



**POSITIVE FUTURES:
APPRENTICESHIPS
AND TRAINEESHIPS
IN QUEENSLAND**

Discussion Paper November 2016



**Jobs
Queensland**
Future skills. Future workforce.



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CHAIR'S INTRODUCTION

Jobs Queensland was established by the Queensland Government as an independent statutory entity to provide strategic advice to the Government on future skills requirements, workforce planning and development issues and the apprenticeship and traineeship system in Queensland.

This discussion paper marks the beginning of a broader project that will result in strategic advice to the Minister for Training and Skills designed to build on the strengths of Queensland's apprenticeship and traineeship system.

There have been numerous reviews and reports into apprenticeships and traineeships and many of these have explored issues relating to the system. Nevertheless there is broad agreement that the dual-training apprenticeship model – one that combines employment with accredited training – has been, and remains, an effective vehicle for skill development and an important pathway to employment.

Jobs Queensland would like to discover what is working well within the system for employers, apprentices and trainees, industry and the broader community. How are different industries attracting apprentices and trainees? How are employers assisting their apprentices and trainees acquire the necessary skills and knowledge for success? What training innovations are emerging alongside technological change? How are pre-employment apprenticeship and traineeship programs contributing to the employment prospects of students? Where and how are incentives making a difference to commencements and completions?

Jobs Queensland also has a responsibility to identify future skills needs, with particular regard to the changing nature of work. Technological innovation and social and demographic trends are changing the ways in which work is performed and the skills required by industry in the future will be different to those needed today. By identifying the strengths and successes of the apprenticeship and traineeship system, Jobs Queensland seeks to provide advice to build on the positives and ensure the system continues to function effectively in the future.

This discussion paper provides those with an interest in, and experience with, the apprenticeship and traineeship system in Queensland the opportunity to comment on how the system is meeting the current and emerging skills needs of industry and areas that could be strengthened.

In addition, Jobs Queensland will undertake a wide ranging and comprehensive engagement process across the State with employers, industry representatives, apprentices and trainees and other stakeholders. A draft report will be released for further consultation prior to a final report in June 2017. Further information about providing submissions and timelines are available at the conclusion of the paper.

I encourage you to participate in our discussions about this important pathway to employment for many Queenslanders.

Rachel Hunter
Chair, Jobs Queensland



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1. BACKGROUND

The apprenticeship and traineeship system combines employment-based experience with training and has a long tradition and history in Australia. There is now a much more diverse range of products labelled apprenticeships and traineeships than under traditional arrangements, with more options for delivery.

Traineeships were introduced in 1985, which extended the apprenticeship model to a wider range of occupations outside the traditional trade sphere. In 1998, changes were introduced enabling school students, existing and part-time workers to participate in apprenticeships and traineeships.¹

Apprenticeships and traineeships provide an important employment pathway, particularly for younger Queenslanders. Research shows that nationally, over 84 per cent of apprentices and trainees were employed six months after completing their training compared to 74 per cent of students graduating from the vocational education training (VET) system.²

The apprenticeship and traineeship system is influenced by policy made by both the State and Commonwealth governments. The influence extends beyond system-specific policy to a broader policy architecture including industrial relations and VET system design and operation, including training packages. The system's stakeholders are many and diverse – employers, industry, Group Training Organisations (GTOs), trade unions, apprentices and trainees, Registered Training Organisations (RTOs), schools, students and various support organisations. The economy is a key driver for take-up of apprenticeships and traineeships. Take-up is also influenced by other factors such as incentive arrangements and industrial provisions.

“Apprenticeships and traineeships provide an important employment pathway, particularly for younger Queenslanders.”

The vehicle for training delivery has also changed over time. Traditionally governments funded accredited training for apprenticeship and traineeships through the Tertiary and Further Education (TAFE) system alongside private “fee for service” arrangements. Industry calls for greater flexibility and choice led to contestable funding arrangements which broadened government funding to non-TAFE training organisations to deliver formal training to apprentices and trainees.³ There has also been a move from institutional training to training and assessment in workplaces and the formation of enterprise RTOs.

In 2014, the Queensland Government repealed the *Vocational Education, Training and Employment Act 2000* and established a new regulatory framework for apprenticeships, traineeships and other training related matters, the *Further Education and Training Act 2014*. Through the national harmonisation process and in response to industry requests, the legislation furthers the development of a contemporary system reflective of the changes to employment conditions and practices.

The Queensland Government funds a number of programs that specifically support apprentices and trainees, including:

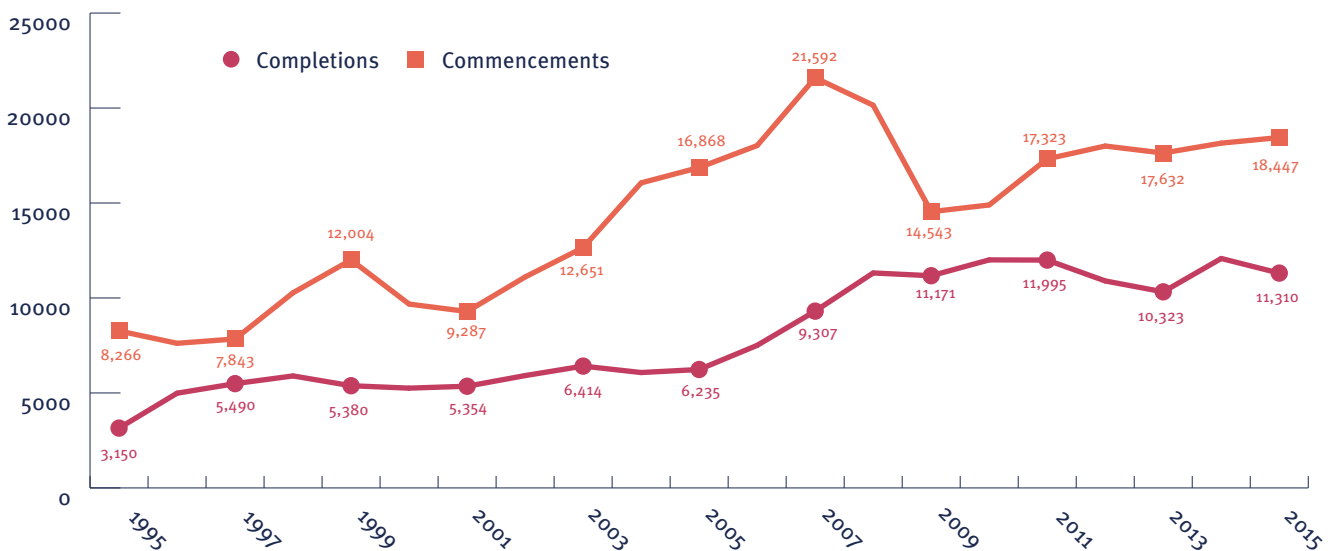
- **Registered Trades Skill Pathway** – helps existing workers gain a trade qualification by recognising and building on existing skills and experience;
- **User Choice** – funds the training of eligible apprentices and trainees, including school-based participants;
- **Industry Pre-apprenticeship Programs** – helps prepare tradespeople in priority trade occupations in partnership with industry;
- **Trade Skills Assessment and Gap Training** – program to help tradespeople in priority trades complete their qualifications;
- **Work Start** – provides a one-off incentive payment of \$10,000 to private sector employers who employ a recent participant of particular Skilling Queenslanders for Work programs into a traineeship or apprenticeship;
- **First Start** – provides subsidies to local councils to engage new trainees under Skilling Queenslanders for Work.

The State Government also offers a 50 per cent payroll tax rebate for Queensland businesses seeking to employ apprentices and trainees, subject to eligibility thresholds. Regional employers who are not eligible for the rebate may be eligible for assistance through the Queensland Government’s Back to Work – Regional Employment Package.

