



Understanding regional data: Employment

Employment is a key indicator of local activity within regional economies. Additionally, it provides a signal for job opportunities and allows comparison with other regions and national figures.

This factsheet will guide you through the available data and how to analyse it, including the important trade-off between timeliness and the level of geographical detail when selecting an employment dataset.



Investigating regional employment

Employment is a direct indicator of the state of the local economy. It can be examined from several angles to consider how a local economy is performing, and its potential to recover from a shock.



Employment size

A key to understanding a labour market is to consider the geographical scale in which it operates. Generally, the skills diversification offered within a larger labour market provides insulation against the disrupting effects of economic shocks. However, a large workforce may not provide a sufficient buffer if it is difficult to switch between local industries or people in the region experience difficulty finding jobs.

For example, people living within a capital city have access to an expansive labour market, while remote locations may not have the same level of resilience.



Employment change

Understanding the timing and reasons behind employment changes can provide broad insight into the health of a regional economy. Employment change often focuses on:

- The change in the number of employed persons between any two years of interest
- Year-on-year change time series data

Patterns of positive growth in the number of people employed suggests a strong local economy capable of adapting to change or handling a local economic shock. In order to provide context in understanding whether the trends observed are regionally specific or reflective of broader economic outcomes, a region's employment trend should be compared to state/national figures, or to similar regions over the same period.



Employment versus jobs

Employment data from the Labour Force Survey (LFS) presents the number of people who have worked at least one hour in the survey week or were

not at work, but were employees or owner-managers. It can be further divided according to other key factors, such as age, sex, industry, occupation and full-time/part-time employment.

Jobs data refers to the relationship between an employed person and their employing enterprise. An employed person can hold several jobs, with one or multiple employers, either held concurrently or in succession.



Summary of data sources and characteristics

There are three commonly used sources of employment data:

- Labour force survey (LFS)
- Census; and
- Jobs in Australia.

There are trade-offs in the use of these datasets, in terms of timeliness, frequency, geographic detail, and survey/count location. For example, census provides greater geographical detail, while a survey is based on a smaller 'representative' sample with a limited geographical scope.



Table 1: Commonly used sources of employment data

		Data sources		
		Labour Force Survey	Census	Jobs in Australia
Data characteristics	Role	Provides Australia's official measure of employment	Measures the people in Australia on census night and their characteristics, including labour force status	Provides the number and nature of filled jobs, the people who hold them and their employers
	Spatial detail	Statistical Area 4 (SA4) and above	Statistical Area 2 (SA2) and above, Local Government Areas (LGA), Remoteness Areas, and other standard census geographies	SA2s and above, LGAs
	Frequency	Monthly (quarterly at industry level)	Every five years	Annually
	Timeliness	Released month after reference period	Released just over a year after reference period	Released over two years after reference period
	Reference period	Months (quarterly smoothed over a year for industry data)	The week before the census in August	Financial years
	Time series	October 1998 onwards	Census time series dataset	Currently 2015–16 to 2019–20
	ANZSIC detail	1 digit (eg, 'mining', 'manufacturing')	Down to 4-digit (eg, 'Iron ore mining', 'milk and cream processing')	1-digit at SA2 and LGA, 2-digit (eg, 'metal ore mining', 'food product manufacturing') at SA4
	Survey/count location	Place of usual residence	Place of usual residence and Place of work	Place of usual residence

Smoothing regional labour force data

At the SA4 scale, monthly observations from the LFS should be smoothed and presented as a yearly average due to volatility of the underlying data. LFS data is useful for understanding medium and long-term regional trends but short-term (less than a year) changes should be used with caution. All data presented in this factsheet is based on a 12-month average.



Presentation tips

The way in which employment data is presented can have a significant impact on how easily, and effectively, changes can be interpreted and understood. Three useful presentation approaches include summary tables, comparative graphs and maps.



Presentation tip 1: Comparing the growth rates in a summary table

Summary tables allow readers to obtain values for a particular region or time period. However, tables can require more time and experience on the reader's part to determine patterns. For example, the Tasmanian SA4s' employment growth over the past five years illustrates a high degree of variation across the time periods and between the regions. To illustrate, employment in Tasmania's region of West and North West had a very slight decline over the five years to June 2022, but this figure does not illustrate the full picture.

