Australian Government

National Skills Commission

Skills Priority List Findings

Automotive and Engineering Trades Workers

ANZSCO Sub-Major Group 32

Occupations in Shortage

Of the 34 Automotive and Engineering Trades Worker occupations assessed for the 2021 Skills Priority List (SPL), 62% were found to be in shortage, compared with 19% for all occupations (Table 1). Among the Minor Groups, Automotive Electricians and Mechanics occupations had the most in shortage (100%), followed by Fabrication Engineering Trades Workers (67%). Half of both Mechanical Engineering Trades Workers and Panelbeaters, and Vehicle Body Builders, Trimmers and Painters occupations were identified as being in shortage.

Table 1: Occupations in shortage, Automotive and Engineering Trades Workers Sub-Major Group and Minor Groups

ANZSCO Group		No. reviewed	% of reviewed in shortage
321	Automotive Electricians and Mechanics	5	100%
322	Fabrication Engineering Trades Workers	9	67%
323	Mechanical Engineering Trades Workers	16	50%
324	Panelbeaters, and Vehicle Body Builders, Trimmers and Painters	4	50%
32	**Automotive and Engineering Trades Workers**	**34**	**62%**
	All occupations	**799**	**19%**

Future Demand

Strong demand is projected for 38% of Automotive and Engineering Trades Worker occupations, compared with 33% for all occupations (Table 2). Among minor groups, strong future demand is projected for 56% of Mechanical Engineering Trades Worker occupations, with 44% of Fabrication Engineering Trades Worker occupations also projected to have strong future demand. All Panelbeaters, and Vehicle Body Builders, Trimmers and Painters occupations are projected to have moderate future demand, with most Automotive Electricians and Mechanics occupations (80%) projected to have moderate future demand.

Table 2: Future demand, Automotive and Engineering Trades Workers Sub-Major Group and Minor Groups

ANZSCO Group		No. of occupations reviewed	Future demand ratings (% of reviewed occupations)		
			Strong	Moderate	Soft
321	Automotive Electricians and Mechanics	5	0%	80%	20%
322	Fabrication Engineering Trades Workers	9	44%	56%	0%
323	Mechanical Engineering Trades Workers	16	56%	44%	0%
324	Panelbeaters, and Vehicle Body Builders, Trimmers and Painters	4	0%	100%	0%
32	**Automotive and Engineering Trades Workers**	**34**	**38%**	**59%**	**3%**
	All occupations	**799**	**33%**	**60%**	**7%**

Of the Automotive and Engineering Trades Worker occupations reviewed, eight were found to be in shortage with strong future demand:

- Sheetmetal Trades Worker
- Metal Fabricator
- Pressure Welder
- Welder (First Class)
- Aircraft Maintenance Engineer (Avionics)
- Aircraft Maintenance Engineer (Mechanical)
- Aircraft Maintenance Engineer (Structures)
- Locksmith.

Results by State and Territory

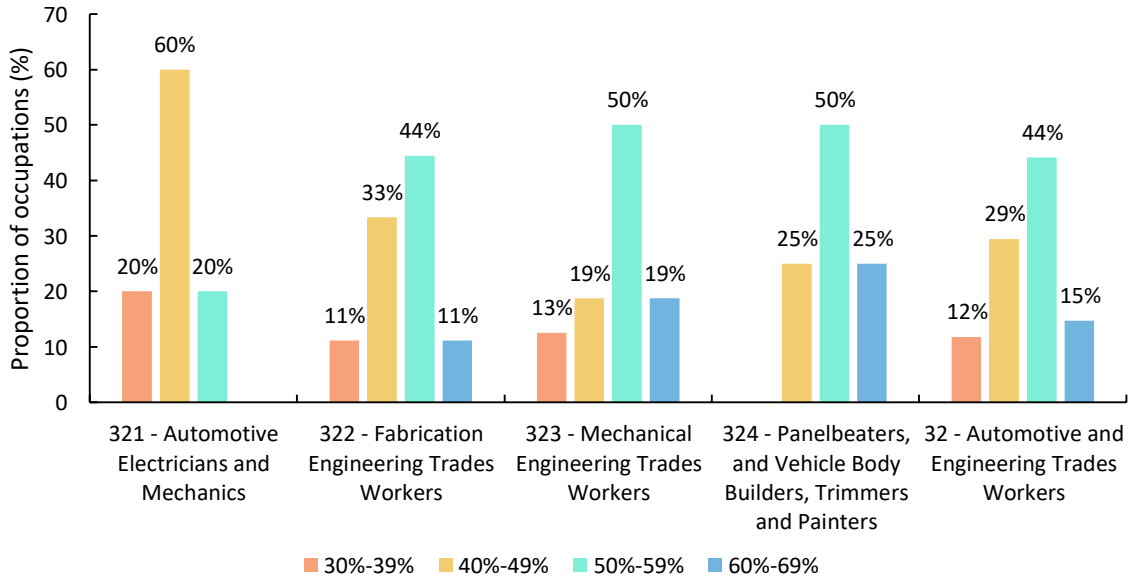
Both New South Wales and Victoria had the highest proportion of Automotive and Engineering Trades Worker occupations assessed in shortage (71%), with the remaining states and territories having 59% in shortage. It should be noted that the variation across the states and territories, at least in part, reflects differences in the stakeholder input received.

