



The Training and Skills Commission

Manufacturing

South Australia's **Industry**
Priority Qualifications 2018

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As new technologies and the demands of international markets lead to rapidly **changing skills needs**, it is vital to have up-to-date information identifying which **skills** are a **priority in each industry**.



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Foreword

The Training and Skills Commission is pleased to present this report on South Australia's industry priority qualifications. This report is the culmination of extensive industry consultation, which has resulted in a unique and valuable insight into industry's prioritisation of vocational qualifications.

The level of engagement has exceeded the Commission's expectations, and has, in no uncertain terms, contributed significantly to the quality and credibility of the findings of this report.

As new technologies and the demands of international markets lead to rapidly changing skills needs, it is vital to have up-to-date information identifying which skills are a priority in each industry. The Commission is committed to filling this need by providing high quality skills and workforce development advice.

The information in this report helps ensure the vocational training system is responsive to industry needs, and that government investment in skills and training is directed to where industry needs it most.

On behalf of the Commission, I extend a sincere thank you to all those who contributed to this report, from industry associations to individual businesses and to each and every respondent to our survey. Your commitment to getting this information right is commendable, and the expertise you bring is greatly appreciated.

It is the Commission's intent that this report contributes to shaping the significant government investment in skilling our state's workforce.



Michael Boyce

Chair

Training and Skills Commission

About the IPQ

The Industry Priority Qualification (IPQ) report outlines the prioritisation of vocational qualifications and skill sets for each industry. It draws on a survey conducted by the Training and Skills Commission in July 2018, as well as feedback from workshops held with each industry.

The survey aimed to collect as many responses as possible from each industry, and to achieve a representative sample of small, medium and large employers, as well as organisation types. Following the survey, feedback and moderation of the responses was collected from senior industry representatives.

This report is intended to inform the state government about industry's vocational qualification priorities, and to help guide the government's substantial investment in skills and training.

- The first IPQ survey was conducted in 2015 and received 850 responses.
- The 2018 survey collected 1,306 responses from 19 industry sectors.
- Feedback on the survey results was collected from industry representatives.
- The findings inform the Government's investment in skills and workforce development.
- The survey included all current training package qualifications and skill sets, and all current accredited courses that were available on the national register, training.gov.au in April 2018.
- The full IPQ data can be found at tasc.sa.gov.au/IPQ

Key findings

- Most priority qualifications for the Manufacturing sector belong to four training packages:
 - Meat Processing
 - Manufacturing and Engineering
 - Sustainability
 - Electrotechnology.
- All qualifications identified as a priority for the Manufacturing sector are from training packages, with no accredited courses identified.
- Most priority qualifications for the Manufacturing industry are at the certificate III level.
- Half of all the qualifications rated as essential are certificate IIIs.
- Qualifications rated as a high priority include an equal share of certificate IIIs and diplomas.
- Industry included a similar share of entry level and upskilling qualifications among qualifications rated as an essential priority.

Industry priority qualifications

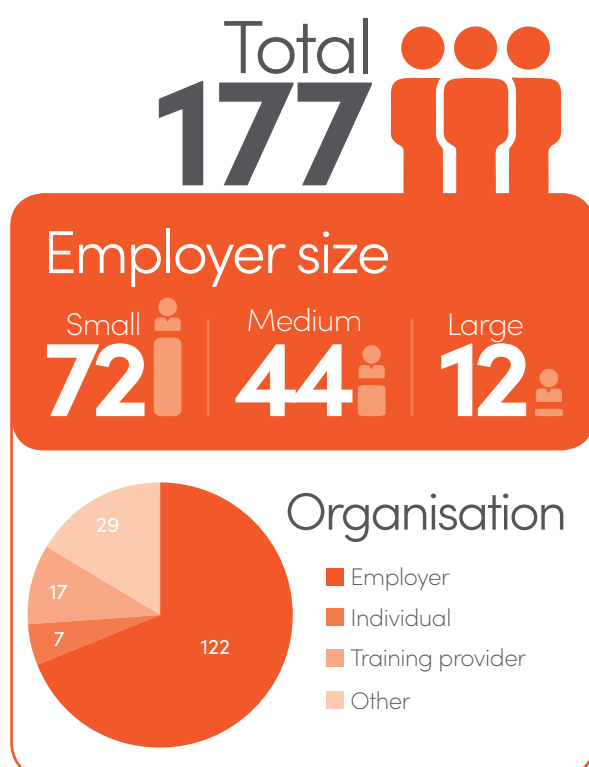
The Manufacturing industry is the fourth largest employer in South Australia, contributing around 61,000 jobs, or eight per cent of the state's workforce. It includes activities that transform physical or chemical materials, substances or components into new products.

