



The Training and Skills Commission

# Mining

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](http://training.gov.au) in April 2018.
- The full IPQ data can be found at [tasc.sa.gov.au/IPQ](http://tasc.sa.gov.au/IPQ)

## Key findings

- Qualifications rated as essential provide the skills needed to run the Mining industry in South Australia.
- Certificate III is the most common qualification level among priority qualifications.
- The increasing use of new technologies will influence the composition of the workforce, not necessarily reducing headcount, but changing the way work is done.
- Future labour supply is a concern for the Mining industry in South Australia, with activity expected to pick up in the state amidst competition from mining in Western Australia and from other sectors such as defence.
- Access to training can be an issue faced by the sector given the regional location of work.
- Online training is helping to overcome some of the regional limitations, but digital infrastructure is often less than satisfactory.



# Industry priority qualifications

The Mining industry contributes around 9,000 jobs in South Australia, or 1.2 per cent of the state's workforce. It includes activities such as coal, metal and mineral mining, oil and gas extraction and mineral exploration. The majority of mining in South Australia is for metals and minerals.

Just under half of the sector's workforce have a vocational qualification as their highest level of educational attainment, while around 23 per cent have a higher education qualification. This compares to the state average of 36 and 26 per cent respectively<sup>1</sup>. Just under a third of the workforce do not hold a tertiary qualification.

## Summary of survey responses

The industry priority qualifications (IPQ) survey received 18 responses from the Mining industry, representing 1.4 per cent of total survey responses. Nine respondents identified as small employers (1-19 employees), three as medium (20-199 employees) and a further three as large employers (200+ employees)<sup>2</sup>.

## Priority qualifications

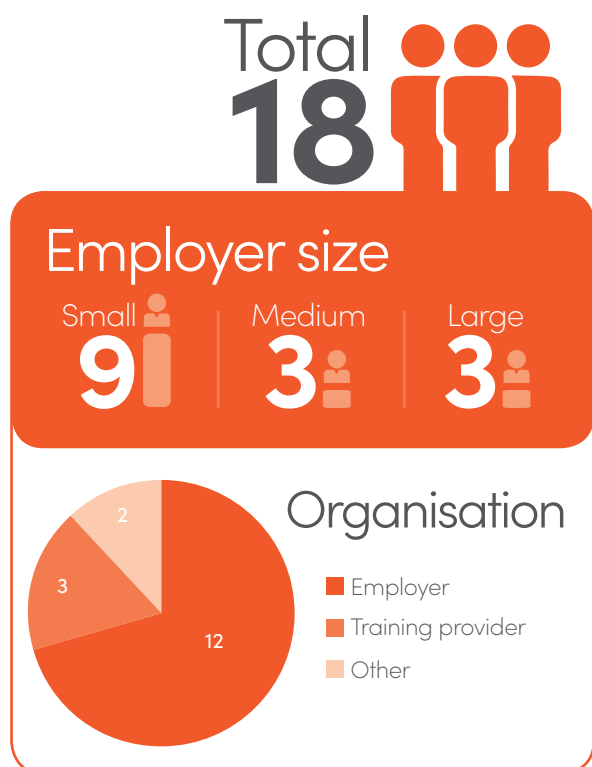
Industry priority qualifications are grouped into four levels of priority, based on the survey results and industry workshops.

- Essential
- High
- Medium
- Low

Table 1 outlines the priority qualifications for the Mining industry<sup>3</sup>.

Industry advised that qualifications rated as essential are important as they provide the skills needed to run the Mining industry in South Australia.

Many construction-related occupations, and therefore construction qualifications, are important in the Mining industry as they support mine development. Industry reported that occupations such as fitters and boilermakers are in high demand.



