

Employment by industry statistics: a quick guide

Penny Vandebroek
Statistics and Mapping Section

Introduction

This guide provides a brief overview of employment by industry and lists some relevant data sources. This is one in a series of statistical quick guides, designed to provide a basic understanding of Australian labour market data. Other guides include [employment](#) and [labour force](#), which are available from the [Parliamentary Library](#) website.

Who are employed people?

The [International Labour Organization \(ILO\)](#) describes employed people as those above a specified age (i.e. 15 years and over) who performed any work at all in a specified brief period (i.e. reference week), and were either in paid employment, self-employed or temporarily absent from work. In paid employment, a person will have done some work for wages or salary, in cash or in kind. Self-employment refers to people who did some work for profit or family gain, in cash or in kind. For operational purposes, 'some work' is interpreted as work for at least one hour. The Australian Bureau of Statistics ([ABS](#)) uses this parameter in the measurement of employed. More detailed information on employment concepts and measures is available from the quick guide on [Employment statistics](#).

How is employment measured?

The ABS [Labour Force Survey](#) is designed to produce key estimates of employment (and unemployment) from a sample of approximately 56,000 people.

[Employed persons](#) are those aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in-kind, in a job or business or on a farm, or
- worked for one hour or more without pay in a family business or on a farm, or
- were employees, business owners or self-employed people who were temporarily not at work (see below for more information).

Note that the *Labour Force Survey* excludes some groups of people, including those living in institutions, members of permanent defence forces, certain diplomatic personnel, and overseas residents. More information is available from the [ABS](#).

Industry

Industry is a commonly used economic classification of employment. Industries are defined by the ABS through the [Australian and New Zealand Standard Industrial Classification \(ANZSIC\), 2006](#) (cat. no. 1292.0). The classification allows for the grouping of businesses that undertake similar activities, enabling integration of like businesses without duplication. A business includes any entity undertaking productive activities, including companies, not-for-profit organisations, government departments and enterprises.

ANZSIC has a hierarchical structure with four levels:

- Division (broadest level, or 1-digit)
- Subdivision (2-digit)
- Group (3-digit) and
- Class (finest level, or 4-digit).

At the Division level, there are 19 categories, identified by a letter (A to S). With the subsequent levels being labelled using numbers (two, three or four digits).

Example

| | |
|----------------|--|
| Division C | Manufacturing |
| Subdivision 23 | Transport equipment manufacturing |
| Group 231 | Motor vehicle and motor vehicle part manufacturing |
| Class 2311 | Motor vehicle manufacturing |

Generally, most labour statistics are released at the Division level, to allow some cross-classification by other characteristics, such as sex or state/territory of usual residence. More detailed information on the nature and objectives, units and methods of classification are available from [ANZSIC](#) (see Chapters 2, 3 and 4).

Industry of employment

A person's industry of employment relates to the activities undertaken by the business for which they work. Where a person works in more than one job, the industry classification relates to their main job—the one in which they usually work the most hours.

Since the mid-2000s, industry data has been automatically coded to an industry index from a survey participant's responses. Participants are asked to describe what kind of business or service is carried out at the place where they work. Using the previous example of motor vehicle manufacturing, a participant may include activities such as motor car manufacturing, motor vehicle assembling or fuel cell manufacturing. Participants are also asked for the name of their business or employer, to assist with coding when the activity descriptions prove difficult to match. This process however, may result in some inconsistencies, for which there have been no adjustments. The ABS provides further detail on changes to industry coding (classifications and methods) in Chapter 20 of [Labour statistics: concepts, sources and methods, 2013](#) (cat. no. 6102.0.55.001).

What types of estimates are available?

Each month and quarter the ABS releases employment data from the [Labour Force Survey](#). The releases include trend, seasonally adjusted and original estimates of the number of people employed by a range of characteristics. The quarterly release includes estimates by industry and by occupation. Quarterly labour force estimates are released for the months of February, May, August and November. Other sources of employment by industry data will be discussed elsewhere.

