

Executive summary

State of Australian Cities 2013 is the fourth in a series of annual Australian Government publications bringing together current research and data to present a comprehensive picture of how our major cities are evolving, and to strengthen the knowledge base used to develop policy. The purpose of *State of Australian Cities 2013* is to provide an evidence base for policy and investment decisions in our major cities, to explore trends in urban development and to inform people about the factors that are shaping our cities and the lives of their communities.

The second tranche of the Australian Bureau of Statistics' (ABS) *2011 Census of Population and Housing* was available to this year's report. Consequently, there is an emphasis on migration, industry structure and human capital.

A major change for 2013 is the introduction of maps. These are available at different functionalities according to the report's format (hard copy, PDF or soft copy). The interactive web-based maps allow readers to explore particular aspects of cities according to their interests. The report looks at examples of these, and much of the commentary is about the stratification of cities and what this means for productivity, liveability and sustainability.

The main theme of the report is how the change in Australia's industrial structure (described in some detail in the 2012 report) is affecting its major cities. Given an increasing concentration of high paying jobs in their centres, while at the same time most of the population growth is happening on the edges, the report focuses on what this may mean for productivity and equity.

Key findings Chapter 2: Population and settlement

- Australia has one of the highest population growth rates in the OECD. Around half this comes from net overseas migration. Since the average growth of major cities is slightly above the national rate, this indicates many Australian cities have some of the highest growth rates in the developed world.
- In the 2011–12 year, the larger capitals grew almost 50 per cent faster than the rest of the country. Over the last five years, the previously high population growth rates in regional Queensland's major cities have moderated. Growth rates in Darwin and Perth remained particularly strong.
- There are large differences in the age and gender of those moving to and from individual capital cities. Canberra, Darwin, Perth and to a lesser extent Brisbane are attracting high numbers of mainly male 15–24 year olds. Sydney is losing significant numbers of residents across all age groups but overseas migrants are taking their place at a rate that keeps Sydney growing, albeit below the national average.

- High growth areas are also mostly high churn areas (high numbers of people moving in and out). In this situation, a change of just a fraction of a per cent can make the difference between high population growth and low population growth. Regional major cities in Queensland and the outer suburbs of the larger capitals are in this situation.

Student tourism

- Australia is the third most popular market for international students in the world. This market generates more than \$15 billion for the nation every year.
- One in every 16 persons living in the City of Sydney is an international student while for the City of Melbourne it is one in five. Large numbers also commute into these areas for study.
- China is the largest source country of international students, particularly for higher education followed by India, South Korea, Vietnam and Malaysia.
- The rapid increase in international student numbers since 2000 has created accommodation and transport stresses particularly for Melbourne and Sydney. While there has been some progress in building more student accommodation, most international students rely on the private rental market.
- There has been a fall in the numbers of international students since 2010, particularly in the Vocational Education and Training (VET) sector traditionally dominated by Indian students.

International migration

International migrants are dividing into two types:

- The first are from the skilled migrant scheme (about half of Net Overseas Migration) and are part of the international gateway function of the global cities of Sydney and Melbourne. This stream is characterised by temporary and visitor migrants who mostly live in or near city centres.
- The second stream is made up mainly of citizen migrants who usually reside at a distance from city centres. This group increasingly leads transnational lives and are critical to the international connectedness of cities.
- Ninety-six per cent of the 29 million border crossings annually are short term movements. On any day, there are more than a million temporary visa holders in Australia (this figure does not include New Zealanders).
- The rise in the proportion of international 'sojourners' in the Australian population especially in the larger capital cities is challenging traditional definitions of what is meant by 'migrant'. For a significant proportion, Australia will be a point on the journey rather than a place to settle permanently.
- The current patterns of international migration seem closely aligned with the increasing role of knowledge intensive transactional industries in Australia.
- Eighty-five per cent of 457 Visa holders live in capital cities and half live in the inner city and mainly work in the transaction industries.
- Skilled migrants outside the city centres are often working in industries that do not fully utilise their skills.

Key findings Chapter 3: Productivity

- Major cities have experienced a large increase in their number of knowledge-intensive jobs – high-skill jobs that significant expertise, intellectual effort and innovation. This increase has tended to be concentrated in central areas.
- While knowledge-intensive jobs account for only a small proportion of all jobs in major cities, they are increasingly important to their productivity and they increase employment opportunities and salaries.
- The manufacturing and retail sectors, which once drove jobs growth, are now employing a smaller proportion of Australians.
- An increasing number of people are living further away from city centres in major cities while higher-skill, higher-paying jobs, are becoming concentrated in central areas.
- There are three ways that the connection between work and homes in major cities could be improved: firstly, by bringing workplaces closer to homes; secondly, by increasing the number of dwellings in areas that have the greatest number of jobs so that people can live closer to work; and thirdly by improving transport links between work and home (Kelly et al. 2013).
- Australia's cities tend to have higher of private car use than public transport use when compared with overseas cities.
- Average incomes appear to influence the type of transport used for journeys to work. Those who use public transport tend to have higher average weekly individual incomes than those who use other means of transport.
- Private vehicles provide easier access to a higher number of jobs than mass transit in Australia's major cities.
- Industry structure differs widely between major cities. Each city plays a unique role in the nation's economic system. The participation of males compared with females in particular types of industry also differs widely.
- The mining sector and associated fly in, fly out and drive in, drive out practices influence the economies of some major cities, particularly Perth and Brisbane as well as demand for office space and the aviation service.
- Major ports and airports are important to the productivity of major cities and they influence the urban structure of cities.
- Labour force participation rates and the participation rates of male versus females differ between and within major cities. The proportion of employed persons working full-time and part-time and the proportion of males and females working in these categories also differ between and within major cities.

