



The Training and Skills Commission

Construction

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 qualifications rated as essential belong to trade occupations and are often required to meet licensing requirements.
- Two-thirds of priority qualifications belong to the Construction, Plumbing and Services training package.
- Six skill sets are deemed a priority, two of which are rated as essential.
- Most priority qualifications are certificate IIIs.
- Most priority qualifications were identified as a basic requirement for a job.
- An ageing workforce is a major challenge for the sector.
- The Construction industry lacks a coordinated strategy to manage its ageing workforce.
- New technologies, such as renewable energy, are impacting the sector and its workforce, mostly by changing the way work is performed.
- The Construction industry is concerned about the responsiveness of the training system in being able to meet rapidly changing skills needs.

Industry priority qualifications

The Construction industry is one of the largest employers in South Australia, employing around eight per cent of the state's workforce. It includes activities such as residential and non-residential construction, construction services like air conditioning, carpentry and plumbing, as well as civil engineering construction.

Many of the traditional trades belong to the Construction sector, as well as newer roles such as those in renewable energy. The industry has a strong focus on vocational education, with just over half of the industry's workforce holding a vocational qualification, compared to only eight per cent who have a higher education qualification¹.

Summary of survey responses

The industry priority qualifications (IPQ) survey received 247 responses from the Construction industry, representing 19 per cent of total survey responses. The survey received a good response from small employers (1-19 employees), totalling 113 responses, compared to 50 from medium (20-199 employees) and 18 from 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 Construction industry³.

Industry advised that qualifications rated as essential are critical to the industry as they provide the skills required by their future workforce. Most of the qualifications rated as essential belong to the core trades and are often required to meet licensing requirements, making them vital for industry.

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

Table 1: **Qualifications by priority level**

Essential	
UEE32211	Certificate III in Air-conditioning and Refrigeration
CPC30111	Certificate III in Bricklaying/Blocklaying
CPC30211	Certificate III in Carpentry
RII30915	Certificate III in Civil Construction
RII30815	Certificate III in Civil Construction Plant Operations
CPC30313	Certificate III in Concreting
UEE30811	Certificate III in Electrotechnology Electrician
CPC32713	Certificate III in Gas Fitting
CPC30611	Certificate III in Painting and Decorating
CPC32413	Certificate III in Plumbing
CPC31111	Certificate III in Steelfixing
CPC31311	Certificate III in Wall and Floor Tiling
CPC40110	Certificate IV in Building and Construction (Building)
CPC40508	Certificate IV in Building and Construction (Site Management)
CPCSS00001	Lead a building, Construction or plumbing and services team
CPCSS00003	Undertake trade contracting
High	
CPC20112	Certificate II in Construction
CPC20211	Certificate II in Construction Pathways
CPC31411	Certificate III in Construction Waterproofing
CPC32813	Certificate III in Fire Protection
CPC31912	Certificate III in Joinery
UEE32011	Certificate III in Renewable Energy - ELV
CPC32612	Certificate III in Roof Plumbing
CPC30812	Certificate III in Roof Tiling
CPC31011	Certificate III in Solid Plastering
RII31615	Certificate III in Trenchless Technology
CPC31211	Certificate III in Wall and Ceiling Lining
CPC40208	Certificate IV in Building and Construction (Contract Administration)
CPC40308	Certificate IV in Building and Construction (Estimating)
RII40615	Certificate IV in Civil Construction Operations
RII40715	Certificate IV in Civil Construction Supervision
CPC40912	Certificate IV in Plumbing and Services
UEE42911	Certificate IV in Refrigeration and Air-conditioning Systems
10604NAT	Certificate IV in Safety Leadership (WHS) – Construction
TAE40116	Certificate IV in Training and Assessment
10675NAT	Course in Asbestos Awareness
CPCSS00002	Manage complex building projects
Medium	
CPC10111	Certificate I in Construction
RII20715	Certificate II in Civil Construction
CPC20812	Certificate II in Metal Roofing and Cladding
BSB30115	Certificate III in Business
BSB30415	Certificate III in Business Administration
CPC32011	Certificate III in Carpentry and Joinery
CPC32513	Certificate III in Plumbing (Mechanical Services)
CPC30911	Certificate III in Scaffolding
CPC40611	Certificate IV in Building and Construction (Specialist Trades)
CPC40708	Certificate IV in Building and Construction (Trade Contracting)
CPC50210	Diploma of Building and Construction (Building)
CPCSS00004	Provide building surveying services for residential buildings up to three storeys
RIISS00041	Work Zone Traffic Control - Implement Traffic Control Guidance Plan Skill Set
RIISS00043	Work Zone Traffic Control - Supervisor Skill Set

Qualifications by training package

Priority qualifications for the Construction industry belong to five training packages:

- Business Services (BSB)
- Construction, Plumbing and Services (CPC)
- Resources and Infrastructure Industry (RII)
- Training and Education (TAE)
- Electrotechnology (UEE)

Two-thirds of priority qualifications belong to the Construction, Plumbing and Services (CPC) training package. Qualifications rated as essential belong to just three training packages: CPC, RII and UEE.

