

# Skills Industry Plan Roundtable

## Discussion paper Building and Construction industry

November 2022



**ACT**  
Government



## Background

**Skilled to Succeed** is the ACT Government's skills and workforce agenda to ensure Canberrans have the right skills for in demand jobs now and into the future. Our priorities are to deliver a skills and workforce agenda which is:

- inclusive and provides Canberrans with a foundation for lifelong learning
- responsive, flexible and future-focused
- proactive in helping employers build, attract and retain the right workforce
- built on strong and sustainable skills sector foundations.

To deliver this agenda, the ACT Government will develop Industry Plans for the Care, Technology, Building and Construction, Experience and Renewables and Sustainability industries. The purpose of these Plans is to identify actions to develop a fit for purpose vocational education and training sector to support our future workforce.

To support the development of these Plans, the ACT Government is hosting roundtables with stakeholders from each industry. This discussion paper is intended to support and inform discussion at the Building and Construction industry roundtable on 5 December 2022.

## Scope

The purpose of this discussion paper is to provide stakeholders with key data and insights on the Building and Construction industry to stimulate thinking on the role of **Vocational Education and Training (VET)** in shaping the future of jobs and skills in the ACT Building and Construction industry.

The questions in this paper will guide discussion at the roundtable and focus on:

- Qualification types and content
- Delivery of qualifications
- Quality and fit-for-purpose of courses
- Level of consultation/engagement with industry
- Skilled migration pathways
- Accessibility and equity

## Discussion questions

- 1 What skills do workers need to be 'job-ready' and what skills do you expect to train on the job?
- 2 Think about the training your staff attend now. How suitable is this training for your business needs?
- 3 With the increased focus on technology and sustainability, what additional skills do workers need?
- 4 How can the vocational education sector support greater diversity in the workforce (e.g. older workers and women entering this workforce)?
- 5 What works well with the current training market? What would you like to see more of, and what changes need to take place?
- 6 What are the barriers to apprentice and trainee completion? How can these barriers be addressed?

## Collective actions to consider

- 1 Review legislative instruments to optimise training outcomes
- 2 Incorporate greater digital literacy content into existing courses
- 3 Support the development of VET pathways that allow expedited entry into construction management roles
- 4 Increase participation of women in the building and construction industry
- 5 Broadening the eligible professional experience that can be recognised as prior learning
- 6 Greater emphasis and uptake of training on sustainable construction practices

