CSQ

Apprentice Annual 2019

Contents

Foreword

The last 12 months have seen concerns raised in some quarters about the state of the apprenticeship system in Australia. I am pleased to report that, at least for the construction industry in Queensland, the data reveals an apprenticeship system in good shape.

This year's *Apprentice Annual* demonstrates that the number of construction apprentices in-training each year in Queensland has remained stable over the last decade, at around 20,000. Moreover, Queensland's construction industry continues to employ more apprentices than any other industry – and at more than twice the rate of manufacturing and mining.

Only half of new construction apprentices conform to the 'school leaver' stereotype, but the vast majority are still young adults when they commence. The continued increase in female participation in construction apprenticeships also bodes well for a more gender-balanced future for Queensland's construction industry.

With plenty of young people still taking up the challenge of a construction apprenticeship, our focus has shifted to ensuring apprentices get the most out of their training. That is why we are now fully covering the costs of priority short courses and higher level skills training for construction apprentices.

Our new $3 million *Apprentice Advance Plus* program is available to any Queenslander currently engaged in a construction apprenticeship or traineeship or those in the first year following completion of their apprenticeship/traineeship.

The workplace is rapidly changing and apprentices are likely to see their jobs transform during their careers. This program is about preparing our apprentices for a very different future. It is also about making the next generation of tradespeople more valuable to their employers and supporting those who dream of ultimately making the transition to licensee and business owner.

I look forward to continuing to work with our partners to ensure Queensland's construction industry has the skills it needs into the future.

Brett Schimming
CEO

Welcome

Welcome to the 2019 CSQ *Apprentice Annual*, our annual health-check of Queensland's construction apprenticeship pipeline.

The importance of apprentices to the future of Queensland's construction industry cannot be underestimated. How well the industry attracts, retains and develops its apprentices will leave a lasting legacy for its future.

The apprentice landscape is not a static one, and CSQ is committed to keeping Queensland's construction industry updated on this shifting terrain so that together we can better support our network of apprentices.

Last year's *Annual* highlighted the compelling value proposition an apprenticeship presents to young Australians. We found that early labour market outcomes for many apprentices are better than those for university graduates. Someone who completes a construction apprenticeship will earn, on average, $13,000 more per annum and is 20% more likely to be employed full-time by age 25 than someone who completed a Bachelors degree.

These findings highlight the power of a Vocational Education and Training (VET) pathway when it is embedded in the real economy. The return on VET, for both individuals and governments, is maximised when programs are tightly coupled to employers. This is the unique value of the apprenticeship system.

In this year's *Annual* we examine the long term trends in the take-up of apprenticeships in Queensland's construction industry. We have harnessed a deep pool of data to bring together a suite of indicators of the health and character of Queensland's construction apprentice workforce.

Please refer to the Appendix at the end of this report to learn more about how we define 'construction apprentice.'

Queensland's construction industry continues to employ more apprentices than any other industry – and at more than twice the rate of manufacturing and mining.

Trying times for young workers

The transition from school to work has rarely been so difficult for so many young Australians. The rate of employment among Australians aged 15 to 24 has fallen from a high of 67% before the GFC, to as low as 59% in 2019.[1]

The slow-down in hiring during this period reflects a weak post-GFC economy that has disproportionately affected young workers. Compared to adults, a much higher proportion of young Australians are looking for work or want more work than they can get (Figure 1).

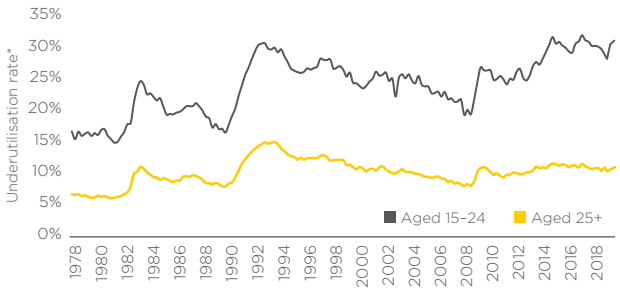
This data highlights the difficulties faced by young people trying to make a successful transition from school to work during periods of weak growth and few job opportunities. Against this backdrop, it is critical to consider the performance of the apprenticeship system in providing opportunities for young people to enter the workforce.

