

# Chapter 1

## Introduction



For a number of years, individual companies and organisations like the Organisation for Economic Co-operation and Development (OECD) have compiled indices purporting to rank the best or most liveable of the world's cities. In many instances one or more Australian cities have appeared at or near the top. In our media and across the community, the responses to this vary. For some it is a source of pride, for others proof that particular policy approaches or investments are working. For some individuals and communities, though, there is a sense that such claims do not mirror the realities of their day-to-day lives. Often such sentiment reflects concern about the speed of change, with changes in both the size and structure of cities bringing issues of housing, congestion and access to employment and services to the fore.

This report, the *State of Australian Cities 2014-2015 - 2015*, building on the *Progress in Australian Regions - Yearbook 2014*, provides evidence regarding progress in Australia's cities - how they contribute to the nation and which cities, and parts of cities, are progressing. They also provide important information on how our cities are changing.

As detailed in this report, the populations of Australia's major cities are at record levels, as are the number of people employed, reinforcing the national trend. It is in our cities that the overwhelming majority of jobs are located and where the most new jobs are being created, driving further their growth in population. The economic output of our major cities has grown and their national importance remains extremely high, although mining activity in regional Australia has seen the overall percentage contribution by major cities to Gross Domestic Product (GDP) dip slightly.

Similarly, our major cities have made the largest contribution to increases in important social measures like labour force participation. Significantly, more people in our major cities hold a vocational or higher education qualification, reflecting an increase in human capital.

Increased population and greater employment bring with them challenges, particularly the need to effectively manage competing demands for space. Nowhere is this more apparent than on our transport networks, which are critical to the movement of record numbers of people and goods.

In 2015 there is more demand for transport in Australia than ever before. Kilometres of total travel (all modes combined) within Australia are at the highest levels ever recorded, there are more trips through our airports (with our major cities home to our international and busiest domestic airports), there is more container traffic through our major city ports than ever before, and there are record numbers of registered motor vehicles in every state and territory.

Perhaps unsurprisingly, with increasing growth in total kilometres travelled, average commuting times in major cities have trended upwards.

With further growth forecast, in population and in passenger and freight demand, the findings of this report identify the challenges that policy makers will need to respond to in order to see continued progress in major cities.

Critically, this will mean the integration of long-term planning in order to anticipate and address growing demand and avoid unnecessary additions to transport tasks, making efficient use of existing transport infrastructure and identifying and planning for future needs.

There are clear differences in progress within cities on issues such as workforce participation and average duration of unemployment, but these suggest significant untapped potential. The decline in some parts of cities against indicators such as these and the trend towards spatial groupings of people with the least household wealth pose clear challenges for policy makers.

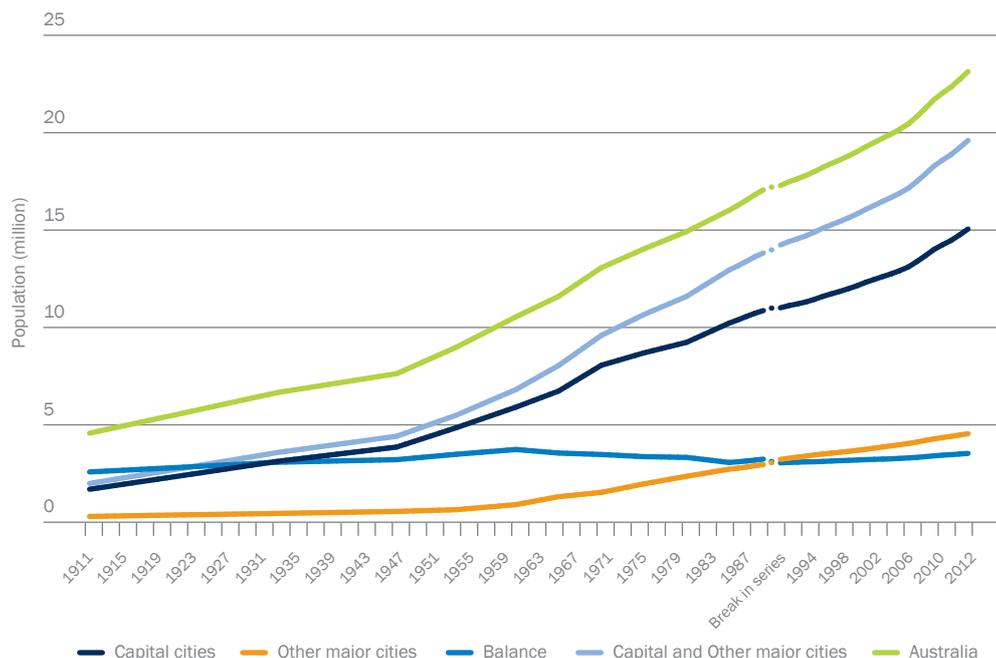
The first section of this chapter provides an overview of the report’s main themes, and the key findings of each chapter. The second section discusses the report’s methodology, definitions and use of data.