# Industry Overview

# 15,443

Total number employed in **Building and Construction** industry in 2021

## Growth in Employment

**38%** Last 10yrs   **37%** Last 5yrs   **22%** Avg 5yrs (All industries)

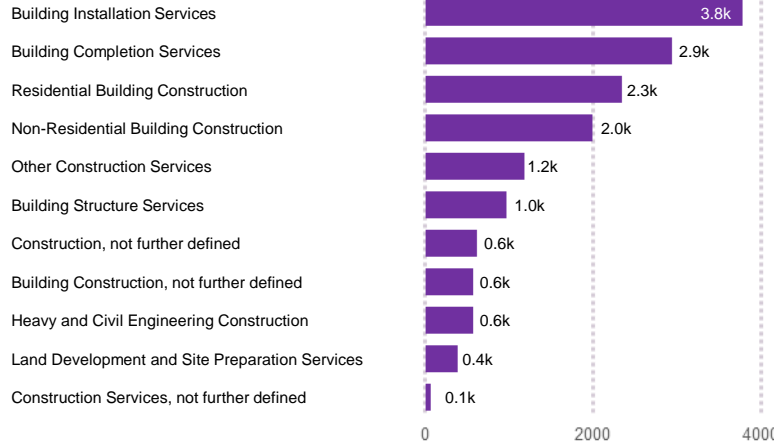
## Largest Growing Occupations



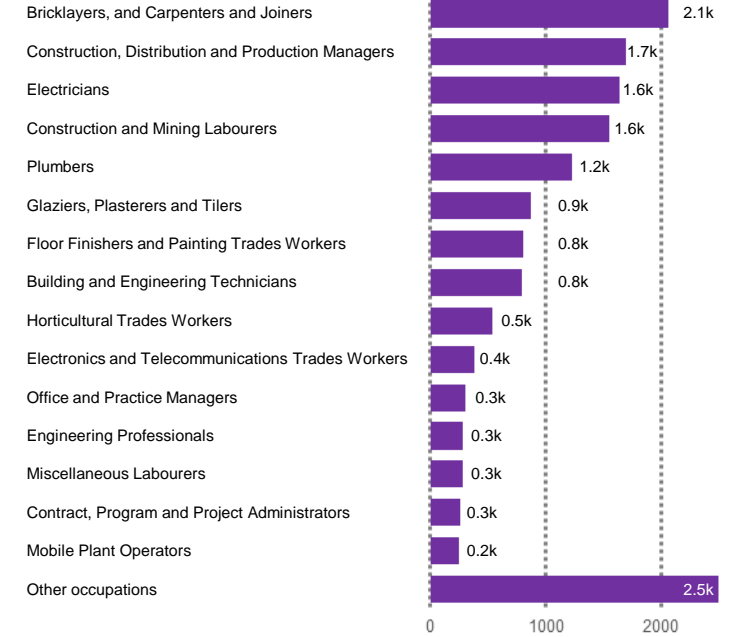
Source: ABS census 2021

## Building and Construction – ACT Employment Snapshot (2021 census)

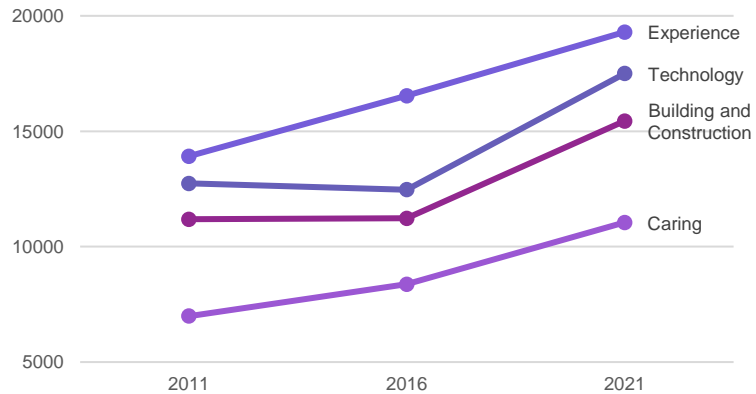