Predicted Fill Rates

Incorporating many labour market indicators, including data from the NSC's Survey of Employers who have Recently Advertised (SERA) where available, the predicted fill rate has been formulated by the NSC to predict the percentage of vacancies filled by employers for a particular occupation over the 12 month research period.

The predicted vacancy fill rates for Automotive and Engineering Trades Worker occupations fall within the broad range of 30% to 69% (Figure 1). Almost half (44%) of occupations in this group had predicted fill rates of 50% to 59%.

Figure 1: Automotive and Engineering Trades Workers, predicted fill rate ranges



Survey of Employers

The Survey of Employers who have Recently Advertised (SERA) is a key component of the SPL analysis. Between July 2020 and April 2021, the NSC contacted employers who had advertised vacancies across 18 Automotive and Engineering Trades Worker occupations, to ask about their recent recruitment experience.

Many employers experienced recruitment difficulties, filling less than half (47%) of their advertised vacancies and receiving an average of 1.8 suitable applicants per vacancy. Thirty per cent of employers received no suitable applicants for their positions.

Around 90% of employers required applicants to hold a formal qualification, usually a trade level qualification (e.g. certificate III or IV). Where qualifications were specified, employers received an average of 3.8 qualified applicants per vacancy, with around half being unsuitable.

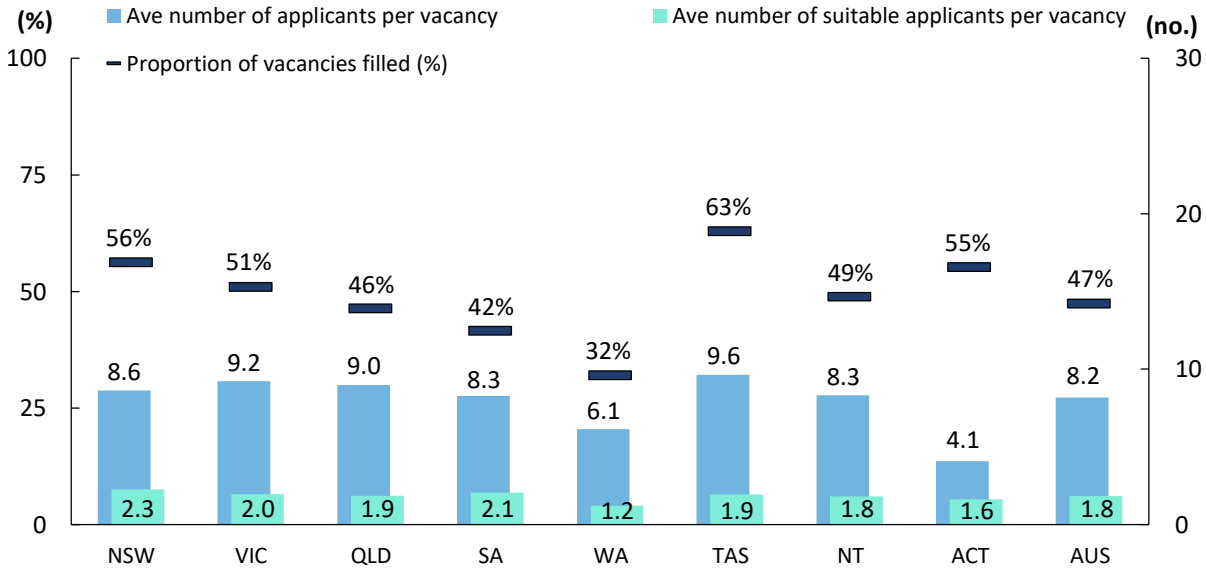
In addition to qualifications, 78% of employers required applicants to have an average of just over two years of relevant work experience and around 40% of employers required applicants to have specialised skills or experience.

