



The Training and Skills Commission

Professional, Scientific and Technical Services

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

- The Professional, Scientific and Technical Services industry's priorities are incredibly diverse, with priority qualifications drawn from seven training packages.
- Business, ICT, and engineering qualifications make up the bulk of essential or high priority qualifications.
- Diploma level qualifications are the most common priority overall.
- Certificate III level qualifications make up the majority of qualifications rated as essential, driven by trade qualifications.
- Several priority qualifications are high-level upskilling qualifications that provide an entry into tertiary education.
- The vocational education sector will play a significant role in supporting pathway qualifications in the engineering field to respond to the needs of a growing defence sector.

Industry priority qualifications

The Professional, Scientific and Technical Services industry is a broad sector, encompassing areas of activity including engineering, legal, accounting, management, and veterinary services, as well as computer system design.

This industry, alongside manufacturing, will play a key role in supporting the burgeoning defence projects being delivered in South Australia over the coming years. Employment in the defence sector is expected to grow by over 25 per cent to 2025 and many of these jobs will fall to workers currently in the professional, technical, and scientific field¹.

Summary of survey responses

The industry priority qualifications survey received 84 responses from the Professional, Scientific, and Technical Services industry. Employers made up around sixty per cent of responses and just under two-thirds of these were small businesses employing less than 20 people².

Priority qualifications

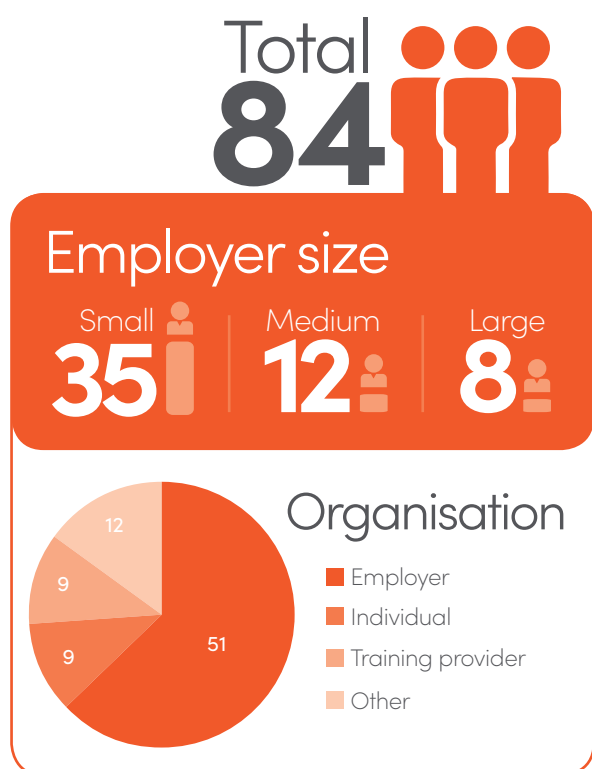
Industry priority qualifications are grouped into four levels of priority, based on the survey results and industry workshops.

- Essential
- High
- Medium
- Low

Table 1 outlines the priority qualifications for the Professional, Scientific and Technical Services industry³.

A total of 158 qualifications, skill sets, and accredited courses have been identified as a priority for the industry and 14 of these were highlighted as essential training priorities.

The highest priority qualifications are generally those that prepare students for entry-level work in the sector, including in a number of technical trades courses.



1 | *Economic Outlook and Industry Demand for Qualifications* 2018, Training and Skills Commission.

