



LAYING THE FOUNDATIONS FOR APPRENTICESHIP REFORM

November 2016

Thinking business

To lay the foundations for apprenticeship reform, the Chamber recommends:

- Restore consistency, coordination and an outcomes focus to the system
- Implement a stronger model for vocational education and training delivered in school
- Reignite early apprenticeship participation through a national pre-apprenticeship program and better targeted incentives
- Deliver a national, industry-led careers advice service
- Boost the reputation and profile of apprenticeships via an ongoing public awareness campaign

Foreword from the Chief Executive Officer



We have been hearing a lot lately from leaders in politics, education and the business sector about the innovation boom and the need to grow our knowledge jobs. That is a positive shift. Our economy needs to diversify if we are to compete globally now, and into the future.

What is missing from this conversation, however, is recognition that skilled trades remain the foundation on which the rest of our economy relies.

Thanks to a record infrastructure pipeline, construction related trades are booming and employers are crying out for skilled workers in these areas. We're also seeing

emerging sectors, like advanced manufacturing, marry traditional trade activities with higher level, technology related skills. We need a reliable pipeline of workers to fill these jobs who will build and maintain the hospitals, railways and machines of the future.

The problem is that our apprenticeship system is in trouble. The flow of young, job ready, skilled workers is at a drip when we need it to be a flood.

This is creating a mismatch between what young people want from their careers, the skills employers are looking for, and what our apprenticeship system is producing. A mismatch we must solve as a matter of urgency if we are to build the workforce of the future and remain competitive in today's fast-moving global economy.

The good news is that at long last, political decision makers are taking note. At the Federal Government level, both sides of politics are bringing apprenticeships to the forefront of the conversation about the future of work. Here in New South Wales, the Minister for Skills, The Hon. John Barilaro is leading a review of the legislation governing apprenticeships and traineeships, with the aim of getting the system right.

The NSW Business Chamber (the Chamber) is contributing to the legislation review in New South Wales and to the Federal Government's review of apprenticeships, first with our *Future of Apprenticeships* submission prepared in-house and now, with this research undertaken independently by Peter Noonan of Victoria University's Mitchell Institute.

Laying the Foundations for Apprenticeship Reform provides a solid evidence base to reshape the apprenticeships and traineeships system. It is consistent with the recommendations made in the Chamber's own

submission to the review, providing a clear plan of action for Government, industry, educators and training bodies to work together: a solid foundation to rebuild our apprenticeship system into the shape it needs to be.

One of the biggest problems plaguing participation in apprenticeships is a perception issue.

Young people, their parents and, in many cases, their teachers at school are not aware of the outstanding job outcomes an apprenticeship or traineeship can lead to. As outlined in the 2015 Australian Jobs Report, 85.5% of apprentices are in full time employment six months after completing their training, in comparison with the 68% of bachelor degree graduates achieving the same result.

We want to work with Government to deliver a concerted public awareness campaign that really turns the attention of parents, educators and young people to the outstanding opportunities an apprenticeship can bring. The Chamber called for this campaign in our recent submission to the review of the legislation, and I am pleased to see a similar recommendation highlighted in this report.

Apart from the issue of awareness, young people need to receive high quality advice about their career options and pathways to work well before leaving school. Professor Noonan's recommendation of a cross-jurisdictional National Careers Advice Service would bring some welcome coordination, quality, independence and consistency to the careers advice available to school students and to other people looking for a new pathway to work. This model should incorporate an externally delivered model of careers advice sourced through a competitive process: an initiative championed by the Chamber since our 2010 *Could do Better* report.

National coordination is, in fact, needed across the entire apprenticeships system. The NSW Business Chamber joins the Australian Chamber in calling for a National Taskforce on apprenticeships. The Taskforce should be convened by COAG to take immediate action to reform the system, and not more reviews, trials or consultations.

Good policy-making must be founded on a solid evidence base of research. For too long, however, there has been a lack of transparent, high quality data that really tells the story about apprenticeships, who is undertaking them and where they end up in our labour market. The Chamber supports Professor Noonan's call for regular, sector-specific data collection and reporting on skills shortages and for longitudinal data on those participating in apprenticeships and the outcomes they achieve upon and after completion.

For many years the Chamber has called on reform to the way that vocational education and training is delivered within school. For too long, VET in school has been viewed as an add-on or as an option for students who are not doing well academically. We support Professor Noonan's call to redesign the model for delivering apprenticeships in school by allowing senior secondary students to undertake an apprenticeship and complete their HSC at TAFE. We will also continue to urge the NSW Government to expand on the success of senior secondary colleges that prioritise VET pathways and provide students with more flexible, innovative ways of learning.

The modern trades need workers who are adaptable, with skills that can be used across a wide range of tasks, some which might not be specific to a single trade qualification. That is why the Chamber is proposing a pilot of a new model for apprenticeship involving an initial period of general industry training. This new form of apprenticeship would involve a year of general industry training before moving on to specialisation: much like the model for undergraduate degrees at university. While this model is not called out in Professor Noonan's report, his research supports the need for more innovative models of apprenticeships which build on the experience in the United Kingdom and other jurisdictions.

The Chamber has also pointed out for some years that the incentives for employers taking on apprentices are designed in a way that is distorting the training market and is failing to achieve the desired result of improving completion rates. Currently, employer incentives are deferred toward the end of the training period, despite evidence showing that successful completion of the first six months of an apprenticeship correlates strongly with ultimate completion of the entire program. The Chamber is calling on the NSW and Federal Governments to work together to redesign incentives so that they better

support apprentices over the critical first six to twelve months of their training.

We know that new jobs and skills are being created every day and our apprenticeship system needs to keep pace with this. Currently, the only channel for an employer to ask for a new apprenticeship is through an agonisingly lengthy and bureaucratic process via a Government appointed advisory body. Once the advisory body approves the apprenticeship, the pathway then has to be gazetted, a process that can take months. The Chamber has asked the Government to abolish this process and allow employers to apply directly to the Department of Industry to create new apprenticeship pathways.

These are only our top level recommendations. We are asking the NSW and Commonwealth Governments to take up all of the options for reform that we have put on the table.

Accepting the Chamber's recommendations in addition to the bold proposals made by this report will reignite our apprenticeships system. Laying the foundations for a resilient, adaptable and industry aligned apprenticeship system will build confidence in apprenticeships, lift participation and ensure our next generation of workers is equipped to meet the demands of the future.



Stephen Cartwright
Chief Executive Officer, NSW Business Chamber.



About the Author

Professor Peter Noonan



Mitchell Professorial Fellow, Peter Noonan has played a major role in shaping tertiary education policy in Australia through 25 years' experience working as a policy adviser, senior executive and consultant to federal and state governments, universities and public and private VET providers. He was a member of the Expert Panel for the Review of Australian Higher Education (Bradley Review) in 2008, and in 2010 undertook a Review of Post-Secondary Education in Queensland for the State Government. Peter was recently appointed to the Expert Panel established by the Federal

Government to advise the Minister for Education and Training, the Hon. Simon Birmingham, on higher education reform proposals. Peter's work as a Mitchell Institute Fellow is focused on the future of tertiary education in Australia including its interface with secondary education and the labour market. He is a regular speaker at major conferences and a frequent media commentator on tertiary education.

He is Professor of Tertiary Education Policy at Victoria University, and an Honorary Senior Fellow at the Graduate School of Education at the University of Melbourne. This report has been prepared in a personal capacity for the NSW Business Chamber.

Dr Jennifer Chesters from the Centre for Research into International Education Systems at Victoria University assisted with data analysis and the literature review for the Report and Rob Sheehan assisted with editing. Their contributions are acknowledged and greatly appreciated.

Executive Summary

For more than a century, the NSW apprenticeship system has played a keystone role in the state's economic prosperity and social development.

Apprenticeships are a major pipeline for skills to industry. Through the licensed trades and other occupations, apprenticeships extend the stock of skills essential for conserving the value in, and extracting efficiency from, existing services and infrastructure. Apprenticeships are also essential to the economy's capacity to diffuse and absorb technological innovation, and to develop innovative ideas to the point of practical application.

Apprenticeships improve the state's social well being. They are a valuable source of job opportunities for young people entering the workforce, and a means for older workers to upgrade their skills. Generations of tradespeople trained through the NSW apprenticeship system have improved their life options through skilled work in key areas of the NSW economy.

Factors underpinning the longevity of the apprenticeship model

Two important factors lie behind the apprenticeship model's enduring contribution. The first of these is its adaptability. The model has a proven capacity to respond flexibly to emerging demands for skills, to shifts in employment patterns and to evolving social expectations. The model has retained its relevance through a judicious mix of on-the-job training and off-the-job training, and through assessment designs that reflect industry standards of expertise.

The second factor underpinning the longevity of the apprenticeship model is the commitment of employer and apprentice to an arrangement that integrates paid work and progressive increases in productivity over the term of an apprenticeship. Both employer and apprentice make a substantial investment in skills outcomes that have both business and personal benefits.

These strengths of the apprenticeship model are under pressure.

Weaknesses in the apprenticeship system

Despite its enduring strength, the apprenticeship system in NSW is yet to take full advantage of the flexibility in the apprenticeship model. Opportunities to extend the model to occupations beyond the traditional trades remain unexplored. Vocational training pathways leading to apprenticeships reflect a system design inspired by policy settings established in the 1980s and 1990s. Linkages between upper secondary education and the apprenticeship system are badly frayed. The emphasis on academic pathways in the school system has relegated vocational learning and work readiness to second order concerns.

The apprenticeship system has also become progressively more complex. The business processes, regulatory arrangements and training requirements that attach to the apprenticeship system have become more opaque, making it difficult for employers, apprentices and potential apprentices to negotiate them or to extract value from them.

It is both a strength and a weakness that two levels of government – Commonwealth and state – are heavily engaged in supporting the apprenticeship system. The strength lies in the long term commitment of governments to the apprenticeship model. The weakness lies in the lack of coordination and the disconnections that exist between core functions that maintain a healthy and responsive apprenticeship system. Responsibilities for policy and services are split between Commonwealth and state governments, regulatory and support agencies, and training providers. This diversity is not necessarily a weakness. What is troubling the apprenticeship system is lack of coordination.

Reforming the NSW apprenticeship system

This report proposes reforms to the NSW apprenticeship system. They were identified following data analysis, a literature review and consultations with apprenticeship system stakeholders. Outcomes of the data analysis, literature review and consultations are presented in the body of the report.

The reform proposals are ambitious. They are also the minimum necessary if the apprenticeship system is to remain an enduring part of NSW's industrial and social landscape.

Over a century ago, NSW led other states in developing the apprenticeship system. With the largest and most extensive apprenticeship system in Australia, NSW is now well placed to once again lead national reform. That leadership role should embrace the value of apprenticeships and the VET sector generally as meriting a central place in state and national policy discourse.

Five areas of reform are detailed in the concluding section of the report. They are:

- **Redesign the system.**
- **Expand and extend the apprenticeship system.**
- **Create a new model to deliver VET, including apprenticeships, to senior secondary students.**
- **Increase focus on the 'front end' of apprenticeships.**
- **Promote the benefits of apprenticeships.**

System redesign is pivotal

System redesign is a pivotal reform. The success of the other reforms listed above will rely on it.

The report proposes ten objectives which system redesign must encompass, and which funding and incentives must support:

- the apprenticeships available are relevant to industry need;
- the maximum number of potential employers are engaged with and regularly use the apprenticeship system;
- there is a high quality applicant pool available to encourage employers to take on apprentices;
- employers and apprentices are well matched;
- the rights, roles and responsibilities of employers and apprentices, and of the Registered Training Organisation (RTO), are clearly understood and observed;
- employers and apprentices can access services to assist in resolving disputes if they occur;
- administrative and regulatory processes are efficient;
- training delivery and assessment are aligned with the training plan;
- employers and apprentices are aware of progress towards competency achievement, and competency completion is accepted by both parties to the contract of training; and
- retention and completion rates are maximised.

With those objectives in mind, a model business system was developed which identifies the apprenticeship system's key elements. The model business system, shown below, targets areas where reform and improvement are most required, and where interventions by the Chamber are likely to have most effect.

The model is framed as an 'end-to-end' system that consistently recognises the interest and needs of the apprenticeship system's key users – employers, apprentices, and potential apprentices.

NSW apprenticeship system as a business system

An important caveat applies to the detailed work that will be necessary to recalibrate the apprenticeship system. Better system design will not, of itself, ensure improved

service delivery to the system's key users. Coordination of system functions and services is essential.

The final section of this report observes that a major current weakness is the lack of a single agency responsible for ensuring the overall system works effectively as an end-to-end process. This absence had led to breakdowns within and between different system elements, in particular in:

- the process of selecting and matching apprentices and employers;
- monitoring progress;
- early identification and resolution of potential disputes; and
- ensuring that the process of training shared between RTOs and employers is effectively integrated and understood by both parties in terms of competency certification.

While the reform proposals and recommendations are focussed on the NSW apprenticeship system they have application to the traineeship system as well.



Recommendations for reform

Recommendations are made in the concluding section of the report for the five areas of reform listed earlier in the Executive Summary. The recommendations are set out in the table below.

System re-design

Recommendation 1

The Commonwealth and NSW Governments should ensure that:

- an action-oriented National Apprenticeship Taskforce is convened;
- the apprenticeship system in NSW (and other states) be redesigned as an effective, modern end-to-end business process across all agencies and both levels of government;
- business process redesign accounts for the ten apprenticeship system objectives outlined above; and
- the role of Apprentice Network Providers be expanded to assume full responsibility for facilitating all stages of the apprenticeship process, from sign up to completion, through contractual arrangements and delegations from both levels of government.