Industry of employment data is available in a range of tables (Excel spreadsheets) and data cubes (SuperTable files), see the '[Downloads](#)' tab. Variables in the tables include: sex; state/territory of usual residence; sector

(public/private); hours actually worked (all jobs); and underemployment. An expanded range of variables are available via the data cubes, including: age; greater capital city/balance of state; labour market region (small geographic areas); status in employment (main job); occupation; hours usually worked (all jobs); and unemployment (industry division of last job). Note that not all of these variables are available in one table and in some cases they are split across multiple tables.

Employment by industry (head count)

Table 1 provides the number of employed people (trend) from the February quarter 2015 to the same quarter in 2016. The change in the number of employed, per industry, between the two periods is shown as a per cent.

1. Snapshot of employment by industry—quarterly, 2015 to 2016(a)(b)

| Industry Division of employment(b) | Employed people | | | | | Change in employed Feb-15 to Feb-16 (%) |
|---|------------------|------------------|------------------|------------------|------------------|--|
| | Feb-15 ('000) | May-15 ('000) | Aug-15 ('000) | Nov-15 ('000) | Feb-16 ('000) | |
| Agriculture, Forestry and Fishing | 306.9 | 303.3 | 305.6 | 310.1 | 314.2 | 2.4 |
| Mining | 227.1 | 225.0 | 226.0 | 227.8 | 230.1 | 1.3 |
| Manufacturing | 905.0 | 897.5 | 882.6 | 868.0 | 859.5 | -5.0 |
| Electricity, Gas, Water and Waste Services | 139.0 | 139.2 | 139.3 | 139.4 | 139.5 | 0.4 |
| Construction | 1,037.7 | 1,035.0 | 1,041.1 | 1,051.3 | 1,061.5 | 2.3 |
| Wholesale Trade | 394.1 | 395.3 | 390.6 | 381.5 | 372.8 | -5.4 |
| Retail Trade | 1,223.4 | 1,227.4 | 1,246.2 | 1,270.2 | 1,291.7 | 5.6 |
| Accommodation and Food Services | 822.8 | 826.0 | 824.2 | 821.6 | 819.1 | -0.4 |
| Transport, Postal and Warehousing | 601.4 | 604.8 | 611.2 | 619.9 | 628.6 | 4.5 |
| Information Media and Telecommunications | 211.1 | 210.7 | 213.0 | 215.7 | 217.0 | 2.8 |
| Financial and Insurance Services | 405.2 | 408.7 | 420.8 | 434.3 | 444.4 | 9.7 |
| Rental, Hiring and Real Estate Services | 214.1 | 210.6 | 213.5 | 219.2 | 224.2 | 4.7 |
| Professional, Scientific and Technical Services | 981.6 | 1,004.6 | 1,015.3 | 1,019.1 | 1,020.4 | 4.0 |
| Administrative and Support Services | 392.0 | 402.6 | 413.0 | 421.4 | 428.4 | 9.3 |
| Public Administration and Safety | 735.6 | 735.7 | 736.4 | 738.8 | 741.9 | 0.9 |
| Education and Training | 912.2 | 921.5 | 927.9 | 927.8 | 924.0 | 1.3 |
| Health Care and Social Assistance | 1,427.7 | 1,472.3 | 1,499.0 | 1,508.4 | 1,510.5 | 5.8 |
| Arts and Recreation Services | 232.9 | 230.8 | 228.6 | 229.0 | 229.9 | -1.3 |
| Other Services | 475.1 | 478.7 | 477.2 | 471.0 | 464.4 | -2.2 |
| Total employed | 11,629.2 | 11,719.9 | 11,801.8 | 11,861.2 | 11,904.7 | 2.4 |

(a) Quarterly trend estimates. Based on a person's main job (where more than one job was held).

(b) Based on the [Australian and New Zealand Standard Industry Classification \(ANZSIC\), 2006](#), cat. no 1292.0.