Key findings Chapter 4: Sustainability

Heat

- Based on current trends, heat-related deaths in Australian cities, especially Perth and Brisbane, are predicted to increase.
- Policy responses to previous heat events were tested during the record-breaking summer of 2012–13, when Australia registered the hottest September to March period on record, the hottest summer on record, the hottest month on record, the hottest day on record and the longest national-scale heatwave. It was also the hottest summer on record for Australian sea-surface temperatures.
- Despite these records, most Australian cities did not exceed their long term average highest monthly maximum and minimum temperatures during the summer months of 2012–13. There were also significant differences in rainfall, particularly between Queensland coastal cities (many of which received record rainfall), and southern cities, some of which received hardly any rain during this period.
- The Bureau of Meteorology has developed an improved method of recording and predicting heat events. These are now able to be compared and mapped using a measure known as the ‘excess heat factor’ (EHF) measure.
- The liveability of Australia’s cities will be affected by how their sustainability is managed. Many cities are making significant progress in introducing of vegetative (including plants, trees, open green spaces and even forests) at various scales across cities – from buildings to districts and metropolitan regions – to reduce the UHI effect and thereby increase liveability and reduce energy use.

Household energy

- Since 2008, residential energy use has accounted for 12 per cent of the nation’s total consumption.
- Energy demand for space heating and cooling is projected to increase in the coming decades. Factors influencing increased demand include houses with the largest average floor areas in the world, the decreasing occupancy rate of dwellings and the increasing use of whole-house heating and cooling systems.
- Airconditioner use in the residential sector has increased significantly, with possession almost doubling between 1994 and 2004, rising from an average of 0.395 units to 0.762 units per household. This is projected to increase even further. The rapid growth in air conditioner possession has effectively overshadowed any energy consumption reductions gained by improved efficiency over the same period.
- Appliances account for 23 per cent of Australia’s residential sector energy consumption, with electricity being the predominant power source used. Attempts to reduce appliance-related energy consumption by the residential sector have focused on achieving greater product efficiency. The overall gains achieved by these efficiency initiatives have, however, been offset by the increased number and variety of appliances in homes.

Transport energy

- Nearly 40 per cent of total national energy use is expended in moving people and freight. The transport sector uses 73 per cent of Australia's total liquid fuel, with over half of that being used by road transport.
- The transport sector also contributes the largest proportion of average household carbon dioxide (CO₂) emissions at almost 42 per cent. Light passenger vehicle use alone accounts for 35 per cent of Australia's average household emissions, by far the largest overall component of the transport sector's emissions.
- Energy use in light passenger vehicles is relatively well documented, but there is more limited publicly available information for mass transit systems making comparison of energy use between modes in Australia difficult. The potential energy efficiency savings of urban mass transit systems are considerable; however, further information in this area will be needed to inform public policy decisions.

Waste

- Australia generated 54 million tonnes of waste in 2009–10. Forty seven per cent of this was recovered domestically, 46 per cent went to landfill and the remaining seven per cent was exported.
- Waste worth \$2.4 billion formed one per cent of Australia's exports in 2011–12. Eighty two per cent of this was ferrous metals, gold, copper and aluminium.
- Australia's waste management industry has been valued at \$9.5 billion with income from waste products valued at \$4.5 billion annually.

Key findings Chapter 5: Liveability

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

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

Key findings Chapter 6: Governance

- A Transport and Infrastructure Senior Officials Committee Cities Group has been established to progress intergovernmental collaboration on cities through the Standing Council on Transport and Infrastructure.
- In response to the Australian Government's *Walking, Riding and Access to Public Transport—Draft Report for discussion*, nearly 200 public submissions were received.
- The 2013–14 Commonwealth Budget included funding for the second phase of the National Building Program (NB2) of \$24 billion across 5 years to 2017–18. Thirty five NB2 projects across Australia's major cities have subsequently been announced.
- Following the release in April 2012 of a discussion paper by the Business Council of Australia, the Australian Government has requested that the Productivity Commission undertake a study to benchmark Australia's major project development assessment processes against international best practice.