

2023 Skills Priority List

Key Findings Report

**September 2023**

Contents

[Introduction 2](#_Toc148438281)

[Overview 2](#_Toc148438282)

[Supporting the national skills system 3](#_Toc148438283)

[Current state of the labour market 3](#_Toc148438284)

[2023 Skills Priority List 6](#_Toc148438285)

[Key findings 6](#_Toc148438286)

[Skill shortages by major occupation groups 10](#_Toc148438287)

[Professionals occupations 10](#_Toc148438288)

[Technicians and Trades Workers occupations 11](#_Toc148438289)

[Community and Personal Service Workers occupations 13](#_Toc148438290)

[Other occupation groups 14](#_Toc148438291)

[Additional 2023 SPL insights 15](#_Toc148438292)

[Many large employing occupations are in shortage 15](#_Toc148438293)

[Gender-skew in occupations could be impacting shortages 18](#_Toc148438294)

[Fill rates are a good proxy for skill shortages 19](#_Toc148438295)

[Employers rarely adjust wages to fill vacancies 21](#_Toc148438296)

[Appendices 23](#_Toc148438297)

[Appendix A: Occupations in shortage in both 2022 and 2023 23](#_Toc148438298)

[Appendix B: Occupations in shortage in 2023 that were not in shortage in 2022 34](#_Toc148438299)

[Appendix C: Occupations not in shortage in 2023 that were in shortage in 2022 37](#_Toc148438300)

[Appendix D: Occupations in persistent shortage in 2021 to 2023 38](#_Toc148438301)

[Appendix E: Occupations in shortage in a state/territory but not in shortage nationally 44](#_Toc148438302)

[Appendix F: Occupations where there is a regional shortage only at national level 60](#_Toc148438303)

# Introduction

## Overview

The Skills Priority List (SPL), produced by Jobs and Skills Australia, provides a detailed view of occupations in shortage and the anticipated future demand for occupations in Australia. The SPL is released annually as a point-in-time assessment of the labour market and serves as a valuable tool that can inform policymakers towards aligning policies and strategies with the current demand of the labour market.

Occupations within the scope of the SPL are those defined in the Australian and New Zealand Standard Classification of Occupations (ANZSCO) at the six-digit level and Skill Levels 1 to 4. The focus is on these skill level occupations due to their strong link to post-secondary school education and training. Occupations identified as being in shortage year-on-year in the SPL may worth further considerations in the national skills system context.

The definition used for occupation shortages listed in the SPL is:

* An occupation is in shortage when employers are unable to fill or have considerable difficulty filling vacancies for an occupation or cannot meet significant specialised skill needs within that occupation, at current levels of remuneration and conditions of employment and in reasonably accessible locations.

Based on this definition the primary measure of an occupation shortage is the ability of employers to fill vacancies (fill rate).

Evidence used to assess occupation shortages ranges from data modelling, statistical analysis of the labour market, employer surveys and broad stakeholder engagement with various groups. These stakeholder groups include peak bodies, industry groups, professional associations, unions, and regional representative bodies in the Australian labour market. Input and feedback are also sought from federal and state and territory governments and Jobs and Skills Councils. This collective body of evidence is used to estimate the fill rates of occupations and ascertain the likelihood of occupations in shortage.

Jobs and Skills Australia is extremely appreciative of the time, effort, and expertise that many stakeholders provided to enhance the quality of this analysis. The advice and insights provided by stakeholders has been invaluable in determining a final list of occupations in shortage in 2023. This was particularly true for occupations where other evidence available to Jobs and Skills Australia was limited or this evidence was providing mixed signals. The well-considered advice of stakeholders has provided guidance and clarity on the most accurate ratings for the relevant occupations. For other occupations, stakeholder insights were valuable as a reinforcement to Jobs and Skills Australia’s initial evidence and analysis (of either shortage or no shortage), helping to increase our levels of confidence in the relevant assessments.

Further details of the methodology for the 2023 SPL can be found in the 2023 Skills Priority List methodology paper.[[1]](#footnote-2)

The Key Findings Report provides a high-level overview of 2023 SPL results. The report also presents results through various lens to assist readers to interpret the 2023 SPL outcomes. Important or emerging themes from the 2023 SPL outcomes are also discussed.

## Supporting the national skills system

The national skills system is about matching jobs and skills to workforce needs through a dynamic and interconnected network that extends across the entire population. This system is instrumental in facilitating employees to find work, develop their skills and achieve improved wages and conditions. The system aids employers in satisfying their skills requirements and making the most of present and future opportunities.

The SPL, along with other sources of intelligence, can help inform the national skills system by identifying skill shortages and the factors contributing to these shortages. This information informs skills provision from sources such as Vocational Education and Training (VET), higher education and migration.

## Current state of the labour market

Over the 2022–23 year, the headline indicators have pointed to continued tightness in labour market conditions. As of June 2023, the total number of employed people increased by 409,900 persons over the past year, while the unemployment rate remained historically low at 3.5%. The employment-to-population ratio was high and at 64.5%, suggesting that employers were having to compete more intensely for available talent (Figure 1). [[2]](#footnote-3)

Figure 1: Unemployment rate and employment-to-population ratio, 2013 to 2023

Source: Australian Bureau of Statistics, *Labour Force, Australia*, June 2023, seasonally adjusted.

While overall trends point to continued tight conditions, there are some indications the labour market may be easing. Jobs and Skills Australia’s Recruitment Experiences and Outlook Survey recorded a fall in recruitment activity and reduced employer expectations to increase staff compared to a year ago. The demand for workers measured by the Internet Vacancy Index, while remaining historically high at 276,400 job advertisements in June 2023, fell by 8.9% compared with a year ago (Figure 2).

Figure 2: Fill rate, recruitment difficulty rate and internet vacancies, 2022 to 2023

Source: Jobs and Skills Australia, *Survey of Employers who Recently Advertised*, *Recruitment Experiences and Outlook Survey*.

The percentage of occupation vacancies advertised filled by employers (the fill rate) remained low, though increased from July 2022 to February 2023.[[3]](#footnote-4) The estimated average fill rate in the labour market has decreased from 73% in 2021 to 65% in 2023. The sustained growth in full-time employment over the year, coupled with a low rate of underemployment, show a greater workforce utilisation and less capacity of supply to meet additional demand.

The tight labour market conditions and trends are manifesting in skills shortages as employers contend with constrained levels of candidates that are suitable to fill job vacancies. This has materialised as occupation shortages across the labour market.

# 2023 Skills Priority List

## Key findings

The 2023 SPL shows that 36% of occupations were in national shortage (332 out of 916), about 5 percentage points higher than 2022 (31% of occupations) (Figure 3). [[4]](#footnote-5) The rise in shortages reflects the cumulative impacts of recruitment challenges, stemming from a persistently tight labour market which began tightening from late 2021.

Inputs (both quantitative and qualitative) used to determine the 2023 SPL ratings were primarily, though not entirely, gathered during the 2022–23 financial year. Similar inputs used to determine the 2022 SPL ratings were primarily gathered during the 2021–22 financial year. As a result of this approach, the 2023 SPL inputs reflect a slightly tighter labour market than that for the 2022 SPL inputs (where some of the COVID-19 influences on the labour market, particularly in the first half of 2021–22, had a minor impact).

The cumulative effect of supply side constraints over the past 12 to 24 months that can lead to backlogs in consumer demand, waitlist for services and the like. Unsurprisingly this cumulative effect on the ability of businesses to deliver the goods and services that consumers are demanding has been more readily observed, particularly in stakeholder feedback, throughout the 2023 SPL assessments than it was the case in 2022.

Taking these two factors together helps illustrate why the number of occupations in shortage in 2023 has increased (when compared to 2022). Data over more recent months has suggested slight improvements in both fill rates and the number of applicants per vacancy, suggesting that the period captured over the 2023 assessment period was essentially a ‘peak’ in the labour market tightness. The large rise in occupations in shortage from 2021 to 2022 (19% in 2021 as compared to 31% in 2022) was due to the subdued labour market conditions during the COVID-19 pandemic followed by labour market tightening in the era of post-lockdowns with easing restrictions.

Figure 3: Proportion of occupations in shortage in the 2021, 2022 and 2023 SPLs

Source: Jobs and Skills Australia, *Skills Priority List,* 2021–2023.

Comparisons with the 2022 SPL show that there were 66 occupations newly in shortage in 2023 but not in shortage in 2022. Most of the new shortages were concentrated among high-skilled Professionals.[[5]](#footnote-6)

There were also 266 occupations (or 29%) that were in shortage in both 2022 and 2023 SPLs. Among them, 47% were Professionals occupations, mostly related to health, engineering, information communication technology (ICT) and science roles. Another 33% were Technicians and Trades Workers occupations.[[6]](#footnote-7)

Across all three SPLs published from 2021 to 2023, 138 occupations were in shortage each year. For these occupations Professionals occupations made up 40% (55 out of 138), while Technicians and Trades Workers occupations comprised 49% (67 out of 138).[[7]](#footnote-8)

There were 8 occupations where the shortages were confined to regional areas only.[[8]](#footnote-9) Half of these were Professionals occupations, reflecting the unique labour market characteristics that are observed in each state and territory. There were additional occupations in shortage or regional shortage that were not the case at the national level. These details are summarised in Appendix E.