<sup>1</sup> | Australian Bureau of Statistics 2018, *Census 2016*

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

<sup>3</sup> | Low priority qualifications are not included in this report, for the full data visit [tasc.sa.gov.au/IPQ](https://tasc.sa.gov.au/IPQ)

Table 1: **Qualifications by priority level**

<b>Essential</b>	
RII20715	Certificate II in Civil Construction
RII20915	Certificate II in Drilling Operations
RII20215	Certificate II in Surface Extraction Operations
RII20415	Certificate II in Underground Metalliferous Mining
RII30815	Certificate III in Civil Construction Plant Operations
RII30115	Certificate III in Surface Extraction Operations
RII30315	Certificate III in Underground Metalliferous Mining
BSB30715	Certificate III in Work Health and Safety
<b>High</b>	
HLT21015	Certificate II in Medical Service First Response
RII20115	Certificate II in Resources and Infrastructure Work Preparation
RII30915	Certificate III in Civil Construction
RII31815	Certificate III in Drilling Operations
RII30715	Certificate III in Mine Emergency Response and Rescue
RII30515	Certificate III in Mining Exploration
RII30415	Certificate III in Resource Processing
BSB41515	Certificate IV in Project Management Practice
RII40115	Certificate IV in Surface Extraction Operations
TAE40116	Certificate IV in Training and Assessment
BSB41415	Certificate IV in Work Health and Safety
BSB51415	Diploma of Project Management
BSB61015	Advanced Diploma of Leadership and Management
RIISS00032	Site Health and Safety Coordinator Skill Set
<b>Medium</b>	
CPC20211	Certificate II in Construction Pathways
RII21115	Certificate II in Drilling Oil/Gas (On shore)
RII20615	Certificate II in Mining/Field Exploration
AUR31516	Certificate III in Automotive Diesel Engine Technology
BSB30115	Certificate III in Business
AHC31416	Certificate III in Conservation and Land Management
RII32015	Certificate III in Drilling Oil/Gas (On shore)
BSB30315	Certificate III in Micro Business Operations
BSB41015	Certificate IV in Human Resources
BSB42015	Certificate IV in Leadership and Management
RII40315	Certificate IV in Metalliferous Mining Operations (Underground)
RII40515	Certificate IV in Resource Processing
BSB42515	Certificate IV in Small Business Management
RII50115	Diploma of Surface Operations Management
BSB51315	Diploma of Work Health and Safety
BSB61215	Advanced Diploma of Program Management
TAESS00011	Assessor Skill Set
TAESS00015	Enterprise Trainer and Assessor Skill Set
TAESS00017	Workplace Supervisor Skill Set

## Qualifications by training package

Priority qualifications for the Mining industry belong to seven training packages:

- Agriculture, Horticulture and Conservation and Land Management (AHC)
- Automotive Retail, Service and Repair (AUR)
- Business Services (BSB)
- Construction, Plumbing and Services (CPC)
- Health (HLT)
- Resources and Infrastructure Industry (RII)
- Training and Education (TAE)

Half of the qualifications rated as either an essential, high or medium priority are from the Resources and Infrastructure Industry (RII) training package, with the next largest share belonging to the Business Services (BSB) training package. Qualifications rated as essential are from just two training packages: RII and BSB.

