Yearbook 2018

Progress in Australian Regions

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Acknowledgements

Introduction

The 2018 Yearbook is the fifth in a series of statistical reports that are designed to help answer the question of how our regions are progressing against social, economic, environmental and governance indicators. This information will enable governments, private investors and the community to identify trends that are important for policy development, investment decisions and planning. Understanding these issues is particularly important when making decisions in relation to infrastructure needs and government services, as both are influenced by the geographic distribution of people, economic activity and natural resources. This edition builds on previous Yearbooks by updating data sources wherever possible.

The framework

The information in this Yearbook is organised according to a framework that groups indicators into domains corresponding to different aspects of socio-economic progress (Table 1). This approach builds on a framework that was originally developed by the Australian Bureau of Statistics (ABS) for the *Measures of Australia's Progress* (MAP) publication[1]. The MAP framework has been adjusted to incorporate data sources which are available across a wide range of geographies. It has also been extended to include contextual indicators that are not related to progress, but which are nonetheless important for forming a well-rounded understanding of the characteristics of each region.

Progress indicators

Most of the indicators in this Yearbook are based on the concept of societal progress. Progress is about improvements in the wellbeing of people and households over time. This requires looking beyond the economy of a region to include the wider range of people's experiences and living conditions.[2]

Internationally, measuring wellbeing and progress of societies forms part of the process of understanding countries and regions. Projects like the Commission on the Measurement of Economic Performance and Social Progress[3] and the Organisation for Economic Co-operation and Development (OECD) Global Project on Measuring the Progress of Societies have highlighted the importance of broader measures of economic, environmental, and social sustainability. Multilateral agencies have developed methods for comparing the progress of different nations, including the UN Human Development Index[4], the OECD Better Life Index[5] and the related OECD Regional Well-Being initiative[6].

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1   ABS 2013, *Measures of Australia's Progress* (cat. no. 1370.0), Canberra.
2   OECD 2013, *Measuring Well-Being and Progress, Paris*.
3   Stiglitz, Sen and Fitoussi 2009, *Report of the Commission on the Measurement of Economic Performance and Social Progress.*
4   United Nations Development Programme (UNDP) 2014, *Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience.*
5   OECD 2016, *Better Life Index*, Paris.
6   OECD 2016, *Regional Well-Being*, Paris.

The ABS has measured progress at the national scale in its MAP publication. The themes measured by MAP were selected through extensive national consultation to identify what Australians considered most important to them for national progress. In the Yearbook the MAP themes are examined at a regional scale uncovering the variation in rates of progress below the national level.

When measuring progress at a regional level, this Yearbook seeks to answer the question:

"Is life in your region getting better?"

Rather than make comparisons between regions, the information on progress in this Yearbook can be used to consider how individual regions are doing over time, and if these changes are in line with the broader national trend.

The concept of progress is multidimensional and a range of indicators have been selected to show whether progress is being made across four domains. The Progress section of the Yearbook has been divided into four sections (Table 1), each focusing on one of the four domains of progress:

- Part P.1, Society;
- Part P.2, Economy;
- Part P.3, Environment; and
- Part P.4, Governance.

Each domain consists of a set of themes, reflecting the aspirations that Australians have for their nation. Each theme is represented by one or more *progress indicators* (Table 1), which are summary statistics that signal whether that aspect of life is moving in a 'good' direction (progress) or a 'bad' direction (regress) (Box 1).

Many of the progress indicators in this Yearbook have been adapted directly from MAP. Some indicators use the same data source as the relevant MAP indicator. For other indicators, the MAP data source could only provide information at the national or state level, and not at the more detailed geographic level required to provide acceptable regional coverage. In these cases, the MAP data source has been replaced in favour of related data sources which provide information on the same concept but at a more detailed geographic level.

In addition, some themes from MAP are based on indicators that are not available below the national or state level. These themes represent gaps in the regional evidence base. However each year, the Yearbook attempts to fill these gaps.

Contextual indicators

The Yearbook provides an overview of how Australia's regions are progressing over time. While the main focus is on progress, these indicators have also been supplemented with *contextual indicators* that provide background information to help interpret changes in a region.

The contextual indicators part of the Yearbook has been divided into three sections (Table 1), each focusing on one of three contextual domains:

- Part C.1, Population and Demographics;
- Part C.2, Transport and Infrastructure; and
- Part C.3, Industry and Innovation.

Like the progress indicators, each domain consists of a set of themes that are represented by one or more statistical indicators.

Table 2 presents those indicators that have been updated for the 2018 Yearbook.