At the major occupation group, Figure 4 shows shortages were most pronounced in the Technicians and Trades Workers category, with 50% of these occupations assessed as being in shortage (102 out of 205 occupations assessed). Professionals were close behind, with 48% of these occupations in shortage (157 out of 327 occupations assessed). Occupations in shortage was also prevalent in Community and Personal Service Workers (24%), Machinery Operators and Drivers (34%), and Labourers (36%).[[9]](#footnote-10)

The percentage of occupations in shortage fell for Managers occupations (from 12% to 8%) and Sales Workers occupations (from 5% to 0%).

Fill rates were high for both Managers and Sales Workers, providing evidence that employers were able to find suitably skilled workers to fill vacant positions. Compared to 2022, the overall fill rate for Sales Workers increased to 75% (from 67%). For Managers, the overall fill rate was unchanged from 2022 but remained well above the economy-wide average, at 76%. For both these occupation groups, the number of suitable applicants per vacancy increased to 3.6 for Managers and 3.0 for Sales Workers in 2023, from 3.2 and 2.4 respectively in 2022.

Figure 4: Occupations in shortage in the 2022 and 2023 SPLs, by Major Occupation Group

Source: Jobs and Skills Australia, *Skills Priority List,* 2021–2023.

The outcomes suggest that shortages are not simply caused by either high demand growth or weak flow of skilled workers into occupations; rather the interaction of both forces is what matters.

Figure 5 shows that the percentage of occupations in shortage in 2023 across Skill Levels 1, 2 and 4 increased when compared to 2022, while the percentage of Skill Level 3 occupations in shortage remained stable.[[10]](#footnote-11)

Occupations with VET as the primary pathway to the labour market had a large percentage of occupations in shortage. Almost half of Skill Level 3 occupations (47%) – which typically require a Certificate III/IV – were in shortage. One in four Skill Level 2 occupations were also in shortage. In addition, 42% of Skill Level 1 occupations, which usually require a Bachelor degree or higher, were in shortage.

The results demonstrate that both the VET and higher education sectors have an integral part to play in alleviating shortage pressures.

Figure 5: Proportion of occupations in shortage in the 2022 and 2023 SPL, by Skill Level

Source: Jobs and Skills Australia, *Skills Priority List*, 2021–2023.

# Skill shortages by major occupation groups

## Professionals occupations

Almost half (or 48%) of Professionals group occupations were in shortage in 2023, compared to 39% in 2022.

The higher proportion of Professionals group occupations in shortage in 2023 was largely driven by Health Professionals and ICT Professionals. As Figure 6 highlights, more than four in five Health Professionals occupations (or 82%) were in shortage, while almost seven in ten ICT Professionals (69%) were in shortage.

Increasing demand for health services arising from the ageing of the population and the strains added to the sector during the COVID-19 pandemic and growth in digitalisation across the economy, may have resulted in demand in these sectors outpacing the supply of suitably skilled workers.

Figure 6: Proportion of occupations in shortage in 2023 SPL, by Professionals occupation   
sub-group

Source: Jobs and Skills Australia, *Skills Priority List*, 2023.

Shortages for Health Professionals were far-reaching. All medical practitioner occupations, Registered Nurse occupations and many medical specialists, diagnostic professionals and allied health professionals were found to be in shortage.

Skill shortages appear to be acute in the health sector especially compared to other Professionals occupations. Figure 7 shows that the fill rate for Health Professionals for the 2023 SPL period was 44% and there were 1.3 suitable applicants per vacancy. This was much lower than the average fill rate of around 60% and 2.3 suitable applicants per vacancy respectively for the 2022–23 financial year. These were both lower than those in 2022 and continued the downward trend of the last two years. Particularly low fill rates from the Survey of Employers who have Recently Advertised (SERA) were recorded for General Practitioners (15%), Psychiatrists (20%), Speech Pathologists/Speech Language Therapists (21%) and Sonographers (26%), suggesting that shortages were even more acute in these occupations.

A common thread among shortages in Professionals occupations, including specific occupations mentioned above, is that they require high levels of skill, qualification, and experience. This is evidenced by SERA data indicating a lack of specific skills or experience being the most common reason for which applicants were found unsuitable.

Figure 7: Proportion of vacancies filled (%) and suitable applicants per vacancy (no.) for Health Professionals, 2020–21, 2021–22 and 2022–23 financial years

Source: Jobs and Skills Australia, *Survey of Employers who Recently Advertised*, 2020-2023.

## Technicians and Trades Workers occupations

Shortages were most common for Technicians and Trades Workers, with half of them in shortage. Compared to 2022, this was a 3 percentage points increase.

As shown in Figure 8, all occupations in the Construction Trades Workers and Food Trades Workers groups were in shortage, along with 80% of Automotive and Engineering Trades Workers occupations.

All occupations in the Construction Trades Workers category are in persistent shortage. This implies tight labour market conditions simply exacerbate shortage issues that appear to be chronic in the sector.

Even if the construction sector was to see a significant downturn, many construction roles would likely still be in shortage. The fill rates for construction-related occupations are often among the lowest in the labour market and have declined significantly from 54% in the 2020–21 financial year to 29% in 2022–23 (Figure 9). Further the number of both qualified and suitable applicants per vacancy have also declined during the same period.

Figure 8: Proportion of occupations in shortage on 2023 SPL, by Technicians and Trades Workers occupation sub-group

Source: Jobs and Skills Australia, *Skills Priority List*, 2023.

Shortages are also apparent across other trades outside of the construction sector. All five of the largest employing non-construction trades occupations were in shortage – Chef, Motor Mechanic (General), Fitter (General), Hairdresser and Metal Fabricator.

Data from the SERA shows that the number of suitable applicants per vacancy for construction and the non-construction occupations was around or below the average for all occupations of 2.3 for the 2022–23 financial year. Lack of experience, qualifications, or registration were the most common reasons for which employers considered applicants unsuitable.

Figure 9: Proportion of vacancies filled (%) and suitable applicants per vacancy (no.) for Construction Trades Workers, 2020–21, 2021–22 and 2022–23 financial years

Source: Jobs and Skills Australia, *Survey of Employers who Recently Advertised*, 2020–2023.

## Community and Personal Service Workers occupations

The proportion of Community and Personal Services Workers occupations in shortage grew to 24% in 2023, an increase from 21% in 2022.

As with the Health Professionals category discussed previously, shortages for Community and Personal Service Workers in the health, care and support sectors are considerable (Figure 10).

In the Health and Welfare Support Workers sub-group, Enrolled Nurse, Ambulance officer. Diversional Therapist and Residential Care Officer were all found to be in shortage. Among Carers and Aides, Aged or Disabled Carer, Child Care Worker and Personal Care Assistant remained in shortage, while Nursing Support Worker and Out of School Hours Care Worker fell into shortage in 2023.

Aged or Disabled Carer, Personal Care Assistant and Child Care Worker have been in shortage across all three SPLs from 2021 to 2023. Historical analysis shows Child Care Worker was in shortage as far back as the late 2000s, implying that long-term solutions may be necessary to alleviate skill shortages within this occupation.

With Australia’s ageing population and the difficulty in automating many care-related tasks, the demand for health and care workers is likely to only increase further into the future.

Figure 10: Proportion of occupations in shortage on 2023 SPL, by Community and Personal Service Workers occupation sub-group

Source: Jobs and Skills Australia, *Skills Priority List*, 2023.

Low staff retention stemming from poor working conditions could be a factor driving skill shortages in the care sector. A 2021 Committee for Economic Development of Australia (CEDA) report, *Duty of Care: Meeting the Aged Care Workforce Challenge*, and a 2022 update of the report found that progress in resolving shortages in the care sector are mainly held back by wages, working hours, a lack of career progression, poor training outcomes, and negative public perceptions of the industry.

## Other occupation groups

There was a slight increase in the percentage of Machinery Operators and Drivers occupations in shortage, from 29% in 2022 to 34% in 2023. This was primarily driven by Mobile Plant Operators occupations, with 88% of such occupations in shortage, including Excavator Operator, Agricultural and Horticultural Mobile Plant Operator, Loader Operator and Earthmoving Plant Operator (General).

While 36% of Labourer occupations were found to be in shortage, many occupations in this category are not included in the SPL as they are at Skill Level 5 and therefore typically do not require any tertiary qualifications. Only 29% of Labourers occupations fit the scope of the SPL. Within this group, Labourers occupations in shortage were mostly related to the Construction and Agricultural industries (including Cotton Farm Worker, Sugar Cane Farm Worker, and Livestock Husbandry Worker).

Data from the SERA shows employers of Machinery Operators and Drivers and Labourers typically valued experience over qualifications, with more than 75% of employers requiring applicants with experience, while only around half required applicants with a relevant qualification. The implication of these preferences expressed by employers is that a lack of workers with relevant on-the-job-experience could be a more important driver of shortages for these occupation groups than a lack of workers with relevant technical training.

# Additional 2023 SPL insights

## Many large employing occupations are in shortage

The implications of skill shortages across the Australian labour market can be seen by analysing the top 20 largest employing occupations that were in shortage. These occupations comprise a diverse range of occupations and sectors, including health, aged care, education, construction, and food services (Table 1). Many, though not all, of these occupations have also been identified in previous Jobs and Skills Australia analysis of the top 20 occupations in demand nationally (which also uses data sources such as internet job vacancies and projected employment growth data).

Included in Table 1 are the percentages of males and females employed in each occupation, sourced from 2021 Australian Bureau of Statistics (ABS) Census data. This shows that most occupations in shortage are also those which have a heavy gender skew, which will be elaborated in the next section.