Expand and extend the apprenticeship system

Recommendation 2

The NSW Government compile and publish industry by industry analysis of the composition of NSW apprenticeship employers, gaps in their composition, and strategies to increase employer engagement in and take up of apprenticeships.

Recommendation 3

The NSW Government work with the Commonwealth, jurisdictions and industry associations to deliver higher level apprenticeships.

A new model to deliver VET, including apprenticeships, to senior secondary students

Recommendation 4

The NSW Government undertake major reforms to VET provision for senior secondary students through:

- significantly expanding the role of TAFE and alternative providers in delivering VET to students undertaking VET pathways within the HSC, with funding following learner choice or program and provider; and
- redesigning the model for delivery of apprenticeships to senior secondary students by enabling students to commence an apprenticeship and complete their HSC at TAFE or via another VET provider.



Recommendation 5

That the Australian Government develop, fund and deliver a national industry-led pre-apprenticeship programme.

Greater focus on the 'front end' of apprenticeships

Recommendation 6

The Commonwealth Government resource Apprentice Network Providers to support more effective matching of apprentices and employers.

Recommendation 7

The Commonwealth Government work with the jurisdictions to establish a National Careers Advice Service to ensure that all young people are provided with independent and authoritative advice on senior secondary and post school study and careers options.

Recommendation 8

The Commonwealth Government rebalance employer incentives to focus on:

- a commencement payment;
- a payment at the end of the probationary period; and
- a completion payment.

Recommendation 9

The NSW Government expand the role of Group Training Organisations in the early stages of apprenticeships by:

- hosting the first year of an apprenticeship;
- placing apprentices with employers from the commencement of the second year of an apprenticeship; and
- assisting employers to build capability with on the job training, or through the provision of aspects of on the job training.

Promote the benefits of apprenticeships

Recommendation 10

The NSW Business Chamber, in partnership with government, deliver a major public awareness campaign to promote apprenticeships and the career outcomes they can achieve.





Background to this report

The Chamber, through its Apprenticeship Support Australia service, is one of the largest providers of apprenticeships in Australia with approximately 60,000 apprentices nationwide. The Chamber also plays a prominent role in public policy discourse in New South Wales and nationally, with a focus on improving outcomes for the majority of Australian young people who do not proceed to university immediately after school. A key concern of the Chamber is to ensure the vocational education and training (VET) system, including the delivery of apprenticeships, is robust and well equipped to skill the future workforce.

The NSW Business Chamber engaged the author to complete this report and the research behind it. The project was commissioned prior to, and undertaken during, the Review of the *Apprenticeship and Traineeship Act 2001* (NSW).

The Chamber's initial submission to the Review was a valuable input to this project and Chamber's final response to the Review will be informed by this report. The analysis, findings and recommendations in this report, however, are those of the author.

The NSW apprenticeship system

Overview and history

Apprenticeships have been part of NSW's industrial landscape since the colony's establishment in 1788. At that time British laws relating to masters and apprentices were adopted as a means of ensuring a continuing supply of skilled labour to the new colony, supplementing the growing pool of immigrant and convict labour. In 1894 NSW was the first state to legislate for the establishment and regulation of apprenticeships, with other states following suit¹.

A principal purpose of the legislation was to regulate terms and conditions of the employment of apprentices, most of whom were technically minors. The apprenticeship system's development was also closely related to the developing concept of skilled trades which provided high status occupations to which boys – particularly from poorer backgrounds – could aspire.

For most of the last century apprenticeships were seen primarily as part of the industrial relations system. The primary focus of the apprenticeship system was to regulate terms and conditions of employment, approve training requirements and, where required, intervene in disputes between employers and apprentices.

Apprenticeships also progressed from a model of fully 'on-the-job training' (where the apprentice in effect learned from a master) to an educational model incorporating 'off-the-job training' (usually a day a week) at a technical college.

Records suggest that apprenticeship intakes were relatively small until after the Second World War when numbers increased rapidly as the NSW economy expanded and industrialised.

Further growth and expansion of apprenticeships was prompted by concerns about shortages of skilled manpower in Australia. With shortages increasingly becoming a national economic issue, the Commonwealth Government intervened in apprenticeships in Australia through Federal industrial awards and, commencing in the 1960s, providing financial support to employers.

In 1985, the Commonwealth also initiated and oversaw the implementation of the Australian Traineeship System (ATS). The ATS used the contract of training model to complement the traditional apprenticeship system in industries and occupations not covered by

apprenticeships, principally in the services sector.

In the 1990s, apprenticeships and traineeships became increasingly national in character. Individual apprenticeships and traineeships were aligned with national competency standards and qualifications (through National Training Packages) and the growing use of federal – rather than state – awards to underpin wages and employment conditions.

National decisions were taken to integrate apprenticeships and traineeships into a single 'New Apprenticeship System'. However, in practice most states – including NSW – either reverted to, or retained the distinction between, apprenticeships and traineeships. National data collection distinguishes between 'trade and non-trade' apprentices and trainees, a distinction maintained in this report.

A further national initiative was the introduction of School Based Apprenticeships. The intent was that students could commence an apprenticeship while enrolled in secondary school, enabling them to complete a senior secondary certificate while making progress towards completing an apprenticeship.

The Commonwealth also established a network of apprenticeship centres to market and promote both schemes, and to administer its growing system of employer incentive payments. Since the 1990s, traineeships have grown far more rapidly than apprenticeships as provisions and incentives for casual, part time and existing employees could be utilised far more easily through the traineeship system than the apprenticeships system. However, changes to Commonwealth employer incentives in 2012 have seen a major downturn in traineeships in NSW and nationally.

With the agreement of most states including NSW, the Commonwealth also established the Australian Skills Quality Standards Agency (ASQA). ASQA assumed responsibility for the initial and ongoing registration of Registered Training Organisations (RTOs) in NSW, including those delivering apprentice training.

Despite the Commonwealth's expanding role in the apprenticeship system, state governments retained the principal legislative and administrative responsibility for the apprenticeship system's operation. Most national features of the system operate with the agreement or consent of the states.

Key features of the NSW apprenticeship system

Scope of the apprenticeship system in NSW

There are now over 200 apprenticeships approved in NSW², with 52,000 apprentices³ in training in March 2016. Some apprenticeship areas have very low numbers or are all but inactive. Table 1 outlines the broad occupational areas in which apprenticeships are offered in NSW matched to examples of specific occupations.

Table 1: Apprenticeships in NSW

Broad areas in which apprenticeship are offered (Australian and New Zealand Standard Classification of Occupations)	Examples of occupational outcomes
Engineering, ICT and science technicians	Customer computer systems installer
	Gasfitter
	IP networks installer
	Network security equipment installer
	Plumber
Automotive and engineering construction trades workers	Refrigeration and air conditioning mechanic
	Bricklayer
	Carpenter and joiner
	Mechanics specialising in agricultural mechanical, heavy vehicle transport, light vehicles
	Panel beater
Electrotechnology and telecommunications trades workers	Vehicle painter
	Electrical powerline tradesperson
	Electrician specialising in cabling or lifts
	General electrician
Food trades workers	Telecommunications network technician
	Baker
	Butcher
Skilled animal and horticultural workers	Chef
	Aboriculturist
	Gardener
	Horticulturalist
	Landscape
Other technicians and trades workers	Veterinary nurse
	Digital printer
	Dressmaker
	Furniture maker
	Hairdresser
	Wood and solid timber machinist

Key roles

The core of the NSW apprenticeship system is the contract of training entered into between an employer and an apprentice. The contract of training sets out the obligations of both parties to the agreement, the approved qualification and training scheme, and the relevant conditions of employment (including a probationary period of between 1-3 months).

Under the contract of training the employer is responsible for making sure the apprentice receives the training and practical experience they need to develop the skills relevant to their chosen vocation. The apprentice, on the other hand, commits to working with the employer and the training organisation to acquire the skills and knowledge needed for the occupation they have chosen to work toward.⁴

The other key element of the apprenticeship system is the role of the RTO in delivering training and undertaking assessment consistent with the requirements of the relevant National Training Package qualification. There are currently 160 RTOs approved and contracted to deliver apprentice training in NSW⁵.

A Training Plan is developed by the RTO which is usually selected by the employer. The Plan specifies the training required to achieve the appropriate nationally recognised qualification. The Plan does not form part of (but is attached to) the contract of training and should be used to guide an apprentice's progress of towards competency completion.

The core role of the system is the contract of training entered into by an employer and an apprentice.

Government roles and functions

The NSW Government has legislative responsibility for the state's apprenticeship and traineeships systems under the Apprenticeship and Traineeship Act 2001. Under the Act, the NSW Government:

- administers the delivery of apprenticeships and traineeships;
- creates new apprenticeship and traineeship pathways;
- incentivises participation in apprenticeships and traineeships; and
- is responsible for the delivery of vocational education and training in the State.

The Australian Government also plays major roles in the NSW apprenticeship and traineeship system.

Table 2 summarises the key functions of the NSW apprenticeship system, the agencies that perform them and the level of government responsible for them.

Table 2: Key functions in the NSW apprenticeship system

Function	Agency	Level of Government
Development and endorsement of National Training Packages	Australian Industry and Skills Committee, Industry Reference Committees, Skills Standards Organisations	Commonwealth
Establishment of apprenticeship through Vocational Training Orders (including selection of National Training Package Qualifications)	Training Services NSW (under NSW <i>Apprenticeship and Traineeship Act 2001</i>)	State
Determination of employment conditions	Private sector – Fair Work Australia Public Sector – NSW Industrial Commission	Commonwealth State
Marketing, assistance to employers and apprentices, administration of employer incentives	Apprenticeship Network Providers, RTOs, Training Services NSW, Business	State and Commonwealth
Training plan development and lodgement	Registered Training Organisation Training Services NSW	State
Contract of training administration, monitoring, disputes resolution	Training Services NSW	State
Ongoing contact and mentoring where required	Apprenticeship Network Providers	Commonwealth
Contracting with and payment of RTOs for training delivery and assessment	Training Services NSW	State
Contract of training lodgement, administration of employer incentives	Apprenticeship Network Providers	
Administration of Trade Loans Support	Commonwealth Department of Education and Training	Commonwealth
Training provision and competency assessment	Registered Training Organisations	State

Group Training Organisations

There are 44 Group Training Organisations (GTOs) currently registered under the Act in NSW. GTOs directly employ apprentices and trainees and place them with host employers for a fee. GTOs also receive Commonwealth employer incentives. GTOs thus enable many employers not in a position to directly or fully employ apprentices and trainees to participate in the apprenticeship system and contribute to skills development in a wide range of trades and occupations.

In the past, GTOs were jointly funded by the Commonwealth and state governments but both governments have now ceased that funding. However, individual GTOs may receive funding for specific projects and services from either level of government. NSW is now introducing a funding regime for group training designed to support people through pre-vocational training and into a job, and to maximise apprenticeship completions.

The broader VET sector

The NSW apprenticeship system is a core part of the broader NSW VET system.

However, it is important to note that many students do not progress straight from school into apprenticeships. Instead, they undertake courses in other areas of VET, particularly if they are not initially attracted to apprenticeships or are unable to access an apprentice position.

The broader VET system strongly influences the effectiveness of the apprenticeship system by:

- providing pre-apprenticeship and other vocational courses that provide pathways into apprenticeships;
- providing language, literacy and numeracy programs to students with low skill levels in these areas; and
- encouraging VET students in relevant courses to apply for apprenticeships.

Schools

NSW secondary schools can also play a critical role in relation to the apprenticeship system by:

- ensuring school leavers have the required skills and capabilities to enter the apprenticeship system through both general schools' programs and through VET in Schools programs;
- enabling and encouraging the use of school based apprenticeships;
- ensuring students have a thorough understanding of, and exposure to, the workplace and industry expectations and requirements; and
- ensuring students are aware of the general benefits of apprenticeships, trade careers and opportunities in specific occupations.

Many students do not progress straight from school into apprenticeships. Instead, they undertake courses in other areas of VET.

Through the NSW Board of Studies, Teaching and Educational Standards students undertaking the NSW Higher School Certificate (HSC) can undertake nationally recognised VET courses through either Industry Curriculum Frameworks (which can contribute to an ATAR score for the purposes of entry to tertiary education) or VET Board endorsed subjects (which can contribute to the completion of the HSC, but not an ATAR score). Either category of courses can be provided by schools operating as RTOs, or by other RTOs. These subjects are also available to Year 9 and 10 students, subject to guidelines.

School students in years 10, 11 and 12 can also undertake School Based Apprenticeships or Traineeships. School based apprentices and trainees work part-time and complete the first stage of their apprenticeship or a full traineeship while completing the HSC. On and off the job training can contribute towards the HSC⁶.

Current data and recent trends

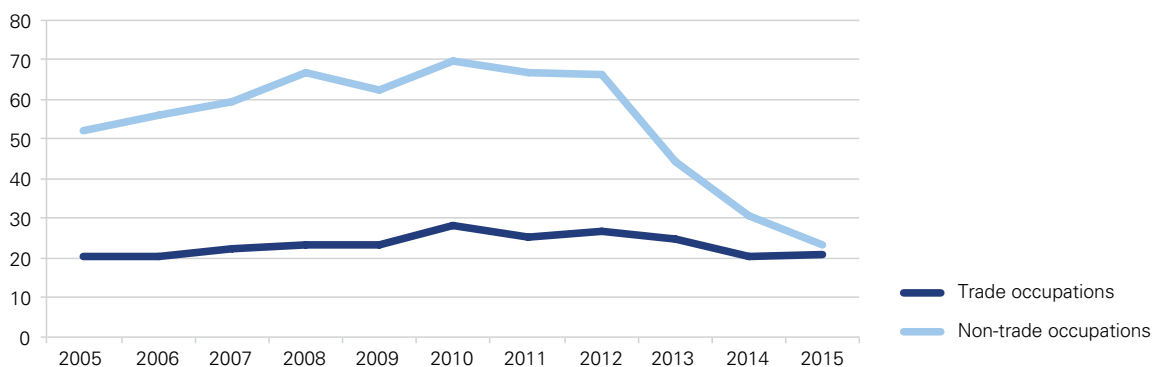
This section of the report highlights recent trends in the NSW apprenticeship system and analyses apprenticeship provision against employment projections and skills shortages in NSW.