Table 2: Tasmania employment growth

	Employed (persons)	Annual growth (%)	Average annual growth (%)	Average annual growth (%)
Region (SA4)	June 2022	Year to June 2022	June 2020–22	June 2017–2022
Hobart	120,305	1.4	1.7	2.3
Launceston and North East	72,849	2.2	2.4	2.2
Tasmania South East	18,350	3.6	-0.3	1.7
Tasmania West and North West	51,153	5.0	3.2	-0.02
Australia	13,272,968	3.1	1.8	1.9



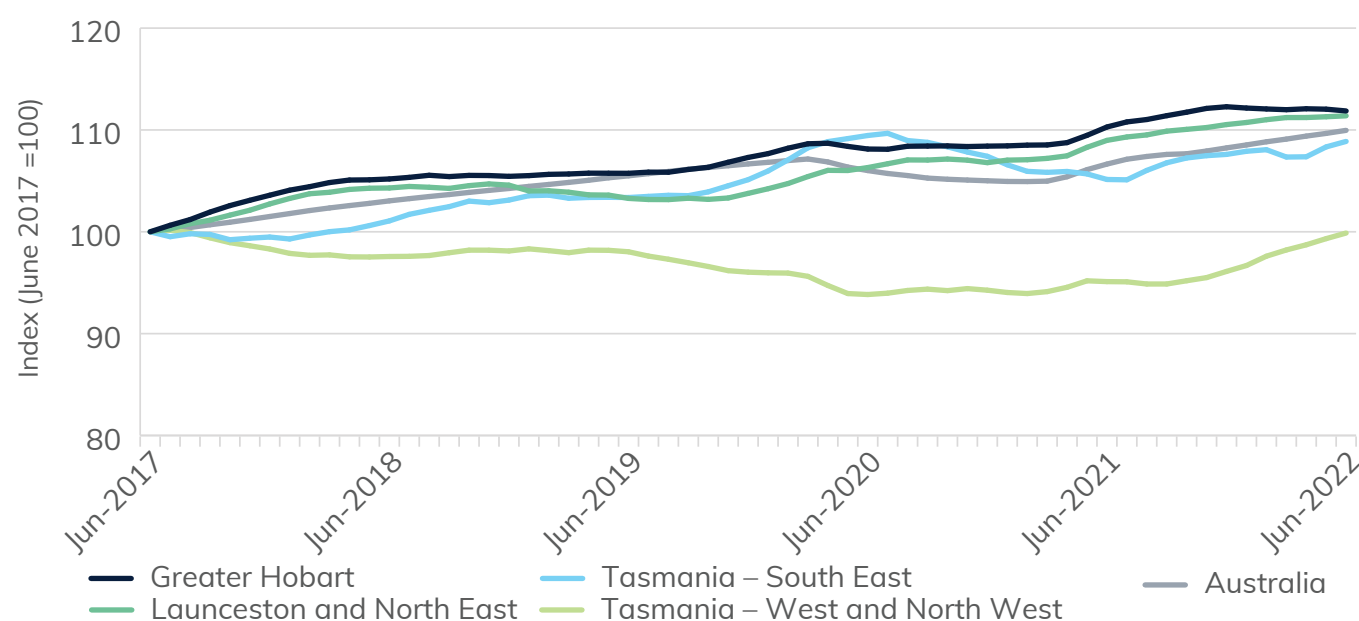
Presentation tip 2: Comparing one or more regions (using an index approach)

When there is a wide variation in the average growth estimates, an index is ideal to view the overall picture.

The chart below shows the pattern of employment growth across the Tasmanian SA4s. West and North West's employment declined in the beginning, but grew again to be close to its June 2017 estimate by June 2022. The decline in employment was primarily in the industries of Retail Trade and Construction. In contrast, employment growth over the past two years was in Education, Manufacturing and Construction (industry data is explored further in the Understanding Regional Data: Industry factsheet – forthcoming publication).

Indices are also ideal to comparing multiple regions in a graphical format to consider long term employment change, particularly to compare with state/territory change, or national change. See the [Understanding Regional Data: Population](#) for more guidance on how to construct indices and setting start periods at 100.

