

IN THE SAME SENTENCE

Bringing higher and vocational
education together

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Introduction

Earlier this year the NSW Government asked us to examine vocational education and training (VET) in NSW. We were asked to provide advice on how the state's VET system could best address ongoing and emerging skills shortages, paying particular regard to its quality, efficiency and structural complexity. It was indicated that we should consider how to integrate secondary, vocational and higher education learning opportunities, how to re-imagine industry engagement and how to improve career advice to support lifelong learning. It was also suggested that we should seek to understand any negative public perceptions of VET.

The request reflects the NSW Government view that an effective and sustainable VET sector is crucial for providing the skilled workforce needed for a strong NSW economy. We were asked to identify the challenges that currently adversely impact the ability of the sector to effectively play this role.

In line with our terms of reference, we have considered the findings and recommendations from a wide range of recent state and Commonwealth reviews. We have consulted educational and industry experts individually and collectively. We have also met with other key stakeholders.

As requested, we have identified underlying challenges to the VET sector in NSW and made a select but far-reaching set of recommendations on how they might be addressed. This involved

considering the context of COVID-19, which presents a pressing need for a VET sector equipped to support a strong NSW economy. We have considered how the VET sector can aid the COVID-19 recovery by ensuring NSW can effectively respond to skills shortages and help workers upskill and reskill in response to changing demand.

The challenge

VET funding in NSW is significant. In 2020–21, total recurrent investment in the NSW VET sector was \$2.7 billion. That investment reflects the significant role of VET in meeting future skill needs and enhancing the productivity of the NSW labour market. Yet the sector faces significant challenges in deriving maximum returns on that investment.

1. The uptake of VET is declining.

Fewer students are participating in VET. In 2001, 188,943 people were undertaking technical or further education in NSW. By 2016 this number had dropped to 144,103.¹ That trend is continuing.

2. There has been a significant shift in student numbers from vocational to higher education.

There has been a generational shift in the relative attractiveness of universities. In 2001 there were 1.2 higher education students for each technical education student in NSW. By 2016 this figure had risen to 2.6.² This trend, too, is continuing.

3. Despite this, forecasts suggest that there will continue to be a significant number of jobs that require trade and technical skills.

The NSW Skills List indicates continued shortages of workers for jobs that require certificated vocational qualifications. Many of these have been filled previously by the large-scale permanent and temporary migration of skilled workers.³ Given the global pandemic, this flow of skills from overseas is likely to decline in the short to medium-term.

Already, NSW has a higher overall skills shortage than either Queensland or Victoria. It is estimated that, pre-COVID-19, there were more than 30 skills shortage areas in NSW.⁴ Many of these are in the trades.

4. Career advice, guidance and support is inadequate.

Information on labour market demand is hard to interpret. The 2019 Joyce Review, *Strengthening Skills*⁵, found that:

“[a]lthough a great deal of information is published, it is fragmented across different websites, it is not always complete and is difficult to navigate... It is difficult to find reliable information.”

Little help is available. Too few people entering the labour market, upgrading skills or changing occupations are able to receive professional support to make informed career decisions.

5. While a wide range of VET courses are on offer, many are not attractive to students.

There are 1,400 VET qualifications (and 17,000 units of competency) across Australia, around half of which are government-subsidised. Many

have limited uptake. Of the Certificate I to Advanced Diploma qualifications with at least one enrolment in NSW in 2019, 208 had fewer than 10 enrolments.⁶ Rationalisation is necessary.

6. Australian employers are becoming less satisfied with the quality of VET.

Satisfaction among employers in NSW who use vocational qualifications as a job requirement has fallen from 85.9 per cent in 2011 to 74.5 per cent in 2019; satisfaction among employers with apprentices has declined from 84.4 per cent to 78.6 per cent; satisfaction among employers using nationally recognised training has decreased from 89.4 per cent to 79.1 per cent; and satisfaction among employers using non-accredited training has dropped from 96.5 per cent to 86.1 per cent.⁷

The most common reasons for employer dissatisfaction are the perceived poor quality of training, the irrelevance or outdatedness of skills taught, and VET's inadequate focus on practical workplace skills. It is vital that these concerns are addressed.

7. Large numbers of those undertaking tertiary education either fail to complete their qualification or take many years to do so.

Around half of VET students fail to complete. Overall, 47.5 per cent of those who participate in vocational education in NSW fail to finish their course.⁸

Non-completion is also an issue for higher education. Around a third of those who participate in higher education in NSW fail to complete their course. Nationally, only 62.4 per cent of Bachelor students who began their course in 2014 had completed it by 2019. In NSW the figures range from 80.4 per cent (University of New South Wales) to 47.2 per cent (University of New England).⁹

8. Funding and fee arrangements are biased against VET in favour of higher education.

The recent NSW Productivity Commission Green Paper, which emphasised how the state economy would benefit from a more fit-for-purpose and responsive VET sector, identified that at present, “funding and fee arrangements are biased against VET in favour of higher education.”¹⁰

Students can receive an income-contingent loan for any Bachelor's degree course from a

public university for the full cost of the course. By contrast, income-contingent loans are only available for diploma or higher level VET courses, with a cap on the loan amount and a 20 per cent loan fee for many students. This contributes to a sub-optimal distribution of students between the VET and higher education sectors.

The reform process

A number of recent reviews have highlighted deep-seated problems in Australia's delivery of vocational education and training. These have emphasised the need to integrate it better with higher education.

Already, NSW has introduced a range of reforms. The government has recognised that the success of these new initiatives is fundamental to achieving one of the key goals of its 2040 Economic Blueprint, which is to increase skill levels and productivity, particularly in the state's high-growth industries.

Significant progress is taking place to lift performance.

TAFE NSW is being put on a sounder financial footing through controlling expenses and addressing declining revenues. The One TAFE operating model is simplifying management structures and improving asset management. This has been accompanied by an expansion of online delivery models and greater emphasis on workplace-based delivery. From the start of 2019, TAFE NSW has operated as a single Registered Training Organisation (RTO).

Meanwhile, the introduction of the Smart and Skilled program in 2015 has provided a much-needed overhaul of the NSW VET system through its provision of targeted government-subsidised training entitlements. It is a demand-driven and contestable funding model. It has increased industry-focused training participation, particularly for disadvantaged students, and is creating a competitive market.

More recently, the government has updated its legislation to improve the state's apprenticeship and traineeship system. The *Apprenticeship and Traineeship Act 2001* was amended in 2017. As a consequence, safeguards have been introduced for employers, apprentices and trainees. Key processes are being simplified and red tape is being removed.

SNAPSHOT

The **uptake of VET** is declining



Of the Certificate I to Advanced Diploma qualifications in NSW in 2019

208

had **fewer than 10 enrolments.**

Satisfaction among employers in NSW who use vocational qualifications as a job requirement



Most common reasons for employer dissatisfaction are:

- the perceived poor quality of training,
- the irrelevance or outdatedness of skills taught, and
- VET's inadequate focus on practical workplace skills

Levels of subsidy have been increased. NSW currently has a commitment to provide up to 170,000 fee-free apprenticeships or traineeships.

Changes are also taking place in secondary education. Earlier this year, following receipt of the NSW Curriculum Review, the Premier announced significant reforms to the NSW school curriculum. These included measures to address the arbitrary divide between academic and vocational learning in the senior secondary curriculum. A strong emphasis was also placed on building stronger foundations in literacy and numeracy, decluttering the school curriculum and better preparing year 11 and year 12 students for future work and career pathways.¹¹

We strongly support the continued implementation of these important initiatives. They are already having a beneficial impact. We also note that work is currently underway to develop a new National Skills Agreement with the Commonwealth. We hope that the new agreement leads to a better-funded, more coordinated approach to subsidising a high-quality VET system in NSW. It would expedite implementation of the measures we suggest.

The challenges that remain

The focus of our report is on how the NSW Government might tackle, in an imaginative way, some of the profound ongoing challenges that remain. We have limited our attention to five major problems that we believe will need to be addressed if VET is to be revitalised.

1. The increasingly outdated distinction between higher and vocational education.

Most jobs need a mix of practical and theoretical skills. The structural bifurcation between two different types of tertiary study – higher and vocational education – often hinders people in gaining the range of employability capabilities that they need for success. As cognitive technologies disrupt and transform skill requirements in trade, administrative and professional occupations, there is presently inadequate integration of deep technical education with a broader range of employability skills. Students who are pursuing tertiary education to prepare themselves for a career are often disadvantaged by the structural demarcation of learning.

2. The inadequacy of career information and guidance.

While there are notable exceptions, career guidance for secondary school students is generally patchy and often poor. For employees looking to develop their skills or change careers, advice is very difficult to access. Decisions on employment pathways are often inadequately informed.

3. The negative perception of VET in NSW's schools.

Student Higher School Certificate (HSC) pathways tend to be biased towards academic subjects that lead to university study. The Australian Tertiary Admission Rank (ATAR) dominates the high school curriculum. Access to high-quality, practical, work-oriented subjects is generally given less attention at school. The range of VET subjects taught is limited and too rarely leads to certification. Many students are led to believe that VET is not accorded equal status and should only be considered by those with lower academic capability.

4. The failure to effectively engage industry as a genuine partner.

Employers are represented on the boards that develop and oversight training packages. On occasion they are consulted and surveyed by the NSW Skills Board. Yet many in industry do not believe that the sector has a sufficient voice in the collaborative planning, design and delivery of VET. They do not feel that they are genuine partners in skills development.

5. The financial disincentives to studying VET.

Income-contingent loans, which remove upfront costs, often make it seem easier financially to go to university than to pay the upfront and/or more immediate costs of acquiring vocational education certification. We need to 'level the playing field' for students.

An agenda for reform

In response to these profound challenges, we set out below five recommendations, each of which is detailed further in the body of this report. We believe that they represent innovative reform options that will allow NSW to become an Australian leader in promoting a more integrated tertiary education. They will:

- improve the design, delivery and prestige of VET
- provide more information on a greater choice of career pathways
- enhance the skills formation needed to underpin the state's economic growth and productivity in the decades ahead by aligning the strategic priorities of government with industry need.

Acceptance of our recommendations will present an opportunity to engage industry more strategically in the planning, design and delivery of employment-focused education, vocational training and structured workplace experience. Most importantly, implementation of the recommendations will attract more people to study VET in NSW.

While we advocate for the implementation of our package as a whole, the components of our reform agenda can be rolled out progressively. Indeed, we see virtue in demonstrating the benefits of new approaches before scaling up and also through the examination of the opportunities which might arise for partnerships both between government and industry and between the state and the Commonwealth. Each of the recommendations can also be implemented independently of the others, should that be the preference of the NSW Government.

While our ideas are bold in their scope and ambition, the implementation of each proposal can be announced and begin almost at once. Each element can be evaluated and adapted as necessary on the basis of implementation experience. We can learn from doing in seeking to do things more imaginatively.

Recommendations

- 1. Establish a NSW Institute of Applied Technology** as an entirely new form of Australian tertiary institution. It will deliver fully integrated theoretical and practical employability skills, provided through a number of constituent colleges, with curriculums designed in collaboration with industry and focused on the state's emerging labour market needs.
- 2. Establish Careers NSW** to make lifelong careers information, advice and professional career guidance accessible to students, trainees and employees seeking to enter the labour market, upgrade skills or change careers.
- 3. Improve the breadth and quality of vocational education made available in NSW high schools by:**
 - a) ensuring practical course offerings, vocational learning, work exploration and career education are available to all students
 - b) increasing the number of selected vocational courses that can be incorporated in the calculation of the ATAR
 - c) strengthening the opportunity for students to gain Australian Qualifications Framework (AQF) certification for the VET delivered to Secondary Students courses they undertake
 - d) providing more opportunities for externally delivered VET where that is in the best interests of the student
 - e) enhancing the number of school based apprentices and trainees.
- 4. Improve strategic and purposeful industry engagement in VET** by ensuring that employers can have a more influential role in planning and designing relevant educational and training courses and have greater involvement in providing on the job training and career advice.
- 5. Establish an income contingent loan scheme** for students studying Certificate III and IV qualifications that have been identified as addressing priority skill areas in NSW.

CHAPTER

1

1. A new tertiary institution

Establish a NSW Institute of Applied Technology as an entirely new form of Australian tertiary institution. It will deliver fully integrated theoretical and practical employability skills, provided through a number of constituent colleges, with curriculums designed in collaboration with industry and focused on the state's emerging labour market needs.

The challenge

The trend in recent years has been for fewer people to study or train in vocational skills. At the same time, more people are studying at university. In part this change in student preference is driven by the upskilling of the labour market and the increasing proportion of administrative, professional and managerial positions.

In part it also reflects credential creep, in which an increasing array of vocations now require degree-level education. Often this has been brought about by the advocacy of industry bodies and professional associations that see the requirement for university education as a means of enhancing career status.

The move to higher education reflects prevailing community views that trade skills are in decline and offer fewer opportunities in the years ahead. A widespread misconception is that the future

will require only 'knowledge' workers. The present skills shortages in NSW and the projected growth in demand for skilled occupations suggest that this is misguided. Many of the jobs in short supply are vocational or technical in orientation.

Too many people are discouraged from pursuing vocational pathways. The problem starts at high school. The prevailing view among many senior secondary students is that VET is regarded as less worthy than higher education. The dominance of non-VET subjects in the ATAR in the NSW HSC contributes to a perception that vocational education is a 'second class' option, lacking the prestige of higher education. Most schools present university as the main pathway to employment success. Many parents share this view.

Yet such perceptions ignore the fact that:

- a) VET graduates often find employment more readily in their area of study than those who possess only a degree

- b) VET graduates may receive better starting salaries
- c) at least for some (such as men with low ATAR scores), VET provides better job prospects over the long term.¹²

The essence of the educational dilemma is not whether higher education or vocational education is 'better' for the student. That is very much a personal choice, although too often it is inadequately informed.

