Bureau of Communications, Arts and Regional Research



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

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 method of calculation.

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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	SA2 and above, LGA		
	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	Monthly Modelled estimates (MRM1) and quarterly, smoothed over a year for industry	The week before the census in August	Financial years		
	Time series	MRM1 from January 2012, Industry (RQ1) from August 1999 quarter	Census time series dataset	From the 2011–12 financial year		
	ANZSIC detail	1 digit (e.g, 'mining', 'manufacturing')	Down to 4-digit (e.g, 'Iron ore mining', 'milk and cream processing')	1-digit at SA2 and LGA, 2-digit (e.g, '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		

ABS modelled estimates and smoothed regional labour force data

The ABS introduced modelled estimates for the LFS at the SA4 level, improving on direct survey estimates. It is recommended to use modelled estimates over the direct survey estimates whenever possible to report on employment and unemployment rates for regional labour markets. Note that ACT SA4 estimates will continue to use direct survey estimates. Other LFS data such as age and industry should be smoothed and presented as a yearly average due to volatility of the underlying data.

All data presented in this factsheet is based on ABS modelled estimates (Table MRM1).



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 and 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 year illustrate a degree of variation across the period and between the regions. To illustrate, employment in three of Tasmania's regions showed a decline in employment growth over the year to June 2024, but this figure does not illustrate the full picture in the shifts over time.

Table 2: Tasmania employment growth using MRM1 estimates

	Employed (persons)	Percentage change (%)	Percentage change (%)
Region (SA4)	June 2024	Year to June 2024	June 2022–2024
Hobart	131,302	-0.7	1.7
Launceston and North East	77,009	-1.6	1.0
Tasmania South East	20,006	0.6	2.0
Tasmania West and North West	55,066	-1.1	1.8
Tasmania	283,383	-1.0	2.5
Australia	14,405,227	2.4	5.8

Source: BCARR analysis of ABS Modelled estimates of labour force status by SA4, January 2020 to September 2024





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

When there is a variation in the growth estimates, an index is ideal to view the overall picture. The chart below shows the pattern of employment growth across the Tasmanian SA4s.

Tasmania South East exhibited the highest employment growth among the Tasmanian SA4s from June 2020 to June 2024, excluding July 2022 where the rate was below all Tasmanian SA4s and Australia. Australia had shown steady employment growth overtaking Tasmania South East from February 2024 onwards. The remaining three Tasmanian SA4s showed similar monthly employment growth and decline patterns, as seen throughout June 2020 to June 2024.

Observed for all Tasmanian SA4s and Australia is the fluctuation in employment growth in the months of December, January and February. This can be explained, in part, by job seasonality in the Australian labour market. Growth in December exhibits a high intake of seasonal jobs over the Christmas period. Decline in January is from people leaving seasonal jobs or the workforce.

Indices are also ideal for comparing multiple regions in a graphical format to consider long-term employment change, particularly when comparing 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 June 2020 – June 2024 – Index



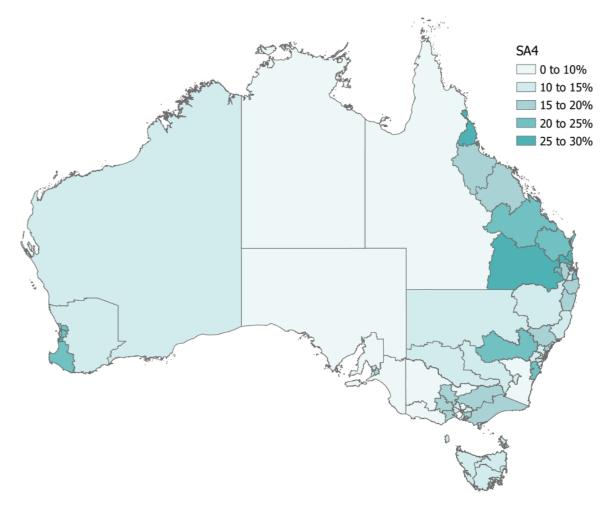


Presentation tip 3: Comparing regions in a map

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, Brisbane Inner City has the highest 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 percentage change over 4 years to June 2024 – using MRM1 estimates



Source: BCARR analysis of ABS Modelled estimates of labour force status by SA4, January 2020 to September 2024



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 January 2012

Note: Modelled estimates are recommended when reporting on

employment and unemployment rates for regional labour

markets.

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 and place of work

Working age population

Persons aged 15 to 64 years. Scale: SA2 and above. LGA

Time: Annual data, released late August

Geographical acronyms:

SA4 Statistical Areas Level 4 SA2 Statistical Areas Level 2 LGA **Local Government Areas** Significant Urban Areas

GCCSA Greater Capital City Statistical Areas

lobs

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

Jobs in Australia

Scale: SA2 and above, LGA

Time: 2011–12 to 2021–22 financial year.

Note: Count by place of usual residence. Includes 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: States and Territories

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: States and Territories

Time: Currently May 2024 to May 2034

Note: Includes projections up to 3-digit Australian and New Zealand Standard Industrial Classification (ANZSIC) and projections up to 4-digit Australian and New Zealand Standard Classification of Occupations (ANZSCO).

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

<u>Australian Regions and Cities Dashboard</u>



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.

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Scale: SA4 and above

Time: Monthly from October 1998 (SA4s)

Note: Includes median duration of job search; and median within categories.

Recruitment insights | Labour Market Insights

Survey of approximately 1,000 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.

Workforce Australia caseload

Scale: Employment Regions (51) Time: Monthly from October 2022

Note: Includes total, female, male, Indigenous, persons with a disability, refugee caseloads, etc.

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 January 2012

Note: Modelled estimates are recommended for reporting on regional labour markets.

Census – Participation rate

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

Time: Census years; 2021

Note: Calculated based on place of usual residence.

Labour Market Performance

Regional Labour Market Indicator (RLMI)

This indicator provides an interactive map based on 5 rating groups; 'Poor', 'Below average', 'Average', 'Above average', and 'Strong' - relative to the national average.

Scale: SA4s

Time: Quarterly from March 2003 to the reported quarter.

Note: Additional data includes:

- Working age employment rate
- Unemployment rate
- Proportion of the working age (15-64) on JobSeeker income support
- Underemployment rate
- Vacancy fill rate