Table 1   Indicator framework

Progress Indicators				Contextual Indicators			
Society		**Economy**		**Population and Demographics**		**Transport and Infrastructure**	
Health and wellbeing		Opportunities		Population		Moving people	
Close relationships		Jobs		Age structure		Moving freight	
Home		A resilient economy		Housing		Communications and utilities	
Safety		Enhanced living standards		Social characteristics		Land use	
Learning and knowledge		Fair outcomes					
Community connections		International economic engagement					
Fair opportunities							
Enriched lives							
Environment		**Governance**		**Industry and Innovation**			
Healthy natural environment		Trust		Industry			
Appreciating the environment		Participation		Business activity			
Protecting the environment				Innovation			
Sustaining the environment							
Healthy built environments							

(Left axis label: Regions – Remoteness Classes, Major Urban Areas, Sub-State Regions)

Source: Adapted from ABS 2013, *Measures of Australia's Progress* (cat. no. 1370.0)

Box 1   Some key terms

Statistical indicators are measures that provide users with a summary of the state of play with respect to a topic. For example, median income is a statistical indicator that provides an easily interpreted summary measure of the distribution of income in a region. This would otherwise be a detailed set of data items relating to the number of people in different income groups.

Progress indicators are a particular type of statistical indicator. Progress indicators are chosen on the basis that most people would agree that an increase (or decrease) in the indicator can be unambiguously associated with either progress or regress. For example, *life expectancy* is a commonly used indicator of progress in the theme of Health and Wellbeing. An increase in *life expectancy* is directly related to progress in the health of people living in the region.

In comparison, *population growth* does not qualify as a progress indicator, as there is considerable disagreement as to whether population growth in a region represents progress.

Table 2   Indicators updated in the 2018 Yearbook

Update indicators	Table number	Nature of update
Society		
Homelessness	P 1.3.1	Complete update
Overcrowded conditions	P 1.3.2	Remoteness Area update
Households that own their own home	P 1.3.3	Remoteness Area update
Victims of physical assault	P 1.4.1	Complete update
Victims of malicious property damage	P 1.4.2	Complete update
Road fatalities	P 1.4.3	Complete update
Vocational or higher educational qualifications	P 1.5.1	Remoteness Area update
Year 5 and 9 reading standards	P 1.5.2	Complete update
Year 5 and 9 numeracy standards	P 1.5.3	Complete update
Voluntary work	P 1.6.1	Remoteness Area update
Equivalised disposable household income for low and middle income households	P 1.7.1	Remoteness Area update
Economy		
Having a qualification or working in a skilled occupation	P 2.1.1	Definition update
Young people earning or learning	P 2.1.2	Remoteness Area update
Net business entry rate	P 2.1.3	Definition update
Employed persons	P 2.2.1	Complete update
Unemployment rate	P 2.2.2	Complete update
Youth unemployment rate	P 2.2.3	Complete update
Proportion of unemployed persons unemployed for 12 months or more	P 2.3.1	Complete update
Labour force underutilisation rate	P 2.3.2	Complete update
Value of new building approvals	P 2.3.3	Complete update
Real median weekly household income	P 2.4.1	Complete update
Labour force participation	P 2.4.3	Complete update
Inequality in household income	P 2.5.1	Remoteness Area update
International visits to resident ratio	P 2.6.1	Complete update
Environment		
Air pollution	P 3.1.1	Complete update
Domestic trips involving nature activities	P 3.2.1	Complete update
Protected areas of land	P 3.3.1	Remoteness Area update
Average commuting time	P 3.5.1	Complete update
Active travel	P 3.5.2	Remoteness Area update
Governance		
Uptake of Australian citizenship	P 4.2.3	Remoteness Area update
Population and Demographics		
Estimated resident population	C 1.1.1	Complete update
Internal migration	C 1.1.3	Remoteness Area update
Overseas arrivals	C 1.1.4	Remoteness Area update
Aboriginal and Torres Strait Islander people	C 1.1.5	Remoteness Area update

(continued)

Indicators updated in the 2018 Yearbook (continued)

Update indicators	Table number	Nature of update
Population and Demographics *(continued)*		
Average household size	C 1.3.1	Definition update
Multi-unit dwellings	C 1.3.2	Remoteness Area update
Residential property prices	C 1.3.3	Complete update
Dwelling approvals	C 1.3.4	Complete update
People who speak a language other than English at home	C 1.4.1	Remoteness Area update
Single parent families	C 1.4.3	Remoteness Area update
Transport and Infrastructure		
Transport mode for journey to work	C 2.1.1	Remoteness Area update
Passengers through airports	C 2.1.2	Complete update
Dwellings with no motor vehicle	C 2.1.3	Remoteness Area update
Road freight activity	C 2.2.1	Complete update
Value of international freight through ports	C 2.2.3	Complete update
Dwellings with an internet connection	C 2.3.1	Remoteness Area update
Residential water supply	C 2.3.2	Complete update
Land area and land use	C 2.4.1	Remoteness Area update
Industry and Innovation		
Top employing industry	C 3.1.1	Complete update
Main growth and decline industry	C 3.1.2	Complete update
Structural change index	C 3.1.3	Complete update
Actively trading business	C 3.2.1	Complete update
Business size	C 3.2.2	Complete update
Employment in knowledge-intensive service industries	C 3.3.1	Definition update

Geographic and regional variation

A statistical geography is a system for organising data according to location. Statistical geographies divide a large geographic area (such as a country) into smaller geographic areas. The smaller areas can then be grouped together in different combinations to represent regions of interest.