## Overview

The **Population** chapter of this year’s report notes the continued growth in population in all major cities and the ongoing trend in their status as the places where most Australians choose to reside (as shown in Figure 1.1).

It also examines the historical and differing population growth rates between our major cities and rural regional settlements.

**Figure 1.1** Australia’s urbanised population trends 1911–2013



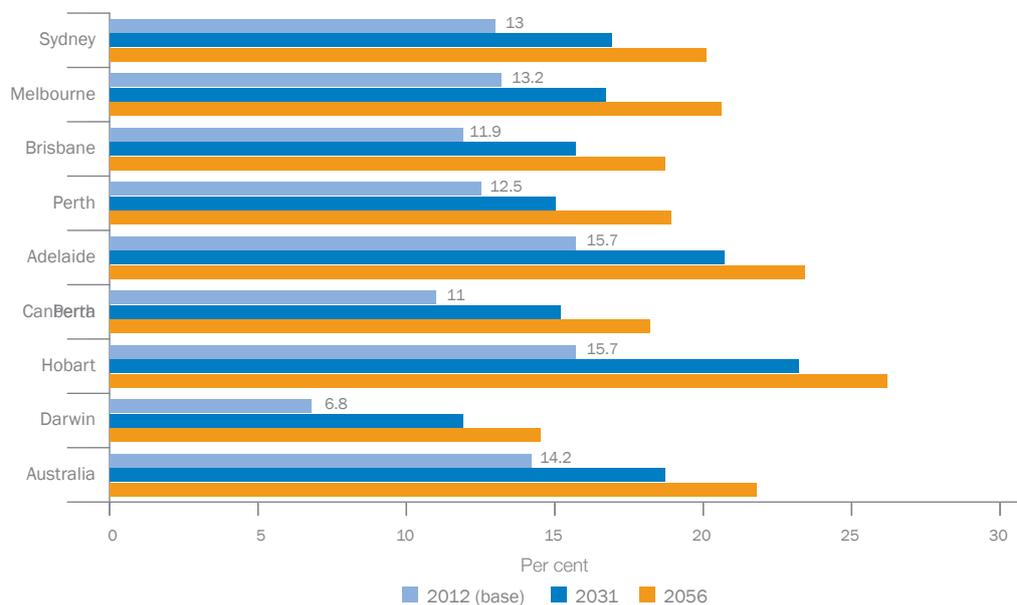
Source: ABS 2008, 2014a.

Note: Capital cities based on Greater Capital City Statistical Areas (GCCSAs) for 1971 onwards. Populations for previous years are based on earlier boundaries and may be inconsistent with GCCSAs. Major cities based on Significant Urban Areas (SUAs) for 1991 onwards. Populations for previous years are based on earlier boundaries and are generally inconsistent with SUAs.

Similar variations occur in the pattern of population ageing (as illustrated in Figure 1.2). One factor is that not all cities attract the same share of population growth through overseas migration.

Higher rates of overseas immigration usually mean the addition of people younger than the average age in the city, slowing the ageing of that population. The total number of people aged over 65 will still be highest in our largest cities, but the differing proportions and rates of out-migration from major cities of this age group highlight the different challenges our cities will face in supporting ageing populations.

