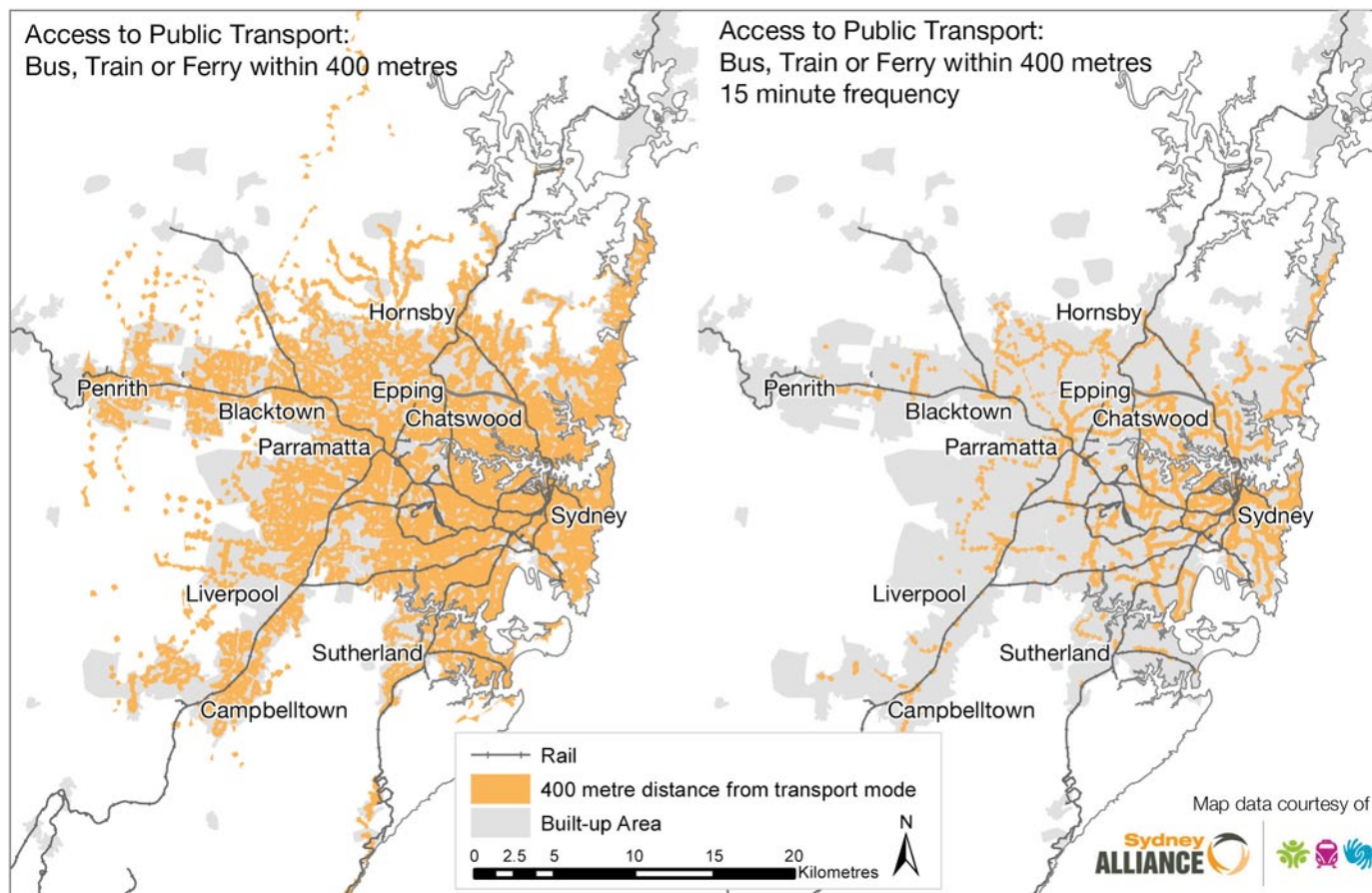
The River Cities Renewal Project, made possible through the Australian Government's Liveable Cities Program, will complete three missing links of the Parramatta Valley Cycleway providing a healthier, more sustainable commute between Westmead, Parramatta, Sydney Olympic Park and Meadowbank. The Parramatta Valley Cycleway is already the busiest shared route for commuters and recreational users in western Sydney.

This project, due to be completed by 2016, will provide a continuous east–west active travel link between the University of Western Sydney Parramatta campus, current and future riverside medium-density housing developments and employment and public transport destinations in Parramatta's city centre.

Access to public transport

The distribution of transport infrastructure and public transport services varies between and within cities. While most areas of the larger cities have coverage by public transport, when measured in terms of frequency of services, many areas lack accessibility. In Sydney, for example, mapping of the public transport network for the Sydney Alliance (Troy and Iveson 2012) shows that access to public transport within 400 metres of transport modes is very high with coverage over most of the city. However, when only those public transport stops that have a service frequency of every 15 minutes or less were selected, access to public transport services in Sydney appears less accessible in many areas beyond a 10 kilometre radius of the Sydney CBD (Figure 5-41).