There is a significant gap in national data collections for apprenticeships. Longitudinal data tracking the long term career paths of those who complete their apprenticeships is lacking. Information and data about the further study apprentice completers undertake, how long they remain engaged in fields related to their apprenticeships and what prompts those who leave to do so is not available. This matters, of course, because attrition from the trades directly impacts on demand for apprenticeships.

Commencements

Figure 1 reflects commencements in trade apprenticeships and traineeships in NSW over the past decade. Apprenticeship commencements have declined from a peak in 2010. Traineeship commencements show a stark downturn since 2012. The downturn is largely a consequence of major changes to Commonwealth employer incentives for a range of traineeships and for existing workers in most traineeship categories.

Figure 1: Trade and non-trade commencements, NSW, 2005-2015



Source: NCVET

This picture is broadly consistent with national trends as reflected in Figure 2.

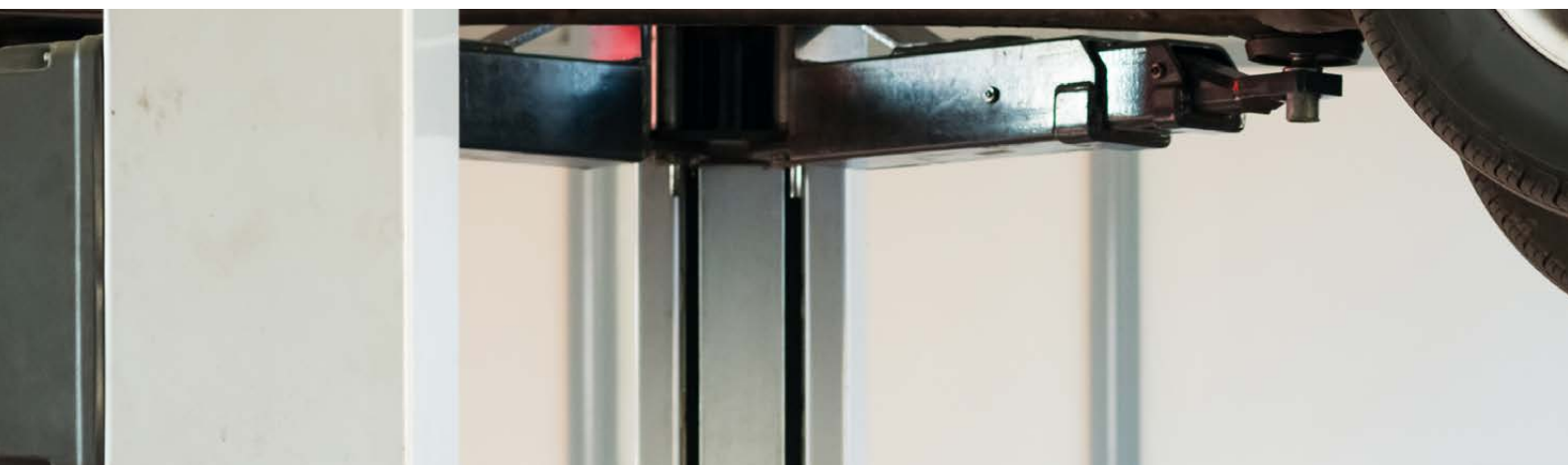
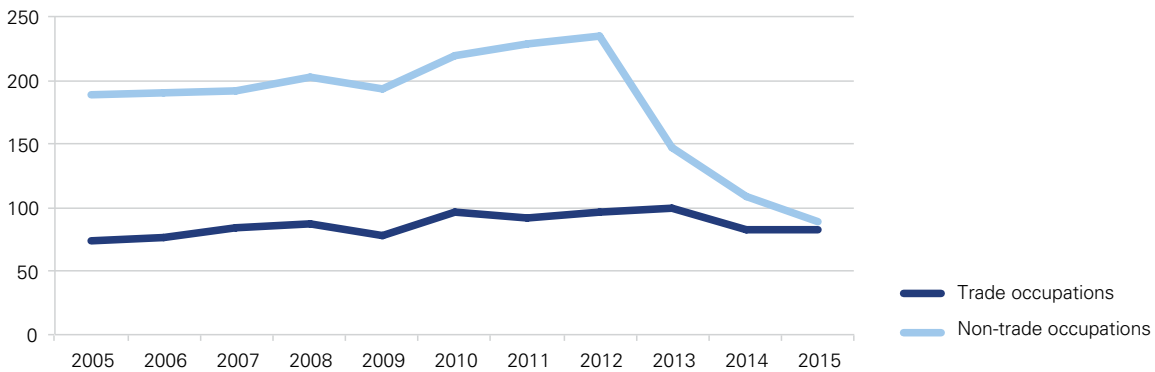


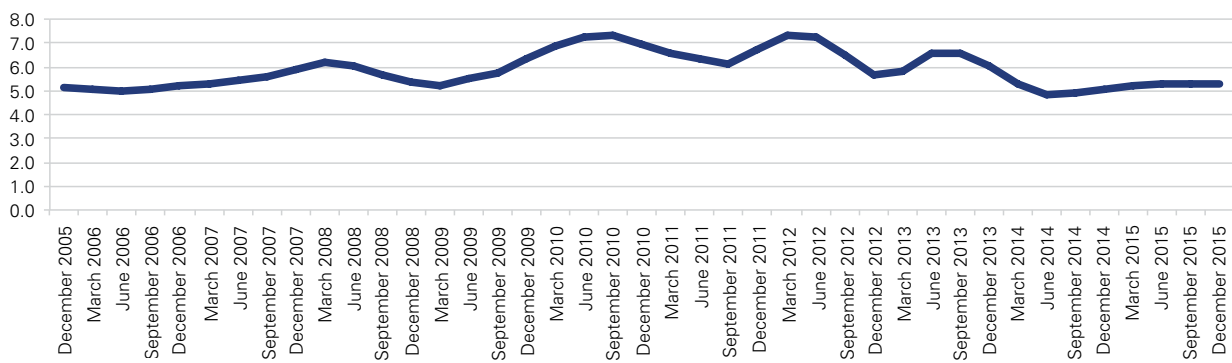
Figure 2: Trade and non-trade commencements, Australia, 2005-2015



Source: NCVET

A more detailed picture of apprenticeship commencements is painted by seasonally adjusted quarterly data over the same period – see Figure 3.

Figure 3: Seasonally adjusted trade commencements, NSW, 2005-2015



Source: NCVET



The surprising picture that emerges from this analysis is the significant increase in apprenticeships in the period from March 2009 to December 2010, during and in the aftermath of the Global Financial Crisis – a period when overall employment growth fell.

While apprenticeship commencements have dropped off from this peak, they have now recovered slightly and stabilised in the first quarter of 2016, slightly above commencement levels in 2005. The major decline has been in traineeships in non-trade occupations.

A misleading picture about apprenticeship numbers can be created when apprentice and trainee numbers are combined, but reported as a decline in ‘apprenticeships’, as has been the case with some public commentary and media reporting in recent times.

Apprentice ratios

Apprentice numbers also need to be considered in terms of employment trends in the relevant trade occupations. Apprentice numbers would be expected to decline in areas of declining employment. Indeed, there are many categories of apprenticeship that no longer exist because occupations have disappeared or been absorbed into other occupations.

Another way of assessing the strength of the apprenticeship system in NSW is to consider the ratio of apprentices as a proportion of all employed tradespeople.

Figure 4 suggests that at a general level these ratios held up reasonably well over in the period 2005-2013. But ratios declined in 2014 and again in 2015. NSW apprentice ratios slightly lagged national ratios until 2009 but are now consistent with national ratios.

However, Figure 5 shows significant shifts in the composition of apprentice commencements. Declines in most categories (particularly those related to manufacturing) are offset by significant increases in electrotechnology and telecommunications trades, and construction trades.

Figure 6 highlights trades in which apprentice ratios have declined significantly. In all but one trade, the ratio was lower in 2015 than an earlier peak in the time series. The decline is particularly noticeable for hairdressers, where many people entering the occupation now do so through hairdressing colleges, some of which also operate as commercial salons.

Figure 4: Trade apprentices and trainees as proportion of trade employment, NSW and Australia, 2005-2015

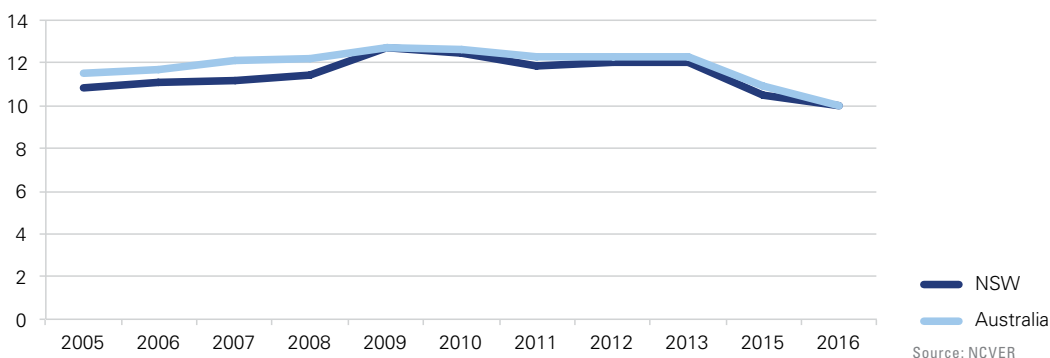
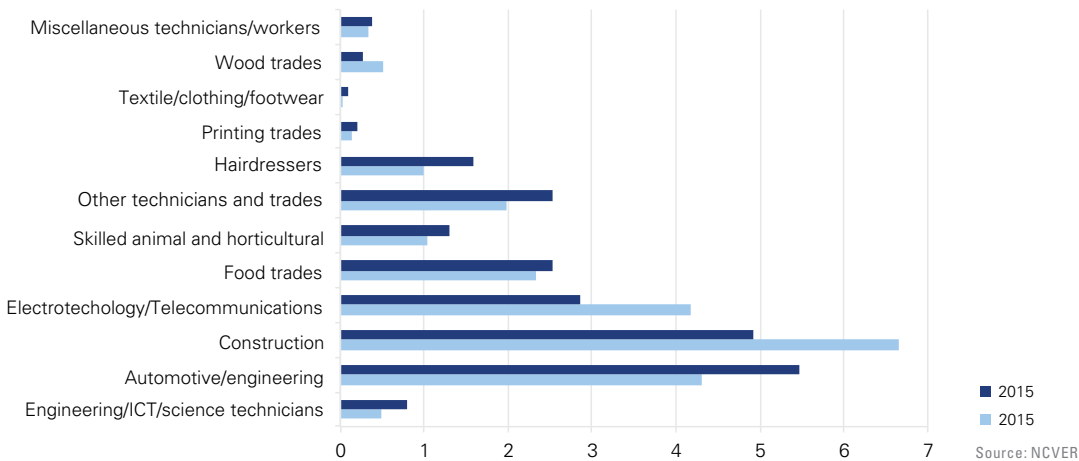
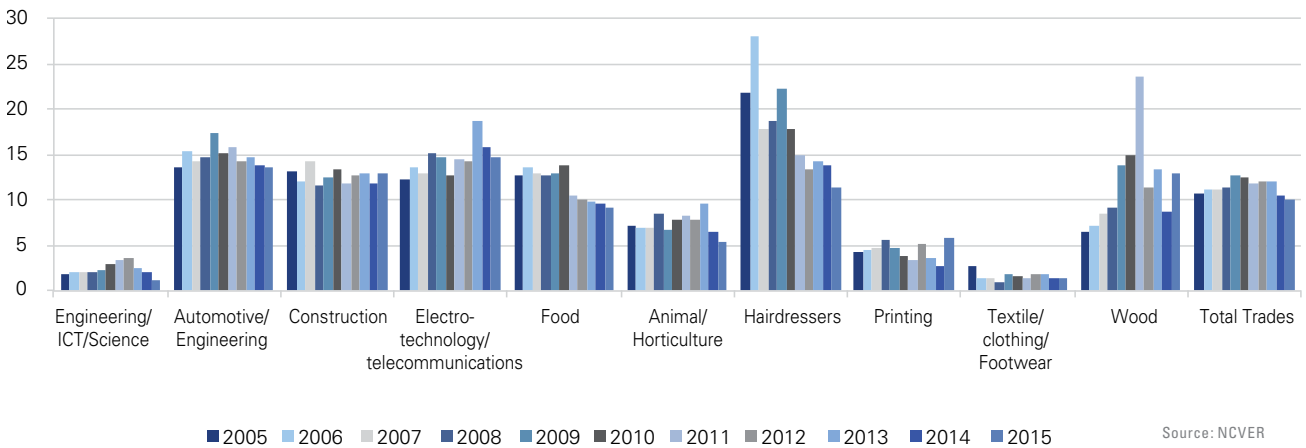


Figure 5: Apprentice commencements by category, NSW, 2005-2015



This aggregate data masks significant variations in ratios between trades, as highlighted in Figure 6.

Figure 6: Training rates by trade, NSW, 2005-2015



The data in Figure 6 illustrates the importance of improving the ratio of apprentices to tradespeople in many trade areas. The potential to increase apprentice numbers is high but clearly varies between trade areas.

