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INTRODUCTION
Reforms to the apprenticeship system over the past 20 years have focused on broadening and enhancing the system to benefit both apprentices and employers.

The purpose of this research summary is to provide evidence of change during this time, with a focus on measures that have facilitated more flexibility in the system; for example, initiatives to encourage the growth of adult apprentices — aged 25 years and over — and alternative training models. A comparison between trade and non-trade apprentices is also included.

An accompanying interactive infographic, which enables you to filter data, is available at <https://www.ncver.edu.au/data/data/infographics/changing-nature-of-apprenticeships-1996-2016-infographic>

HIGHLIGHTS

- Adult apprentices now represent a significant proportion of all apprentices in training, with 28% in the trades and 45% in the non-trades compared with 8% and 22% respectively, 20 years ago.
- For the first time since 1996, a decline in the number of non-trade apprentices has resulted in the proportion of trade and non-trade apprentices converging, across both age groups, but more so for the younger group.
- The increasing prevalence of and support for alternative models of apprenticeship delivery, in particular, the proportion of adult apprentices completing a trade apprenticeship in two years or fewer, has increased markedly over time, from around 28% in 1996 to over 50% in 2016.
- Adult trade apprentice completion rates have steadily increased over time, while younger trade apprentice completion rates are on a slow but steady decline.
Apprenticeships are a significant and long-standing element of Australia’s approach to skill development and workforce participation. The core feature of the apprenticeship model, which integrates on- and off-the-job training and establishes a contract between the employer, apprentice and training provider, has stood the test of time. However, various features of the apprenticeship system have changed — primarily with the aim of improving the responsiveness of the system to meet fluctuating labour market demands and to help in areas of skill shortages (Couldrey & Loveder 2017; Atkinson & Stanwick 2016).

The expansion of the system first occurred in 1985 with the extension of the occupational range of apprenticeships through the introduction of traineeships, a result of the Kirby report (Kirby, P 1985). When first introduced, traineeships were of shorter duration and at lower-level qualifications than trade apprenticeships, although this is now not always the case and varies by jurisdiction.

A more general broadening of the apprenticeship system occurred in the mid-1990s and was supported through various, predominantly government, programs and initiatives. These included the introduction of incentives for both employers and apprentices and trainees, although many national and state/territory-based incentives have now gone, or changed over time (Atkinson & Stanwick 2016; Hargreaves & Blomberg 2015). The expansion also included the provision of apprenticeships for part-time workers and existing workers, pre-apprenticeships, school-based apprenticeships and apprenticeships for people from disadvantaged backgrounds. Notably, apprenticeships became available across all age groups, shifting the focus from school leavers.

It is against this diverse policy backdrop that we consider a high-level snapshot of activity in the apprenticeship system since 1996, examining in particular adult apprentices — those aged 25—64 years — by comparison with younger apprentices, those aged 15—24 years. Comparisons are also made between trade and non-trade apprenticeships and traineeships.

While NCVER produces an annual collection1 of apprentice and trainee data in addition to regular quarterly reports, the primary purpose of this research summary is to consolidate the significant activity and trends across a 20-year period, the aim being to raise awareness about the changing nature and enhanced flexibility of the apprenticeship system. The research summary is also a response to a demand for more trend analysis and evidence to guide future reform activities (Couldrey & Loveder 2017).

Adult apprentices now form a significant proportion of all apprentices. As of 2016, adult apprentices represented 28% of trade apprentices and 45% of non-trade apprentices in training, compared with 8% and 22% respectively in 1996.  

Figures 1 and 2 show these trends explicitly in terms of the rate of apprenticeship commencements as a proportion of the relevant age group labour force over a 20-year period for both younger apprentices, aged 15–24 years (figure 1), and adult apprentices, aged 25–64 years (figure 2).

**Figure 1** Apprenticeship and traineeship commencement rates by trade/non-trade occupations for 15 to 24-year-olds, 1996–2016 (%)

Note: Commencements are based on financial year starting from July 1995 to June 1996 and ending with July 2015 to June 2016. The rate is expressed as commencements as a proportion of the 15 to 24-year-old labour force.  
Source: NCVER National Apprentice and Trainee Collection, September 2016; ABS Labour force Australia cat. no. 6291.0.55.001, cube LM1.

**Figure 2** Apprenticeship and traineeship commencement rates by trade/non-trade occupations for 25 to 64-year-olds, 1996–2016 (%)

Note: Commencements are based on financial year starting from July 1995 to June 1996 and ending with July 2015 to June 2016. The rate is expressed as commencements as a proportion of the 25 to 64-year-old labour force.  
Source: NCVER National Apprentice and Trainee Collection, September 2016; ABS Labour force Australia cat. no. 6291.0.55.001, cube LM1.

