



Employment Outlook to May 2024

Based on the Department of Employment, Skills, Small and Family Business' 2019 employment projections

Table of Contents

Introduction	2
Projected employment growth by industry	3
Projected employment growth by occupation	6
Projected employment growth by skill level	9
Projected employment growth by state and territory.....	11
Projected employment growth by region	12
Background and methodology.....	14

Introduction

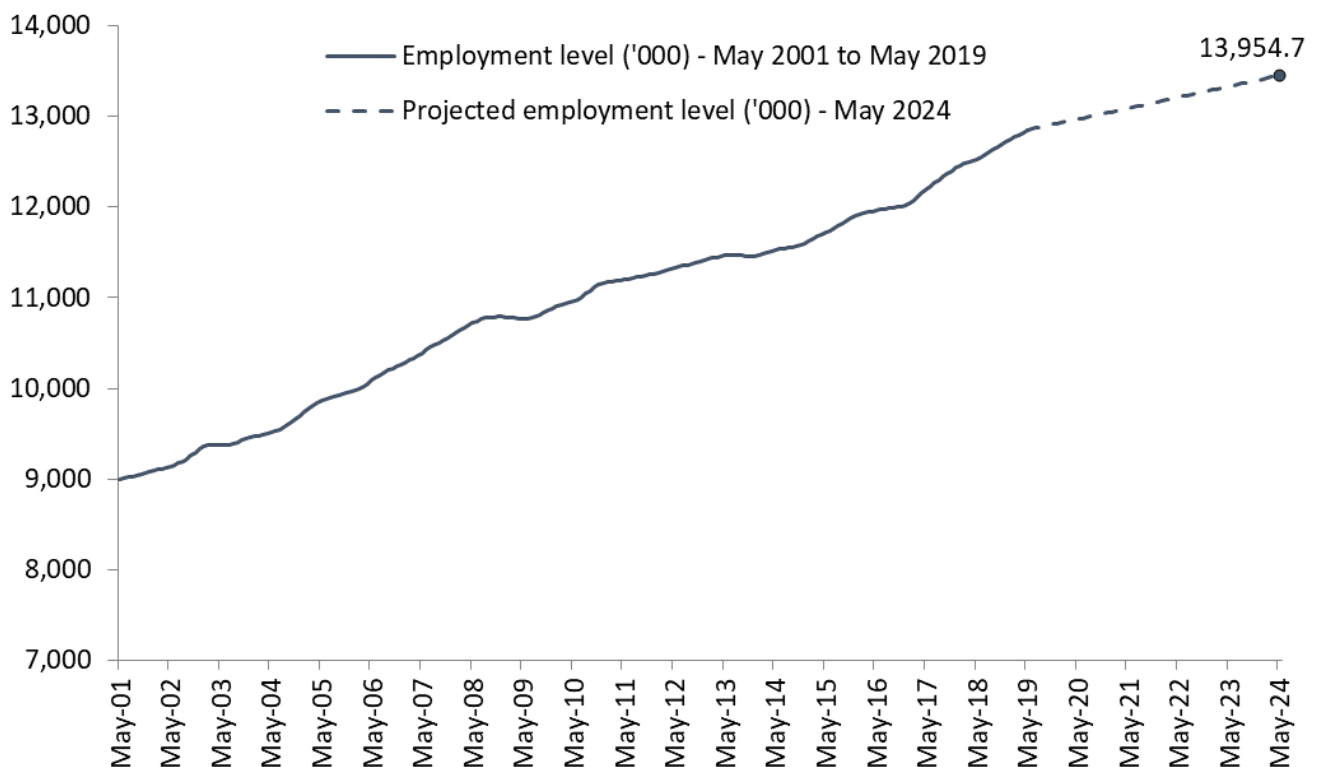
The employment projections presented in this paper give insight into the change the Australian labour market faces over the medium term. These trends help employers, job seekers and policy makers understand where the job opportunities are likely to be in the future to make informed planning decisions. The Employment Outlook to May 2024 is based on employment projections produced by the Department of Employment, Skills, Small and Family Business for the period May 2019 to May 2024. The report outlines the employment outlook across industries, occupations, skill levels, states and territories, and regions.

Over the five years to November 2019, employment increased by 1,409,700 (or 12.2 per cent), or 2.3 per cent per annum, above the rate of growth recorded over the last decade (of 1.8 per cent). In trend terms, employment growth has risen reasonably strongly over the last year, up by 2.1 per cent (or 268,900), to stand at a record high of 12,962,000 in November 2019, but remains well below the recent growth rate peak, of 3.4 per cent recorded over the year to January 2018.

A number of services industries made large contributions to employment growth over the five years to November 2019 (latest available industry employment data), led by the Health Care and Social Assistance industry (up by 349,300 or 24.8 per cent), followed by Professional, Scientific and Technical Services (205,200 or 21.5 per cent), Education and Training (167,600 or 18.3 per cent), and Construction (153,600 or 14.8 per cent). By contrast, the largest falls in employment were in the Manufacturing industry (down by 4100 or 0.4 per cent) and Rental, Hiring and Real Estate Services (900 or 0.4 per cent).

Looking ahead, total employment is projected to increase by 1,075,000 (8.3 per cent or 1.6 per cent per annum)¹ over the five years to May 2024.

Figure 1: Employment level, past and projected growth to May 2024, Australia ('000)



¹ All employment projections used in this analysis are Department of Employment Projections to May 2024 based on the forecasts and projections for total employment published in the 2019-20 Budget.