Apprenticeship and Traineeship Numbers

After trending upwards for over a decade during the mining boom, apprenticeship commencements in Queensland began to fall in 2007 and the decline accelerated during the Global Financial Crisis. The introduction (and subsequent extension) of the Australian Government’s Kickstart Incentive for young engineering and construction apprentices led to a partial recovery between 2009 and 2010. Since then, commencements have recovered, with an average of 17,711 apprentices commencing annually between 2010 and 2013. By 2015, apprenticeship commencements had increased by 2.9 per cent since 2010.

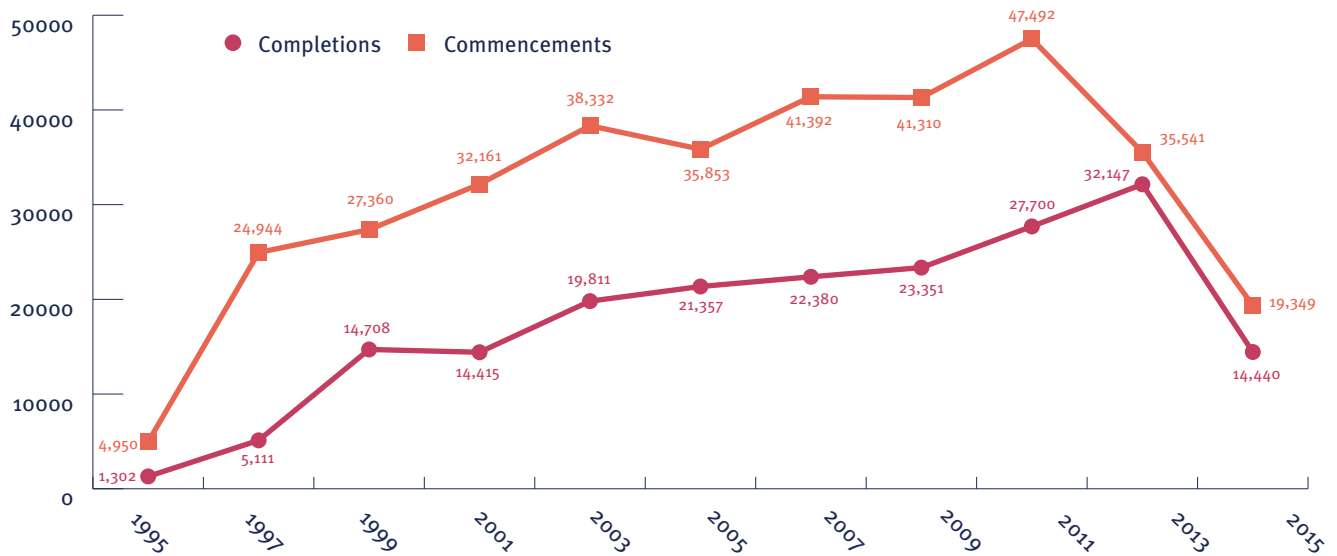
Figure 1: Commencements and Completions in Queensland, Apprenticeships, 1995 – 2015



Source: DELTA

The number of traineeships in Queensland grew strongly between 1995 and 2012, sustained by government incentives and an extension of the scheme to existing workers. Commencements peaked in 2012 as employers sought to access an Australian Government incentive to employers entering into a training contract with existing workers, which ended in 2011-12. As funding options for employers and Registered Training Organisations expanded through programs such as the Certificate 3 Guarantee (2013), employers were provided with the option of employing graduates from mainstream training programs rather than entering into a formal training contract to develop their workforce. Nevertheless, over 19,000 Queenslanders commenced traineeships in 2015 and the proportion of both Indigenous trainees and trainees with a disability has increased in the past two years.

Figure 2: Commencements and Completions in Queensland, Traineeships, 1995 – 2015



Source: DELTA

Changes in commencements in apprenticeships and traineeships between 2012 and 2015 have not been uniform. There have been a number of reviews around the reasons for changes in commencements and participation over time, with various reasons identified, including:⁴

- Expansion of higher education
- Global Financial Crisis
- Changes to incentive payments
- Changing economic conditions
- Introduction of new training funding streams
- Complexity of the system
- Changes to employment arrangements
- Occupational structure of the labour market including skill shortages.

Many of the reports and reviews released over the past five years have examined and discussed issues and problems within the apprenticeship and traineeship system. Jobs Queensland is interested in highlighting what is working well within the system and (a) providing advice to build on these positives across the system and (b) identifying opportunities to support workforce needs.

2. THE CHANGING NATURE OF APPRENTICES AND TRAINEES

The apprenticeship and traineeship system has moved from one “intended to provide entry-level training and paid employment to young males in the trades, to one that provides both entry-level and continuing training, and paid employment, to people of all ages and both sexes.”⁵ The transformation of the system has been driven by government policy, programs and incentives to both meet industry needs and encourage the employment of various target groups such as people with a disability, Indigenous Australians and adult apprentices.

Strategies designed to increase the diversity of apprentices and trainees has had mixed results over the ten years between 2006 and 2015. The majority of apprentices remain male and male trainees have also outnumbered females since 2013, although the gender gap is closing. The percentage of both apprentices and trainees who identify as Aboriginal and Torres Strait Islander has increased over the ten years to 2015 as has the proportion of apprentices and trainees who stated that they had a disability, although actual numbers have fallen in some cases.

Changes within the system also influenced the numbers of existing workers commencing apprenticeships and traineeships. More existing workers commenced apprenticeships in 2015 than in 2006, while the number of existing workers commencing traineeships dropped over the same time.

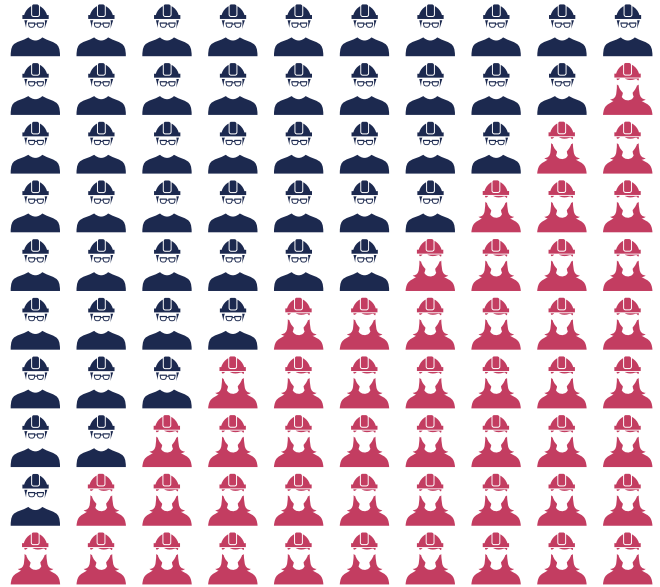
The ages of trainees and apprentices has also changed significantly, with less than half of all apprentices aged 19 years and under in 2015, compared with almost 70 per cent in 2006. Conversely, half of all new trainees in 2015 were aged 19 years and younger while the proportion of trainees twenty years and older declined between 2006 and 2015.



IN 2015 IN QUEENSLAND...

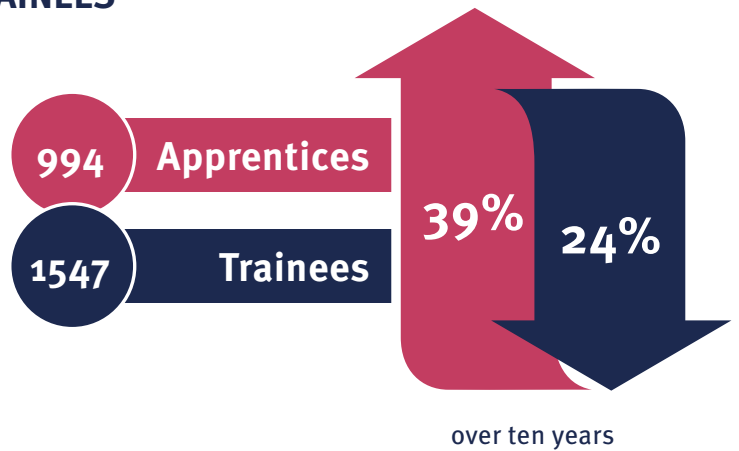
Almost 14% of apprentices were female. The proportion of females was similar to that recorded in 2006.