Based on the 2021 ABS Census data, the top 20 employing occupations in shortage represent 22% of all people employed in occupations within the scope of the SPL (there are 916 such occupations).

In 2023, the four largest occupations found to be in shortage were Aged or Disabled Carer, Retail Manager (General), Primary School Teacher, and Secondary School Teacher. Based on the 2021 Census data, these occupations made up 8% (or 731,800 people) of total employment in occupations within the scope of the SPL. Given the relatively large share of employment in these occupations, addressing skill shortages among these occupations is vital given their importance in the economy and the downstream effects caused by shortages in these occupations.

The largest occupations rated as newly in shortage in the 2023 SPL included Sales and Marketing Manager, Waiter, and Solicitor. The main drivers of these results included decreases in fill rates of these occupations and employers receiving fewer suitable and qualified applicants per vacancy, as reflected in the SERA data. Consequently, filling these positions became more challenging for employers compared to the previous year.

The largest occupations that have been in persistent shortage since 2021 include Aged or Disabled Carer, Electrician (General), Child Care Worker and Carpenter. The reason for the persistence is likely to be multifaceted, including the qualifications attained from education and training sectors, working conditions, pay, government policies and regulations relating to these occupations. Solutions to skill shortages in these occupations are likely to be long-term and holistic.

Table 1: Top 20 largest employing occupations in shortage in 2023 SPL

| **2022 ANZSCO Code** | **ANZSCO description** | **Years in shortage  (from 2021 to 2023)** | **Males employed (%) (2021 Census)** | **Females employed (%) (2021 Census)** | **Total employed (2021 Census)** |
| --- | --- | --- | --- | --- | --- |
| 423111 | Aged or Disabled Carer | 3 | 23.3% | 76.7% | 227,500 |
| 142111 | Retail Manager (General) | 2 | 49.8% | 50.2% | 183,500 |
| 241213 | Primary School Teacher | 2 | 14.9% | 85.1% | 164,900 |
| 241411 | Secondary School Teacher | 2 | 37.8% | 62.2% | 155,900 |
| 733111 | Truck Driver (General) | 2 | 95.6% | 4.4% | 148,400 |
| 341111 | Electrician (General) | 3 | 97.9% | 2.1% | 128,300 |
| 421111 | Child Care Worker | 3 | 3.2% | 96.8% | 123,800 |
| 131112 | Sales and Marketing Manager | 1 | 58.3% | 41.7% | 119,700 |
| 331212 | Carpenter | 3 | 99.0% | 1.0% | 104,900 |
| 351311 | Chef | 3 | 72.8% | 27.2% | 90,500 |
| 431511 | Waiter | 1 | 25.6% | 74.4% | 86,900 |
| 321211 | Motor Mechanic (General) | 3 | 98.1% | 1.9% | 79,300 |
| 271311 | Solicitor | 1 | 45.7% | 54.3% | 69,700 |
| 323211 | Fitter (General) | 3 | 97.9% | 2.1% | 68,500 |
| 133111 | Construction Project Manager | 3 | 86.0% | 14.0% | 64,900 |
| 225113 | Marketing Specialist | 2 | 37.4% | 62.6% | 64,500 |
| 261313 | Software Engineer | 3 | 84.4% | 15.6% | 54,300 |
| 391111 | Hairdresser | 3 | 16.2% | 83.8% | 53,600 |
| 253111 | General Practitioner | 3 | 52.3% | 47.7% | 48,700 |
| 133112 | Project Builder | 3 | 95.2% | 4.8% | 47,800 |

Source: Jobs and Skills Australia, *Skills Priority List*, 2021–2023; ABS, *2021 Census of Population and Housing*.

## Gender-skew in occupations could be impacting shortages

National employment by gender is almost even (52% male and 48% female), but significant workforce gender skews exist for some occupations.

Analysis of the 2023 SPL outcomes shows that occupations that have a strong gender imbalance were more likely to be in shortage. Some 54% of occupations where males make up at least 80% of the workforce were found to be in shortage (Figure 11).

40% of occupations where females make up at least 80% of the workforce were found to be in shortage. These were concentrated in certain health related occupations such as Registered Nurses, and early education and care-based occupations within Community and Personal Service Workers.

In contrast, 25% of occupations with less systematic gender skew were in shortage. Occupations that are not in shortage are more likely to have a workforce that is at least 20% of both genders, compared to occupations that are in shortage. These tended to be occupations among Managers and Professionals.

Looking across 2021 to 2023 SPLs, gender imbalance appears entrenched with a high percentage of occupations with a workforce that was at least 80% males or at least 80% females. Further the likelihood of a skills shortage for both male and female-dominated occupations has grown over the past three years.

Figure 11: Proportion of gender-imbalanced occupations that were in shortage in the   
2021–2023 SPL

Source: Jobs and Skills Australia, *Skills Priority List*, 2021–2023; ABS, *2021 Census of Population and Housing*.

When considering only the occupations that were found to be in shortage in the 2023 SPL, half of these had a workforce that was more than 80% males. Those with a large gender skew towards men included many occupations within the Machinery Operators and Drivers, Labourers and Technicians and Trade Workers major groups (Figure 12).

Figure 12: Gender breakdown of 2023 SPL occupations in shortage by major group

Source: Jobs and Skills Australia, *Skills Priority List*, 2021–2023; ABS, *2021 Census of Population and Housing*.

Gender analysis of the top 20 largest occupations in shortage indicates that 8 occupations have a workforce that is more than 80% male workers. Conversely only 3 of these occupations have a workforce that has more than 80% females (Table 1).

Table 1 highlighted within the top 20 occupations in shortage (by level of employment), the largest male representations in the workforce were for Carpenter (99%), Motor Mechanic (General) (98%), Fitter (General) (98%), and Electrician (General) (98%). On the other hand, the largest female representations in the workforce were for Child Care Worker (97%), Primary School Teacher (85%), and Hairdresser (84%).

A heavily gender skewed workforce may therefore be artificially constraining the labour supply – increasing the likelihood of a skills shortage. Improving the gender imbalance of occupations may be a way to address skill shortages in these areas of the labour market.

## Fill rates are a good proxy for skill shortages

The 2023 SPL results can be categorised into four groups, based on the relationship between an occupation’s applicants per vacancy and the fill rate (Figure 13).[[11]](#footnote-12)

* Quadrant One (top left) comprises occupations with high fill rates and low applicants per vacancy.
* Quadrant Two (top right) includes occupations with high fill rates and high applicants per vacancy.
* Quadrant Three (bottom right) contains occupations with low vacancy fill rates and high applicants per vacancy.
* Quadrant Four (bottom left) consists of occupations with low vacancy fill rates and low applicants per vacancy.

As the data is standardised, high fill rates are represented by figures above zero along the vertical axis. Similarly, high applicants per vacancy are represented by figures above zero along the horizontal axis. Figures below zero along the vertical and horizontal axis would then reflect low fill rates and applicants per vacancy respectively.

Figure 13: Standardised applicants per vacancy (no.) and fill rate (no.), by shortage status in the 2023 SPL

Source: Jobs and Skills Australia, *Skills Priority List 2023*; *Survey of Employers who Recently Advertised (SERA)*,2022-23 financial year.

The analysis demonstrates that occupations in shortage are predominantly in Quadrant Four – where both fill rates and applicants per vacancy are lower than for many other occupations. Within this quadrant employers’ difficulty with filling vacancies could be due to available workers not having the relevant skills or qualifications and a shortfall in the supply of skilled or qualified workers. Some (though not all) occupation groups observed within this quadrant are Health Professionals, Health and Welfare Support Workers, Carers and Aides, Construction Trades Workers, and Electrotechnology and Telecommunications Trades Workers.

Education Professionals lie on the boundary of Quadrants One (top left) and Four (bottom left). This is likely due to the occupation having fill rates (actual and unstandardised) that may give a mixed initial signal as to whether a shortage exists or not. But significant stakeholder feedback, including broader data analysis and research suggest that these occupations have high turnover. With a fill rate around the threshold level and high turnover, the occupation is very much in shortage. Education Professionals are also critical roles which have a high sensitivity to understaffing. The fill rate outcome for this occupation may be due to employers needing to hire workers to keep schools running.

Occupations in shortage also tend to be in Quadrant Three (bottom right), where fill rates are low despite the high number of applicants per vacancy. This may suggest that employers are not willing to hire from the pool of applicants as they are seeking additional qualifications, skills, or experience. This group includes Design, Engineering, Science and Transport Professionals, Engineering, ICT and Science Technicians, Business, Human Resource and Marketing Professionals and Construction Managers. For these occupations, employers may be seeking more skills and experience pertaining to client relations, project management, critical thinking, communication, and teamwork among others. SERA data supports this view, showing the proportion of employers requiring specific skills for these occupation groups (43%) is higher than the overall average (32%).

In contrast, occupations not in shortage primarily fall in Quadrant Two (top right). The analysis therefore aligns with economic intuitions, where employers will be more likely to fill their vacancies if the supply of skilled labour is large compared to the demand and vice versa.

## Employers rarely adjust wages to fill vacancies

SERA data reveals that many employers continue advertising in the same place in response to unfilled vacancies over a course of a year. In the 2023 SPL period, 73% of employers reported that they undertook this action when they did not fill a vacancy (Figure 14). Employers also commonly sought applicants through different channels, such as word of mouth (26%) or advertising in different places (17%). These three actions were the most common in each of the SPL periods from 2021 to 2023.