The most common reasons applicants were found unsuitable when applying for Automotive and Engineering Trades Worker vacancies were a lack of general experience in the occupation (mentioned by 58% of employers) and lack of qualifications (54%). Other reasons included insufficient specific skills or experience (39%), or performing poorly at one or more stages of the recruitment process (38%).

Employers in regional areas generally experienced more recruitment difficulties than metropolitan-based employers. Regional employers filled 45% of their vacancies and received an average of 1.4 suitable applicants per vacancy, compared with 50% and 2.2, respectively, for metropolitan employers.

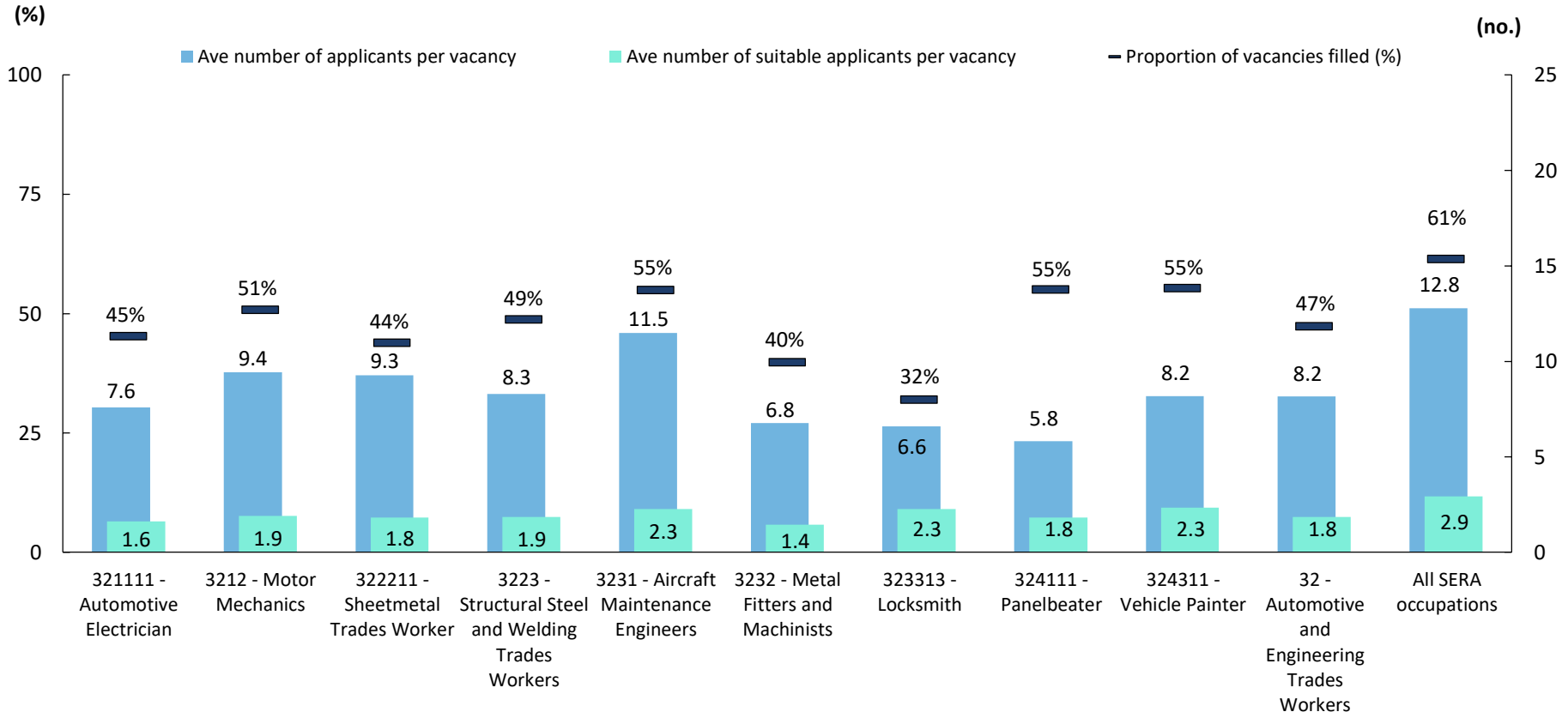
Employers in Tasmania filled the highest proportion of Automotive and Engineering Trades Worker vacancies (63%) (Figure 2), and received the highest average number of applicants per vacancy (9.6). Employers in Western Australia filled the lowest proportion of vacancies (32%) and had the fewest suitable applicants per vacancy (1.2).