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

Table 1: **Qualifications by priority level**

Essential	
BSB30101	Certificate III in Business
BSB30201	Certificate III in Business Administration
BSB31007	Certificate III in Business Administration (Legal)
MEM30405	Certificate III in Engineering - Electrical/Electronic Trade
MEM30205	Certificate III in Engineering - Mechanical Trade
MEM30505	Certificate III in Engineering - Technical
BSB42015	Certificate IV in Leadership and Management
BSB40110	Certificate IV in Legal Services
TAE40110	Certificate IV in Training and Assessment
ACM40410	Certificate IV in Veterinary Nursing
ICT50115	Diploma of Information Technology
BSB51915	Diploma of Leadership and Management
ICT50715	Diploma of Software Development
BSBSS00077	Marketing and Communication Foundations Skill Set
High	
MSL30109	Certificate III in Laboratory Skills
ICT40815	Certificate IV in Digital Media Technologies
MEM40103	Certificate IV in Engineering
MEM40412	Certificate IV in Engineering Drafting
ICT40115	Certificate IV in Information Technology
ICT40415	Certificate IV in Information Technology Networking
ICT40215	Certificate IV in Information Technology Support
ICT40515	Certificate IV in Programming
ICT50515	Diploma of Database Design and Development
MEM50105	Diploma of Engineering - Advanced Trade
MEM50205	Diploma of Engineering - Technical
BSB50607	Diploma of Human Resources Management
ICT50415	Diploma of Information Technology Networking
ICT50315	Diploma of Information Technology Systems Administration
MSL50109	Diploma of Laboratory Technology
ACM50210	Diploma of Veterinary Nursing (Surgical)
MEM60105	Advanced Diploma of Engineering
Medium	
MEM10105	Certificate I in Engineering
MEM20105	Certificate II in Engineering
MSL20109	Certificate II in Sampling and Measurement
ICT30115	Certificate III in Information, Digital Media and Technology
ICT30415	Certificate III in Telecommunications Network Build and Operate
ICT30515	Certificate III in Telecommunications Technology
BSB41513	Certificate IV in Project Management Practice
ICT41215	Certificate IV in Telecommunications Engineering Technology
FNS50204	Diploma of Accounting
BSB50101	Diploma of Business
ACM50410	Diploma of Veterinary Nursing (Emergency and Critical Care)
ACM50512	Diploma of Veterinary Nursing (General Practice)
ICT50615	Diploma of Website Development
BSB60207	Advanced Diploma of Business
BSB61015	Advanced Diploma of Leadership and Management
MEM80112	Graduate Diploma of Engineering
BSBSS00061	Cloud Computing and Digital Skills for Business Skill Set
BSBSS00036	Design Fundamentals Skill Set
BSBSS00050	Small Business Financial Management Skill Set

Qualifications by training package

Training packages which are a priority for the Professional, Scientific and Technical Services industry include:

- Animal Care and Management (ACM)
- Business Services (BSB)
- Financial Services (FNS)
- Information and Communications Technology (ICT)
- Laboratory Operations (MSL)
- Manufacturing and Engineering (MEM)
- Training and Education (TAE)

The diversity of the sector is highlighted by the representation of seven different training packages. The Business Services (BSB) training package is the most prevalent for qualifications rated as essential, with business and business administration being important qualifications in the para legal, advertising, and managements fields. Information and Communications Technology (ICT) qualifications are most prevalent among qualifications rated as a high priority, highlighting their importance to the sector alongside several higher-level engineering qualifications.