More fundamentally, an increasing number of trades and professions require a combination of skills, knowledge and attributes, both theoretical and practical. The acquisition of employability skills needs to be set firmly within the context of the workplace in which they will be required. Tertiary education needs to be more responsive to labour market demand, including through incorporating practical training and work internships into its curriculums.

The traditional distinction between higher and vocational education is a demarcation that is becoming less meaningful. Students increasingly move between the two sectors, seeking to acquire the combination of employability skills that will provide them with the best means of preparing themselves for their chosen careers.

A significant number of students who initially study VET later use their success to gain entry to university. In 2019, 11 per cent of university students in NSW who enrolled in Bachelor courses gained entry to higher education on the basis of their VET study.¹³

Conversely, many of those who successfully complete higher education qualifications go on to benefit from studying vocationally. Indeed, in 2019, around 18 per cent of VET students in NSW had already attained a Bachelor degree or higher.¹⁴

The increasing movement of students between sectors has helped to bring about positive change. In recent years, closer relationships have been established between many universities in NSW and other higher education providers (on the one hand) and TAFE NSW or private sector RTOs (on the other). A number of universities and TAFE campuses are co-located on the same precincts. In a few instances, campus facilities are shared. Six Australian universities are 'dual sector' institutions, delivering courses from both the VET and higher education sectors, although none are located in NSW.

Yet, the fundamental problem remains. Australia has, over the last generation, created 'two' tertiary sectors that continue to be separated by policy and tradition. The learning of employability skills has been institutionally siloed.

Compounding this structural bifurcation, tertiary education institutions often require multiple-year commitments, with inadequate recognition for or transferability of completed subjects. An undergraduate who leaves halfway through a 3 or 4-year degree course often has nothing formal to show for their efforts, despite having completed valuable studies. Nevertheless, they may have run up a significant debt to pay their fees.

Considering that around 15 per cent of university students in NSW withdraw by the end of their first year, and that more than a quarter of domestic students have still not completed their Bachelor degree after 9 years, a significant minority of students appear to be disadvantaged by current arrangements.

Moreover, education does not stop when a person completes a certificate, diploma or degree. It is a gift that needs to keep on giving.

Cognitive technologies are transforming trade, administrative, professional and managerial occupations. Many traditional skills are being eroded. In the face of labour market disruption created by virtual communication, robotic process automation, enhanced mechanisation and artificial intelligence, the nature of work is changing rapidly. It is estimated that 54 per cent of the global workforce will need to develop and enhance their skills during a lifetime.¹⁵

Learning needs to continue for life. Reskilling and upskilling are now increasingly important throughout a person's career.

The anticipated level of labour market disruption means that people require access to a range of training options so that they can successfully adapt to emerging needs throughout their working lives. Short-duration, employer-specific courses and industry-focused micro credentials will become more important. Online courses, accessible from around the world, will increasingly be used to evidence specific workplace training. The badging of credentials will become routine.

A new approach

NSW has the opportunity to reimagine the shape of tertiary education and to trial new ways of providing it in a cohesive and integrated way. Its structure, content and mode of delivery can be far more responsive to changes in student aspirations, industry demand and anticipated skill shortages.

With this in mind, we recommend that NSW trial a bold new approach to tertiary education through establishing a NSW Institute of Applied Technology (IAT), that fully integrates the delivery of employability skills.

There is already growing support for better integration of VET and higher education. Usually, however, there is a focus on “maintaining their distinctive features”¹⁶ or having “a more comprehensive and interconnected tertiary education that makes better use of VET and higher education.”¹⁷

Our recommendation goes further. We agree with the National Centre for Vocational Education Research (NCVER), that the needs of the ‘fourth industrial revolution’ demand full integration between higher and vocational education to build the combination of hard technical skills and soft employability skills required. As the report notes, that closer integration “may be more easily said than done.”¹⁸

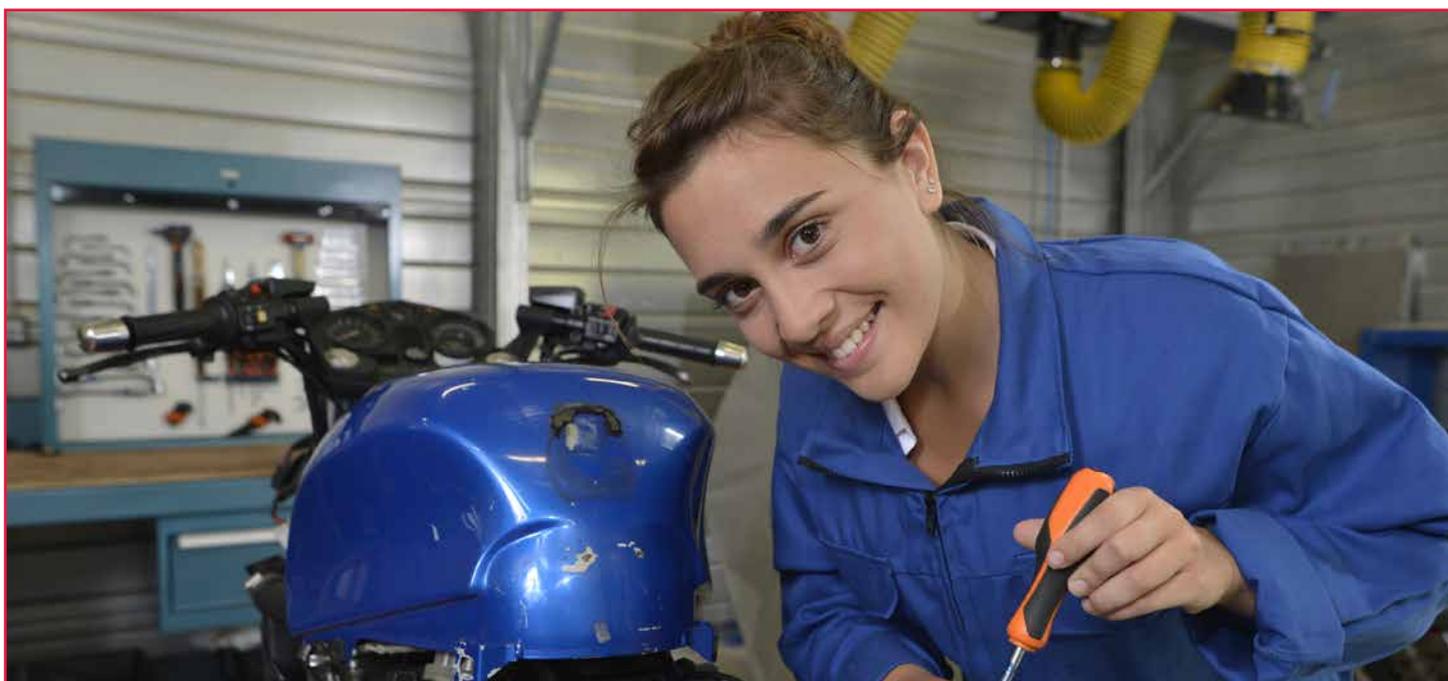
But we think it is time to give it a go.

Our proposal is ambitious. The IAT will fully integrate VET and higher education in a cohesive tertiary curriculum, focused on providing students with the industry-based employability skills needed to underpin continued economic growth and enhanced labour market productivity in NSW.

The IAT will not be a ‘Super TAFE’. Nor will it be a ‘dual sector’ institution, offering vocational and higher education in separate streams. It won’t take the place of university-based programs that already deliver foundation or bridging courses to higher education students.

Rather, the IAT will be a ‘single sector’ tertiary institution. Through a number of colleges each focused on a particular industry, the IAT will embed and integrate practical and theoretical components of tertiary education throughout its curriculums. Of course, IAT colleges may be located on shared TAFE/university precincts so that students can potentially benefit from shared library facilities, learning spaces and amenities. But it is the education delivered that will be distinctive.

The IAT will be built around the career aspirations of students and the skill needs of employers. Its overriding goal will be to enhance the employability and career prospects of jobseekers in NSW. Each of its constituent colleges will be designed to provide students with a high-quality education that focuses on positive and immediate employment outcomes.



The IAT is intended to be prestigious. Entry will be competitive. It will be an exemplar institution, demonstrating a new and innovative approach to tertiary education. Its existence will send people a powerful message about the equal importance of VET and academic study, particularly when they are brought together in a coherent, employment-focused education.

A distinguishing feature of the IAT will be flexible and integrated courses. Reflecting a student-centred approach, each of its colleges will allow students to gain a breadth of professional, trade, managerial and entrepreneurial skills that equip them to find employment, build their careers and, where appropriate, establish businesses. Consolidated curriculums will amalgamate the teaching of these skills.

This will not only enhance the employability of students today but provide them with the transferrable skills that they will need to respond to the workforce changes anticipated in the NSW labour market in the future. Beyond experience, what employers require of their recruits is a range of attributes that have been learned, developed and demonstrated in both theoretical and practical settings.

The IAT's focus will not just be on technical skills. Its goal will be to provide what the World Economic Forum has identified as the 'T-shaped graduate'. Students will be able to gain deep exposure to a practical work-oriented discipline (the vertical axis) while also being helped to develop and evidence a breadth of employability skills in workplace literacy, generic employability competencies and positive character attributes (the horizontal axis).¹⁹

With this in mind, all students at the IAT will be helped to develop and evidence their strengths in oral, written and digital communication; critical thinking; complex problem solving; collaborative teamwork; creativity, innovation and entrepreneurship; self-direction and self-discipline; and ethical decision-making and leadership. All students will leave the IAT not just with technical skills, but with a capacity to set objectives, analyse and interpret data, use judgement and demonstrate performance. They will be supported to develop and demonstrate personal qualities such as adaptability, resilience and curiosity.

Although IAT colleges will be encouraged to be innovative in the design of their industry-focused curriculum and flexible in the mode of its delivery, there are eight characteristics that will need to underpin the IAT model of integrated tertiary education in each of them.

1. Advanced trade, managerial, professional and entrepreneurial skills will be focused on future labour market demands in NSW.

This will be particularly important for 'Generation COVID'. There is a strong possibility that young people will face long-term economic scarring from the impact of graduating around the time of global pandemic. Youth-heavy industries such as retail and hospitality face decline. It is likely that the skill disruption associated with automation, digitisation and artificial intelligence will accelerate. Job insecurity will increase. Students will need to be trained to be able to respond to continuous change.

However, the sharp decline in migration of skilled workers will also open new opportunities for NSW residents. The IAT will play a key role in directing people towards job creation in emerging industries, and enable them to acquire and adapt their skills in response to shifts in demand for labour and bottlenecks in supply.

2. The IAT curriculum will be based on 'progressive' pathways, through which students will be able to 'stack' qualifications.

As part of an integrated curriculum, students will be encouraged to engage in a mixture of vocational and academic study. For example, students could progress from an education that incorporates a Certificate IV in year one, to an Advanced Diploma/Associate Degree in year two, to a new Bachelor in Applied Technology in year three. As an integral component of their educational experience, students will also be enabled to 'badge' a selection of relevant micro credentials and other employer-focused learning programs outside the AQF.

3. All IAT students will be explicitly prepared for the workplace.

Students will be afforded extensive opportunities to apply their skills in practical settings. Indeed, relevant and focused workplace experience or internship opportunities will form a core component of study, with workplace learning

embedded each year. Those already in part-time work will be assisted to use that experience as a means of demonstrating the skills they have acquired. All students will leave education 'job ready'.

4. Employers will be actively encouraged to participate in supporting students as they learn.

Each student will have effective access and exposure to industry representatives. Volunteer mentors will offer students confidential advice and support throughout their study. Employers will be actively encouraged to offer and/or deliver proprietary training programs relevant to their specific enterprise and to have that experience incorporated into the students' educational assessment.

5. The IAT will constantly adapt and modify its curriculum in response to changing industry demands.

While it is important that students can gain AQF qualifications, it is imperative that course development is not constrained by the present cumbersome processes of designing or changing national training packages. The education and training offered by IAT colleges needs to be adaptable, flexible and current. Students will be encouraged and assisted to access high-quality course content from anywhere in the world.

6. The IAT's focus will be on teaching.

While all Australia's public universities necessarily incorporate strong research capacity, the IAT will direct its undivided attention to high-quality instruction, delivered in a practical manner. Staff will be selected through competitive recruitment processes. Many of them will have extensive workplace experience, and all will be selected on the basis of their capacity to teach and inspire students.

7. The IAT, and each of its constituent colleges, will be governed and managed in partnership between education providers and business.

Each college will need to demonstrate a strong collaboration between vocationally orientated RTOs (including TAFE NSW), higher education providers (including universities in NSW) and industry bodies. All the partners will be

engaged in the planning, design and delivery of course content.

8. An income-contingent loan scheme will be made available to the IAT's fee-paying students.

Chapter 5, which focuses on the establishment of income-contingent loans for select Certificate III and IV qualifications, sets out our proposal with regard to funding arrangements. No government-subsidised student at an IAT college should be required to pay upfront fees.

Implementation

The NSW Government should identify the most appropriate governance model for the IAT, taking into account its objectives and the existing funding, regulatory and accreditation requirements that shape the tertiary education sector.

The establishment of the IAT should be announced by the NSW Government, together with its distinctive purpose and guiding principles. Explicit commitment to the eight principles outlined above will be important if the ambition represented by the IAT is not to be undermined. Near enough will not be good enough.

An IAT Implementation Centre could then be established under ministerial leadership and in consultation with senior industry and education experts. It would determine the initial number of standalone IAT colleges to be developed, the focus of each college, the timeframe for their development, and their geographical location. IAT colleges would best be implemented progressively over a number of years.

All the colleges established under the umbrella of the IAT should be required to prove that they can provide an integrated tertiary education in a seamless and blended manner. All should have to subscribe to the same tertiary ethos and work-oriented purpose. All should be expected to exhibit the capacity for higher and vocational educational providers and employers to work together to build a collaborative model.