The indicators in this Yearbook are viewed through a geographic lens providing the ability to track the progress of regions at several scales. For the most part, the Yearbook uses the geographic classification in the ABS 2016 Australian Statistical Geography Standard (ASGS) to define the boundaries of the statistical regions presented.

Where available, each indicator has been compiled at the following geographic scales:

- Remoteness classes;
- Major urban areas;
- Capital city and balance of state; and
- Sub-state regions.
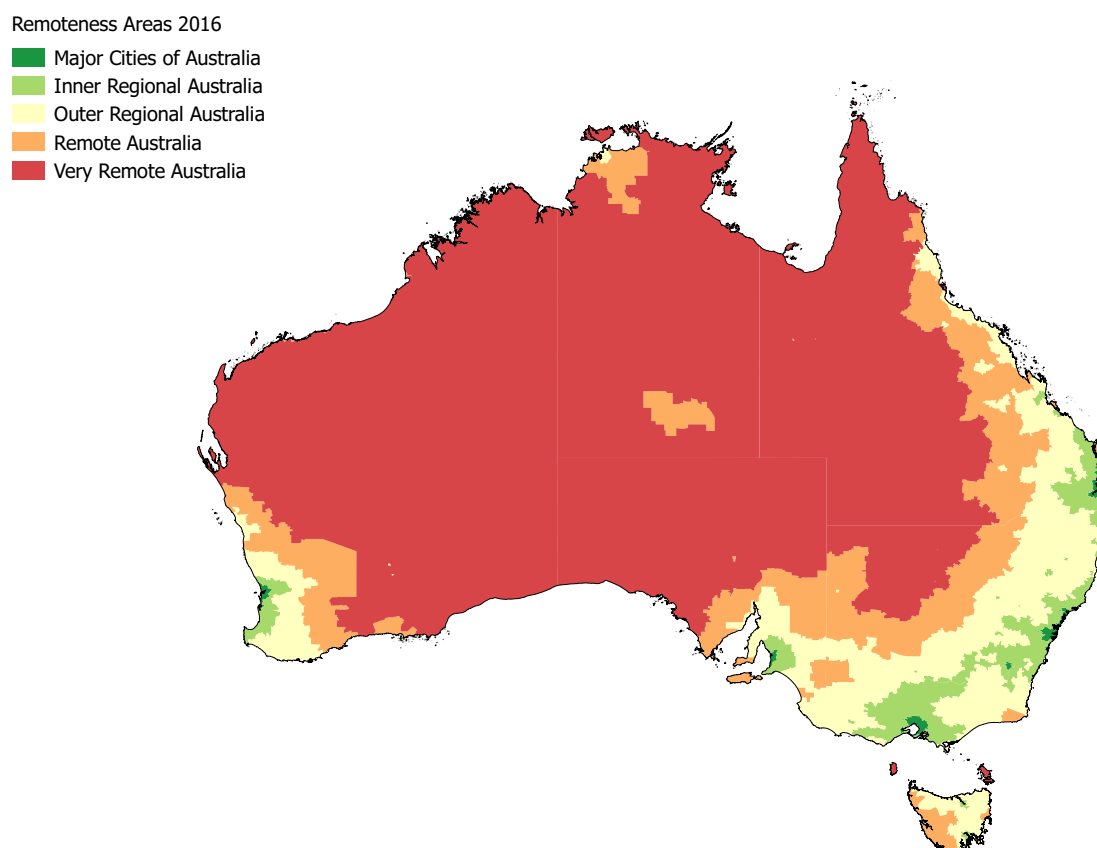
Remoteness classes

The remoteness classes are from the ABS Remoteness Area classification, which divides Australia into five classes based on relative access to services (Figure 1). This classification enables comparisons of how outcomes vary between large regions that share common characteristics of remoteness. These remoteness classes are:

· Major cities of Australia;

· Inner regional Australia;

· Outer regional Australia;

· Remote Australia; and

· Very remote Australia.

As examples, Dubbo (NSW) and Bunbury (WA) are in Inner Regional Australia, Darwin (NT) and Port Pirie (SA) are in Outer Regional Australia, and Christmas Island, the Cocos (Keeling) Islands and Norfolk Island are in Very Remote Australia.

The Yearbook 2017 used the 2011 ABS Remoteness Area classification, which was the latest at the time. Since then, the ABS has released the 2016 ABS Remoteness Area classification. Therefore, this edition of the Yearbook reclassifies the Census data from the 2011 ABS Remoteness Area classification to the 2016 ABS Remoteness Area classification. Updates to indicators which use other data sources have also been provided in 2016 ABS Remoteness Area classification where possible. Where the 2011 ABS Remoteness Area classification has been retained, this has been indicated in the footnotes of the tables.

