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Queensland**  
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# Apprenticeship, women and workplace culture

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A literature review

October 2021



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# Introduction

The Queensland Training Ombudsman is undertaking a review of the support provided by organisations, including the Department of Employment, Small Business and Training (DESBT), to ensure adequate mechanisms are available for apprentices and trainees to complete their training in an environment free of bullying and harassment. The review will also include strategies aimed at supporting the participation of female apprentices particularly in male dominated occupations.<sup>i</sup>

The Queensland Training Ombudsman has requested Jobs Queensland undertake a review of current Australian and international literature on apprenticeships<sup>1</sup>, with a focus on:

- Women in trade apprenticeships<sup>2</sup>
- Workplace culture (bullying and harassment) including support mechanisms
- Future apprenticeship models.

In 2017, Jobs Queensland published *Positive Futures: Apprenticeships and Traineeships in Queensland (Positive Futures)*<sup>ii</sup>. This literature review takes that work as its starting point and examines recent literature and identifies gaps in the research.

## Findings from the literature review

Apprenticeships and traineeships continue to be extensively researched both in Australia and internationally. In the literature, apprenticeships and traineeships are often indistinguishable from each other. In Australia, they are considered as 'Australian Apprenticeships' with the longer four-year apprenticeship model often referred to as a 'traditional' or 'trade' apprenticeship.<sup>iii</sup>

Around the world, apprenticeships are recognised as a desirable pathway into work by industry and supported by governments through legislation and funding arrangements.<sup>iv</sup> Apprenticeship schemes differ by country and researchers may classify them using a range of metrics.<sup>v</sup> There are, however, common challenges across the jurisdictions:

- The under-representation of women in engineering and technology apprenticeships<sup>vi</sup>
- High non-completion rates for both men and women<sup>vii</sup>
- The need to change workforce practices and workplace cultures to support diversification of the workforce<sup>viii</sup>
- Lack of defined career pathways on completion of an apprenticeship<sup>ix</sup>
- The changing nature of work and the ability of the system to respond to this.<sup>x</sup>

In undertaking this review, Jobs Queensland found that the contemporary literature is primarily focussed on system issues, i.e. focus is largely on issues such as completions, cancellations and products such as training standards and Training Packages. There is also a body of research that focuses on institutional issues, funding models and infrastructure that support apprenticeship delivery.

This review found that there is limited literature that focuses on people, and specifically on women in trades, or the impacts of bullying and harassment more broadly on non-trade apprentices. Whilst the literature is light-on, the review revealed a number of key stakeholders who are connecting directly with female apprentices and providing vital support to them (Appendix A).

**“Ultimately, a safe and harassment-free workplace is also a productive workplace.”**

**Kate Jenkins, 2020. Australian Human Rights Commission.**

<sup>1</sup> Unless expressly stated, the term 'apprenticeship' encompasses both apprenticeships and traineeships in Australia.

<sup>2</sup> 'Trade apprenticeships' are apprenticeships in industries such as construction, manufacturing, information technology, electrical trades and automotive. Apprenticeships in these industries are male-dominated.

## Recent literature on the state of apprenticeships in Australia

*Positive Futures* found that there was strong stakeholder support for the apprenticeship and traineeship system in Queensland. However, to remain relevant, stakeholders reported there needed to be a greater focus on the skills for future jobs.

These findings were supported by work undertaken for the *Advancing Manufacturing Workforce Strategy*.<sup>xi</sup> Manufacturing stakeholders identified apprenticeships as the preferred entry pathway to the industry. Increased flexibility within the apprenticeship system and the need for higher-level skills within manufacturing as the transition to Industry 4.0 progressed were identified as key issues for employers of apprentices.<sup>xii</sup>

Two major trends are identified in the literature prior to the COVID-19 pandemic. These were the ongoing decline in apprenticeship commencements, with the Australian Institute for Health and Welfare (AIHW) identifying a 35 per cent decrease between 2011-12 and the twelve months ending June 30 2020; and the increase in older apprentices with 21 per cent of apprentices being aged 20 to 24 (see figure below).<sup>xiii</sup> This is in line with similar trends internationally.<sup>xiv</sup>