Figure 14: Employer responses to unfilled vacancies (proportion of employers with unfilled vacancies) in the 2021, 2022 and 2023 SPL

Source: Jobs and Skills Australia, *Skills Priority List,* 2021–2023.

Over the three years from 2021 to 2023, few employers changed remuneration in response to skill shortages. In the 2023 SPL period, around 1% of employers adjusted remuneration to attract suitably skilled workers to fill vacancies. This was slightly more compared to 2022 (0.4%). The results are consistent with research undertaken by the Reserve Bank of Australia, which shows limited evidence that firms raised wages in response to firm-wide or job-level skill shortages, at least in the short-term.[[12]](#footnote-13)

Few employers (around 1%) changed the working conditions over 2021 to 2023 SPL periods. The outcomes are generally mirrored when analysing employer responses to unfilled vacancies by major employer groups.

# Appendices

## Appendix A: Occupations in shortage in both 2022 and 2023

There are 266 occupations assessed as being in shortage (either in nationally or regional shortage nationally) in both 2022 and 2023.

| **2022 ANZSCO Code** | **Occupation title** |
| --- | --- |
| 121311 | Apiarist |
| 133111 | Construction Project Manager |
| 133112 | Project Builder |
| 133211 | Engineering Manager |
| 142111 | Retail Manager (General) |
| 221213 | External Auditor |
| 221214 | Internal Auditor |
| 222113 | Insurance Broker |
| 225113 | Marketing Specialist |
| 225411 | Sales Representative (Industrial Products) |
| 232212 | Surveyor |
| 233111 | Chemical Engineer |
| 233112 | Materials Engineer |
| 233211 | Civil Engineer |
| 233212 | Geotechnical Engineer |
| 233213 | Quantity Surveyor |
| 233214 | Structural Engineer |
| 233215 | Transport Engineer |
| 233311 | Electrical Engineer |
| 233411 | Electronics Engineer |
| 233512 | Mechanical Engineer |
| 233513 | Production or Plant Engineer |
| 233611 | Mining Engineer (excluding Petroleum) |
| 233612 | Petroleum Engineer |
| 233915 | Environmental Engineer |
| 233999 | Engineering Professionals nec[[13]](#footnote-14) |
| 234111 | Agricultural Consultant |
| 234114 | Agricultural Research Scientist |
| 234115 | Agronomist |
| 234212 | Food Technologist |
| 234411 | Geologist |
| 234412 | Geophysicist |
| 234413 | Hydrogeologist |
| 234711 | Veterinarian |
| 234912 | Metallurgist |
| 241111 | Early Childhood (Pre-primary School) Teacher |
| 241213 | Primary School Teacher |
| 241411 | Secondary School Teacher |
| 241511 | Special Needs Teacher |
| 241512 | Teacher of the Hearing Impaired |
| 241513 | Teacher of the Sight Impaired |
| 241599 | Special Education Teachers nec |
| 242211 | Vocational Education Teacher / Polytechnic Teacher |
| 251211 | Medical Diagnostic Radiographer |
| 251212 | Medical Radiation Therapist |
| 251214 | Sonographer |
| 251411 | Optometrist |
| 251511 | Hospital Pharmacist |
| 251513 | Retail Pharmacist |
| 251912 | Orthotist or Prosthetist |
| 251999 | Health Diagnostic and Promotion Professionals nec |
| 252312 | Dentist |
| 252411 | Occupational Therapist |
| 252511 | Physiotherapist |
| 252611 | Podiatrist |
| 252712 | Speech Pathologist / Speech Language Therapist |
| 253111 | General Practitioner |
| 253112 | Resident Medical Officer |
| 253211 | Anaesthetist |
| 253311 | Specialist Physician (General Medicine) |
| 253312 | Cardiologist |
| 253313 | Clinical Haematologist |
| 253314 | Medical Oncologist |
| 253315 | Endocrinologist |
| 253316 | Gastroenterologist |
| 253317 | Intensive Care Specialist |
| 253318 | Neurologist |
| 253321 | Paediatrician |
| 253322 | Renal Medicine Specialist |
| 253323 | Rheumatologist |
| 253324 | Thoracic Medicine Specialist |
| 253399 | Specialist Physicians nec |
| 253411 | Psychiatrist |
| 253511 | Surgeon (General) |
| 253512 | Cardiothoracic Surgeon |
| 253513 | Neurosurgeon |
| 253514 | Orthopaedic Surgeon |
| 253515 | Otorhinolaryngologist |
| 253516 | Paediatric Surgeon |
| 253517 | Plastic and Reconstructive Surgeon |
| 253518 | Urologist |
| 253521 | Vascular Surgeon |
| 253911 | Dermatologist |
| 253912 | Emergency Medicine Specialist |
| 253913 | Obstetrician and Gynaecologist |
| 253914 | Ophthalmologist |
| 253915 | Pathologist |
| 253917 | Diagnostic and Interventional Radiologist |
| 253999 | Medical Practitioners nec |
| 254111 | Midwife |
| 254212 | Nurse Researcher |
| 254411 | Nurse Practitioner |
| 254412 | Registered Nurse (Aged Care) |
| 254413 | Registered Nurse (Child and Family Health) |
| 254414 | Registered Nurse (Community Health) |
| 254415 | Registered Nurse (Critical Care and Emergency) |
| 254416 | Registered Nurse (Developmental Disability) |
| 254417 | Registered Nurse (Disability and Rehabilitation) |
| 254418 | Registered Nurse (Medical) |
| 254421 | Registered Nurse (Medical Practice) |
| 254422 | Registered Nurse (Mental Health) |
| 254423 | Registered Nurse (Perioperative) |
| 254424 | Registered Nurse (Surgical) |
| 254425 | Registered Nurse (Paediatrics) |
| 254499 | Registered Nurses nec |
| 261112 | Systems Analyst |
| 261211 | Multimedia Specialist |
| 261212 | Web Developer |
| 261311 | Analyst Programmer |
| 261312 | Developer Programmer |
| 261313 | Software Engineer |
| 261314 | Software Tester |
| 261315 | Cyber Security Engineer |
| 261316 | DevOps Engineer |
| 261317 | Penetration Tester |
| 262114 | Cyber Governance Risk and Compliance Specialist |
| 262115 | Cyber Security Advice and Assessment Specialist |
| 262116 | Cyber Security Analyst |
| 262117 | Cyber Security Architect |
| 262118 | Cyber Security Operations Coordinator |
| 263111 | Computer Network and Systems Engineer |
| 263112 | Network Administrator |
| 263113 | Network Analyst |
| 263211 | ICT Quality Assurance Engineer |
| 263213 | ICT Systems Test Engineer |
| 272311 | Clinical Psychologist |
| 272312 | Educational Psychologist |
| 272313 | Organisational Psychologist |
| 272399 | Psychologists nec |
| 311112 | Agricultural and Agritech Technician |
| 311312 | Meat Inspector |
| 312113 | Building Inspector |
| 312114 | Construction Estimator |
| 312211 | Civil Engineering Draftsperson |
| 312212 | Civil Engineering Technician |
| 312511 | Mechanical Engineering Draftsperson |
| 312512 | Mechanical Engineering Technician |
| 312912 | Metallurgical or Materials Technician |
| 321111 | Automotive Electrician |
| 321211 | Motor Mechanic (General) |
| 321212 | Diesel Motor Mechanic |
| 321213 | Motorcycle Mechanic |
| 321214 | Small Engine Mechanic |
| 322112 | Electroplater |
| 322113 | Farrier |
| 322114 | Metal Casting Trades Worker |
| 322211 | Sheetmetal Worker |
| 322311 | Metal Fabricator |
| 322312 | Pressure Welder |
| 322313 | Welder (First Class) (Aus) / Welder (NZ) |
| 323111 | Aircraft Maintenance Engineer (Avionics) |
| 323112 | Aircraft Maintenance Engineer (Mechanical) |
| 323113 | Aircraft Maintenance Engineer (Structures) |
| 323211 | Fitter (General) |
| 323212 | Fitter and Turner |
| 323213 | Fitter-Welder |
| 323214 | Metal Machinist (First Class) |
| 323313 | Locksmith |
| 323411 | Engineering Patternmaker |
| 323412 | Toolmaker |
| 324111 | Panelbeater |
| 324211 | Vehicle Body Builder |
| 324212 | Vehicle Trimmer |
| 324311 | Vehicle Painter |
| 331111 | Bricklayer |
| 331112 | Stonemason |
| 331211 | Carpenter and Joiner |
| 331212 | Carpenter |
| 331213 | Joiner |
| 332111 | Floor Finisher |
| 332211 | Painter |
| 333111 | Glazier |
| 333211 | Plasterer (Wall and Ceiling) |
| 333212 | Renderer (Solid Plaster) |
| 333311 | Roof Tiler |
| 333411 | Wall and Floor Tiler |
| 334112 | Airconditioning and Mechanical Services Plumber |
| 334113 | Drainer |
| 334114 | Gasfitter |
| 334115 | Roof Plumber |
| 334116 | Plumber (General) |
| 334117 | Fire Protection Plumber |
| 341111 | Electrician (General) |
| 341112 | Electrician (Special Class) |
| 342111 | Airconditioning and Refrigeration Mechanic |
| 342211 | Electrical Linesworker / Electrical Line Mechanic |
| 342212 | Technical Cable Jointer |
| 342313 | Electronic Equipment Trades Worker |
| 342315 | Electronic Instrument Trades Worker (Special Class) |
| 342411 | Cabler (Data and Telecommunications) |
| 342412 | Telecommunications Cable Jointer |
| 342413 | Telecommunications Linesworker /  Telecommunications Line Mechanic |
| 342414 | Telecommunications Technician |
| 351111 | Baker |
| 351112 | Pastrycook |
| 351211 | Butcher or Smallgoods Maker |
| 351311 | Chef |
| 351411 | Cook |
| 361112 | Horse Trainer |
| 361311 | Veterinary Nurse |
| 362411 | Nurseryperson |
| 362511 | Arborist |
| 362512 | Tree Worker |
| 362711 | Landscape Gardener |
| 363214 | Senior Piggery Stockperson |
| 391111 | Hairdresser |
| 392111 | Print Finisher |
| 392112 | Screen Printer |
| 393311 | Upholsterer |
| 394112 | Cabinet Maker |
| 394113 | Furniture Maker |
| 394211 | Furniture Finisher |
| 394212 | Picture Framer |
| 394213 | Wood Machinist |
| 399914 | Optical Mechanic |
| 399916 | Plastics Technician |
| 399918 | Fire Protection Equipment Technician |
| 399999 | Technicians and Trades Workers nec |
| 411211 | Dental Hygienist |
| 411212 | Dental Prosthetist |
| 411213 | Dental Technician |
| 411214 | Dental Therapist |
| 411311 | Diversional Therapist |
| 411411 | Enrolled Nurse |
| 411715 | Residential Care Officer |
| 421111 | Child Care Worker |
| 423111 | Aged or Disabled Carer |
| 423313 | Personal Care Assistant |
| 442217 | Security Officer |
| 451111 | Beauty Therapist |
| 451412 | Tour Guide |
| 451612 | Travel Consultant |
| 452312 | Gymnastics Coach or Instructor |
| 452315 | Swimming Coach or Instructor |
| 511111 | Contract Administrator |
| 599111 | Conveyancer |
| 711211 | Industrial Spraypainter |
| 711514 | Plastics Production Machine Operator (General) |
| 712111 | Crane, Hoist or Lift Operator |
| 712211 | Driller |
| 712212 | Miner |
| 721111 | Agricultural and Horticultural Mobile Plant Operator |
| 721112 | Logging Plant Operator |
| 721211 | Earthmoving Plant Operator (General) |
| 721213 | Bulldozer Operator |
| 721214 | Excavator Operator |
| 721215 | Grader Operator |
| 721216 | Loader Operator |
| 721911 | Aircraft Baggage Handler and Airline Ground Crew |
| 721912 | Linemarker |
| 721914 | Railway Track Plant Operator |
| 721915 | Road Roller Operator |
| 721916 | Streetsweeper Operator |
| 721999 | Mobile Plant Operators nec |
| 731211 | Bus Driver |
| 733111 | Truck Driver (General) |
| 821412 | Home Improvement Installer |
| 821711 | Construction Rigger |
| 821712 | Scaffolder |
| 821713 | Steel Fixer |
| 821714 | Structural Steel Erector |
| 821911 | Crane Chaser |
| 831211 | Meat Boner and Slicer |
| 831212 | Slaughterer |
| 842315 | Piggery Farm Worker |
| 899411 | Motor Vehicle Parts and Accessories Fitter (General) |