Figure 5-41 Proximity to public transport (bus train and ferry) stops in Sydney, 2012



Source: Maps courtesy of Troy and Iveson 2012 and Sydney Alliance 2012 based on data provided by the NSW Government's Transport Data Exchange Program.

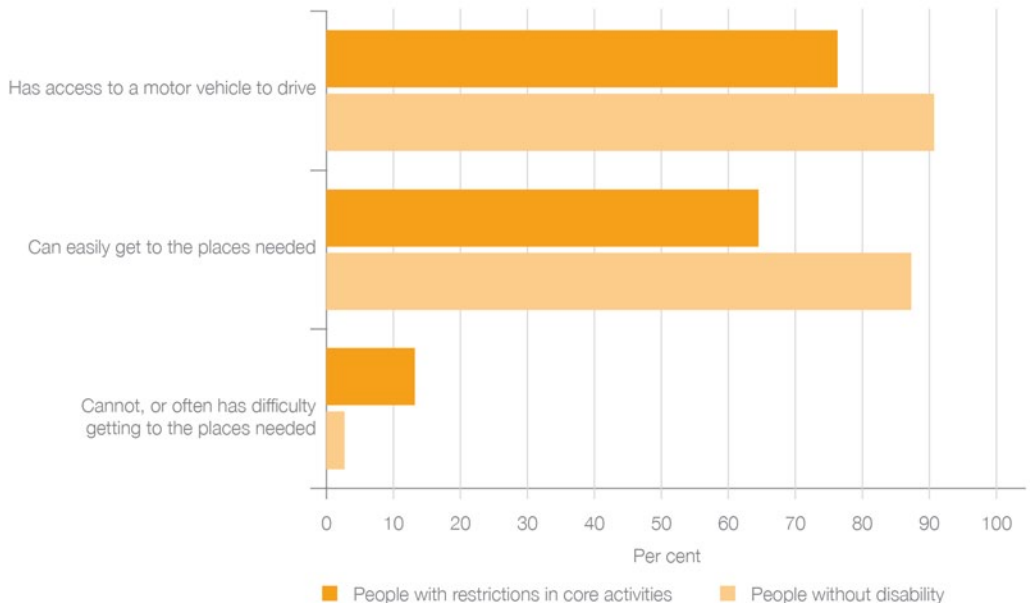
Accessible transport

Better access to transport is vital in enabling people with disability, their families and their carers to overcome social exclusion and participate wholly in community life (Currie and Allen 2007). Figure 5-42 shows that people with restrictions in core activities have less access to available transport options and experience more difficulty getting around than people without disability. People with restrictions in core activities are nearly five times as likely to be unable to travel or have difficulty travelling.

Recognising that people with disability are more likely to experience poor health, lower levels of participation in education, social exclusion, lack of access to goods, services and facilities and ongoing discrimination (Council of Australian Governments 2011), the *National Disability Strategy 2010–2020* (p. 3) identifies ‘inclusive and accessible communities’ that include a ‘public, private and community transport system that is accessible for the whole community’ and the implementation of a ‘continuous accessible path of travel for people with disability’ as areas for future action.

Measures have been taken to reduce barriers for people with disability, such as the adoption of the *Disability Standards for Accessible Public Transport (Transport Standards) 2002*. The Transport Standards specify minimum public transport accessibility levels under the *Disability Discrimination Act 1992*, and set a timetable for compliance. However, a 2011 independent review of the Transport Standards has found that efforts to remove discrimination in transport accessibility have been uneven between urban and rural regions and different modes of public transport, including a lack of ‘whole of journey’ accessibility and a lack of confidence in the reliability of services that offer accessibility (The Allen Consulting Group 2009).

Figure 5-42 Difficulty accessing transport, by disability status among people aged 18–64 years living in private dwellings, Australia, 2010



Source: Australian Government 2011b

Use of motorised mobility aids

The Australian Competition and Consumer Commission (ACCC) and NRMA Motoring & Services are highlighting the need for more education on integrating mobility scooters into local communities. Survey results show scooter use is widespread across all age groups and people are using scooters to fill a variety of needs. The research survey conducted by the ACCC, CHOICE, EnableNSW, Flinders University, the NRMA and other mobility experts found that around 230,000 Australians use scooters, with more than half under the age of 60. The survey was a first of its kind in Australia and was funded by the NRMA to find out more about how mobility scooters were being used in local communities.

Internet access and use

Enhancements in information technology and connectivity including the rollout of the National Broadband Network (NBN) are enabling individuals to interact more easily from their own home or other places through telecommuting and home-based work. This technology holds the potential for improved quality of life while reducing the need for motorised travel.