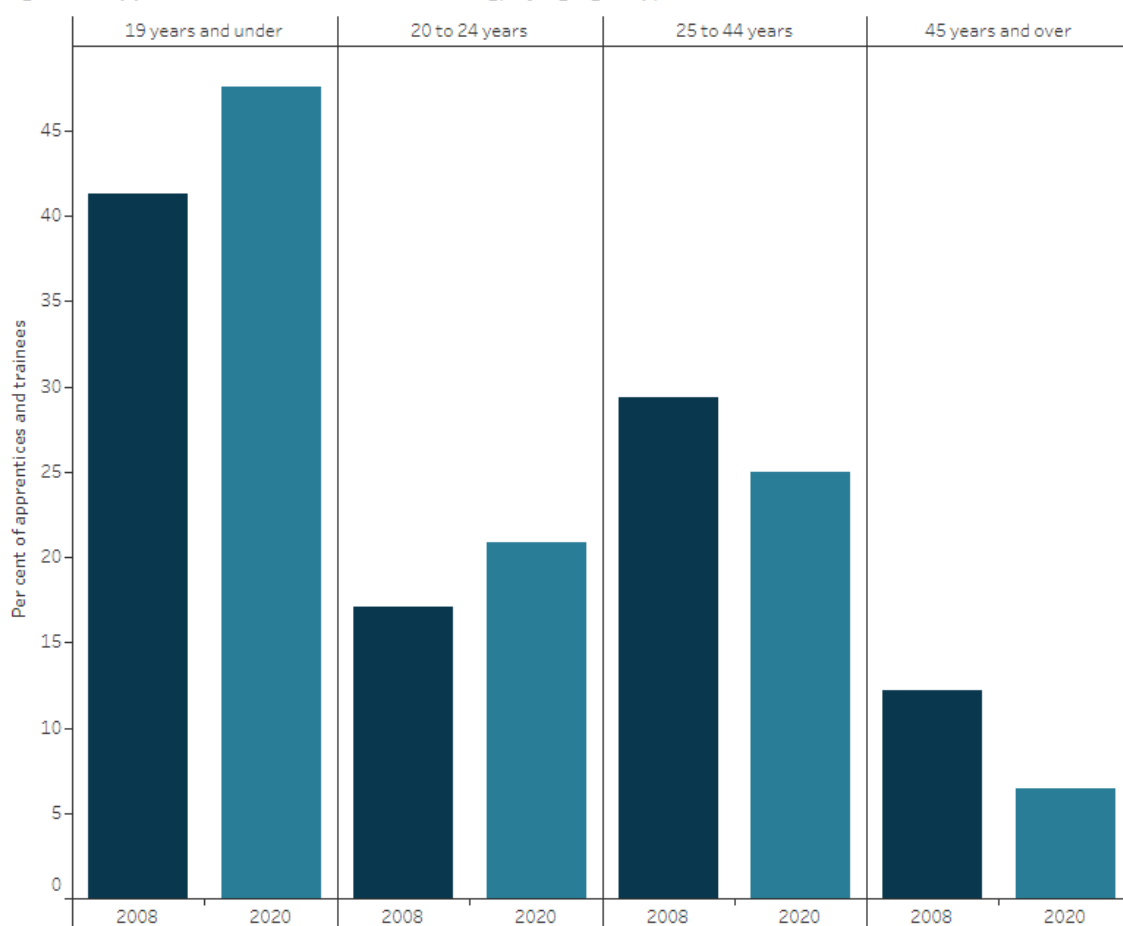
A number of factors have driven the decline in apprenticeship numbers:

- Negative growth in full-time employment
- Ongoing structural change in the composition of the labour market
- Relevance of the current apprenticeship model in some occupations
- Supply factors such as a potential decline in the quality of applicants as a result of the growth in higher education opportunities.

Overall, where there is growth (or decline) in apprenticeship commencements, it is reflective of changes within the Australian economy.<sup>xv</sup>

Adult apprentices (those aged over 20) have become an increasingly important component of the apprenticeship system. Employers have expressed a preference for engaging older apprentices, citing a stronger work ethic, greater reliability, well developed employability skills and high levels of motivation as characteristics of an adult apprentice.<sup>xvi</sup>

**Figure 2: Apprentices and trainees in training, by age group, 2008 and 2020**



*Notes:*

1. Apprentice and trainee 'in training' data are as at June 30 of the respective year.
2. Data are collected by registered training organisations and state training authorities around Australia.
3. The NCVER is not responsible for the correct extraction, analysis or interpretation of the data presented herein.

Source: NCVER 2020c.  
<http://www.aihw.gov.au>

Source: Australian Institute of Health and Welfare, 2021.<sup>xvii</sup>

Even though supply-side issues have emerged and changes in approaches to apprenticeship recruitment are emerging,<sup>xviii</sup> the literature identified that attracting and retaining women in trade apprenticeships remain challenging globally.<sup>xix</sup> Engagement rates for female apprentices range from one per cent to ten per cent across the world.<sup>xx</sup> Increasing the proportion of women in traditional trade occupations is a policy objective in many countries.<sup>3</sup>

There may be a correlation to industries introducing targeted strategies to employ more female apprentices. There is a shortage of research into the effectiveness of these strategies. However, the literature also shows that factors such as family employment and word of mouth play a major role in increasing female apprentice numbers.