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

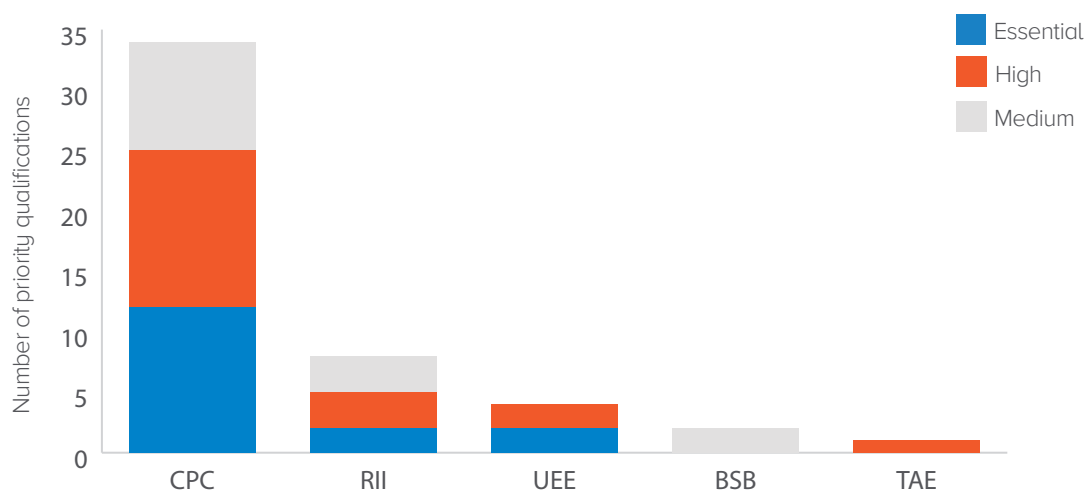
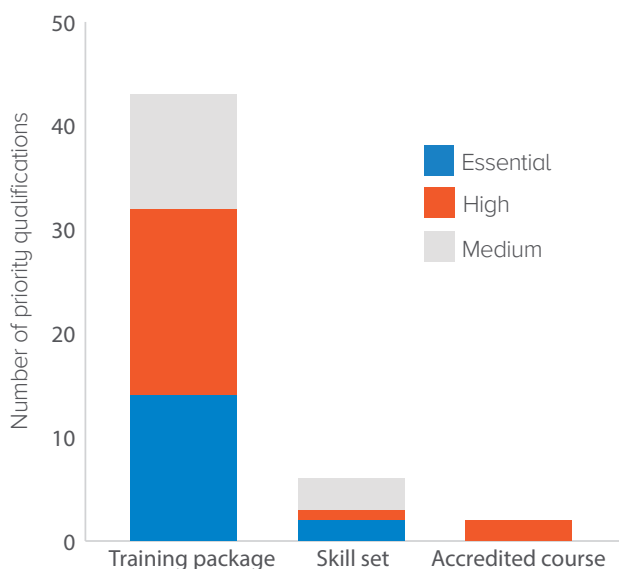


Figure 2: **Qualification type by priority level**



Qualification types

Most priority qualifications for the Construction industry are from the national training packages, including six skill sets, two of which are rated as essential. Only two accredited courses were identified as a priority within the top three priority levels.

Qualification levels

Most priority qualifications are at the certificate III level in the Construction industry. Given the prevalence of trade related occupations in the sector, this is to be expected. One-quarter of priority qualifications were certificate IVs, while only one diploma makes it into the top three priority levels.

Qualifications rated as essential consist almost solely of certificate III level qualifications, while those rated as a high priority consist of a roughly equal share of certificates III and IV. Medium priority qualifications range from certificate I through to diploma.