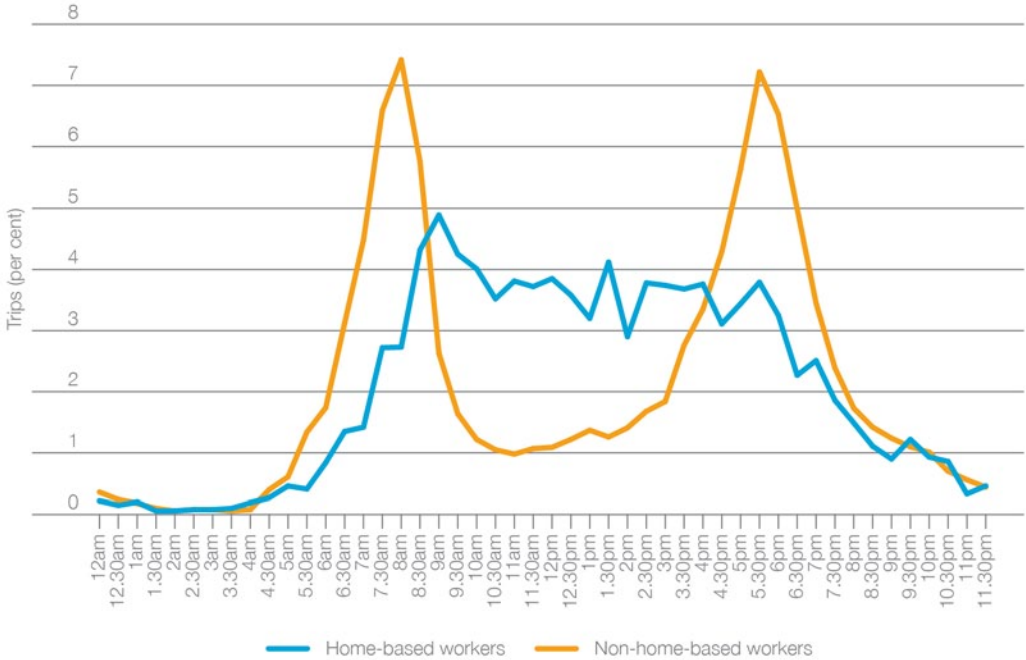
Telecommuting and home-based work

Telecommuting – regularly or occasionally working from home or other places rather than a usual job location elsewhere – is growing in Australia. In Sydney research indicates that the proportion of workers who work from home on some days has nearly doubled from 3.8 per cent in 2001 to 7.5 per cent or 172,000 workers in 2009 (Corpuz 2011). Nationally approximately six per cent of the workforce telecommutes and the Australian Government has set a goal of at least doubling that rate by 2020 as part of its National Digital Economy Strategy (Department of Broadband, Communications and the Digital Economy 2011, p. 40). An IBM Australia study suggests that as much as a quarter of the Australian workforce – five million people – may be working at least partially from home by 2050 (IBM Australia 2012).

Home-based workers include those running businesses from their own home – they are distinguished from telecommuters by the absence of a usual job location elsewhere. Their home is their main place of work. In Sydney there are approximately 175,000 home-based workers. Unlike telecommuting, the proportion of home-based workers has remained relatively constant over the past decade (Shaz and Corpuz 2012).

Encouraging telecommuting and home-based work offers a relatively easy and low-cost option for reducing trips during peak periods, thereby easing congestion and associated environmental impacts in urban areas. It also offers flexibility and travel time savings, thereby contributing to wellbeing and liveability. An Australian Government study has estimated that the value of 10 per cent of workers telecommuting half of the time would be between \$1.4 billion and 1.9 billion annually (Australian Government 2010), including travel time and cost savings for employees, reduced emissions and congestion as a result of fewer trips during peak periods, reduced office space and utilities costs for employers, increased labour force participation and improved workforce retention.