50.3% of all trainees were male. The majority of trainees have been male since 2013.

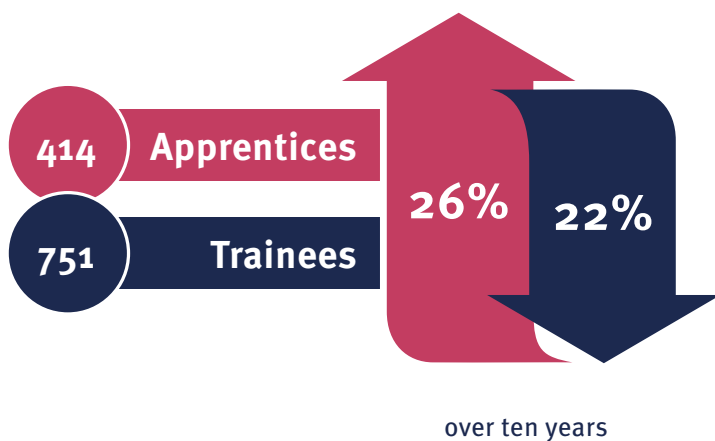


INDIGENOUS APPRENTICES AND TRAINEES*

In 2015, 5.6% of people who commenced apprenticeships and 8.2% of people who commenced traineeships identified as Aboriginal or Torres Strait Islander.



APPRENTICES AND TRAINEES WITH A DISABILITY*



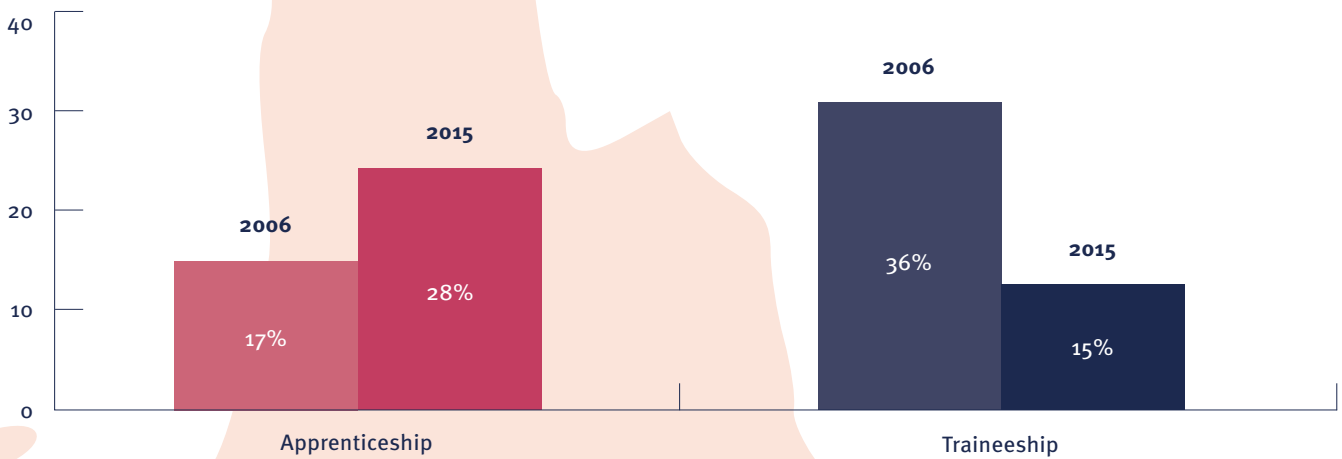
In 2015, 2.4% people who commenced apprenticeships and 4.0% of people who commenced traineeships stated that they had a disability.

*Totals do not include those categorised as "not stated."

BETWEEN 2006 AND 2015...

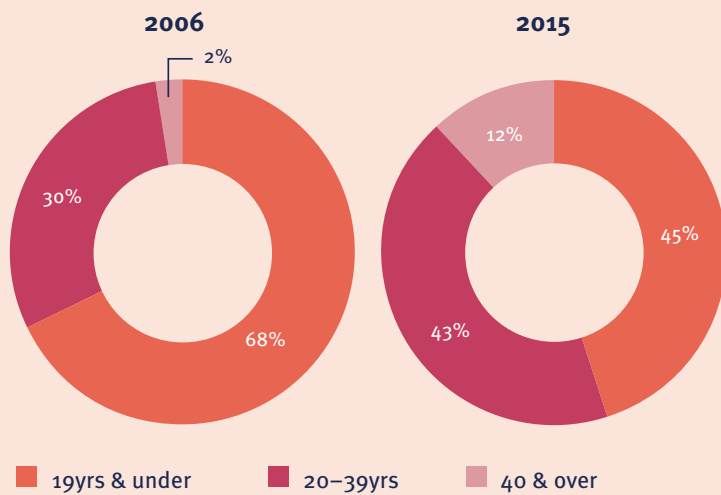
A greater proportion of existing workers commenced apprenticeships, while the percentage commencing traineeships more than halved.

Commencements of Existing Workers into Apprenticeships and Traineeships, 2006 and 2015

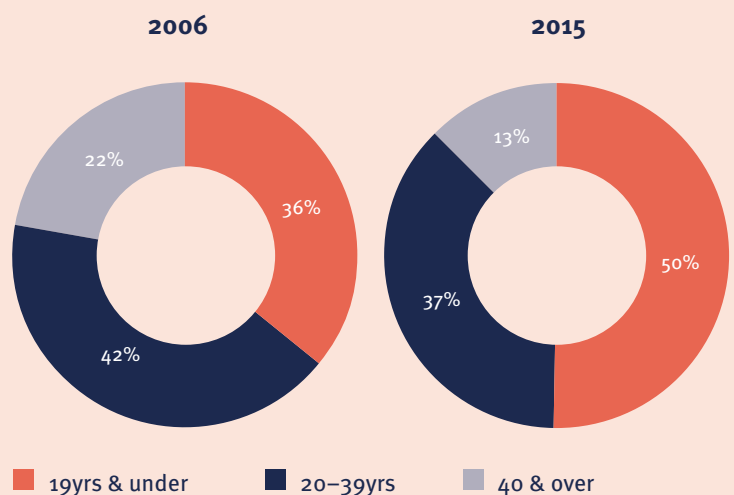


The age of apprentices and trainees changed significantly, with greater proportions of mature aged apprentices alongside greater proportions of young trainees.

APPRENTICESHIPS



TRAINEESHIPS



Over time, the profile of apprentices and trainees has changed with many entering the system with higher qualifications (e.g. Year 12) or experience via unskilled occupations. The change in demographics has implications for the system, which can be geared to school leavers in terms of curriculum, pedagogy and qualification structure.⁶ For instance, off-the-job training may be based around school terms and held during the day to cater for the needs of a younger demographic.