Around 42 per cent of the sector's workforce hold a vocational qualification as their highest level of educational attainment, compared to 14 per cent who have a higher education qualification¹. Approximately 40 per cent of the workforce do not hold a tertiary qualification.

Within the Manufacturing sector in South Australia, one-quarter of workers are employed in food manufacturing, primarily in bread, meat and poultry. A further 23 per cent are employed in wine making, ship building and repair, and vehicle parts manufacturing.

Summary of survey responses

The industry priority qualifications (IPQ) survey received 177 responses from the Manufacturing industry, representing 14 per cent of total survey responses. Seventy-two respondents identified as small employers (1-19 employees), 44 as medium (20-199 employees) and a further 12 as large employers (200+ employees)².



Priority qualifications

Industry priority qualifications are grouped into four levels of priority, based on the survey results and industry workshops.

- Essential
- High
- Medium
- Low

Table 1 outlines the priority qualifications for the Manufacturing industry³.

Industry reported that the Certificate II in Meat Processing (Abattoirs) is a crucial qualification for the meat processing sector, as it is the entry level qualification for abattoirs. The Certificate III in Meat Processing (Meat Safety) is also critical as no abattoir can operate without a qualified meat inspector.

Table 1: **Qualifications by priority level**

Essential	
MSS20316	Certificate II in Competitive Systems and Practices
UEE20911	Certificate II in Electronic Assembly
MEM20105	Certificate II in Engineering
AMP20316	Certificate II in Meat Processing (Abattoirs)
FBP30517	Certificate III in Baking
UEE30911	Certificate III in Electronics and Communications
UEE30811	Certificate III in Electrotechnology Electrician
MEM30305	Certificate III in Engineering - Fabrication Trade
MEM30205	Certificate III in Engineering - Mechanical Trade
MEM30505	Certificate III in Engineering - Technical
FBP30117	Certificate III in Food Processing
AMP30616	Certificate III in Meat Processing (General)
AMP30316	Certificate III in Meat Processing (Meat Safety)
AMP30815	Certificate III in Meat Processing (Retail Butcher)
AMP31016	Certificate III in Meat Processing (Smallgoods - Manufacture)
MSM30116	Certificate III in Process Manufacturing

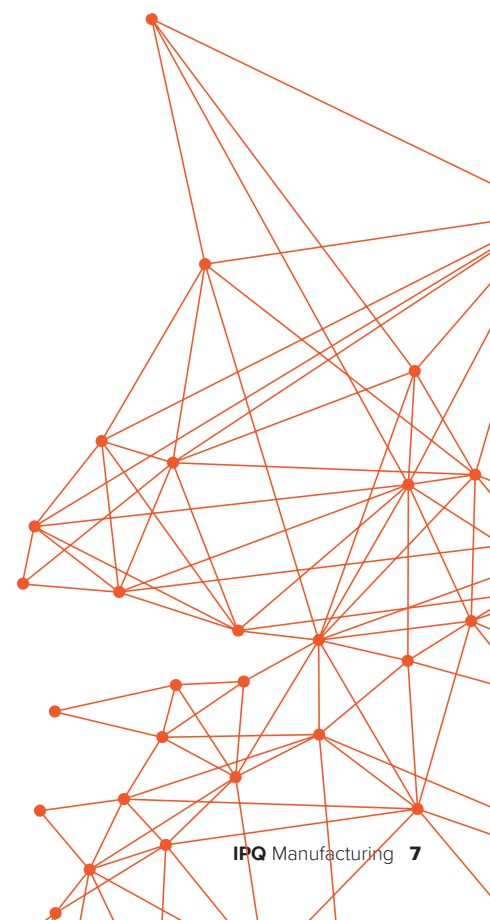
1 | Australian Bureau of Statistics 2018, *Census 2016*

2 | Employer size includes responses from respondents who identified as an organisation type other than employer.