The construction industry in Queensland continues to set a leading example of how the VET sector can work effectively with employers of all shapes and sizes to produce a workforce of the right size and quality to meet the needs of industry.

Figure 1

Australia's young labour problem

Underutilisation rate, Australia



SOURCE: ABS, CSQ
** The sum of unemployed and underemployed people as a % of the labour force*

[1] The youth employment rate measures the number of 15-24 year old people who have a job as a percentage of the 15-24 year old population.

A strong pipeline

The apprenticeship pipeline is delivering an ample supply of new trades to meet Queensland's future construction demand.

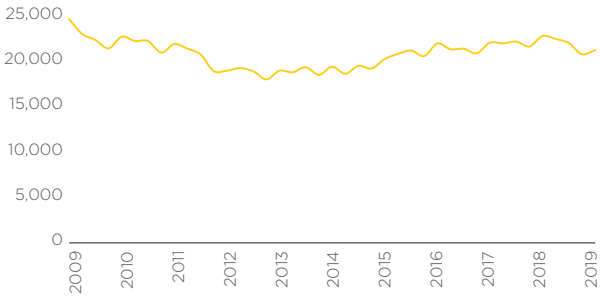
Around 230,000 people are employed in Queensland's construction industry. Of these workers, around 150,000 are tradespeople working 'on the tools' across the building and civil construction sectors.

Around 20,000 of these construction workers are apprentices, a figure that has been remarkably consistent over the last decade (Figure 2), making construction the most significant employer of apprentices in Queensland (Figure 3).[2]

Figure 2

Trade pipeline remains full

Construction apprentices in-training, Queensland

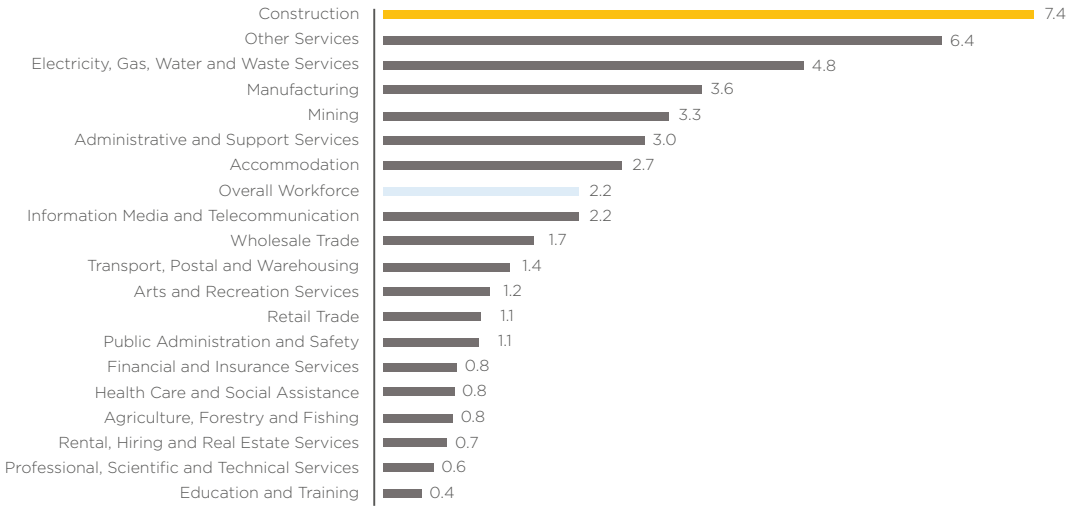


SOURCE: NCVER, CSQ

Figure 3

Top industries for apprentices

Apprentices in-training per hundred workers at March 2019, Queensland



Source: ABS, NCVER, CSQ

[2] Please refer to the Appendix for an explanation of these calculations.

For centuries, the apprenticeship model has delivered reliable outcomes for both participants and industry.