Each college established should focus on the likely future of work in NSW. This may include identifying emerging opportunities in advanced manufacturing and modern construction, horticulture and agribusiness, aeronautical engineering and airport logistics, digital media,

and research-based medical technology. One college might usefully direct its attention to the anticipated workforce shortages in the areas of personal care, including aged care, disability care, family and community support and social work.

We do not seek to be prescriptive. The NSW Government should set its priorities on the basis of assessed skill requirements in the decade ahead, the speed with which it wishes to proceed and the level of funding allocated.

Initially, each of the IAT colleges might be selected through a guided tender. Applicants should be encouraged to build a consortia of partner organisations to govern each individual IAT college under a contractual arrangement. Expressions of interest should be sought from collaborative ventures involving industry bodies or employer associations, VET providers and higher education institutions.

The IAT Implementation Centre would oversee the tenders. Tendering organisations would need to demonstrate the manner in which they would deliver the government's objectives and outline their governance structure. But the precise structure of each institution, the content of its integrated curriculum and its mode of delivery should be left open. It is important to stimulate innovative proposals.

If the tender arrangement is long-term in nature, there will need to be regular oversight in the short term. Contracts should be able to be terminated for failure to deliver on promised services or outcomes.

NSW has a growing commitment to place-based program delivery, and we recommend this approach be applied to the location of the IAT colleges. It is likely, however, that IAT colleges will adopt a blended educational model, incorporating remote learning supported by face-to-face delivery through a distributed network of learning centres. This would expand the reach of the IAT beyond a few IAT college precincts. It would offer the chance for students in rural and regional NSW to gain access, and provide statewide opportunities.





CHAPTER

2

2. Careers guidance for all

Establish Careers NSW to make lifelong careers information, advice and professional career guidance accessible to students, trainees and employees seeking to enter the labour market, upgrade skills or change careers.

The challenge

Career guidance has never been more important. Market disruption is accelerating. People are working for more employers in their early careers. Job-hopping is increasing. LinkedIn data shows a jump in employment churn, especially among younger workers. Young Australians will now face an estimated five career changes and 17 different jobs in a lifetime.²⁰

Some jobs will disappear. New ones will emerge. The skills required for many occupations are already being significantly changed by digital communication and robotic automation. As employees are required to change career directions, they will require two things – the opportunity to access lifelong learning and, equally important, the ability to access lifelong professional career guidance to help them make informed decisions.

In the absence of help with career development, many individuals are at significant risk of embarking on educational or training courses that

they either fail to finish or take much longer to complete than is necessary. Too often, students find their expectations dashed after enrolment or graduation. Some complete their training only to be disappointed at the job opportunities that are then available to them.

In part this unsatisfactory outcome reflects uncertainty about what educational pathways best lead students to their career goals. It also suggests that many people do not have adequate information on what the course they have chosen actually involves, whether it meets their interests, how suitable it may be for their particular circumstances and aspirations, and where it leads them in the job market on completion.

The problem begins in NSW schools. While there are notable exceptions in all NSW school authorities, there are strong perceptions that the quality of careers advice in schools is inadequate. Many career teachers have neither the time nor access to necessary information to provide the advice required. Local employers are too rarely engaged in a systematic way. Parents, who play

such an influential role in advising their children, too often find themselves excluded from school-based career discussions.

Not surprisingly, teachers tend to advise students on what they themselves know best from their own experience, namely higher education. Their first-hand knowledge of apprenticeships, traineeships, vocational education and industry training is often limited. A lack of effective career information and guidance contributes to a situation in which university education becomes not a considered decision but rather the default outcome for senior secondary students.

While there exists a multifarious array of pathways from school to employment in every industry, students are rarely helped to choose between them or plan how they might develop a career. Advice is too rarely tailored to the individual's interests and capabilities. Indeed, many students may prefer to have a confidential discussion with a career guidance counsellor outside their school.

Chapter 3 focuses in more detail on how to improve the attractiveness of VET in NSW schools. But in terms of career support, the challenge continues beyond high school. Lifelong information and guidance is imperative if the NSW Government wants to help jobseekers discover the best way to upskill or reskill in response to labour market opportunities. Employees require support to proactively manage their careers in the face of ongoing labour market disruption.

Whether they are in a profession or a trade, building a career or seeking to set up their own business, working-age residents of NSW will benefit from having access to comprehensive, up-to-date information about skills shortages and emerging opportunities. They need help to make decisions about how best to gain the competencies and workplace attributes they will need for continued success. At present, most are not provided with that assistance.

In a post-COVID world, in which employment opportunities are increasingly likely to be more restricted, this career support and guidance takes on even greater significance. Without professional assistance, many young workers are unlikely to acquire and maintain the employability skills they need to guarantee them a secure and fulfilling position in the NSW labour market.

It is noted that this assistance to comprehensive and up-to-date information may also greatly assist those who may wish to leave the workforce for a period (e.g. to act as carers for children and/or other family members) and rejoin it at a later date.

Employers, as much as students and workers, struggle with properly comprehending the diversity of vocational education provided at secondary and tertiary levels. They often lack understanding of the types of skills training available and the workplace value of the competencies taught. This represents a missed opportunity for attracting increased employer commitment to or investment in the sector.

The Commonwealth Government's recent establishment of the National Careers Institute (NCI) seeks to address such challenges. The institute has already launched a new version of its *YourCareer* website²¹, which offers visitors advice on looking for work, changing careers or returning to the workforce. It also provides a modest level of support services, including a chatline to offer more tailored guidance for school leavers.

These interventions by the NCI are useful and necessary, but not sufficient to provide individualised support. Many jobseekers and career-changers need access to professionally trained advisers to help them navigate the range of career information now available. They need confidential guidance, tailored to their individual interests and ambitions. Presently, most jobseekers are not able to gain such personalised assistance.

The Commonwealth does fund a network of 'jobactive' employment providers. One of their roles is to help their clients prepare their résumé and create career profiles as they search and apply for job vacancies. There is a Career Transition Assistance program that is designed to help jobseekers aged 45 years and over. However, it focuses its attention on helping individuals build their skills and confidence rather than providing them with professional career guidance. Little professional career advice is available to those on JobSeeker (formerly Newstart).

The NSW Government should not duplicate the programs provided and funded by the Commonwealth. Rather, it needs to tailor its own career advice and guidance to providing support services that do not presently exist and that are being inadequately addressed by existing interventions.

A new approach

Careers NSW will be established to help people navigate their lifetime employment journey. It will be the cornerstone of a comprehensive state-based career information and guidance ecosystem that will support people to access existing resources and make informed decisions. Through the establishment of a network of Careers Hubs staffed by professionally trained career advisers, it will provide lifelong guidance both to students and jobseekers, and also to educators, trainers and employers. Hubs will be established at selected locations across the state, complemented by a regional online presence. They will help students and employees to understand and consider their options and make effective choices.

To leverage existing initiatives, in particular those funded by the NCI, the key objectives of Careers NSW should be:

- the provision of face-to-face and online support to help people navigate the confusing plethora of information that is already available on labour market opportunities
- careers advice or guidance that can be accessed by NSW schools that wish to enhance and complement their own resources
- professional support and guidance to employees and job seekers who are seeking to change careers or enhance their skills (including ongoing support through the delivery of tailored 'prompts' as new opportunities become available)
- the sustained engagement of industries and employers in providing career information, including through the organisation of job expos and career fairs.

Careers NSW will provide information on education and employment pathways, including apprenticeships and traineeships. It will raise awareness among students and workers of the breadth of different options available and the benefits that each brings. Career Hubs will have a particularly important role in working with industries and employers to identify relevant training opportunities for their anticipated workforce needs at the local or regional level.

Information and guidance will need to be informed by current and future skills needs. The network of career advisers will support students, job

seekers and current employees to identify career pathways that match their skills, interests and other demands on them, and that are informed by an understanding of anticipated skills demand in NSW.

Careers NSW will provide much-needed assistance to the many NSW schools that could benefit from help in delivering a quality careers guidance and education program. Its services will support careers teachers in delivering industry-based employment advice, organising work experience, brokering industry visits, finding and facilitating attendance at relevant expos and symposiums, providing individual careers counselling, coordinating School-Based Apprentices and Trainees (SBATs) and helping students organise External-VET (EVET). Some schools may wish to access the service to complement their existing careers program; other schools may prefer to outsource entirely the provision of careers advice to their students.

Careers NSW will also be able to support local schools to engage with students' parents, recognising the strong influence that mums and dads play in the choices of their children. Its professionally trained advisers may also take on the role of enterprise advisers, working directly with a school's senior leadership team to develop a comprehensive careers guidance and education program. In whatever capacity, Careers NSW will be able to provide professional support services to senior secondary students on a more regular basis than most schools are currently able to do.

Some of these services should be freely available. Others could be provided on a fee-for-service basis, depending on the level and extent of support provided. Industries should be encouraged to help subsidise the provision of support services that are geared to the promotion of career opportunities in their sector.

Careers NSW should also be incentivised by the NSW Government to recruit and organise volunteers to help deliver employment and career advice through the Careers Hubs. People with deep workplace experience, including those who may have recently retired, should be engaged to mentor students and/or provide personalised guidance to jobseekers or people looking to reskill. Volunteers can also assist the Careers Hubs by visiting schools, talking to potential employers or arranging work internships.

Similar programs have already been introduced overseas. The Career Ready program in the UK, for example, now has an established network of 5,000 volunteers.²² Workforce Singapore has set up a pool of volunteer career advisers to provide peer-level support for mature workers.²³ NSW can emulate these successes.

Implementation

Careers NSW should be established as a new government body, probably within the Education cluster. It should work closely with Service NSW.

Careers NSW will also need to partner with the NCI. The two organisations should seek to align their respective roles and ensure NSW can successfully leverage investment in Commonwealth-provided careers information. Careers NSW should see its role as taking the online information and services of the NCI and tailoring and disseminating them as required for the benefit and purposes of the people of NSW.

Careers NSW will also need to expand and complement existing NSW initiatives. It should incorporate insights gained from the NSW Educational Pathways Pilot Program, particularly the Careers Head Teacher trial, to identify how best to support schools to deliver effective careers guidance.

Careers NSW should identify the number and location of metropolitan and regional hubs to be established, and over what period of time they should be opened. Online service provision should be examined to facilitate the provision of services beyond the physical hubs. Consideration should be given to ensuring a strong presence in both metropolitan and regional NSW.

Having carefully set out its objectives, Careers NSW should then seek expressions of interest from individual organisations or consortia to become Careers Hubs. Payments for successful tenderers should be awarded on the basis of performance-based outcomes. TAFE NSW should be encouraged to tender if it wishes to do so. Industry bodies may also wish to seek contracts.

Interested parties should be required to demonstrate they will have professionally trained careers advisers on staff. They should be able to exhibit not just relevant industry knowledge and established employer networks, but also the capacity to access and analyse NSW labour market data. Potential providers should also indicate how they will seek to engage volunteer support from the local and regional communities in which they operate.

Hubs might usefully leverage Training Services NSW regional offices and TAFE NSW campuses. Other RTOs or career adviser firms may have their own premises from which they would work.

The Career Hubs will be contracted to work with schools, education providers, employers and job seekers in the provision of quality careers information and guidance. General information and initial support could be available free of charge. Hubs could also offer a premium service on a subsidised or fee-for-service basis to individual employees, schools and education providers who require more personalised and intensive support, and to employers or industries looking to recruit.



CHAPTER

3

3. Making vocational education and training attractive and accessible to secondary school students

Improve the breadth and quality of vocational education made available in NSW high schools by:

- a) ensuring practical course offerings, vocational learning, work exploration and career education are available to all students
- b) increasing the number of selected vocational courses that can be incorporated in the calculation of the ATAR
- c) strengthening the opportunity for the Vocational Education delivered to Secondary Students (VETSS) courses they undertake
- d) providing more opportunities for externally delivered VET where that is in the best interests of the student
- e) enhancing the number of school-based apprentices and trainees.

The challenge

In the 2019 Budget, the NSW Government announced an additional \$1.2 billion funding allocation to the state's schools, taking the annual spend to a record \$18.5 billion.²⁴ The increased

funding will be tied to the improvement of educational outcomes. One key measure will be to ensure that all NSW students, no matter what their interests or capabilities, have equal access to high-quality education.

One crucial element of this should be to ensure that all senior secondary students are able to gain value from school, no matter what their preferred pathway into work, training or further education. This is not presently the case. The privileging of academic over vocational education begins in the school classroom.

Of course, there are some notable exceptions to this rule in NSW. They serve as shining examples of how different educational choice can look when VET is accorded higher status.

There are already examples of high-quality VET high school facilities being developed. A new vocational high school was launched at Seven Hills in 2020, one of two purpose-built facilities planned for the state. Catholic Schools NSW has established a vocational college at Burwood, with technical training or skills centres at Bankstown, Hurlstone and Pagewood.

Meanwhile, the Commonwealth Government has invested in the Pathways in Technology (P-Tech) model, designed to provide industry-supported educational pathways in science, technology, engineering and mathematics. In NSW that approach can be seen at McCarthy Catholic College, Hunter River High School and Wyong High School.

These schools, and others, demonstrate what is possible. But they are the exceptions. Far more needs to be done to integrate vocational skills training in most schools across NSW. In the words of the NSW Minister for Skills and Tertiary Education, Geoff Lee, we need “to inspire all students to consider VET as an alternative career pathway, including about 50 per cent of high school graduates who do not pursue a university pathway.”²⁵

At present, the VET offered in most NSW schools is not sufficiently attractive to a broad range of students. There are pervasive concerns about its quality and value among students, parents and employers. This is despite the fact that all school subjects must meet externally imposed quality requirements. Courses are based on accredited national training package qualifications, and much of the VET curriculum covers NSW Skills List qualifications. Nevertheless, far too often VETSS is regarded as something to be undertaken only by a student who is perceived to lack academic ability.