**Figure 1.2** Proportion of those aged 65 years and over in capital cities, 2012, 2031 and 2056



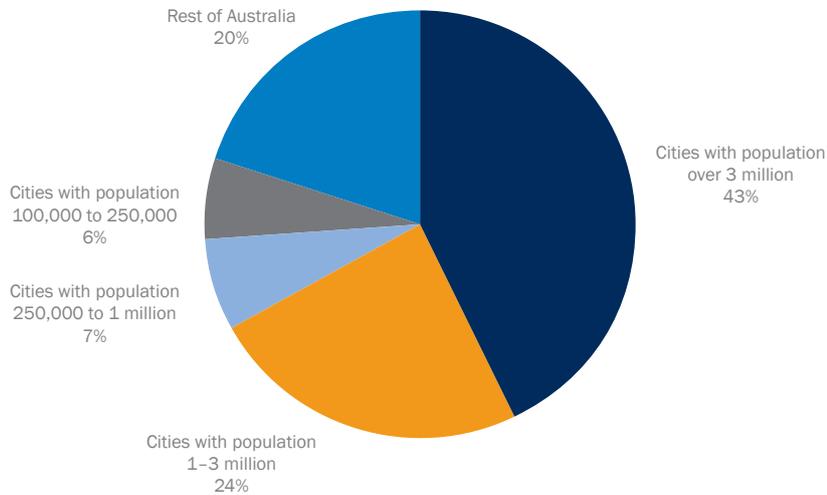
Source: ABS 2013.

The **Settlement** chapter examines the 2 distinct trends occurring across the largest of Australia's cities: one of growth locating at low densities on the urban fringe and the other of growth consolidating in high-density city centres.

In addition to considering the most recent data on the price premium being paid for proximity to the centre of our largest cities, it outlines changes over time in the types of housing in Sydney and Melbourne, the location of the increased proportion of apartments and semi-detached houses and the impact this is having on the densities of Australian cities.

The **Economy** chapter looks at the central role that our major cities have in generating GDP (illustrated in Figure 1.3) and providing jobs, with the already high percentage of all Australian jobs located in major cities continuing to grow.

**Figure 1.3** Proportion of Gross Domestic Product attributed to cities and regional areas of Australia, 2010



Source: Derived from ABS Data by SGS Economics & Planning.

The location of jobs growth varies significantly, both between and within our major cities. The chapter considers how the changes in employment in different sectors have contributed to the variability in the location of employment growth. For example, professional services within cities generally favour central locations, while population-serving jobs, such as retail, education and personal services, are more dispersed and tend to follow the distribution of population. Industries such as manufacturing or freight and logistics locate in places that meet their specific infrastructure and land use needs, such as intermodal hubs or in close proximity to ports and airports.

The **Human Capital and Labour** chapter considers the contribution that people make to the productivity of Australia’s major cities and the way that city structures affect labour productivity. Human capital is a vital ingredient of economic growth and increases in human capital are reflected in labour force participation, labour mobility and the labour market.

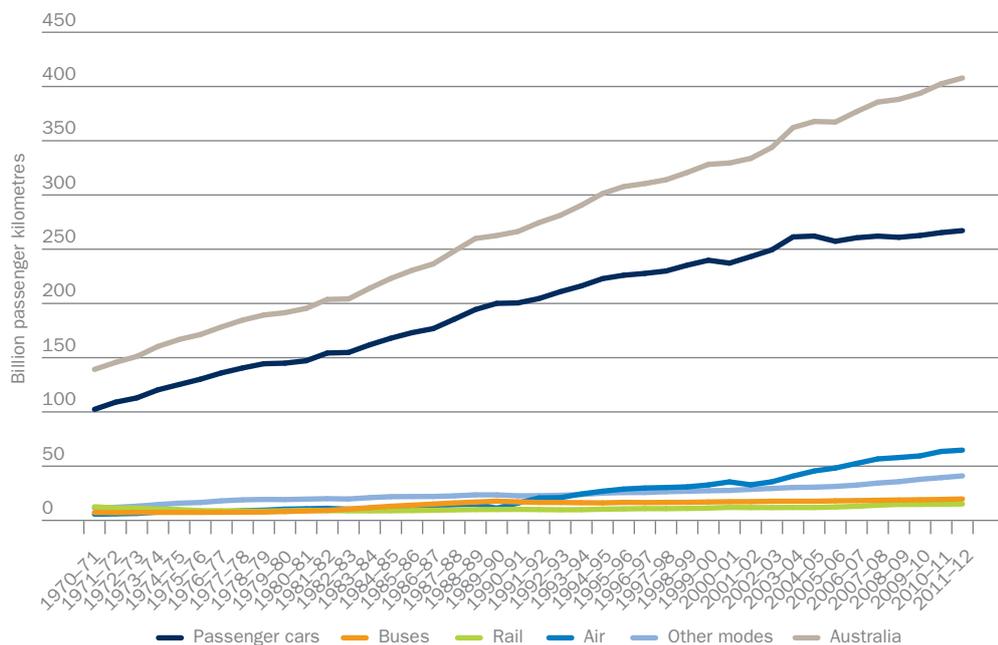
The chapter also illustrates that economic progress has not been distributed evenly within and between cities against a number of economic indicators. For example, South-West Sydney has seen a decline in workforce participation rates, with the region now featuring some of the lowest workforce participation rates in Sydney. Finding solutions to such challenges represents a significant opportunity to boost intra-city economic growth and address areas of social disadvantage.