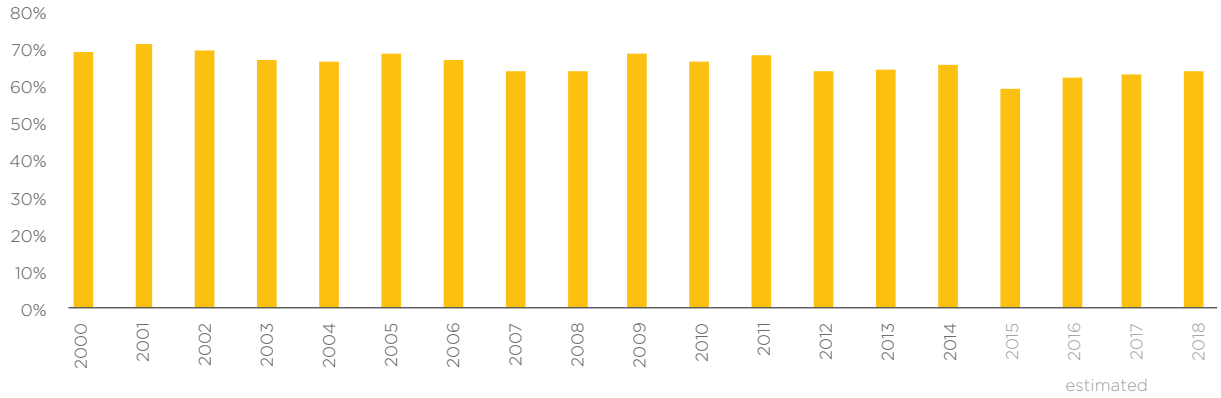
Completion rates among construction apprentices are also holding up well. Our latest estimates suggest around 65% of people who begin a construction apprenticeship in Queensland will complete a construction apprenticeship in Queensland.[3] This has been a fairly consistent result over the last decade (Figure 4).

These rates compare favourably to undergraduate university students, who complete at a rate of around 67% when given a six year window to complete their studies.[4]

Figure 4

Apprentices completing at healthy rates

Individual construction completion rates, Queensland



SOURCE: NCVER, CSQ

Trades and sectors

The trade composition of Queensland's construction apprentice workforce has remained very stable over the last decade. 60% of apprentices belong to the core construction trades of carpenters, electricians and plumbers (Table 1).

Table 1
Construction Apprentices, Trade by Trade

	Number	% of all Construction Apprentices
Carpenters and Joiners	4035	24.8%
Electricians	3905	24.0%
Plumbers	1904	11.7%
Earthmoving Plant Operators	1115	6.9%
Painting Trades Workers	836	5.1%
Aircon. & Refrig. Mechanics	820	5.0%
Plasterers	416	2.6%
Gardeners	397	2.4%
Wall and Floor Tilers	362	2.2%
Cabinetmakers	350	2.2%

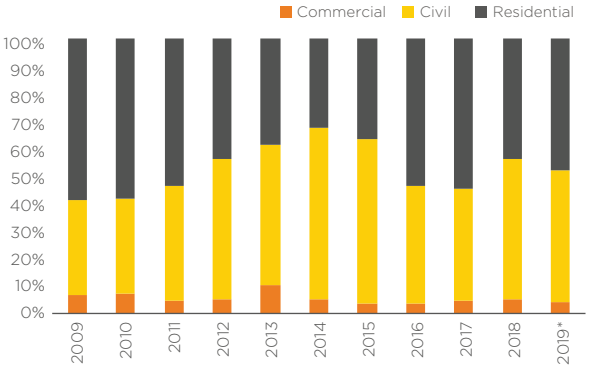
Source: NCVER, ABS, CSQ

Apprenticeship numbers fluctuate with industry conditions. The mining boom from 2011 saw civil contractors hire record numbers of civil construction apprentices, while residential builders wound-back their hiring in a weak post-GFC environment. The result of this was a four-fold expansion in the civil apprentice intake (Figure 5).

Figure 5

Apprenticeships balanced between building and civil sector

Construction apprentice commencements by sector, Queensland



SOURCE: NCVER, CSQ
* March data only

With the mining boom now well-and-truly behind us, these unprecedented levels of civil apprenticeships have not been maintained and apprenticeship commencements are once again favouring the building sector.

It is worth noting, however, that the civil share of apprentice commencements has not fallen all the way to its pre-mining boom levels. A 'new normal' for civil construction commencements appears to be establishing between 40-50% of all new construction apprentices.