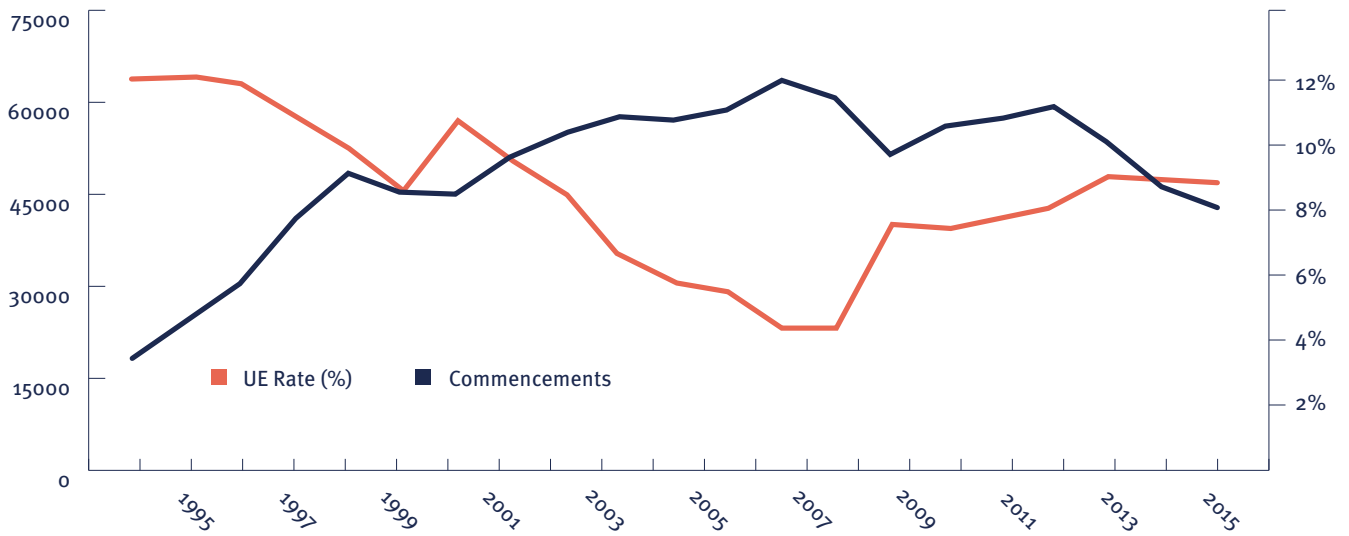
Apprenticeships of shorter duration are increasing for adult apprentices as the accelerated model particularly suits this group. For example, the National Apprenticeships Program utilised an accelerated model to assist mature aged participants with existing trade skills and experience to acquire a qualification in a variety of trades in approximately 18 months.⁷ The option of early completion assists in attracting mature aged workers to those occupations where apprenticeships are the only option for entry. Employers benefit as apprentices spend less time away from work and gain increased productivity from their employees who are qualified more quickly. However research indicates that there may still be some barriers to using processes such as recognition of prior learning to achieve faster progression through an apprenticeship.⁸

The Australian Industry Group identifies persistent literacy and numeracy problems in the Australian workforce.⁹ Mature aged workers commencing apprenticeships and traineeships may have low levels of literacy, numeracy and digital proficiency.¹⁰ These issues are potential barriers to completion for adult apprentices and require different approaches to training.

While the proportion of adult apprentices in 2015 exceeded that of young people, apprenticeships and traineeships remain an important pathway to employment for young Queenslanders. Youth unemployment rose after the Global Financial Crisis, but, unlike the adult rate, failed to fall as economic conditions improved. The proportion of long term unemployed youth has increased and it is taking young people longer to find full-time employment.¹¹ Younger people face a number of challenges in entering the labour market. Their employability is weakened due to their inexperience and low skill levels – issues addressed by apprenticeships and traineeships. As suggested in Figure 3 overleaf, there appears to be a relationship between youth unemployment and the numbers of young people commencing apprenticeships and traineeships.



Figure 3: Commencements in Apprenticeships and Traineeships compared to the Unemployment Rate of 15-24 year olds in Queensland seeking Full-time work



Source: ABS Labour Force, DELTA

As the demographic profile of apprentices and trainees continues to change, the system needs to keep evolving to meet the needs of an older cohort of apprentices and trainees while continuing to function as a pathway to work for young people. An important issue is the opportunity to strengthen apprenticeships and traineeships as a pathway for to boost youth employment.



QUESTIONS:

1. Why has there been a rise in older workers entering apprenticeships and what are the benefits as a result?
2. How would you strengthen the role of apprenticeships and traineeships as a pathway to employment for young people?
3. How would you increase the diversity of people undertaking apprenticeships and traineeships?
4. How could the flexibilities of the apprenticeship and traineeship system be further explained to industry and employers?
5. In your opinion, what is the purpose of the apprenticeship and traineeship system?



3. INCENTIVE PAYMENTS AND APPRENTICESHIPS AND TRAINEESHIPS

Incentive payments have been used by both the Australian and Queensland Governments to encourage employers to participate in the system by subsidising the cost of apprentices and trainees. Incentives have also been introduced (and withdrawn) to address particular economic conditions (such as drought or the Global Financial Crisis), skill shortages and to support particular target groups.

Under the Australian Apprenticeships Incentives Programme, current incentives range from \$750 to \$4000 for each apprentice (including school-based), subject to completion. The Programme also provides additional payments to rural and regional employers and the employers of nominated equity groups and mature aged workers. Support for apprentices and trainees includes Living Away from Home Allowance, Trade Support Loans and tutorial, interpreter and mentor services for eligible apprentices and trainees.

The Queensland Government supplements Australian Government funding according to State economic and industry priorities. Current incentives include a number of traineeship incentives such as First Start (a subsidy paid to local councils to employ additional trainees) and Work Start. Besides direct incentive payments to employers, the Queensland Government also offers payroll tax exemptions and supports the employment of apprentices and trainees via the Building and Construction Training Policy.

Commonwealth incentive payments have changed considerably over the years, moving towards targeting specific areas of skills need, with consequences for participation levels in apprenticeships and, more specifically, traineeships. The 2011-12 abolition of incentives for some qualifications not on the National Skills Needs List (NSNL) saw a sharp increase in commencements in these qualifications, as employers sought to make the most of the scheme before the changes were implemented. There was a steep decline in commencements from 2012 when incentives were withdrawn for all occupations not on the NSNL.

As the occupations on the NSNL are generally trades, the removal of incentive payments had a greater effect on both non-trade apprenticeships (for example, child care centre managers) and traineeships.¹²



Do incentives work?

While the withdrawal of these particular incentives clearly affected the uptake of traineeships at the time, various reviews and analyses have concluded that paying incentives does not necessarily lead to expected policy outcomes. For example, incentives have been considered largely ineffective in producing qualified workers, as they are associated with an increase in the likelihood of cancelling an apprenticeship or traineeship and an accompanying decline in completions.¹³

Other evidence suggests that employer incentives have only a marginal effect on an employer's decision to employ an apprentice or trainee but that support provided to apprentices and trainees is critical to successful completion.¹⁴ However a survey of business conducted by the Chamber of Commerce and Industry, Queensland shows that over half of the respondents indicated that incentives and wage subsidies would encourage them to increase their involvement with the apprenticeship and traineeship system.¹⁵ Most studies agree that targeted incentives are more effective than broad based incentives, which may increase commencements but actually reduce completions as more individuals will prove unsuitable.¹⁶

The impact of incentives may also depend on the approach of a particular business or industry towards apprenticeships and traineeships. Recent research suggests that the trades sector appears more investment-oriented, showing significant training investment and a less severe reaction to withdrawal of incentives than the non-trades sector.¹⁷

Overall, it appears that the effectiveness of incentives depends on:

- the target of the incentive (particular occupations/skill levels/demographic);
- how the incentive is structured (employer/employee based, qualification levels);
- the timing of the incentive (e.g. economic downturn); and
- the dollar value of the incentive.¹⁸



QUESTIONS:

6. What role have incentives played in your interaction with the apprenticeship and traineeship system?
7. Have particular aspects of the incentives schemes influenced you more than others?
8. How could the incentives available be best understood by industry and employers?
9. In what way could incentives assist with the creation of new jobs or productivity improvements in your business or industry?