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

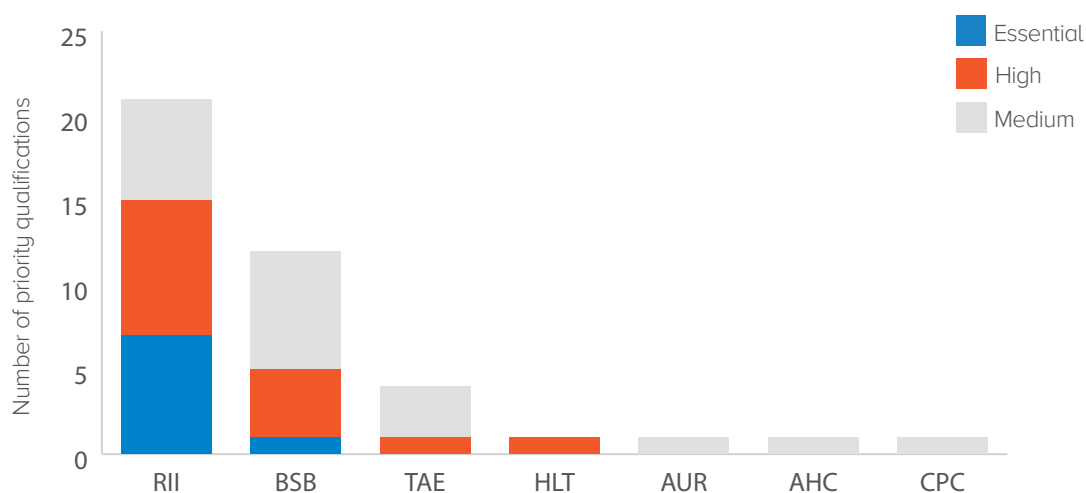
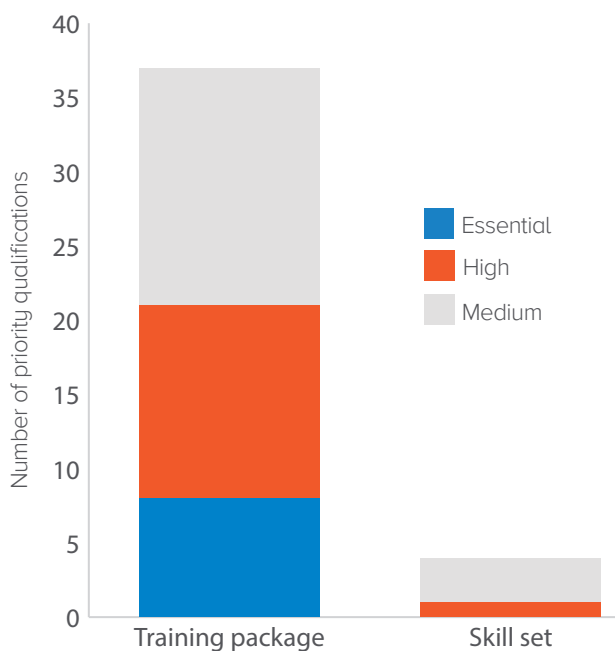


Figure 2: **Qualification type by priority level**



## Qualification types

All priority qualifications for the Mining industry are from national training packages, including four skill sets, one of which is a high priority. No accredited courses were identified as a priority in the top three priority levels.

## Qualification levels

Certificate III is the most common qualification level among priority qualifications, followed by an equal share of certificate IIs and IVs.

Essential qualifications for the Mining industry are all certificate IIs or IIIs. Certificate IV, and to a lesser extent diploma and advanced diploma, feature more in the low to high priority levels. The low, medium and high priority levels include a broad distribution of qualifications from certificate II to advanced diploma.