As a result, student interest in VETSS is declining. Fewer NSW secondary students are studying vocational subjects. Although 93 per cent of NSW Government schools offer VETSS, student uptake is falling. In 2019, 34.9 per cent of year 11 and year 12 students at government schools were enrolled in one or more VETSS course. That was down from 38.5 per cent in 2015.²⁶ The highest uptake is among males from lower socio-economic backgrounds, reinforcing class and gender stereotypes.²⁷ Meanwhile the number of SBATs in NSW has dropped around 47 per cent, from 2,869 in 2014 to 1,530 in 2019.²⁸

This relative disinterest in VET is reflected in post-school destinations. Of 39,336 year 12 school leavers in NSW in 2018, 48.4 per cent went on to study for a degree at a university, compared to just 17.2 per cent who began vocational education, including apprenticeships or traineeships.²⁹

The problem is not simply that too many students are preferencing higher education. Far worse, too many practically oriented students are eschewing VET when they leave school. They are going directly into employment, finding themselves unemployed or being classified as not in the labour force, education or training and not looking for work (NILFET). Only 65.7 per cent of 2018 year 12 NSW school leavers moved into further education or training. For the 19,722 early school leavers (those that left school before the end of year 12), the figure was just 54.1 per cent. Some 25 per cent found a job but 20.9 per cent were either looking for work or NILFET.³⁰

In short, each year at least 20,000 NSW senior secondary students who might benefit from VET when they leave school do not take up the opportunity. School has failed to convince them of its value and interest. If these students do not later re-engage with education or training, they are likely to find themselves confined to low-skilled insecure employment, interspersed with long periods of welfare dependency. Their position in the labour market is precarious.

The relatively poor regard in which vocational education is held in many NSW schools, and the consistent decline in the take-up of vocational courses, needs to be addressed in a systematic manner.

We need to start by distinguishing the range of different activities often categorised together as vocationally oriented education. In fact, there are four separate elements.

First, there are the practical subjects made available to students, such as design and technology, textiles and design, ceramics or photography. All students should have access to such subjects and be actively encouraged to pursue them if they meet their interests or passions. A number of these subjects can contribute to the ATAR.

Second, there are the opportunities made available for school students to gain short periods of work experience, ideally in areas of enterprise that they may be considering for future work. The quality of the opportunities provided by schools and the extent to which they are designed to provide structured learning opportunities varies widely. At present, many students gain little of lasting value from these programs.

Moreover, too rarely are students helped to identify the range of valuable workplace skills and attributes that they gain from work experience. At least pre-COVID-19, an increasing number of students were working part-time or undertaking volunteer activities while at school. All senior secondary students should be able to incorporate workplace experience undertaken within or outside of school activities and be helped by their teachers to create a record of the employability attributes they learned from that experience.

The recent review of senior secondary pathways presented to the former Council of Australian Governments Education Council, *Looking to the Future*³¹, recommended that all students should be able to leave school with a Learning Profile included in their HSC documentation. It would set out the capabilities and attributes that students have developed, not just in study but through extracurricular activities, voluntary work and paid employment. The NSW Government has already publicly indicated an interest in this proposal and should now actively consider how it might best be implemented.

These first two elements, together with career guidance, might be thought of as varieties of 'vocational learning'. All high school students should be actively encouraged to participate in such activities.

Third, there is a relatively small range of VET subjects that can be included by students in the calculation of the ATAR (Business Services is the most common). Some courses mandate work placements. Classified as Category B courses, in NSW only 2 units of these courses can be included in the ATAR's 12 units of study. Not surprisingly, many capable students are discouraged from undertaking these units.

Fourth, there are VET subjects that can be studied at school that cannot be incorporated in the ATAR but can be included in a student's HSC or Record of School Achievement. At present, in many schools, students have access only to a limited range of opportunities to prepare for the vocational pathway to which they aspire. This acts as a deterrent to those students who have a preference to enter vocational training or employment when they leave school. In some instances, it can persuade them to disengage from school activities. In the worst case, they leave school early without properly planning their future.

If we are to improve student interest in the entire range of vocational, technical and practical education in NSW, we need to improve its accessibility and attractiveness to students. We need to lift its status. We need to make it apparent to senior secondary students that vocational and academic subjects have parity of esteem. Most particularly, we need to ensure that students have access to quality VETSS subjects that are tailored to future NSW labour market demands, enhancing employment prospects for young people who are attracted to vocational training.

To help bring about this cultural change, all students at school need to be assured that an integrated academic and vocational education is necessary if they are to gain the employability skills and technical capabilities they require for a successful career. They need to be taught how hands-on learning complements theoretical knowledge, equipping them with a range of practical skills. They need to acquire an increased recognition of the demands of the workplace and the attributes they will need to hold down a job and build a career. They should leave school with a clear sense that vocational learning enhances employability, no matter what career pathways they choose in the future.

In fact, students have already indicated that this is what they want. Surveys indicate that they want to leave school with more practical knowledge. They want to be taught life skills, social skills and financial skills. Perhaps most important, they would like to be provided with a greater understanding of how to get a secure job that they enjoy and to how to build a successful career.³²

Access to vocationally orientated education is useful to all students, but VETSS is particularly valuable in helping to keep engaged and interested those students who are more attracted to practical learning. VETSS has been shown to increase engagement and retention in NSW schools where it is delivered well and carefully designed to meet student interests. It can attract many more students to undertake post-school vocational pathways and careers.

VETSS, together with a strong career pathways program, can also widen student expectations. It can reveal to students how vocational education extends beyond the traditional trades to exciting new areas such as coding, cyber security, protected cropping and mechatronics. It can allow them to identify emerging occupations such as solar installers, wind turbine technicians, social media specialists and nurse liaisons.³³ It can ensure that students are aware that demands for social and personal care are rising fast.

VETSS can counter widespread misconceptions that a 'knowledge nation' only requires occupations of the 'head'. The culture of schools needs to persuade students that in the future workplace there will also continue to be strong demand for occupations of the 'hand' and the 'heart'. VETSS provides them with the capabilities to prepare for these emerging opportunities, without limiting their future educational choices.

All students will benefit from a well-rounded curriculum that offers them units of study that engage them, whatever their capabilities and interests. Equally important, a stronger focus on vocational education will help NSW build the skills needed for a strong post-COVID economy.

A new approach

So, what can be done to make vocational education more attractive and accessible to school students? We suggest four major interventions are necessary.

1. Improve the breadth and quality of vocational and practical offerings made available to all senior secondary students.

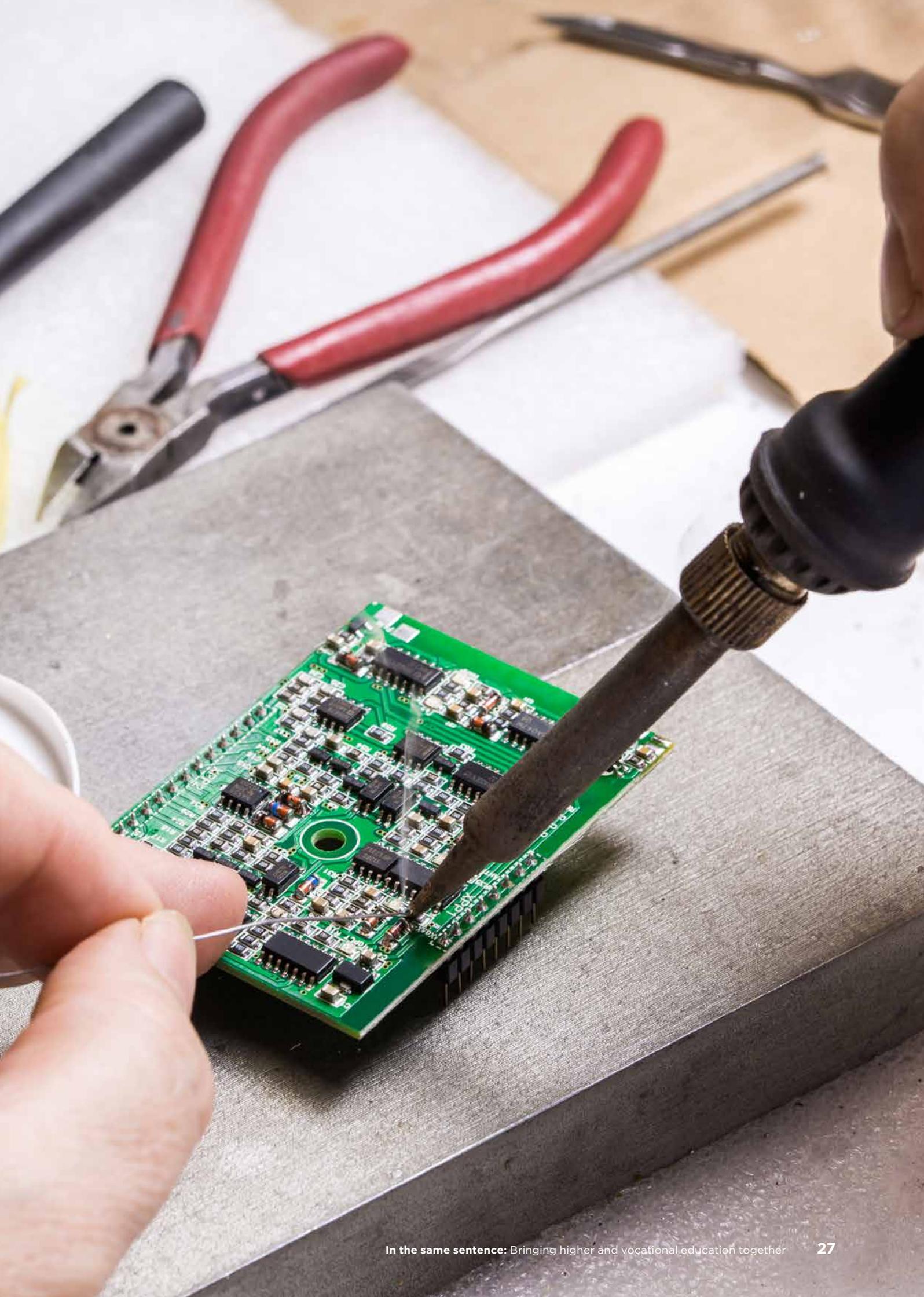
The opportunity to undertake study units that require the use of one's hands or one's body should be a part of every senior secondary student's learning. Some of this can be acquired through schools offering a greater range of vocational or practical courses and encouraging more students to include those opportunities as part of their study. Extracurricular activities – such as performance, music, debating and sport – can also play a significant role.

Similarly, many students now undertake part-time paid or voluntary work experience while at school. The employability skills developed through this experience need to be identified and evidenced as part of the proposed Learning Profile.

Ministers Sarah Mitchell and Dominic Perrottet have recently announced their plan to provide each NSW student with their own digital 'school passport'.³⁴ This will significantly boost this objective. The passport will incorporate all aspects of a student's records, including a detailed assessment of the skills and capabilities they have acquired through academic and vocational study and work experience. We strongly support this commitment.

2. Address the educational bias toward higher education.

Given the dominance of a university ranking tool (ATAR) in most high schools, many students and parents are led to believe that vocational education is accorded lower status in schools than 'academic' subjects. This perception is reinforced by the restrictions presently placed on the number and range of VET subjects that can contribute to the ATAR. Only VET subjects within the Industry Curriculum Frameworks can contribute to the ATAR, and NSW is offering only 13 of these subjects in 2020. Moreover, under the present arrangements determined by the Universities Admissions Centre (UAC), only two VET units (one subject) can contribute to the ATAR.



This lessens the opportunity to incorporate VETSS within study for the HSC, even for those students attracted to practical learning.

The NSW Government should work with UAC to ensure that students are able to include more VET subjects in their ATAR. Units should be selected that, while vocationally oriented, would be equally useful to the student who wishes to go to university, e.g. information technology, digital communication, laboratory work or office administration. With this in mind, TAFE NSW is already developing new ATAR-eligible courses to be introduced from 2022. This should be pursued with vigour.

All VET units incorporated within the ATAR should be examined and graded. Competence is not sufficient. It is vital that senior secondary students undertaking vocationally oriented ATAR units are encouraged to pursue excellence just as much as those in more academic courses.

3. Improve industry engagement and credibility.

Many NSW employers feel that senior secondary students who have studied for vocational certificates at school are not as well-trained or job ready as those who gain their vocational qualifications after school. Rightly or wrongly, school-delivered VET is often regarded as inferior. There are also limited opportunities for students to align their studies to the employability skills they are developing through part-time work or volunteering.

At present, responsibilities for industry engagement, course design and delivery of VETSS in NSW are spread across different government units and agencies. This is diffusing effort and weakening impact. Coordination should be improved, and quality should be lifted. Most importantly, industry bodies should be actively engaged to enhance VETSS credibility and involvement among employers.

4. Increase the ability of students to leave school with VET certification.

Most NSW students who undertake VETSS do not graduate with a completed certificate. Each year, approximately 60 per cent of students studying VETSS achieve only a Statement of Attainment.³⁵ Students do not generally attach much value to such credentials. Their value in promoting post-school VET or industry training is questionable.

Disincentives to students undertaking VETSS need to be removed. Too many schools set barriers to the range of VETSS courses that they offer. Often, they are deterred by delivery costs, particularly for subjects that require workshop machinery and equipment. There are also gaps in the number of trained VET teachers in the school workforce and the range of subjects that they are qualified to deliver. Choice is limited by what the school can offer rather than what the student would like to study or what skills NSW needs.

All students who have an interest should be given every encouragement to begin a SBAT or undertake (and complete) certificated vocational qualifications as part of their HSC. Some of this may be achievable in the school classroom or workshop. Where this is not the case, students in years 11 and 12 should be able to spend part of their week out of school, undertaking training or structured workplace experience that meets their interests and career ambitions.