Figure 1: Tasmania monthly employment growth – Index

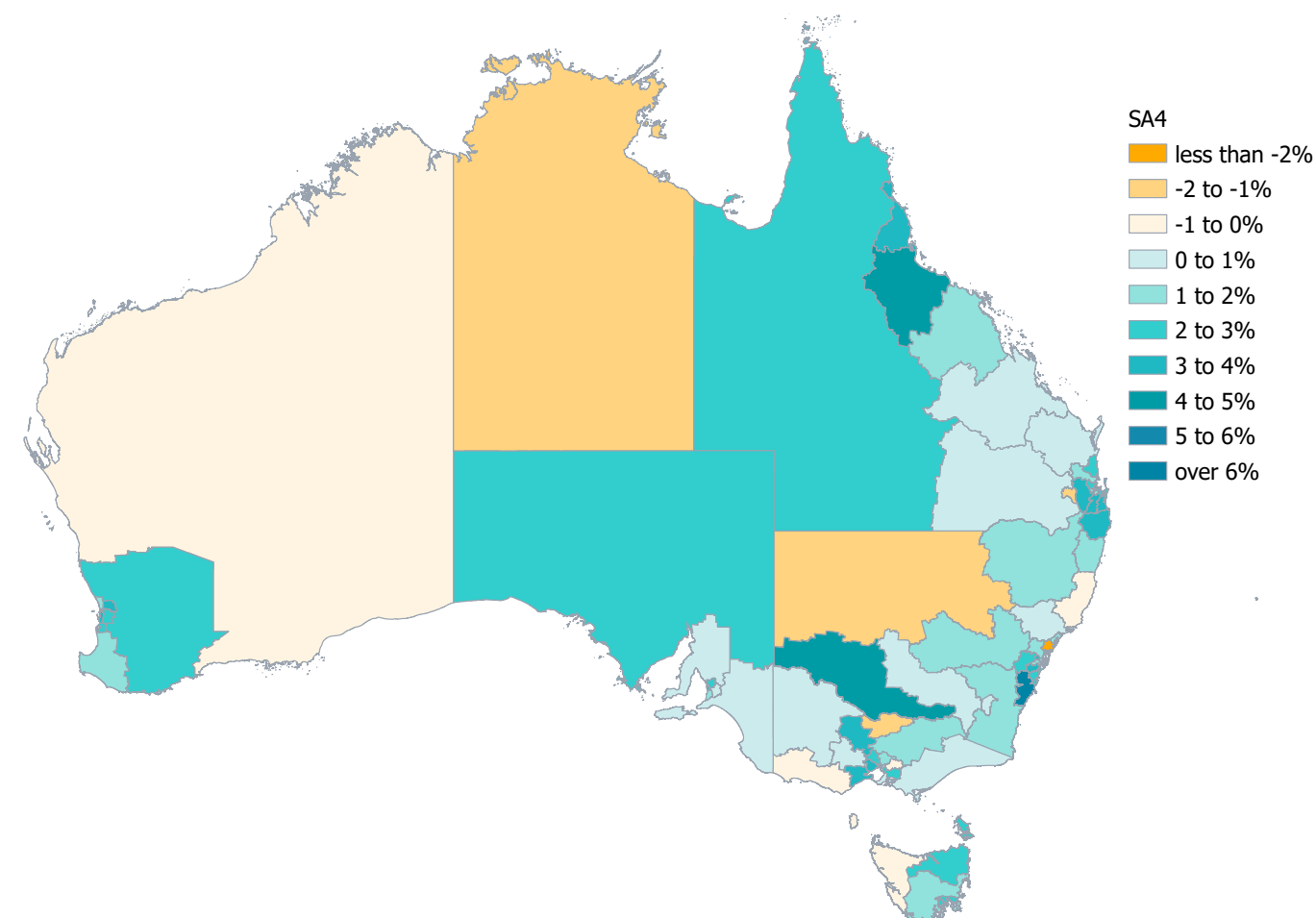


Presentation tip 3: Comparing regions in a map

Comparative maps are useful for quickly getting an overall picture of a large number of different regions. Note when using static maps that they can be difficult to interpret for small regions and may often lose detail by showing a single figure for a large area that can contain considerable variation within it.

For example, Sydney – North Sydney and Hornsby is in the lowest class of employment growth but it is difficult to tell from this map due to its small size. Where available, these limitations can be overcome by creating interactive maps that allow users to zoom, pan around, search and identify specific features of the underlying data.

Figure 2: Employment average annual growth over 5 years to June 2022





Appendix 1: Labour market data summary

Regional labour force data is available across multiple dimensions. A range of the key data additional to employment is presented below.

Labour Force (size)

Stock of all people actively participating in the labour market. Comprises employed and unemployed people. The labour force size is a measure of the human capital of a region.

Labour Force Survey (LFS) – Detailed

Scale: SA4 and above

Time: Monthly from October 1998

Note: Place of usual residence

Census – Labour Force

Scale: SA2 and above, SUA, Remoteness Areas, and other standard census geographies

Time: Census years

Note: Count by place of usual residence

Working age population

Persons aged 15 to 64 years, illustrating a region's current and future labour capacity.

Scale: SA2 and above; LGAs

Time: Annual data, released late August

Geographical acronyms:

SA4	Statistical Areas Level 4
SA2	Statistical Areas Level 2
LGA	Local Government Areas
SUA	Significant Urban Areas
GCCSA	Greater Capital City Statistical Areas

Jobs

Stock and nature of filled jobs, noting people can hold multiple jobs.

Jobs in Australia

Scale: SA2 and above, LGA

Time: Currently 2015–16 to 2019–20

Note: Count by place of usual residence. Industry and occupation.