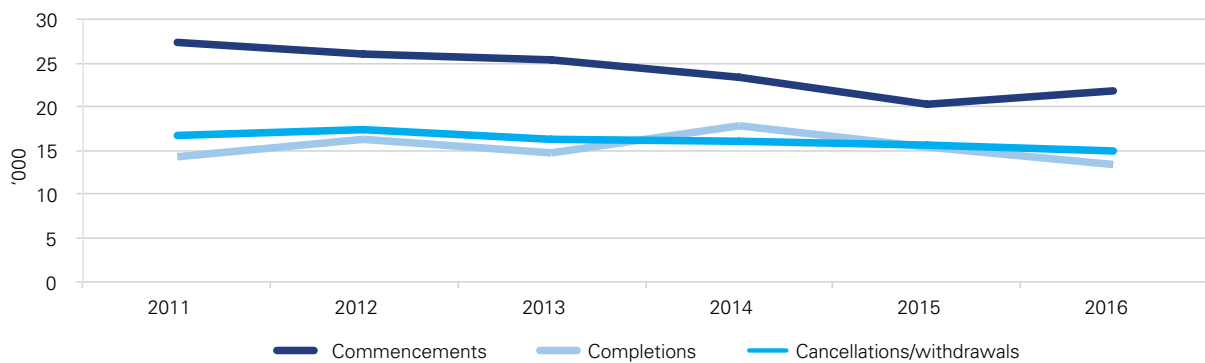
Completions and cancellations

The apprenticeship system's effectiveness must ultimately be assessed in terms of the number of apprentices who:

- complete their apprenticeship in any one year; and
- withdraw from or cancel their apprenticeship.

These measures are illustrated in Figure 7 for NSW apprentices for the period 2011-2016.

Figure 7: Apprentice and trainee commencements, completions and cancellations in trade occupations, NSW 2011-2016



Source: NCVER

The persistently high levels of cancellations and withdrawals from apprenticeships (and traineeships) nationally have long been a significant concern, and identified as an area for improvement with little success. One third of all apprentices and trainees leave in the first year of their contract of training, with issues related to work the most commonly cited reason for leaving⁷.

It should be noted that some apprentices recorded as withdrawing or not completing in fact recommence with another employer or in another trade. The NCVER publishes national estimates of completion rates using three different methodologies: contract completion

rates, individual completion rates, and a 'life tables' methodology, which can predict rates for recently commencing apprentices and trainees.

Table 3 is an extract from the NCVER report *Completion and attrition rates for apprentices and trainees 2015*⁸. The report estimates national completion rates for apprenticeships and traineeships⁹. NSW completion and attrition rates are broadly in line with national estimates which have remained largely consistent over time.

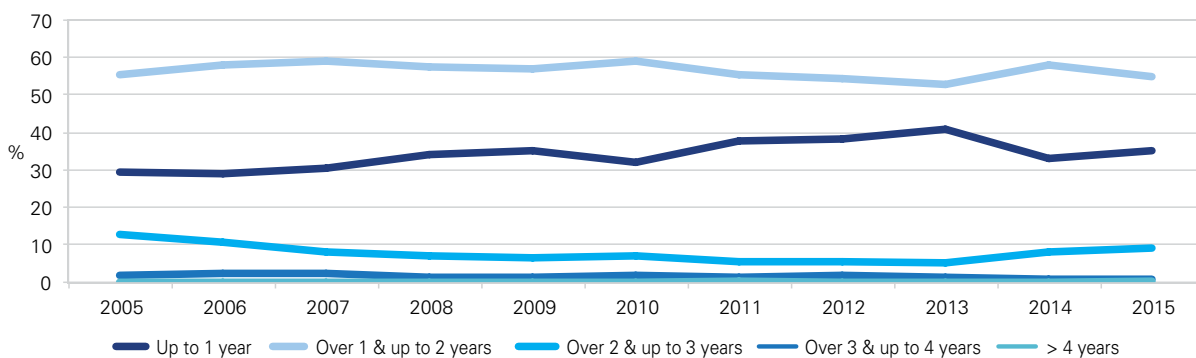
Table 3: Individual completion rates, based on a recommencement adjustment factor, for trade and non-trade occupations commencing in 2010-11

Occupation (ANZSCO) group	Average annual adjustment factor	2010 Contract completion rates %	Individual completion rates %	Average annual adjustment factor	2011 Contract completion rates %	Individual completion rates %
Technicians and trades workers	1.22	46.6	56.8	1.22	46.2	56.3
31 Engineering, ICT and science technicians	1.03	57.5	59.4	1.03	58.1	60.0
32 Automotive and engineering trades workers	1.20	51.8	62.0	1.20	50.9	61.0
33 Construction trades workers	1.32	41.1	54.3	1.31	40.0	52.5
34 Electrotechnology and telecommunications trades workers	1.24	54.1	66.8	1.23	50.9	62.7
35 Food trades workers	1.35	31.1	41.8	1.33	30.5	40.6
36 Skilled animal and horticultural workers	1.09	49.7	54.3	1.10	47.1	51.6
39 Other technicians and trades workers	1.16	50.2	58.1	1.16	50.0	57.9
391 Hairdressers	1.44	35.8	51.6	1.46	35.1	51.3
392 Printing trades workers	1.03	61.2	63.3	1.03	62.5	64.3
393 Textile, clothing and footwear trades workers	1.15	36.6	42.0	1.17	46.5	54.5
394 Wood trades workers	1.21	40.0	48.3	1.19	38.1	45.4
399 Miscellaneous technicians and trades workers	1.02	65.5	66.8	1.02	63.7	65.0

Completion periods

Figure 8 indicates the average completion time for apprenticeships in NSW is reducing, suggesting that competency rather than time based completion may be having some effect.

Figure 8: Percentage of completions by duration of training, NSW, 2005-2015



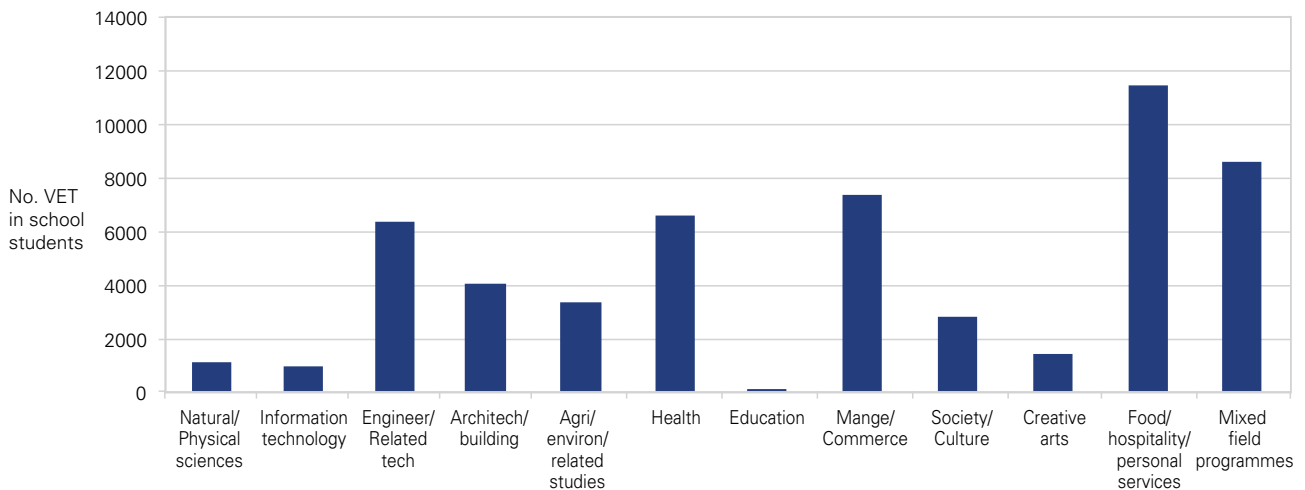
Enrolments in VET in Schools and School Based Apprenticeship

VET in Schools (VETiS) should provide a foundation for, and a pathway into, apprenticeships.

Nationally reported data shows a decline in VETiS enrolments in NSW from 62,000 to 52,000 from 2011-2015. The actual number of secondary school students undertaking VET subjects is likely to be much higher as many students enrol in VET subjects or units outside their formal school programs.

VETiS enrolments in trades related areas are much lower than in services sectors. Several factors produce this outcome, including: costs, equipment and staffing requirements schools require to offer trade related courses; age, safety and experience issues related to work placement; and some trade related courses are best offered through an apprenticeship.

Figure 9: VET in School students by field of study, NSW, 2015



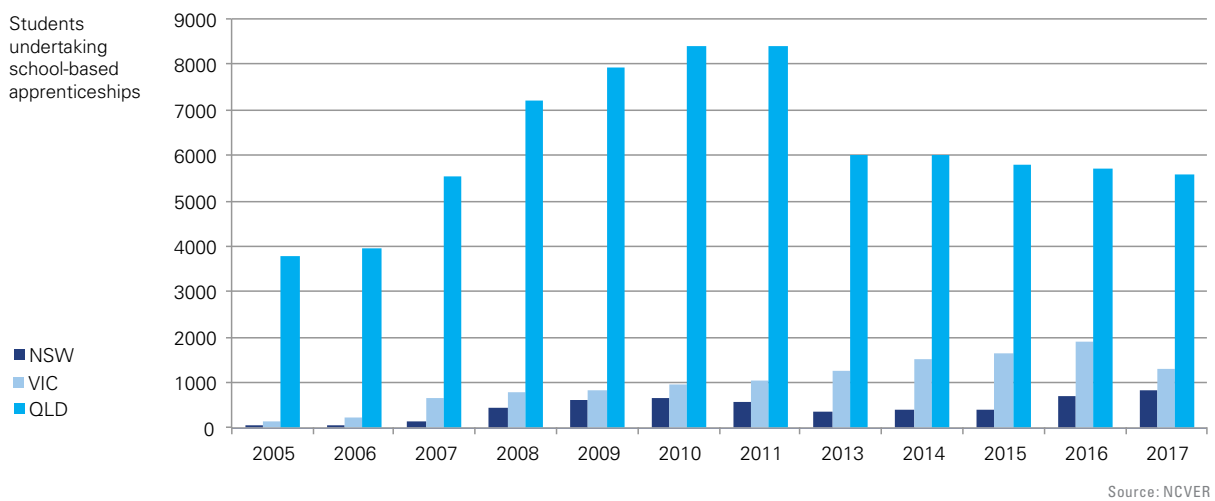
Source: NCVET

Moreover, enrolments in School Based Apprenticeships and Traineeships in NSW are very low.

This is consistent with the experience in all jurisdictions except Queensland where government agencies, schools and industry made a determined effort to introduce and expand School Based Apprenticeships and Traineeships when the model became available in the late 1990s¹¹.

Figure 10 shows enrolments in School Based Apprenticeships in NSW from 2005-2016, relative to Victoria and Queensland. The data highlights the low level of provision and take up of School Based Apprenticeships in NSW, particularly relative to Queensland, although it is encouraging that numbers have risen in 2015 and 2016.

Figure 10: School-based apprenticeships, NSW, Victoria and Queensland, 2005-2016



Employment outlook

A key consideration in looking at the future of the NSW apprenticeship system is projected employment growth across industries and occupations.

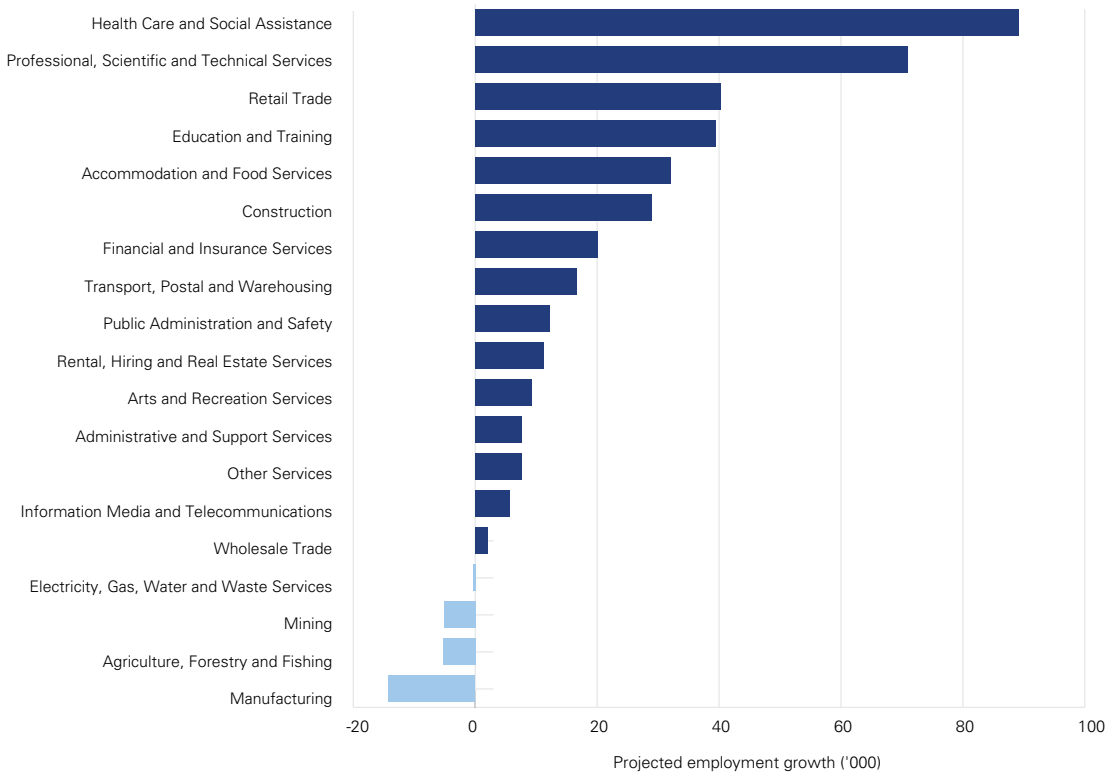
The Commonwealth Department of Employment has published employment growth projections by industry from 2015-2020. While employment projections over this timeframe can be unreliable and volatile as a consequence of external economic impacts, the Department's projections are largely consistent with long term labour market trends.