Figure 5-43 Departure time period by work type, Sydney, 2010



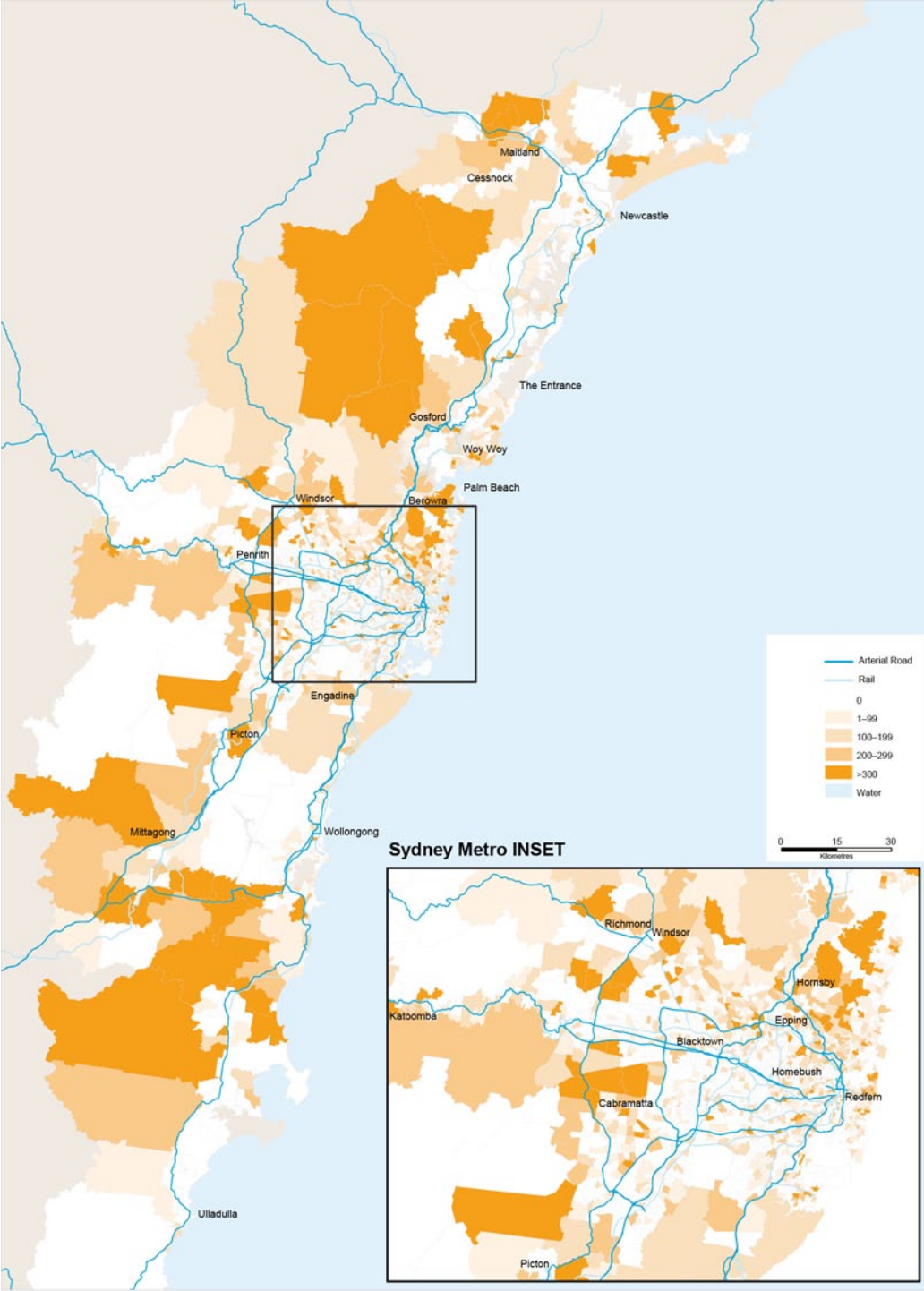
Source: Shaz and Corpuz 2012

Analysis of the travel behaviour of home-based workers in Sydney by the NSW Bureau of Transport Statistics (Shaz and Corpuz 2012), depicted in Figure 5-43, found that, while home-based workers make fewer trips during peak periods and fewer public transport trips than regular commuters, they also make more trips during the inter-peak period. In Sydney, home-based workers make an equal number of total car trips and travel the same vehicle kilometres as those who travel from home to a workplace elsewhere (Shaz and Corpuz 2012). In other words, increases in home-based work and telecommuting do not necessarily lead to reductions in overall vehicle kilometres travelled on urban roads. Instead, they simply transfer travel from peak periods to non-peak periods which itself is good for reducing the peak pressures on urban transport networks.

Figure 5-44 shows the geographical distribution of home-based workers in the Greater Sydney region (Shaz and Corpuz 2012). Within the Sydney metropolitan area, higher numbers of home-based workers are found primarily in transport-poor travel zones in outer areas. Most telecommuters (Corpuz 2011) and approximately two in five home-based workers (Shaz and Corpuz 2012) are in professional occupations such as management, property and administration.

Connection to the NBN can also present an opportunity for regional and remote communities to overcome the 'tyranny of distance ... [and] ... reinvigorate regional centres' (IBM Australia 2012, p. 23). It can help individuals seek employment remotely, businesses to reach a wider pool of skilled workers and enhance the provision of health and aged care services in regional and remote communities (Department of Broadband, Communications and the Digital Economy 2010). As part of its efforts to encourage telecommuting in Australian communities, the Australian Government held the first National Telework Week in November 2012.

Figure 5-44 Distribution of home-based workers, Greater Sydney, 2010



Source: Shaz and Corpuz 2012

Amenity

Amenity encompasses many features of cities that relate to how they are experienced and how they look and feel. As explained in the Australian Government's *Urban Design Protocol*, featured later in this chapter, the quality of neighbourhoods, towns and cities affects daily life, health and wellbeing. Quality urban design contributes to the economy, can help conserve and protect natural, Indigenous and built heritage, and contributes to the liveability of cities overall. It attracts people to visit, live and work in a location and can have a positive influence on physical and mental health by providing opportunities for better lifestyles and community interaction (Australian Government, 2011). Good quality urban design and open space are important to households living in both higher and lower density areas of cities. As the trend towards higher density development continues, the level of amenity will be of increasing importance.