### Employment by sub-industry



### Employment by occupation



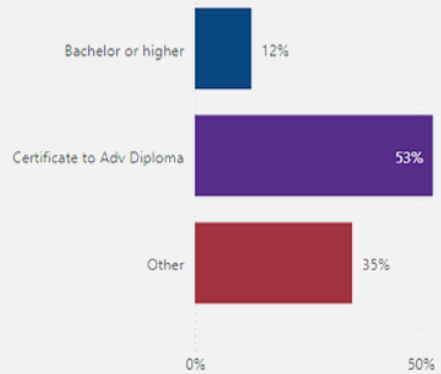
## Employment by Industry in the ACT



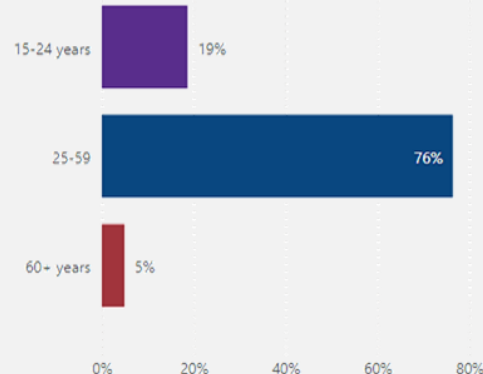
Source: ABS Census 2011, 2016 and 2021

## Employment by Occupation

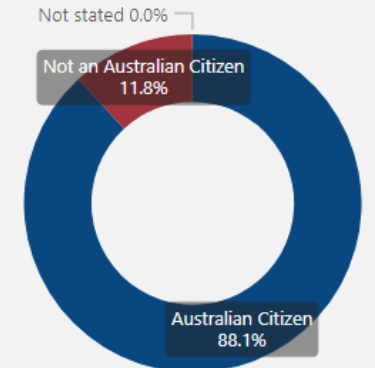
### % by Education



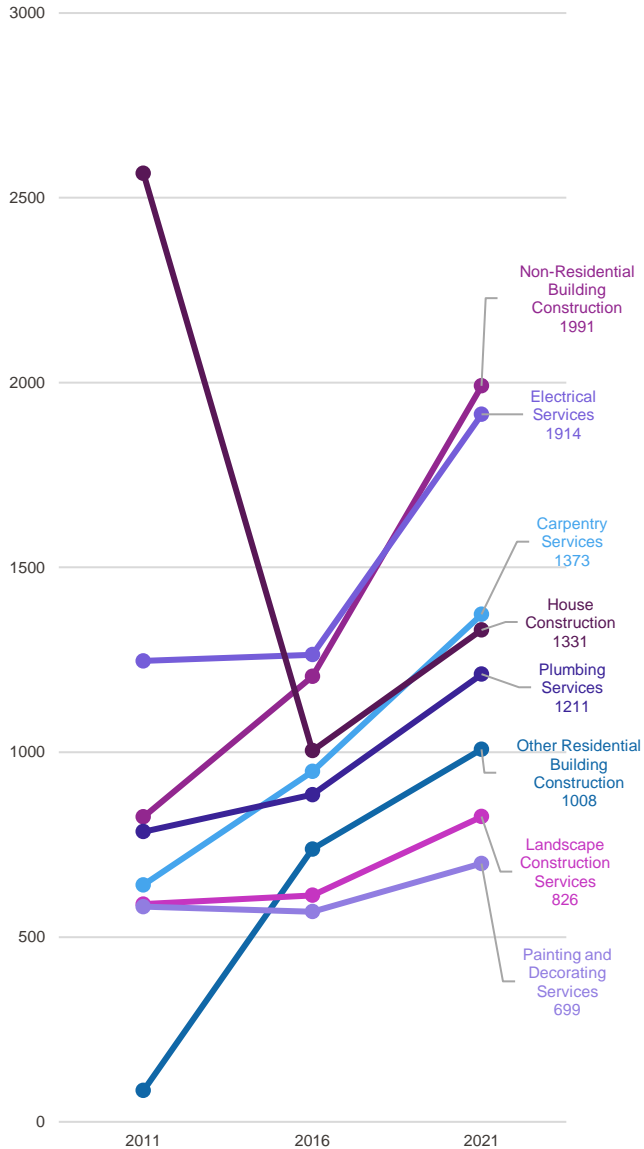
### % by Age Group



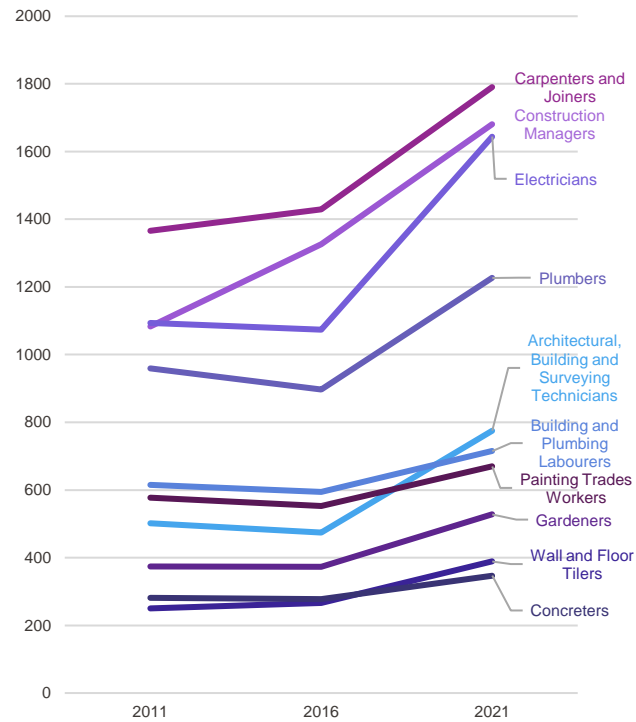