### The impact of technology on apprenticeships

Research by Jobs Queensland has found that technology is a significant driver of change in workplaces and in working conditions. As a result of technology, many of the tasks associated with manual labour are being automated or augmented by technologies that make work less hazardous and physically taxing.<sup>xxi</sup> This is changing the way jobs are being performed and may negate the perception of employers that a trade is too physically demanding for a woman.<sup>xxii</sup>

There is little research available on the impact that changing technologies are having on apprenticeships and whether the introduction of collaborative technologies are changing workplace culture and increasing opportunities for workforce diversification. A proposed research project by the Australian Robotics Centre at the Queensland University of Technology has the potential to provide some information.

<sup>3</sup> These countries include Australia, New Zealand, the United Kingdom, Canada and the United States of America.

## The impact of COVID-19 on apprenticeships

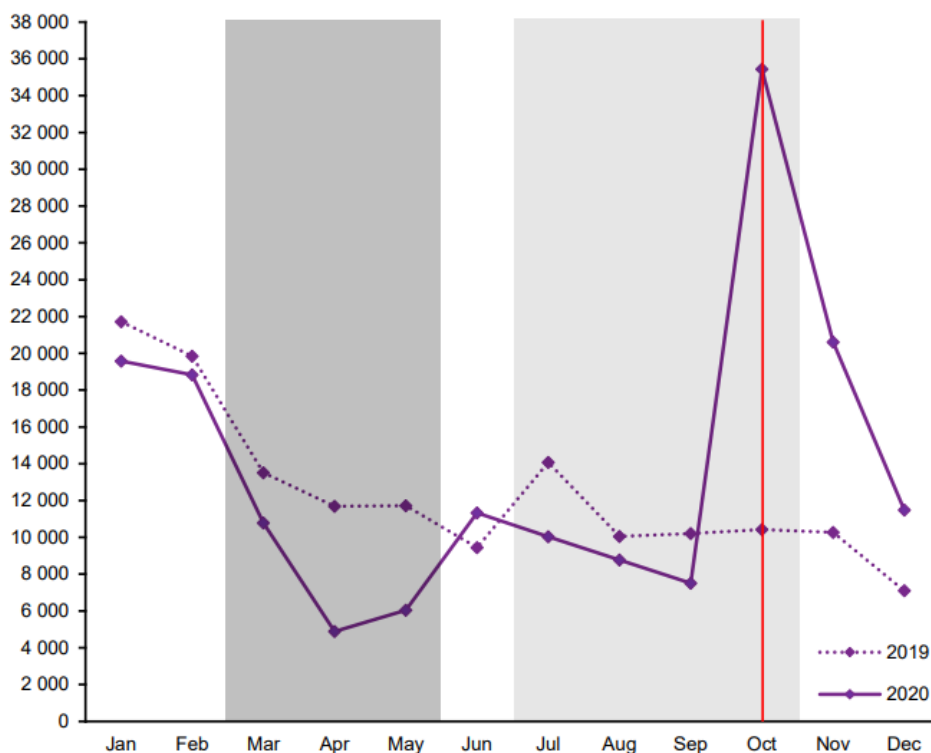
The pandemic has had a significant impact on apprenticeships and traineeships. In March and April 2020, the implementation of national restrictions saw a dramatic increase in contract suspensions, with an increase of more than 650 per cent and almost 300 per cent in May compared with the same period in 2019.

The majority of suspensions occurred in industries with a largely female or casualised workforce – Accommodation and Food Services; Agriculture, Forestry and Fishing; Arts and Recreation Services; Retail Trade; and Transport, Postal and Warehousing. Industries that experienced only modest increases in suspensions include Construction and Manufacturing – the two industries employing the highest percentage of trade apprentices.

Nationally, commencements also fell during that period. However, the introduction of the Australian Government's Boosting Apprenticeship Commencement wage subsidy program in October 2020 together with State and Territory incentive programs has seen a strong rebound in numbers.

Given that the industries most impacted by the pandemic include Accommodation and Food Services, Arts and Recreation Services, and Retail Trade, it is no surprise that there was a significant increase in suspensions of training for women over the period. In 2020 suspensions increased by nearly 600 per cent over both the March and June quarters. Non-trade occupations experienced a greater percentage of suspensions in the March and June quarters of 2020. Relative to 2019, around 700 per cent of contracts for non-trade occupations were suspended.

The introduction of the Boosting Apprenticeship Commencements support package also resulted in a substantial increase in apprentices over the age of 45, with an increase of more than 300 per cent in the December 2020 quarter compared with the December 2019 quarter.<sup>xxiii</sup>



Note: The dark-grey shaded area indicates months when national restrictions were in place; the light-grey shaded area indicates months when restrictions were in place in Victoria; the red line indicates the introduction of the Boosting Apprenticeship Commencements support package in October 2020.

Source: National Apprentice and Trainee Collection nos 103 and 107 (March 2020 and March 2021 counts).

Source: Hall, M. 2021. *Apprentices and trainees 2020: impacts of COVID-19 on training activity*. Adelaide: NCVER<sup>4</sup>

<sup>4</sup> This data includes both trade apprenticeships and traineeships.