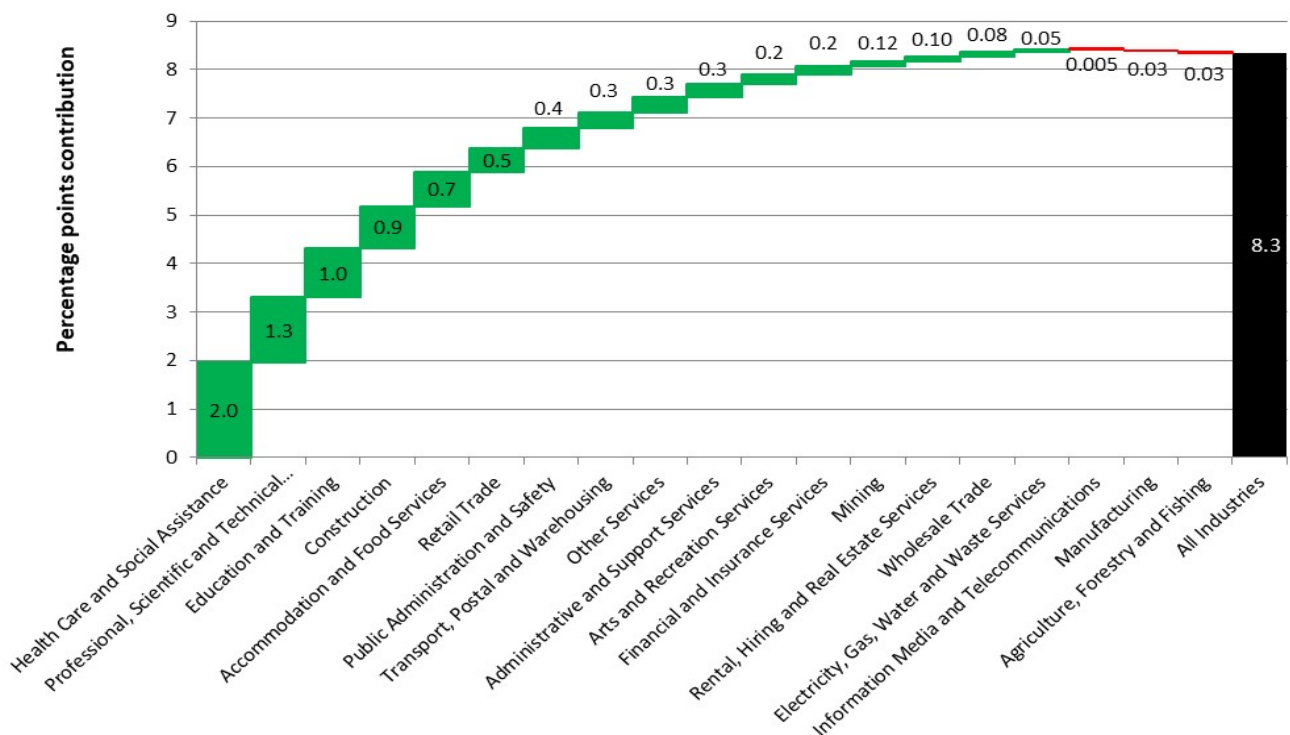
Projected employment growth by industry

Employment is projected to increase in 16 of the 19 broad industries over the five years to May 2024.

- **Health Care and Social Assistance**, the primary provider of new jobs in the Australian labour market since the 1990s, is projected to increase by 252,600 (or 15.0 per cent) over the next five years. This growth is supported by the continued demand generated by the National Disability Insurance Scheme and Australia’s ageing population. Large investments in hospitals and increasing demand for childcare and home-based care services also contribute to this strong projected growth.
- The second largest contribution is projected to come from **Professional, Scientific and Technical Services**, where employment is projected to increase by 172,400 (or 15.1 per cent) reflecting ongoing strength in demand for the services of qualified and highly educated workers throughout the economy.
- Employment in the **Education and Training** industry is projected to increase by 129,300 (or 12.2 per cent) supported by increases in the school aged population, continued strength in the international education sector and growing demand for adult and community education.
- **Construction** industry employment is projected to grow by 113,700 (or 9.7 per cent) over the five years to May 2024. This represents a growth rate higher than the all industries average but less than the strong 14.6 per cent growth observed over the five years to May 2019.

Together, these four industries are projected to provide 62.1 per cent of total employment growth over the five years to May 2024 (see Figure 2 below).

Figure 2: Projected contributions to the rate of total employment growth by each industry (percentage points) – five years to May 2024



By contrast, declines in employment are projected for the Agriculture, Forestry and Fishing, Manufacturing and Information Media and Telecommunications industries.

- Employment in the **Agriculture, Forestry and Fishing** industry is projected to fall by 3800 (or 1.2 per cent), impacted by the effects of extreme weather events and the extended drought conditions in

much of Australia. Within this industry the largest declines are projected for Sheep, Beef Cattle and Grain Farming (down by 1500 or 1.1 per cent) and Fruit and Tree Nut Growing (400 or 1.5 per cent).

- Employment in **Manufacturing** is projected to fall by 3400 (or 0.4 per cent) over the five years to May 2024. The long-term decline in some Manufacturing sectors is projected to continue, with the Printing and Printing Support Services sector projected to decline by 5300 (or 15.7 per cent). There are sectors with projected employment growth, such as the Structural Metal Product Manufacturing sector (up by 3200 or 9.0 per cent) which has been supported by a lower Australian dollar and infrastructure investment.
- Employment in the **Information Media and Telecommunications** industry is projected to fall by 600 (or 0.3 per cent) reflecting market consolidation, the shift towards non-physical media and increased competitive pressures, particularly in the Telecommunications sector.

The projected employment decline in these three industries reduces the total employment growth rate by less than 0.5 of a percentage point.

At the more detailed level, sectors from industries with high projected growth are particularly prominent amongst the high growth sectors (top right quadrant of Figure 3).