The Department prepares employment forecasts at industry level by state and region. Occupational forecasts are only available nationally.

Figure 11 is taken from the Department's Labour Market Information Portal and reflects projected employment growth by industry for NSW from 2015-2020.

Consistent with long term trends, manufacturing employment growth will continue to fall, as will employment in the mining industry, both areas of apprenticeship employment. However, employment in other areas in which apprenticeships operate (including construction, telecommunications, food and food services) are likely to grow, potentially creating opportunities for growth in apprenticeships.

Figure 11: Employment growth projections by industry, NSW, 2015-2020



Source: Department of Employment

As occupational forecasts are unavailable at a state level, Table 4 is extracted from the Department’s national occupational growth forecasts for 2015-2020. The table shows projected national employment growth or decline for the major trades and apprenticeship categories. NSW data is likely to be largely consistent with national data as NSW is a major contributor to employment growth.

However, differences in state industry profiles will affect employment forecasts for individual trades.

Employment projections for trade occupations are consistent with industry projections. Declines are projected in manufacturing related apprenticeships, but increases are projected for construction, electrotechnology and other trade categories.

Table 4: Employment forecasts for major trades, Australia, 2015-2020 ('000)

Occupation	Employment November 2015	Projected Employment November 2020	Projected Employment Change	Growth %
Automotive and Engineering Trades	372.9	354.8	-18.1	-4.9
Construction	382.6	412.1	29.5	7.7
Electrotechnology and Telecommunications Trades Workers	251.0	279.9	28.9	11.5
Food Trades Workers	172.9	195.6	22.7	13.1
Skilled Animal and Horticultural Workers	120.7	129.4	8.7	7.2
Hairdressers	61.4	67.2	5.8	9.4
Wood Trades Workers	31.9	30.3	-1.6	-5.1
Cabinetmakers	26.1	24.1	-2.0	-7.8
Printing Trades Workers	17.7	14.9	-2.8	-15.8

Source: Department of Employment

Skills shortages

Skills shortages are driven by several factors. These include:

- employment growth exceeds the supply of skilled labour;
- attrition or turnover rates are high and exceed the supply of skilled labour;
- employment may not be growing, or even declining, but employers cannot fill vacancies because:
 - there are not enough skilled workers remaining in the industry;
 - there are sufficient skilled workers; however, they are not prepared to take available roles because of wage levels, working hours and conditions, industry image, or locational factors (people are not prepared to live in or travel to areas in which vacancies exist);
 - there are sufficient skilled workers to fill vacancies; however, they do not meet employer requirements in terms of currency of technical skills or more general skills and capabilities.

A further consideration is whether skills shortages can be addressed by short cycle skills training (including on-the-job training), or require longer, structured and formal training (such as apprenticeships).

These considerations are important as there are and will be skills shortages even in areas of static or declining employment. The Department of Employment lists the following trade-related occupations as areas of skills shortages in NSW, with statewide shortages in some instances, and metropolitan only or regional only shortages in others:

- Motor Mechanic (General)
- Motorcycle Mechanic
- Sheetmetal Trades Worker
- Metal Machinist (First Class)
- Panelbeater
- Bricklayer
- Carpenters and Joiners
- Painting Trades Worker
- Fibrous Plasterer

-
- Plumbers
 - Electrician (General)
 - Airconditioning and Refrigeration Mechanic
 - Butcher or Smallgoods Maker
 - Chef
 - Cabinetmaker¹².

Nationally assessed skills shortages (which are highly likely to be shortages in NSW) are in the following trade-related occupations:

- Automotive Electrician
- Locksmith
- Stonemason
- Glazier
- Solid Plasterer
- Roof Tiler
- Wall and Floor Tiler
- Pastrycook
- Arborist
- Hairdresser (employers require trade qualified rather than fast tracked hairdressers)¹³.

Even though manufacturing employment is in decline, the Department's skills vacancy assessment notes that:

"Shortages of sheetmetal trades workers are evident in Sydney across a number of skill sets including airconditioning duct fabrication and installation, light metal welding, general sheetmetal fabrication and customised work from samples.

Shortages are for experienced metal machinists in Sydney, particularly for workers with Computer Numerical Controlled (CNC) machine programming skills.¹⁴"



Themes Emerging From Consultation and the Literature

Outcomes of consultation

The Chamber, with the assistance of this report's author, undertook two targeted consultation sessions designed to deepen the evidence base for this research. The sessions were hosted in Western Sydney and the Illawarra: two regions where skills shortages are particularly acute and participation in apprenticeships must be boosted as a first order priority.

The consultation events took the format of facilitated workshops involving stakeholders from industry, the not-for-profit sector (particularly charities with a depth of expertise in working with young people), and representatives from the public and private vocational education sectors. The following summary reflects the major themes emerging from the consultations conducted in Parramatta and Wollongong.

The apprenticeship system's considerable strengths must be acknowledged and retained

The essence of the apprenticeship system – the integration of work and learning – and the fact that apprentices are employed, were universally recognised as distinctive strengths. Of particular importance is that apprentices develop both technical skills in a relevant trade and develop, at an early stage, broader and critical workplace related skills.

Apprenticeships are seen as an important part of industry and the community generally, not simply as a standard course at an education provider.

There are mixed views about apprentice wage levels, and apprentice costs are an issue

There were different views about apprentice wage levels, particularly following the general increase in apprentice wages awarded in 2013. For some employers, apprentice wage levels were seen as a deterrent to taking on apprentices, particularly into a four-year contract of training in which an apprentice would become productive only in the final stages of the apprenticeship. For employers, there is an attendant risk that other employers could poach an apprentice in their third or fourth year.

However, an alternative view was that wages had to be set at a reasonable level to encourage young people, and particularly older workers, into an apprenticeship, especially when apprentices have family responsibilities or have friends already in the labour market earning much higher wages.

Reasonable wage levels are particularly relevant if apprentices are required to purchase and maintain a car to undertake the apprenticeship (for example, in construction to get to different worksites), to purchase work clothes and tools, and in some cases to pay RTO fees.

While these costs could be met through the Commonwealth Government's Trade Support Loan Scheme, the level of take up of the scheme and the purpose to which funding could be applied were questioned.

Mixed perceptions about the effectiveness of relationships between RTOs, employers and apprentices

In some instances, RTOs are seen as successfully complementing skills gained on-the-job by apprentices (and trainees) as well as providing broader industry skills and experience not available in individual workplaces. In other instances, the relevance of RTO training was questioned, with training content seen as dated, or irrelevant, to current industry needs and employer requirements.

A common theme was the lack of integration of assessment between on-the-job and off-the-job learning, with consequential problems arising between apprentices and employers about progress towards, or completion of, competency requirements.

Young people, schools and the community do not sufficiently understand or value apprenticeships

There are many examples where young people have an understanding of, and an interest in, a trade career. In general, though, the trades continue to suffer from poor perceptions and understanding, particularly relative to universities and the professions. These problems are magnified by broadening of access to universities through demand based funding (including for students

with low ATAR scores), negative publicity about the VET system, and the perceived running down of TAFE.

Inadequacies were also highlighted in careers advice offered or available to young people, including a lack of understanding of trade careers, apprenticeship and VET options generally.

VET in Schools and School Based Apprenticeships struggle for legitimacy and priority within senior secondary schools and the HSC.

With some exceptions, where schools have focused on VET as part of their strategic mission, VET in Schools (VETiS) is seen to compete with higher prestige academic options within the HSC. Specific problems include:

- timetabling for work placement or to undertake VET subjects with an external provider; and
- funding, as schools lose funding when students enrol with an external provider.

Most schools are also not well equipped to offer trade related courses due to equipment, staff and work placement requirements.

Within VETiS, School Based Apprenticeships are seen as a preferred pathway for the trades. However, their availability is significantly limited due to timetabling, travel, and funding constraints.

Many young people lack work readiness, literacy and numeracy skills, and general capabilities, to enter into an apprenticeship.

Many young people were seen as lacking an understanding of workplace requirements in terms of punctuality, willingness to accept authority or critical feedback, time spent on social media, and general productivity.

This was seen to be a particular problem with young people in families where intergenerational poverty, unemployment and welfare dependence meant they lack role models for the importance of work, and the requirements to find and maintain a job.

However, these problems were also seen as an age and maturity issue, and areas where an understanding and committed employer, and a strong workplace culture, could make a significant difference.

A specific concern was the number of young people lacking the literacy and, particularly, numeracy skills required in most trades, especially maths in areas like electrotechnology and plumbing.

Also highlighted were the advantages of:

- pre-apprenticeship training;
- programs aimed at introducing learners to a range of trades;
- more effective work experience and work placement; and
- ensuring the Commonwealth Government's new PaTH program is effectively linked to apprenticeships (and traineeships).

Funding and incentives are driven by volume and rapid completion rather than quality and outcomes, and employer incentives are not properly targeted

Payments for Apprenticeship Network Providers and Jobs Service Providers are seen as being driven by the need to maximise numbers and throughput, including early completion. They are not incentivised to effectively match apprentices and trainees in the first instance, nor to provide ongoing support and mentoring. Some participants felt employer incentives should be targeted to the early stages of the apprenticeship when productivity and competence is lowest and apprentices need greatest support.

RTO funding is perceived as incentivising RTOs to complete off-the-job training requirements as quickly as possible, and for competence to be certified, so that RTOs can access completion payments.

The apprenticeship system is seen as far too complex

Consistent with the picture painted earlier in this report, the apprenticeship system is still seen as far too complex, both by employers and other participants in the system. The need for a one stop shop, or a single agency with overall responsibility for the system, was highlighted.

Competency based training is strongly contested

Diverging views were expressed about the benefits and operation of competency based training.

In some industries, such as electrotechnology, competency based training is seen to be inappropriate in terms of the amount of time and experience required in a range of settings to gain full competence.

Also highlighted was employer reluctance to sign off apprentices as fully competent when they are perceived not to be fully productive, or the employer has not benefited from the productivity.

Problems were also expressed with current arrangements where apprentices and employers receive a letter from Training Services NSW notifying them that the apprentice is due for completion based on advice from the RTO, but not necessarily with the employer's agreement. This can confuse understandings and expectations between employers and apprentices.

However, the benefits of competency based training were strongly expressed in terms of rapid completion, particularly for older experienced apprentices and high performing apprentices, and as a retention incentive and strategy.

Labour market trends are affecting apprenticeships

A number of broad labour market trends were also identified as having a potentially adverse effect on apprenticeships:

- the demise of major government authorities such as railways, and the closure or massive rationalisation of traditional industries that were major employers of apprentices;
- the increased use of subcontracting, especially in construction (but also other industries where employment of apprentices is one party's responsibility), particularly due to cost competitiveness in winning and maintaining contracts;
- the preference of some employers to use skilled migration (particularly 457 visas) to meet skill shortages and fill vacancies; and
- the preference of some young people to work in a range of jobs, with flexible hours and the capacity for travel, relative to a highly structured four-year contract of training.

Apprenticeships have distinctive features which are highly valued within workplaces and the community and which merit protection, promotion and extension to a wider range of occupations.

Literature Review

An extensive literature review undertaken for this project revealed ten themes that enrich understanding of the apprenticeship system as it is and could be. This section briefly describes each theme.

Apprenticeships remain a distinctive pathway for highly valued training and employment

Apprenticeships are now incorporated into the broad VET system. But within the broad scope of VET, apprenticeships have distinctive features and benefits which are highly valued within workplaces and the community and which merit protection, promotion and extension to a wider range of occupations.

Lucas and Spencer¹⁵ note that apprenticeships provide learning and employment, and support early labour market entry for young people and support older apprentices to remain engaged in work. These foundations and opportunities mean apprentices can increase their productive contribution to society and the economy as apprenticeships have superior wage and

School Based Apprenticeships are reported as more likely to produce a 'smoother transition into secure and substantial post-school activity' than is the case for students who do not have structured workplace learning experiences.

employment outcomes compared to other Certificate III qualifications¹⁶. Apprenticeships also give confidence to employers and support productivity in the wider economy through warranting the attainment of skills; as Lucas and Spencer also observe, knowledge is easier to assess than skills which in turn are easier to assess than dispositions¹⁷.

School Based Apprenticeships are reported as more likely to produce a 'smoother transition into secure and substantial post-school activity'¹⁸ than is the case for students who do not have structured workplace learning experiences. This activity is more likely to provide a pathway into an apprenticeship or traineeship in a similar industry area rather than lead to a full time university course¹⁹.

Apprenticeships are the centrepiece of the most effective national VET systems

Apprenticeships are a marker of highly effective national VET systems in northern Europe, such as those in the Nordic nations, Germany, Austria and Switzerland. Several characteristics differentiate these apprenticeship systems from the Australian model.

In Australia VET is integrated, at least formally, into senior secondary certificates that are primarily academic and designed to prepare young people for university entry. In northern European systems, high quality VET in upper secondary education is characterised by:

- robust labour market linkages;
- significant industry engagement in apprenticeship program design and oversight;
- high quality, structured work placements; and
- qualifications based on occupational and labour market outcomes.