4. APPRENTICESHIPS AND TRAINEESHIPS ACROSS INDUSTRIES

As the use of apprenticeships and traineeships varies across industries, individual industries display differing rates of commencements and completions. For example, in 2015 the construction industry was both the largest, and fastest growing, employer of apprentices in Queensland. In 2015 this industry commenced over 7,130 apprentices, 67 per cent more than they employed in 2011. However apprenticeship commencements in other industries such as manufacturing and other services (which includes automotive repair and maintenance and personal services such as hairdressing) fell over the last five years.

Traineeship commencements declined across all industries between 2012 and 2015 in line with policy settings. The Construction industry recorded the smallest decline (35 per cent) while traineeship commencements in the Transport, Postal and Warehousing industry experienced the largest fall.⁴⁹ This is not necessarily an indicator that entry-level training declined in these proportions as it may indicate that employers were moving to other training options, such as the Certificate 3 Guarantee, to source their employees. Jobs Queensland is interested in other training pathways into industry and will be exploring this issue as part of the project.

There are a number of reasons for the differences across industries including:

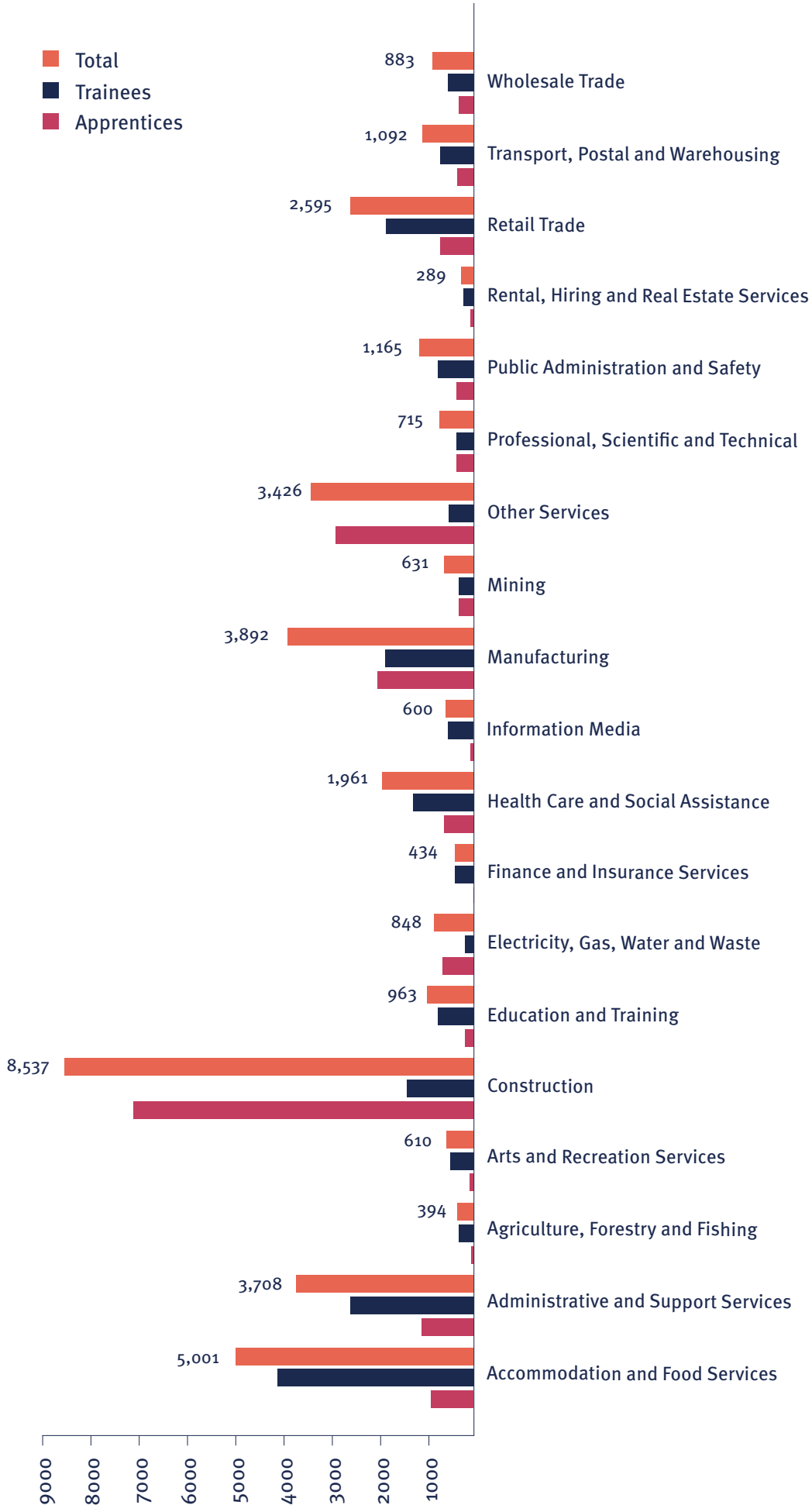
- general economic or business conditions;
- placement on the National Skills List or designation of particular industries as “priority”;
- changes to incentives and industry funding;
- availability of training, particularly in regional and remote areas;
- industry wages and conditions;
- levels of casualisation, sub-contracting or seasonality;
- degree of specialisation within an industry;
- industry profile; and
- industry preference for other modes of training including training on-the-job.



QUESTIONS:

10. Do you use training methods that include work based learning (e.g. apprenticeships and traineeships) or institutional pathways (e.g. Certificate 3 Guarantee)? Why?
11. Are there features of your business/industry which impacts on the employment of apprentices or trainees?
12. Can you describe any initiatives introduced to address them?
13. What would make apprenticeships and traineeships more attractive to your industry?

Figure 4: Commencements by Industry, 2015, Queensland



Source: DELTA

5. RETENTION AND OUTCOMES

While commencements in the apprenticeship and traineeship system are important, completions act as a benchmark of the success of the system as a pathway to employment. Data from the Australian Government shows that, nationally, more than 84 per cent of apprentices and trainees were employed six months after completing their training.²⁰ International and interstate studies have also shown that there are both significant productivity gains made when apprentices and trainees finish their program and significant costs to an economy from non-completion.²¹ Overall, around one third of all apprentices and trainees do not complete their training (although these rates vary across industries). Of those apprentices and trainees who do not complete, 60 per cent leave in their first year.²²

Completion rates for apprenticeships and traineeships are difficult to calculate, given their competency based nature, the different times taken to complete different qualifications and the unavoidable lag in reporting. Basic completion data may also mask the fact that some of those who withdraw from an apprenticeship or traineeship do so only temporarily and go on to complete their apprenticeship or traineeship with another employer.²³

The National Centre for Vocational Education Research (NCVER) provides estimates for individual completion rates, the proportion of apprentices who started in a particular year and eventually completed their training in the same occupation in which they began, but not necessarily with the same employer.²⁴ In 2011, the individual completion rate for all occupations in Queensland was 60.9 per cent, up from 58.6 per cent in 2010.²⁵ Completion rates vary across occupations and industries, with age, location and education levels all found to influence completion rates.²⁶ Completion rates are often higher in those occupations where a qualification is mandatory, such as electrician or childcare worker.²⁷

Research shows that apprentices and trainees are most likely to leave their jobs due to employment related reasons, rather than issues around off-the-job training. The most common reasons include:²⁸

Main reason that apprentices and trainees leave their jobs	In a trade occupation (%)
Problems with the employment experience	33.4
Did not get on with boss or other people at work	16.2
Poor working conditions	3.1
Low pay	8.7
Not happy with on-the-job training	5.4
Didn't like the work or industry	16.9
Did not like the type of work	10.2
Not happy with the job prospects in the industry	3.6
Transferred to another apprenticeship/traineeship	3.1
Do something different/better	14.6
Left job/changed career	9.4
Got offered a better job	3.3
Left to study elsewhere	1.9
Lost job/discontinued	12.1
Lost job or made redundant	8.9
Apprenticeship cancelled or discontinued	3.2
Off-the-job training problems	2.8
Not happy with off-the-job training	1.4
Study was too difficult	1.4
Other reasons	20.2
Personal reasons	10.0
Other	10.2