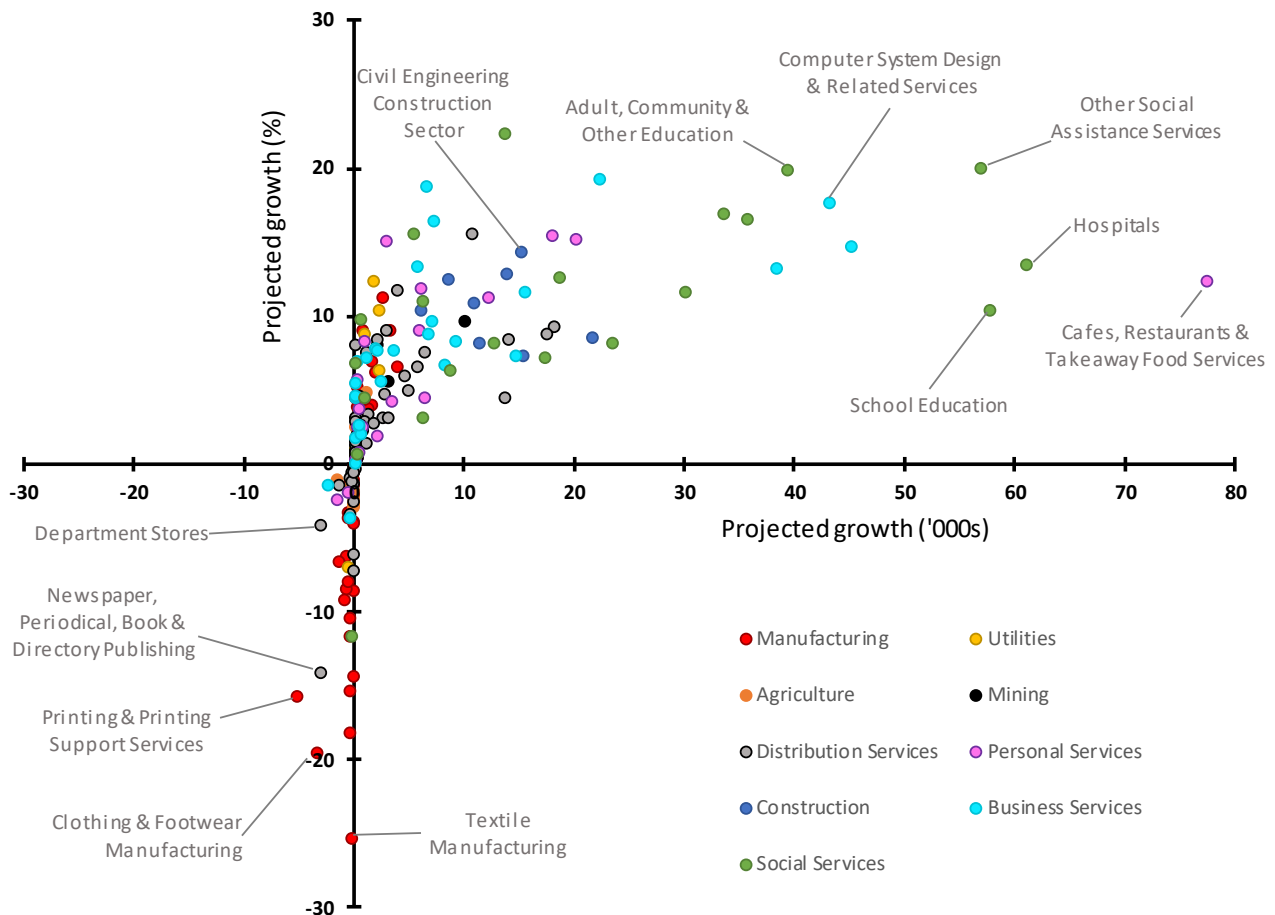
- Australia's ageing population, the NDIS rollout and increased demand for childcare services can be seen in the large projected increases in employment for Other Social Assistance Services² (56,900 or 20.0 per cent), Allied Health Services³ (up by 35,700 or 16.6 per cent), Hospitals (up by 61,000 or 13.4 per cent), Residential Care Services (30,100 or 11.6 per cent), Medical Services (33,600 or 16.9 per cent) and Child Care Services (18,600 or 12.6 per cent).
- Continuing strong demand for outsourced business services lies behind the strong projected employment growth in a range of professional services sectors, the most prominent of which is Computer System Design and Related Services (43,100 or 17.6 per cent), followed by Architectural, Engineering and Technical Services (45,100 or 14.6 per cent), Legal and Accounting Services (38,300 or 13.2 per cent) and Management and Related Consulting Services (22,200 or 19.3 per cent).
- Strong growth is also projected for the School Education (57,700 or 10.4 per cent) sector, with significant investment and population growth, and for the Adult, Community and Other Education (39,300 or 19.8 per cent) sector.
- Continued infrastructure investment at the state and federal level is, at least in part, supporting growth in the Heavy and Civil Engineering Construction sector (15,100 or 14.4 per cent) while both residential building, albeit at a slower rate due to the sustained decline in dwelling approvals, and non-residential activity contribute to sustained projected employment growth in Construction sectors such as the Building Installation Services (21,600 or 8.5 per cent).
- Australia's largest employing industry sector – Cafés, Restaurants and Takeaway Food Services within the Accommodation and Food Services industry – is projected to make the largest contribution to growth over the five years to May 2024 (up by 77,400 or 12.4 per cent), supported by both domestic demand and continued increases in international visitor arrivals⁴.

² Other Social Assistance Services includes Aged Care Assistance Services, Disabilities Assistance Services, Youth Welfare Services and Welfare Counselling Services.

³ Allied Health Services includes Dental Services, Optometry and Optical Dispensing, Physiotherapy Services and Chiropractic and Osteopathic Services.

⁴ ABS 3401.0 Overseas Arrivals and Departures, Australia, October 2019

Figure 3: Projected employment changes to May 2024 by industry sector⁵ ('000s and percentage growth)



Not surprisingly, employment is projected to decline in several sectors of the industries where total employment is projected to decline.

- The largest declines in employment for the Agriculture, Forestry and Fishing industry are projected for the Sheep, Beef Cattle and Grain Farming sector (down by 1500 or 1.1 per cent) and Fruit and Tree Nut Growing (400 or 1.5 per cent) sectors.
- Similarly, declines in employment are projected for several sectors of the **Manufacturing** industry with employment in Printing and Printing Support Services sector projected to decline by 5300 (or 15.7 per cent), followed by Clothing and Footwear Manufacturing (down by 3400 or 19.6 per cent) and Textile Manufacturing (300 or 25.3 per cent) – the highest rate of decline overall, albeit off a very low base over the five years to May 2024.
- Large employment declines are also projected for several sectors in the **Information Media and Telecommunications** industry such as the Newspaper, Periodical, Book and Directory Publishing (down by 3000 or 14.1 per cent) and the Telecommunications Services (1400 or 1.4 per cent) sectors.

Employment declines are also projected for some sectors in industries that are projected to experience employment growth. Notably, the large projected employment decline in Department Stores (down by 3000 or 4.1 per cent), reflecting increased competitive pressure within the Retail Trade industry. The Depository Financial Intermediation sector is also projected to decline (down by 2400 or 1.5 per cent), in part due to

⁵ Industry sectors are coloured by industry groupings frequently used by the Reserve Bank of Australia. Distribution services includes the Information Media and Telecommunications; Retail Trade; Transport, Postal and Warehousing; and Wholesale Trade industries. Personal Services includes the Accommodation and Food Services, Arts and Recreation Services, and Other Services industries. Business Services includes the Administrative and Support Services; Financial and Insurance Services; Professional, Scientific and Technical Services; and Rental, Hiring and Real Estate Services industries. Social Services includes the Education and Training, Health Care and Social Assistance and Public Administration and Safety industries.

increased competition within the sector, the impact of increasing automation and the take up of internet banking/payments. The projected employment decline in the Clubs (Hospitality) sector (1600 or 2.5 per cent), in part the consequence of consolidation and vertical integration. Other projected declines include Gas Supply (down by 600 or 7.0 per cent) and Regulatory Services (down by 300 or 11.6 per cent).