### % by Australian Citizenship



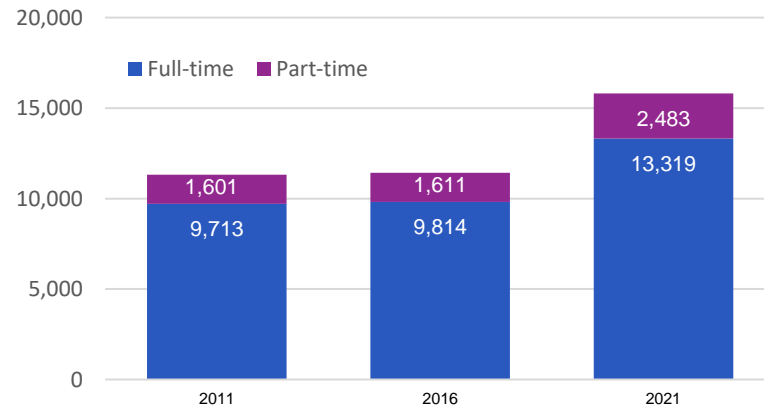
## Employment by top sub-industries



## Employment by top occupations



## Employment by type of employment



Source: ABS census 2021

# Industry snapshot

## 5,743

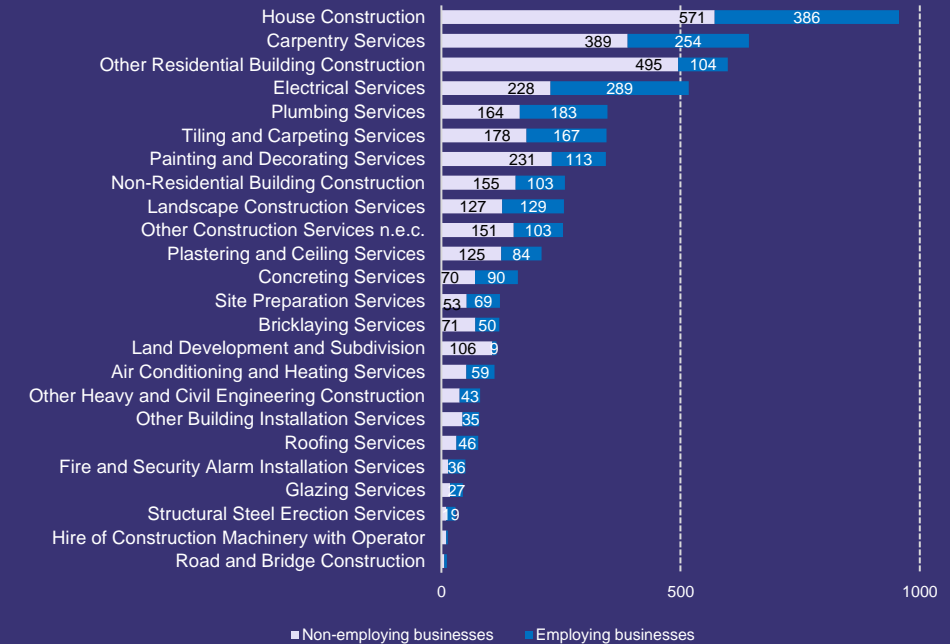
Total number of businesses in the **Building and Construction** industry in 2021, **2,406** of which are employing businesses