3 | Low priority qualifications are not included in this report, for the full data visit tasc.sa.gov.au/IPQ

Essential	
UEE30711	Certificate III in Switchgear and Controlgear
BSB30715	Certificate III in Work Health and Safety
MEM40105	Certificate IV in Engineering
UEE40911	Certificate IV in Industrial Electronics and Control
BSB41415	Certificate IV in Work Health and Safety
MEM50212	Diploma of Engineering - Technical
UEE63011	Advanced Diploma of Electrical Systems Engineering
MEM60112	Advanced Diploma of Engineering
UEE61711	Advanced Diploma of Engineering Technology - Electronics
High	
AMP20117	Certificate II in Meat Processing (Food Services)
UEE32211	Certificate III in Air-conditioning and Refrigeration
FBP30417	Certificate III in Bread Baking
MSF31113	Certificate III in Cabinet Making
FBP30317	Certificate III in Cake and Pastry
MEM30405	Certificate III in Engineering - Electrical/Electronic Trade
AMP30116	Certificate III in Meat Processing (Boning Room)
AMP30716	Certificate III in Meat Processing (Quality Assurance)
AMP30516	Certificate III in Meat Processing (Slaughtering)
AMP30916	Certificate III in Meat Processing (Smallgoods - General)
FBP40217	Certificate IV in Baking
MEM40412	Certificate IV in Engineering Drafting
MSS40216	Certificate IV in Environmental Monitoring and Technology
AMP40516	Certificate IV in Meat Processing (Meat Safety)
AMP40415	Certificate IV in Meat Processing (Quality Assurance)
MSS50316	Diploma of Competitive Systems and Practices
MEM50105	Diploma of Engineering - Advanced Trade
FDF50311	Diploma of Food Science and Technology
UEE50911	Diploma of Industrial Electronics and Control Engineering
MSM50316	Diploma of Production Management
BSB51415	Diploma of Project Management
BSB51315	Diploma of Work Health and Safety
MSS80416	Graduate Diploma of Competitive Systems and Practices
MEM80112	Graduate Diploma of Engineering
AMPSS00001	Animal Welfare Officer Skill Set

Medium	
MEA30215	Certificate III in Aeroskills (Mechatronics)
BSB30115	Certificate III in Business
BSB30415	Certificate III in Business Administration
MSS30316	Certificate III in Competitive Systems and Practices
UEE30411	Certificate III in Data and Voice Communications
MEM31112	Certificate III in Engineering - Composites Trade
MEM30105	Certificate III in Engineering - Production Systems
MSS40316	Certificate IV in Competitive Systems and Practices
BSB41015	Certificate IV in Human Resources
BSB42015	Certificate IV in Leadership and Management
MSM40116	Certificate IV in Process Manufacturing
MSS40116	Certificate IV in Sustainable Operations
TAE40116	Certificate IV in Training and Assessment
UEE50411	Diploma of Electrical Engineering
MSS50216	Diploma of Environmental Monitoring and Technology
MSS50116	Diploma of Sustainable Operations
MSS60316	Advanced Diploma of Competitive Systems and Practices
FDFSS00007	Food Safety
AMPSS00018	Game Harvester Skill Set
MSS80216	Graduate Certificate in Environmental Management



Qualifications by training package

Priority qualifications for the Manufacturing industry belong to a broad range of training packages, including:

- Aeroskills (MEA)
- Australian Meat Processing (AMP)
- Business Services (BSB)
- Electrotechnology (UEE)
- Food, Beverage and Pharmaceutical (FBP)
- Food Processing (FDF)
- Furnishing (MSF)
- Manufacturing (MSM)
- Manufacturing and Engineering (MEM)
- Sustainability (MSS)
- Training and Education (TAE)

Most priority qualifications for the Manufacturing sector belong to four training packages: Meat Processing (AMP), Manufacturing and Engineering (MEM), Sustainability (MSS) and Electrotechnology (UEE). Qualifications rated as essential chiefly belong to just three training packages: Meat Processing, Manufacturing and Engineering and Electrotechnology.