[3] We take a 'whole-of-industry' approach to measuring completion rates. This means an apprentice who switches between employers or construction occupations during their apprenticeship, but ultimately completes a construction apprenticeship, is counted as a 'completion.'

[4] DET (2015) *Completion rates of domestic bachelor students 2005-2013*: a cohort analysis, https://docs.education.gov.au/documents/completion-rates-domestic-bachelor-students-2005-2013-cohort-analysis

Demographics

The conventional image of a new construction apprentice as a school leaver is giving way to an older archetype. But it is perhaps more accurate to describe today's commencing apprentices as being 'less young,' rather than older than those who commenced a decade ago (Figure 6).

Young people are no longer leaving school at year 10 to enter a construction apprenticeship – only 11% of new apprentices were aged under 17 in 2019, half the proportion a decade earlier. This bears testament to policies aimed at retaining students to year 12, and it is worth noting that school-based apprenticeships are now more common.

And while many new apprentices now transition directly from year 12, even that pathway is becoming less common. Only half of all construction apprentices are now aged under 20 upon commencement, compared to 61% in 2009.

So while construction apprentices seem to be pushing out their start dates, they are only delaying things by a year or two. The shift in commencement age has been confined primarily to the 'young adult' age bracket, with the proportion of new apprentices aged over 25 changing little over the decade. These 'mature age' apprentices represent only 18% of new commencements.

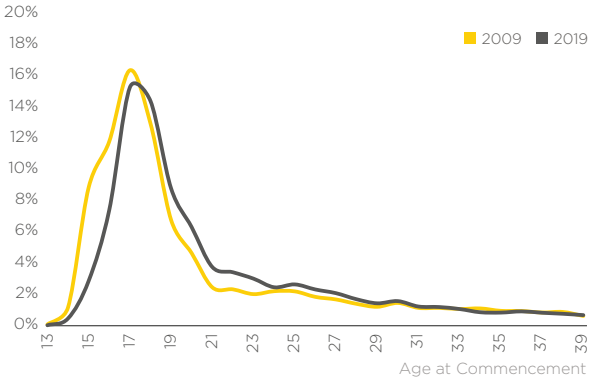
In recent years, CSQ released separate reports examining the participation of women and Indigenous Australians in Queensland's construction industry. In both reports, a standout finding was the contribution being made by the apprenticeship system to increasing diversity within Queensland's construction industry.

While women represent a tiny fraction of construction tradespeople in Queensland, their participation in construction apprenticeships has been much more positive. While the numbers are still very low—around 700 women are working towards a construction apprenticeship in Queensland—the trajectory is strongly upward (Figure 7). This data bodes well for a more gender-balanced construction workforce in the future.

Figure 6

Construction Apprentices 'Less Young'