As is suggested by these findings, employers have a major role to play in terms of apprenticeship and traineeship completions. Studies suggest that employers with the highest completion rates tend to be larger employers, experienced in employing apprentices and/or trainees, with well-organised systems for recruiting and administering apprenticeships and traineeships. A survey of employers in industries experiencing skill shortages identified other characteristics associated with employers with low, medium and high retention rates. These are summarised below:²⁹

Completion Rate			
	Low (<50%) “Traditionalists”	Medium (50-69%) “Boss at the crossroads”	High (70% +) “Trademakers”
Business Characteristics	<p>Generally have 1-15 employees</p> <p>In operation for under 5 years</p> <p>No HR department</p> <p>Financial incentives are seen as important</p> <p>Usually employed one apprentice at a time</p> <p>Tend not to be influenced by industry bodies and do not seek advice.</p>	<p>Generally have 1-15 employees</p> <p>Have someone to help out with HR matters</p> <p>Financial incentives are seen as less important</p> <p>Usually employ 2-3 apprentices at one time</p> <p>More likely to be influenced by industry bodies and outside advice.</p>	<p>Generally have 50 + employees in operation for 10 years or more (may be highly experienced smaller employers)</p> <p>Have a HR department</p> <p>Financial incentives are seen as less important</p> <p>Usually employ several apprentices at one time</p> <p>More likely to be influenced by industry bodies and outside advice.</p>

The attitude of employers towards the apprenticeship and traineeship system was also found to be a factor. “Trademakers” tend to hold positive attitudes towards the apprenticeship system and their apprentices and have realistic expectations of their employees. They tend to believe that apprentices make good business sense and can identify a return on their investment in their first year. At the other end of the spectrum, “traditionalists” may see apprentices as costly and not see a return on their investment until the final year of an apprenticeship. They may lack the mentoring and training skills necessary to support their apprentices. “Boss at the crossroads” may also lack the skills and confidence necessary to consistently retain apprentices and trainees while holding similar positive attitudes towards the system as trademakers.³⁰

The provision for GTOs to be the employers of apprentices and trainees was introduced to expedite small-business involvement (such as the typical “traditionalist” or “boss at the crossroads”) and reduce the administration costs and management risks of recruiting and employing an apprentice or trainee.³¹ Group training can assist small and medium sized enterprises that may otherwise see committing to an apprenticeship or traineeship as too risky, lack the resources to effectively manage an apprentice and trainee or are unable to provide the breadth of on-the-job training and skills development required for an apprenticeship for businesses.³² The Queensland Government has continued to provide funding support to GTOs in the context of funding being withdrawn by the Federal Government.

“...more than 84 per cent of apprentices and trainees were employed six months after completing their training.”

Of course, the skills and attitude of the employee play a role in the completion of an apprenticeship or traineeship. Attributes that may impact on the outcomes for an apprentice include:

- Background, including family, learning and work experience
- Passion for the Trade, the 'first choice' option
- Appreciation of the pay off at the end of the apprenticeship
- Realism in expectations about the apprenticeship
- Options for mobility, plans and perceived value of different choices
- Readiness to look for something better, more challenges or different work
- Work style, preferences for hands on or outdoor work.³³

Further, once employed, apprentices have been identified as more likely to complete their apprenticeship if they experience good working conditions, fair pay and progression, a good boss and real skills training. Although wages are not always the main reason given by apprentices for leaving, they do appear to play a role in retention, as companies with high retention rates often pay their apprentices and trainees above the required rates.³⁴

There have been numerous recommendations advanced to increase completion rates among apprentices and trainees, including:

- Ensuring prospective apprentices and trainees have an understanding of the realities of the system. This could be encouraged via better career advice and guidance at schools (including the promotion of apprenticeships and traineeships)³⁵ and greater use of pre-apprenticeship programs,³⁶ including realistic job previews;³⁷
- Programs to support financial literacy and personal budgeting for apprentices and trainees;³⁸
- More rigorous recruitment practices including aptitude testing and enhanced matching of apprentices to workplaces;³⁹
- Employer screening to assure the integrity and quality of work-based training. This recommendation includes the participation of employers in an accreditation scheme prior to employing an apprentice or trainee and the development of a scheme recognising employers who provide high quality training, mentoring and support for their apprentices or trainees;⁴⁰
- Additional support and guidance for employers (especially smaller and less-experienced employers) to develop a structured approach to training and monitoring;⁴¹ and
- Integrated mentoring, pastoral and social support of apprentices, both formally and informally.⁴²

Many of these strategies may be easier to implement if the employer is a larger, well-established company with formal systems in place than if the employer is a small start-up company.

The Australian Government replaced Australian Apprenticeship Centres with the Australian Apprenticeship Support Network in July 2015. Apprenticeship Network providers are contracted to provide advice and support services tailored to the needs of employers and apprentices throughout the apprenticeship lifecycle – from pre-commencement to completion. This includes services for both employers and apprentices such as essential administrative support, payment processing and regular contact. In addition, more targeted services such as screening, testing, job-matching and mentoring are provided to those assessed as needing additional support to complete the apprenticeship and traineeship.⁴³



QUESTIONS:

14. What are the key success factors in the completion of apprenticeships and traineeships?
15. What support is important in assisting small to medium businesses participate successfully in the apprenticeship and traineeship system?
16. What would be needed for larger employers to increase engagement with the system?



6. SATISFACTION AND QUALITY

While quality is often mentioned in conjunction with the apprenticeship and traineeship system, what is meant by quality? Stakeholders may view quality in a variety of ways. For instance, a trainee may judge quality according to their probability of ongoing employment after completion, while an employer may determine quality based on the capacity of that apprenticeship or traineeship to produce competent employees. Governments may define quality based on any increase in employment generated by their investment while regulators might be more technically-focused, overseeing quality standards.⁴⁴

In 2015, the NCVER reported that more than one quarter of Queensland employers employed apprentices and trainees and of these, 82.7 per cent were satisfied that their apprentices and trainees were obtaining the skills they required through training. This satisfaction level was second only to South Australia and slightly higher than the national rate.⁴⁵

A variety of reasons were given by Australian employers for their dissatisfaction including:

- Training of poor quality or low standard
- Relevant skills not taught
- Not enough focus on practical skills
- Training is too general and not specific enough
- Instructors do not have enough industry experience
- Insufficient communication between training provider and employment agency
- Poor access to training in regional/rural areas
- Apprentice/trainee had a poor attitude
- Access and the amount of funding available
- Training content is outdated

Nationally, the vast majority of apprentices and trainees were satisfied with the quality of their training (88.5 per cent). Another potential indicator of quality, post-training employment rates, shows that 84.1 per cent were employed after their training finished.⁴⁶ Research is currently underway to clarify these differing definitions of “quality” and Jobs Queensland will explore this concept as part of this project.



QUESTIONS:

17. How would you define quality in an apprenticeship and traineeship system?
18. Are you satisfied with the current apprenticeship and traineeship system? Why?
19. What strategies could further improve the quality of the current system?