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

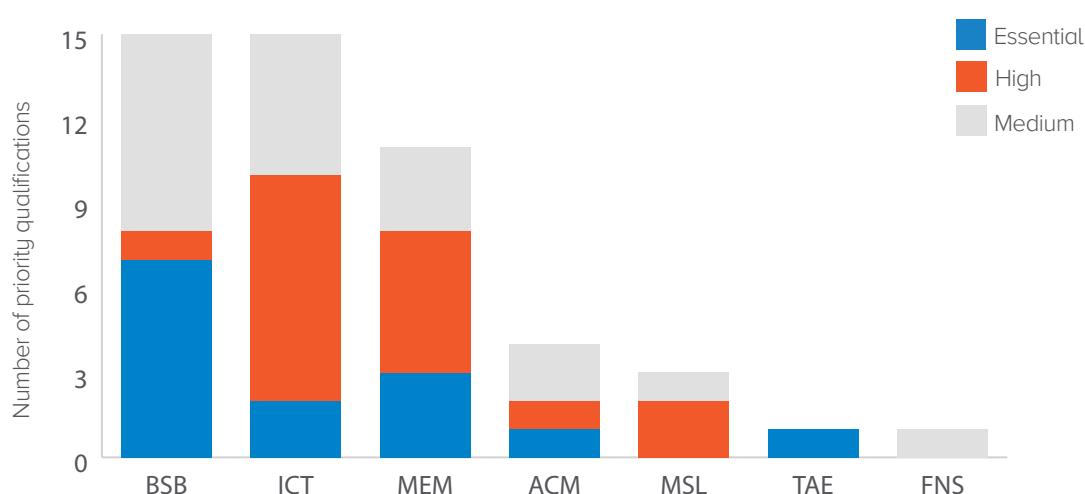
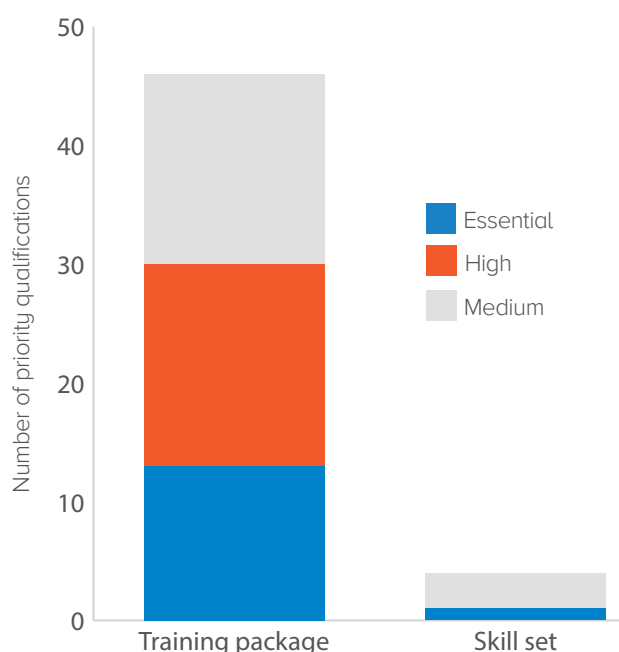


Figure 2: **Qualification type by priority level**



Qualification types

Training package qualifications make up most of the priorities for the Professional, Scientific and Technical Services industry, accompanied by four skill sets, one of which is considered essential. No accredited courses were identified in the top three priority levels.

Qualification levels

The qualifications identified by industry are skewed towards higher-level qualifications, with 45 per cent being diploma level or higher. This comes as no surprise in an industry dominated by higher education, where only a quarter of workers have a vocational qualification and around half of these are at diploma level or above.

Despite this trend toward higher-level qualifications, the most prominent qualification level amongst essential qualifications is certificate III. This is a result of several entry-level business qualifications and three core engineering trade qualifications. High priority qualifications are representative of the overall shares, with all but two qualifications at the certificate IV and diploma level.