These features of high quality apprenticeship programs, embedded in secondary schooling, are maintained with the objective of preparing young people for entry to apprenticeships which represent improved employment outcomes and a valued alternative to academic programs. This vocational education model develops skills and attributes that closely reflect employers' needs and current occupational practice. Young people have more contact with employers and easier access to recruitment networks. The evidence holds that strong links between upper secondary education and the labour market have positive effects on school leavers' employment outcomes²⁰. In nations whose VET systems have extensive vocational training at upper secondary level, significant proportions of students finish school with vocational qualifications. These nations also have comparatively lower proportions of young people not in employment, education or training²¹.

Bosch et al have noted that in coordinated economies such as Germany's, the 'precondition for the continuing relevance of vocational training seems to be the extensions of training to cover new industries'²². As the following case study shows, the UK has introduced higher apprenticeship and degree apprenticeship model, many for occupations and industries that are not traditionally associated with apprenticeships.



► Case Study

Higher apprenticeships and degree apprenticeships in the UK

In 2011 the UK government announced the introduction of higher apprenticeships. In 2015, degree apprenticeships joined higher apprenticeships were also introduced. Both are new models in the apprenticeship landscape.

Nationally accredited higher apprenticeships are equivalent on completion to qualifications ranging from a higher education certificate to the first year of a bachelor degree. They are designed to meet industry requirements for higher skill levels, to provide a pathway into higher level qualifications, and to strengthen the perception of vocational learning as equal in status to higher education.

A range of firms and education partners have collaborated to design and deliver higher apprenticeships almost 50 fields as diverse as law, digital marketing, laboratory science and civil engineering site management.

Degree apprenticeships incorporate a bachelor degree or higher qualification. They are now available in 13 fields, including defence, power engineering, life sciences and public relations. Firms offering degree apprenticeships represent the breadth of British industry, from Network Rail and General Dynamics to Rolls Royce and BT.

In both higher and degree apprenticeships, an employer takes on an apprentice as an employee. For degree apprentices aged under 25, the government and employer fund the training component. Off-the job training is provided by an education partner. For degree apprenticeships the education partner is a university, and for higher apprenticeships a range of education partners is available as approved by the Skills Funding Agency.

For further information, see:

- Employer guide to higher apprenticeships, available from: www.gov.uk/government/uploads/system/uploads/attachment_data/file/464572/2015_Employer_guide_to_higher_apprenticeships.pdf
- Degree apprenticeship – An employer’s guide, available from: www.pearsoncollegelondon.ac.uk/content/dam/region-core/uk/pearson-college/Documents%20and%20Forms/Degree%20Apprenticeships%20brochure.pdf

While School Based Apprenticeships offer good transition pathways and stronger links with employers, the majority of VETiS students do not secure such benefits.

VET in Schools is not designed or delivered as an effective vocational education offering

Research reveals significant limitations in the VET in Schools (VETiS) model currently applied in Australia. For most VETiS students, VET studies comprise one subject in the final two years of school. VET studies are mostly undertaken in Year 11. Schools are struggling to respond to an apparent and expressed need, given that 41 per cent of senior secondary students take some vocational studies²³.

As noted earlier, coordinated market economies like those of most northern European nations have tight and meaningful links between work and education. In Australia, school education is framed by an academic model. Consequently, vocational education and vocational learning are consigned to a lower status, and often viewed as an 'easier' option for students not suited to the prevailing academic model. But it is not an option with much efficacy²⁴. VETiS does not provide coherent, structured pathways to work or higher level vocational education. While School Based Apprenticeships offer good transition pathways and stronger links with employers, the majority of VETiS students do not secure such benefits²⁵.

VETiS design and delivery is compromised by:

- lack of mutual understanding among key stakeholders;
- problematic relationships between VETiS programs and senior secondary certificate structures; and
- a lack of clarity regarding measures of success.

This lack of understanding among stakeholders also inhibits effective post-school transitions to mid and higher level VET²⁶.

Current senior secondary certificate structures across Australia promote a hedging bets approach – 'if your ATAR is too low to secure a university place then you can do a VET course as a consolation prize.' The consequence is a mostly academic senior secondary program supplemented by VETiS programs that preclude intense or deep vocational learning. Limits are placed on the number of VETiS subjects that can be undertaken while still remaining eligible for a tertiary entrance rank²⁷.

Work readiness is critical to preparing individuals for apprenticeships, and other forms of employment²⁸. This should be active VETiS territory. However, research reveals large gaps in the adequacy of work readiness programs in education and training systems. In addition, too many young people face barriers to commencing apprenticeships due to poor mathematics and English skills, low levels of resilience and self-understanding, limited or no industry knowledge, and (for some trades) inadequate fitness for physical work²⁹.

The following case study about the Holmesglen Vocational College in Victoria offers insights into how a re-conceptualised VET delivery model for upper secondary school students can address the impediments to offering high quality vocational pathways.



► Case Study

The Victorian Certificate Applied Learning at Holmesglen Vocational College

Holmesglen Vocational College provides foundation, intermediate and senior programs that lead to the Year 12 Victorian Certificate of Applied Learning (VCAL) and other accredited training.

VCAL at the Vocational College comprises a rich vocational learning curriculum delivered across Holmesglen's three campuses in south-east Melbourne and through work experience and structured workplace learning placements.

For young people aged 16 or above, the Vocational College program packages personal development skills, literacy and numeracy skills, employability skills and vocational skills. Each skills domain is approached through project based and experiential learning, and the deployment of explicit instruction pedagogy.

Each student spends the equivalent of two days a week in vocational training, exploring a wide array of career pathways, embarking on a pre-apprenticeship, or undertaking other accredited training. There are clear pathways from the Vocational College other VET programs, including pre-apprenticeships and apprenticeships.

Holmesglen's Vocational College students have access to an array of industry streams that draw on Holmesglen Institute's acknowledged strength and reputation as TAFE provider. Industry streams available to VCAL students range from business, tourism and events to fashion and IT. Other streams include building, carpentry, electrical and engineering, community and health, landscaping and horticulture, multimedia, and small business streams in sport and hospitality.

Apprenticeships must be designed and regarded as a distinctive, high quality option

Apprenticeships, and vocational education generally, can be designed and delivered as an ambitious, expansive and powerful alternative to academic routes, suitable for a wide range of learners, and possessing a well-articulated pedagogy. Or apprenticeships can continue to be positioned as a second class alternative to academic pathways^{30, 31}. If both options are to have equal esteem, then secondary and tertiary education systems must embrace systemic change.

Informed career advice is essential

The Report of the independent panel on technical education in the United Kingdom concluded that:

“all high-performing systems of technical education require: ... widespread availability of comprehensive career guidance – including accurate and up-to-date labour market information and institutional performance data – so that all individuals can make informed choices between the education and training options on offer³².”

However even though advice on VET options and career pathways it valued by young people information about those options and pathways is seen as confusing and less valued and understood than higher education options³³.

Committed employers are the backbone of an effective apprenticeship system

Concerns about off-the-job training are the least frequently cited reasons for not completing an apprenticeship. The most commonly cited reasons for non-completion are employment related, including interpersonal difficulties with employers or colleagues, being made redundant, not liking the work, and changing career³⁴. The majority of completers (80 per cent) are satisfied with their employment experience overall, compared with just 42 per cent of non-completers³⁵.

Research into strategies used by firms with high apprentice completion rates reveal rigorous recruitment processes, formal work plans and mentoring support services³⁶. Employers achieving consistently high rates of apprentice retention are more likely to:

- have 50 or more employees (although best practice employers include many with smaller workforces);
- be based in regional areas;
- have good management practices;
- take advice from others, including their industry bodies; and
- have a dedicated internal human resources function.

Research suggests about one third of employers lack the appropriate attitudes or skills to employ an apprentice, resulting in low completion rates. They are negative about apprentices and do not provide positive work or well supervised on-the-job training experiences³⁷.

Effective apprentice recruitment strategies are essential

Best practice employers report that adopting effective apprentice recruitment strategies is key to their high retention rates. They preferred to select people who had done work experience with them, undertaken a pre-vocational program or were currently working as a trades assistant. They often had strong links with schools and were actively involved in work placement programs with schools^{38, 39}.

The importance of effective recruitment is underlined by research findings that about a quarter of apprentice recruits are not well suited to the trade, or to the apprenticeship experience they signed up for. In consequence, they are very unlikely to complete. A further 20 per cent of apprentices are ambivalent about their apprenticeship experience and rate their chances of completion as low⁴⁰.

Content must be broadened and pedagogy improved

Design parameters for vocational curriculum for schools should require:

- enough flexibility for use in different stages of schooling;
- exploratory and engagement activities prior to the senior secondary years; and
- core disciplinary knowledge beyond that currently contained in training packages (such as language, literacy and numeracy) which informs both industry and occupation-specific learning and supports post-school transition to higher level VET participation³¹.

Design of this kind endorses a vocational curriculum that provides a grounded basis from which to pursue the six desirable outcomes from vocational education enumerated by Lucas et al ⁴²:

1. Routine expertise – skilled routines and the ability to carry out skilful activities to a satisfactory standard;
2. Resourcefulness – the capacity to think and act through a situation not previously encountered;
3. Craftsmanship – pride in a job well done, the highest possible standards of work;
4. Functional literacies – literacy, numeracy, digital and graphical;
5. Business-like attitudes – customer- and client-focused, entrepreneurial and aware of value for money, whether in for profit, public sector or third sector roles; and
6. Wider skills for growth – the dispositions and wider skills for a lifetime of learning and change.

Design better targeted employer incentives

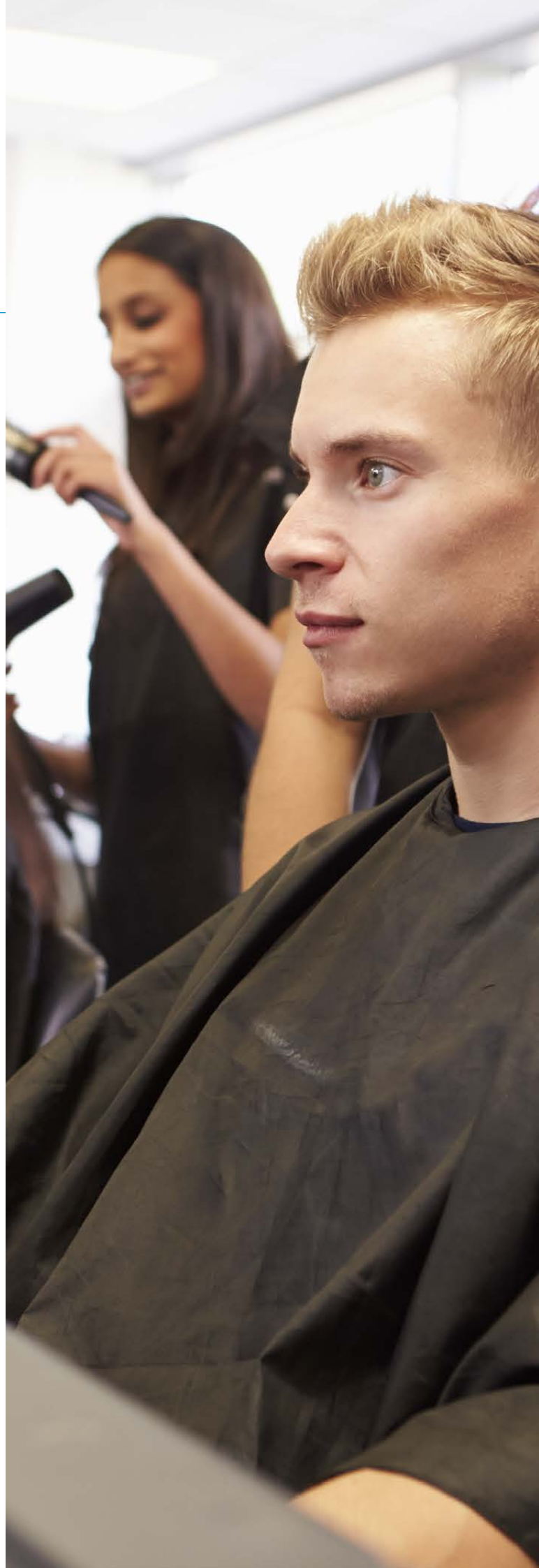
The research evidence suggests incentives need to influence behaviour in three contexts:

- first, in the commencement phase which involves recruiting an apprentice;
- second, during the first 6-12 months of an apprenticeship when withdrawals are highest⁴³; and
- third, for the remainder of the apprenticeship.

These phases are reflected in the 2016 report of the Apprenticeships Reform Advisory Group, which recommended adopting.

“... a new payment architecture that places greater focus on commencement and retention of apprentices. For example, payment points could be readjusted to include an upfront commencement payment, a retention payment at 12 months and a smaller completion payment⁴⁴.”

This approach is supported by findings from an analysis of whether incentive schemes in Australia have influenced retention and completion. The analysis indicates incentives ‘offering more than \$1,000 in the first year proved to have a significant, positive effect on commencements.’ However, the analysis found effective commencement incentives may not lead to an increased probability of completing an apprenticeship⁴⁵.



Multiple jurisdictional contexts coupled with a lack of clear distinction of the responsibilities of service delivery organisations, have contributed to a confusing and complex experience for participants.

Pre-apprenticeships and work readiness are poorly defined and lack recognition

The lack of a nationally accepted and applied definition of pre-apprenticeships means they operate in a training limbo.

Too often pre-apprenticeship programs are unable to deliver outcomes for students because they are developed and delivered without shared expectations and without industry engagement. Lack of consistency and clarity about pre-apprenticeship program characteristics and outcomes can leave them without adequate government funding. These factors intersect, creating challenges with credit or advanced standing for higher VET qualifications, and industrial implications for pay arrangements.