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2 Data sourced from NCVER National Apprentice and Trainee Collection, June quarter 2016.
Various policy changes and the introduction of incentives over the last decade have contributed to the growth in adult apprentices, in particular the Support for Mid-Career Apprentices initiative which was introduced in July 2007. In addition, changes in the economy during this time may have influenced whether individuals commenced a new trade, with movement into growth sectors during boom times or retreat from declining sectors, such as manufacturing, during an economic downturn (Hargreaves & Blomberg 2015). However, data from 2014 suggests a declining trend in the numbers of adult apprentices. This may in part be occurring as a result of the discontinuation and changes to incentive arrangements for mature-age apprentices and existing workers under the Commonwealth Australian Apprentices Incentives Program (Hargreaves & Blomberg 2015).

Non-trade apprenticeships increased at a much faster rate than trade apprenticeships until around 2003, before levelling off. Also noticeable are the peaks and troughs, primarily as a result of non-trade apprenticeships being sensitive to incentive payments, economic conditions and the structure of the labour market. The marked decline in the rate of non-trade apprentices since 2012 is most likely a result of the withdrawal of incentives for occupations not on the National Skills Need List (Atkinson & Stanwick 2016).
DISTINGUISHING CHARACTERISTICS

What are the typical characteristics of an older apprentice?

For both trade (figure 3) and non-trade (figure 4) apprentices, those in the adult group are much more likely to:

- be an existing worker
- have a highest previous qualification of certificate III or above
- be undertaking a qualification at certificate IV level or above.

In terms of gender, there is little difference between age groups in the trades; however, the younger non-trade apprentices and trainees are somewhat more likely to be female.

**Figure 3** Selected characteristics of in-training trades apprentices by age, March quarter 2016 (%)

**Figure 4** Selected characteristics of in-training non-trade apprentices by age, March quarter 2016 (%)

The prevalence of adult apprentices undertaking training at higher Australian Qualifications Framework (AQF) levels highlights the need for pathways beyond a certificate IV, such as diploma and associate degrees, and was a key recommendation from a stakeholder forum on the future of Australian apprenticeships held in October 2016 (Couldrey & Loveder 2017).

Recent reforms in the United Kingdom signal the potential for the broader application of a higher apprenticeships model, with evidence of high completion rates, better staff retention and strong return on investment (Mirza-Davies 2016). These reforms, particularly the establishment of higher apprenticeships, reflect a determination to lift workforce skills in advanced technology, construction and digital media and to attract those students not going to university. Entry standards for higher apprenticeships are more rigorous and the training blends vocational and university courses in response to companies seeking more employable apprentices (Fowler 2016).

A pilot program, one of a number supported by the Australian Government (Andrews 2016) and involving a collaboration between Siemens Ltd and Swinburne University of Technology, will explore the benefits of apprenticeship skills through the delivery of the new Diploma and Associate Degree in Applied Technologies. However, as Fowler points out:

The practicalities of establishing higher-level apprenticeships, encompassing both VET and higher education components and employment — allowing on- and off-the-job training — requires multiple willing actors to navigate jurisdictional systems and AQF levels (Fowler 2017, p.19).

Fowler further highlights:

The ability to swiftly implement and replicate such practices, nationwide, given that the apprenticeship system is legally the domain of the states and territories, will depend on imaginative jurisdictional-level initiatives and require local industry to work with willing VET/higher education providers. So if the apprentice model, with its inherent excellence, is to be elevated to include levels AQF 5 and 6, then cooperative arrangements to sort all legal, policy, institutional and funding issues need to be put into place to fast-track such initiatives (Fowler 2017, pp.19–20).
Reasons for becoming an adult apprentice

Adult and younger apprentices differ in their reasons for choosing an apprenticeship or traineeship pathway (figure 5). The motivations of younger apprentices are strongly focused on entrance to the labour market, as would be expected. Adult apprentices, many of whom are existing workers, have more diverse reasons for undertaking an apprenticeship, including career advancement and further skills acquisition, as well as a need or desire to change careers. Further study and personal development were less likely motivations for undertaking the apprenticeship for both groups.

Figure 5 Employment-related reasons for undertaking training, 15 to 24 and 25 to 64-year-olds, by trade or non-trade apprenticeship, 2016 (%)

Note: The top five reasons only are shown here. In addition the category ‘Other’ includes: develop or start my own business, try for a different career and get a better job or promotion. The proportions for trades (in both age groups) going on to further study should be treated with caution as they have a relative standard error of greater than 25%.