The ability of students to pursue VET outside of school is crucial. The practical issues that presently limit the uptake of Externally Delivered VET (EVET) and SBATs need to be addressed. When students study VETSS externally, it can have a detrimental impact on the school's staffing allocation and resources. Timetabling is often difficult. These financial and administrative issues act as impediments to schools that wish to support increased uptake of EVET. As a consequence, opportunities for students to spend some days each week out of the classroom are unnecessarily restricted. Even opportunities to undertake some part of the week at a neighbouring school with better vocational training facilities are limited.

Implementation

To drive substantive change, NSW should establish a new VETSS Unit within the NSW Department of Education.

The unit should incorporate but also enhance the capacity presently distributed across the Department of Education, TAFE and NSW Education Standards Authority. The unit should remove any duplication across these entities and create clear roles, responsibilities and accountabilities across the sectors. The unit's work program should be developed in close consultation with the state's public, independent and Catholic school sectors. It should be overseen by a Steering Committee that includes school principals with particular expertise in the delivery of vocational education.

The unit should be tasked with increasing the range, accessibility and attractiveness of VETSS across NSW. Embracing both the government and non-government sectors, the work of the unit should be based on the achievement of six key objectives:

1. Ensure better coordinated design and delivery of VETSS.

The work of the unit needs to be based on increasing collaboration across NSW Government agencies and in partnership with the public, Catholic and independent school sectors.

2. Make a wider range of relevant and high-quality vocationally oriented courses available to senior secondary students.

New VETSS offerings should be introduced that are supported by industry and employer organisations. They should be targeted at existing and emerging NSW skills needs. They should open up a range of tertiary education and employment pathways for students once they leave school.

3. Support schools to deliver quality VETSS in imaginative ways.

Emphasis should be placed on establishing close working relationships between schools, TAFE NSW and other RTOs. Arrangements need to encourage greater collaboration in the development of innovative delivery models (including through remote learning).

4. Improve student access to offsite vocational education and structured workplace learning.

Practical and administrative barriers that limit student choice should be removed. Greater uptake of out-of-school training opportunities for practically orientated students should be facilitated. This needs to include the provision of additional support so that more students can engage in SBATs that allow them to work part-time and complete all or part of their training by the end of their HSC year. Employers should be given greater support to take on and train high school students. Communication between stakeholders to organise such arrangements needs to be made more effective and the processes streamlined.

5. Reduce the structural bias that favours higher education.

Following discussions with the UAC and NSW universities, the calculation of ATAR should be amended to enable students to include more high-quality, graded VETSS courses in their score. The VETSS Unit should also work with schools and universities to facilitate the identification and promotion of non-ATAR pathways to university. This should not be difficult. ATAR is already becoming less consequential as the exclusive means of selecting higher education students. Many NSW universities are now making offers to school students partly on the basis of their success in individual HSC subjects, year 11 results, additional or alternative examinations, school-based assessments and references, work portfolios or interviews. It is now standard practice for universities to offer places to mature-aged students, including those who gain recognition of prior learning for the vocational courses they have already undertaken.

6. Improve levels of certification.

Many students will wish to undertake VETSS in their HSC beyond the narrow range of subjects that can be included in the ATAR. They should be given every opportunity to complete a full VET Cert II or III by the time they graduate. If necessary, mechanisms should be found to enable senior secondary students to meet the number of training hours required, even if that means they need to study outside of traditional school hours.

CHAPTER

4

4. Improve the level and quality of engagement with industry

Improve strategic and purposeful industry engagement in VET by ensuring that employers can have a more influential role in planning and designing relevant educational and training courses and have greater involvement in providing on-the-job training and career advice.

The challenge

Tertiary and secondary education, particularly insofar as it focuses on VET, requires meaningful collaboration with industry. Employers should be engaged to ensure that VET offerings meet current and anticipated labour market needs. Both the 'hard' and 'soft' employability skills need to be identified, taught and credentialled in a manner in which they can have confidence.

Of course, industry stakeholders are currently involved in the design and delivery of VET in a variety of different ways. In our considered view, these existing arrangements are inadequate and fail to convince employers that their role is sufficiently recognised.

The NSW Skills Board is the key forum through which the NSW Government receives advice on the labour market, including current and future

skills needs. It is governed by the *Skills Board Act 2013* and currently has six members. It generally meets no less than four times a year. It undertakes some consultation. It is not apparent that the results of this consultation are adequately conveyed to the NSW Government.

To improve its operations, the Skills Board has established an Industry Reference Group to advise on industry perspectives and experiences and a Provider Reference Group to convey provider views. Both groups have 12 members and meet three times a year.

Industry is also engaged through NSW Industry Training Advisory Bodies (ITABs), as well as nationally on the Industry Reference Committees and Skills Service Organisations. They provide expertise on the development and implementation of 55 training packages, as well as offering more general advice on industry skill needs.

Australian Industry Standards, for example, is one of 11 organisations contracted by the NSW Department of Education to engage with industry stakeholders as an ITAB. It has responsibility for corrections, local government, public safety, public sector, defence, police and water industries. It is overseen by a tripartite Industry Advisory Committee that includes representatives from both employer and employee associations.

But these current mechanisms do not appear to be working effectively. Existing bureaucratic arrangements honour the intent but not the substance of collaboration. The industry leaders to whom we spoke do not believe that the existing information channels provide them with an influential voice on VET in NSW. They do not feel that they are sufficiently engaged at a strategic level. They do not feel adequately consulted, or sense that the views they express have impact. They believe this lack of consultation often results in courses not living up to what industry requires. They would like to have greater involvement with the NSW Government as it seeks to address current and future labour market demands and considers how best to meet emerging skill needs.

Some of this dissatisfaction is undoubtedly caused by divergent views that prevail within industry and employer organisations. There are also systemic problems that need to be addressed. There appears to be a lack of effective collaborative engagement between industry representatives and the NSW Government at a state level, and inadequate engagement between employers and educational institutions at a local level. The formal avenues for individual businesses to tell the NSW Government their views on how to improve the VET sector are limited. This is felt particularly by the many small to medium-sized businesses that employ a large proportion of apprentices and trainees.

In short, while industry and employer organisations in NSW recognise that their members are consulted and involved on the technical details of training packages, traineeships and apprenticeships, they believe that they are too rarely engaged as genuine partners in the planning and design of VET, either at the secondary or tertiary level. While they are periodically surveyed about their views, they do not believe that their frontline expertise influences government policy decisions in a meaningful way, on an ongoing basis or in an expeditious manner.

This perception may have contributed to the decline in employer satisfaction with VET. NSW employers increasingly voice concerns about the capabilities and job-readiness of VET graduates. They point to a misalignment between the outdated skills gained through VET and the actual employability skills required to engage effectively in the workforce.

Employers generally find the VET system cumbersome, difficult to navigate and hard to engage with. Their concerns include the nature of industry engagement in the development of training packages, which, due to the need for approval by multiple stakeholders, is generally seen as far too slow and unwieldy. The Commonwealth Government is now trialling more streamlined and innovative processes to fast-track new training in digital skills, human services, care and mining.³⁶ The NSW Government should strongly support these demonstration projects. Industry needs to be part of the solution, rather than finding itself embedded in institutional structures that have become a significant part of the problem.

A new approach

Employer engagement in VET can be significantly improved. There is a need to move beyond the existing standard mechanisms for 'stakeholder consultation'. The NSW Government can enable and encourage more collaborative partnerships between education and industry at the state, regional and local levels. This will involve:

- providing industry bodies with a genuine opportunity to influence the shape of vocational education in NSW
- ensuring that the VET sector is informed by the needs of employers, whether they are large multinational companies or small to medium-sized enterprises
- involving employers as partners with schools, TAFE campuses and private RTOs in the planning and delivery of VET at a local level
- employers participating, as voluntary advisers and mentors, in the delivery of support services by Careers NSW
- increasing industry and employer engagement in VET by providing them with meaningful opportunities to help solve the challenges of skills development.

New mechanisms are needed to ensure the NSW Government gets the advice and support it needs to design and deliver skills formation in a manner that best meets the needs of industry. These mechanisms should be designed to accommodate the different perspectives of peak industry bodies and individual employers at both state and local levels. To achieve this, we recommend a 'hub and spoke' model.

At the centre, we see the need for the NSW Skills Board to be either revamped or replaced. If retained, it should be explicitly tasked with engaging industry in meeting the government's goals, including the implementation of the industry-related recommendations of our report that are accepted. Alternatively, a new entity should be given that responsibility.

On balance, we prefer to restructure the NSW Skills Board. However, it will need to play a more focused role in encouraging industry bodies and employer organisations to identify the challenges and opportunities that exist across the VET sector. It must prioritise its activities so that it can deliver timely policy advice to the NSW Government, informed by real-world employer experience. In our view, a reinvigorated Skills Board will need to become a more effective means of conveying industry-driven proposals through the NSW Minister for Skills and Tertiary Education for government consideration.

To do this, the Skills Board will need far more systematic engagement with employers across the state. We recommend that the Minister direct the Skills Board to replace its Industry Reference Group with an Industry and Employer Engagement Group. This group should take responsibility for improving industry and employer satisfaction with VET course design and delivery, and for improving collaboration between industry and training providers. It should actively promote involvement by industry in the VET sector at all levels.

The group should be required to conduct frequent consultations with small, medium-sized and large businesses in both metropolitan and regional areas. This includes through conducting periodic surveys and organising policy-specific forums. It should establish and carefully maintain an easily accessible website to allow NSW businesses to be

kept informed and engaged, to put forward their points of view, to facilitate online discussion and to enhance their contribution to decision-making.

Through the Industry and Employer Engagement Group, the Skills Board will have continuing access to a wider range of views. This will enable it to convey more frequent and accurate advice to government about industry assessment of labour market needs, and provide a users' perspective on how these needs can best be met by schools and RTOs, including TAFE NSW.

Improved engagement should be a two-way process. The Skills Board should also be responsible for ensuring that the NSW Government can rely on the support it needs from industry as it seeks to improve the state's labour market planning. The Skills Board should be tasked with proactively engaging industry in the design and delivery of VET reforms, thereby enhancing prospects of garnering employer support for their implementation. In particular, the board should help to ensure that the NSW Government is able to secure industry partners in the establishment and governance of the IAT.

The Skills Board's central policy 'hub' should be supported by regional 'spokes'. The board must be fully across developments in local labour markets across the state. It also needs networks of employers and retirees who can support schools, RTOs and career advisers at the local level.

To complement its central engagement functions, the proposed Careers Hub network across the state could be leveraged by the Skills Board to evince direct feedback from a wide range of employers on the state of the local jobs market, emerging skills needs and how well these demands are being met. The Skills Board needs to elicit proposals on how to enhance the VET sector at a regional level.

The revitalised Skills Board will have a key role in developing skills-related policy advice for consideration by the NSW Government. With this in mind, the Skills Board will need to establish formal working arrangements with Careers NSW to ensure that information from across the state – metropolitan, regional, rural and remote – is incorporated into its advice to government.

Consideration might also be given to the Premier establishing a small Industry Advisory Council, comprising a number of business leaders, which would meet twice a year with her and relevant ministers. These face-to-face meetings could complement the industry-driven policy advice provided through the Skills Board. The NSW Government needs to hear the view of employers both from the bottom up and from the top down. A council reporting directly to the Premier or Minister, sitting alongside an enhanced Skills Board, might help ensure this occurs.

Implementation

Implementation depends on whether industry engagement is to be enhanced through a revitalisation of the existing Skills Board or its replacement by a new entity. At least in the immediate future, we prefer the former. Success will depend on whether the Skills Board can successfully embrace its increased purview, and whether the NSW Government has confidence the board will deliver effectively.

The government must be clear in setting the board's expectations and priorities. This could best be achieved by providing it with an annual Letter of Expectations from the Minister for Skills and Tertiary Education. The Skills Board should be required to tailor and prioritise its activities to meet the government's key objective: namely, ensuring that employers feel that they possess a genuine voice in the planning and delivery of vocational education and skills training in NSW.

We anticipate that to revitalise the activities of the Skills Board and to support its more active presence, its level of secretariat support will need to be increased. The board will need to be far more visible and accessible to employers, its role better understood and its approach to consultation more open and effective. The Skills Board needs to be sufficiently resourced to enable it to conduct genuine dialogue with NSW employers, both face-to-face and digitally. It needs to be in a position to convey well-founded industry-based advice to government on a regular basis.





CHAPTER

5

5. Income-contingent loans for VET

Establish an income-contingent loan scheme for students studying Certificate III and IV qualifications that have been identified as addressing priority skill areas in NSW.

The challenge

The funding of higher education is very different from that of vocational education. Most domestic students who are offered a place to study for a Bachelor degree at an Australian university are offered an upfront income-contingent loan (HECS-HELP). The course fees are set by the Commonwealth Government. The loan is repaid by students through the tax system, with repayments progressively increasing as their income rises – although a student can choose to repay the full amount of the debt at any time.

In contrast, students who undertake vocational qualifications at AQF Levels 1–4 can access no such loans. That means that many VET students have to meet the full costs of their education and training upfront, unless state governments subsidise delivery.

Since NSW's Smart and Skilled program was introduced in 2015, the government has subsidised a range of VET courses. The NSW Government has committed to funding up to 170,000 fee-free

apprenticeship and traineeship places.³⁷ Fee exemptions on vocational training are also made available to identified disadvantaged groups, such as Aboriginal and Torres Strait Islander people, and students with disability.

Some Commonwealth assistance has now been made available. In September this year, the NSW Government, with financial support from the Commonwealth's JobTrainer scheme, injected a further \$320 million into VET. That will fund around 100,000 fee-free training places in NSW.³⁸

Additionally, NSW students who undertake a Diploma or Advanced Diploma (AQF Levels 5–6) may be eligible for support under the Commonwealth's VET Student Loans (VSL) Program. VSL is an income-contingent loan scheme available to domestic students who undertake Diploma or Advanced Diploma courses that are identified as having a high national priority, meet industry needs, contribute to addressing skill shortages and lead to positive employment outcomes.