Source: ABS, [Labour force, detailed, quarterly, February 2016](#), cat. no. 6291.0.55.003

Share of employment (per cent)

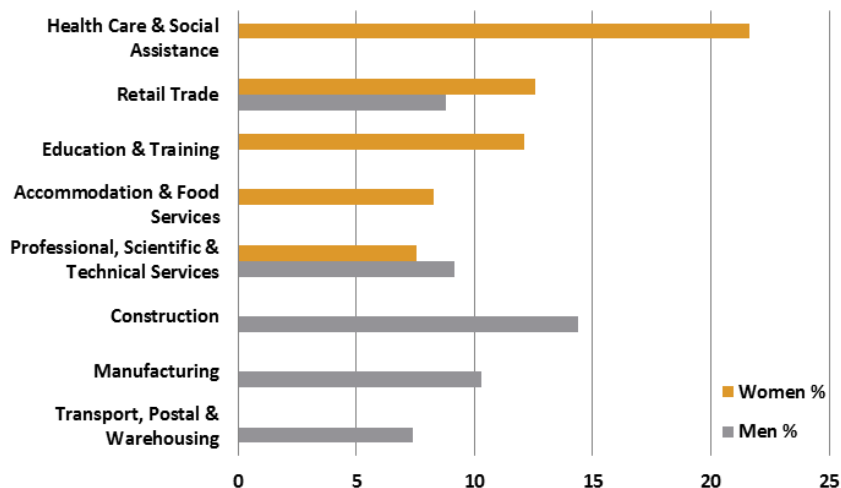
Table 2 provides the number of employed people as a share of total employment for each industry Division. The calculations are based on Table 1 and reflect the same period, February 2015 to February 2016.

2. Share of employed people by industry—quarterly, 2015 to 2016(a)(b)

| Industry Division of employment(b) | Proportion of total employed | | | | |
|---|------------------------------|--------------|--------------|--------------|--------------|
| | Feb-15 (%) | May-15 (%) | Aug-15 (%) | Nov-15 (%) | Feb-16 (%) |
| Agriculture, Forestry and Fishing | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| Mining | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 |
| Manufacturing | 7.8 | 7.7 | 7.5 | 7.3 | 7.2 |
| Electricity, Gas, Water and Waste Services | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Construction | 8.9 | 8.8 | 8.8 | 8.9 | 8.9 |
| Wholesale Trade | 3.4 | 3.4 | 3.3 | 3.2 | 3.1 |
| Retail Trade | 10.5 | 10.5 | 10.6 | 10.7 | 10.9 |
| Accommodation and Food Services | 7.1 | 7.0 | 7.0 | 6.9 | 6.9 |
| Transport, Postal and Warehousing | 5.2 | 5.2 | 5.2 | 5.2 | 5.3 |
| Information Media and Telecommunications | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 |
| Financial and Insurance Services | 3.5 | 3.5 | 3.6 | 3.7 | 3.7 |
| Rental, Hiring and Real Estate Services | 1.8 | 1.8 | 1.8 | 1.8 | 1.9 |
| Professional, Scientific and Technical Services | 8.4 | 8.6 | 8.6 | 8.6 | 8.6 |
| Administrative and Support Services | 3.4 | 3.4 | 3.5 | 3.6 | 3.6 |
| Public Administration and Safety | 6.3 | 6.3 | 6.2 | 6.2 | 6.2 |
| Education and Training | 7.8 | 7.9 | 7.9 | 7.8 | 7.8 |
| Health Care and Social Assistance | 12.3 | 12.6 | 12.7 | 12.7 | 12.7 |
| Arts and Recreation Services | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 |
| Other Services | 4.1 | 4.1 | 4.0 | 4.0 | 3.9 |
| Total employed | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

See Table 1 for notes and source information.

3. Top five share of employment by sex and industry—2015(a)(b)(c)



(a) Annual average of four quarters of original data, February to November.

(b) Industry employment as a proportion of total male or total female employment.

(c) Only two industries were in the Top five for both sexes.

Source: ABS, [Labour force, detailed, quarterly, February 2016](#), cat. no. 6291.0.55.003

Additional ABS data sources

Labour topics

The ABS produces a range of supplementary labour estimates through a series of topical releases. The most relevant of these are briefly described below.