Transport infrastructure, services and systems play a key role in facilitating the movement of both people and goods. In many ways they are the arteries and veins of a healthy modern city.

Changes to population, employment, education and other aspects of life in our major cities are impacted on by the availability of transport; they also impact upon our transport systems, adding to pressures on existing infrastructure and demand for future infrastructure capacity and services. This year’s report features a chapter that looks at **Infrastructure and Transport** to highlight the importance of these issues in considering progress in cities.

The chapter begins by setting out the current state of play – noting that Australia in 2013–14 has record demand in almost every part of our transport networks, leading to the highest ever level of combined transport, as illustrated in Figure 1.4.

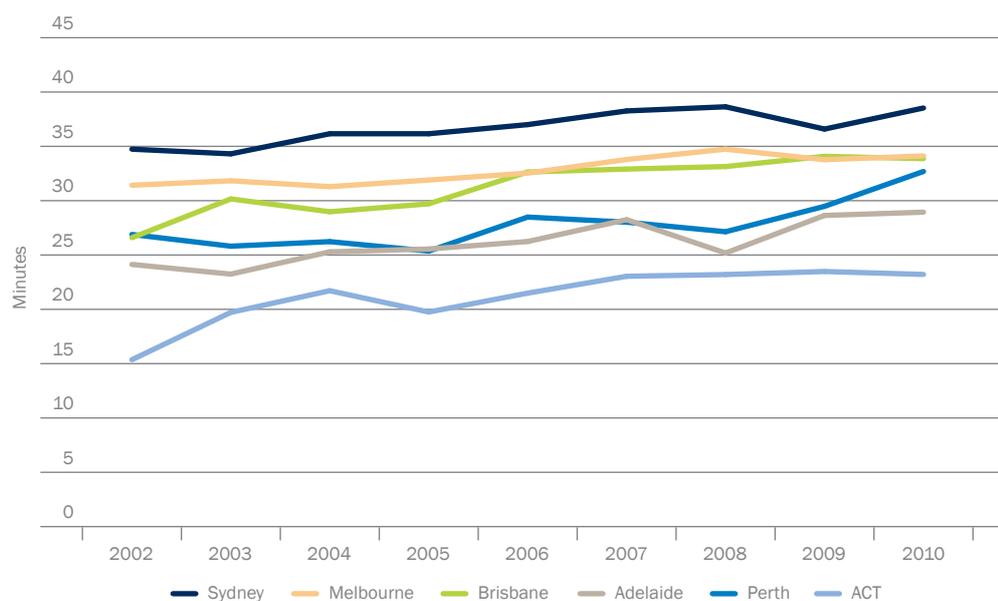
**Figure 1.4** Growth in total passengers by mode of travel, 1970–2013



Source: BITRE 2013a

The **Infrastructure and Transport** chapter considers the patterns identified throughout the report, analysing the impacts such trends are currently having on the infrastructure and transport systems of cities. This includes the increasing time residents of major cities spend commuting to work, shown in Figure 1.5. It then looks at the different travel patterns from the different growing parts of cities, examining why, if the current patterns continue on trend, there will be a need to facilitate both car travel and active transport, albeit often in different parts of cities.