Projected employment growth by occupation

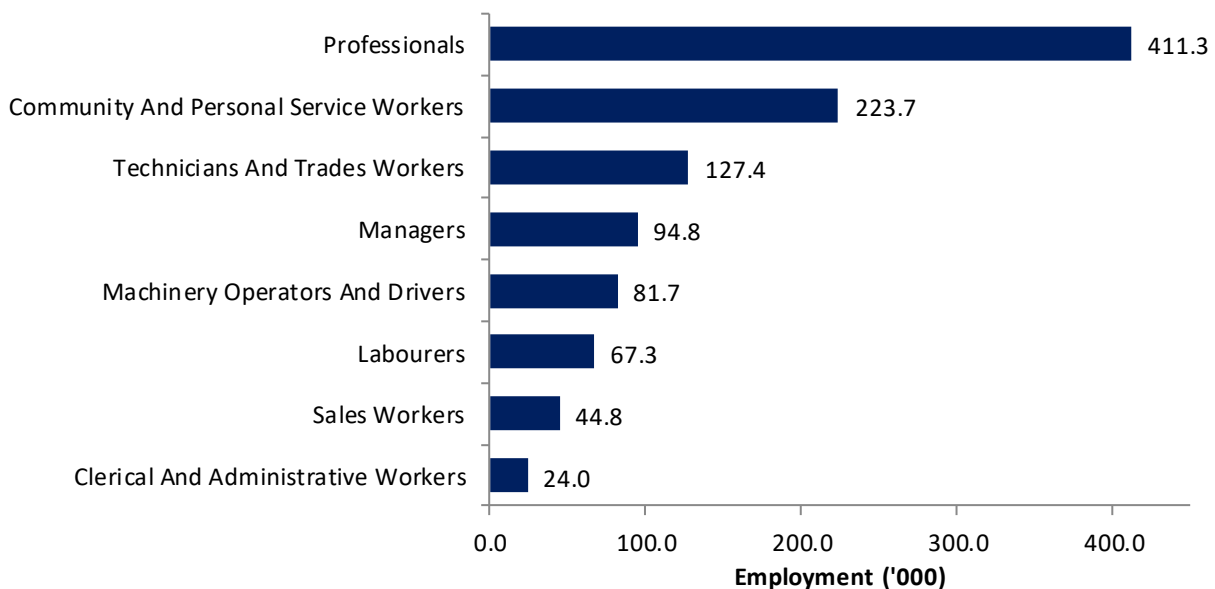
Employment is projected to increase across all of the eight broad occupational groups over the five years to May 2024.

Very strong employment growth is projected to continue for Professionals (up by 411,300 or 13.3 per cent) and Community and Personal Service Workers (up by 223,700 or 15.9 per cent), consistent with strong projected growth in the service industries that are leading employers of these occupational groups.

Together, these two occupational groups are expected to account for 59.1 per cent of the total growth in employment over the next five years.

Employment of Machinery Operators and Drivers is also projected to grow at above the average rate (up by 81,700 or 9.2 per cent). Below average employment growth is projected for Technicians and Trades Workers (up by 127,400 or 7.0 per cent), Managers (94,800 or 6.2 per cent), Labourers (67,300 or 5.6 per cent) and Sales Workers (44,800 or 4.0 per cent), while the lowest rate of employment growth is projected for Clerical and Administrative Workers (up by 24,000 or 1.4 per cent).

Figure 4: Projected employment growth to May 2024 ('000), by major occupational group



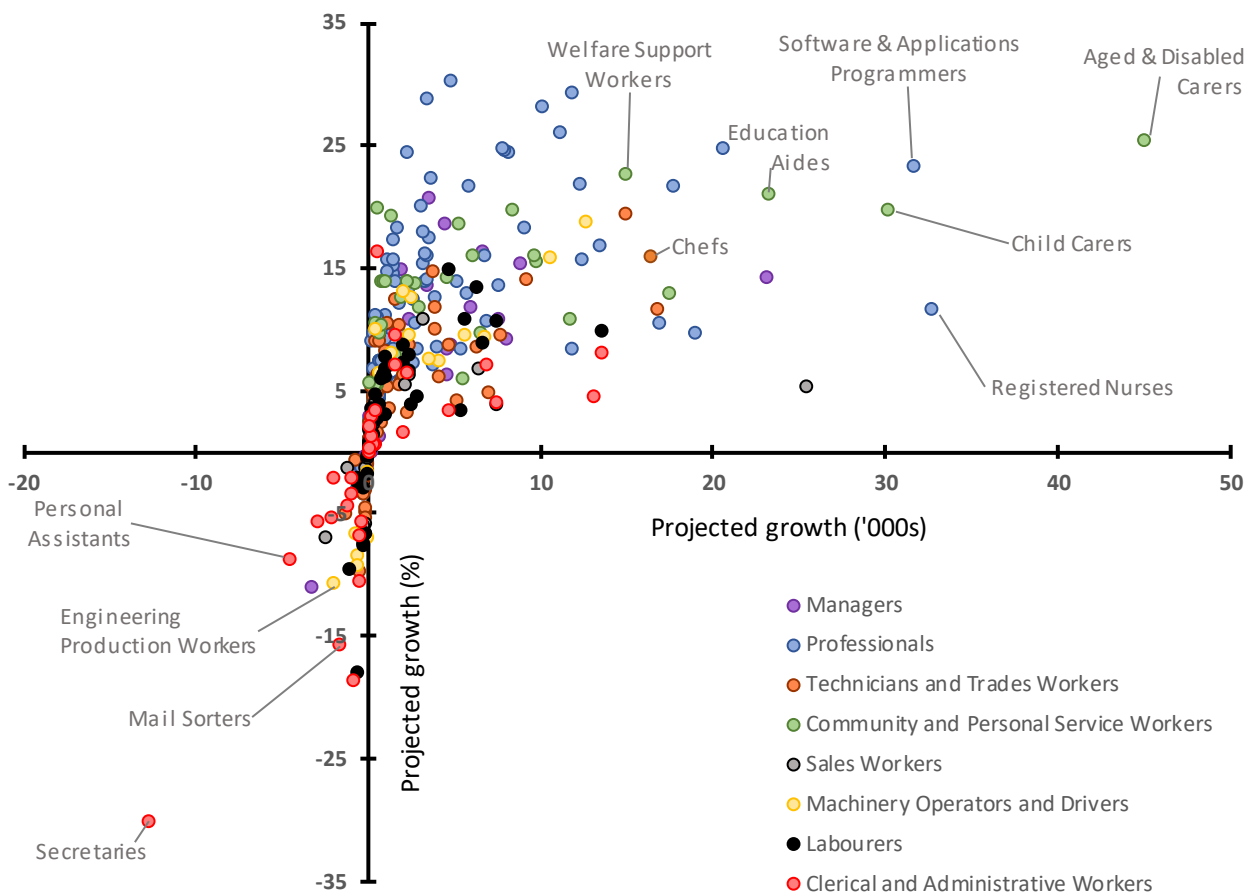
At the more detailed level, occupations that are mainly employed in industries with strong projected employment growth feature prominently in the high projected employment growth (top right) quadrant of Figure 5 (page over).