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

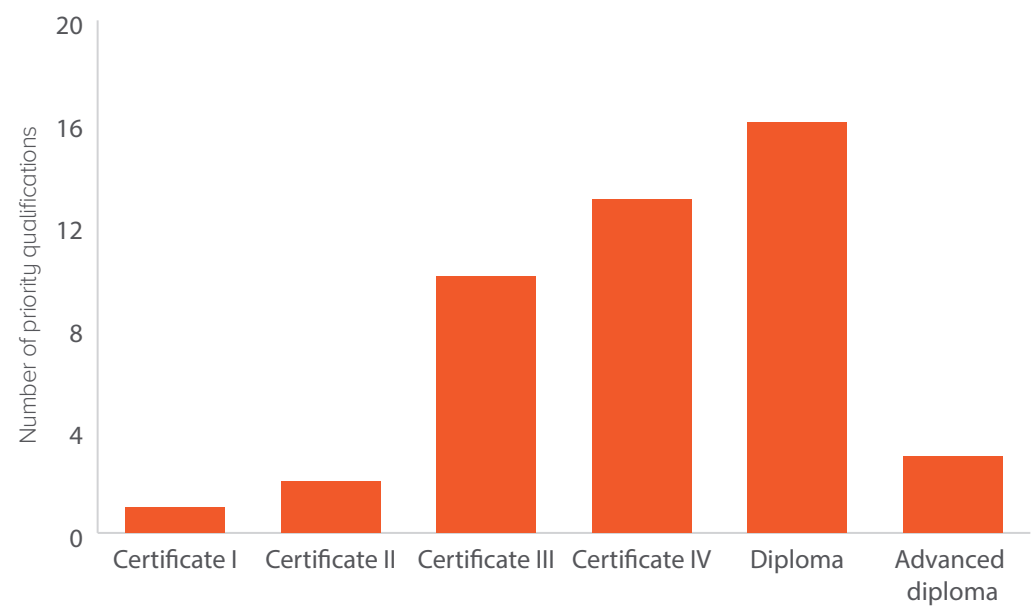
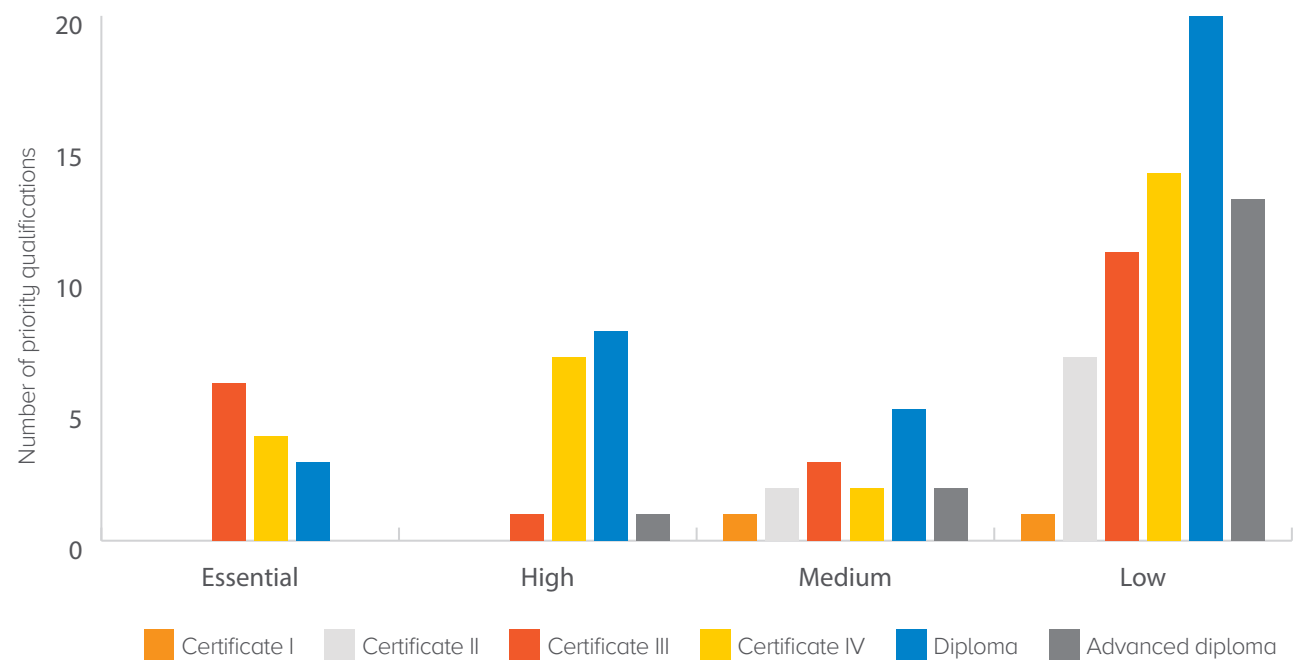


Figure 4: Qualification level by priority ranking



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 veterinary nurse completing their Certificate IV in Veterinary Nursing, while others may choose to complete a pathway qualification such as the Certificate II in Engineering to prepare for undertaking an apprenticeship through the Certificate III in Engineering – Mechanical Trade.