***[Characteristics of employment, August 2014](#)*, cat. no. 6333.0**

This release contains estimates of employed people by a range of characteristics. Tables that include industry also include: full-time or part-time status (main job), occupation, hours worked, sex, trade union membership status, weekly earnings (main job), labour hire workers, and independent contractors. Several tables provide the more detailed level of industry Subdivision, including by sex. Note: this survey replaces several previous surveys, including: Employee earnings, benefits and trade union membership; Forms of employment; Working time arrangements; Labour mobility; Locations of work; and Labour hire. For more information see ABS, [Information paper: Outcomes of the labour household surveys content review, 2012](#) (cat. no. 6107.0).

***[Employee earnings and hours, May 2014](#)*, cat. no. 6306.0**

This release contains a range of earnings estimates by various employee characteristics. Tables that include industry Division also include: number of employees, average weekly total cash earnings, average age, rates of pay, method of setting pay (e.g. award), average hourly total cash earnings, selected age groups and distribution of earnings.

Economic indicators

The ABS also produces a range of products to provide economic indicators of business activity. The most relevant is [Australian Industry, 2013-14](#) (cat. no. 8155.0). This release includes estimates of employment and business activities, such as income, expenses, operating profit before tax, tax, depreciation and amortisation, and industry added value. Table 1 provides time series information on each industry Division from 2006–07. Table 2 provides the same details by industry Subdivision. There is also a special release on the Manufacturing industry, providing class data (most detailed level), or Division level by state/territory.

Tourism sector

‘Tourism’ is not an industry in the conventional sense, in that it does not fit neatly into a specific classification within ANZSIC. Whether the production is included in the scope of tourism (or not) depends on the characteristics of the consumer. For example, expenditure on a restaurant meal by a visitor contributes to tourism’s share of the economy, whereas expenditure by a local resident at the same restaurant does not. More information surrounding the concept of ‘tourism’, and the components included within the sector, is provided in the 2012 ABS Year Book article, [Tourism industry](#) (cat. no. 1301.0). Estimates of employment are provided in the [Tourism Satellite Account](#) (cat. no. 5249.0). However, the ABS advises that the intent of the collection is to provide information on the contribution of the ‘industry’ to the overall production of goods and services in the economy (e.g. GDP measured by gross value added) and that estimates of employment in the sector are merely a by-product of this process.

Other data sources

Workplace Gender Equality Agency data set

The Workplace Gender Equality Agency (WGEA) data set draws on reports submitted by more than 12,000 employers, covering 4 million employees across Australia. In 2014–15 the data represented approximately **40% of the total labour force**. A key strength of the data set is that information on all people employed by a business is included. A limitation of the data is that it only represents non-public sector employers with 100 or more employees. It therefore excludes the public sector, small organisations and many medium sized organisations. The [Data Explorer](#) is an interactive website that provides a platform for the data to be interpreted through key themes, including **industry** and gender equality. [Summary information](#) explains the concepts used and assists in interpreting the data.

Department of Employment

The Department of Employment publishes a number of industry reports through their [Labour Market Information Portal](#). The reports provide a range of information based predominantly on ABS data. At March 2016, there were reports covering the following industries: Construction; Manufacturing; Accommodation and Food Services; Education and Training; Retail Trade; Health Care and Social Assistance; Mining; Agriculture, Forestry and Fishing; and Professional, Scientific and Technical Services. Themes within each report include: employment (sectoral and geographic), workforce characteristics (age profile, gender and full-time/part-time work, educational qualifications, main employing occupations and earnings), future prospects, recruitment difficulties and skills shortages. The Department also produces [reports](#) on particular industry sectors, including the labour market outcomes of people exiting motor vehicle and motor vehicle part manufacturing (2006 and 2011 comparisons), and ICT workers (2014).

Australian Computer Society – ICT workers

The Australian Computer Society (ACS) published an annual [Australian ICT Statistical Compendium](#) from 2009 to 2013. The most recent report (2013) includes estimates of employment (based on ABS labour force data), as well as a range of helpful indicators, such as the contribution of ICT to GDP, spending on R&D, university students in ICT and temporary ICT migrants.

© Commonwealth of Australia



Creative Commons

With the exception of the Commonwealth Coat of Arms, and to the extent that copyright subsists in a third party, this publication, its logo and front page design are licensed under a [Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia](#) licence.