Construction apprentices age at commencement, Queensland

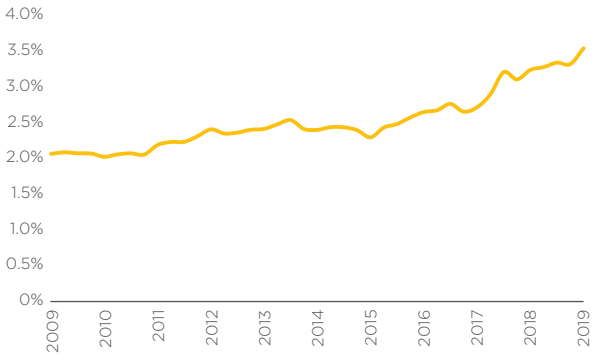


SOURCE: NCVER, CSQ

Figure 7

Women increasingly looking to construction

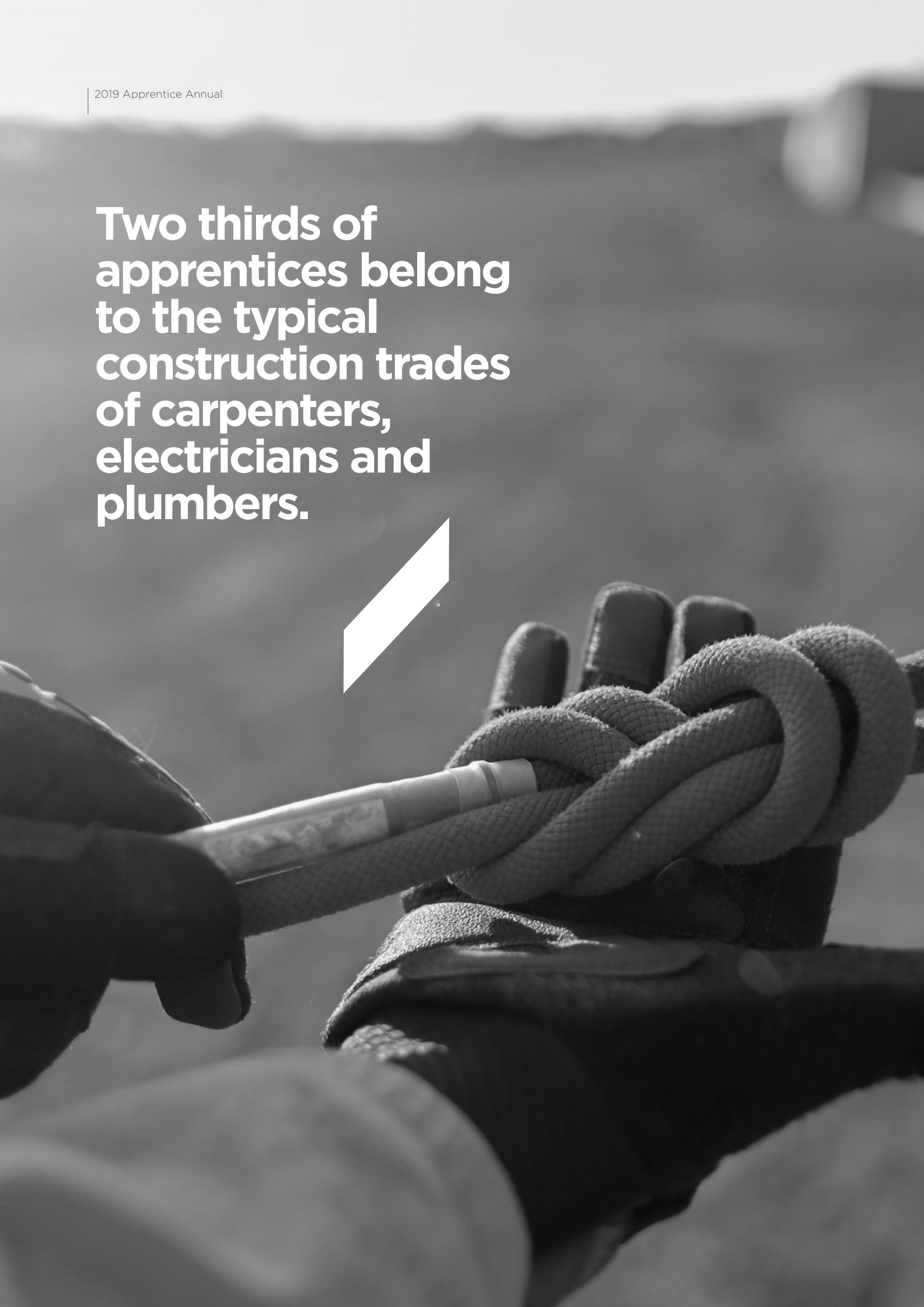
Female participation in construction apprenticeships, Queensland



SOURCE: NCVER, CSQ

The employment component is indispensable to the success of VET programs.

Two thirds of apprentices belong to the typical construction trades of carpenters, electricians and plumbers.



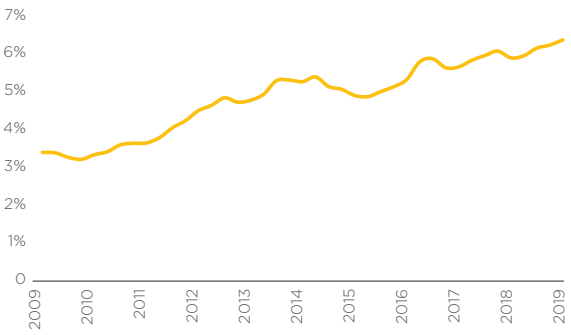
It is a similar story for Aboriginal and Torres Strait Islanders, whose number in Queensland's construction apprenticeship system has almost doubled since 2009 (Figure 8). Indigenous people now account for 6.2% of all construction apprentices in Queensland, well above the Indigenous share in the overall labour force, which is less than 3%.