As noted earlier in the literature review, work readiness is critical to preparing individuals for apprenticeships and other forms of employment. Work readiness should be a primary component of pre-apprenticeships but, as also observed earlier, work readiness programs lack consistency, reliability and focus across training and

education systems. Different stages of work readiness, and the baseline requirements, training pathways and student focused outcomes associated with each stage, should be well defined and clearly integrated across school, VET and higher education systems. Pre-apprenticeship pathways should be easily accessible for young people, particularly those with low work readiness skills and limited language, literacy and numeracy skills. The Apprenticeships Reform Advisory Group report suggests there is 'potential to explore how pre-employment, pre-vocational and pre-apprenticeship arrangements can be integrated with work-based welfare programmes'⁴⁶.

The apprenticeship system is too complex

The apprenticeship system has evolved to incorporate a range of service delivery organisations and government agencies. It has become increasingly inefficient and overly complex. In 2011, the Commonwealth Government's Apprenticeships for the 21st Century Expert Panel found that:

"Multiple jurisdictional contexts coupled with a lack of clear distinction of the responsibilities of service delivery organisations, have contributed to a confusing and complex experience for participants. This has contributed to a perceived lack of effective overall governance arrangements."⁴⁷

The Panel recommended that Governments should:

"Enhance the quality and effectiveness of the Australian Apprenticeships system by clarifying the roles and consolidating the number of stakeholders in the system, ensuring that services are provided by the most appropriate provider, duplication of service delivery is reduced and administrative processes are streamlined"⁴⁸.

The case for reform

Based on the preceding analysis, the major strengths and weaknesses of the current NSW apprenticeship system and in provision of education and training to young people become apparent, and the case for major rather than incremental reforms becomes clear.

Major strengths of current system

- The system continues to enjoy significant industry support and community recognition – it is part of the ‘DNA’ of the NSW economy and society.
- The current system is well-established and operates across a range of key industries and across the state. This is a strong platform to build from. It does not require a new system to be established. Improving the current system is a major priority for the NSW Minister, as reflected in the review of the current legislation. The new Commonwealth Minister responsible for VET has also flagged apprenticeship reform as a major priority.
- The Commonwealth and state governments are both heavily involved in the apprenticeship system’s operation. The COAG Ministerial Council offers a forum through which reforms can be mutually agreed. The Ministerial Council has been a highly effective forum for national reform in the past.
- The apprenticeship system in NSW has been resilient in most industry areas, although it is flagging in some.
- In most areas the apprenticeship system will provide employment outcomes as it operates in some areas of employment growth and skills shortages, and job vacancies exist across most trade areas.
- There is scope for flexibility and improvement in the current system. For example, apprenticeships in new areas can be readily established. However, currently these flexibilities are not being properly exploited.
- A framework for providing VET in Schools and School Based Apprenticeships exists. Within this framework there are pockets of excellence to build on and expand – but excellence is not systemic.

Major weaknesses in current system

- Although the system is well established in several major industries and occupations, it is too narrowly based in industries and occupations that are unlikely to grow in the medium to long term. Most areas of employment growth are covered by the traineeship system. However, the traineeship system has been in significant decline and over time and has experienced problems of poor quality and low completion rates.
- The apprenticeship system is not working effectively as an ‘end-to-end’ business process. The system is still too complex. The roles of various agencies are not well integrated, and not well coordinated between the Commonwealth and state governments. There is no single point of authority or accountability for the whole apprenticeship system, despite the state’s legislative power.
- There is too much focus on the volume of commencements as a success indicator. Insufficient attention is paid to:
 - the quality of skills development and learning, both on-the-job and off-the-job;
 - completions; and
 - post-apprenticeship destinations and outcomes.
- Funding of RTOs, Apprentice Network Providers and other agencies, and employer incentives as currently structured, incentivise high volume recruitment and rapid completion. Funding does not incentivise careful matching of apprentices and employers.
- There are insufficient mechanisms for identifying, recognising and supporting high-quality and committed employers who are achieving strong retention rates and completion rates. Conversely, mechanisms are inadequate for identifying employers with high cancellation and withdrawal rates, or identifying employers who provide apprentices with poor quality on-the-job training.
- Commitment to, and understanding of, assessment processes between employers and RTOs for the purposes of competency based progression are at best uneven. On a systemic basis, assessment processes appear to be ineffective.

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- Competencies as defined in National Training Packages often do not meet employer requirements. They are also too narrow in light of emerging national and international frameworks which encompass a broad range of attributes and capabilities, as well as technical competencies, required for specific occupations.
 - The VET in Schools framework in NSW, and in other jurisdictions, has major limitations. For students seeking vocational learning outcomes, the framework does not provide the breadth and depth of learning, or the work placements, that open up viable pathways into the labour market and into higher level VET courses, including apprenticeships.
 - Young people may not be receiving authoritative and independent advice on course and career options and advice may favour academic rather than vocational options including apprenticeships. This problem is exacerbated by the absence of clearly defined and high prestige VET pathways.
 - School Based Apprenticeships are underdeveloped as a comprehensive, systemic offering in NSW (and in most other states).

- Many students lack the required levels of literacy and numeracy, and the personal behaviours and capabilities, required to successfully compete for, engage in and successfully complete an apprenticeship.
- In terms of the future productivity in national and state economies, insufficient priority has been given to the role of the VET system broadly, and the apprenticeship system in particular. This has occurred despite the commitment of individual ministers and industry leaders.

Apprenticeships are a vital source for NSW's skilled workforce. They are a central contributor to the state's current and future economic strength. The apprenticeship system must be fit for purpose and must meet the needs of the contemporary and evolving labour market.

Major reforms are required not only to the apprenticeship system but in the structure and provision of vocational education and training to young people more broadly.



Reforming the NSW Apprenticeship System

Approach to reforms

Reform to the NSW apprenticeship system must balance several key considerations. It is important to assess the current system's ability to contribute to future economic and labour market needs. There is little gain in changing the apprenticeship system beyond recognition if it depletes the current strong presence of apprenticeships in a range of industry areas, or if it undermines the support of industry and understanding of apprenticeships in the broader community.

It is also important to focus reforms and recommendations in specific areas where greatest gains can be made in NSW, either through:

- substantive but incremental reforms to the current system; or
- major reforms that modify the current apprenticeship system (but not necessarily all features of the system) and extend it to new areas.

Key considerations

Areas for reform and specific recommendations also need to be assessed against two key considerations.

Recognising the strengths and potential of the apprenticeship model

Apprenticeships have a long history which pre-dates the establishment of formal vocational education and training systems. Their incorporation into formal training systems through off-the-job training and assessment extended their utility as a mode of technical learning and craftsmanship. The persistence of apprenticeships to the present day is testament to their unique blend of regulated and formal employment, on-the-job and off-the-job learning and assessment, and partnering between employers, apprentices, training providers and support agencies.

Key to this endurance has been the apprenticeship model's capacity to adapt to evolving labour market expectations that reflect the dynamics of social and economic change. The model's adaptive capacity and abiding relevance is attested by strong continuing support for apprenticeships among industry stakeholders.

There is growing recognition that the apprenticeship model has a place in industry sectors and occupations outside its traditional remit in NSW, and that it offers relevance and rigour at higher qualification levels. Training systems as diverse as England and Singapore have endorsed the apprenticeship model's extension to these new areas.

Australia can also exploit the social and economic benefits of the apprenticeship model. To do so will require ambition and innovative adaptation. It will also require an eye to efficiency, clarity in roles and accountabilities, and a determination to focus the apprenticeship system on its primary users – apprentices and their employers.

Understanding what drives the apprenticeship system

The apprenticeship system depends fundamentally on a decision by an employer (private or public) to fill a skills need in their organisation, and to do so by making a major and long term commitment through taking on an apprentice. The relationship between apprentice and employer is the foundation on which the system rests.

Many employers will take on an apprentice for intrinsic reasons: it is the best fit for their organisation. For some employers there are also extrinsic motivations: a commitment to renewing and sustaining the trade, and to creating the same opportunities for others which have yielded substantial personal benefits to them.

Group Training Organisations operate on a different model, largely related to extrinsic industry and community benefits, but also driven by commercial realities, particularly following the withdrawal of government subsidies.

In creating an apprenticeship position, employers must balance risk and benefits (even in the not-for-profit and public sectors). They must balance the risks of cost and investment in the initial years of an apprenticeship and the risk of non-completion, against the benefits of engaging and training a potential long term employee who is committed to, and has a full understanding of, the organisation's business needs and business model.

Risk to the employer is mitigated by taking on an apprentice who has high levels of existing skills and knowledge, and who has greater work experience which has firming their grasp on the requirements and disciplines of work.

Employers also have to be confident that the course and content of the apprenticeship, and the quality of the RTO, will meet their needs and meet industry standards.

Potential apprentices also have to balance risk and reward. They are contemplating entering into a long term contract of training and an employment relationship with an employer. They are contemplating committing to a workplace and an occupation with which most little familiarity. They also have high expectations that the apprenticeship's end point will be a qualification and a set of cumulative experiences that result in them being viewed as a highly skilled tradesperson.

A potential apprentice is better placed to make a sound decision if they have some relevant skills, an understanding of the occupation and the industry, and familiarity with employers and workplaces. These skills and insights improve their ability to assess the suitability of an employer, to fit into a workplace more quickly and to be valued by other employees. They will also be better placed to make informed judgements about the quality and relevance of training provided by the RTO – judgements which are difficult for an employer to make until well into the training process.

For each party, there are significant consequences to failure of a working relationship. For employers there are the costs of direct investment, business disruption and time lost to on-the-job training and mentoring. For the apprentice there is the cost of wages foregone from other employment, wasted time in training (unless they recommence), and the sense of failure.

There are also significant costs and risks to government and the community if an apprenticeship is not completed, or if outcomes do not meet industry standards. In many trades the consequences of poor outcomes can be serious and even fatal.

Reform to the NSW apprenticeship system must seek to reduce the risks and improve outcomes for both apprentices and employers. For both these primary user groups, reform must lead to business processes and options that create and maintain confidence in apprenticeships as a valuable, responsive, productive, long term, work integrated learning arrangement.

Reform proposals

Major reforms and specific proposals and recommendations have been developed for consideration by the NSW Business Chamber in six action areas:

- System redesign.
- Expand and extend the apprenticeship system.
- A new model to deliver VET, including apprenticeships, to senior secondary students.
- Greater focus on the 'front end' of apprenticeships.
- Promote the benefits of apprenticeships.

Each of these action areas is examined in this section of the report.

System redesign

The ten primary objectives of the NSW apprenticeship system should be to ensure that:

- the apprenticeships available are relevant to industry need;
- the maximum number of potential employers are engaged with and regularly use the apprenticeship system;
- there is a high quality applicant pool available to encourage employers to take on apprentices;
- employers and apprentices are well matched;
- the rights, roles and responsibilities of employers and apprentices, and of the RTO, are clearly understood and observed;
- employers and apprentices can access services to assist in resolving disputes if they occur;
- administrative and regulatory processes are efficient;
- training delivery and assessment are aligned with the training plan;
- employers and apprentices are aware of progress towards competency achievement, and competency completion is accepted by both parties to the contract of training; and
- retention and completion rates are maximised.

The apprenticeship system's design should align with these objectives. The system needs to refocus on the primary drivers in the system – the establishment and effective use of contracts of training between employers and apprentices, and the engagement with an RTO to deliver training and undertake assessment in accordance with the training plan.

The current NSW apprenticeship system has evolved on an ad hoc basis over many years. The roles and functions of the State reflect the time when the system was heavily regulated by the State at all levels, and the State had full responsibility for the system's administration. However, in the present system the Commonwealth now also performs major roles in: product development; setting wages and conditions (through Fair Work Australia); providing employer incentives; and, increasingly, in the sign up process. The same system applies to traineeships.

For the purposes of this project, an end-to-end business system was developed to identify the key elements of the apprenticeship system. The business system provides a holistic overview of the system as an end-to-end process. Importantly, the business system assists in targeting areas where reform is most required.



Recommendation 1

The Commonwealth and NSW Governments should:

- redesign the apprenticeship system in NSW (and other states) as an effective, modern end-to-end business process across all agencies and both levels of government;
- ensure that business process redesign accounts for the ten apprenticeship system objectives outlined above; and
- expand the role of Apprentice Network Providers to assume full responsibility for facilitating all stages of the apprenticeship process, from sign up to completion, through contractual arrangements and delegations from both levels of government.

Expand and extend the apprenticeship system

The apprenticeship system in NSW needs to grow if it is to maintain and expand its role in the labour market and in the tertiary education system. It can do this by:

- improving training ratios in trade areas currently served by the apprenticeship system; and
- extending the apprenticeship model to new industries and occupations, particularly at higher skills levels.

The key to improving commencements and completions is to improve training ratios across industries and occupations which the apprenticeship system currently serves. This requires more employers to take on apprentices, employers who have disengaged from the system to return to it, and employers currently engaged in the system to remain engaged and even increase intakes when it meets business needs.

Facilitating greater engagement will rely on an industry by industry approach. Needs and circumstances vary widely between industries. It is essential to establish, and maintain, a detailed understanding of the current composition of the employers of NSW apprentices and gaps in that composition, including across regions.

Commonwealth and NSW Departments, and contracted agencies and providers, hold an enormous amount of information about:

- employers currently engaged with the apprenticeship system;
- employers who were once but are now not engaged with the system; and
- the apprenticeship outcomes for individual employers.

However, currently this information is largely used for administrative, monitoring and reporting purposes.

Powerful tools to steer reform can be created by analysing this data together with:

- information on business characteristics in different industry sectors;
- analysis of industry wide factors that drive or inhibit apprentice take up; and
- qualitative research that guides development of sector by sector strategies to improve apprentice ratios and completion rates, and to target information and marketing to individual employers on an industry by industry basis.

This process of analysis, qualitative research and strategy formulation would best be led by industry bodies in partnership with government agencies, particularly the Department of Industry. Immediate priorities should be:

- industry sectors where training ratios are in decline (such as hairdressing); and
- areas of employment growth where ratios can be improved (such as construction).