## Contribution to ACT economy

**6.8%** of Gross Value Added

**6.3%** of total employment

## Number of businesses by sub-industry



Source: ABS 2021

# Online Vacancies

## September 2022

1,003

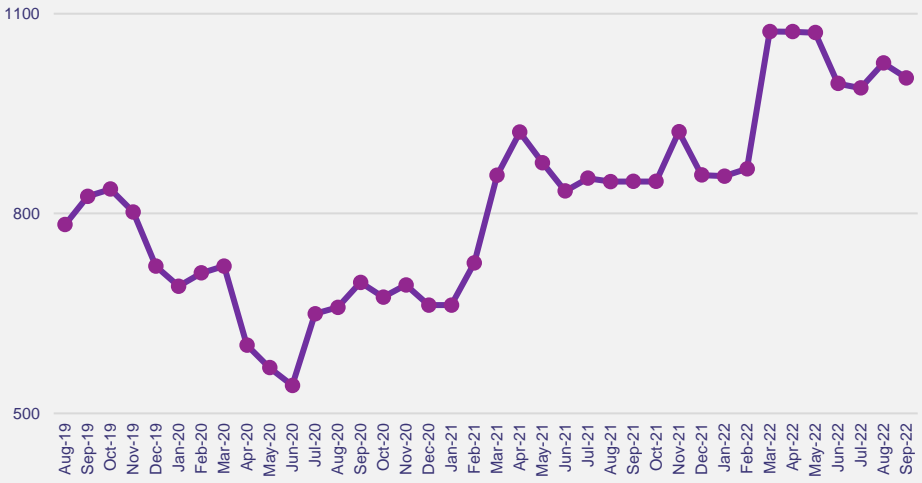
Online job vacancies in occupations related to **Building and Construction** industry

8,155

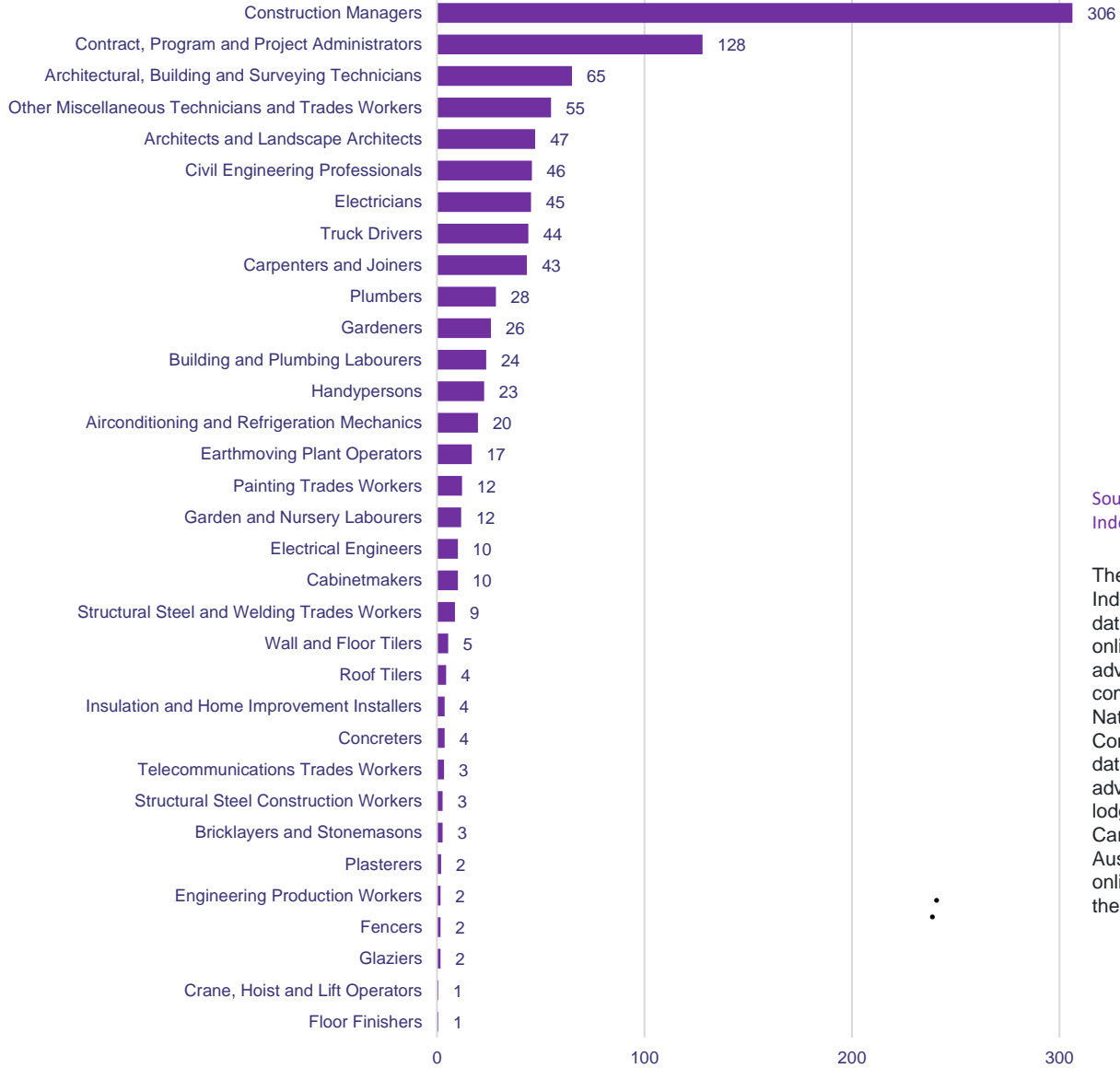
Total online job vacancies in all occupations in the ACT