7. PRE-EMPLOYMENT APPRENTICESHIP AND TRAINEESHIP PROGRAMS

While there is no nationally consistent definition, there are a range of features of pre-employment apprenticeship and traineeship programs, which:

- provide trade-specific and general skills that prepare a student for an apprenticeship or traineeship and, in effect, lower the cost of training for employers;
- act as a screening tool, assisting an employer to assess the quality of a prospective employee and students to assess their commitment to an apprenticeship or traineeship; and
- bridge temporary gaps between the supply and demand for apprentices and trainees.⁴⁷

Articulation into a formal training contract may vary according to industry and the rates of articulation are higher when rigorous selection criteria are applied.⁴⁸ However even when participants in pre-employment programs fail to articulate, research shows that programs improve literacy, numeracy and employability and that participants often go on to further education and training.⁴⁹

A number of studies have shown that pre-employment programs have a positive influence on apprenticeship and traineeship completion rates through addressing a chief cause of non-completion – the mismatch between the expectations of a new apprentice/trainee with the reality of life in the occupation.⁵⁰ However, completion rates may vary according to the industry and previous level of education.⁵¹

Industry response to pre-employment apprenticeship and traineeship programs is varied but mostly positive. Some employers view a pre-employment qualification as an indicator of vocational interest and understanding of the trade; others employers value programs for the employability skills gained, such as time management or teamwork. However, there are reports that pre-employment programs may be losing appeal to employers due to the increased rate of Year 12 completion, with employers viewing this as a better indicator of likely apprenticeship or traineeship competition.⁵²



CASE STUDY: Trade Certificate Training for Secondary Students

The Western Technical Excellence Centre (WesTEC), funded via the Trade Training Centres in Schools Program, is located on the campus of Woodcrest State College in Springfield. The centre partners with TAFE Queensland South West to provide a range of certificate courses to prepare students in Year 10, 11 and 12 for employment. In 2016, WesTEC offered pre-apprenticeship courses in engineering and automotive underbody and pre-traineeship qualifications in logistics. Entry to the program involves an Expression of Interest followed by a formal application and interview process. Of the 16 students who were enrolled in the engineering course in 2015, 14 successfully completed it and three went onto a school-based apprenticeship. In the same year, 29 out of the 30 students enrolled in Certificate II Automotive Servicing Technology successfully completed the program and six entered a school-based apprenticeship. All of the 45 students enrolled in the Logistics program successfully completed their qualification and four students entered into a school-based traineeship.



QUESTIONS:

20. What is your awareness of, or experience with, pre-employment apprenticeship and traineeship programs?
21. Do you value these programs as a pre-employment pathway? Why?
22. What would enhance the value of pre-employment apprenticeship and traineeship programs for both employers and participants?

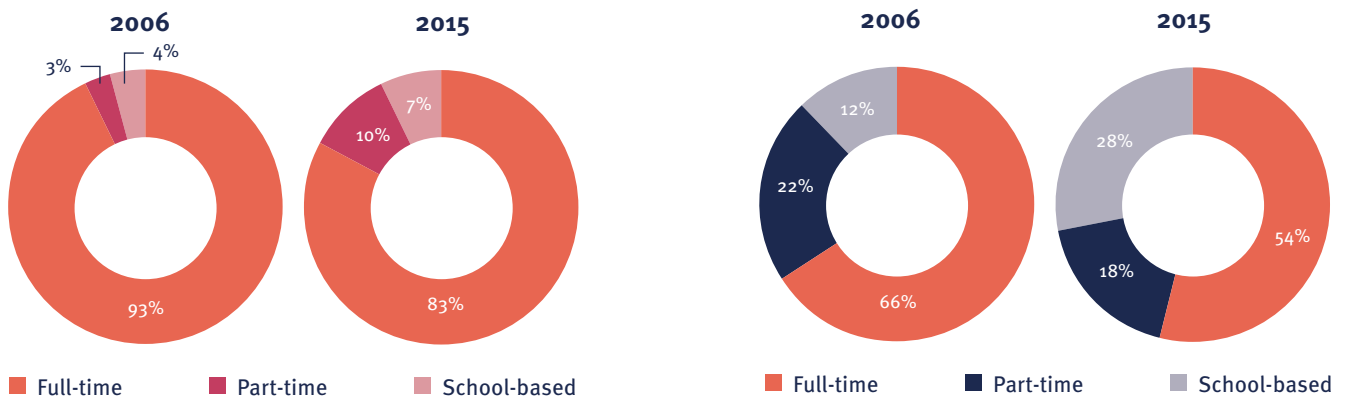
8. SCHOOL-BASED APPRENTICESHIPS AND TRAINEESHIPS

In the 1990s, the VET system expanded into schools to both encourage school retention and instil school leavers with skills more attractive to employers. School based apprenticeships were introduced nationally in 1996, whereby students could combine part-time work with vocational training and school studies.⁵³

BETWEEN 2006 AND 2015...

The percentage of full-time apprentices fell while both part-time and school-based increased.

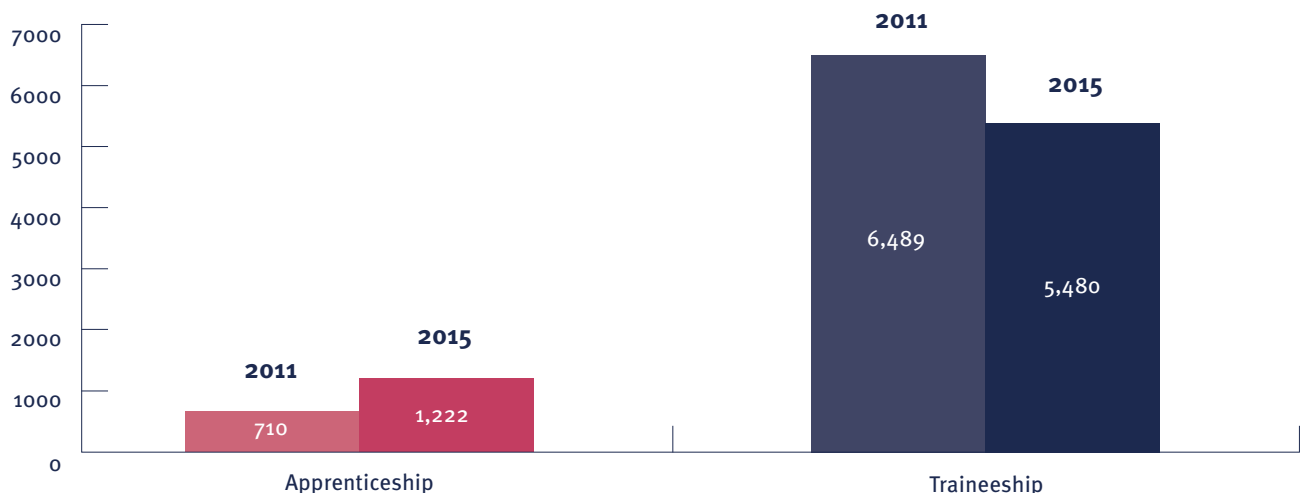
The percentage of part-time and full-time trainees fell while the proportion of school-based trainees more than doubled.



The uptake of school-based apprenticeships and traineeships (SAT) by young people typically increases during economic downturns when employment is hard to find. However some industry bodies such as the Australian Industry Group believe that these employment pathways are presently under-utilised, due, perhaps, to the expansion of other training options or pathways into employment for young people.⁵⁴

Participation in SATs has traditionally been very strong in Queensland. Over the last five years, school-based apprenticeships have increased by over 70 per cent while school-based traineeships fell by 15 per cent.

Figure 5: Commencements, School-Based Apprenticeships and Traineeships, Queensland



Source: DELTA

SATs provide students with a greater understanding of a particular occupation and industry. Early studies show that participants in SATs identify a number of positives, such as the level of responsibility, structured learning and working with adults rather than teenagers (as they might in a typical part-time job).

Based on our desk top review, most studies relating to SATs appear dated, suggesting a potential need for further research in this area.



QUESTIONS:

23. What has been your experience with school-based apprenticeships and traineeships?
24. How has the school-based apprenticeship and traineeship system met your needs?
25. Please provide examples of school-based apprenticeships and traineeships proving to be a valuable employment pathway.
26. What enhancements would you suggest to school-based apprenticeships and traineeships?