Figure 1   Remoteness classes, 2016 Australian Statistical Geography Standard (ASGS)

Remoteness Areas 2016
- Major Cities of Australia
- Inner Regional Australia
- Outer Regional Australia
- Remote Australia
- Very Remote Australia

Source: ABS 2018, Australian Statistical Geography Standard (ASGS): Volume 5 – Remoteness Structure, July 2016 (cat. no. 1270.0.55.005)

Major urban areas

The major urban areas[7] (MUA) of Australia are identified as the large urban cores and surrounding built-up urban areas with a population of more than 85,000 residents in 2016 (Figure 2). Throughout the Yearbook the major urban areas are presented in order of population, with the most populated areas at the top of the tables and the least populated areas at the bottom. In total, Australia's 20 largest cities have been included in the Yearbook (Table 3).

Table 3   Statistical geographic areas used to define Australia's major urban areas

Greater Capital City Statistical Areas (GCCSAs)	Significant Urban Areas (SUAs)	
Greater Sydney	Gold Coast - Tweed Heads	Cairns
Greater Melbourne	Newcastle - Maitland	Toowoomba
Greater Brisbane	Canberra - Queanbeyan	Ballarat
Greater Perth	Sunshine Coast	Bendigo
Greater Adelaide	Wollongong	Albury - Wodonga
Greater Hobart	Geelong	Launceston
Greater Darwin	Townsville	

Source: ABS 2017, Australian Statistical Geography Standard (ASGS): Volume 4 - Significant Urban Areas, Urban Centres and Localities,
Section of State, July 2016 (cat. no. 1270.0.55.004), ABS 2016, Australian Statistical Geography Standard (ASGS):
Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

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7   Note that while major urban areas are not themselves an ABS geography they were developed using existing ABS geographies.

For the seven capital cities (excluding Canberra), the ABS-defined Greater Capital City Statistical Areas (GCCSAs) have been used to represent the major urban area. These regions represent the functional socio-economic extent of each of the state and territory capitals. The boundaries cover people who regularly socialise, shop or work within each city, including those who live in small towns and rural areas surrounding the city.

The remaining 13 major urban areas are based on the ABS-defined Significant Urban Areas (SUAs). SUA regions are concentrations of urban development with a population of 10,000 people or greater, which include a dense urban core and some surrounding hinterland. SUAs do not represent the functional labour market zone of a major city, as many people who live outside the urban area may still travel to work inside the urban area.

Canberra has been defined by the SUA of Canberra - Queanbeyan, which crosses the New South Wales and Australian Capital Territory border and so includes a wider urban extent than the GCCSA of the ACT. While Canberra is still a capital city, the SUA used to define the major urban area of Canberra - Queanbeyan is a better approximation of the wider urban core that crosses the state border. Similarly two other SUAs cross state boundaries: the Gold Coast - Tweed Heads SUA crosses the Queensland and New South Wales border; and the SUA of Albury-Wodonga crosses the New South Wales and Victoria border.

In some cases the names of major urban areas are the same as those for the larger sub-state regions in which they are located (see sub-state regions below). For example, the major urban area of Cairns is located within the sub-state region of the same name. In these cases the major urban area is always smaller than the wider sub-state region, which often includes a significant amount of the surrounding hinterland.

Figure 2   Major urban areas – Greater Capital City Statistical Areas (GCCSA) and Significant Urban Areas (SUA)
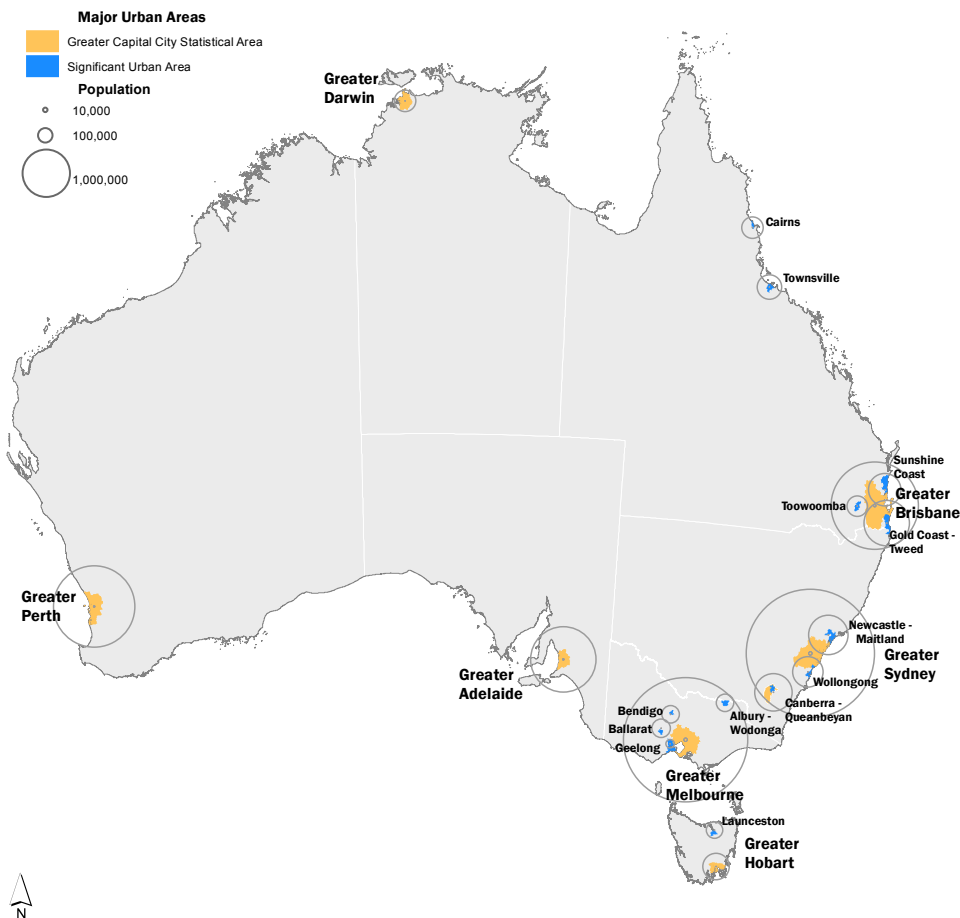
Source: ABS 2017, Australian Statistical Geography Standard (ASGS): Volume 4 - Significant Urban Areas, Urban Centres and Localities, Section of State, July 2016 (cat. no. 1270.0.55.004); and ABS 2016, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