## Appendix B: Occupations in shortage in 2023 that were not in shortage in 2022

There are 66 occupations assessed as being in shortage (either in shortage nationally or regional shortage nationally) in 2023 but were not in shortage in 2022.

|  |  |
| --- | --- |
| **2022 ANZSCO Code** | **Occupation title** |
| 131112 | Sales and Marketing Manager |
| 133612 | Procurement Manager |
| 141999 | Accommodation and Hospitality Managers nec |
| 221113 | Taxation Accountant |
| 222311 | Financial Investment Adviser |
| 223112 | Recruitment Consultant |
| 223113 | Workplace Relations Adviser |
| 224111 | Actuary |
| 224912 | Liaison Officer |
| 225499 | Technical Sales Representatives nec |
| 231111 | Aeroplane Pilot |
| 231113 | Flying Instructor |
| 231199 | Air Transport Professionals nec |
| 231212 | Ship's Engineer |
| 232111 | Architect |
| 232214 | Other Spatial Scientist |
| 232412 | Illustrator |
| 232413 | Multimedia Designer |
| 232511 | Interior Designer |
| 232611 | Urban and Regional Planner |
| 233511 | Industrial Engineer |
| 233911 | Aeronautical Engineer |
| 233912 | Agricultural Engineer |
| 233913 | Biomedical Engineer |
| 233914 | Engineering Technologist |
| 233916 | Naval Architect / Marine Designer |
| 234116 | Aquaculture or Fisheries Scientist |
| 234313 | Environmental Research Scientist |
| 241311 | Middle School Teacher / Intermediate School Teacher |
| 251213 | Nuclear Medicine Technologist |
| 251311 | Environmental Health Officer |
| 252711 | Audiologist |
| 253918 | Radiation Oncologist |
| 254211 | Nurse Educator |
| 271311 | Solicitor |
| 272511 | Social Worker |
| 311113 | Animal Husbandry Technician |
| 311114 | Aquaculture or Fisheries Technician |
| 311115 | Irrigation Designer |
| 311215 | Pharmacy Technician |
| 311412 | Earth Science Technician |
| 312111 | Architectural Draftsperson |
| 312913 | Mine Deputy |
| 362712 | Irrigation Technician |
| 392211 | Graphic Pre-press Trades Worker |
| 399111 | Boat Builder and Repairer |
| 399112 | Shipwright |
| 399513 | Light Technician |
| 399516 | Sound Technician |
| 411111 | Ambulance Officer |
| 421114 | Out of School Hours Care Worker |
| 423312 | Nursing Support Worker |
| 431511 | Waiter |
| 451711 | Flight Attendant |
| 521212 | Legal Secretary |
| 599612 | Insurance Loss Adjuster |
| 711515 | Reinforced Plastic and Composite Production Worker |
| 711516 | Rubber Production Machine Operator |
| 712213 | Shot Firer |
| 712918 | Train Controller |
| 731311 | Train Driver |
| 731312 | Tram Driver |
| 821611 | Railway Track Worker |
| 842211 | Cotton Farm Worker |
| 842217 | Sugar Cane Farm Worker |
| 842314 | Livestock Husbandry Worker |

## Appendix C: Occupations not in shortage in 2023 that were in shortage in 2022

There are 23 occupations not in shortage in 2023 but were in shortage in 2022.

|  |  |
| --- | --- |
| **2022 ANZSCO Code** | **Occupation title** |
| 132511 | Research and Development Manager |
| 139916 | Quality Assurance Manager |
| 139917 | Regulatory Affairs Manager |
| 141311 | Hotel or Motel Manager |
| 141411 | Licensed Club Manager |
| 142114 | Hair or Beauty Salon Manager |
| 261111 | ICT Business Analyst |
| 261399 | Software and Applications Programmers nec |
| 262111 | Database Administrator |
| 322111 | Blacksmith |
| 322115 | Metal Polisher |
| 323314 | Precision Instrument Maker and Repairer |
| 362313 | Sports Turf Trades Worker |
| 362611 | Gardener (General) |
| 363311 | Shearer |
| 363312 | Wool Classer |
| 399913 | Optical Dispenser / Dispensing Optician |
| 411716 | Youth Worker |
| 423211 | Dental Assistant |
| 511112 | Program or Project Administrator |
| 611211 | Insurance Agent |
| 721212 | Backhoe Operator |
| 721913 | Paving Plant Operator |

## Appendix D: Occupations in persistent shortage in 2021 to 2023

There are 138 occupations in shortage (either in shortage nationally or regional shortage nationally) in 2021, 2022 and 2023.