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

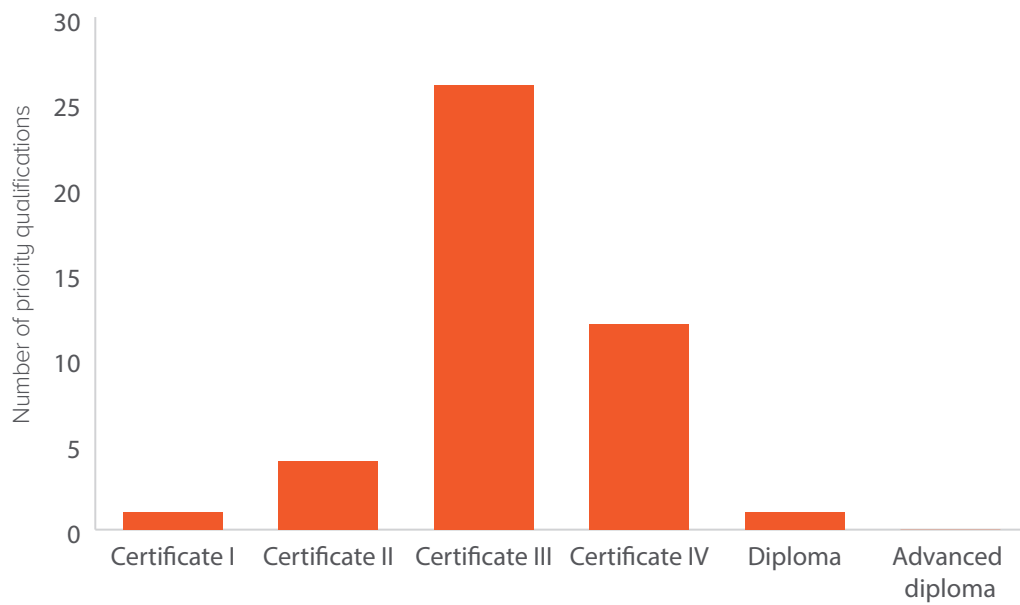
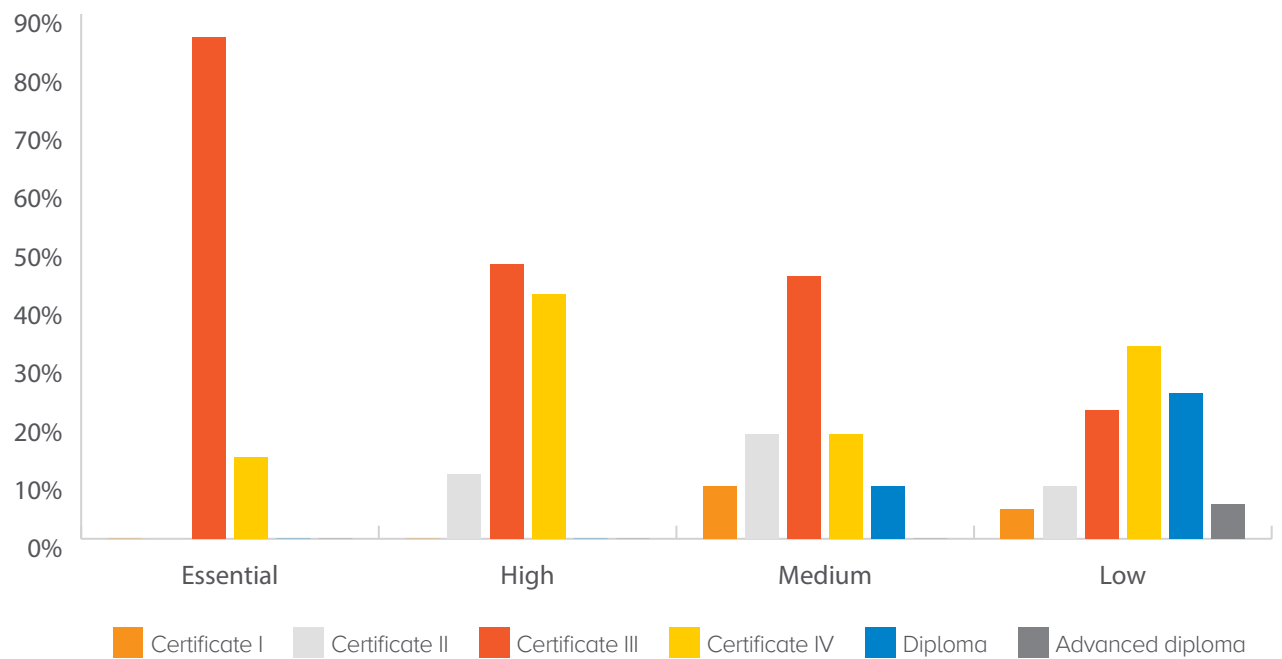


Figure 4: **Qualification level by priority ranking**



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 plumber completing their Certificate III in Plumbing, while others may need to complete a pathway qualification such as the Certificate I in Construction, to prepare for taking on a higher-level qualification, such as the Certificate III in Plumbing.

