



VET participation and completion – trends, decision-drivers, key questions and hypotheses

Phase 1 Report - Literature Review, Landscape Analysis and EnviroScan

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Executive Summary

The VET sector is at a crossroads with regulatory change, contestability, competitive intensity, major digital and economic changes and new directions suggested by marked shifts in consumer demand. The behaviour of longstanding markets is no longer predictable and the geographic boundaries of competition are changing. In New South Wales (and elsewhere in Australia), a high growth phase with intense private sector competition has challenged the traditional TAFE and government-funded VET sector putting key performance indicators of student participation and program completions under the spotlight. Like other states/territories, New South Wales has witnessed a downward participation trend, a gap between VET commencements and enrolments and a high rate of non-completion. Simultaneously the sector has seen policy issues escalate around fees, VET FEE-Help loans and PTO recruitment practices and new questions emerging about whether the sector is adequately equipped to skill the labour force of the future. In absolute numbers, New South Wales saw the largest decline in market participation nation-wide in 2015 and the NSW Skills Board has acted to obtain a deeper understanding of the market and the factors driving current and future patterns of demand.

This report captures the national and international body of knowledge on VET participation and non-completion, providing platform insights to inform this comprehensive investigation of the VET market by the NSW Skills Board. There is ample evidence that the VET market is in a state of flux with multiple factors influencing global demand. The public image of VET as a 'fall back' option has amplified with high growth in the university sector and many students beginning their VET experience 'by chance, not choice' (Brown, 2016). While there is a range of commentary on the socio-economic, cultural, geographic and psychographic profile of enrolees, in truth, very little is known about VET student choice making and how it occurs.

The 'second place' image of VET, youth aspirations (often ill-defined), socio-economic and geographic factors, perceived and actual academic ability, gender, occupation and cultural stereotyping, and inadequate insights to VET programs are among the wide-ranging factors impacting enrolments around the world. The majority (many of whom suffer some disadvantage) enrol for employment reasons, influenced by friends, peers, the internet and at times, chance encounters that turn their attention to VET. For some students, VET programs in schools highlight the benefits of a vocational path, for others, including indigenous students and migrants, the VET system provides the potential to progress, to integrate, find a job and a new sense of belonging. Geo-social influences are powerful, with the 'job heritage' of urban and regional families, gender related expectations and propensity to move or travel to urban centres to attend VET courses all being pivotal factors.

Globally, there has been a longstanding 'disconnect' between VET programs and university courses, with innovative and common sense solutions to the 'them and us' divide only emerging in dual stream courses in the UK and Europe in very recent years. Australia has been somewhat slower to bridge the divide. Some enrol in VET anticipating they will begin with a lower level Certificate and advance to Diploma/above, but with disproportionate numbers of disadvantaged students, limited advice, financial difficulties and expectations mismatched to the realities of study, many fail to complete. Apprenticeship enrolments and

related to that, the popularity of the Certificate III program has also declined. Here, the employer-apprentice relationship is pivotal, with most withdrawals from contracts in the very first year linked to the employer relationship, limited mentoring and poor on-the-job training.

A strong, front-end intention to complete is by far the most powerful predictor of sustained enrolment – those who start out with a passion tend to stay the distance. However, non-completion is endemic across VET programs and reasons given range from financial and social challenges, to Generation Y attitudes ‘always on the lookout for something better’, through to finding a job or fulfilling the intended study goal prior to the completion date. A key issue around the world is students’ lack of foundation communication skills (reading, writing and maths) which is now in focus in new VET programs embedded in high schools and integrated VET and higher education pathways in Germany, Denmark, Switzerland and Hong Kong.

VET program completions are higher in trade-based programs, in employment linked training and structured workplace learning. There are ‘hot spots’ or milestones in courses when students often withdraw, starting at the front end when the students’ first choice of program is not possible and a second choice proves unfulfilling. A strong self-identity and other psychological variables layer over age, gender and employment status to affect completions. Social inequity is endemic across VET consumers and with that, family and social problems arise, impeding progress. Some students ‘drift away’ because of multiple factors including critical events or incidents that cause them to change course.