Source: Internet Vacancy Index (NSC, October 2022)

### Online job vacancies in occupations related to the building and construction industry – August 2019 to September 2022



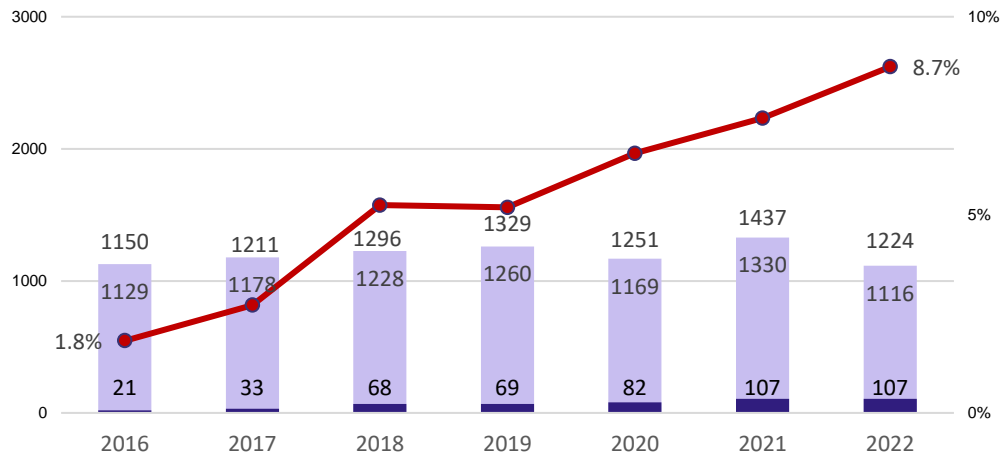
### Online job vacancies by occupations related to the building and construction industry - September 2022



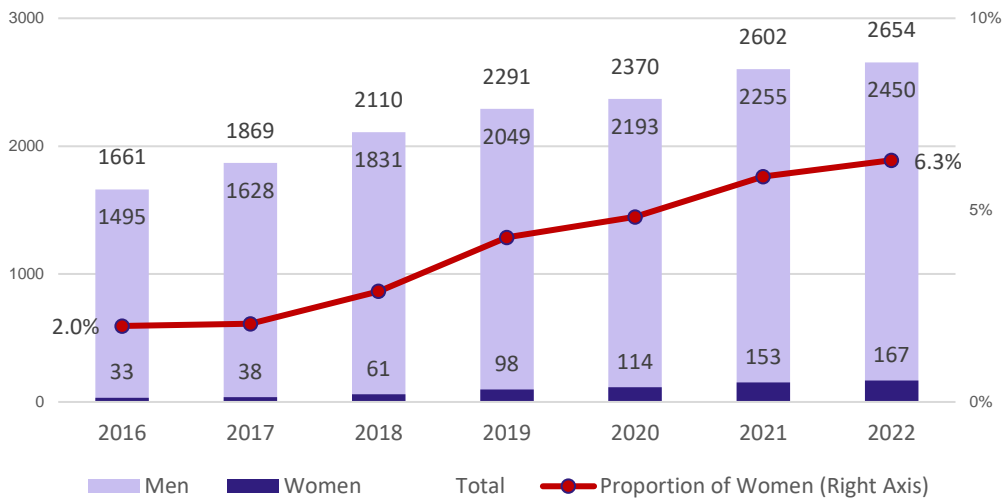
Source: Internet Vacancy Index (NSC, October 2022)

The Internet Vacancy Index (IVI) is a monthly data series measuring online job advertisements, compiled by the National Skills Commission (NSC). IVI data count job advertisements newly lodged on the SEEK, CareerOne and Australian JobSearch online job boards during the reference month.