Capital city and balance of state

For some of the indicators, data for remoteness classes or major urban areas is unavailable. In these cases the indicator is presented for the capital city and balance of the state (using the ABS' GCCSA geography). Each state is divided into the region which represents the socio-economic extent of each of the eight state and territory capital cities and the regions that represent the remaining area of the state or territory. These capital cities are the same geographic regions defined in the major urban areas geography (with the exception of Canberra - Queanbeyan), which are based on the GCCSA territory boundary. An aggregate figure for all capital cities and all rest of state areas is provided where data is presented for capital cities and the balance of state. Aggregate figures for Australian capital cities includes data for the Australian Capital Territory.
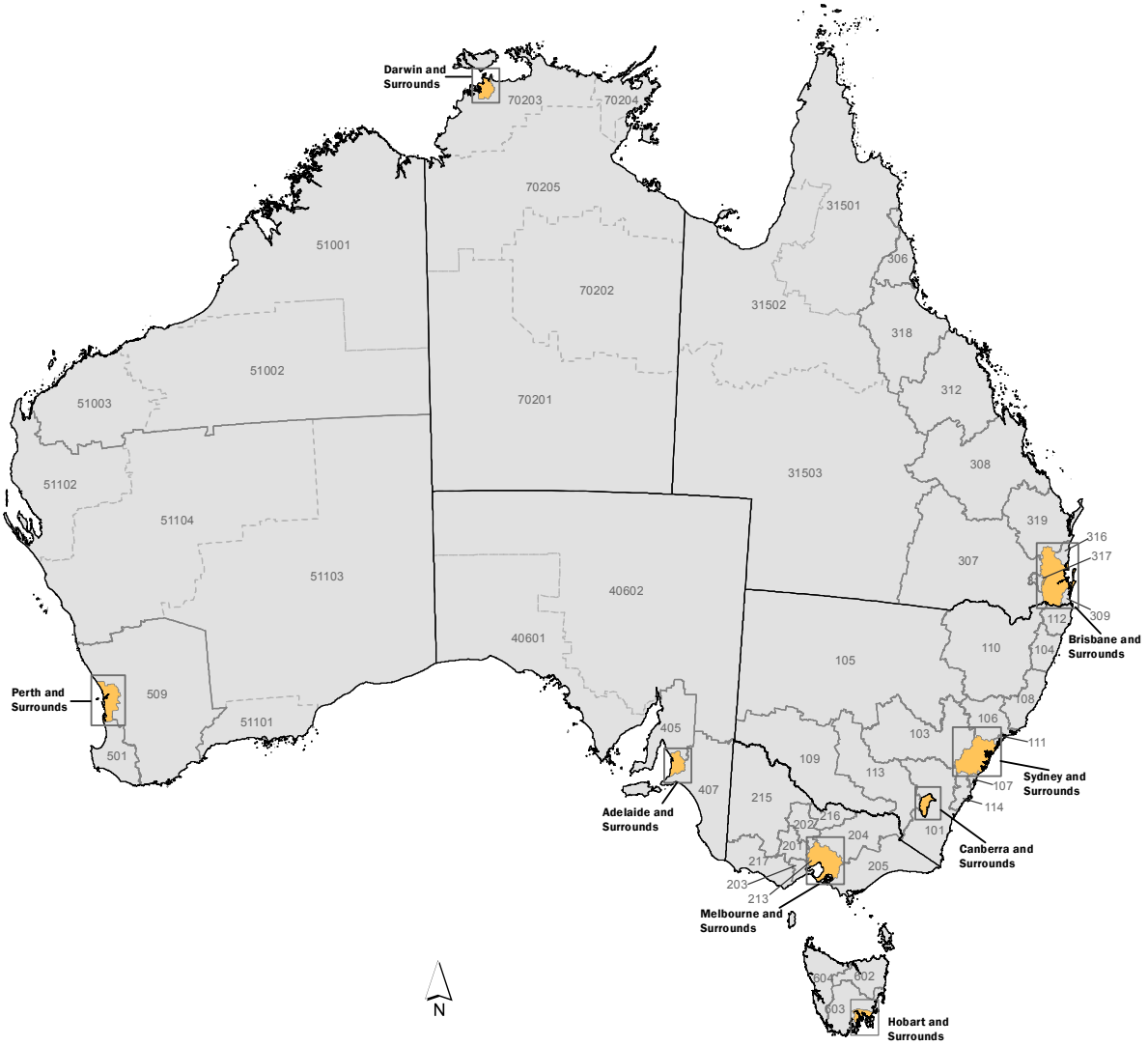
Sub-state regions