Research on the impact of the pandemic on apprenticeships has largely focused on training participation rates. There is evidence that workplace stress can increase bullying and harassment,<sup>xxiv</sup> While there has been a significant body of research on the impact of the pandemic on youth mental health<sup>xxv</sup> including the impact of disruption to learning,<sup>xxvi</sup> there has been little published on the impact that the pandemic has had and is having on apprentices' mental health and experience of workplace bullying and harassment.

## Bullying and harassment in the trades

The detrimental impact of bullying on workers is not a recent phenomenon. The 2012 *Workplace Bullying* inquiry found that workplace bullying can result in significant damage to an individual's health and wellbeing and can lead to suicide.<sup>xxvii</sup> Women are more likely to experience higher rates of bullying and for longer periods than men, including more unwanted sexual advances, humiliation and unfair treatment due to gender. Men reported higher levels of workplace violence.<sup>xxviii</sup>

There is a significant cost associated with the impact of bullying and harassment in the workplace. The Productivity Commission (2010) estimated that workplace bullying costed the Australian economy between \$6 billion and \$36 billion every year.<sup>xxix</sup> The cost to employers in lost productivity, absenteeism, staff turnover and recruitment costs, low worker morale and reputational damage is estimated to average between \$17,000 and \$24,000 per case.<sup>xxx</sup> Workers compensation data indicates that mental health related claims in 2018-19 cost \$35,900 per claim, an increase of 209 per cent since the year 2000.<sup>xxxi</sup>

There are a number of reasons that a culture of bullying and harassment develops in an organisation or workplace, including that:

- There are benefits for the bully, including feelings of dominance, revenge and power
- The behaviour is rewarded (condoned) by management (e.g. accepted as standard industry practice)
- There are no costs/consequences for the bully (e.g. no action by the victim or management)
- The behaviour is not illegal, further reinforcing the lack of consequences
- Bystanders lack the power to intervene
- Targets (victims) are reluctant to complain or report for fear of escalating the abuse
- Management may be reluctant to take action against the perpetrator for fear of losing a 'good worker'.<sup>xxxii</sup>

Research undertaken in 2014<sup>xxxiii</sup> identified several work and organisational-related antecedents of workplace bullying:

- Workplace policies – workplaces that do not have strict and clear policies around workplace bullying or standards of behaviour have a greater risk of bullying
- Physical work environment – aspects of the physical work environment such as heat, crowding, noise, etc. can increase the risk of bullying
- Organisational change – this can promote bullying via stress, frustration, ambiguity and uncertainty about job security
- Psychosocial work environment – bullying is more common in organisations where competitive behaviour is rewarded, abuse is normalised, and large power imbalances exist
- Work stressors – workplace bullying is strongly related to psychosocial aspects of an individual's job, including higher job demands; low autonomy; role ambiguity; low job security; and low levels of social support at work
- Leadership – this is an important predictor of the nature and extent of workplace bullying.

Research into bullying and harassment of apprentices is limited. The major focus has been on women and, to a large extent, apprentices have been ignored. The *MATES in Construction* report (2020) is a seminal piece of work that defines and quantifies the extent of the problem for trade apprentices in Queensland.<sup>xxxiv</sup>

In Queensland, 27.3 per cent of construction apprentices had experienced workplace bullying with 20 per cent experiencing severe bullying. Thoughts about suicide were high with 30 per cent having some thoughts about suicide in the previous twelve months to the study. Eight recommendations were put forward. These can be found in Appendix B.<sup>xxxv</sup>



Common factors found to be associated with an apprentice being bullied or harassed include:

- Aged between 18 and 25
- Working for a large employer
- Working for a group training organisation
- Not currently having an employer
- Not currently in an apprenticeship
- Having an apprenticeship status as *other*
- Identifying as LGBTI+.<sup>xxxvi</sup>

The construction industry is not the only industry with issues relating to bullying and harassment. Over a third of apprentices in the hospitality industry reported experiencing bullying or harassment and almost 50 per cent of contracts are cancelled or withdrawn in the first year. For many employers, the complex nature of the apprenticeship system coupled with a lack of knowledge of workplace laws and human resource management practices contributes to this culture. Non-compliant practices were influenced by employers' reliance on inaccurate information such as industry norms and accurate information availability as well as procrastination and ambiguity.<sup>xxxvii</sup>

For individuals experiencing workplace bullying and harassment, impacts include:

- Post-Traumatic Stress Disorder
- Depression
- Anxiety
- Sleep disturbances
- Lowered self-esteem
- Anger
- Suicidal thoughts
- Headaches
- Burnout
- Suicide.