Eligible students have to pay a 20 per cent loan fee, although this is waived by the NSW Government for its subsidised students. This year, in response to COVID-19, a fee-free exemption has been applied to all students until June 2021.

To be eligible for VSL, students need to be enrolled in an approved course delivered by an approved VSL provider. That includes TAFE NSW. Tuition fees are set by providers for students enrolled in a fee-for-service place, whereas subsidised places made available under the NSW Government-funded system have prices and fees regulated.

In short, income-contingent loans for VET in NSW are limited to certain courses at Diploma and Advanced Diploma level. This restriction is imposed despite the fact that Certificates below Diploma level are becoming increasingly important to addressing skill gaps in the labour market.

Commonwealth Government projections estimate that demand for Certificate II and Certificate III courses will grow by 8.1 per cent by May 2024, and by 4.7 per cent for Certificate IV or Certificate III (which require at least 2 years of on-the-job training).³⁹ Reflecting the increased demand for post-school qualifications, national targets have been set to increase the number of people who hold Certificate III credential or higher. Presently, these national targets are not being met. Most of the progress being made has occurred in the higher education sector.

While all apprenticeships and most traineeships in NSW are currently fee-free, a significant portion of the state's students pay fees for non-apprenticeship/traineeship Certificate III and IV courses. Around half of non-apprenticeship/traineeship domestic students studying Certificate III or IV pay full fees in NSW, while the remainder are government subsidised.⁴⁰ Of the government-subsidised non-apprentice/trainee students in NSW, around 60 per cent pay fees for Certificate III or IV courses and around 40 per cent are fee-free.⁴¹

Fee-paying students can incur significant upfront costs. To students without savings, this can deter enrolment. TAFE NSW, for example, offers Certificate IV courses in Accounting and Bookkeeping, Ageing Support and Surveying at \$2,310 (subsidised cost); a Certificate IV in

Dental Assisting for \$1,280 (subsidised cost); and a Certificate IV in Instrumentation and Control for \$4,960 (subsidised cost). Although some RTOs offer payment plans for students that allow payments to be spread over time, such upfront costs may act as a barrier to study.

The absence of loans for qualifications below Diploma level contrasts with higher education. This contributes to a situation in which a potential VET student may face prohibitive costs for training at a VET provider in engineering, construction, agriculture or healthcare courses, while they can enrol for a related Bachelor program at a university with no upfront cost.

This situation can act as a barrier to skills acquisition and may divert people away from their preferred educational pathways. They may instead elect to commence an undergraduate program even when it is not a close match to their career aspirations. Worse, they may not enrol for the vocational training that could enhance their career prospects.

A new approach

We recommend the NSW Government introduce an income-contingent loans scheme for certain Certificate III and IV qualifications. It could be based on the Commonwealth's VSL arrangements. Introducing the scheme for NSW residents who do not receive fee-free training will reduce the distortion between higher and vocational education, increasing user choice and participation. It will make VET more accessible to students upfront and will level the playing field of student decision-making.

Of course, a NSW loans scheme will have to be implemented with care. The VET FEE-HELP scheme introduced by the Commonwealth Government in 2012 was a disaster. The ability of students to access new loans for VET courses resulted in widespread rorting, with a small number of opportunistic providers aggressively marketing poor-quality training. Inadequately informed students were exploited by unscrupulous private colleges. Regulatory oversight was substandard. As a consequence, the scheme had to be abandoned in late 2016. The new VET Student Loans scheme for approved Diploma courses and above is a much tighter and better administered program.

However, as the NSW Productivity Commission emphasised in its recent discussion paper, the problems of VET FEE-HELP related mostly to the defective implementation of the policy rather than its inherent weakness.⁴² For that reason, the commission is continuing to assess whether it is better for governments to provide more access to VET student loans than depend upon additional subsidies.

An income-contingent loan introduced for VET in NSW should have the following features.

- Any interest payable on the loan would be as notified to the student when the loan accrues and will apply from the date the loan is made, on balances owed.
- No principal or interest is repayable by the student unless and until the student reaches a designated level of income.
- Once interest and/or principal becomes repayable, the scale and amount of repayment is defined based on the income level received by the student over the minimum income threshold.
- No security is required for the loan and if the student has not repaid the loan in full but adhered to the rules above, the amount remaining is never repayable (e.g. if the student dies or becomes permanently incapacitated, their family has no liability for the amount outstanding of the loan).
- Even though the loans may be funded by the NSW Government, the collection of the loan should be undertaken by the Australian Taxation Office, which may be paid a fee for doing so.
- A surcharge can be charged (i.e. added to the principal and interest owing on the loan) to allow for the costs of collection and, if necessary, to reimburse part of the cost of the entire loan scheme including bad debts.

Implementation

Implementation should be carefully designed to avoid the pitfalls of the former national VET FEE-HELP scheme. As indicated above, that scheme, which operated between 2013 and 2016, was characterised by egregious conduct by some training providers. Partly as a result, average course fees skyrocketed from \$4,060 in 2009 to \$14,000 in 2015.⁴³

In particular, the proposed NSW scheme should avoid the combination of deregulated prices and uncapped loan limits that plagued VET FEE-HELP. This can be done by initially limiting the expansion of VET student loans to approved Certificate III and IV Smart and Skilled courses, for which the NSW Government regulates prices based on the pricing methodology recommended by NSW Independent Pricing and Regulatory Tribunal.

While the scheme could later be expanded, focusing on these courses in the first instance will also serve to encourage uptake of training that aligns directly NSW skills needs. It will ensure loans will be limited to people studying for courses delivered by approved providers already regulated under the Smart and Skilled program's guidelines and policies. This will significantly mitigate risk.

We recommend that the NSW Department of Education identify options for expanding VET student loans. This includes confirming the specific range of courses that will be eligible for loans and the model under which loans will be offered (including repayment rates, income thresholds and eligibility criteria). The costs of the scheme will vary significantly depending on the model selected.

We propose that NSW should move to establish its own complementary income-contingent loans scheme for Certificate III and IV courses at a state level. Alternatively, it could continue to advocate for national reform, noting that the Commonwealth Productivity Commission will release its final report on Skills and Workforce Development in January 2021. If the loan scheme is introduced by NSW alone (rather than as part of a national scheme), the Department of Education should liaise with the Commonwealth to finalise administrative details to establish a repayment mechanism through the income tax system.

Conclusion

The problems plaguing vocational education and training in NSW are national in scope.

Across Australia, skills development has not received the level of government investment required, in part reinforcing an increasingly prevalent public perception that VET is less valuable than higher education.

This misconception is too often unwittingly instilled in students while they are still at school. When they graduate from high school, they enter a tertiary environment which demarcates itself into dual educational sectors. Forced to choose, many students opt for a university degree for which there are no upfront costs, rather than paying fees for certificated VET. On graduating, a significant proportion then move to VET to enhance their employability.

Given the limited availability of professional career advice, many Australians believe that the demand for vocationally qualified workers is in decline. That view is utterly mistaken. The most recent data on occupational skills shortages released by the Commonwealth Department of Education, Skills and Employment reveals a significant deficit of vocational skills.

While a number of the in-demand roles in NSW require a degree (such as pharmacists, dentists, radiographers and teachers), many occupations in short supply depend on vocational trade certification (such as mechanics, panel beaters, plumbers, electricians, bricklayers, plasterers, carpenters and cabinet-makers).⁴⁴ A rapid rise in demand is also forecast for employees with Certificate III and IV qualifications in child care, aged care, disability care and community support.

The NSW Government has the opportunity to challenge the deeply-rooted structural and cultural barriers to studying VET. Through strategic policy interventions it can ensure that decision-making is a matter of informed choice. Young people should be encouraged and helped to plan their future, not drift into it.

In our view, fundamental change is required. We have set out what we believe to be some bold responses, although we emphasise that they can be trialled, demonstrated and implemented progressively. Together they have the capacity to alter community expectations. We believe that such approaches would place NSW at the cutting edge of educational reform, not just in Australia, but internationally.

We have given thought as to whether, in the face of the significant health and economic challenges presented by the global COVID-19 pandemic, the NSW Government might wish to defer consideration of our proposals. Our considered view is exactly the opposite: we believe that the state should respond to the challenges and seize the opportunities presented by this crisis. We believe this will benefit both the state in labour market planning and assist individuals who are increasingly worried about how they will secure employment and build a career in volatile and uncertain times.

Delay could hurt young people seeking to access limited existing opportunities. However, new opportunities are emerging if they can be adequately prepared to seize them. COVID-19 means that the traditional inflow of skills from overseas has for now virtually ceased. Commonwealth Budget forecasts suggest that it will take some years for net migration to return to pre-pandemic numbers.⁴⁵ Consequently, vocational skill shortages are likely to rise sharply in some key areas.

Significant NSW Government interventions will be required if the state is to be in a position to address emerging labour market blockages and deliver the skills needed to underpin the state's return to economic growth. These are likely to win significant public support.

Now is definitely the time to act.

Endnotes

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- 24 NSW Government, Media Release: Record \$18.5 billion Education Budget bonanza, 17 June 2019
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- 28 NCVET, VOCSTATS database, Apprentices and Trainees, 2020
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- 31 Panel for the Education Council Review of Senior Secondary Pathways into Work, Further Education and Training (2019), *Looking to the Future: Review of Senior Secondary Pathways into Work, Further Education and Training*
- 32 See, e.g. UNICEF, *National survey: Student views on the quality of education they receive in Australia*, 2018
- 33 National Skills Commission, *What are emerging occupations?*
- 34 *Daily Telegraph*, NSW students first to carry government's digital 'school passport', 16 October 2020
- 35 Completion data concerning VET should be interpreted carefully. Many students undertake a VET course over two years, whereas reporting requirements for completions is on an annual basis. Some students that are reported as not completing may complete the qualification the following year.
- 36 Australian Department of Education, Skills and Employment, Digital Skills Organisation Pilot
- 37 NSW Government, Vocational Education and Training: Fee Free Apprenticeships; NSW Government, Vocational Education and Training: Fee Free Traineeships
- 38 NSW Government, Smart and Skilled: Skilling for Recovery fee-free training
- 39 Australian Government, Labour Market Information Portal: Skill Level Projections – five years to May 2024, 2019
- 40 NCVET, Total VET Students and Courses: Program Enrolments, Data Builder, 2019
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- 43 Australian Government Productivity Commission, *National Agreement for Skills and Workforce Development Review: Interim Report*, May 2020
- 44 Australian Department of Education, Skills and Employment, *Results from 2018–19 workforce analysis research program*
- 45 Australian Government, *Budget 2020–21, Budget Strategy and Outlook*

APPENDICES

A-E

APPENDIX A: Terms of Reference

Review on the NSW Vocational Education and Training Sector

June 2020

Context

The *NSW 2040 Economic Blueprint: Investing in the State's Future* recognises that the NSW economy is supported by a flexible and adaptive VET system to encourage high growth industries and support worker incomes by improving labour productivity.

The NSW Government is steward of the NSW VET system, as well as being a funder and provider. It is the largest funder of VET in Australia, accounting for almost a third of all students and the largest number of Aboriginal and Torres Strait Islander students. In 2019–20, the NSW Government is investing \$2.3 billion in the VET sector to build a skilled and employable workforce, of which \$585 million is provided by the Commonwealth Government.

TAFE NSW is also the largest VET provider in the country, with a budget of \$1.85 billion in 2019–20.

Over the last five years a number of major reforms and initiatives have been implemented to improve the quality and efficiency of the VET sector at a NSW and Commonwealth level. This includes the introduction of Smart and Skilled in 2015, modernising TAFE NSW, and providing 100,000 fee-free apprenticeships.

The NSW VET system faces challenges including addressing ongoing skills shortages, quality and efficiency, public perception and system complexity. Many of these challenges are also faced by other Australian jurisdictions and have been the subject of a number of recent, comprehensive reviews that represent a solid foundation for this Review.

Scope

This Review will examine the findings and recommendations of recent State and Commonwealth reviews to identify and prioritise proposed interventions that will:

1. strengthen the NSW Vocational Education and Training system (including its public provider TAFE NSW); and will
2. support rebuilding the NSW economy and skills capacity post-COVID-19.

It will also consider the national VET reform processes underway through National Cabinet.

Areas of focus

Based on these reviews and their associated recommendations, this Review will submit to the Government recommendations for how the NSW Government and TAFE can:

- Deliver sustainable opportunities for resolving current skills shortages and re-skilling and up-skilling displaced workers to benefit the State's economy, with regard to the speed of design and delivery of courses, flexibility in course offerings, and making the NSW Skills List forward-looking.
- Reimagine industry engagement within the NSW VET system to enable it to meet future skills demand.
- Better integrate secondary, vocational and tertiary learning opportunities, including consideration of micro-credentialing, hybrid schooling, and university and VET training products.

- Provide better information to students so they can make informed decisions and improved career advice to support lifelong learning, including tailored opportunities for re-skilling unemployed and underemployed people.

In doing this, the Review will consider and comment on the purpose of NSW Government investment in VET and the outcomes currently delivered by the NSW VET system and TAFE NSW. It will also pay specific attention to the role of the system in recovering and reforming NSW economy post-COVID-19.

The Review may also consider how findings can be implemented through exemplar projects, for example relating to the Meadowbank Precinct and the Western Sydney Aerotropolis.

Governance and reporting

The NSW Premier has appointed Mr David Gonski AC and Professor Peter Shergold AC to lead the Review.

Secretariat support will be provided by the Department of Premier and Cabinet. Close engagement will be maintained with key stakeholders from NSW Department of Education, TAFE NSW, and NSW Treasury. DPC will facilitate the Review Panel engaging with stakeholders.