| **2022 ANZSCO Code** | **Occupation title** |
| --- | --- |
| 133111 | Construction Project Manager |
| 133112 | Project Builder |
| 133211 | Engineering Manager |
| 221213 | External Auditor |
| 221214 | Internal Auditor |
| 232212 | Surveyor |
| 233211 | Civil Engineer |
| 233212 | Geotechnical Engineer |
| 233213 | Quantity Surveyor |
| 233214 | Structural Engineer |
| 233215 | Transport Engineer |
| 233311 | Electrical Engineer |
| 233512 | Mechanical Engineer |
| 233611 | Mining Engineer (excluding Petroleum) |
| 233612 | Petroleum Engineer |
| 234111 | Agricultural Consultant |
| 234114 | Agricultural Research Scientist |
| 234115 | Agronomist |
| 234411 | Geologist |
| 234412 | Geophysicist |
| 234413 | Hydrogeologist |
| 234711 | Veterinarian |
| 234912 | Metallurgist |
| 241111 | Early Childhood (Pre-primary School) Teacher |
| 251214 | Sonographer |
| 251411 | Optometrist |
| 251511 | Hospital Pharmacist |
| 251513 | Retail Pharmacist |
| 252411 | Occupational Therapist |
| 252511 | Physiotherapist |
| 252611 | Podiatrist |
| 252712 | Speech Pathologist / Speech Language Therapist |
| 253111 | General Practitioner |
| 253112 | Resident Medical Officer |
| 253211 | Anaesthetist |
| 253312 | Cardiologist |
| 253314 | Medical Oncologist |
| 253411 | Psychiatrist |
| 253511 | Surgeon (General) |
| 253911 | Dermatologist |
| 253913 | Obstetrician and Gynaecologist |
| 253914 | Ophthalmologist |
| 253915 | Pathologist |
| 253917 | Diagnostic and Interventional Radiologist |
| 254111 | Midwife |
| 261211 | Multimedia Specialist |
| 261312 | Developer Programmer |
| 261313 | Software Engineer |
| 261315 | Cyber Security Engineer |
| 261316 | DevOps Engineer |
| 262114 | Cyber Governance Risk and Compliance Specialist |
| 262115 | Cyber Security Advice and Assessment Specialist |
| 262116 | Cyber Security Analyst |
| 262117 | Cyber Security Architect |
| 262118 | Cyber Security Operations Coordinator |
| 272311 | Clinical Psychologist |
| 272312 | Educational Psychologist |
| 272313 | Organisational Psychologist |
| 311112 | Agricultural and Agritech Technician |
| 311312 | Meat Inspector |
| 312211 | Civil Engineering Draftsperson |
| 312212 | Civil Engineering Technician |
| 321111 | Automotive Electrician |
| 321211 | Motor Mechanic (General) |
| 321212 | Diesel Motor Mechanic |
| 321213 | Motorcycle Mechanic |
| 321214 | Small Engine Mechanic |
| 322113 | Farrier |
| 322114 | Metal Casting Trades Worker |
| 322211 | Sheetmetal Worker |
| 322311 | Metal Fabricator |
| 322312 | Pressure Welder |
| 322313 | Welder (First Class) (Aus) / Welder (NZ) |
| 323111 | Aircraft Maintenance Engineer (Avionics) |
| 323112 | Aircraft Maintenance Engineer (Mechanical) |
| 323113 | Aircraft Maintenance Engineer (Structures) |
| 323211 | Fitter (General) |
| 323212 | Fitter and Turner |
| 323213 | Fitter-Welder |
| 323214 | Metal Machinist (First Class) |
| 323313 | Locksmith |
| 324111 | Panelbeater |
| 324311 | Vehicle Painter |
| 331111 | Bricklayer |
| 331112 | Stonemason |
| 331211 | Carpenter and Joiner |
| 331212 | Carpenter |
| 331213 | Joiner |
| 332111 | Floor Finisher |
| 332211 | Painter |
| 333111 | Glazier |
| 333211 | Plasterer (Wall and Ceiling) |
| 333212 | Renderer (Solid Plaster) |
| 333311 | Roof Tiler |
| 333411 | Wall and Floor Tiler |
| 334112 | Airconditioning and Mechanical Services Plumber |
| 334113 | Drainer |
| 334114 | Gasfitter |
| 334115 | Roof Plumber |
| 334116 | Plumber (General) |
| 334117 | Fire Protection Plumber |
| 341111 | Electrician (General) |
| 341112 | Electrician (Special Class) |
| 342111 | Airconditioning and Refrigeration Mechanic |
| 342211 | Electrical Linesworker / Electrical Line Mechanic |
| 342212 | Technical Cable Jointer |
| 342411 | Cabler (Data and Telecommunications) |
| 342412 | Telecommunications Cable Jointer |
| 342413 | Telecommunications Linesworker / Telecommunications Line Mechanic) |
| 342414 | Telecommunications Technician |
| 351111 | Baker |
| 351112 | Pastrycook |
| 351211 | Butcher or Smallgoods Maker |
| 351311 | Chef |
| 351411 | Cook |
| 362411 | Nurseryperson |
| 362511 | Arborist |
| 362512 | Tree Worker |
| 362711 | Landscape Gardener |
| 391111 | Hairdresser |
| 393311 | Upholsterer |
| 394112 | Cabinet Maker |
| 394113 | Furniture Maker |
| 394211 | Furniture Finisher |
| 394213 | Wood Machinist |
| 411311 | Diversional Therapist |
| 411411 | Enrolled Nurse |
| 421111 | Child Care Worker |
| 423111 | Aged or Disabled Carer |
| 423313 | Personal Care Assistant |
| 721111 | Agricultural and Horticultural Mobile Plant Operator |
| 721211 | Earthmoving Plant Operator (General) |
| 721213 | Bulldozer Operator |
| 721214 | Excavator Operator |
| 721215 | Grader Operator |
| 721216 | Loader Operator |
| 721912 | Linemarker |
| 721915 | Road Roller Operator |

## Appendix E: Occupations in shortage in a state/territory but not in shortage nationally

Tasmania (TAS) and the Australian Capital Territory (ACT) did not engage with Jobs and Skills Australia during the development of the 2023 Skills Priority List (SPL) to the extent of the other states and territories. As a result occupation ratings for TAS and ACT generally mirror national occupation ratings except where they have fewer than 25 workers and less than 3% of the total national workers as per the ABS Census 2021. There are additional criterions that are applied when a jurisdiction does not provide sufficient feedback. Please refer to the 2023 SPL Methodology Paper for additional information.