**Figure 1.5** Average commuting times from residence to workplace by selected capital cities, 2002–2010



Source: BITRE analysis of HILDA customised data, provided by the National Centre for Social and Economic Modelling (NATSEM), BITRE 2013b. Note: Capital city geography is the ABS Statistical Division (Australian Standard Geographical Classification).

Noting the significant population growth largely living at the edges of our largest cities in detached housing, the report provides a basis for considering the impacts that will be felt by the Australian dollar retreating from record highs. The report notes that Australian cities continue to be heavily car dependant and vulnerable to changes in costs associated with vehicle use.

The other area of growth, in city centres, is likely to increasingly conflict with the operation of key transport infrastructure located nearby, such as Kingsford Smith Airport in Sydney or ports in Sydney and Melbourne. The report considers this, noting OECD research that suggests an economic imperative to retain port functions within cities.

In responding to changing industry structures and the impacts this can have on the location of jobs, much thought has been given to seeking ways to improve the co-location of jobs and people.

These discussions can often consider what is described as the 'self-sufficiency' of parts of cities. This measure is the ratio between the jobs and the employed residents in an area. It is important to note that this measure does not consider the extent to which the employed people in the area work in the area, rather than elsewhere.

This year's report considers the 'self-containment' of areas – the proportion of employed people residing in an area whose employment is in that area. A high self-containment rate indicates that there is a sufficient range and number of jobs in an area that employs local people.

Measuring self-containment is important, as it directly impacts on transport demand (both distance and type of travel) and because it reminds policy makers that to simply increase job numbers in an area is not necessarily sufficient to increase the employment of residents of that area. Such jobs could be filled by people travelling from elsewhere, particularly if the jobs require qualifications or skills not held by local residents (in much the same way that many resource sector jobs around Australia are filled by people resident in other locations).

This latter point is highlighted through a case study on the skills which are likely to be required for a new airport in South-West Sydney and how well the skills of residents in the area currently match those needs.

## Key findings

### Chapter 2 Population

- Australia has added an estimated 400,000 people since 2013, an increase in the total population to over 23.6 million people.
- Australians are predominantly urban dwelling people. More than 75 per cent live in the country's 20 largest cities, and over 60 per cent live in Australia's 5 largest cities alone – Sydney, Melbourne, Brisbane, Perth and Adelaide.
- Over the last decade Melbourne has seen the greatest growth in absolute terms, adding approximately 750,000 people, equivalent to more than 200 people per day. Australia's largest city, Sydney, while adding fewer people than Melbourne over the same period, still grew by almost 600,000 people.
- The fastest-growing cities in Australia since 2004 are the capital cities of Perth and Darwin, as well as the regional major cities of Cairns and Townsville. Each of these cities grew by at least 20 per cent over the decade, while Perth grew by more than 30 per cent.
- Australia's population is ageing. Over the past half century there has been a steady increase in both the number of older people and the proportion of older people in Australia. This presents challenges for transport and infrastructure across the country as well as health and aged care spending.
- It is in Australia's non-capital cities where the ageing population is more pronounced. Regional cities and the hinterland that surrounds them have a high number of older people. Cities such as Sunshine Coast, Wollongong, Geelong, Launceston, Newcastle - Maitland, Bendigo and Gold Coast – Tweed Heads have the highest proportion of their population over 65 years of age.
- Australia's strong population growth is projected to continue into the future, with the ABS's medium projection estimating that Australia will grow to just over 30 million people by 2031. The majority of this future growth is expected to occur in and around Australia's capital cities.

### **Chapter 3 Settlement**

- Between 2012 and 2013, the fastest growing inner city areas in Australia were both located in inner Melbourne, with the ABS statistical areas of Melbourne and Southbank adding 5,400 and 2,100 additional people respectively over the year. Other inner city areas to experience substantial growth included Perth City and Waterloo in Sydney.
- Melbourne was also home to the largest population growth in fringe suburbs over the year 2012 to 2013, with the northern fringe suburb of South Morang adding 5,700 people. Strong fringe growth was also exhibited in Melbourne's Craigieburn-Mickleham and Point Cook, Sydney's outer north-west suburb of Parklea – Kellyville Ridge, and Perth's southern outskirts suburb of Baldivis.
- Accompanying a change in urban densities, dwelling stock in Australia's largest cities has shown a shift towards construction of semi-detached and apartment dwellings. Detached housing has declined as a proportion of all dwellings, while medium- and higher-density dwellings have increased slightly.
- Recent research undertaken by the Australian Housing and Urban Research Institute (AHURI) concluded that concentrations of social disadvantage were being pushed further towards city peripheries over the period 2001–2011. Recognising the importance of housing affordability closer to the fringe, the report notes that this outward movement of social disadvantage poses new challenges as these areas are already often poorly resourced in terms of accessible jobs, transport, facilities and services.