Figure 2: Proportion of vacancies filled (%), average number of applicants and suitable applicants per vacancy (no.), surveyed Automotive and Engineering Trades Workers, by State and Territory, July 2020 - April 2021



Automotive and Engineering Trades Worker occupations had lower vacancy fill rates than the average for all SERA occupations (Figure 3). Employers recruiting for Locksmiths filled the fewest number of vacancies (32%), followed by employers of Metal Fitters and Machinists (40%), who also had the lowest average number of suitable applicants per vacancy (1.4).

Figure 3: Proportion of vacancies filled (%), average number of applicants and suitable applicants per vacancy (no.), Automotive and Engineering Trades Worker occupations, Australia, July 2020 to April 2021



Stakeholder Engagement

Automotive and Engineering Trades Worker occupations were raised by a number of stakeholders through the stakeholder engagement process which formed a key part of the labour market assessments for these occupations. Through the engagement process, representative bodies were able to provide input on occupations through surveys, meetings with the NSC, or other submissions. Metal Fabricator, General Motor Mechanic, Diesel Motor Mechanic, General Fitter and Fitter-Welder were the most commonly mentioned occupations.

Stakeholders reported recruitment difficulty for the occupations nationally, in individual states and territories and regionally. Most commonly stakeholders reported that recruitment was difficult due to a lack of suitable applicants and a lack of applicants generally. A lack of applicants' technical skills or qualifications was also a commonly raised reason for recruitment difficulty. Recruitment difficulty was largely expected to worsen in the next 12 months.

The occupations raised required a varying level of qualifications, ranging from certificates III and IV and diplomas to bachelor degrees and higher. Difficulty recruiting was experienced for both entry-level positions and experienced positions, with the lack of a locally trained workforce being the primary future challenge. Partnerships with universities, VET providers or training providers were used to address the recruitment difficulties. Furthermore, a large number of these stakeholders reported that increasing wages or contributing to a training initiative were used to attract employees to vacancies.

Demand and Supply

Indicators of the demand for Automotive and Engineering Trades Workers are mixed. Employment of these workers has increased since early 2020 but remains lower than it was for most of the 2017 to 2019 period.[1] The number of advertised vacancies increased over the year to June 2021 to an historical high after a fall in early 2020.[2]

[1] ABS, Labour Force, May 2021, National Skills Commission trend
[2] National Skills Commission, Internet Vacancy Index, June 2021, trend

New supply to Automotive and Engineering Trade occupations is often through apprenticeships. The number of people completing apprenticeships in Automotive and Engineering Trades decreased by 31% over the five years to March 2021, limiting supply to this labour market.[3] The number of people commencing relevant apprenticeships, however, increased by 28% over the same period, which may lead to increased supply over the next few years. Notably, apprenticeship commencements have increased significantly since the introduction of the Boosting Apprenticeships Commencements (BAC) measure in October 2020.