Other employees who witness the bullying and harassment, i.e. bystanders in the workplace also report increased levels of stress and anxiety.<sup>xxxviii</sup> Another effect experienced by the bystander is less satisfaction with their work. Despite this, bystanders often will not speak up and there are many reasons for this, including:

- Power and inequality
- Beliefs, justice and moral identity
- Stigmatisation by association.<sup>xxxix</sup>

## Solutions suggested within the research

Bullying and harassment of apprentices is a complex problem to which there is no one solution. It requires all stakeholders (government, industry, employers, unions, apprenticeship services and employees) to work together to:

- Address structural issues such as power imbalances
- Address the culture by breaking the cycle of 'that's the way things are done'
- Understand the perspectives of both perpetrators and victims
- Provide more support for apprentices to build resilience<sup>xl</sup>
- Provide specific training for leaders, managers and supervisors in appropriate workplace behaviours
- Encourage employers to invest in developing healthy workplace cultures<sup>xli</sup>
- Provide clear and unambiguous information and training for all workers.<sup>xlii</sup>

Employers need support to understand their obligations under workplace, health and safety (WHS) legislation to create a psychologically safe culture that acknowledges harassment and bullying as unsafe behaviours.<sup>xliii</sup>

## Women in trade apprenticeships

### Challenges:

- Overcoming societal and cultural norms
- Lack of female role models
- Lack of engagement through familial and social networks
- School curriculums that do not encourage female participation in science, technology, engineering and mathematics (STEM) and trade-based classes or work experience
- Employers that are resistant to employing female tradespeople
- Workplace cultures that support and condone workplace bullying
- Lack of or ineffective human resource policies and practices to respond to workplace bullying
- Lack of appropriate female facilities on worksites
- Difficulty accessing gender-specific work clothing and footwear.

Trade occupations such as builder, electrician and automotive mechanic are perceived to offer high pay, quality work and job security. For women, the pay differential in these occupations by age 32 has been calculated as being \$NZ106,722.<sup>xiv</sup> Given that similar research has not been undertaken in Australia, it is difficult to know if comparative results would be found for Australian women in trade occupations.

Trade occupations are traditionally the domain of males. The percentage of women in these occupations has remained relatively unchanged over the past 30 years (see below). Women experience difficulty gaining entry into an apprenticeship for these occupations.<sup>xlv</sup> Often, successful entry is only through having a family connection into the industry.<sup>xlvi</sup>

	1988	1998	2008	2018
Occupation	Percentage of women in occupation			
Electro technology & telecommunications trades	1.1	1.8	2.8	1.9
Construction trades (bricklaying, carpentry, painting/decorating, metal fabrication and plumbing)	1.3	1.1	0.8	1.4
Automotive and engineering trades	1.1	0.9	1.4	1.1

Australian Bureau of Statistics (2018). Labour Force, Australia, Detailed, Quarterly, Feb 2018, Table EQ8 Employed persons

Source: CSU, 2019<sup>5</sup>

The barriers to employment for women in trade occupations are complex.<sup>xlvii</sup> Societal and cultural expectations about gender roles and perceptions and the workplace culture of the trade industries underpin these barriers.<sup>xlviii</sup>

Within the trade occupations, women face barriers at all levels – from recruitment through to employment post-apprenticeship. Discrimination, bias and barriers such as perceptions around the need for physical strength to work in trade occupations are consistently used to limit opportunities for young women to enter male-dominated employment.<sup>xlix</sup> Coupled with parental concerns relating to safety (both physical and emotional) and a lack of female role models, young women are less likely to see a trade apprenticeship as a viable post-school option.<sup>l</sup>

<sup>5</sup> No explanation was given in the research for the significant increase in the number of women in Electro technology and Automotive and engineering in 2008.

For young women wanting a trade apprenticeship, having a connection with a trade (either a tradesperson within the family or an employer of tradespeople within the social network) is often the only way to gain a contract. Recruitment into trade apprenticeships occur largely through informal means and networks that are often not inclusive of women.<sup>li</sup>

With significant growth occurring in the construction industry in Queensland due to the large number of infrastructure projects in the pipeline, the outlook for apprenticeship opportunities in that industry is good.<sup>lii</sup> It is unknown if this will translate into increased opportunities for women to gain trade apprenticeships.

For women who are successful in gaining a contract, workplace barriers such as a lack of female site facilities and difficulty obtaining suitable, affordable female workwear increases workplace, health and safety risks<sup>liii</sup>. Gender discrimination within the workplace is common, with 38 per cent of female trade apprentices reporting they experienced discrimination during their apprenticeship. In a New South Wales survey of 1000 women aged 15 to 24, 26 per cent cited gender discrimination as their main reason for failing to complete their apprenticeship.<sup>liiv</sup>

Female apprentices are more likely to be sexually harassed and victimised than their male counterparts.<sup>liv</sup> This stems from an entrenched 'macho' culture within some industries and workplaces.<sup>livi</sup> The cost of sexual harassment in the workplace is significant. In 2018, it was estimated to have cost the economy \$2.6 billion in lost productivity and almost another \$1 billion in other costs. Employers bore 70 per cent of the cost. Staff turnover accounts for the largest portion of the loss of productivity (32 per cent of the costs).<sup>liiii</sup> Addressing these issues will deliver social and economic outcomes for organisations.