Table 2 reveals industry's views on what 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 Professional, Scientific, and Technical Services industry has a clear focus on qualifications that are either a basic requirement for a job or for upskilling. Stakeholders stated that many of the upskilling qualifications are used as a pathway to higher education. The industry has also placed some emphasis on pathway qualifications, which may serve to introduce new students into the field.

Table 2: **Qualification use**

Pathway to entry level	
MEM10105	Certificate I in Engineering
MEM20105	Certificate II in Engineering
MSL20109	Certificate II in Sampling and Measurement
ICT40515	Certificate IV in Programming
Entry level qualification or basic requirement for a job	
BSB30101	Certificate III in Business
BSB30201	Certificate III in Business Administration
BSB31007	Certificate III in Business Administration (Legal)
MEM30405	Certificate III in Engineering - Electrical/Electronic Trade
MEM30205	Certificate III in Engineering - Mechanical Trade
MEM30505	Certificate III in Engineering - Technical
ICT30115	Certificate III in Information, Digital Media and Technology
MSL30109	Certificate III in Laboratory Skills
ICT30515	Certificate III in Telecommunications Technology
ICT40115	Certificate IV in Information Technology

Entry level qualification or basic requirement for a job	
ICT40415	Certificate IV in Information Technology Networking
ICT40215	Certificate IV in Information Technology Support
BSB40110	Certificate IV in Legal Services
ACM40410	Certificate IV in Veterinary Nursing
ICT50515	Diploma of Database Design and Development
ICT50715	Diploma of Software Development
Upskilling	
ICT30415	Certificate III in Telecommunications Network Build and Operate
ICT40815	Certificate IV in Digital Media Technologies
MEM40103	Certificate IV in Engineering
MEM40412	Certificate IV in Engineering Drafting
BSB42015	Certificate IV in Leadership and Management
BSB41513	Certificate IV in Project Management Practice
ICT41215	Certificate IV in Telecommunications Engineering Technology
TAE40110	Certificate IV in Training and Assessment
FNS50204	Diploma of Accounting
BSB50101	Diploma of Business
MEM50105	Diploma of Engineering - Advanced Trade
MEM50205	Diploma of Engineering - Technical
BSB50607	Diploma of Human Resources Management
ICT50115	Diploma of Information Technology
ICT50415	Diploma of Information Technology Networking
ICT50315	Diploma of Information Technology Systems Administration
MSL50109	Diploma of Laboratory Technology
BSB51915	Diploma of Leadership and Management
ACM50410	Diploma of Veterinary Nursing (Emergency and Critical Care)
ACM50512	Diploma of Veterinary Nursing (General Practice)
ACM50210	Diploma of Veterinary Nursing (Surgical)
ICT50615	Diploma of Website Development
BSB60207	Advanced Diploma of Business
MEM60105	Advanced Diploma of Engineering
BSB61015	Advanced Diploma of Leadership and Management
MEM80112	Graduate Diploma of Engineering

Workforce development

The industry workshops conducted by the Training and Skills Commission provided an opportunity to capture high level workforce development information from industry. This section summarises the feedback that was collected.

The Professional, Scientific, and Technical Services industry, particularly the engineering field, faces a significant workforce challenge from 2020 and beyond. The defence industry will be looking for engineers with five or more years work experience, meaning many are likely to be drawn from other industries, leaving a shortage of engineers outside the defence sector. The engineering profession is already relying on a strong supply of skilled migrant labour with over 50 per cent of qualified engineers coming from overseas. This presents an opportunity for the VET sector to support workforce development. With 60 per cent of tertiary engineering students entering university through non-SACE pathways, there will be a flow-on effect through the education system.

Industry stated that it faces difficulty finding students with adequate employability skills, making it hard to match potential workers with employment. Many students from fields such as accounting, information technology and engineering are completing tertiary education and have strong technical skills, yet their lack of work experience makes it difficult to find employment after graduating.

Stakeholders are generally not concerned with the impacts of automation and technology. Rather, technology is viewed for its potential to improve products and services.



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