Figure 1: Qualifications and skill sets by priority level and training package

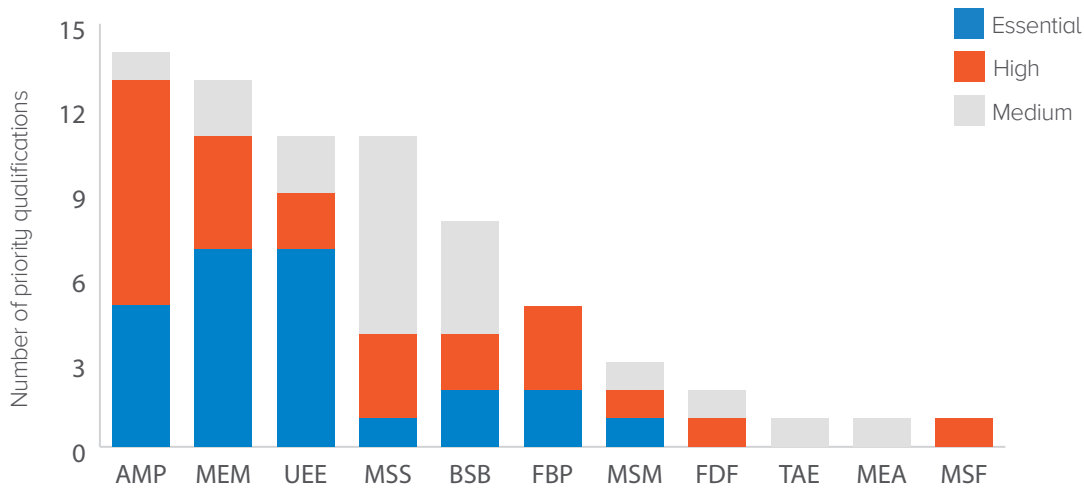
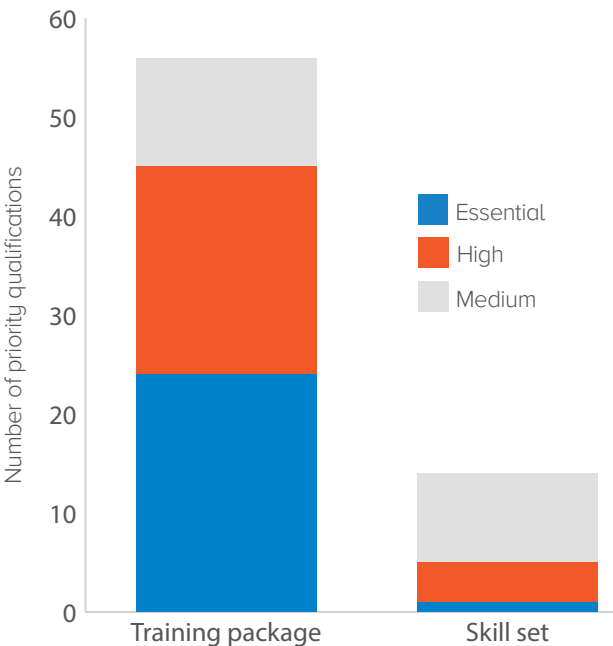


Figure 2: Qualification type by priority level



Qualification types

Among qualifications rated as an essential, high or medium priority, all are from training packages, including 14 skill sets. No accredited courses were identified as a priority within the top three priority levels.

Qualification levels

The majority of priority qualifications for the Manufacturing industry are at the certificate III level, something that is not surprising given the prevalence of trades in the sector. Beyond certificate IIIs, certificate IV is the next most common priority, followed by diplomas, suggesting industry places a high priority on higher-level qualifications.

More than half of all the qualifications rated as essential are certificate IIIs, reflecting the importance of trades in the sector, whereas high priority qualifications have a similar share of certificate IIIs and diplomas. While the vast majority of priority qualifications are certificate III or higher, four certificate IIs are rated as essential, and one as a high priority.