Inflexible work arrangements and lack of appropriate childcare options can also impact on retention of women in trade occupations.<sup>liiii</sup> Many mature female tradespeople believe that their gender has had a negative impact on their career, consistently reporting a lack of and/or difficulty accessing promotions<sup>lix</sup> and leadership opportunities.

International research also highlighted wages as a barrier to entry for women due to many being the primary caregiver.<sup>lix</sup> Recent research out of New Zealand has found that the pandemic has increased the appeal of an apprenticeship, especially for women whose employment has been impacted.<sup>lxi</sup> In Australian research on barriers for women, wages have not been raised. Research undertaken in 2010 found that for trade apprentices in general, the expected wage gain on completion of the apprenticeship outweighed the low wages of an apprenticeship.<sup>lxii</sup>

Whilst the literature provides evidence of poor culture, bullying and harassment towards women in male dominated trades and apprenticeships, there are also encouraging signs that some employers are seeking to diversify their workforce and highlight the benefits of employing women.<sup>lxiii</sup>

Employers that take on women in trade roles report a number of benefits:

- Women in trade roles display a greater attention to detail
- They 'soften' workplace behaviours
- Women are generally better at communicating
- There is improved productivity as men do not want to be seen as doing less than women
- Women help the business better reflect its customer base
- Women tend to be more passionate about their trade.<sup>lxiv</sup>

## Solutions suggested in the literature

Solutions to attracting, training and retaining more women in trade occupations will need to be multifaceted.<sup>lxv</sup>

They can be classified broadly into three areas:

- Cultural change
  - Perceptions of trade occupations
  - Perceptions of female work
  - Workplace culture ("Respect@Work"<sup>lxvi</sup>)
- Promotion of female participation in trade occupations
  - Schools and career guidance
  - Benefits for employers
  - Economic and social benefits to parents, employers and young women
- Role models, networks and female mentors
  - "You can't be what you can't see"
  - Creating networks of female tradespeople and supportive employers
  - More female STEM and trades teachers in schools and vocational education.<sup>lxvii</sup>

## Future-focused apprenticeship models

As the skills needs of the Australian economy shift in response to new technologies, changing demographics and social norms, there has been discussion in relation to the relevance of the apprenticeship model.<sup>lxviii</sup>

Research undertaken by Jobs Queensland has found that while employers are supportive of the traditional apprenticeship model, they have also expressed the need for apprenticeships to be more 'forward-focused' on the skills needed for the future as well.<sup>lxix</sup> Many employers question the need for the traditional time-based model in an era of rapid change and skills obsolescence. For employers in technology-driven industries such as manufacturing and information and communication technology (ICT), where technologies are advancing rapidly, the question is around the ability of the education and training sector to meet their current and emerging skills needs.<sup>lxx</sup> This is driving the interest in and development of alternate apprenticeship models such as higher-level apprenticeships and advanced apprenticeships.

There are a number of models that have been or are currently being trialled in Australia. From 2011 to 2016, the Australian Government funded an initiative to trial competency-based progression and completions in Australian Apprenticeships. The initiative was described as having "the potential to provide more attractive apprenticeship pathways, and ... assist with increasing the supply of skilled workers demanded by employers and industry, while maintaining the quality of training."<sup>lxxi</sup> It is unknown how successful the initiative was, or which industries participated. Western Australia has recently launched a new pilot program, the Construction Accelerated Apprenticeship Program (CAAP) for the construction industry which offers free skills assessment for experienced construction industry workers without a formal qualification. The program has been developed with key industry bodies and employers within Western Australia.<sup>lxxii</sup> In Queensland, the Department of Employment, Small Business and Training (DESBT) funds the Trade Skills Assessment and Gap Training (TSAGT) Program. This program gives eligible Queenslanders with substantial industry experience the opportunity to complete a priority trade qualification. It "complements" apprenticeship pathways rather than being an apprenticeship.<sup>lxxiii</sup>

Another model being trialled in Australia is the 'higher apprenticeship'. Higher apprenticeships have been defined as "... a program of structured on-the-job training [combined] with formal study, with the study component leading to the award of a VET qualification at the Australian Qualifications Framework level 5 (diploma) or level 6 (advanced diploma)."<sup>lxxiv</sup> Initially there were two small projects funded, one with a focus on Industry 4.0 leading to the Diploma and Associate Degree in Applied Technologies qualifications. The other pilot project enabled participants to complete VET diplomas in business, information technology (IT) and professional services. Both these trails were funded by the Australian Government.<sup>lxxv</sup> In Queensland there is currently a Higher Level Apprenticeship Pilot project for the Applied Technologies qualifications in progress in Townsville and Brisbane. This project is funded by DESBT and commenced in late 2020.<sup>lxxvi</sup>