### Student Commencement (Apprentices and Trainees) – all qualifications by gender

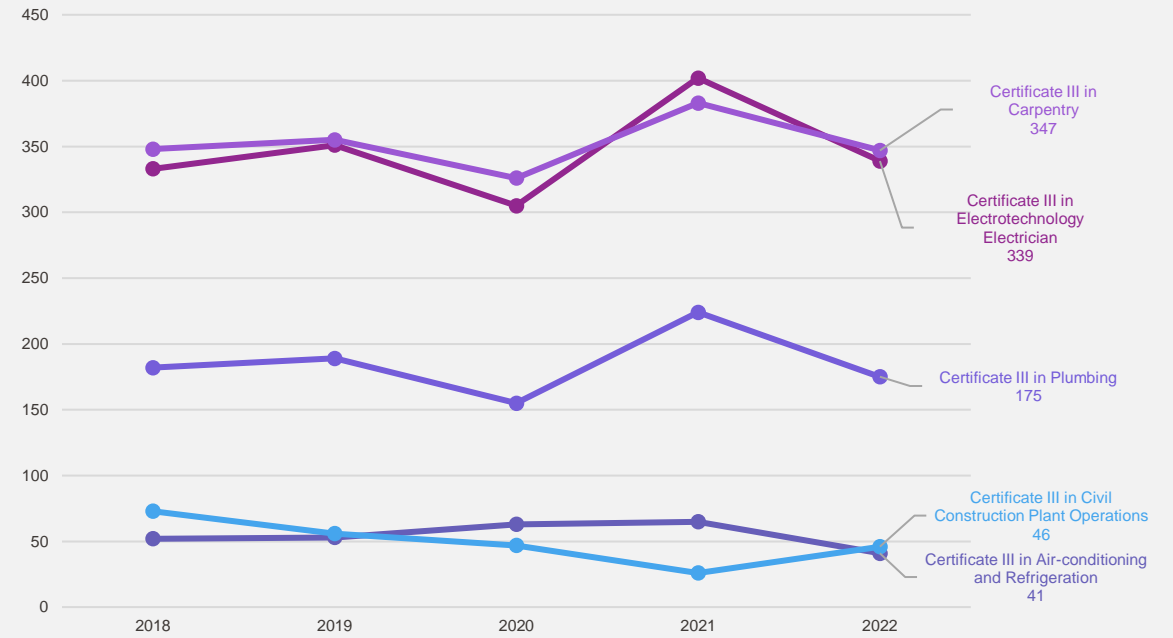


### In-training Apprentices and Trainees – all qualifications by gender



Notes:  
 (a) In-training apprentices and trainees is the average number of apprentices/trainees who are actively being trained and working in any given year  
 (b) 2022 data is year to date (1 January to 25 October)  
 (c) Totals include persons who have not identified as either gender. Totals may also be different to the sum of categories due to rounding.

### Student Commencement (Apprentices and Trainees) by top 5 qualifications



### Student Completion by top 5 qualifications

| Qualifications   | 4 year completion rate* |
|--|-------------------------|
| Certificate III in Civil Construction Plant Operations | 49%                     |
| Certificate III in Air-conditioning and Refrigeration  | 42%                     |
| Certificate III in Plumbing                            | 41%                     |
| Certificate III in Carpentry                           | 40%                     |
| Certificate III in Electrotechnology Electrician       | 39%                     |

\*students who successfully completed the course as a percentage of students that commenced in 2018