The importance of alternative pathways and models

While an apprenticeship offers the chance to reskill for a new occupation or a different industry sector, entering a three- or four-year training pathway mid-career is not always a pragmatic option. Recognition of prior learning (RPL) and flexible pathway models are alternative options available to apprentices and trainees, facilitating the completion of their program in a shorter amount of time than may otherwise be the case.

Indeed, there is broad recognition of the importance of alternative models of apprenticeship delivery for meeting the distinct requirements of employers and individuals, without the need to implement structural change to the system in order to facilitate their delivery (Commonwealth Government 2016).

Recognition of prior learning

Recognition of prior learning can be applied based on prior skills and experience, previous study, or both. Students may have their training shortened due to RPL, although this does not occur for all students who have prior skills and experience.

Figure 6 shows the proportions of subjects that were granted recognition of prior learning or current competency for trades apprentices. Not surprisingly, adult trade apprentices access RPL to a substantially greater extent than the younger trade apprentice. The proportion has substantially increased over time (apart from the last year or two) and even more so for the adult apprentices. Adult apprentices also have higher rates of RPL in the non-trade areas, although their rates are lower than in the trades overall.

Further information on RPL requested versus RPL granted and the apprentice’s prior skills and experience can be determined from NCVER’s Student Outcomes Survey. Figure 7 shows that adult apprentice and trainee graduates were more likely to have their training shortened based on previous experience and skills, particularly in the trades. Indeed, about 40% of adult apprentice graduates reported having their training shortened as a result of prior experience and skills.

However, it is also worth noting that levels of RPL for trade apprentices are still markedly low when compared with other peer-age students and trainees (Hargreaves & Blomberg 2015). In addition, about 30% of apprentice graduates (young and adult, and both trade and non-trade) had prior experience and skills but did not have their training shortened. While it is recognised that some individuals prefer to undertake the training over the RPL option, for others it appears that RPL is still not being offered by all publicly funded training providers — or that students are not fully aware of their options (Hargreaves & Blomberg 2015).

Figure 7  Recognition of prior learning outcomes for adult and young graduates with prior experience and skills, by trade or non-trade apprenticeship, 2015 (%)

‘The challenge lies not only in supporting the development of new models — this is happening organically — but in unlocking the flexibility in the system on a broader scale, addressing workplace relations issues, promoting flexible options and supporting employers (particularly small and medium enterprises), individuals and registered training organisations to access them, and ensuring industry acceptance of alternative pathways, their quality and outcomes’ (Commonwealth Government 2016, p.13).
Completing in less time

Under a ‘time served’ or ‘traditional’ trade apprenticeships model it usually takes three to four years to complete the qualification. Yet the inherently flexible nature of the Australian VET system and competency-based training (CBT) allows alternative pathways to attaining an apprenticeship-equivalent outcome. Various efforts to promote accelerated completion have impacted on the duration of trade apprenticeships since the late 1990s. The concept of accelerated apprenticeships was a cornerstone of reform under the (now discontinued) Accelerated Australian Apprenticeships Initiative from 2011.

Figure 8 shows that the proportion of adult apprentices completing a trade apprenticeship in two years or fewer has increased markedly over time, particularly since 2008. These trends are particularly prominent for adult apprentices, who naturally may be better placed to take up early completion options. The proportion of younger trade apprentices completing their apprenticeship in two years or fewer has increased but at a more modest rate.

While there is clearly an appetite for earlier completion, it should be noted that this path may not be suited to all apprentices. Apprentice take-up depends, for example, on the industry and occupation, the apprentice’s previous experience and aptitude, and employer support (Hargreaves & Blomberg 2015).

Figure 8  Trade apprenticeship completions of duration of two years or fewer, by age, 1996–2016 (%)
In September 2016, the Australian Government announced the initiative ‘Apprenticeship training – alternative delivery pilots’. Aimed at young people as well as existing workers looking to further their career, the initiative makes funding of $9.2 million available for five industry-led pilots, to run from 2015–16 to 2017–18.

These pilots comprise two streams, the first involving innovative training models for traditional trade apprenticeships in industry areas vital for the national economy. This stream comprises three pilots being conducted by Master Builders Australia, the National Electrical and Communications Association, and North East Vocational College in Adelaide.

The second stream involves the delivery of higher-level qualification apprenticeships at diploma or associate degree level. The apprenticeships are aimed to lead to careers in areas such as business and financial services, information technology and advanced manufacturing. The Australian Industry Group and PricewaterhouseCoopers will each deliver a pilot in this stream.

The pilots will be evaluated for industry validation and their potential to be adopted more broadly by industry.