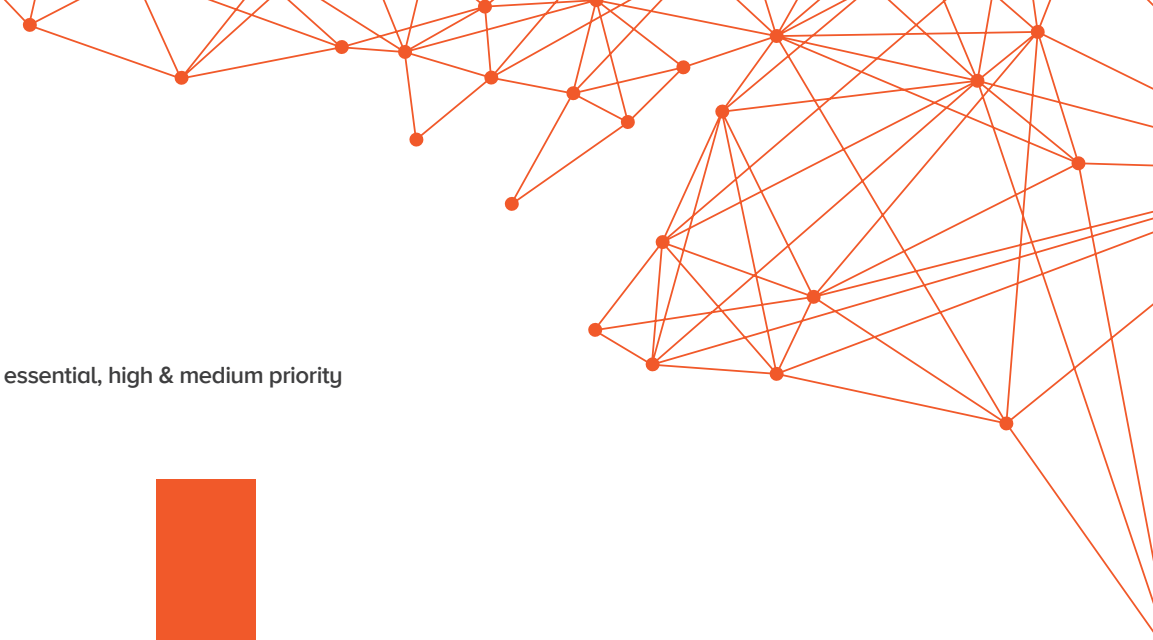


Figure 3: Qualification level: essential, high & medium priority

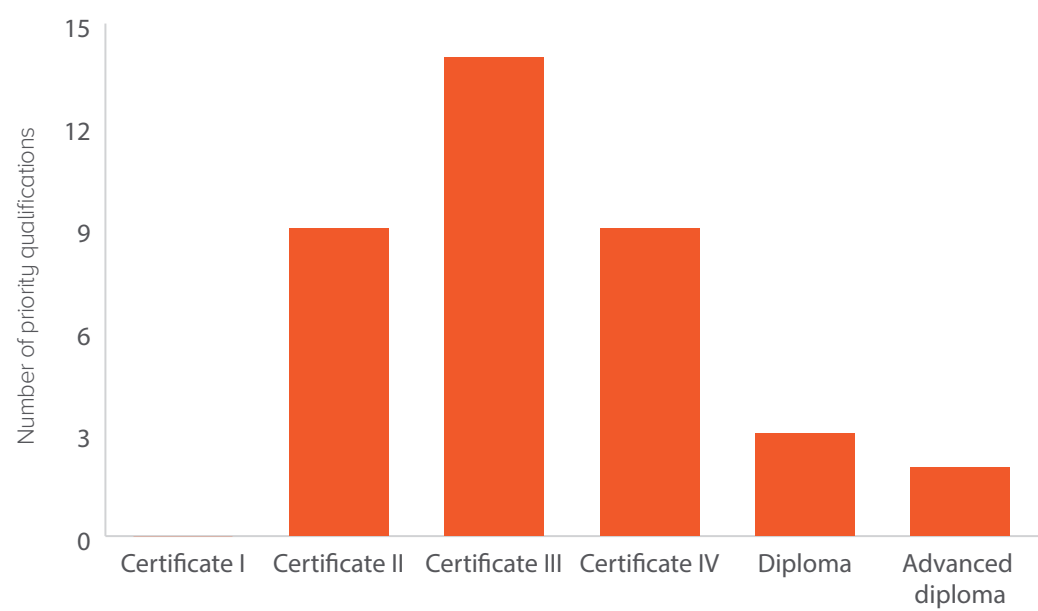
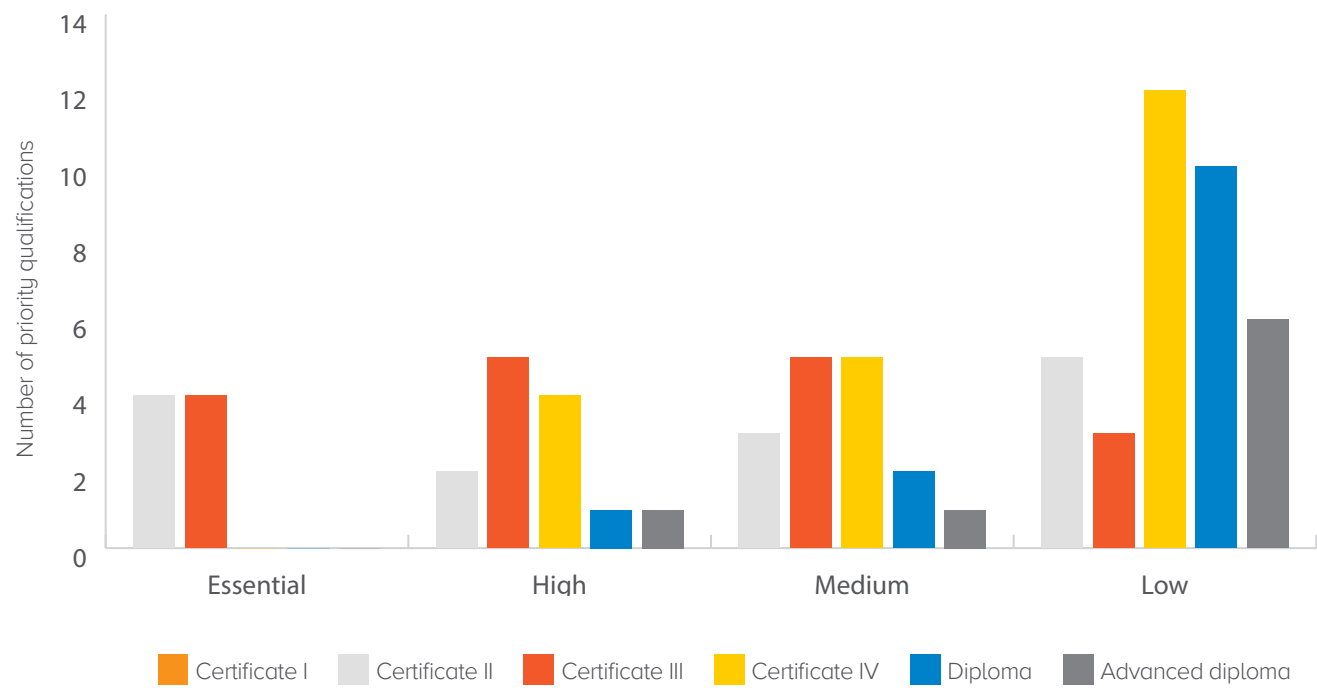