- Almost all the Aged and Disabled Carers (projected to grow by 45,100 or 25.4 per cent) and Registered Nurses (32,700 or 11.7 per cent) work in the Health Care and Social Assistance industry along with the majority of Child Carers (30,200 or 19.8 per cent), Welfare Support Workers (14,900 or 22.7 per cent) and Social Workers (11,800 or 29.3 per cent).

- The majority of Software and Applications Programmers (projected to grow by 31,600 or 23.4 per cent) and Solicitors (13,400 or 16.9 per cent) are employed in the Professional, Scientific and Technical Services Industry.
- Almost all of Education Aides (projected to grow by 23,200 or 21.1 per cent) and Primary School Teachers (16,900 or 10.5 per cent) are employed in the Education and Training Industry, along with most of the remaining Child Carers.
- The largest growing occupations in the Construction industry are Carpenters and Joiners (projected to grow by 16,800 or 11.7 per cent), Architectural, Building and Surveying Technicians (15,000 or 19.5 per cent) and Civil Engineering Professionals (12,300 or 21.9 per cent).
- Occupations employed in the Accommodation and Food Services industry include Waiters (projected to grow by 17,500 or 13.0 per cent), Chefs (16,300 or 16.1 per cent), Kitchenhands (13,600 or 9.9 per cent) and Bar Attendants and Baristas (11,700 or 10.9 per cent).

There are, however, exceptions and some of the strong growth occupations are predominantly employed in industries with below average rates of employment growth. For example, over 85 per cent of Storepersons (up by 18,100 or 13.3 per cent) and Forklift Drivers (6700 or 9.4 per cent) and more than 70 per cent of Delivery Drivers (10,500 or 15.9 per cent) are employed in the Manufacturing, Wholesale Trade, Retail Trade or Transport, Postal and Warehousing industries.

Figure 5: Projected employment changes by occupation, ('000s and percentage growth)



The occupations with the weakest projected employment growth (in the bottom left quadrant of Figure 5) show the ongoing challenges that globalisation and technological change present for some occupations. Some of these occupations are from the Clerical and Administrative Workers group, where work is routine in nature and susceptible to automation, such as Secretaries (down by 12,700 or 30.1 per cent), Personal

Assistants (4600 or 8.7 per cent), Bank Workers (2900 or 5.7 per cent), Payroll Clerks (2100 or 5.3 per cent), Bookkeepers (2000 or 2.0 per cent) and Mail Sorters (1700 or 15.7 per cent).

Continuing technology developments in the Agriculture industry, compounded by the effects of extreme weather events and the extended drought conditions in much of Australia, are also expected to reduce projected employment in several occupations including Livestock Farmers (down by 700 or 0.7 per cent), Crop Farm Workers (500 or 2.8 per cent) and Crop Farmers (500 or 1.1 per cent).

The impact of continuing structural change on the Manufacturing industry in Australia is expected to sustain the pre-existing trend of falling projected employment in occupations like Engineering Production Workers (down by 2000 or 10.6 per cent), Product Quality Controllers (1100 or 9.5 per cent), Timber and Wood Process Workers (700 or 17.9 per cent) and Sewing Machinists (700 or 9.2 per cent).

Projected employment growth by skill level

Employment growth is projected to be the strongest in occupations at the highest skill levels and 90 per cent of employment growth requiring education beyond school.⁶

As shown in Figure 6, projected employment growth in **Skill level 1 occupations** (up by 484,600 or 11.8 per cent) and **Skill level 2 occupations** (83,400 or 8.1 per cent) account for more than half of the projected total employment growth over the five years to May 2024, highlighting the importance of tertiary education in the labour market.

Skill level 4 occupations are also projected to increase strongly (up by 276,000 or 8.1 per cent) making the second largest contribution to total employment growth. This employment growth is driven by the Community and Personal Service Workers group, including three of the six occupations projected to have the largest increase in employment: Aged and Disabled Carers (up by 45,100 or 25.4 per cent), Child Carers (30,200 or 19.8 per cent) and Education Aides (23,200 or 21.1 per cent).

Weaker employment growth is projected for **Skill level 5 occupations** (112,400 or 5.3 per cent). Even so, a number of Skill level 5 occupations are projected to record strong employment growth over the period including Sales Assistants (General) (25,400 or 5.4 per cent), Kitchenhands (13,600 or 9.9 per cent), Security Officers and Guards (9700 or 15.6 per cent) and Building and Plumbing Labourers (7500 or 10.7 per cent).

Subdued employment growth (of 83,400 or 4.7 per cent) is projected for **Skill level 3 occupations**. Within this classification are occupations with the largest projected decreases in employment: Secretaries (down by 12,700 or 30.1 per cent), Personal Assistants (by 4600 or 8.7 per cent) and Electronics Trades Workers (by 1300 or 5.0 per cent); and others with large projected increases: Carpenters and Joiners (16,800 or 11.7 per cent), followed by Sports Coaches, Instructors and Officials (9600 or 16.1 per cent) and Plumbers (7700 or 9.5 per cent).

As shown in Figure 7, occupations with the strongest projected employment growth are dominated by higher skilled occupations (skill levels 1 and 2) or require some training but have a strong emphasis on human interactions (skill level 4). Nonetheless, projected employment growth differs greatly within each skill level and there are many opportunities available within each skill level⁷. Importantly, there are many opportunities available in skill level 5 occupations, providing career platforms for job seekers and those looking to enter the labour force; this includes Sales Assistants (General), Kitchenhands, Security Officers and Guards, Building and Plumbing Labourers, and Checkout Operators and Cashiers as identified earlier.

⁶ The Australian Bureau of Statistics (ABS) classifies occupations according to five skill levels commensurate with the following qualification(s) or where relevant work experience with training may be a substitute for formal qualifications:

- Skill level 1: Bachelor degree or higher qualification
- Skill level 2: Advanced Diploma or Diploma
- Skill level 3: Certificate IV or Certificate III with at least two years on-the-job training
- Skill level 4: Certificate II or III
- Skill level 5: Certificate I or secondary education

⁷ These projections only account for net employment growth, with many opportunities presented through the replacement of people leaving occupations and the workforce entirely. The Department estimates that there more than 5 million jobs created through this turnover each year.