APPRENTICESHIP AND TRAINEESHIP COMPLETION TRENDS

Do adult apprentices complete at a higher rate?

Completion rates are higher for adult apprentices and trainees in both the trades and non-trades (figure 9). Of particular interest is that for adults in the trades completion rates have been steadily increasing over time while for younger trade apprentices completion rates are on the decline. The story is slightly different for the non-trades where the difference in completion rates between younger and adult apprentice and trainees seems to have narrowed over time.

Figure 9   Completion rates for apprentices and trainees by trade/non-trade and age, 2006–12 (%)

Note: These are completion rates for apprentices and trainees who commenced in the year indicated on the chart. For example, the completion rates shown for 2012 are for apprentices and trainees who commenced training in that year. Completion rates for apprentices and trainees who commenced after 2012 are not included due to the high numbers still in training, mainly for those in the trades.

Source: NCVER National Apprentice and Trainee Collection, December 2016 estimates.

Attrition and non-completion

Apprenticeship completions have shown a similar decline, and as at 2016 overall contract completion rates are 53%, with some differences in trade and non-trade across jurisdictions and industries (NCVER 2016).
Does non-completion differ by age?

There is considerable interest in and a range of reasons as to why apprentices do not complete their training, with previous research indicating employment-related reasons as the most important factor in the non-completion of trade apprentices (Bednarz 2014).

However, figure 10 shows clear differences between younger and older apprentices. For adult apprentices the most prevalent reasons for non-completion are family or personal (both trade and non-trade apprenticeships). This was followed by a change in their job situation. For younger apprentices the most prevalent reason is a change in their job situation.

**Figure 10  Reasons for not completing training, by trade and non-trade apprentice and age, 2013–16 aggregated (%)**

Note: Reasons for not completing are only applicable to subject completers, not to graduates. Because of relatively low numbers each year, the data spanning 2013–16 are aggregated. The proportions of trades subject completers aged 25–64 saying they got what they wanted from the training and the proportions of non-trade subject completers of both ages saying other reasons should be treated with caution as they have a relative standard error of greater than 25%.

What are the outcomes of apprenticeships?

Employed after training

As expected, most graduates who have undertaken an apprenticeship are employed after training. Just over 90% of younger and older apprentices in the trades and just under 80% in both categories in non-trades areas were employed after training (figure 11).

Interestingly, however, there is very little growth in the percentage of those employed after training by comparison with before training for older trade apprentices (0.9 percentage points compared with 17.7 percentage points for younger trade apprentices and around seven to eight percentage points for younger and older non-trade apprentices).

For those who were not employed before training, the completion of an apprenticeship leads to employment for well over half of trade apprentices, more so for younger apprentices (84%) than for adult apprentices (66%). This is however higher than for non-trade apprentice graduates (around 50% for both age groups).

Figure 11  Employment outcomes of training, trade or non-trade apprentices, by age, 2016 (%)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Trades</th>
<th>Non-trades</th>
<th>Percentage employed after training</th>
<th>Percentage point difference in employment from before to after training</th>
<th>Not employed before training and employed after training</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24 years</td>
<td>92.1</td>
<td>79.7</td>
<td>91.0</td>
<td>17.7</td>
<td>83.6</td>
</tr>
<tr>
<td>25-64 years</td>
<td>78.4</td>
<td>66.3</td>
<td>0.9</td>
<td>6.8</td>
<td>50.5</td>
</tr>
</tbody>
</table>

Note: Employment status before training refers to whether the participant was in paid employment in the six months before they started their training. Employment status after training is whether they were in paid employment approximately six months after the training finished.


Job-related benefits

With respect to job-related benefits, adult trade apprentices most frequently reported an increase in earnings and a promotion at work (figure 12). Overall, older apprentices in both trade and non-trade areas were less likely to report job-related benefits of training compared with their younger counterparts.
Figure 12   Job-related benefits of training, graduates by trade or non-trade apprentices, by age, 2016 (%)

Note: Only participants who reported being employed after training were asked this question. This was a multiple response question, so survey respondents could say yes to more than one category of benefit. Only the top four specific benefits are shown. In addition the ‘Other categories’ combines the following benefits: was able to set up/expand own business, continued/keep present job, and other. The proportion of respondents who reported no benefits is also shown.


Occupational match

Just over 70% of adults and over 80% of younger trade apprentices were employed in the occupation they trained for, compared with 45–51% of non-trade apprentices (figure 13). Interestingly, almost 30% of adult trade apprentices end up in different occupations, compared with just over 16% of younger apprentices. Non-trade apprentices are more likely to end up in an occupation different from that in which they undertook their training, whereas just under a half of adult non-trade apprentices do so.