Importantly, the quality of programs, teaching and the qualifications of teachers has not emerged as an over-riding influence on completions with the majority of students surveyed quite satisfied with their VET experience. However, non-completers are under-represented in student outcome surveys and discovering the primary trigger for non-completion is challenging. In the current NSW Skills Board study, deeper insights of front-end participation and real circumstances of withdrawal and non-completion are anticipated. Scant insights of a comprehensive nature exist at the single city or sub-regional level and the current study’s highly targeted depth interviews and mini-group discussions will add considerable texture to the current body of knowledge. Insights to the most important predictors of VET market behaviour at regional and capital city level will enable New South Wales to develop customised and generic strategies to manage adverse market trends, responding to the most significant drivers of participation to retain and grow its market share.

1. Introduction

Globally, new and disrupted industries, new jobs, technologies and ways of working have shone the spotlight on the role of education generally, and the VET sector specifically in enabling economic growth. With widespread disruption and digital transformation of business already impacting Australia's employment sphere and in turn the NSW labour force, a change-responsive and accessible vocational education and training (VET) sector is a shared public and private sector priority. Equally, an agile VET sector that engages the participation of diverse social groups is vital to build the capacity of regional communities to manage widespread industrial change. In this environment, the statistics of declining participation in VET programs and a pattern of 'early leaving' or non-completion by VET students (in Australia and other nations) are problematic.

The NSW Skills Board has commissioned research to: 'understand the drivers behind VET participation and completion or non-completion of students in NSW to advise the Minister for Skills on the vocational and education training system in NSW'. Key topics in focus are the factors that influence student decisions to participate in VET, and in turn, the factors that influence student completion of VET programs. *Four key questions that guide the project are:*

- Which *individual characteristics* are relevant to student decisions to participate in VET in NSW (factors could include but are not limited to socio-economic status, age, gender, cultural background and employment status)
- What *factors influence students in general* to participate in VET in NSW (these could include but are not limited to trainer provider marketing, employer influence, school careers advice and geographic region of residence)
- Are there *prevalent factors commonly found in students who complete VET* in NSW? (e.g. students participating in VET due to employment requirements are more likely to complete their training)
- Are there *prevalent factors commonly found in students who do not complete VET* in NSW? (E.g. are students directly recruited by training providers less likely to complete their VET program)

As a preface to a highly targeted qualitative and quantitative study among past, current and prospective VET students, Phase 1 of the project is a comprehensive, desktop review of literature (national and international) on allied topics/themes. Accordingly, this report begins with a high-level snapshot of Australia's VET environment, capturing the range of macro level influences on the VET sector before examining micro-level drivers and impediments to VET participation and completion. The report sequentially explores:

- Australia's VET sector at a new crossroad with new decisions and further policy, program and funding reforms now likely (further reform will undoubtedly impact the perceived relevance of VET to industry and students and influence the public image of the sector).
- Global and local VET participation and completion indicators (including a comparative look at the state of play in state, national and offshore settings).
- Student participation in VET (key drivers and influences) – An overview of individual characteristics and generic influences that *motivate or restrain participation*.

- VET program completions (key drivers and influences) – An overview of individual characteristics and generic influences that *support or impede program completion*.

Based on the above review and a related summary of findings and implications, the report concludes with a suite of hypotheses aligned with each of the key areas of enquiry in the Phase 2 research plan.