Figure 6: Projected employment growth to May 2024 ('000) for skill levels by occupation

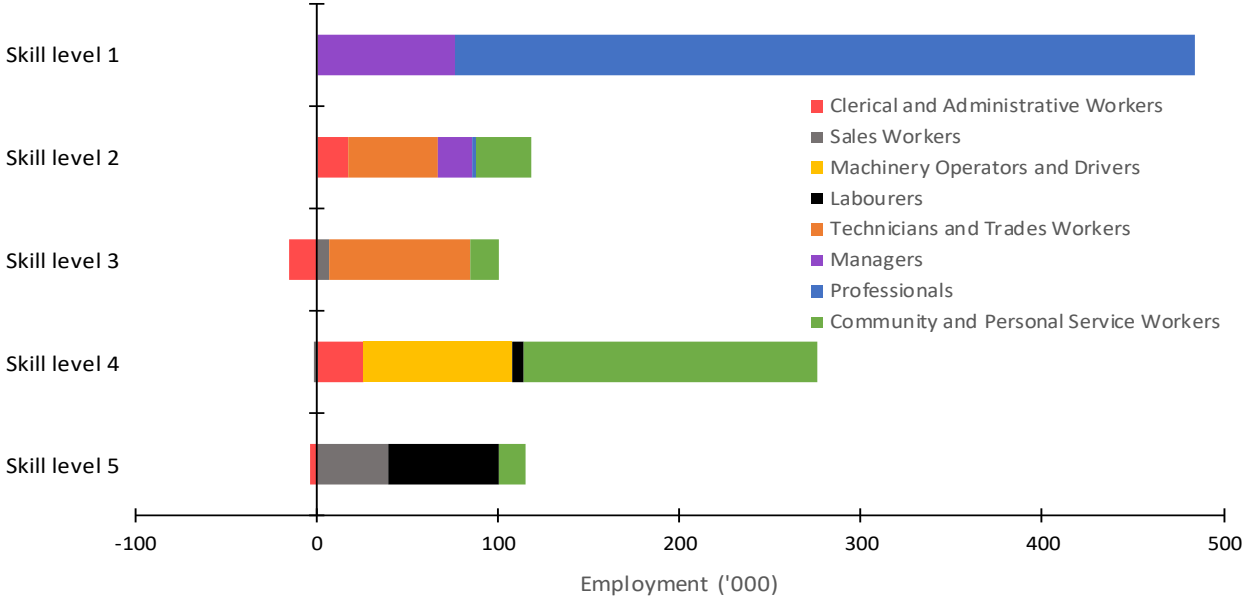
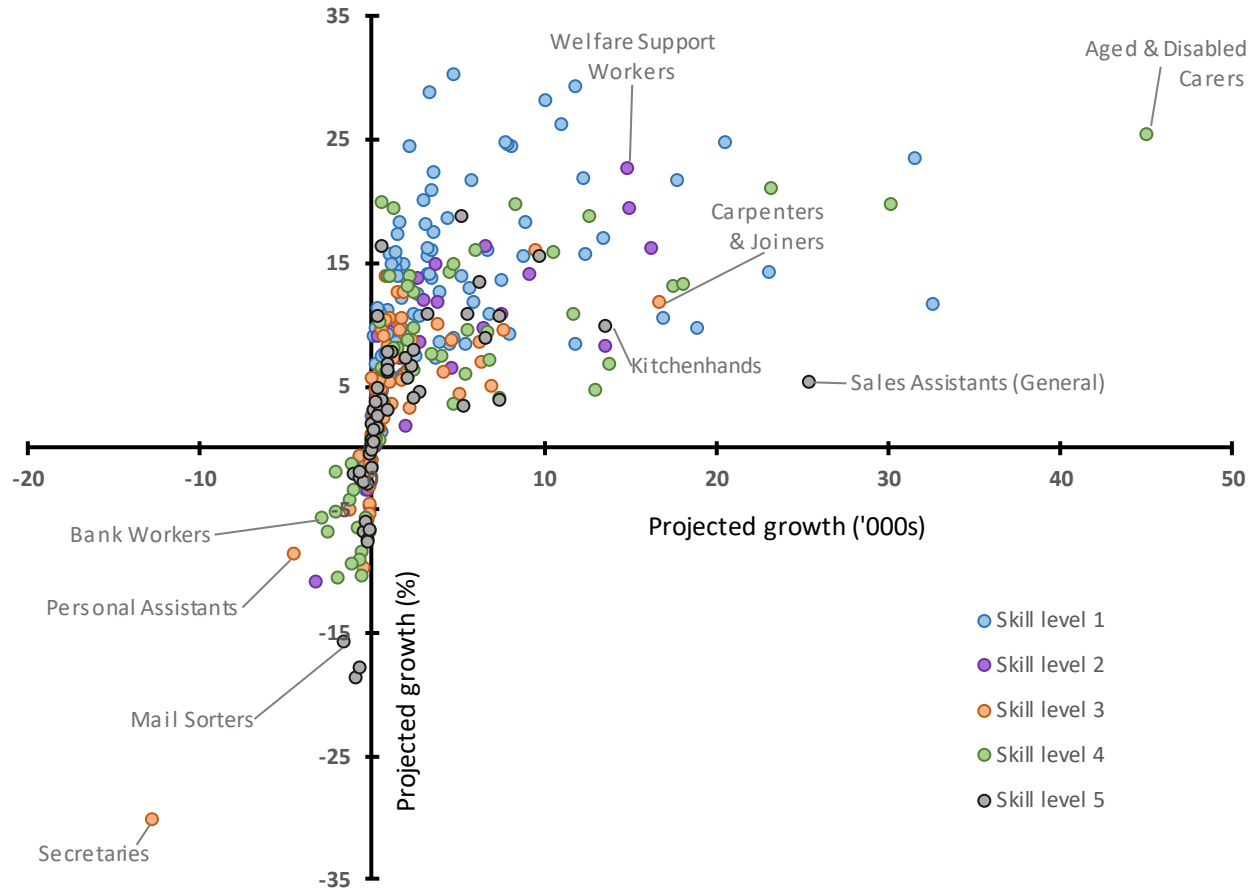


Figure 7: Projected employment changes for occupations by skill level ('000s and percentage growth)



Projected employment growth by state and territory

Over the five years to May 2024, employment is projected to increase in all states and territories.