9. TECHNOLOGICAL CHANGE AND APPRENTICESHIPS AND TRAINEESHIPS

Digital disruption is frequently identified as a key driver of change for economies, jobs and skills needs. Research by the World Economic Forum identified that technology may be the driver of a ‘fourth industrial revolution’ although opinions about the impacts of change, alongside broader socioeconomic, geopolitical and demographic drivers, are mixed. The report notes that the effects are likely to be “highly specific to the industry, region and occupation in question and the ability of various stakeholders to successfully manage change”.⁵⁵

In Australia, research by CSIRO also highlighted the impact of technology on jobs now and in the future.⁵⁶ This has implications for the apprenticeship and traineeship system in terms of the knowledge, skills and experience to be acquired by apprentices and trainees and the way in which these are acquired. The existing flexibility in the system, as demonstrated by models such as hairdressing and aviation, may need further exploration. The speed with which digital disruption occurs also has implications for the current process for altering or updating accredited VET courses, which necessitates extensive and timely consultation and may limit the system’s ability to respond in a timely manner to changes in workplace practices and skills requirements.⁵⁷

Digital disruption affords both risks and opportunities and various commentators have identified a series of trends that will shape the future of work, such as automation and collaboration.⁵⁸

Automation

As technologies develop at an ever-expanding rate, the possibility of automation of more complex routine and non-routine tasks arises. Automation has typically worked from the bottom up, removing low skill, entry level jobs first.⁵⁹ It brings with it the likelihood that some occupations will become completely automated within the medium term (while new work opportunities will emerge). One of the challenges for the VET system is balancing the current skills needs of industry while providing young people with the skills for a potentially different future.⁶⁰ Jobs growth has been argued to be highest in occupations requiring communications skills and lowest in those preferencing technical skills (such as equipment maintenance). However VET students may be more likely to be entering occupations which require high levels of technical skills and are less likely to work in those occupations requiring communications skills.⁶¹

As the use of automated systems progresses, it is likely that higher level skills will become necessary for entry level positions. While there is existing flexibility in the current model to accommodate higher level skills, questions remain around the funding of new approaches. Some industry groups have suggested a redesign of the apprenticeship system may be necessary to develop higher level trade and para-professional skills across the economy.⁶² Ai Group, in collaboration with Swinbourne University of Technology, is overseeing a pilot project whereby 20 participants will combine participation in a Diploma and Associate Degree in Applied Technologies with employment with Siemens Ltd to develop the higher-level skills needed in advanced manufacturing.

Collaboration

Conventionally, employment in Australia involves indefinite full-time employment with a single employer. However digital technology and the expansion of the peer to peer economy (e.g. Freelancer, Uber) is argued to be accelerating a move towards more flexible employment models and a rise in part-time and temporary work.

Recent data estimates that around 32 per cent of Australia’s workforce is engaged in some sort of flexible work arrangement and this figure is expected to rise.⁶³ The CSIRO suggest that, in future, companies may consist of a core group of employees supplemented by a network of freelance workers to perform a variety of tasks.⁶⁴ Any widespread decline in the traditional employer-employee relationship has implications for the traditional contract-based model of apprenticeships and traineeships.

The peer to peer market enables the offering of a greater range of services and means that even minor tasks can be efficiently outsourced to the market. As these networks expand and technology lowers barriers to entry, greater numbers of small businesses may emerge providing niche services. The combination of increased specialisation and independent contracting may make it difficult for these contractors to provide apprenticeships and traineeships as it is unlikely they will be able to commit to an ongoing contractual relationship or deliver the necessary broad-based training.

Digital disruption may impact on the way in which off-the-job training is delivered. It is probable that digital delivery will play a larger role, including augmented reality, mobile learning and simulated learning environments.⁶⁶



CASE STUDY: Construction and technology

In conjunction with CSIRO, Construction Skills Queensland (CSQ) has released a report examining the future of the construction industry in Queensland and what it means for jobs and skills. The report contains four scenarios which include implications for the future of work in the industry. In formulating these scenarios, the CSIRO and CSQ identified a number of social, technological, environmental, economic, educational and political trends affecting the construction industry and the future skills needed by workers. CSQ noted that digital literacy, technological savviness, innovation management and entrepreneurship may be competencies in demand in the construction jobs of the future.

While apprenticeships in the construction industry have been an excellent model for skills formation, the stability of some construction occupations is changing, driven by an increase in the specialisation of work and the fragmentation of parts of the industry into small, often self-employed, subcontractors. As specialisation progresses, the capacity of all employers to expose apprentices to the full range of skills necessary to achieve a qualification diminishes. This trend is likely to accelerate as technology increases specialisation, and economic conditions emphasise networks of autonomous workers.

To survive these challenges, the apprenticeship model will need to adapt and become flexible enough to continue to meet the needs of the future workplace. Competency and skills will need to reflect the requirements of industry and the training products (and those delivering training) will need to keep abreast with changes. This may include the adaptation of high-fidelity training simulators, moves to modular skills training and the development of skills to deal with jobs based around digital literacy, agile project management and prefabrication.

Historical trades and jobs will continue to play a role but will sit alongside a growing workforce of technicians and knowledge professionals in robotics engineering and programming to support automation in the industry.⁶⁵



QUESTIONS:

27. To what extent is increased specialisation a feature of your industry?
28. How is this affecting your participation in the apprenticeship and traineeship system?
29. What is the tolerance of industry to the use of simulation within the apprenticeship and traineeship system?
30. How is technology changing the training requirements of apprentices and trainees in your industry?
31. What changes could assist apprenticeships and traineeships continue to meet the challenges of technological change?

10. HOW TO HAVE YOUR SAY

You are invited to provide a submission on the questions listed below via our website at www.jobsqueensland.qld.gov.au or by email to engagement@jobsqueensland.qld.gov.au no later than 20 December 2016.

Copies of this publication are available on our website at www.jobsqueensland.qld.gov.au and further copies are available upon request to Jobs Queensland, phone: (07) 3436 6190. Jobs Queensland will be undertaking extensive engagement across industries and regions in late 2016 and early 2017. The full schedule is available on our website.

1. Why has there been a rise in older workers entering apprenticeships and what are the benefits as a result?
2. How would you strengthen the role of apprenticeships and traineeships as a pathway to employment for young people?
3. How would you increase the diversity of people undertaking apprenticeships and traineeships?
4. How could the flexibilities of the apprenticeship and traineeship system be further explained to industry and employers?
5. In your opinion, what is the purpose of the apprenticeship and traineeship system?
6. What role have incentives played in your interaction with the apprenticeship and traineeship system?
7. Have particular aspects of the incentives schemes influenced you more than others?
8. How could the incentives available be best understood by industry and employers?
9. In what way could incentives assist with the creation of new jobs or productivity improvements in your business or industry?
10. Do you use training methods that include work based learning (e.g. apprenticeships and traineeships) or institutional pathways (e.g. Certificate 3 Guarantee)? Why?
11. Are there features of your business/industry which impacts on the employment of apprentices or trainees?
12. Can you describe any initiatives introduced to address them?
13. What would make apprenticeships and traineeships more attractive to your industry?
14. What are the key success factors in the completion of apprenticeships and traineeships?
15. What support is important in assisting small to medium businesses participate successfully in the apprenticeship and traineeship system?
16. What would be needed for larger employers to increase engagement with the system?
17. How would you define quality in an apprenticeship and traineeship system?
18. Are you satisfied with the current apprenticeship and traineeship system? Why?
19. What strategies could further improve the quality of the current system?
20. What is your awareness of, or experience with, pre-employment apprenticeship and traineeship programs?
21. Do you value these programs as a pre-employment pathway? Why?
22. What would enhance the value of pre-employment apprenticeship and traineeship programs for both employers and participants?
23. What has been your experience with school-based apprenticeships and traineeships?
24. How has the school-based apprenticeship and traineeship system met your needs?
25. Please provide examples of school-based apprenticeships and traineeships proving to be a valuable employment pathway.
26. What enhancements would you suggest to school-based apprenticeships and traineeships?
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