Figure 3: **Qualification level: essential, high & medium priority**

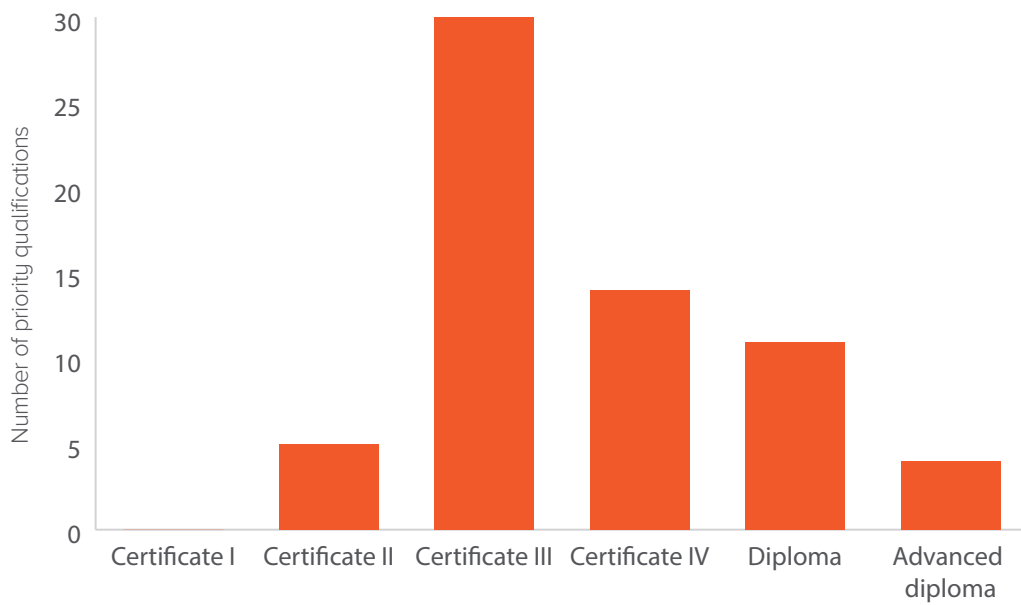
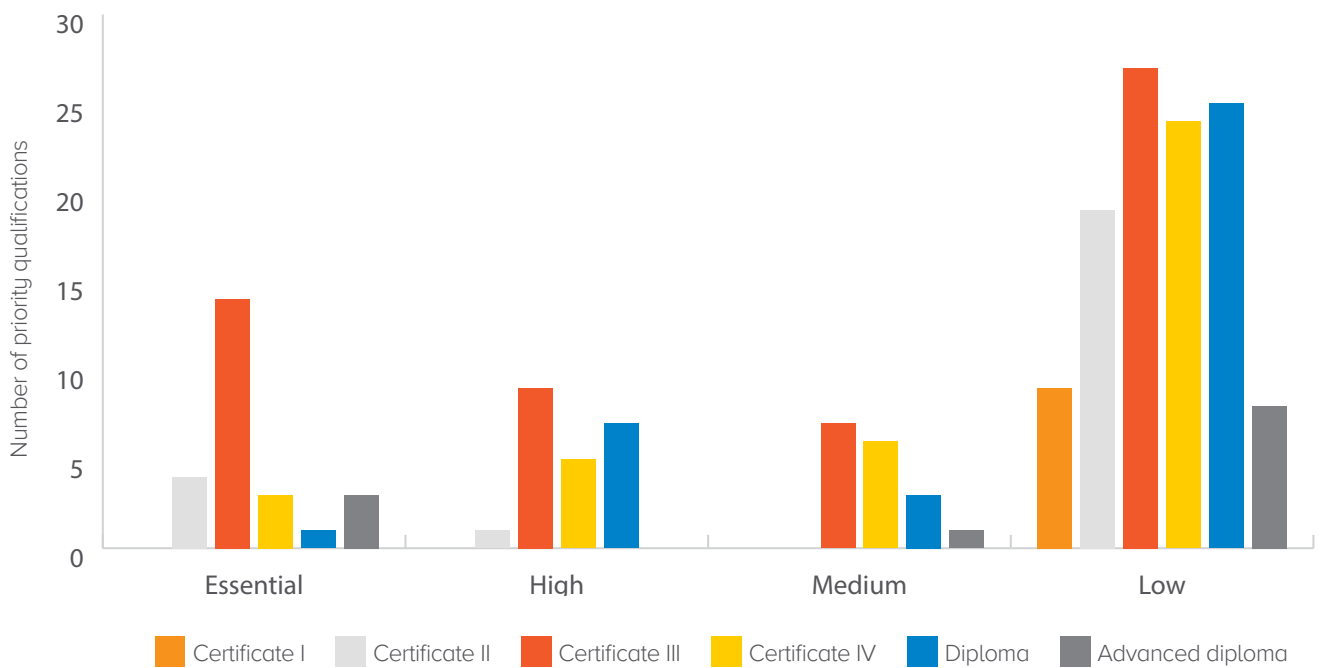