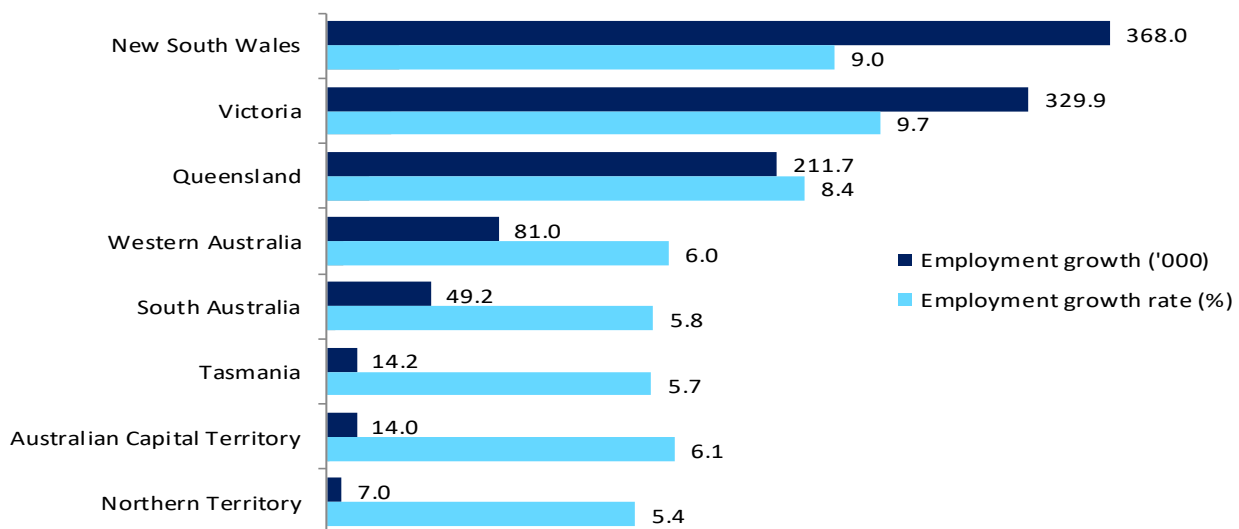
New South Wales, Victoria and Queensland are projected to make the largest contributions to employment growth over the five years to May 2024, with employment projected to increase by 368,000 (or 9.0 per cent) in **New South Wales**, by 329,900 (or 9.7 per cent) in **Victoria**, and by 211,700 (or 8.4 per cent) in **Queensland**. As in most other states, the largest contribution to projected employment growth in New South Wales and Queensland is made by Health Care and Social Assistance while it runs a close second in Victoria. By contrast, Professional, Scientific and Technical Services is the major contributor in Victoria (19.7 per cent compared with 16.0 per cent nationally) and the second largest in New South Wales (18.3 per cent) while Education and Training makes the second largest contribution to projected employment growth in Queensland (14.1 per cent compared with 12.0 per cent nationally).

Employment growth over the five years to May 2024 is projected to be slowest in the **Northern Territory** (up by 7000 or 5.4 per cent), followed by **Tasmania** (up by 14,200 or 5.7 per cent) and **South Australia** (up by 49,200 or 5.8 per cent). In each of these states and in the Northern Territory the contribution of Health Care and Social Assistance to projected total employment growth, ranging between 28 and 42 per cent, is well above the national average (23.5 per cent), while the contribution of the Professional, Scientific and Technical Services industry, ranging between five and twelve per cent, is well below the 16.0 per cent national average.

The **Australian Capital Territory** (up by 14,000 or 6.1 per cent) and **Western Australia** (up by 81,000 or 6.0 per cent) are also projected to record below average rates of employment growth. As in Victoria, Professional, Scientific and Technical Services makes the largest contribution to projected employment growth in the Australian Capital Territory (26.2 per cent) while the contribution of the Public Administration and Safety industry is also significant (14.3 per cent compared with 4.8 per cent nationally).

In Western Australia, Professional, Scientific and Technical Services makes the second largest contribution to projected employment growth (14.1 per cent). Mining employment is expected to increase by 9300, contributing 11.4 per cent of the states' projected employment growth, well above its 1.4 per cent nationally.

Figure 8: Projected employment growth by state/territory – five years to May 2024 ('000 and per cent)



Projected employment growth by region

Employment is projected to increase in every region of Australia. Employment is also projected to grow at a higher rate in the capital cities than in the rest of the state or territory, within each state and territory except Queensland.

Reflecting the higher overall concentration of employment in fast growing service industries in the capital cities than in regional areas, employment growth is projected to be strongest in the capital cities of Australia (up by 797,000 or 9.0 per cent), with three quarters (or 74.1 per cent) of total projected growth concentrated in these areas. The greater capital city areas of Sydney and Melbourne are each projected to grow employment at a rate greater than the national average of 8.3 per cent and each has a large share of their employment growth in the industries that are projected to contribute most to national employment growth.

The regional areas of New South Wales and Queensland are also projected to have employment growth stronger than metropolitan areas in the smaller states. Employment in the Rest of New South Wales (up by 7.6 per cent or 98,300) and the Rest of Queensland (8.8 per cent or 110,400) are both projected to grow at higher rates than is employment in Greater Adelaide (6.5 per cent or 43,200), Greater Perth (6.5 per cent or 70,000) and Greater Hobart (7.1 per cent or 7800). Strong employment growth is projected for some regional centres, particularly in Queensland, such as the Gold Coast (up by 47,300 or 14.0 per cent) and Sunshine Coast (21,600 or 12.0 per cent), and denser population areas such as the Newcastle and Lake Macquarie (21,100 or 10.8 per cent).

Almost three quarters (74.1 per cent) of total projected growth is concentrated in the metropolitan areas. Employment across these areas is projected to increase by 9.0 per cent over the period, compared with 7.1 per cent projected for the whole of regional Australia. The highest capital city concentration of projected employment growth is in South Australia (87.7 per cent) and the lowest in Queensland (47.8 per cent).

- Employment growth is projected to be stronger in metropolitan areas than in regional Australia for 13 of the 19 industries. The exceptions are the Agriculture, Forestry and Fishing, Manufacturing, Information Media and Telecommunications, Financial and Insurance Services, Health Care and Social Assistance and Other Services industries.
- Among the metropolitan areas, employment growth is projected to be strongest in Greater Melbourne (up by 286,000 or 10.8 per cent) and Greater Sydney (269,700 or 9.7 per cent), while below average growth is projected for remaining metropolitan areas.
- Among the regional areas, employment growth is projected to be strongest (in percentage terms) in regional Queensland (110,400 or 8.8 per cent) and regional New South Wales (98,300 or 7.6 per cent). Employment growth is projected to be weakest in regional South Australia (6000 or 3.3 per cent), followed by regional Western Australia (11,000 or 3.9 per cent) and the Northern Territory – Outback (2000 or 4.1 per cent).