2. The Australian VET Landscape - An Environmental Scan

Weaknesses

- ❑ Declining program enrolments (with questions about the relevance of CERT 1 and CERT 2 and a call for a more future-oriented CERT 3 program)
- ❑ The VET student cohort falls away between enrolment and commencement
- ❑ A perceived sub-optimal alignment of AQF programs with 'jobs of the future'
- ❑ A long term downward slide in apprenticeship take-ups and contract completions
- ❑ Inadequate management of the prime micro-level driver of apprenticeship failure globally i.e. major problems in the employer-apprenticeship relationship
- ❑ Variation in quality and intent of VET providers across public/private sector domains – fast growth coinciding with 'cracks' in VET sector governance
- ❑ The potential 'tokenism' of VETis (VET in schools) relative to the transformational VET models now emerging in the UK and Europe
- ❑ Institutional and VET educator readiness for change and related image of VET teaching, qualifications and remuneration compared to EU nations

Strengths:

- ❑ Australia's 100 Year *Plus* history in VET with related infrastructure and learnings and widespread recognition of the contribution of VET to the Australian economy
- ❑ Existing links with secondary schooling, universities and the labour market (a platform to bring VET into the digital era and partner on enhanced curriculum for jobs of the future)
- ❑ Higher degree students in the VET sector are increasing, due to 'workplace' relevance
- ❑ TAFE Directors Australia (and the related potential for greater inter-state collaboration)
- ❑ Current 'Skills Councils' with strong public-private representation to help spearhead new industry/employer training programs and invigorate interest in apprenticeships (in traditional and new growth domains)
- ❑ The Certificate III popularity base with industry links (to pave the way for renewal) plus promising enrolments in Diploma/above programs
- ❑ Public sector TAFE infrastructure and regional dispersal (potentially providing a key resource for public-private asset utilisation and new collaborative VET programs)

Opportunities:

- ❑ **High growth domains** (Science, Digital/Technology, Engineering, Business, Construction/Architecture, Personal & Community Services)
- ❑ **A new, national VET Strategic Road Map and Implementation Plan** supported by EU style curriculum shifts and reformed funding arrangements
- ❑ **A strategic revision of AQF/other VET curricula** to embrace and respond to shifts in industry and market needs (with new approaches to on-line delivery)
- ❑ **EU-style integrated VET and academic pathways from school to higher education 'vocational' streams** (integrating practical workplace skills with abstract knowledge)
- ❑ **Public-private partnerships and alliances** across PTO/public providers for service delivery plus an exploration of new partnerships with industry, unis & offshore VET
- ❑ **A multi-pronged VET sector public image renewal and engagement plan** to re-engage youth and boost regions (with CEO/ business leader endorsement of the value of VET)
- ❑ **New apprenticeship plus employer training programs and engagement strategies** to overcome the major 'employer relationship' impediment to apprenticeship completions

Threats:

- ❑ The public image of VET (a mismatch of 21st century youth image and aspirations plus family expectations with the VET offer)
- ❑ Possible failure to act quickly enough to respond to digital, STEM plus core communication and business skills in the curriculum (potential loss of productivity & global competitiveness)
- ❑ Insufficient 'deep' insights to youth motivations and triggers to engage diverse socio-economic groups in a revised VET offer
- ❑ Strategic issues/weaknesses in the suitability of current VET funding arrangements with related uncertainty about future funding
- ❑ Political and VET sector 'power plays' and debates that may impede change-responsive reform (to turn around VET sector challenges)
- ❑ Different priorities and institutional arrangements and traditional interstate rivalries standing in the way of VET sector transformation
- ❑ Structural challenges of building new links and relationships between VET, mainstream schooling and university (if we are to better integrate VET with higher education options)

3. The VET Sector in Australia

From its beginnings in the late 1880s in New South Wales, the Australian VET sector has a long history of policy debate and reform and is again poised for change in the face of the digital era, shifting economic drivers and new jobs. In 2016, there is mounting pressure for a national review of the sector to enhance data capture and governance, tighten industry collaboration and to review the VET curriculum to fulfil changing needs alongside VET sector funding reforms (CEDA 2016).