## Active Apprentices & Trainees (A&Ts) October 2022

| Qualification   | Number of A& T |
|---|----------------|
| Certificate III in Electrotechnology Electrician                | 831            |
| Certificate III in Carpentry                                    | 610            |
| Certificate III in Plumbing                                     | 344            |
| Certificate III in Air-conditioning and Refrigeration           | 119            |
| Certificate III in Scaffolding                                  | 89             |
| Certificate III in Cabinet Making                               | 88             |
| Certificate III in Landscape Construction                       | 78             |
| Certificate III in Civil Construction Plant Operations          | 66             |
| Certificate III in Electronics and Communications               | 42             |
| Certificate III in Civil Construction                           | 37             |
| Certificate III in Painting and Decorating                      | 35             |
| Certificate III in Bricklaying/Blocklaying                      | 33             |
| Certificate III in Roof Plumbing                                | 28             |
| Certificate III in Arboriculture                                | 27             |
| Certificate III in Horticulture                                 | 24             |
| Certificate II in Resources and Infrastructure Work Preparation | 23             |
| Certificate III in Fire Protection                              | 21             |
| Certificate III in Rigging                                      | 20             |
| Certificate IV in Building and Construction (Building)          | 19             |
| Certificate III in Wall and Floor Tiling                        | 19             |
| Certificate III in Wall and Ceiling Lining                      | 14             |
| Certificate IV in Civil Construction Operations                 | 11             |
| Diploma of Building and Construction (Building)                 | 10             |
| Certificate III in Flooring Technology                          | 10             |
| Certificate III in Glass and Glazing                            | 8              |
| Certificate II in Construction Pathways                         | 6              |
| Certificate III in Stonemasonry (Monumental/Installation)       | 4              |
| Certificate III in Sports Turf Management                       | 1              |
| Diploma of Arboriculture  | 1              |
| Certificate II in Horticulture                                  | 1              |
| Certificate III in Solid Plastering                             | 1              |
| <b>Grand Total</b>  | <b>2620</b>    |

### Short courses (examples)

#### Provided by CIT

Asbestos Awareness

Working Safely with Asbestos Containing Materials

Crystalline Silica Exposure Prevention

Entry into Working Safely in Construction

Introduction to Construction Planning

Estimating for Builders Basics

Understanding Building Plans

#### Provided by Private Registered Training Organisations (RTOs)

Civil Construction Operations - skid steer, excavator, wheeled front end-loader, dozer, grader, scraper

Solar- battery system fundamentals, power system fundamentals, solar awareness for tradespeople, utility scale solar, hot water systems

License to perform rigging, perform rigging, erect, alter, and dismantle scaffolding

Scaffolding – various levels

Rigging – various levels

Welding – various levels

Working safely – construction industry, asbestos, bituminous materials, heights, electrical safety, silica exposure

Enter and work in confined spaces

First Aid, CPR

#### Funded by JobTrainer

Introduction to Construction



## What we've heard

As a significant source of employment in the ACT government, the building and construction industry offers pathways for **at-risk youth** through Australian School Based Apprenticeships and supports their **engagement** in and outside of school.

Many apprentices focus on receiving specialised **on the job training** rather than completing their qualification.

The industry has expressed the following needs/issues that could be addressed through the VET sector:

- More courses to **upskill** employees
- Employees often lack essential **non-technical job requirements**, despite having strong technical skills
- There is often poor **language, literacy and numeracy** skills

In general, the industry is currently facing the following pressures

- **Rising costs** due to high price of fuel, imported materials, and higher wages
- **Skills shortages** exacerbated by increased local demand and employee population near retirement age.

## Megatrends



### Impactful technology

Technological advances are changing the Construction industry. Building information modelling (BIM) and augmented reality (AR) are adding to improved efficiency. Construction drones are used for site mapping, safety and security purposes. Technological advancement and connectivity are empowering individuals across the world including in the building and construction industry to allow worksite access and real-time inspections.



### Urbanisation and demographic change

The world is experiencing rapid and massive demographic change, such as an ageing workforce, which adds a new challenge for businesses. Population growth is driving increased demand for buildings and construction.



### Climate and resource security

The megatrend of climate and resource security describe the growing pressure on critical resources especially food and clean water scarcity. This drives the need for climate resilient infrastructure and the growing demand for environmentally sustainable, climate-ready and zero emissions buildings.



### Demand for work-life balance

Work-life balance is of increasing importance to the workforce. Trends such as hybrid working has shifted the nature of work in the post-pandemic workplace.



### Safety protocols and protective equipment

This trend emphasises the strict safety protocols including replacing human with robots for high risk tasks.