Higher apprenticeships:

- Are seen as a logical progression to meet the need for a skilled future workforce
- Extend apprenticeships to higher level qualifications such as diplomas and associate degrees
- Support evolving labour market demands
- Develop contemporary, relevant and higher-level trade and para-professional skills
- Involve collaboration between employers, registered training organisations (RTOs) and universities.<sup>lxxvii</sup>

Another Australian government-funded project is the Advanced Apprenticeship Pilot. The pilot offers employers the opportunity to upskill existing employees into the Associate Degree in Engineering. This pilot is commencing in September 2021.<sup>lxxviii</sup>

While these pilots are referred to as 'apprenticeships', there are significant differences to the current apprenticeship model. Firstly, these apprenticeships may or may not be undertaken under a formal 'contract of training'. Secondly, the apprenticeship may be undertaken either through the VET system or the higher education (university) system. As such, these apprenticeships are subject to different educational, funding and regulatory arrangements.<sup>lxxix</sup>

Australia is not alone in trialling alternate models of apprenticeship.<sup>lxxx</sup> In the United Kingdom, there are two forms of higher apprenticeships – higher apprenticeships and degree apprenticeships. Higher apprenticeships is the older model, having been introduced in 2009. They are vocational qualifications.<sup>lxxxi</sup> Higher apprenticeships were introduced to support career progression and are equivalent to a foundation degree or a relevant industry professional qualification. Degree apprenticeships are available at level 6 and 7 (full Bachelor and Master's qualifications).<sup>lxxxii</sup> These were introduced in 2015 with the intention to bring together the worlds of work and higher education to increase productivity and social mobility. Both models would appear to be successful. There have been significant increases in commencements with the number of commencements in Degree Apprenticeships doubling in the two years to 2018-19 and commencements in Higher Apprenticeships rising from 13 per cent of all apprenticeship commencements in 2017-18 to 19 per cent in 2018-19.<sup>lxxxiii</sup>

There are also calls for higher level apprenticeships in the United States (US). Modern Apprenticeships are described as:

- Customised, supervised and paid on-the-job training at reduced or no cost
- Wages graduated in step with skills gained during training
- Related classroom instruction (on or off site) to reinforce technical skills learnt in the workplace
- Formalised mentoring and coaching
- Nationally recognised industry credentials or specialised technical certification earned for demonstrating the achievement of workplace competencies
- Optional college credit leading to an associate or bachelor's degree at little or no additional cost.<sup>lxxxiv</sup>

The key differences to an Australian apprenticeship are the lack of the formal tripartite Contract of Training and the optional college credit.

While these future-focused apprenticeships models could increase opportunities for women to enter trade and technical occupations, pilots are not yet sufficiently progressed to be able to assess such outcomes. Any review of these pilots needs to ensure that opportunities to improve the diversity of trade industries (e.g. increased representation by women and other under-represented groups) are assessed for effectiveness.

There may also be the potential to address the lack of clear career progression opportunities upon completion of an entry-level apprenticeship. These apprenticeship models may provide an entry pathway into further study at a para-professional or professional level. Proposed changes to training products under the Australian Government's Skills Reform agenda may also have a significant impact on future apprenticeships and address some of the concerns of employers regarding the ability of the training system to respond to rapidly changing skills needs.<sup>lxxxv</sup>

# Summary

## Key findings from the literature review

- Globally, apprenticeships are recognised as a desirable pathway into work by industry and supported by governments through legislation and funding arrangements.
- There are common challenges globally:
  - Under-representation of women in engineering and technology trade apprenticeships
  - High non-completion rates of apprenticeships for both men and women
  - The need to change workplace practices and cultures to support diversification of the workforce
  - Lack of defined career pathways on completion of an apprenticeship.
- Due to the changing nature of work, employers are concerned about the ability of the apprenticeship system to respond appropriately.
- The impact of the COVID-19 pandemic on apprenticeships, including for women in trade apprenticeships and on workplace cultures needs to be investigated.

## Bullying and harassment impact

- Bullying and harassment was estimated to cost the Australian economy between \$6 billion and \$36 billion per annum in 2010.
- For employers, the cost in lost productivity, staff turnover and other costs was between \$17,000 and \$24,000 per case.
- There is a limited amount of bullying and harassment research that is focused on particular industries or occupations.
- Women reported higher rates of bullying and for longer periods than men, including unwanted sexual advances, humiliation and unfair treatment due to gender.
- Young men in the construction industry are twice as likely to take their lives compared with other young males in Australia.
- In the Queensland construction industry, more than one in four apprentices have experienced workplace bullying.
- Workplace bullying and harassment is seen as an organisational issue rather than a system issue.
- Ambiguity and misinformation contribute to the issue.
- Bullying and harassment is a complex problem to which there is no one solution.