The final report will be provided to the NSW Government in December 2020, with an interim report by 30 September 2020.

APPENDIX B:

Stakeholder consultation

The Review Panel and supporting project team met with a diverse range of experts and NSW Government agencies.

Representative	Position/Role	Organisation
Zoë Robinson Christopher Stone	Advocate Senior Policy Advisor	Advocate for Children and Young People
Nick Jensen	Political Liaison	Alphacrucis College
Jason Sultana	Executive Officer	Apprentice Employment Network NSW and ACT
Darryl Buchanan Dr Geoff Newcombe	Associate Chief Executive Chief Executive	Association of Independent Schools of NSW (AISNSW)
Professor Geoff Masters AO	Chief Executive Officer	Australian Council for Educational Research
Mark Goodsell	Head NSW, National Director - Manufacturing	Australian Industry Group (Ai Group)
Angus Armour	Chief Executive Officer and Managing Director	Australian Institute of Company Directors
Tim Burt	Policy Manager, Workforce Skills	Business NSW
Jennifer Westacott Jessica Wilson	Chief Executive Officer Executive Director Policy, Company Secretary	Business Council of Australia
Gerard Delany	State Coordinator	Catholic Schools NSW
Dr Don Perlgut	Chief Executive Officer	Community Colleges Australia
Craig Fowler	Managing Director	JCSF Consulting
Suzanne Wauchope	Partner	KordaMentha
Judith Field Lauren Hosking Virginia Kim	Strategic Workforce Participation Manager Stakeholder Engagement Manager Manager, National Government & Industry Affairs	Lendlease
Paul Naylor	Chief Executive Officer	Master Plumbers Association of NSW
Megan Kirchner	Board Member	National Centre for Vocational Education Research (NCVER)
Tom Emeleus	General Manager	NECA Training

Representative	Position/Role	Organisation
Angelo Gavrielatos	President	NSW Teachers Federation
Maxine Sharkey	Deputy Secretary (Post Schools)	
Peter Birnbaum	Managing Director	Training Systems Australia
David Christie	Managing Director	University Admission Centre (UAC)
Professor John Buchanan		University of Sydney
Professor Attila Brungs	Vice-Chancellor & President	University of Technology Sydney (UTS)
Amy Persson	Head of Government Relations	
Matt Crocker	Strategic Advisor	
Professor Peter Noonan	Emeritus Professor at the Mitchell Institute and the Centre for Research on International Education Systems	Victoria University
The Hon Steven Joyce	Former New Zealand Minister for Tertiary Education, Skills and Employment	Joyce Advisory

NSW Government

Minister for Skills and Tertiary Education

NSW Department of Education

NSW Education Standards Authority (NESA)

NSW Productivity Commission

NSW Skills Board

NSW Small Business Commission

NSW Treasury

Office of the NSW Minister for Skills and Tertiary Education

TAFE NSW

Western Parkland City Authority

APPENDIX C:

Abbreviations and acronyms

AQF	Australian Qualifications Framework
ATAR	Australian Tertiary Admission Rank
COVID/COVID-19	Coronavirus Disease of 2019
COAG	Council of Australian Governments
EVET	externally delivered VET
FTE	full-time equivalent
IAT	Institute of Applied Technology
IPART	Independent Pricing and Regulatory Tribunal
IT	information technology
ITAB	Industry Training Advisory Body
HSC	Higher School Certificate
NESA	NSW Education Standards Authority
NCI	National Careers Institute
NCVER	National Centre for Vocational Education Research
NILFET	not in the labour force, education or training
P-Tech	Pathways in Technology
RTO	Registered Training Organisation
SBAT	School-Based Apprenticeship and Traineeship
TAFE	Technical and Further Education
UAC	Universities Admissions Centre
VET	vocational education and training
VET FEE-HELP	Commonwealth VET Higher Education Loan Program
VETSS	VET delivered to Secondary Students
VSL	Commonwealth VET Student Loans

APPENDIX D: Supporting evidence

Tertiary student data

University and technical education enrolment data

Year	University or tertiary institution	Technical or further education	Relative figure
2001	231,169	188,943	1.2
2006	239,041	160,820	1.5
2011	303,070	168,004	1.8
2016	376,133	144,103	2.6

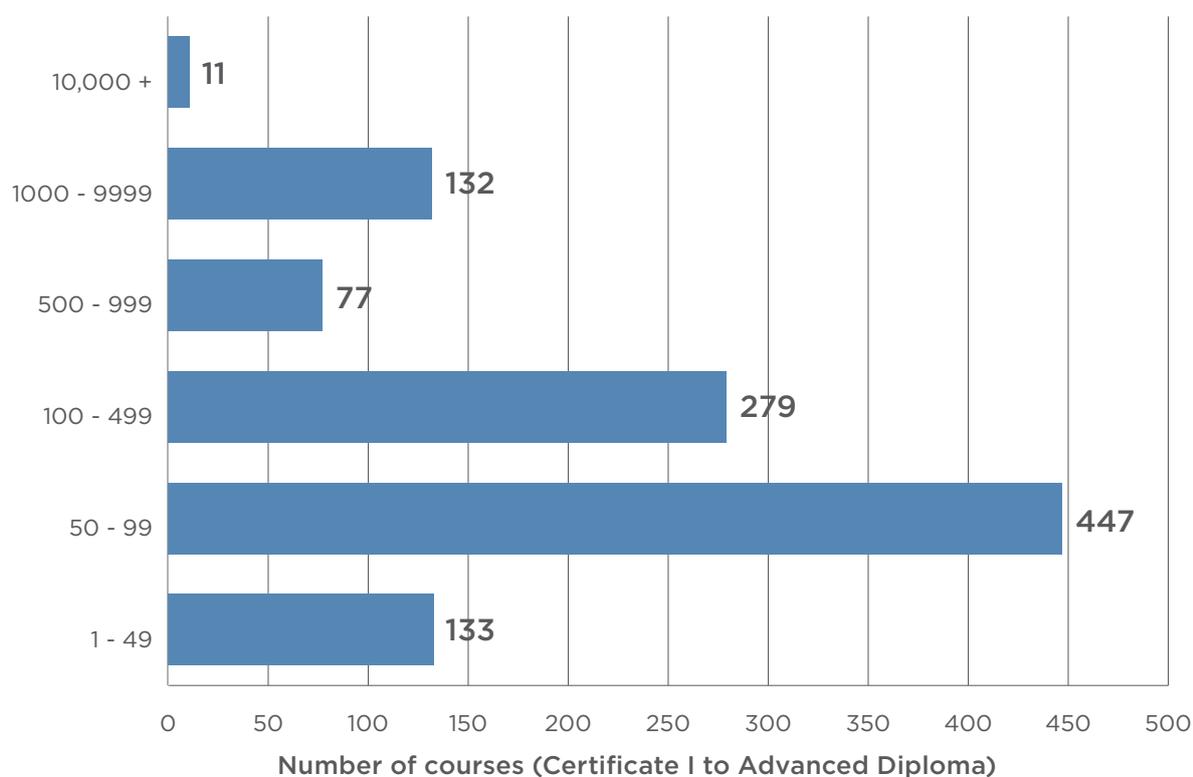
Source: Figures relating to 'University or tertiary institution' and 'Technical or further education' have been sourced from the Australian Bureau of Statistics, Census QuickStats 2016; 2011; 2006; 2001.

Figures presented under 'Relative figure' were generated by the NSW Department of Premier and Cabinet.

This table shows that the number of university enrolments since 2001 has been increasing, while technical education enrolments have been decreasing.

VET program uptake data

Figure A: Enrolments per course (NSW)

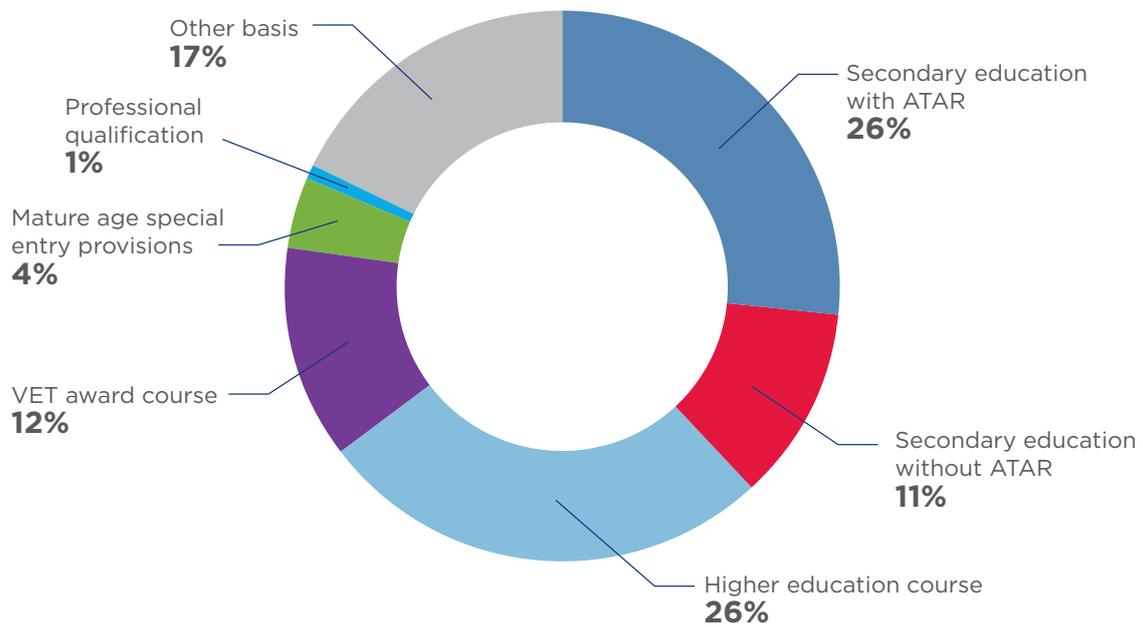


Source: Chart built from NCVER data, Total Students and Courses, Program Enrolments DataBuilder, 2019

This graph shows that most Certificate I to Advanced Diploma courses in NSW have between 50 and 99 program enrolments. Over 100 courses have fewer than 50 program enrolments.

Proportion of university admissions based on prior VET study

Figure B: Basis of admission for commencing domestic undergraduate enrolments (2016)

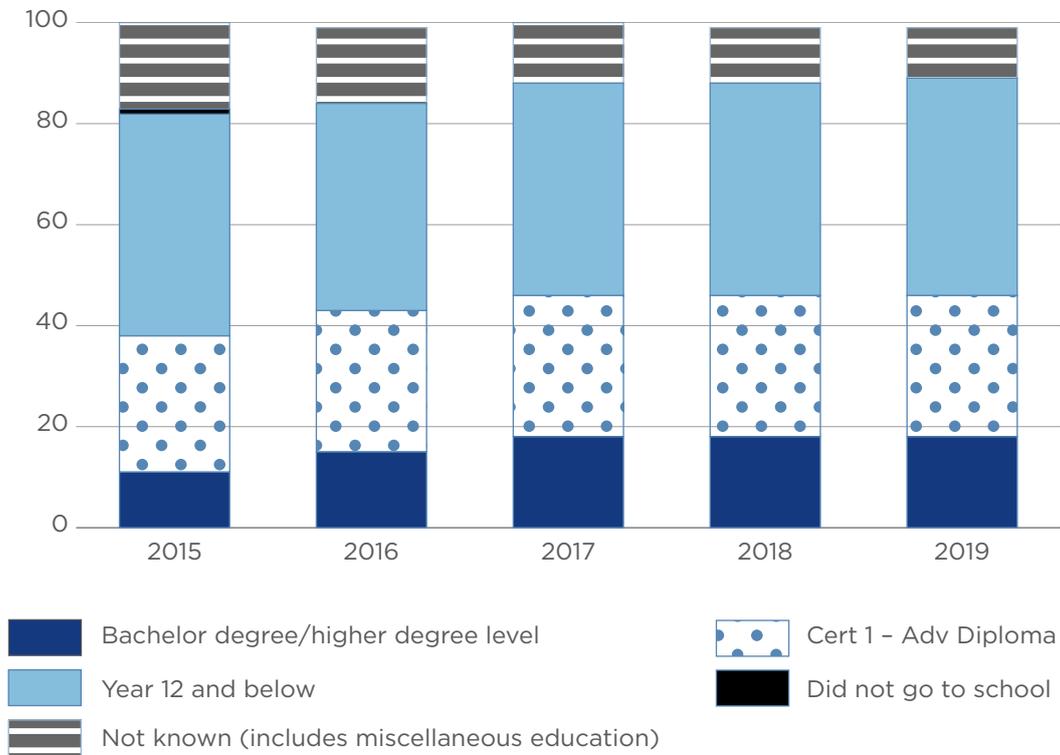


Source: Pilcher, S and Torii, K, *Crunching the number: Exploring the use and usefulness of the Australian Tertiary Admission Rank (ATAR), 2018*, Mitchell Institute, Paper No. 01/2018

This graph was taken from a Mitchell Institute report that looked at the use and usefulness of the ATAR. It shows that in 2018, 12 per cent of university admissions for domestic Bachelor students were provided on the basis of prior VET study. It also shows that only 26 per cent of domestic Bachelor admissions were made on the basis of secondary education with an ATAR.