Urban design, residential density and public health

There is a growing body of evidence about the relationship between urban design, quality open space and the physical and mental health of the population. A recent review commissioned by the National Heart Foundation of Australia (Giles-Corti, Ryan and Forster 2012) considered the impact of urban density on a range of health outcomes including physical activity, cardiovascular and cancer mortality, road traffic mortality, respiratory health and mental health. It found evidence confirming the association between higher residential density and associated mixed land uses with easy access to public transport, shops and services and increased walking for transport purposes. However, it also found that there were some higher health risk factors with higher-density living, such as respiratory illnesses and mental health problems. This was attributed to continual exposure to noise, pollutants and crowding. It suggested that health risks of higher-density cities could be reduced through: good urban design, locating buildings and balconies away from busy roads and high-quality construction that limits noise transfer and maximises natural daylight and ventilation (Giles-Corti, Ryan and Forster 2012, pp 7–9).

The review found that public open space – parks, playgrounds and open space – and neighbourhood attractiveness is considered more important by people living in higher-density housing compared with other dwelling types because it substitutes for the lack of private outdoor space.

The positive health benefits of attractive neighbourhoods and public open space were attributed to a number of factors: increased levels of walking and physical activity, reduced mental fatigue and stress, social engagement and the development of social networks (Giles-Corti, Ryan and Forster 2012, p13).

The review highlighted that the needs of children and the elderly deserve special attention. For children, 'density (and, more broadly, living conditions) may affect child development, mental health and physical health, restricting their physical activity, independent mobility and active play', for older adults, 'mobility, perceived and actual safety, and opportunities for socialisation are key factors to consider' (Giles-Corti, Ryan and Forster 2012, p. 15). The report suggested medium to high density, in lower-rise development of three to five storeys, would appear to be optimal for families and older adults.

OECD Compact Cities Policies

With a global population that is becoming increasingly urbanised, the Organisation for Economic Cooperation and Development (OECD) has been undertaking a number of projects in recent years to improve understanding of the role that cities can play in delivering policy responses to economic, environmental and social challenges.

Compact City Policies is one such project and was carried out between 2009 and 2011. The OECD defines a 'compact city' as a spatial form characterised by dense and proximate development patterns, urban areas linked by public transport systems, and accessibility to local services and jobs. The Compact City Policies project undertook a comparative assessment of the compact city experience across OECD member countries, using in-depth case studies of Melbourne (Australia), Vancouver (Canada), Paris (France), Toyama (Japan) and Portland (USA) to provide insights, highlight governance challenges and develop recommendations for effective compact city policies.

The report of the project *Compact City Policies: A Comparative Assessment* (OECD 2011) found that while this concept continues to generate concern – particularly relating to potential adverse impacts of higher densities – compact cities can deliver economic, environmental and social benefits by reducing car dependency and increasing the efficiency of infrastructure investment, protecting farmland and natural environments adjacent to urban areas, and giving communities better access to jobs and services.

The report found that a direct campaign by the City of Melbourne since 1985 effectively helped to create a vibrant, compact inner city. The residential stock in the City of Melbourne had increased from 800 to over 20,000 units in the central city by 2002, the number of bars, cafes and restaurants had more than doubled and vacancy rates in commercial buildings had halved.

In this report the OECD proposed a set of internationally comparable indicators to enable governments to monitor and evaluate the environmental, social and economic impact of compact city policies, and benchmark progress and establish future goals for compactness.

While recognising that each city faces different local circumstances, the report proposes a framework of key strategies for successful compact cities that recommends governments:

1. set a compact city vision with explicit goals
2. encourage dense development, particularly in greenfield areas where the urban structure can be influenced more quickly
3. retrofit existing built-up areas to accommodate more activities
4. enhance diversity and quality of life by creating lively and attractive urban centres
5. minimise potential adverse effects of compact cities – for example, by reducing traffic congestion, increasing supply of affordable housing and focussing on high-quality urban design.