Figure 13   Employed in the same occupation as training, for trade or non-trade apprentices, by age, 2016 (%)
CONCLUSION

While the ‘traditional view’ of an apprentice — as a young school leaver entering a trade occupation — is recognised by many as no longer holding true, it is important to understand where and how change is occurring.

Data presented in this research summary confirm the nature and extent of change to the apprenticeship and traineeship system over time and contribute to our understanding of how individuals and providers are responding to policy efforts aimed at enhancing the system for both employers and apprentices. This summary also aims to highlight some of the systemic challenges that remain to be addressed if Australia is to move forward with an apprenticeship model that meets future expectations of effective skill development and work-based learning.

The growth in the proportion of older apprentices is a distinguishing feature. Adult apprentices are a strikingly different group from younger apprentices; they have greater skills and experience in the labour market and education sectors, as indicated by both the higher proportions of older apprentices who are existing workers and hold a qualification at certificate III or above. They are more likely to be undertaking training at a higher level than younger apprentices and are more likely to complete. Adults in trades are more likely to complete in two years or fewer.

The continuing growth in the number of adult apprentices has implications for both state and federal governments, particularly in relation to the necessity for more effective marketing and the strengthening of the apprenticeship pathway options for this group. This will involve catering to an increasingly diverse cohort of apprentices, many of whom will benefit from a greater flexibility to the system. The challenge is balancing such flexibility with increased levels of support for alternative and more diverse pathways and higher learning options, coupled with easily understood and consistent messaging in presenting information to employers and apprentices.

REFERENCES


Kirby, P 1985, Report of the Committee of Inquiry into Labour Market Programs [the Kirby report], AGPS, Canberra.


Fowler, C 2016, ‘What the National Innovation and Science Agenda (NISA) didn’t say about skills and jobs’, opinion piece, NCVER, Adelaide.


Hargreaves, J & Blomberg, D 2015, Adult trade apprentices: exploring the significance of recognition of prior learning and skill sets for earlier completion, NCVER, Adelaide.


Readers may also be interested in ‘Historical time series of apprenticeships and traineeships in Australia’, an infographic that provides an interactive overview of the number of apprentice and trainee commencements and completions from 1963 to 2016, together with the specific economic and labour market contexts and the number of trade and non-trade commencements and completions from 1995 to 2016 (available at https://www.ncver.edu.au/data/data/infographics/historical-time-series-of-apprenticeships-and-traineeships-in-australia).


### Defining apprenticeships and traineeships

Apprenticeships in the Australian context are defined as a system of training regulated by law or custom which combines on-the-job training and work experience while in paid employment with formal (usually off-the-job training). The apprentice enters into a contract of training or training agreement with an employer, which imposes mutual obligations on both parties. Traditionally, apprenticeships were in trade occupations (declared vocations) and were of four years duration, but the duration of contracts has been formally reduced in some trades and the apprenticeship system broadened.

A traineeship on the other hand combines off-the-job training with an approved training provider with on-the-job training and practical work experience and generally takes one to two years.


### Data notes

#### Definitions

The classification of trade and non-trade apprentices and trainees are derived from the Australian and New Zealand Standard Classification of Occupations (ANZSCO). In particular, trades apprentices and trainees are coded as the major occupational grouping of ‘Technicians and trades workers’, while non-trade apprentices and trainees are coded according to the other seven major occupational groupings.

#### Student Outcomes Survey

Data derived from NCVER’s Student Outcomes Survey (SOS) is presented for graduates only (that is, those who completed their training), unless otherwise specified. Confidence intervals are shown for all cohorts derived from the Students Outcomes Survey.

#### Confidence intervals

Confidence intervals allow data users to determine the amount of certainty (or error) in a reported measure when comparing groups. For 95% confidence intervals on any of the above data, please refer to NCVER’s Student Outcomes Survey.

#### Data availability and time trends

In some instances it has not been possible to present data as trends over time because the time periods of available data differ or are not available. In other cases it has been sufficient to present a snapshot in time. In addition, in some instances the latest data available and used have been from 2015, as 2016 data may not yet be available or the data are, from 2016, no longer being collected.

#### Age range

In this report, ‘younger apprentices’ refers to those aged 15–24 years, while ‘adult apprentices’ refers to those aged 25 years and over. The age range 15–24 years is used as the statistical definition of youth internationally (with some variations; see https://www.ncver.edu.au/data/collection/student-outcomes for more information). It is noted, however, that in Modern Awards in Australia, an adult apprentice or trainee is someone who is aged 21 years or over.