Roughly 70% of all construction apprentices in Queensland work in the south-east corner (Figure 9). This figure is lower than the South East Queensland (SEQ) share of the overall construction workforce, which sits at 77%.

Figure 8

Construction apprenticeships popular among Indigenous workers

Indigenous participation in construction apprenticeships, Queensland

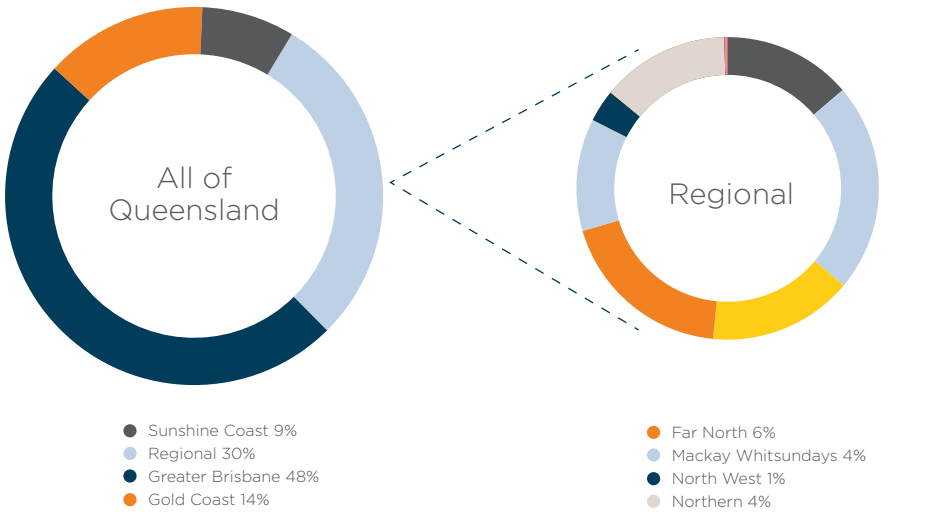


SOURCE: NCVER, CSQ

Figure 9

Apprentice numbers by region

Regional shares of Queensland construction apprentices



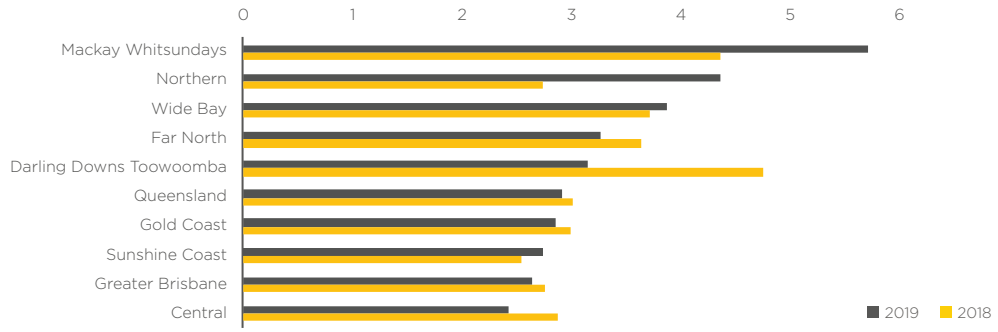
SOURCE: NCVER, CSQ

Pound-for-pound, regional Queensland shows the strongest appetite for construction apprentices in Queensland. The three SEQ regions of Greater Brisbane, the Gold Coast and Sunshine Coast are taking on fewer new apprentices per hundred workers than many regions. Meanwhile, the Mackay-Whitsundays region is the star performer, with an intake rate twice that of SEQ (Figure 10).

Figure 10

Regional Queensland outperforming on apprentices

Construction apprentice intake rates by region



Source: ABS, NCVER, CSQ

Note: North West and South West regions have been excluded as percentage changes often fluctuate dramatically from one year to the next in lightly-populated regions.

CSQ'S Commitment

The construction apprenticeship system in Queensland is in good shape. At CSQ, we will continue to monitor these trends as we work to ensure the pipeline of construction trades meets the needs of industry into the future.