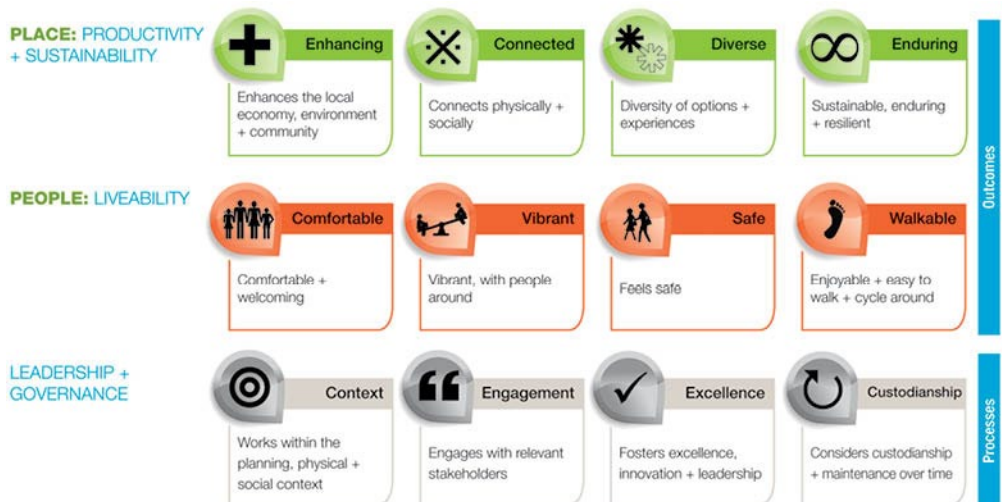
Population density maps of the major cities are shown in Appendix A of this report. They reveal how the larger cities of Sydney, Brisbane and Melbourne have higher densities concentrated in more than one locality, especially in Sydney.

Creating Places for People – an urban design protocol for Australian cities



Creating Places for People – an urban design protocol for Australian cities is a web-based tool (www.urbandesign.gov.au) that establishes 12 broadly agreed principles for quality urban places in the Australian context. It is intended that these principles be applied to any project or location – whether in a large capital city, regional centre or rural town. The aim is ‘to create productive, sustainable and liveable places for people through leadership and the integration of design excellence’. It recognises that urban design is both

a process and an outcome, with four principles about the processes used to create and maintain urban design projects and places; and eight principles about the characteristics or outcomes that urban design is aiming to achieve.



Creating Places for People is championed by over 40 organisations, including several Australian government agencies, state and territory governments, the Australian Local Government Association, the Council of Capital City Lord Mayors, the National Growth Areas Alliance, a number of local governments, the Planning Institute of Australia, the Australian Institute of Architects, the Australian Institute of Landscape Architects, the Green Building Council of Australia, the Australian Green Infrastructure Council, the Property Council of Australia, Consult Australia, the National Heart Foundation, the Water Services Association and a range of academic institutions and private organisations.

The principles of the protocol have been adopted into the Australian Green Infrastructure Council's Infrastructure Sustainability rating tool and the Green Building Council of Australia's Green Star – Communities rating tool. A number of state and local governments have also started to incorporate the protocol into their practices, guidelines and planning instruments. For more information see www.urbandesign.gov.au

Quality public space, recreational and cultural facilities

The quality of public spaces and cultural facilities contributes to the amenity experienced in cities. The aesthetic and cultural qualities of cities are difficult to measure because they are unique to each city, but they can show how attractive city spaces and facilities are to residents and visitors alike.

For example, international travel guide company Lonely Planet publishes an annual Best in Travel book, which promotes the top 10 destinations for travellers and tourists. In the top 10 cities featured in its *Best in Travel 2013* book, Hobart has been ranked seventh. The book describes Hobart as ‘a historic city reinventing itself’, shaking off its ‘sleepy reputation’. Noting that ‘Hobart’s allure has always been its natural beauty’, the book states that ‘the recent arrival of the world-class Museum of Old and New Art (MONA) has the waters rippling, hip tourists flocking and Hobart rousing from its slumber’ (Martin 2012).

Table 5-1 Lonely Planet’s Top 10 cities – Best in Travel 2012 and 2013

2012	2013
1. London, United Kingdom	1. San Francisco, USA
2. Muscat, Oman	2. Amsterdam, Netherlands
3. Bengaluru (Bangalore), India	3. Hyderabad, India
4. Cádiz, Spain	4. Derry/Londonderry, Northern Ireland
5. Stockholm, Sweden	5. Beijing, China
6. Guimarães, Portugal	6. Christchurch, New Zealand
7. Santiago, Chile	7. Hobart, Australia
8. Hong Kong	8. Montreal, Canada
9. Orlando, USA	9. Addis Ababa, Ethiopia
10. Darwin, Australia	10. Puerto Iguazaacú, Argentina

In a very different way, Darwin was rated 10th in the top 10 cities for 2012 based on qualities of urban design in the redeveloping Waterfront Precinct, with its wave pool, bars and wharf eateries, but also because of the intrinsic qualities of the Indigenous and culturally diverse communities (Lonely Planet 2012).