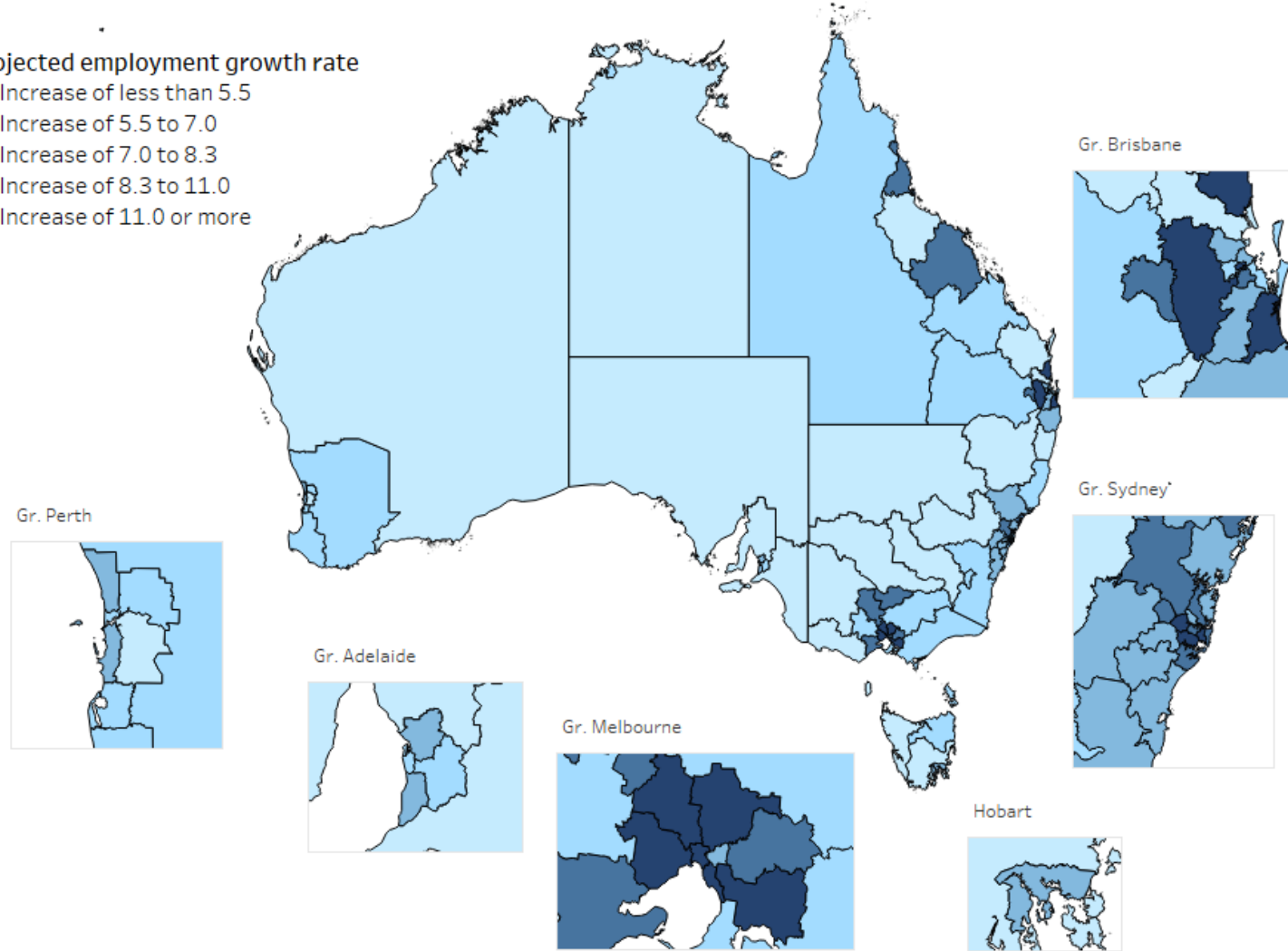
At the more detailed regional (SA4) level, employment is projected to increase in all regions over the five years to May 2024. The strongest growth (in percentage terms) is projected to be in Sydney - City and Inner South (up by 32,300 or 14.8 per cent) and Melbourne - West (up by 58,300 or 14.2 per cent), while Melbourne - West also has the largest projected increase in employment (in thousands) followed by Melbourne - South East (49,400 or 11.9 per cent). By contrast, employment is projected to be weakest in Wide Bay (up by 2000 or 1.9 per cent) and South Australia - Outback (up by 1100 or 2.7 per cent).



Figure 9: Projected employment growth by region – five years to May 2024 (%)

Projected employment growth rate

- Increase of less than 5.5
- Increase of 5.5 to 7.0
- Increase of 7.0 to 8.3
- Increase of 8.3 to 11.0
- Increase of 11.0 or more





Background and methodology

Each year, the Department of Employment, Skills, Small and Family Business produces employment projections by industry, occupation, skill level and region for the following five years, the latest being the five years to May 2024. These projections are designed to provide a guide to the future direction of the labour market. However, like all such exercises, they are subject to an inherent degree of uncertainty. Caution should be exercised when using these projections. All efforts have been made to ensure these projections are as accurate as possible, however, data used is inherently volatile and there are a large number of small series.

The projections have been derived from best practice time series models that summarise the information that is in a time series and convert it into a forecast. The projections are made by combining forecasts from autoregressive integrated moving average (ARIMA) and exponential smoothing with damped trend (ESWDT) models, with some adjustments made to take account of research undertaken by the Department of Employment, Skills, Small and Family Business and known future industry developments. The projection for total employment growth is consistent with employment growth for the month of June 2019 and the Government's forecasts and projections for total employment growth from 2019-20 onwards, as published in the 2019-20 Budget.

The projections for total employment by state and territory are not directly comparable with the forecasts and projections published in state and territory budgets, which typically have shorter forecast horizons and different base periods. The Department of Employment, Skills, Small and Family Business' projections are also medium term and point-in-time projections, and are thus not indicative of expected employment growth in the short term.

Further information on Department of Employment, Skills, Small and Family Business' projections, including downloadable spreadsheets, can be found at: lmip.gov.au/default.aspx?LMIP/EmploymentProjections.

Additional information can be obtained from the following links:

- Job Outlook (joboutlook.gov.au), the Department's career information portal
- Labour Market Information Portal (LMIP) (lmip.gov.au), for labour market data and analysis

For further information, please contact Phillip Wise (02 6121 8871) or email phillip.wise@jobs.gov.au. Any media enquiries should be directed to the Department of Employment, Skills, Small and Family Business media unit (media@employment.gov.au).

Labour Market Research and Analysis Branch

Department of Employment, Skills, Small and Family Business

January 2020