### **Chapter 4 Economy**

- Australia's cities are important gateways to the global economy. They generate a majority of the country's GDP, and also house much of the nation's key economic infrastructure, such as ports and airports, which are critical to the prosperity of industries and sectors located all across Australia. Cities also house the majority of Australia's jobs.
- Improving the productivity of Australia's cities, and particularly labour productivity has significant benefits for the national economy.
- Australia's economic structure has changed considerably over the last half a century, with a steady and continued rise in business services and a long-term decline in manufacturing. These industries have considerably different spatial demands, and their respective rise and fall has had substantial impacts on the location of economic activity within cities.
- Connectivity can be a key determinant of a firm's productivity. Locating in a city that has high levels of connectivity (by mass transit, car or via airports or seaports) allows firms to achieve benefits. This is particularly so for firms in the advanced business services sector, which tend to be attracted to well-connected central city locations. Here they benefit from strong global linkages facilitated through agglomeration economies and access to the international gateways – airports and seaports.
- The changes in Australia's economic structure and the growth in global trade mean that Australia's ports and airports are more important than ever.
- Ports and the transport networks that support them are enablers of the economic growth and increased productivity facilitated through increased trade and their performance greatly impacts on many sectors of the economy across a broad geographical region.
- The interstate freight task is forecast to grow significantly in the coming decades, with commensurate pressure applied to transport infrastructure. This will be particularly felt in the cities where many freight movements originate and terminate; there are already capacity constraints being experienced as freight conflicts with the transport of people.
- Airports provide a gateway and first point of call for the increasingly valuable export industries of tourism and education. They also facilitate the movement of a large and rapidly growing business community that travels between cities, both domestically and internationally, for work and contributes significantly to economic growth in Australia. Strong jobs growth has also occurred near the airports of Australia's major cities.

### **Chapter 5 Human Capital and Labour**

- Human capital is what enables people to earn a living; it is the knowledge and skills that enable them to contribute to a firm's production, which they are in turn remunerated for via a wage.
- People with higher education or high skill levels tend to have a much stronger connection to the labour force and are more likely to participate in the labour force for a larger proportion of their lives.
- Australia's labour force participation has experienced strong growth, largely due to increased participation of females aged 24 to 54 years. There has also been a particularly notable rise in the participation rate of people traditionally classed as nearing retirement, with many people aged 55 to 64 years now staying in the workforce for longer. The participation rate of people over 65 has also shown an upward trend.
- There is a significant labour force participation rate gap between capital and non-capital major cities representing a large pool of underutilised human capital in non-capital cities.
- A skilled workforce supports ongoing economic development and improves overall living standards. The percentage of people with a Certificate III or above who are employed in a skilled occupation is rising across Australia but most strongly in major cities.
- Cities attract human capital and the co-location of educated and innovative people amplifies the effect of human capital. The clustering of jobs and people in cities increases the range of jobs on offer to a worker and gives them greater choice in employment. This improved choice allows them to best match their skills to a job.
- Price premiums are generally paid for more highly educated workers; however, the price premium paid varies considerably between Australian cities, reflecting a city's differing economic structure, ability to attract and retain labour and local labour supply.