## The need for industry, organisational and workplace culture to:

- Address structural issues such as power imbalances.
- Address the culture by breaking the cycle of 'that's the way things are done'.
- Understand the perspectives of both perpetrators and victims.
- Provide more support for apprentices to build resilience.
- Provide specific training for leaders, managers and supervisors in appropriate workplace behaviours.
- Encourage employers to invest in developing psychologically safe workplace cultures.
- Provide clear and unambiguous information and training for all workers.

## Strategies for increasing female participation can be classified broadly into three areas:

- Cultural change
  - Perceptions of trade occupations
  - Perceptions of female work
  - Workplace culture ("Respect@Work")
- Promotion of female participation in trade occupations
  - Schools and career guidance
  - Benefits for employers
  - Economic and social benefits to parents, employers and young women
- Role models, networks and female mentors
  - "You can't be what you can't see".
  - Creating networks of female tradespeople and supportive employers.
  - More female STEM and trades teachers in schools and vocational education.

## Areas that the literature does not address / opportunities to further explore in Apprenticeship review

- The impact of the COVID-19 pandemic on apprentices' mental health.
- Strategies that encourage parents, schools and career advisers to promote trade careers to young women.
- Strategies that can successfully change employers' perceptions of what women can or cannot do in a trade occupation.

## Gaps

- There has been very little research undertaken on the impact on apprentices and their families from workplace bullying and harassment, including understanding the financial and emotional costs to both the individual and their family.
- There is a need for further research to understand the concept of 'power' within the apprenticeship relationship and its role in the experience of bullying and harassment within a workplace.
- Most of the literature focuses on the culture within a workplace or organisation. There is little research that examines the culture within an industry or supporting associations and the role that this can play in establishing/reinforcing cultural norms within workplaces.
- Research into bullying and harassment of women largely focuses on sexual harassment of women in the workplace. There is a need to understand and quantify the impact of other forms of bullying and harassment (e.g. psychological and emotional) for women in the workplace.
- There is little research available on the impact changing technologies are having on apprenticeships and whether the introduction of collaborative technologies are changing workplace culture and increasing opportunities for workforce diversification.
- Research into the effectiveness of past and current strategies to increase female participation in trade apprenticeships is lacking in the literature.



## Appendix A

### Key stakeholders in supporting women in trades

National Association of Women in Construction (NAWIC) - <https://www.nawic.com.au/>

National Committee for Women in Engineering (NCWIE) - <https://www.engineersaustralia.org.au/Communities-And-Groups/Special-Interest-Groups/Women-In-Engineering>

SALT – Supporting and Linking Tradeswomen - <https://saltaustralia.org.au/>

STEM Women - <https://www.stemwomen.org.au/>

Tradeswomen Australia - <https://tradeswomenustralia.com.au/>

Women in Adult and Vocational Education (WAVE) - <https://wave.org.au/>

Women in Mining and Resources Queensland (wimarq) - <https://womeninminingqueensland.com/>

## Appendix B

### Recommendations from MATES in Construction (2020)<sup>lxxxvi</sup>

#### **Recommendation 1**

Development and evaluation of an industry-wide onsite intervention program focussing on supervision, trade workers and apprentices to raise awareness of bullying as an issue and highlight the negative consequences of bullying in the industry.

#### **Recommendation 2**

Maintain and expand access to support for apprentices experiencing poor mental health and suicide risk to third party providers such as MATES in Construction.

#### **Recommendation 3**

Inclusion of resilience training for apprentices with specific focus on financial management, alcohol and other drugs awareness, suicide and mental health literacy, and workplace rights.

#### **Recommendation 4**

Further investigation into the vulnerable position of apprentices experiencing bullying, and in particular, understanding the experiences of apprentices who have been bullied and are unemployed. This investigation should include departmental supervision of apprentices, employment security and conflict management between employers and apprentices.

#### **Recommendation 5**

Examination into how various industry, safety and employment regulators impact on bullying, psychological distress and suicidality of apprentices. Specifically, how the relevant agencies may support an apprentice experiencing bullying and a poor psycho-social work environment. These should include but not be limited to:

- Division of Workplace Health and Safety
- Department of Employment, Small Business and Training
- The Queensland Training Ombudsman
- Queensland Building and Construction Commission
- Fairwork Australia.

#### **Recommendation 6**

Undertake an investigation into the potential benefits of structured industry-based apprentice mentor and support programs such as those offered by several trade unions and employer associations in the industry.

#### **Recommendation 7**

Conduct further research exploring the nature of the bullying experienced by apprentices and on how resilience can be developed.

#### **Recommendation 8**

Conduct further research exploring workplace culture and attitudes to bullying amongst trade workers, supervisors and employers of apprentices.

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