Figure 4: Qualification level by priority ranking





## 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 geological technician completing their Certificate III in Mining Exploration, while others may need to complete a pathway qualification such as the Certificate II in Mining/Field Exploration, to prepare for taking on a higher-level qualification, such as the Certificate III in Mining Exploration.

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.

Only one priority qualification was recognised by industry as a pathway qualification. The bulk of priority qualifications were identified as a basic requirement for a job, while just two qualifications were identified as being required for upskilling.

Table 2: **Qualification use**

Pathway to entry level	
RII20615	Certificate II in Mining/Field Exploration
Entry level or basic requirement for a job	
RII20915	Certificate II in Drilling Operations
RII30315	Certificate III in Underground Metalliferous Mining
RII20215	Certificate II in Surface Extraction Operations
RII20415	Certificate II in Underground Metalliferous Mining
TAE40116	Certificate IV in Training and Assessment
RII31815	Certificate III in Drilling Operations
BSB61015	Advanced Diploma of Leadership and Management
BSB30115	Certificate III in Business
Upskilling	
BSB30715	Certificate III in Work Health and Safety
RII40315	Certificate IV in Metalliferous Mining Operations (Underground)

## 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 incorporation of new technologies in mines is constantly being considered in the Mining industry, although it is more likely to be adopted by new mines. From a workforce perspective, the increasing use of remote-control operations may mean that at some point in the future, people will not have to work underground anymore.

Clearly these changes influence the composition of the workforce, not necessarily reducing headcount, but certainly changing the way in which work is done and, in many cases, making it safer.

With an anticipated rise in mining activity in South Australia in the coming years, industry is concerned about attracting new workers. Many of the state's skilled workforce is heading to Western Australia, and with increasing competition from the defence industry, workers may be in short supply. Western Australia is already struggling to find people for jobs, which is not a good sign for this state.

Access to training is another challenge faced by the Mining industry, particularly in regional areas. One consequence of this is a shift to more online training, however, this mode of training is not always an easy solution in the regions, where digital infrastructure cannot always cope.

Finally, industry reported they are seeing more multi-skilling across the workforce. This could be a sign of a tight labour market, or simply employers being reluctant to take on new employees due to an uncertain future. Currently it seems employers would rather broaden the skills of the current workforce than take on additional workers.



## 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](http://tasc.sa.gov.au) to find the following resources:

- Economic Outlook
- Industry Profiles
- Regional Profiles