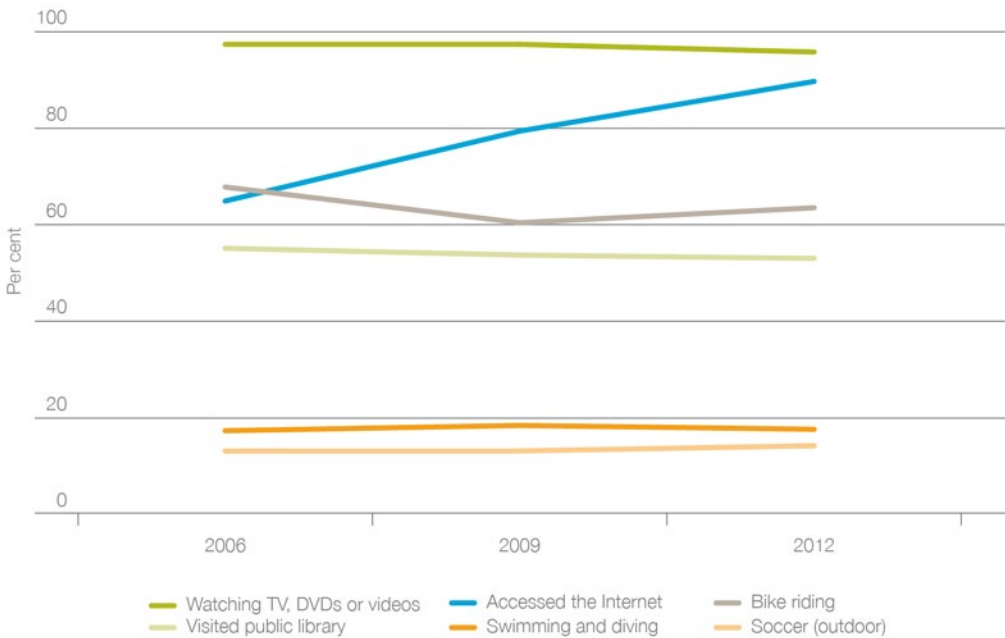
Community wellbeing

One of the important connections between the amenity of places and community wellbeing is the quality of facilities for sporting, cultural and leisure activities. These include sporting facilities, public libraries, performance spaces and meeting facilities.

Participation in sporting, cultural and leisure activities

A gauge of the social change that has been occurring among populations can be seen in activities of children and young people. Figure 5-45 shows the rapid uptake of internet use, while outdoor activities like swimming and soccer remain steady over the period 2006 to 2012. Notably bike riding for recreational activity is the most popular outdoor activity for children aged five to 14 years, with more than 60 per cent of children bike riding for leisure.

Figure 5-45 Children aged five to 14 years participation in sporting, cultural and leisure activities, 2006, 2009, 2012



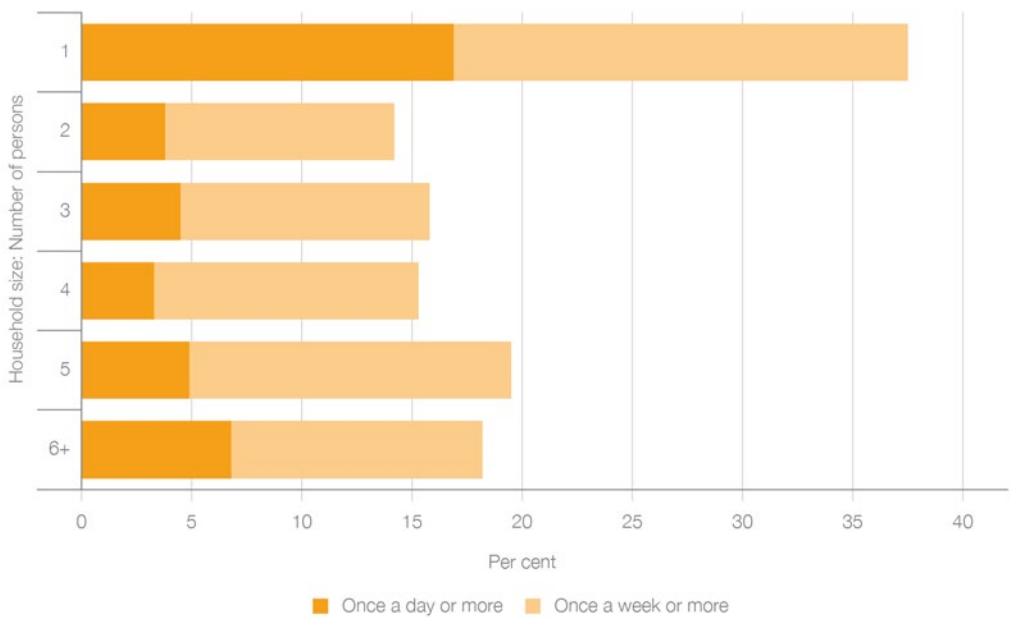
Source: ABS 2012c

Social capital

Organised sporting and cultural activities are one way of building trust within communities. Many other opportunities exist for incidental social interaction in streets, neighbourhoods and public spaces that can add to the social capital within communities. Social capital is often defined as being a resource available to individuals and communities founded on networks of mutual support, reciprocity and trust. The recent Grattan Institute report *Social Cities* (Kelly et al. 2012a) discusses how urban environments can help or hinder people to make and maintain ‘meaningful, positive social interactions’ with others. Social connection is central to concepts of wellbeing, happiness and quality of life. Its absence – loneliness – is associated with poor physical and mental health. Having and maintaining good social relationships with friends and family is usually more important to people than increased income. Supportive social connections with neighbours and other people can make communities more dynamic and resilient.