Figure 4: **Qualification level by priority ranking**





Qualification use

Qualifications can be undertaken for a variety of purposes. A student might complete a qualification to gain entry into an occupation, such as a boilermaker completing their Certificate III in Engineering – Fabrication Trade, while others may need to complete a pathway qualification such as the Certificate II in Engineering, to prepare for taking on a higher-level qualification, such as the Certificate III in Engineering – Fabrication Trade.

Table 2 reveals industry's views on what their priority qualifications are typically used for, out of three possible categories:

1. a pathway to an entry level qualification
2. an entry level qualification or basic requirement for a job
3. for upskilling.

The importance of pathway qualifications was recognised by industry, with three pathway qualifications identified as a priority. A roughly equal share of qualifications were identified as entry level or upskilling, demonstrating the importance placed on both types of skill acquisition. Several certificate IIs were classified as upskilling, whereas in most other sectors, upskilling tends to be certificate IV or higher.

One pathway qualification was identified by industry as a priority, namely the Certificate II in Engineering. Industry prioritised a roughly equal share of entry level and upskilling qualifications, demonstrating the importance placed on both training new entrants and upskilling existing workers. Twenty-eight qualifications were identified as a basic requirement for a job, most of which are certificate IIIs, while 30 qualifications were identified as being required for upskilling. Upskilling qualifications tended to be certificate IV or higher.

Industry included a similar share of entry level and upskilling qualifications among qualifications rated as an essential priority. Within qualifications considered a high priority, slightly more were for upskilling compared to entry level.