The sub-state regions in the Yearbook are geographic areas within the states and territories (Figure 3). Statistical Areas Level 4 (SA4s) are informed by labour market catchment areas, the population of the region, state and territory boundaries and sample design of the ABS Labour Force Survey.

These regions have a minimum population of 100,000, with some exceptions for sparsely populated remote areas. In regional areas, SA4s tend to have populations closer to the minimum (100,000 - 300,000). In metropolitan areas, SA4s tend to have larger populations (300,000 - 500,000).

The sub-state regions aggregate to the capital cities and the balance of the states (the GCCSA classification). For example, the GCCSA of Greater Sydney is made up of 15 SA4s and the remaining 13 SA4s in New South Wales make up the balance of the state.

In addition, based on user feedback, since 2016 the Yearbook has included data for Statistical Areas Level 3 (SA3s), where available, for outback regions in Queensland, South Australia, Western Australia and the Northern Territory within the data tables for sub-state regions. The SA3s provide an indication of the variation within these sub-state regions. However, because only selected SA3s have been included in the tables, they are not considered in the discussions in the accompanying text, for example in relation to the largest changes.
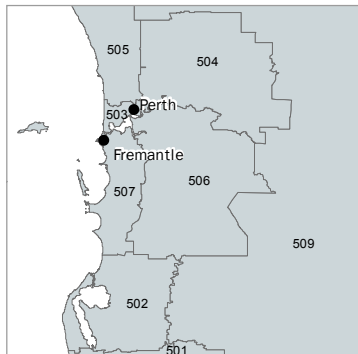
Figure 3   Sub-state regions – Greater Capital City Statistical Areas and Statistical Areas Level 3 (in Outback areas) and Level 4, 2016 ASGS

Source: ABS 2016, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

Sub-state regions – Greater Capital City Statistical Areas and Statistical Areas Level 3 (in Outback areas) and Level 4, 2016 ASGS (continued)

Perth and Surrounds

Darwin and Surrounds

Brisbane and Surrounds
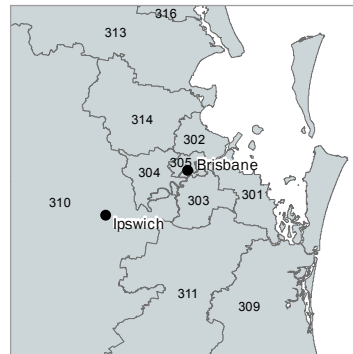
Adelaide and Surrounds

Melbourne and Surrounds

Sydney and Surrounds

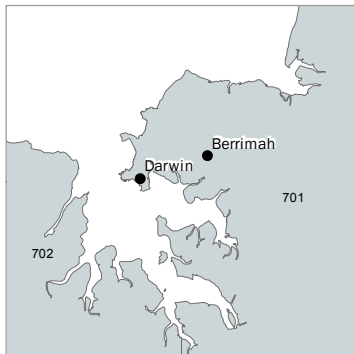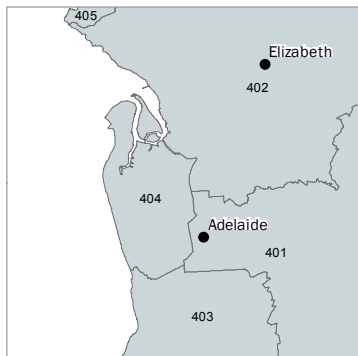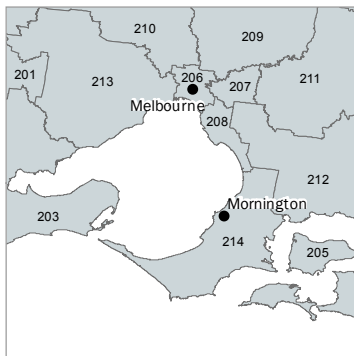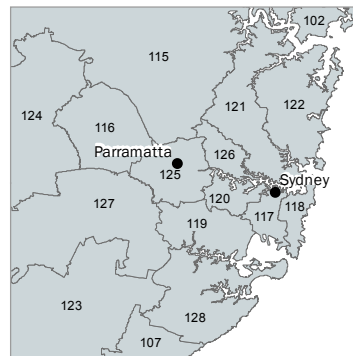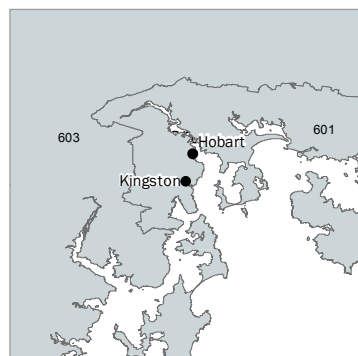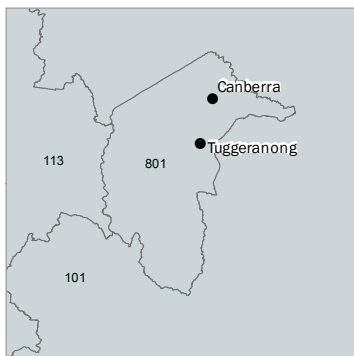### Hobart and Surrounds