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 importance of pathway qualifications was recognised by industry, with three pathway qualifications identified as a priority. Most priority qualifications were identified as a basic requirement for a job, although 16 upskilling qualifications were also identified as a priority. Upskilling qualifications include a mix of certificates III and IV, and just one diploma.

Ten of the 14 qualifications rated as an essential priority were identified as entry level, with the remaining four qualifications being for upskilling. There is a roughly equal share of entry level and upskilling qualifications among those rated as a high priority.

Table 2: **Qualification use**

Pathway to entry level	
CPC10111	Certificate I in Construction
RII20715	Certificate II in Civil Construction
CPC20211	Certificate II in Construction Pathways
Entry level or basic requirement for a job	
CPC20112	Certificate II in Construction
CPC20812	Certificate II in Metal Roofing and Cladding
UEE32211	Certificate III in Air-conditioning and Refrigeration
CPC30111	Certificate III in Bricklaying/Blocklaying
BSB30115	Certificate III in Business
BSB30415	Certificate III in Business Administration
CPC30211	Certificate III in Carpentry
CPC32011	Certificate III in Carpentry and Joinery
CPC30313	Certificate III in Concreting

Entry level or basic requirement for a job	
UEE30811	Certificate III in Electrotechnology Electrician
CPC32813	Certificate III in Fire Protection
CPC32713	Certificate III in Gas Fitting
CPC31912	Certificate III in Joinery
CPC30611	Certificate III in Painting and Decorating
CPC32413	Certificate III in Plumbing
CPC32513	Certificate III in Plumbing (Mechanical Services)
CPC32612	Certificate III in Roof Plumbing
CPC30911	Certificate III in Scaffolding
CPC31011	Certificate III in Solid Plastering
CPC31111	Certificate III in Steelfixing
CPC31211	Certificate III in Wall and Ceiling Lining
CPC31311	Certificate III in Wall and Floor Tiling
CPC40708	Certificate IV in Building and Construction (Trade Contracting)
UEE42911	Certificate IV in Refrigeration and Air-conditioning Systems
TAE40116	Certificate IV in Training and Assessment
10675NAT	Course in Asbestos Awareness
Upskilling	
RII30915	Certificate III in Civil Construction
RII30815	Certificate III in Civil Construction Plant Operations
CPC31411	Certificate III in Construction Waterproofing
UEE32011	Certificate III in Renewable Energy - ELV
CPC30812	Certificate III in Roof Tiling
RII31615	Certificate III in Trenchless Technology
CPC40110	Certificate IV in Building and Construction (Building)
CPC40208	Certificate IV in Building and Construction (Contract Administration)
CPC40308	Certificate IV in Building and Construction (Estimating)
CPC40508	Certificate IV in Building and Construction (Site Management)
CPC40611	Certificate IV in Building and Construction (Specialist Trades)
RII40615	Certificate IV in Civil Construction Operations
RII40715	Certificate IV in Civil Construction Supervision
CPC40912	Certificate IV in Plumbing and Services
10604NAT	Certificate IV in Safety Leadership (WHS) – Construction
CPC50210	Diploma of Building and Construction (Building)

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.

Industry faces a massive challenge ahead with an ageing workforce in many Construction occupations, including in air-conditioning and refrigeration, bricklaying, gas fitting, painting and decorating, and electrical. However, more broadly, the 2016 census suggests that approximately 40 per cent of the Construction workforce in South Australia is 45 years of age or older, which is below the state average of 44 per cent.

According to industry stakeholders, the Construction sector lacks a coordinated strategy to deal with the ageing elements of its workforce. It will be increasingly important for the industry to find ways to both attract new workers and to transition older workers into less labour intensive supervisory, managerial, mentoring or training roles.

Given the age profile, it is no surprise that the Construction industry is concerned about future labour supply. The challenge of attracting future workers from a limited pool of students, and having to compete for talent with other highly promoted industries, such as defence, is a particular concern. Industry feedback suggests that to secure their future workforce, they need to focus on giving students an understanding of pathways into Construction occupations, and also the career progression available in Construction occupations.

Like many industries, new technologies are having an impact on the sector. The increasing use of modular house building, offsite construction and advances in renewable energy technology are just a few examples. One way the adoption of new technology is being felt across the Construction workforce is through an increasing demand for IT skills.

Robotics is another technology becoming more prevalent in the sector. Not only is it viewed for its potential to increase capacity, it also has the potential to reduce repetitive, physically intensive tasks, allowing workers to prolong their working life in the sector.

Training will need to keep up with these technological changes, yet some stakeholders voiced concern over the ability of the current training system to respond quickly enough. It was suggested that industry may need to look at skill sets and state based accredited courses to meet rapidly changing skills needs.



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