Table 2: **Qualification use**

Pathway to entry level		Upskilling	
MEM20105	Certificate II in Engineering	UEE63011	Advanced Diploma of Electrical Systems Engineering
Entry level or basic requirement for a job		MEM60112	Advanced Diploma of Engineering
UEE20911	Certificate II in Electronic Assembly	UEE61711	Advanced Diploma of Engineering Technology - Electronics
AMP20316	Certificate II in Meat Processing (Abattoirs)	MSS30316	Certificate III in Competitive Systems and Practices
AMP20117	Certificate II in Meat Processing (Food Services)	AMP30116	Certificate III in Meat Processing (Boning Room)
MEA30215	Certificate III in Aeroskills (Mechatronics)	AMP30616	Certificate III in Meat Processing (General)
UEE32211	Certificate III in Air-conditioning and Refrigeration	AMP30716	Certificate III in Meat Processing (Quality Assurance)
FBP30517	Certificate III in Baking	AMP30516	Certificate III in Meat Processing (Slaughtering)
FBP30417	Certificate III in Bread Baking	MSM30116	Certificate III in Process Manufacturing
BSB30115	Certificate III in Business	BSB30715	Certificate III in Work Health and Safety
BSB30415	Certificate III in Business Administration	MSS40316	Certificate IV in Competitive Systems and Practices
MSF31113	Certificate III in Cabinet Making	MEM40105	Certificate IV in Engineering
FBP30317	Certificate III in Cake and Pastry	MEM40412	Certificate IV in Engineering Drafting
UEE30411	Certificate III in Data and Voice Communications	BSB41015	Certificate IV in Human Resources
UEE30911	Certificate III in Electronics and Communications	UEE40911	Certificate IV in Industrial Electronics and Control
UEE30811	Certificate III in Electrotechnology Electrician	BSB42015	Certificate IV in Leadership and Management
MEM31112	Certificate III in Engineering - Composites Trade	AMP40516	Certificate IV in Meat Processing (Meat Safety)
MEM30405	Certificate III in Engineering - Electrical/Electronic Trade	AMP40415	Certificate IV in Meat Processing (Quality Assurance)
MEM30305	Certificate III in Engineering - Fabrication Trade	MSM40116	Certificate IV in Process Manufacturing
MEM30205	Certificate III in Engineering - Mechanical Trade	MSS40116	Certificate IV in Sustainable Operations
MEM30105	Certificate III in Engineering - Production Systems	BSB41415	Certificate IV in Work Health and Safety
MEM30505	Certificate III in Engineering - Technical	MSS50316	Diploma of Competitive Systems and Practices
FBP30117	Certificate III in Food Processing	UEE50411	Diploma of Electrical Engineering
AMP30316	Certificate III in Meat Processing (Meat Safety)	MEM50105	Diploma of Engineering - Advanced Trade
AMP30815	Certificate III in Meat Processing (Retail Butcher)	MEM50212	Diploma of Engineering - Technical
AMP30916	Certificate III in Meat Processing (Smallgoods - General)	UEE50911	Diploma of Industrial Electronics and Control Engineering
AMP31016	Certificate III in Meat Processing (Smallgoods - Manufacture)	MSM50316	Diploma of Production Management
UEE30711	Certificate III in Switchgear and Controlgear	BSB51415	Diploma of Project Management
TAE40116	Certificate IV in Training and Assessment	BSB51315	Diploma of Work Health and Safety
FDF50311	Diploma of Food Science and Technology	MEM80112	Graduate Diploma of Engineering



Contributors

Thank you to all stakeholders that contributed to shaping the Industry Priority Qualifications report.

Adelaide Community Health Alliance
AFL SportsReady
Aged Care Industry Association
Agribusiness SA
AI Group
Air Conditioning Mechanical Contractors Association
Arts Industry Council of SA
ATEC Group Training
Australian Childcare Alliance SA
Australian Council for Private Education and Training
Australian Education Union (SA)
Australian Funeral Directors Association
Australian Hotels Association SA
Australian Manufacturing Workers' Union
Australian Nursing and Midwifery Federation
Australian Steel Institute
Australian Veterinary Association
Australian Workers Union
Business SA
Communications Electrical Plumbing Union
Community Accommodation and Respite Agency
Community Centres SA
Construction Industry Training Board
Defence Teaming Centre
Department for Correctional Services
Energy Skills SA
Engineers Australia
Food and Beverage Fund SA
Grain Producers SA
Health Services Union
Helping Hand Aged Care
Housing Industry Association
Independent Education Union of South Australia
Livestock SA
Master Builders SA
Master Plumbers Association
Maxima
Minda
Motor Trades Association
Murraylands Training and Employment Association

National Disability Services
National Electrical & Communications Association
Northern Adelaide State Secondary Schools Alliance
PEER
Primary Industry Skills Council SA
Property Council of Australia (SA)
Public Service Association of SA
Real Estate Employers Federation SA
Real Estate Institute of South Australia
Resources and Engineering Skills Alliance
Restaurant & Catering SA
SA Aquaculture Council
SA Country Fire Service
SA Dairy Farmers Association
SA Health
SA Road Transport Association
SA Wine Industry Association
SAPOL
Service Skills SA
Shelter SA
Shop Distributive and Allied Employees
South Australian Chamber of Mines and Energy
South Australian Independent Retailers
Sport SA
Statewide Group Training
Taxi Council
Trainee and Apprentice Placement Service
Transport Distribution Training SA
Transport Workers Union
United Voice
Volunteering SA and NT
Waste Management Association
Wildcats Fisheries SA
Youth Affairs Council of SA

For further information about industry employment, skills and workforce development please visit the Commission's website tasc.sa.gov.au to find the following resources:

- Economic Outlook
- Industry Profiles
- Regional Profiles