Canberra and Surrounds

Source: ABS 2016, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

Table 4   List of sub-state regions based on 2016 ASGS

New South Wales			
Greater Sydney		*Rest of New South Wales*	
102	Central Coast	101	Capital Region
115	Sydney - Baulkham Hills and Hawkesbury	103	Central West
116	Sydney - Blacktown	104	Coffs Harbour - Grafton
117	Sydney - City and Inner South	105	Far West and Orana
118	Sydney - Eastern Suburbs	106	Hunter Valley exc Newcastle
119	Sydney - Inner South West	107	Illawarra
120	Sydney - Inner West	108	Mid North Coast
121	Sydney - North Sydney and Hornsby	109	Murray
122	Sydney - Northern Beaches	110	New England and North West
123	Sydney - Outer South West	111	Newcastle and Lake Macquarie
124	Sydney - Outer West and Blue Mountains	112	Richmond - Tweed
125	Sydney - Parramatta	113	Riverina
126	Sydney - Ryde	114	Southern Highlands and Shoalhaven
127	Sydney - South West		
128	Sydney - Sutherland		
Victoria			
Greater Melbourne		*Rest of Victoria*	
206	Melbourne - Inner	201	Ballarat
207	Melbourne - Inner East	202	Bendigo
208	Melbourne - Inner South	203	Geelong
209	Melbourne - North East	204	Hume
210	Melbourne - North West	205	Latrobe - Gippsland
211	Melbourne - Outer East	215	North West
212	Melbourne - South East	216	Shepparton
213	Melbourne - West	217	Warrnambool and South West
214	Mornington Peninsula		
Queensland			
Greater Brisbane		*Rest of Queensland*	
301	Brisbane - East	306	Cairns
302	Brisbane - North	307	Darling Downs - Maranoa
303	Brisbane - South	308	Central Queensland
304	Brisbane - West	309	Gold Coast
305	Brisbane Inner City	312	Mackay - Isaac - Whitsunday
310	Ipswich	315	Queensland - Outback
311	Logan - Beaudesert	316	Sunshine Coast
313	Moreton Bay - North	317	Toowoomba
314	Moreton Bay - South	318	Townsville
		319	Wide Bay
South Australia			
Greater Adelaide		*Rest of South Australia*	
401	Adelaide - Central and Hills	405	Barossa - Yorke - Mid North
402	Adelaide - North	406	South Australia - Outback
403	Adelaide - South	407	South Australia - South East
404	Adelaide - West		
Western Australia			
Greater Perth		*Rest of Western Australia*	
502	Mandurah	501	Bunbury
503	Perth - Inner	509	Western Australia - Wheat Belt
504	Perth - North East	510	Western Australia - Outback (North)
505	Perth - North West	511	Western Australia - Outback (South)
506	Perth - South East		
507	Perth - South West		
Tasmania		**Northern Territory**	
601	*Greater Hobart*	701	*Greater Darwin*
Rest of Tasmania		*Rest of Northern Territory*	
602	Launceston and North East	702	Northern Territory - Outback
603	South East	**Australian Capital Territory**	
604	West and North West	801	Australian Capital Territory

Source: ABS 2016, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001)

Reading the tables

The Yearbook presents changes by indicator for regions across time. These tables include both the values for the indicators as well as a visual representation of the change in the indicator. Table 5 provides guidance on reading Yearbook tables and an explanation of key features.

The change bars represent the change in the indicator from the first reference period to the last reference period. The size of the bar corresponds to the size of the change. The change bars use a consistent scale within a single table, however, the scales may vary between tables, including using a separate scale for a single indicator across the different geographic levels.

When this change is indicative of progress in the region, the bar is coloured blue. When the change is indicative of regression in the region, the bar is coloured pink. The colour of the bar does not always correspond to the direction of the sign of the value. For the contextual indicators, the change bars are coloured grey irrespective of the direction of the change because these changes are not related to the concepts of progress or regress.