Recommendation 2

The NSW Government compile and publish industry by industry analysis of the composition of NSW apprenticeship employers, gaps in their composition, and strategies to increase employer engagement in and take up of apprenticeships.

Extend the apprenticeship model to new industries and occupations

Apprenticeships in NSW (and other states) are largely available at AQF level 3. This is purely a result of history. Conceptually, there is no reason why the apprenticeship model should be limited to AQF level 3. In fact, the New Apprenticeships funding framework originally agreed by Ministers in 1997 allowed for apprenticeships to be created and funded up to and including VET Diplomas and Advanced Diplomas, although most states and the Commonwealth opted not to pursue this option.

The majority of projected employment growth in Australia will require qualifications at AQF 5 and above⁴⁹, including for technicians and in professions in industries where the apprenticeship model is well understood, valued and used by firms. As noted in a case study earlier in this report, the UK Government has recently announced that industry developed degree apprenticeships will be offered through partnerships between universities and firms in 13 industry areas.

The Commonwealth Government has initiated pilots that:

... will deliver higher level qualification apprenticeships, at the diploma or associate degree level. Participants in the pilots will have the opportunity to complete an advanced qualification leading to careers in business and financial services, IT and new areas of advanced manufacturing⁵⁰.

NSW could participate in these pilots.

Similarly, the NSW Government has a pilot initiative underway experimenting with two models of higher learning apprenticeship models. As advocated by the Chamber, a firm timeframe for implementing the two models should be set out.

Further, with the support of industry bodies, NSW could initiate a systemic process at a state level to create and fund higher level apprenticeships. NSW could seek the Commonwealth's agreement to extend its employer incentives, and the services of Apprenticeship Network Providers, to higher level apprenticeships.

Recommendation 3

The NSW Government work with the Commonwealth, jurisdictions and industry associations to deliver higher level apprenticeships.

Create a new model to deliver VET, including apprenticeships, to senior secondary students.

There is now a strong and growing body of evidence that the Australian model of integrating VET into senior secondary certificates, as the primary delivery mode for vocationally oriented programs, is not working on a systemic basis, although there are individual examples of outstanding practice. The rationale for the current approach was sound. The model sought to avoid streaming students based on perceived ability levels into academic and non-academic pathways, and to enable

students to complete a common senior secondary certificate in the general school setting.

There are also advantages to this approach for students who wish to take individual VET units as part of the HSC without early specialisation in a particular occupation or industry.

However, for students unlikely to transition to higher education, and particularly for those prepared to enter an apprenticeship or a VET pathway, VET in Schools (VETiS) as currently conceived and offered represents the worst of both worlds. Many students do not achieve results required for entry to, or successful participation in, higher education. Yet schools are unable to offer the breadth and depth of VET subjects required to successfully transition to apprenticeships and traineeships, or to move seamlessly into higher level VET offerings. This problem may be exacerbated by the increase in the school leaving age.

At the same time there is evidence of excess capacity and underutilisation of facilities in TAFE.

The focus should be on delivering high quality VET to school aged students. There is a clear need to step away from the more limited notion of 'VET in Schools' which automatically links the delivery model to the currently dominant academic senior secondary model.

In many countries, senior secondary students undertake a vocationally oriented senior secondary program at either a specialist technical school or, in the UK, at a Further Education college.

A similar strategy should be adopted in NSW (and other Australian states) through three models:

- partnerships between schools and TAFE, with each organisation providing senior secondary units in areas in which they have both expertise and a critical mass of students.
- enable school age students to enrol in TAFE to undertake a full, senior, vocationally oriented certificate.
- TAFE operating a senior secondary school within its campus structures (such as Holmesglen Vocational College which offers the Victorian Certificate of Applied Learning to secondary age students).

Under these models VET programs could be offered either within the structure of the HSC or as an alternative

senior secondary certificate (such as the Victorian Certificate of Applied Learning).

Under each of these models institutions would be funded on the same basis as funding for equivalent programs delivered fully in a school.

The School Based Apprenticeship model should also be rethought and redesigned.

Only a small number of schools can offer School Based Apprenticeships and few school students can enrol in them, notwithstanding significant Commonwealth Government investment in Trade Training Centres in schools. In particular, schools struggle to provide the facilities, equipment, appropriate staffing and work placements required for trades programs, even when schools operate in networks.

Undertaking the HSC or a School Based Apprenticeship is a substantial, time consuming commitment. A School Based Apprenticeship is particularly demanding on students and school resources, taking into account work commitments and on-the-job and off-the-job training requirements. However, both HSC and apprenticeship have sufficient flexibility for both outcomes to be achieved, most probably over a longer period of time than for a standard apprenticeship or HSC completion.

The objective of School Based Apprenticeships was to allow students to undertake an apprenticeship while also completing a senior secondary certificate. This apprenticeship option enabled students to gain an ATAR if they wished to ensure access to a broad range post-school employment and study options, and also to meet the requirements of many employers that students have completed the HSC.

This objective could be better achieved by most students commencing their apprenticeship as their primary focus while concurrently undertaking the HSC. In particular, changed arrangements are needed to ensure that apprenticeship subjects count towards the completion of the HSC, together with the mandatory English requirement and, for some trades, relevant maths and other HSC units.

Employers would also have to fully support apprentices to achieve both learning outcomes, particularly at peak study and assessment times.

TAFE is already a major deliverer of the HSC to students who have left school, and to older learners. Training

plans could be adjusted to allow apprentices to undertake both the HSC and their trade related off-the-job training.

This model can encompass schools that can effectively deliver, or facilitate the delivery of, apprenticeships to school students. Many, if not most, apprentices are also likely to commence an apprenticeship after completing the HSC at school. But a different model is required if school students are to have early access to vocational pathways that have equal status with the academic pathway.

Recommendation 4

The NSW Government undertake major reforms to VET provision for senior secondary students through:

- significantly expanding the role of TAFE and alternative providers in delivering VET to students undertaking VET pathways within the HSC, with funding following learner choice or program and provider; and
- redesigning the model for delivery of apprenticeships to senior secondary students by enabling students to commence an apprenticeship and complete their HSC at TAFE or via another VET provider.

High quality, industry recognised pre-apprenticeship and work readiness programs

There is a range of pre-apprenticeship courses available in NSW and in other states. However, pre-apprenticeship courses are not developed, or sufficiently well defined, in National Training Packages as distinctive, industry recognised offerings. Nor do they have a course structure that provides an alternative to the HSC.

Similarly, there is a range of work readiness programs available in NSW. However, these courses do not sit within a broader course structure with clear pathways to higher level VET qualifications, including apprenticeships. Students participating in these programs often do not receive sufficient structured work placements. Industry recognition and acceptance of outcomes from pre-apprenticeship programs is lacking.

However, it is important that VET qualifications in NSW leading to apprenticeships sit within the framework of National Training Package standards and qualifications so that they are recognised by all RTOs and by industry, and have credit based pathways into apprenticeship programs.

The role of Group Training Organisations could be broadened as part of this model to facilitate and coordinate structured work placements for pre-apprentices through their extensive employer networks.

Recommendation 5

The Commonwealth Government work with the jurisdictions to develop, fund and deliver a national industry-led pre-apprenticeship program.

Greater focus on the 'front end' of apprenticeships

Strong evidence from research, consultations and previous reviews holds that the major factor contributing to high non-completion rates is poor initial matching of employers and apprentices. Inadequate matching leads, subsequently, to poor workplace experiences due to poor employer practices, or to underperformance by apprentices in the workplace or their studies, or both.

The key problem is that the current process remains primarily volume driven, particularly for Apprentice Network Providers but also for RTOs, many of which also actively market apprenticeships and traineeships. The focus must shift from commencements as the primary indicator of system performance.

The emphasis must be on:

- effective matching of apprentices and employers, including through thorough assessments of a potential apprentice's readiness and capacity to apply for and undertake an apprenticeship;
- assessing an employer's capacity to effectively support an apprenticeship; and
- more effective induction, monitoring and support of apprentices during the probationary period.

Effective matching could be achieved by ensuring potential apprentices are more effectively prepared to enter an apprenticeship, for example through:

- using online profiles of skills, capabilities and experience (building on the recently released Foundation Skills Assessment tool);
- coaching and guidance for potential apprentices;
- post-interview feedback and advice for both successful and unsuccessful apprenticeship

applicants so that they apply with another employer;
and

- dedicated support for apprentices and employers when required, particularly in the probationary period.

There are two further highly effective strategies for effective matching which are not used on a formal, systemic basis:

- work placement with employers prior to the formal apprenticeship (which many employers already use as a screening device); and
- engagement with RTOs about the strengths and weaknesses of candidates who have completed pre-apprenticeships and other VET courses.

The weakness in the current system is the separation of responsibilities. The Commonwealth has the primary role in three elements of the proposed end-to-end business model: development and availability; marketing; and sign up. States have the primary role in two elements of the system: training, and completion. In effect, this means the states assume responsibility for poor decisions taken in the sign up process.

Changes to Apprentice Network Providers roles, announced in 2015, are a step in the right direction. The changes provide for pre-commencement services and advice to unsuitable candidates on alternatives to apprenticeships. However, these adjustments are unlikely to address the current model's fundamental weaknesses. The Apprenticeship Network Providers should be funded and resourced to facilitate better matching between prospective apprentices and the employers who require them.

Recommendation 6

The Commonwealth Government resource Apprentice Network Providers to support more effective matching of apprentices and employers.

Ensuring balanced and informed careers advice

Improving VET options and pathways including apprenticeships must be accompanied by effective and balanced course and careers advice to young people, including information and advice on labour market opportunities and outcomes. This requirement poses a challenge for careers advice delivered in many schools where VET is not a major offering.

Comprehensive and personalised course and careers advice should also be available independently from education and training institutions and providers where advice to students may be limited in terms of the role and offerings of the institution or, potentially, influenced by the interests of the institution.

In England the National Careers Advice Service provides comprehensive, confidential and impartial information and advice through its website and for those aged over 18 one to one services through phone, email, web chat or face to face⁵¹. In the context advice to school aged students, a model would of this type should be available to young people aged 15 and over as it is at this age that most young people make their major study choices.

Recommendation 7

The Commonwealth Government work with the jurisdictions to establish a National Careers Advice Service to ensure that all young people are provided with independent and authoritative advice on senior secondary and post school study and careers options. Rebalancing employer incentives.

Focussing employer incentives through completion payments have not redressed this problem. Evidence suggests that incentives and financial support for employers would be better applied in the initial phases of an apprenticeship when the direct and indirect costs to the employer in taking on an apprentice are high, and the business risk to the employer is greatest.

There is a risk that some employers, Apprentice Network Providers and RTOs may seek to exploit this system by churning a large number of commencements. This risk can be most effectively mitigated by close monitoring of commencement and completion data, and by applying sanctions where appropriate.

Recommendation 8

The Commonwealth Government rebalance employer incentives to focus on:

- a commencement payment;
- a payment at the end of the probationary period; and
- a completion payment.

A new role for Group Training Organisations

There is also significant variation in the capacity of employers to effectively support an apprenticeship, particularly in the early stage. Apprentices are more likely to be retained by larger employers with dedicated human resource departments, employers experienced in employing apprentices, and employers exhibiting 'best practice'. Smaller and less experienced firms are less likely to do so, although some small firms with a strong commitment to apprenticeships have outstanding completion rates.

The role of Group Training Organisations could be reconsidered as a means of positively influencing completion rates. A revised role could encompass GTOs:

- providing the first year of an apprenticeship;
- providing ongoing support to employers in subsequent years; and
- helping to build employer capability, including assisting with on-the-job training (for example, in areas where individual employers are unable to provide work and training in specific competencies).

Recommendation 9

The NSW Government expand the role of Group Training Organisations in the early stages of apprenticeships by:

- hosting the first year of an apprenticeship;
- placing apprentices with employers from the commencement of the second year of an apprenticeship; and
- assisting employers to build capability with on the job training, or through the provision of aspects of on the job training.

Promote the benefits of apprenticeships

While apprenticeships remain a strong 'brand' within the VET sector, the pull of the expanding higher education sector, perceptions of trade careers, and reputational damage to the broader VET sector, appear to be acting in concert to deter many young people from exploring apprenticeship options.

Misleading and overly generalised statements about the disappearance of jobs for young people due to new technology and automation in many areas of traditional employment do not assist. Nonetheless, ongoing technological and structural change requires continuing renewal and adaption of apprenticeships.

Labour market growth generally is slowing. The relative employment position of young people has deteriorated in the aftermath of the Global Financial Crisis. However, the persistence of skills shortages in many trade areas, and projected strong growth in areas such as construction, suggests a fundamental discrepancy between labour market perceptions and realities. This discrepancy serves to obscure opportunities afforded by strong employment outcomes from apprenticeships, and the opportunities for young people to earn and learn.

A well designed and targeted strategy is required to tackle these misperceptions. Such a strategy must tap into the sources of information used by, and which have strong influence on, young people, their parents, teachers and school leaders. A closely targeted, consistent and persistent social media strategy is required, rather than another glossy public relations campaign.

Consistent with the strength of the apprenticeship system – its relationship with industry – and the plethora of government marketing campaigns across many areas of government activity, an industry led and industry branded strategy undertaken in partnership with government is likely to be more effective with employers and potential apprentices.

Recommendation 10

The NSW Business Chamber, in partnership with government, other business and community organisations, deliver a major industry campaign to promote apprenticeships and the career outcomes they can achieve.

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John Crittenden	Austrain Academy	Tyler East	Taylormade Plumbing Solutions
Judith Field	LendLease		
Kerrie Langford	National Disability		

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NSW Business Chamber

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