### **Chapter 6 Infrastructure and Transport**

- Record levels of demand are being felt across Australia's transport networks, with our roads, public transport, freight, active transport and air travel all seeing record levels of activity. The increase in demand for transport reflects both record levels of population and the evolution of Australia's cities and their economies.
- Where people live and where they work within a city results in considerable variation in the transport task and the type of infrastructure demanded. It is therefore likely that there will be differing views on the suitability of investments in differing types of transport infrastructure, be it pedestrian or cycling infrastructure or the building of more motorways and railways. Investments in all of these are likely to be required, but funding for all (particularly at the same time) is unlikely to be available.
- The length of an average metropolitan trip climbed from around 2.5 kilometres at the start of the twentieth century (when urban passenger transport was still dominated by non-motorised travel) to a current length of close to 7.5 kilometres per trip.
- Inner city growth comes with challenges, particularly in those cities where important infrastructure assets such as ports and airports are close to this population growth.
- Policy makers looking to further assist areas with high populations and relatively fewer jobs will need to consider whether there are suitable matches between the skills needed to perform jobs and the jobs available in such areas.
- Simply creating jobs in an area is not necessarily sufficient to increase the employment of residents of that area, as those jobs could be filled by people travelling from elsewhere, directly impacting transport demand, both in distance and mode of travel.
- Major transport infrastructure can play a critical role in shaping the growth of cities, and if properly planned, can direct future housing and employment growth to areas that improve productivity and equality of access to jobs and services.

## State of Australian Cities reports 2010-2014

The purpose of the State of Australian Cities reports is to bring together current research and data to present a comprehensive picture of how our cities are evolving, and to strengthen the knowledge base used to develop policy.

This is the fifth *State of Australian Cities* report since 2010. The first report covered the 17 major cities in Australia with populations over 100,000 people and was largely based on the Australian Bureau of Statistics (ABS) 2006 Census of Population and Housing. Key themes included: Australian cities in an international context; population and settlement; the productivity, sustainability and liveability of Australian cities; social inclusion and equity; and governance.

The 2011 report added an additional city (Albury–Wodonga) and examined some of the issues in greater detail, such as population growth, migration between cities and commuting flows within the largest capital cities.

The 2012 and 2013 reports drew from 2011 Census data, which meant slightly different boundary definitions for cities. These reports also included an evaluation of progress on implementing the National Urban Policy of the government at the time.

In 2013 an online dynamic mapping tool was introduced to complement the report. The interactive maps allowed readers to explore particular aspects of cities. These dynamic maps will be continued in future.

Utilising changed ABS geographic boundaries, the 2014 - 2015 report adds a further 2 cities – Bendigo and Ballarat. Mackay in Queensland is poised to join the ranks of Australia's major cities by the next Census. The report now addresses cities with populations above 85,000 people, based on the ABS Significant Urban Areas (SUA) geographic classification. This is regarded as the area most residents would recognise as comprising their city. Where possible, the State of Australian Cities reports have used long-term time series data to show how our cities – and their population, demographics, industry, land use and transportation – have changed over time.

## Structure of reporting for 2014 - 2015

**The Department of Infrastructure and Regional Development has prepared a new suite of publications that provide statistical information and analysis to support spatial policy and infrastructure investment decisions across Australia.**

The *Progress in Australian Regions – Yearbook 2014* has been prepared that collates information about Australia's regions, including urban areas, within a single document. *Progress in Australian Regions – Yearbook 2014* can be found at the Department's website, [www.infrastructure.gov.au](http://www.infrastructure.gov.au).

The main objective of the *Progress in Australian Regions – Yearbook 2014* is to provide a measurement of progress for government policy makers, business, industry and other stakeholders to inform decision making where there are strong spatial implications. The *Progress in Australian Regions – Yearbook 2014* includes national progress indicators that will provide stakeholders with information to track progress in urban and regional areas. It provides information at a sub-state as well as a national level.

Complementing the *Progress in Australian Regions – Yearbook 2014* are a series of analytical publications that examine in greater detail issues impacting on progress in Australia's regions and cities.

These analytical publications include:

- *State of Australian Cities 2014-2015* which examines, in particular, how social and economic changes in Australia's major cities affect the type and quantum of future transport demand; and
- a regional publication, *Progress in Australia's Regions: State of Regional Australia*, which examines the major trends occurring in regions and the factors driving them.

## Research methodology

This report has employed analytical methods and approaches from across the 3 main urban research traditions – empiricist, humanist and political economy – in order to improve our understanding of the changing nature of our cities.

The choice of data, analytical methods and insights are informed by all approaches in an attempt to encourage a range of views on the changing role of our cities under globalisation forces, national productivity and demographic growth pressures, all playing-out strongly in our cities.