For the coming year, our focus is on ensuring apprentices get the most out of these early years of their career.

In 2019-20, we will invest $3 million into a new program, *Apprentice Advance Plus*, to provide apprentices with free career-boosting training. Launched in this year's *Annual Training Plan*, the program covers the training costs for eligible apprentices to:

- undertake key training to complement the skills they are developing, and
- access higher level training and short courses for 12 months after they have completed their apprenticeship or traineeship.

This targeted support will help apprentices and trainees to:

- gain licenses essential to their future work that fall outside of their apprenticeship or traineeship training
- be competitive in the market by broadening their skill set, and
- transition from apprentice to tradesperson, licensee and business owner.

We look forward to continuing to work with our partners to ensure Queensland's construction industry has the skills it needs into the future.

We must convince business that it is in their interests to 'make rather than buy' their workers.

APPENDIX A: Definitions

In this report we use the term 'apprentice' to refer to both apprentice and trainee qualifications. Our focus is on qualifications directly connected with the core business of building and construction. The below table details the list of qualifications that we associate with 'construction apprenticeships' for the purposes of this report.

While this definition provides a reasonable approximation of apprentices employed in the construction industry, it is important to remember that any given apprentice may be employed in one of several industries, not just construction. The numbers reported throughout this Annual should therefore be interpreted as the pool of talent from which the construction industry can draw, rather than a definitive count of apprentices currently working in construction businesses.

Training rate calculations

The number of apprentices in-training are calculated in two ways in this report. In Fig. 2 we measure the number of apprentices engaged in one of the following qualifications, regardless of the industry in which they work. Figs. 3, 5 and 10 modifies this measure by counting the number of apprentices employed in the construction industry, regardless of the qualification they are pursuing – this approach is necessary to be able to fairly compare training rates across industries.

Construction Industry Apprenticeship Qualifications

Qualification Name	Applicable Qualification Codes
Certificate I in Construction	**CPC10111, CPC10108**
Certificate II in Civil Construction	**RII20715, RII20713, RII20712, RII20709, BCC20107, BCC20103**
Certificate II in Civil Construction (Bituminous Surfacing)*	**BCC20207, BCC20203**
Certificate III in Air-conditioning and Refrigeration	**UEE32211, UEE31307**
Certificate III in Bituminous Surfacing*	**RII31009**
Certificate III in Bricklaying/Blocklaying	**CPC30111, CPC30108, BCG30103, BCG30698**
Certificate III in Bridge Construction and Maintenance*	**RII31109**
Certificate III in Cabinet Making	**MSF31113, LMF32109, LMF30402**
Certificate III in Carpentry	**CPC30211, CPC30208, BCG30203**
Certificate III in Civil Construction	**RII30915, RII30913, RII30912, RII30909**
Certificate III in Civil Construction (Bituminous Surfacing)*	**BCC30207, BCC30203**
Certificate III in Civil Construction (Bridge Construction and Maintenance)*	**BCC30307, BCC30303**