In some cases changes over time have been calculated before the rounding of table data. In these cases, the figure published for change over time may not sum with the rest of the data published for that region.

Table 5   Example table with guidance for interpretation

Remoteness Class	2006 per cent	2011 per cent	2016 per cent	2006-2016 change percentage points
Major Cities	53.2	54.0	55.6	2.4
Inner Regional	*56.3	55.7	52.3	-52.3
Outer Regional and Remote	55.4	51.9	50.8	-4.6

Geographic regions
Based on the ABS Australian Statistical Geography Standard (ASGS).

Relative standard errors
* Indicates that the estimate has a relative standard error between 25 per cent and 50 per cent and should be used with caution.

Change
Presents the change in the indicator from the first reference period to the last reference period. The size of the bar corresponds to the size of the change. When the change is indicative of progress in the region, the bar is coloured blue. When the change is indicative of regression in the region, the bar is coloured pink. The colour of the bar does not always correspond to the direction of the sign of the value.

Source: BITRE analysis

Data quality and availability

Data quality

The indicators selected for inclusion in this Yearbook have met criteria that set a benchmark for the statistical quality of the data. These criteria are:

- Regional availability – indicators should be available for at least one, but preferably two or more geographic scales.
- Time series – progress indicators should be available as a consistent time series, with data frequency that supports assessment of medium-term trends. This also means that there should be firm plans for the data to be collected again in the short or medium term.
- Authoritative – indicators should be collected by an official or government organisation, or a private organisation with a recognised history of high quality data provision.
- Nationally consistent – indicators should be available on a nationally consistent basis. In cases where the data is collected by individual jurisdictions, it should use a consistent set of concepts and methods across regions.

However, some geographies are very small and data presented at this scale will be subject to volatility over time, particularly those presented at the Statistical Area Level 3 scale.

There will be some variations in the data from previous Yearbooks for some indicators due to:

- Changes in statistical geographies;
- ABS data perturbation that randomly adjust cell values to minimise the risk of identifying individuals in aggregate statistics; and
- Changes in methods of calculations or data sources – for example, changing sources from the Census to the ABS Labour Force Survey for labour market indicators.

Data gaps

When developing the MAP publication, the ABS identified several progress themes that did not have any current data sources to support the measurement of progress at a national level. These themes are not represented in this Yearbook and represent current gaps in our ability to measure progress on key elements of societal progress.

Regional data

Developing this publication has highlighted where availability of regional data is limited. Some indicators included in this publication are only available at a limited number of geographic scales, are available on geographic scales that do not allow for easy comparisons to other indicators, or must be built from alternative data sources.

Some indicators which have high quality and timely data sources at the national level cannot be disaggregated to smaller geographic regions and therefore proxy indicators have been used. These indicators may not exactly match those presented in the ABS MAP publication, but broadly capture the same concepts of progress. Care should be taken when comparing the national data included in this Yearbook with the data presented in the MAP publication.

In other cases, there is extensive information published at the national and state level by government departments and agencies. Australian Government sites which may prove particularly useful in accessing regional data are nationalmap.gov.au and data.gov.au

Online access

The online datasets will provide a more detailed geographic breakdown of data, allowing users to access data for Local Government Areas (2017) and Statistical Areas Level 2 (SA2), where data is available. This more detailed data will provide the opportunity to develop better insights at the sub-state level.

The web data will be available from both the Australian Government data site data.gov.au and the Bureau of Infrastructure, Transport and Regional Economics (BITRE) web site bitre.gov.au.

For further development

It's important to acknowledge that the existing set of indicators have some gaps. Data to be released in the next few years may help fill some of those gaps. Some examples are provided below:

- A considerable number of indicators rely on data from the ABS that is available less frequently than yearly. In the future, there may be potential to improve the frequency of available data through statistical techniques such as data pooling to provide rolling annual estimates.

- Some data is still only available for capital city and balance of state; lower level geography is currently not available but is highly desirable. In the future, there may be potential to improve the level of geographic disaggregation through small area estimation techniques that are becoming increasingly standard methods for production of data at the ABS.

- Data collection methods for traffic data and environmental indicators are constantly being improved. In the future, there may be potential to review the sources being used for the Yearbook's traffic and environmental indicators, to ensure the most reliable data available is being used.

In 2016 and 2017, a comprehensive assessment of the Indicator Framework for the Yearbook was conducted in consultation with a wide range of Commonwealth, state and territory departments and the university sector, and in partnership with the ABS. This involved reviewing existing data sources to ensure indicator quality is maintained over time and that information can continue to be presented in a consistent format, as well as seeking feedback on the usefulness and relevance of existing indicators, and potential new indicators and data sources. This review led to the inclusion of 10 new indicators in the 2017 edition of the Yearbook.

Readers are encouraged to provide feedback or suggestions for further development by email to Regional.Progress@infrastructure.gov.au.