In producing this and past reports we have been ably assisted by a broad group of research perspectives and data sources offered through leading institutions such as the ABS, AHURI, the State of Australian Cities Research Network (SOACRN), the Western Sydney Institute and the OECD Regional Development Programme.

## Geographical boundaries

The State of Australian Cities reports use Australian Statistical Geography Standard (ASGS) boundaries defined by the ABS, that most closely relate to the built urban area of Australia's major cities.

In 2011 the ABS implemented a new geography, marking the first significant change in nearly 50 years. As part of the changeover, much of the geography used in previous State of Australian Cities reports was phased out.

Because data for the previous geographic boundaries is no longer reported, the new ABS geographical boundaries have been adopted, with the following changes:

- Capital cities that were previously defined as 'Statistical Divisions' (SD) are now defined as 'Greater Capital City Statistical Areas' (GCCSA).
- Non-capital major cities, which were previously defined as 'Statistical Districts' (SDist), are now 'Significant Urban Areas' (SUA).

## Time series analysis

The implementation of the ABS's new geography standard has had implications for data time series analysis. Long-term data time series analysis is particularly important when observing change in cities as the impact of plans, policies and new urban infrastructure can be seen on urban structure and form over decades.

ABS has adopted a new geographic unit called a 'mesh block' which contains between 30 and 60 dwellings. Mesh blocks have 2 main advantages not inherent in the previous geography:

- They function like small building blocks that can be built up into a variety of geographies according to requirements, thus providing greater flexibility than previous measures.
- The areas of mesh blocks will remain stable over time which means accurate time series can be reliably constructed despite any future changes to geographic areas.

The ABS has published a limited number of time series using the units of the new geography. Where the ABS has published such time series, the State of Australian Cities reports have used them.

In previous reports, where time series for the new geography had not been published by the ABS, data was concorded for the State of Australian Cities reports using Statistical Local Areas (SLAs).

Unfortunately, SLAs are also being phased out. A mix of geographies will now be used to obtain long-term data time series.

## Place of usual residence

All Censuses before 2006 were based on place of enumeration, that is, a person was counted where they were on Census night. In order to improve accuracy, the 2006 and 2011 Census data were also available by place of usual residence. In most cases, the difference is slight – often a fraction of a per cent – but it presents a dilemma to those constructing and analysing time series data.

This report generally uses the place of enumeration data pre-2001 and place of usual residence post-2001, because the value of long time series outweighs a slight loss in short-term accuracy. The exception is where the time series involves very small changes over the years, such as housing occupancy rates. In these cases, only places of usual residence data is used.

## Data presentation consistency

Where time series data or other data needs to be represented in formats other than Greater Capital City Statistical Areas, Statistical Level 4 Areas, Significant Urban Areas or Remoteness classes, this has been kept to a minimum and has been based around common statistical building blocks at the Statistical Level 2 and for certain economic data at functional economic regions.

As time series data bases build over coming census periods, greater use of the new census categories will be possible. For continuity purposes, with past observations made at the level of 'Major City', the present report adopts similar boundaries to the previous reports. At the capital city level there is no practical difference under the new ABS geography, whereas there are minor differences for the remaining major cities, as described in the year book and as defined in this report. Readers will be alerted to these differences as they arise.

## Use of the Yearbook indicator framework

The State of Australian Cities Report 2014 - 2015 draws on the progress and contextual indicators in the *Progress in Australian Regions – Yearbook 2014*. The information in the *Progress in Australian Regions – Yearbook 2014* builds on the 'Measures of Australia's Progress' publication from the ABS but has been extended to include a number of contextual indicators that provide a broader perspective to inform understanding of progress in Australia's regions.

The *Progress in Australian Regions – Yearbook 2014* brings together information about Australia's regions from a range of different sources. It presents that data in a consistent format over time and provides a statistical resource that can help answer the question of how regions are progressing against social, economic, environmental and governance indicators.

As a result, the *Progress in Australian Regions – Yearbook 2014* contains some data that has previously been set out in State of Australian Cities reports. Where relevant to specific analysis, this year's report cites the *Progress in Australian Regions – Yearbook 2014*, but otherwise readers are encouraged to consider the publications together to inform an understanding of progress in Australia's major cities.

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