Qualification Name	Applicable Qualification Codes
Certificate III in Civil Construction (Foundation Work)*	**BCC30407, BCC30403**
Certificate III in Civil Construction (Tunnel Construction)*	**BCC31007, BCC31003**
Certificate III in Civil Construction Plant Operations	**RII30815, RII30813, RII30809, BCC30607, BCC30603**
Certificate III in Civil Foundations	**RII31215, RII31213, RII31209**
Certificate III in Civil Construction (Bridge Construction and Maintenance)*	**BCC30307, BCC30303**
Certificate III in Civil Construction (Bridge/Marine Construction)*	**BCC30498**
Certificate III in Civil Construction (Foundation Work - Anchors/Piling)*	**BCC30598**
Certificate III in Civil Construction (Foundation Work)*	**BCC30407, BCC30403**
Certificate III in Civil Construction (Tunnel Construction)*	**BCC31007, BCC31003**
Certificate III in Civil Construction Plant Operations	**RII30815, RII30813, RII30809, BCC30607, BCC30603, BCC30198**
Certificate III in Civil Foundations	**RII31215, RII31213, RII31209**
Certificate III in Concreting	**CPC30313, CPC30311, CPC30308, BCG30303**
Certificate III in Construction Waterproofing	**CPC31411, CPC31408**
Certificate III in Demolition (General Construction)*	**BCG30403**
Certificate III in Dogging	**CPC30511, CPC30508, BCG30503**
Certificate III in Electrotechnology Electrician	**UEE30811, UEE30807**
Certificate III in Electrotechnology Refrigeration and Air Conditioning*	**UTE30999**
Certificate III in Electrotechnology Systems Electrician*	**UTE31199**
Certificate III in Engineering - Electrical/Electronic Trade	**MEM30405, MEM30498**
Certificate III in Fire Protection	**CPC32813, CPC32812, CPC32811, CPC32808**
Certificate III in Fire Protection Control	**UEE31011, UEE31007**
Certificate III in Flooring Technology	**MSF30813, LMF31208**
Certificate III in Gas Fitting	**CPC32713, CPC32711, CPC32708**
Certificate III in General Construction (Carpentry - Framework/Formwork/Finishing)*	**BCG30798**
Certificate III in Glass and Glazing	**MSF30413, LMF30611, LMF30602**
Certificate III in Joinery	**CPC31912, CPC31911, CPC31908**
Certificate III in Landscape Construction	**AHC30916, AHC30910, RTF30403**
Certificate III in Off-Site Construction (Joinery-Timber/Aluminium/Glass)*	**BCF30200**
Certificate III in Off-Site Construction (Pre-Fabrication)*	**BCF30400**
Certificate III in Off-Site Construction (Sign Writing/Computer Operations)*	**BCF30700**
Certificate III in Off-Site Construction (Stairs)*	**BCF30300**

Qualification Name	Applicable Qualification Codes
Certificate III in Painting and Decorating	**CPC30611, CPC30608, BCG30603, BCG30498**
Certificate III in Pipe Laying*	**RII31309, BCC30507, BCC30503,**
Certificate III in Plumbing	**CPC32413, CPC32412, CPC32411, CPC32408, BCP30103**
Certificate III in Plumbing (Mechanical Services)	**CPC32513, CPC32512, CPC32511, CPC32508, BCP30203**
Certificate III in Rigging	**CPC30711, CPC30708, BCG30703**
Certificate III in Road Construction and Maintenance*	**RII31409, BCC30707, BCC30703,**
Certificate III in Road Marking*	**RII31509, BCC30807, BCC30803**
Certificate III in Roof Plumbing	**CPC32612, CPC32611, CPC32608, BCP30303**
Certificate III in Roof Tiling	**CPC30812, CPC30811, CPC30808, BCG30803, BCG30898**
Certificate III in Scaffolding	**CPC30911, CPC30908, BCG30903**
Certificate III in Shopfitting	**CPC30116, CPC31812, CPC31811, CPC31808, BCF30100**
Certificate III in Signs and Graphics	**CPC30216, CPC32111, CPC32108**
Certificate III in Solid Plastering	**CPC31011, CPC31008, BCG31003, BCG30398**
Certificate III in Steelfixing	**CPC31111, CPC31108, BCG31103**
Certificate III in Stonemasonry (Monumental/Installation)	**CPC32313, CPC32311, CPC32308, BCF30600**
Certificate III in Timber Bridge Construction and Maintenance*	**RII32109, BCC31107, BCC31105**
Certificate III in Trenchless Technology	**RII31615, RII31613, RII31609, BCC30907, BCC30903**
Certificate III in Wall and Ceiling Lining	**CPC31211, CPC31208, BCG31203, BCG30298**
Certificate III in Wall and Floor Tiling	**CPC31311, CPC31308, BCG31303, BCG30198**
Certificate III in Waterproofing (General Construction)*	**BCG31403**
Certificate IV in Civil Construction Operations	**RII40615, RII40613, RII40609**
Certificate IV in Civil Construction Supervision	**RII40715, RII40713, RII40712, RII40709, RII40206**
Diploma of Fire Systems Design	**CPC50509**

*Qualifications no longer in use.

How to get involved

Visit: csq.org.au
Call: 1800 798 488

/constructionskillsqueensland

/mycsq

Construction Skills Queensland

Construction Skills Queensland