Temporary skilled migration is also a source of supply for a range of Technicians and Trades Workers occupations, including Automotive and Engineering Trades occupations. The number of temporary skilled visa holders in the Technicians and Trades Workers major group has fallen since early 2020, down by around a quarter, further limiting supply to this labour market.[4]

[3] NCVER, Apprentices and Trainees, March 2021
[4] Department of Home Affairs, Temporary resident (skilled) visa holders in Australia, June 2021 (subclasses 457 and 482)

Appendix – SPL Findings for Automotive and Engineering Trades Worker Occupations

Occupation		Current Labour Market Ratings and Future Demand Rating									
ANZSCO	Occupation	National Labour Market Rating	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	National Future Demand
321111	Automotive Electrician	S	S	S	S	S	S	S	S	S	Soft
321211	Motor Mechanic (General)	S	S	S	S	S	S	S	S	S	Moderate
321212	Diesel Motor Mechanic	S	S	S	S	S	S	S	S	S	Moderate
321213	Motorcycle Mechanic	S	S	S	S	S	S	S	S	S	Moderate
321214	Small Engine Mechanic	S	S	S	NS	NS	NS	NS	NS	NS	Moderate
322111	Blacksmith	NS	NS	S	NS	NS	NS	NS	NS	NS	Moderate
322112	Electroplater	NS	NS	S	NS	NS	NS	NS	NS	NS	Moderate
322113	Farrier	S	S	S	S	S	S	S	S	S	Moderate
322114	Metal Casting Trades Worker	S	S	S	S	S	S	S	S	S	Moderate
322115	Metal Polisher	NS	NS	S	NS	NS	NS	NS	NS	NS	Moderate
322211	Sheetmetal Trades Worker	S	S	S	S	S	S	S	S	S	Strong
322311	Metal Fabricator	S	S	S	S	S	S	S	S	S	Strong
322312	Pressure Welder	S	S	S	S	S	S	S	S	S	Strong
322313	Welder (First Class)	S	S	S	S	S	S	S	S	S	Strong
323111	Aircraft Maintenance Engineer (Avionics)	S	S	S	S	S	S	S	S	S	Strong
323112	Aircraft Maintenance Engineer (Mechanical)	S	S	S	S	S	S	S	S	S	Strong
323113	Aircraft Maintenance Engineer (Structures)	S	S	S	S	S	S	S	S	S	Strong
323211	Fitter (General)	S	S	S	S	S	S	S	S	S	Moderate
323212	Fitter and Turner	S	S	S	S	S	S	S	S	S	Moderate
323213	Fitter-Welder	S	S	S	S	S	S	S	S	S	Moderate
323214	Metal Machinist (First Class)	S	S	S	S	S	S	S	S	S	Moderate
323215	Textile, Clothing and Footwear Mechanic	NS	NS	NS	NS	NS	NS	NS	NS	NS	Moderate
323311	Engraver	NS	NS	NS	NS	NS	NS	NS	NS	NS	Strong
323312	Gunsmith	NS	NS	NS	NS	NS	NS	NS	NS	NS	Strong
323313	Locksmith	S	S	S	S	S	S	S	S	S	Strong
323314	Precision Instrument Maker and Repairer	NS	NS	NS	NS	NS	NS	NS	NS	NS	Strong
323315	Saw Doctor	NS	NS	NS	NS	NS	NS	NS	NS	NS	Strong
323316	Watch and Clock Maker and Repairer	NS	NS	NS	NS	NS	NS	NS	NS	NS	Strong

Occupation		Current Labour Market Ratings and Future Demand Rating									
ANZSCO	Occupation	National Labour Market Rating	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	National Future Demand
323411	Engineering Patternmaker	NS	NS	NS	NS	NS	NS	NS	NS	NS	Moderate
323412	Toolmaker	NS	S	NS	NS	NS	NS	NS	NS	NS	Moderate
324111	Panelbeater	S	S	S	S	S	S	S	S	S	Moderate
324211	Vehicle Body Builder	NS	S	NS	NS	NS	NS	NS	NS	NS	Moderate
324212	Vehicle Trimmer	NS	S	NS	NS	NS	NS	NS	NS	NS	Moderate
324311	Vehicle Painter	S	S	S	S	S	S	S	S	S	Moderate

Ratings: S – Shortage; NS – No Shortage