| **2022  ANZSCO Code** | **Occupation title** | **NSW** | **VIC** | **QLD** | **SA** | **WA** | **TAS** | **NT** | **ACT** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 111111 | Chief Executive or Managing Director |  |  |  |  |  |  | S |  |
| 111211 | Corporate General Manager |  |  |  |  |  |  | S |  |
| 121111 | Aquaculture Farmer | R |  |  |  |  |  |  |  |
| 121312 | Beef Cattle Farmer | S |  |  |  |  |  |  |  |
| 121313 | Dairy Cattle Farmer | R |  | R |  |  |  |  |  |
| 121316 | Horse Breeder | S |  |  |  |  |  |  |  |
| 121318 | Pig Farmer | S |  |  |  |  |  |  |  |
| 121321 | Poultry Farmer | S |  |  |  |  |  |  |  |
| 121322 | Sheep Farmer | R |  |  |  |  |  |  |  |
| 121323 | Mixed Cattle and Sheep Farmer | R |  |  |  |  |  |  |  |
| 121399 | Livestock Farmers nec | R |  |  |  |  |  |  |  |
| 121511 | Cotton Grower | R |  |  |  |  |  |  |  |
| 121512 | Grain, Oilseed, Pulse or Pasture Grower / Field Crop Grower | R |  |  |  |  |  |  |  |
| 121513 | Sugar Cane Grower | R |  |  |  |  |  |  |  |
| 121599 | Broadacre Crop Growers nec |  |  | R |  |  |  |  |  |
| 121611 | Flower Grower | R |  |  |  |  |  |  |  |
| 121612 | Fruit Grower | S |  |  |  |  |  |  |  |
| 121613 | Nut Grower | S |  |  |  |  |  |  |  |
| 121614 | Production Nursery Grower | R |  |  |  |  |  |  |  |
| 121616 | Vegetable Grower (Aus) / Market Gardener (NZ) | R |  |  |  |  |  |  |  |
| 121699 | Horticultural Crop Growers nec | S |  |  |  |  |  |  |  |
| 121711 | Broadacre Crop and Livestock Farmer | S |  |  |  |  |  |  |  |
| 121799 | Mixed Production Farmers nec | S |  | R |  |  |  |  |  |
| 131113 | Advertising Manager |  | S |  |  |  |  |  |  |
| 132111 | Corporate Services Manager |  |  |  |  |  |  | S |  |
| 132211 | Finance Manager |  |  |  |  |  |  | S |  |
| 132311 | Human Resource Manager |  |  |  |  | S |  | S |  |
| 132411 | Policy and Planning Manager |  |  |  |  |  |  | S |  |
| 132511 | Research and Development Manager |  |  |  |  |  |  | S |  |
| 133411 | Manufacturer | S |  | S |  | S |  |  |  |
| 133512 | Production Manager (Manufacturing) |  |  |  |  |  |  | S |  |
| 133611 | Supply and Distribution Manager |  |  |  |  |  |  | S |  |
| 134111 | Child Care Centre Manager |  |  |  |  | S |  |  |  |
| 134211 | Medical Administrator / Medical Superintendent | S |  |  |  | S |  | S |  |
| 134212 | Nursing Clinical Director |  |  |  | S | S |  |  |  |
| 134213 | Primary Health Organisation Manager |  |  |  | S | S |  |  |  |
| 134214 | Welfare Centre Manager |  |  |  |  | S |  |  |  |
| 134299 | Health and Welfare Services Managers nec |  |  |  | R | S |  | S |  |
| 134311 | School Principal |  |  |  |  | S |  |  |  |
| 135112 | ICT Project Manager |  |  |  |  |  |  | S |  |
| 135199 | ICT Managers nec |  |  | S |  |  |  | S |  |
| 139911 | Arts Administrator or Manager |  | S |  |  |  |  |  |  |
| 139912 | Environmental Manager |  | S | S |  |  |  |  |  |
| 139913 | Laboratory Manager |  | S |  |  |  |  |  |  |
| 139915 | Sports Administrator |  | S |  |  |  |  |  |  |
| 139916 | Quality Assurance Manager |  |  |  |  |  |  | S |  |
| 139999 | Specialist Managers nec |  | S |  |  |  |  | S |  |
| 141111 | Cafe or Restaurant Manager |  |  |  |  |  |  | S |  |
| 141211 | Caravan Park and Camping Ground Manager | S |  |  |  |  |  |  |  |
| 141311 | Hotel or Motel Manager |  |  |  |  | S |  | S |  |
| 149112 | Fitness Centre Manager |  |  |  |  |  |  | S |  |
| 149211 | Call or Contact Centre Manager |  | S |  |  |  |  |  |  |
| 149212 | Customer Service Manager |  |  |  |  |  |  | S |  |
| 149311 | Conference and Event Organiser |  |  |  |  | S |  | S |  |
| 149911 | Boarding Kennel or Cattery Operator | S | S |  |  |  |  |  |  |
| 149912 | Cinema or Theatre Manager |  | S |  |  |  |  |  |  |
| 149915 | Equipment Hire Manager |  | S |  |  |  |  |  |  |
| 149999 | Hospitality, Retail and Service Managers nec |  | S |  |  |  |  | S |  |
| 211499 | Visual Arts and Crafts Professionals nec |  |  |  | S |  |  |  |  |
| 212112 | Media Producer (excluding Video) |  |  |  | S |  |  |  |  |
| 212311 | Art Director (Film, Television or Stage) |  |  |  | S |  |  |  |  |
| 212312 | Director (Film, Television, Radio or Stage) |  |  |  | S |  |  |  |  |
| 212313 | Director of Photography |  |  |  | S |  |  |  |  |
| 212314 | Film and Video Editor |  |  |  | S |  |  | S |  |
| 212315 | Program Director (Television or Radio) |  |  |  | S |  |  |  |  |
| 212316 | Stage Manager | S |  |  |  |  |  |  |  |
| 212317 | Technical Director | S |  |  | S |  |  |  |  |
| 212318 | Video Producer |  |  |  | S |  |  |  |  |
| 221111 | Accountant (General) |  |  |  |  |  |  | S |  |
| 223111 | Human Resource Adviser |  |  |  |  |  |  | S |  |
| 223311 | Training and Development Professional |  |  |  |  |  |  | S |  |
| 224114 | Data Analyst | S |  |  | S |  |  |  |  |
| 224115 | Data Scientist |  |  |  |  | S |  |  |  |
| 224713 | Management Consultant |  |  |  |  |  |  | S |  |
| 224911 | Electorate Officer |  | S |  |  |  |  |  |  |
| 224913 | Migration Agent / Immigration Consultant |  | S |  |  |  |  |  |  |
| 224914 | Patents Examiner |  | S |  |  |  |  |  |  |
| 224999 | Information and Organisation Professionals nec |  | S |  |  |  |  |  |  |
| 225112 | Market Research Analyst |  |  | R |  |  |  |  |  |
| 225115 | Digital Marketing Analyst | S |  |  |  |  |  |  |  |
| 225213 | ICT Sales Representative |  |  |  |  |  |  | S |  |
| 231112 | Air Traffic Controller |  | S |  |  |  |  |  |  |
| 231114 | Helicopter Pilot |  |  |  |  |  |  | S |  |
| 231213 | Ship's Master |  |  | S |  |  |  | S |  |
| 231214 | Ship's Officer | S |  |  |  |  |  |  |  |
| 232411 | Graphic Designer |  |  |  |  |  |  | S |  |
| 234312 | Environmental Consultant |  |  |  |  |  |  | S |  |
| 234314 | Park Ranger |  |  |  |  |  |  | S |  |
| 234399 | Environmental Scientists nec | S |  | S |  |  |  | S |  |
| 234513 | Biochemist |  |  | S |  |  |  |  |  |
| 234514 | Biotechnologist |  |  | S |  |  |  |  |  |
| 234517 | Microbiologist |  |  |  | S |  |  |  |  |
| 234599 | Life Scientists nec |  |  | S |  |  |  |  |  |
| 234611 | Medical Laboratory Scientist |  |  |  |  |  |  | S |  |
| 242111 | University Lecturer |  |  |  |  |  |  | S |  |
| 249111 | Education Adviser |  | S |  |  |  |  |  |  |
| 249112 | Education Reviewer |  | S |  |  |  |  |  |  |
| 251111 | Dietitian |  |  | R |  |  |  | S |  |
| 251312 | Occupational Health and Safety Adviser |  |  |  |  |  |  | S |  |
| 251412 | Orthoptist |  |  |  | S | S |  |  |  |
| 251911 | Health Promotion Officer |  |  |  |  |  |  | S |  |
| 252111 | Chiropractor |  |  |  |  | S |  |  |  |
| 252112 | Osteopath |  |  |  |  | S |  |  |  |
| 254311 | Nurse Manager |  |  |  |  | S |  |  |  |
| 261111 | ICT Business Analyst |  |  |  |  |  |  | S |  |
| 263212 | ICT Support Engineer |  |  |  |  |  |  | S |  |
| 263311 | Telecommunications Engineer | S |  |  |  |  |  |  |  |
| 263312 | Telecommunications Network Engineer | S |  |  |  |  |  |  |  |
| 272112 | Drug and Alcohol Counsellor |  |  |  | S | S |  | S |  |
| 272113 | Family and Marriage Counsellor |  |  |  |  | S |  |  |  |
| 272199 | Counsellors nec |  |  |  |  |  |  | S |  |
| 272314 | Psychotherapist |  |  |  | S |  |  |  |  |
| 272412 | Interpreter |  |  |  |  | S |  |  |  |
| 272413 | Translator |  |  |  |  | S |  |  |  |
| 272499 | Social Professionals nec |  |  |  |  |  |  | S |  |
| 272613 | Welfare Worker |  |  |  |  |  |  | S |  |
| 311214 | Operating Theatre Technician |  |  |  | S |  |  |  |  |
| 311299 | Medical Technicians nec |  |  |  | S |  |  |  |  |
| 311311 | Fisheries Officer | S |  |  |  |  |  |  |  |
| 311413 | Life Science Technician | S |  |  |  |  |  |  |  |
| 312112 | Building Associate |  |  |  |  |  |  | S |  |
| 312116 | Surveying or Spatial Science Technician |  |  | R |  |  |  |  |  |
| 312199 | Architectural, Building and Surveying Technicians nec |  |  | S |  |  |  |  |  |
| 312312 | Electrical Engineering Technician |  | S |  |  |  |  |  |  |
| 312412 | Electronic Engineering Technician |  |  |  | S | S |  |  |  |
| 312911 | Maintenance Planner |  |  |  |  |  |  | S |  |
| 312914 | Other Draftsperson |  | S |  |  |  |  |  |  |
| 312999 | Building and Engineering Technicians nec |  | S | S |  |  |  |  |  |
| 313112 | ICT Customer Support Officer |  |  |  |  |  |  | S |  |
| 313113 | Web Administrator |  |  | S |  |  |  |  |  |
| 313199 | ICT Support Technicians nec |  |  |  |  |  |  | S |  |
| 322111 | Blacksmith | S |  |  |  |  |  |  |  |
| 322115 | Metal Polisher | S |  |  |  |  |  |  |  |
| 323215 | Textile, Clothing and Footwear Mechanic | S |  |  |  |  |  |  |  |
| 323299 | Metal Fitters and Machinists nec |  | S |  |  |  |  |  |  |
| 323311 | Engraver |  | S |  |  |  |  |  |  |
| 323312 | Gunsmith |  | S |  |  |  |  |  |  |
| 323315 | Saw Doctor |  | S |  |  |  |  |  |  |
| 323316 | Watch and Clock Maker and Repairer |  | S |  |  |  |  |  |  |
| 342311 | Business Machine Mechanic |  |  |  |  |  |  | S |  |
| 361111 | Dog Handler or Trainer | S |  |  |  |  |  |  |  |
| 361113 | Pet Groomer | S |  |  |  |  |  |  |  |
| 361115 | Kennel Hand | S |  |  |  |  |  |  |  |
| 361116 | Track Rider | S |  |  | S |  |  |  |  |
| 361199 | Animal Attendants and Trainers nec | S |  |  |  |  |  |  |  |
| 362611 | Gardener (General) |  |  |  |  | S |  | S |  |
| 363111 | Aquaculture Supervisor | S |  |  |  |  |  |  |  |
| 363114 | Horticultural Supervisor or Specialist | S |  |  |  |  |  |  |  |
| 363115 | Senior Broadacre Crop and Livestock Farm Worker | S |  |  |  |  |  |  |  |
| 363116 | Senior Broadacre Crop Farm Worker | S |  |  |  |  |  |  |  |
| 363211 | Senior Beef Cattle Station Worker | S |  |  |  |  |  |  |  |
| 363212 | Senior Cattle and Sheep Farm Worker | S |  |  |  |  |  |  |  |
| 363213 | Senior Dairy Cattle Farm Worker | S |  |  |  |  |  |  |  |
| 363215 | Senior Sheep Farm Worker | S |  |  |  |  |  |  |  |
| 363299 | Senior Livestock Farm Workers nec | S |  |  |  |  |  |  |  |
| 363311 | Shearer | S |  |  |  |  |  |  |  |
| 363312 | Wool Classer | S |  |  |  |  |  |  |  |
| 392311 | Printing Machinist |  |  |  |  | S |  |  |  |
| 399212 | Gas or Petroleum Operator |  |  |  | S |  |  |  |  |
| 399611 | Signwriter |  |  |  |  |  |  | S |  |
| 399913 | Optical Dispenser / Dispensing Optician |  |  |  |  |  |  | S |  |
| 411412 | Mothercraft Nurse |  |  |  | S |  |  |  |  |
| 411511 | Aboriginal and Torres Strait Islander Health Worker |  |  |  | S | S |  | S |  |
| 411611 | Massage Therapist |  |  |  |  |  |  | S |  |
| 411711 | Community Worker |  |  |  |  |  |  | S |  |
| 411713 | Family Support Worker |  |  | R |  |  |  | S |  |
| 422111 | Aboriginal and Torres Strait Islander Education Worker |  |  |  | S |  |  |  |  |
| 422116 | Teachers' Aide |  |  |  |  |  |  | S |  |
| 423211 | Dental Assistant |  |  |  |  |  |  | S |  |
| 423411 | Child or Youth Residential Care Assistant |  |  |  |  | S |  |  |  |
| 423413 | Refuge Worker |  |  |  |  | S |  |  |  |
| 431111 | Bar Attendant |  |  |  |  |  |  | S |  |
| 431112 | Barista |  |  |  |  |  |  | S |  |
| 431411 | Hotel Service Manager |  |  |  |  | S |  |  |  |
| 441211 | Emergency Service Worker |  |  |  | R | S |  |  |  |
| 441212 | Fire Fighter |  |  |  |  | S |  |  |  |
| 442111 | Prison Officer |  |  |  |  |  |  | S |  |
| 451411 | Gallery or Museum Guide |  |  |  |  | S |  |  |  |
| 451611 | Tourist Information Officer |  | S |  |  |  |  |  |  |
| 451899 | Personal Service Workers nec |  |  |  | S |  |  |  |  |
| 452111 | Fitness Instructor |  |  |  |  |  |  | S |  |
| 452215 | Outdoor Adventure Instructor | S |  |  |  |  |  |  |  |
| 452299 | Outdoor Adventure Guides nec | S |  |  |  |  |  |  |  |
| 452311 | Diving Instructor (Open Water) |  |  | R |  |  |  |  |  |
| 452318 | Dog and Horse Racing Official | S |  |  |  |  |  |  |  |
| 452413 | Jockey | S |  | S |  |  |  |  |  |
| 511112 | Program or Project Administrator | S |  |  | S |  |  |  |  |
| 512211 | Health Practice Manager |  |  |  | R | S |  |  |  |
| 531111 | General Clerk |  |  |  |  |  |  | S |  |
| 541111 | Call or Contact Centre Team Leader |  | S |  |  |  |  |  |  |
| 541211 | Information Officer |  | S |  |  |  |  |  |  |
| 542111 | Receptionist (General) |  |  |  |  |  |  | S |  |
| 542112 | Admissions Clerk |  | S |  | S |  |  |  |  |
| 542113 | Hotel or Motel Receptionist |  | S |  |  | S |  | S |  |
| 542114 | Medical Receptionist |  |  |  |  |  |  | S |  |
| 551111 | Accounts Clerk |  |  |  |  |  |  | S |  |
| 551211 | Bookkeeper |  |  |  |  |  |  | S |  |
| 552311 | Bookmaker |  | S |  |  |  |  |  |  |
| 552312 | Insurance Consultant |  | S |  |  |  |  |  |  |
| 552313 | Money Market Clerk |  | S |  |  |  |  |  |  |
| 552314 | Statistical Clerk |  | S |  |  |  |  |  |  |
| 591112 | Production Clerk |  |  | S |  |  |  |  |  |
| 591116 | Warehouse Administrator |  |  |  |  |  |  | S |  |
| 599212 | Court Bailiff or Sheriff (Aus) / Court Collections Officer (NZ) | S |  |  |  |  |  |  |  |
| 599411 | Human Resource Clerk |  | S |  |  |  |  |  |  |
| 599999 | Clerical and Administrative Workers nec |  |  |  |  |  |  | S |  |
| 611311 | Sales Representative (Building and Plumbing Supplies) |  | S |  |  |  |  |  |  |
| 611312 | Sales Representative (Business Services) |  | S |  |  |  |  | S |  |
| 611313 | Sales Representative (Motor Vehicle Parts and Accessories) |  | S |  |  |  |  |  |  |
| 611314 | Sales Representative (Personal and Household Goods) |  | S |  |  |  |  |  |  |
| 611399 | Sales Representatives nec |  | S |  |  |  |  |  |  |
| 612112 | Property Manager |  |  |  |  | S |  | S |  |
| 621311 | Motor Vehicle or Caravan Salesperson |  | S |  | S |  |  |  |  |
| 621312 | Motor Vehicle Parts Interpreter / Automotive Parts Salesperson |  | S |  | S |  |  | S |  |
| 621411 | Pharmacy Sales Assistant |  |  |  |  | S |  |  |  |
| 621511 | Retail Supervisor |  |  |  |  |  |  | S |  |
| 639911 | Other Sales Support Worker |  | S |  |  |  |  |  |  |
| 711999 | Machine Operators nec |  |  |  | S |  |  |  |  |
| 712912 | Bulk Materials Handling Plant Operator |  |  |  | S |  |  |  |  |
| 712917 | Railway Signal Operator |  |  | S |  | S |  |  |  |
| 721212 | Backhoe Operator | S |  |  | S |  |  |  |  |
| 721311 | Forklift Driver |  |  |  |  |  |  | S |  |
| 721913 | Paving Plant Operator |  |  |  | S |  |  |  |  |
| 731111 | Chauffeur |  | S |  |  |  |  |  |  |
| 731112 | Taxi Driver |  | S |  |  |  |  | S |  |
| 731199 | Automobile Drivers nec |  | S |  |  |  |  |  |  |
| 731212 | Charter and Tour Bus Driver |  | S |  |  |  |  |  |  |
| 731213 | Passenger Coach Driver |  | S |  |  |  |  |  |  |
| 733112 | Aircraft Refueller |  | S |  |  |  |  |  |  |
| 733113 | Furniture Removalist |  | S |  |  |  |  |  |  |
| 733114 | Tanker Driver |  | S | S |  |  |  |  |  |
| 733115 | Tow Truck Driver |  | S |  |  |  |  |  |  |
| 741111 | Storeperson |  |  |  |  |  |  | S |  |
| 821411 | Building Insulation Installer |  | S |  |  |  |  |  |  |
| 842214 | Grain, Oilseed, Pulse and Pasture Farm Worker (Aus) / Field Farm Worker (NZ) | S |  |  |  |  |  |  |  |
| 842222 | Vineyard Worker | R |  |  |  |  |  |  |  |
| 842311 | Beef Cattle Farm Worker | S |  |  |  |  |  |  |  |
| 842312 | Cattle and Sheep Farm Worker | S |  |  |  |  |  |  |  |
| 842313 | Dairy Cattle Farm Worker | S |  |  |  |  |  |  |  |
| 842316 | Poultry Farm Worker | S |  |  |  |  |  |  |  |
| 842317 | Sheep Farm Worker | S |  |  |  |  |  |  |  |
| 843411 | Pest Control Technician | S |  |  |  |  |  |  |  |
| 899211 | Deck Hand | S |  | S |  |  |  | S |  |
| 899212 | Fishing Hand | S |  |  |  |  |  |  |  |
| 899415 | Tyre Fitter |  |  |  | S |  |  |  |  |