Some groups are likely to have fewer social connections including one-person households, sole parents and older people (Figure 5-46). With the number and proportion of one-person households growing most rapidly, the report argues that there is a need to understand better how cities can enable or inhibit social connection.

Figure 5-46 Frequency of loneliness by household size, 2009



Source: Kelly et al. 2012a

The report argues, in broad terms, that cities that are compact and well-designed with quality spaces for leisure and recreation – like parks, libraries, shops and meeting places – and that are well connected to transport and services can help people better maintain their social connections. Organised community events and activities – like community gardens, free public entertainment and cultural initiatives such as reading groups at public libraries, can all help people be better connected. In Cairns for example, a Regional Council initiative, the ‘Active Living’ program provides free daily exercise classes in the park.

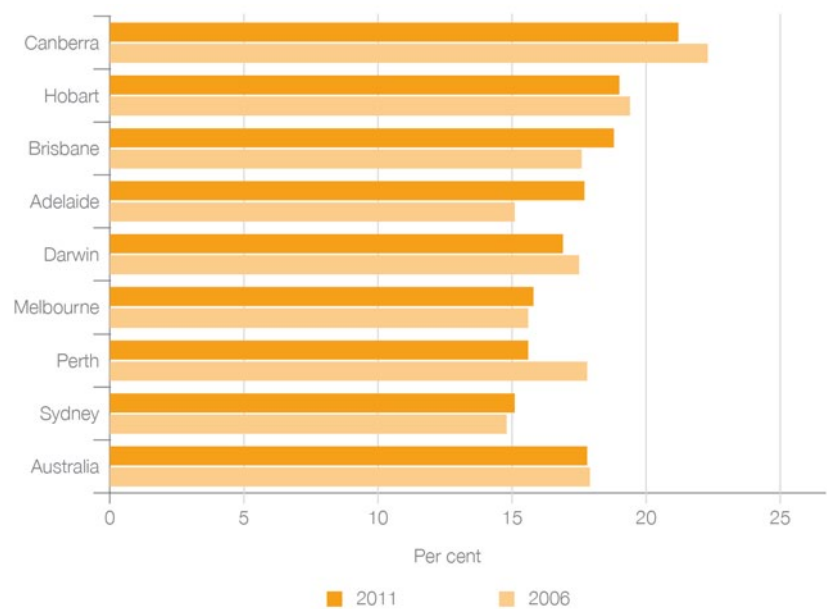
Active Living program Free Exercise in the park, Cairns, Queensland.
Photo courtesy of Sara Stace



Volunteering

An important measure of social capital within communities is the proportion of the population that does voluntary work for community organisations or groups. In *State of Australian Cities 2011*, volunteer rates for capital cities were reported from the 2006 Census, which showed Canberra as the capital city with the highest rates of volunteering (Kelly et al. 2012a). The 2011 Census shows that Canberra remains the highest volunteering capital city of Australia as illustrated in Figure 5-47.

Figure 5-47 Volunteers aged 15 years and over as a proportion of the total population in capital cities, 2006 and 2011



Source: ABS 2012e



Willing helpers, Hobart, Tasmania Australia.
Photo courtesy of Hobart City Council

Volunteering for the ‘not-for-profit sector’

Australia’s not-for-profit sector is large and diverse and plays an important role in building productive and inclusive communities. It helps to enrich communities culturally, socially, economically and environmentally and most importantly provides support to the most vulnerable and disadvantaged groups in communities. In this way the not-for-profit sector contributes to wellbeing, social inclusion and employment.

A study of the contribution of the not-for-profit sector by the Productivity Commission (2010) found that there are an estimated 600,000 entities in the sector which contribute around \$43 billion to the economy of Australia, making it larger than the communications industry, agriculture or tourism. The majority of these are small, unincorporated neighbourhood groups or associations. These entities provide around eight per cent of employment in Australia (around 900,000 people) and make up over four per cent of GDP. Additionally, over 6 million Australians volunteer for these organisations each year.

In recognition of the work of the not-for-profit sector, the Australian Government has developed a National Compact – *Working together* – which sets out a shared vision on how the Australian Government and the sector will work together based on mutual respect and trust. The Compact is a joint commitment by the Government and the sector to build on the strengths of individuals and communities to improve social, cultural, civic, economic and environmental outcomes. For more information see www.nationalcompact.gov.au

Conclusion

The liveability of Australia’s major cities is high relative to many cities around the world. When considered in relation to sustainability; however, Australian cities have some room for improvement. As the populations in Australian cities are set to grow, the structure of the cities will need to become more dense and compact. Climate change and economic restructuring will in turn transform life in cities. In the context of the fundamental changes underway in cities, close attention to indicators of liveability such as equality, health, safety, affordability, accessibility, amenity and community wellbeing will help to monitor quality of life and social inclusion for Australia’s diverse urban communities.

Chapter 5 References

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