Weekly payroll jobs

Payroll jobs are employee jobs paid through payrolls. As such, some industries (agriculture and construction) are underrepresented due to high proportions of owner managers.

Scale: SA3 and above (SA4, GCCSA)

Time: Weekly data from January 2020

Note: Based on ATO single touch payroll data. Index; baseline is start of COVID period (week to 14 March 2020=100).

Employment projections

Employment projections provide insights into future job growth and opportunities for occupations and skill levels.

Employment projections

Scale: GCCSA/Rest of state, States and Territories

Time: Currently 2020 to 2025

Note: Includes projections by 1-digit Australian and New Zealand Standard Industrial Classification (ANZSIC).

Earlier versions were available at a finer spatial level, but the projections for the five years to November 2025 are not. This is due to disruption to the data caused by COVID-19 combined with the small scale of these series.

Hours worked and underemployment/underutilisation

Detailed statistics on employed people showing actual hours worked in a job that contribute to the production of goods and services and number of employed persons in work but who want more work.

Labour Force Survey (LFS) – Detailed

Scale: SA4 and above

Time: Quarterly from August 1999

Note: Number of hours actually worked, includes by full time/ part time status. Annual averages over four quarters.

Labour Force Survey (LFS) – Detailed

Labour underutilisation encapsulates the extent to which people's desire for work is not being met.

Scale: SA4 customised report

Note: People who are employed but would like more hours of work (underemployed) and people who are unemployed as a proportion of the labour force. See [BCARR Progress in Australian Regions and Cities Dashboard](#)



Job search and recruitment

Provides insights into elements of finding (and recruitment for) a job, such as number of job ads, duration of search and jobactive caseload.

Labour Force Survey (LFS) – Detailed

People whose duration of active job search is 52 weeks or longer.

Scale: SA4 and above

Time: Monthly from October 1998 (SA4s)

Note: Includes median duration of job search; and median within categories (under 13 weeks; between 13 and 52 weeks; under 52 weeks; 52 weeks and over (long-term unemployed)).

Recruitment insights | Labour Market Insights

Survey of approximately 1,200 employers each month about their experience when recruiting staff.

Scale: Capital city and Rest of state

Time: Monthly

Note: Report based.

Internet vacancy index (IVI)

Count of online job advertisements.

Scale: IVI Regions (37)

Time: May 2010 onwards

Note: Detailed data includes by occupation.

Jobactive caseload

Jobactive was the Australian Government employment service which ran from July 2015 to June 2022. Workforce Australia replaced jobactive on 4 July 2022.

Scale: Employment Regions (51)

Time: Quarterly from September 2015

Note: Includes total, female, youth, mature age, Indigenous, person with a disability, refugee caseloads.

Unemployment rate/unemployed

Calculated rate showing the percentage of unemployed people as a proportion of all people actively participating in the labour market. A measure of how well an economy is able to generate employment for people who want to work.

$(\text{Unemployed} / \text{Labour force}) * 100 = \text{Unemployment rate.}$

Labour Force Survey (LFS) – Detailed

Scale: SA4 and above

Time: Monthly from October 1998

Note: Count by place of usual residence.

Australia's unemployment rate is presented as seasonally adjusted. However, at the regional scale only original is available. As such, when comparing Australia's unemployment rate, this should also be based on original estimates.

Small Area Labour Market (SALM)

Scale: LGAs and SA2 and above

Time: Quarterly from March 2020

Note: Place of usual residence; Smoothed using four-quarter average to minimise variability inherent in small area estimates.

The labour force and unemployed estimates within SALM should not be used to create employment estimates.

Census – Unemployment rate

Scale: SA2 and above, SUA, Remoteness Areas, and other standard census geographies

Time: Census years; 2021 available from October 2022

Note: Place of usual residence

Jobseeker Payment and Youth Allowance recipients – Monthly profile – Dataset

Scale: SA2 and above; LGA

Time: 2020 (JobSeeker); 2015–19 (Newstart)

Note: JobSeeker commenced in 2020

Participation rate

Calculated rate showing labour force as proportion of civilian population aged 15 years and above. This rate shows the relative amount of labour resources available for the production of goods and services.

An alternative definition for a participation rate is for persons 15 to 64 years to exclude retirees.

Labour Force Survey (LFS) – Detailed

Scale: SA4 and above

Time: Monthly from October 1998

Note: Calculated based on place of usual residence.

Census – Participation rate

Scale: SA2 and above, SUA, Remoteness Areas, and other standard census geographies

Time: Census years; 2021 available from October 2022

Note: Place of usual residence

Note: Calculated based on place of usual residence.