Proportion of VET students in NSW with prior university education

Figure C: Highest previous education level of VET students in NSW

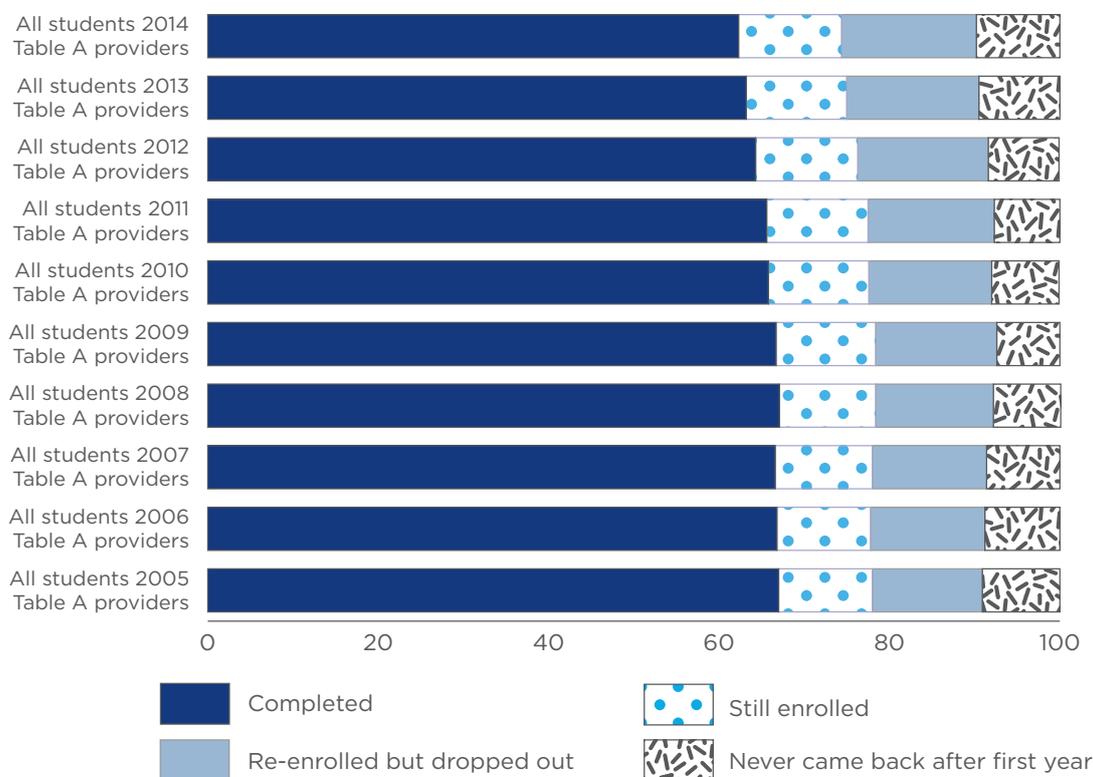


Source: Chart built from data in Total VET students and courses: program enrolments (by previous highest education level), Data Buildeâr, NCVET

This graph shows that while the majority of VET students commenced a VET program during or immediately after high school, 18 per cent had already attained a Bachelor degree or higher (in 2019). It also shows that the proportion of VET students whose previous highest education level was a Bachelor degree or above is growing.

Completion rates of Bachelor students

Figure D: Completion rates of commencing domestic Bachelor students at Table A providers - 6-Year Cohort



Source: Higher Education Statistics 2019, Australian Government Department of Education, Skills and Employment

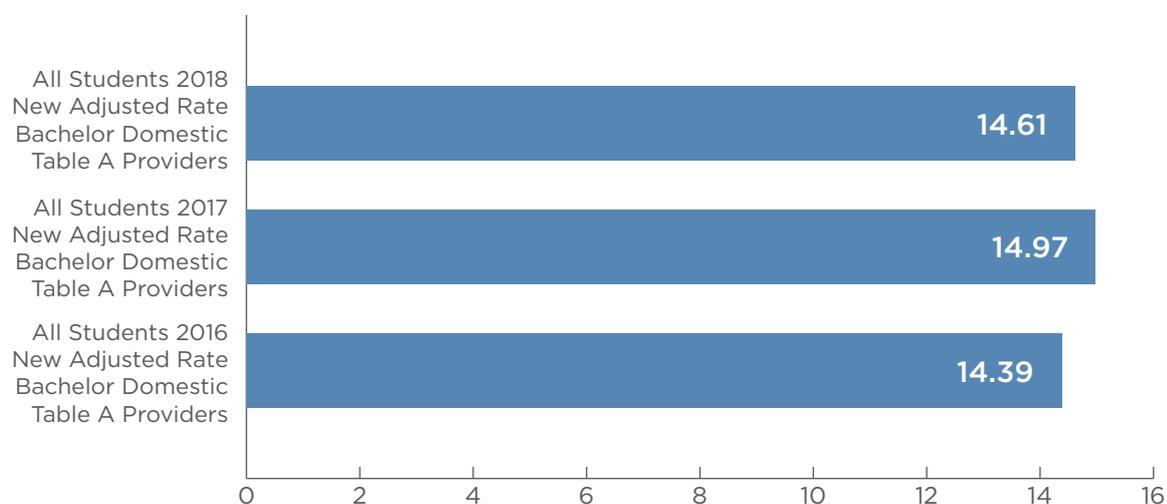
© Commonwealth of Australia; this graph is licenced by the Australian Government Department of Education, Skills and Employment (<https://www.dese.gov.au/copyright>) under a Creative Commons Attribution 4.0 International Licence (<https://creativecommons.org/licenses/by/4.0/>); changes were made to the font, colours and legend for the purposes of this Report.

Note: Table A providers are those listed in Table A, section 16-15 of the *Higher Education Support Act 2003* and approved for all Australian Government grants under that Act.

This table shows the completion rates for commencing domestic Bachelor students across Australia over 6 years. It shows a clear decline in completion rates from a high of 67.2 per cent of students commencing study in 2008 to 62.4 per cent commencing in 2014.

Attrition rates of Bachelor students

Figure E: New adjusted attrition rates of commencing domestic Bachelor students



Source: Higher Education Statistics 2019, Australian Government Department of Education, Skills and Employment
© Commonwealth of Australia; this graph is licenced by the Australian Government Department of Education, Skills and Employment (<https://www.dese.gov.au/copyright>) under a Creative Commons Attribution 4.0 International Licence (<https://creativecommons.org/licenses/by/4.0/>); changes were made to the font, colours and legend for the purposes of this Report.

This table shows that for commencing domestic Bachelor students across Australia, just under 15 per cent drop out each year.

Skills needs data

Skill level employment projections

Skill Level ANZSCO1.2	Employment level – May 2019 ('000)	DEPARTMENT OF EMPLOYMENT PROJECTIONS		
		Projected employment level – May 2024 ('000)	Projected employment growth – 5 years to May 2024	
			('000)	(%)
Skill level 1	4,091.6	4576.3	484.6	11.8
Skill level 2	1,471.5	1590.1	118.6	8.1
Skill level 3	1,789.8	1873.2	83.4	4.7
Skill level 4	3,408.8	3684.8	276.0	8.1
Skill level 5	2,126.1	2238.6	112.4	5.3
Total employment	12,879.6	13,954.7	1075.0	8.3

Source: Australian Government, Labour Market Information Portal; Employment Projections

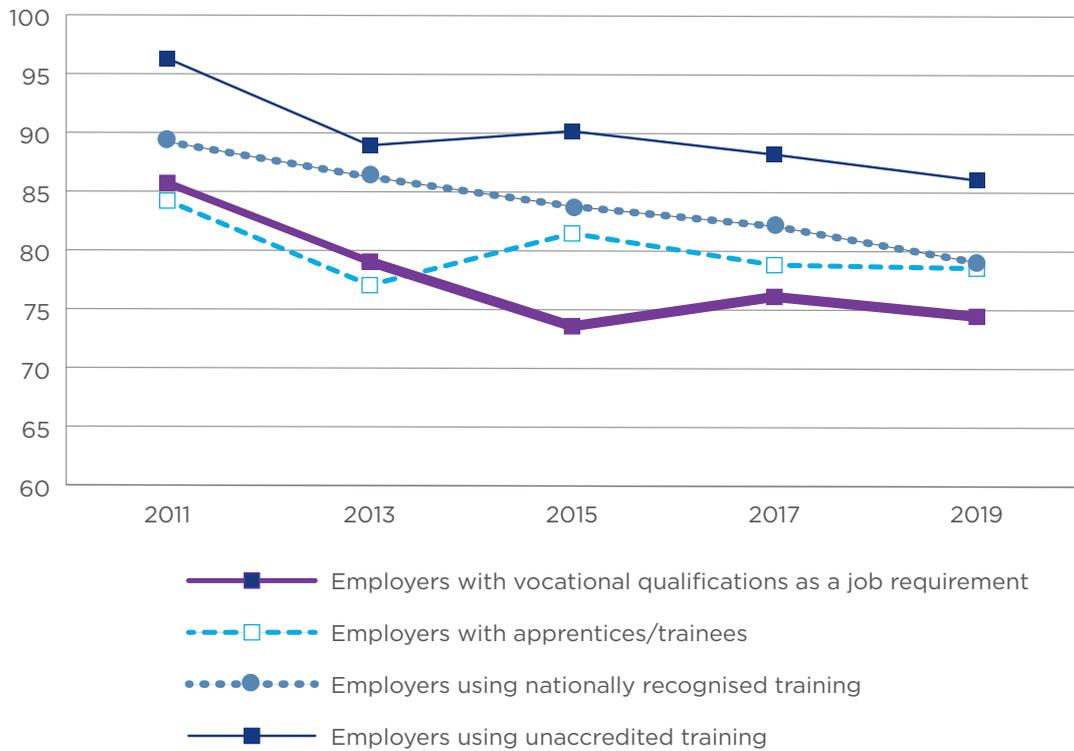
- Skill Level 1 is commensurate with a Bachelor degree or higher qualification
- Skill Level 2 is commensurate with an Advanced Diploma or Diploma
- Skill Level 3 is commensurate with a Certificate IV or III (including at least 2 years on-the-job training)
- Skill Level 4 is commensurate with a Certificate II or III
- Skill Level 5 is commensurate with a Certificate I or secondary education

This graph shows the expected demand for different skill levels across Australian to 2024. All skill levels are expected to increase in demand. Advanced Diploma/Associate Degrees and Certificate II/III are expected to experience the highest demand of skills traditionally acquired through VET.

Employer views data

Employer satisfaction with VET

Figure H: Employer satisfaction with VET in NSW, 2011-2019

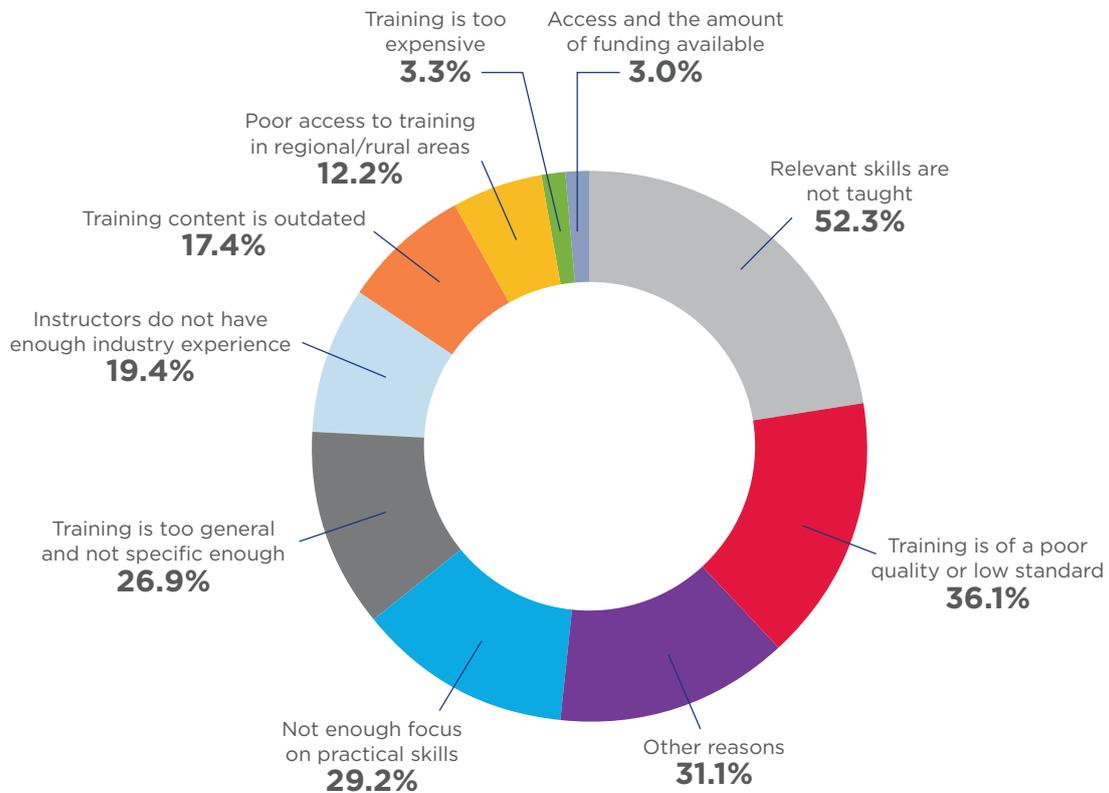


Source: Chart built from NCVER, Employer Use and Views of the VET system: Additional data tables

This graph shows that employer satisfaction with VET in NSW has been steadily declining since 2011. This has been the case across all employer categories including employers with vocational qualifications as a job requirement, employers with apprentices/trainees, employers using nationally accredited training and those using unaccredited training. The steepest declines have been for the employers using unaccredited training (96.5 per cent in 2011 to 86.1 per cent in 2019) and employers with vocational qualifications as a job requirement (85.9 per cent in 2011 to 74.5 per cent in 2019).

Employer dissatisfaction with nationally accredited training

Figure I: Reasons for employer dissatisfaction with nationally accredited training in Australia in 2019



Source: Chart built from NCVET, 2019 Survey of Employer Use and Views of the VET System

This graph shows the key reasons employers may be dissatisfied with nationally accredited training across Australia. The number one reason identified is that 'relevant skills are not taught' by training providers. The second reason is that the training is of 'poor quality or low standard' and the third (if you exclude the 'other' category) is that training does 'not focus enough on practical skills'.

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