## Appendix F: Occupations where there is a regional shortage only at national level

| **2022 ANZSCO Code** | **Occupation title** |
| --- | --- |
| 142111 | Retail Manager (General) |
| 224912 | Liaison Officer |
| 232611 | Urban and Regional Planner |
| 234313 | Environmental Research Scientist |
| 251311 | Environmental Health Officer |
| 431511 | Waiter |
| 721111 | Agricultural and Horticultural Mobile Plant Operator |
| 721112 | Logging Plant Operator |

1. Jobs and Skills Australia, *2023 Skills Priority List Methodology Paper.* [↑](#footnote-ref-2)
2. Australian Bureau of Statistics, *Labour Force, Australia*, June 2023, seasonally adjusted. [↑](#footnote-ref-3)
3. As measured by the Survey of Employers who have Recently Advertised (SERA). [↑](#footnote-ref-4)
4. The 31% shortage rating for 2022 is reflective of the published 2022 SPL based on the 2021 version of ANZSCO. This differs slightly from the 32% shortage reported in Figure 4 (for all occupations), based on the latest 2022 version of ANZSCO. Note that all analyses from Figure 4 onwards utilise the 2022 ANZSCO version. [↑](#footnote-ref-5)
5. The full list of occupations newly in shortage in 2023 are in Appendix B. [↑](#footnote-ref-6)
6. The full list of occupations in shortage across both 2022 and 2023 SPL are in Appendix A. [↑](#footnote-ref-7)
7. The full list of occupations in shortage across all three SPLs are in Appendix D. [↑](#footnote-ref-8)
8. The full list of occupations in regional shortage only are in Appendix F. [↑](#footnote-ref-9)
9. Many Labourer occupations are out of scope of the SPL as they are at Skill Level 5. [↑](#footnote-ref-10)
10. The Australian Bureau of Statistics provides information on the concept of Skill Levels as part of its [Conceptual basis of ANZSCO](https://www.abs.gov.au/statistics/classifications/anzsco-australian-and-new-zealand-standard-classification-occupations/2021/conceptual-basis-anzsco) advice. [↑](#footnote-ref-11)
11. To assist with visualising the groupings the data has been transformed onto a logarithmic scale and then standardised. This was done as the raw data in each quadrant tended to bunch in a few particular areas, making it more difficult to identify individual occupations.

    [↑](#footnote-ref-12)
12. Leal H (2019), [*Firm-level insights into skills shortages and wages growth*](https://www.rba.gov.au/publications/bulletin/2019/mar/pdf/firm-level-insights-into-skills-shortages-and-wages-growth.pdf), RBA (Reserve Bank Australia), accessed 4 September 2022; Agarwal N, Bishop J (2023), *Do firms respond to skill shortages with wages increases?* (Unpublished presentation), RBA (Reserve Bank Australia), accessed 4 September 2022. [↑](#footnote-ref-13)
13. Not elsewhere classified. [↑](#footnote-ref-14)