Over the decades, there have been many milestones, but since the 1990s, the three notable ones have been Skilling Australia's Workforce 2005-2007, an Act that led to the abolition of the Australian National Training Authority (ANTA), the arrival of the COAG driven National Partnership Agreement (NPA) on Skills Reform and the Australian Skills Quality Authority (ASQA). In particular, the NPA's program of inter-governmental VET funding and reform to entitle all Australians to access government funding for training via a provider of choice set the wheels in motion for further change that ultimately disrupted the competitive landscape of the VET sector.

The COAG-led National Partnership on Skills Reform's well-intended expansion of the VET FEE-Help Scheme (albeit now contentious) preceded an intense period of 'marketisation' within the VET sector. However, the implementation of funding arrangements across Australia has proved unwieldy with eight different systems of VET governance in play. In addition, contrasting cultures of private training organisations (PTOs) and TAFE added to the complexity of distributing Commonwealth funds across multiple jurisdictions with quite different budget needs and priorities. Australia's decentralised VET governance sits in contrast to other nations engaged in VET sector reform (e.g. the UK, Germany, Switzerland and Hong Kong) and could impede its transformation.

At a macro-level, a single source of governance would no doubt aid an integrated review of VET service delivery. With VET curricula, funding and participation in focus at the present time, ACIL Allen (2015) CEDA (2016) and others (Reeson, Mason et al. 2016) favour a more integrated approach and the creation of a new Strategic Roadmap for the VET sector.

3.1 Australia's VET sector at a crossroad

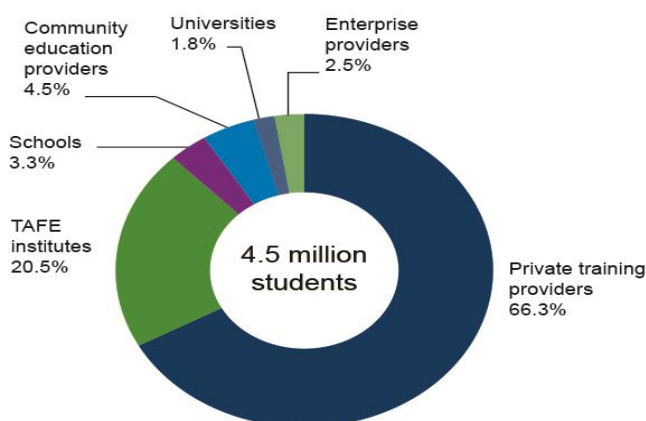
Since 2012, Australia has witnessed the proliferation of private and non-government providers in the VET market, historically dominated by TAFE institutes. A review by ACIL Allen (2016) of the NPA on Skills Reform noted that student access and choice increased and program enrolments rose following the introduction of NPA's VET FEE-HELP scheme, but subsequently declined. VET certificate participation (and completion) indicators have declined and apprenticeship enrolments have been in freefall since 2012. Sector transparency has improved (via vehicles such as the Unique Student Identifier and Total VET Activity data), but consumer information sharing to enable students (and families) to compare VET providers is limited (potentially leading to ill-informed choices and exacerbating enrolment cancellations and program non-completions).

Volatility has surrounded the VET FEE-Help Scheme (now ceased by the Federal government in the context of a funding review). There are recurrent questions about the capacity of VET qualifications to meet future workforce needs and a growing concern (and search for solutions) to youth disengagement with the sector generally. In this context, the sector has now reached a crossroad where further reforms are very likely.

3.2 The VET provider mix

The VET sector comes to this new crossroad with an extremely diverse suite of providers. In 2015, Australia's VET sector included 4,028 RTOs and 249 non-registered training organisations i.e. community education providers and schools (NCVER 2016). As shown in Figure 1, private providers and TAFE account for 66.3% and 20.5% of the VET sector respectively. The top 100 providers represent around half of the total VET student population, with the rest of the sector comprised of a large number of small training providers (Korbel and Misko 2016). Private sector providers comprise over 90% of registrations, although the number of new registrations has now slowed (NSW Business Chamber 2015).

Figure 1 Proportional representation of Australia's VET provider types in 2015



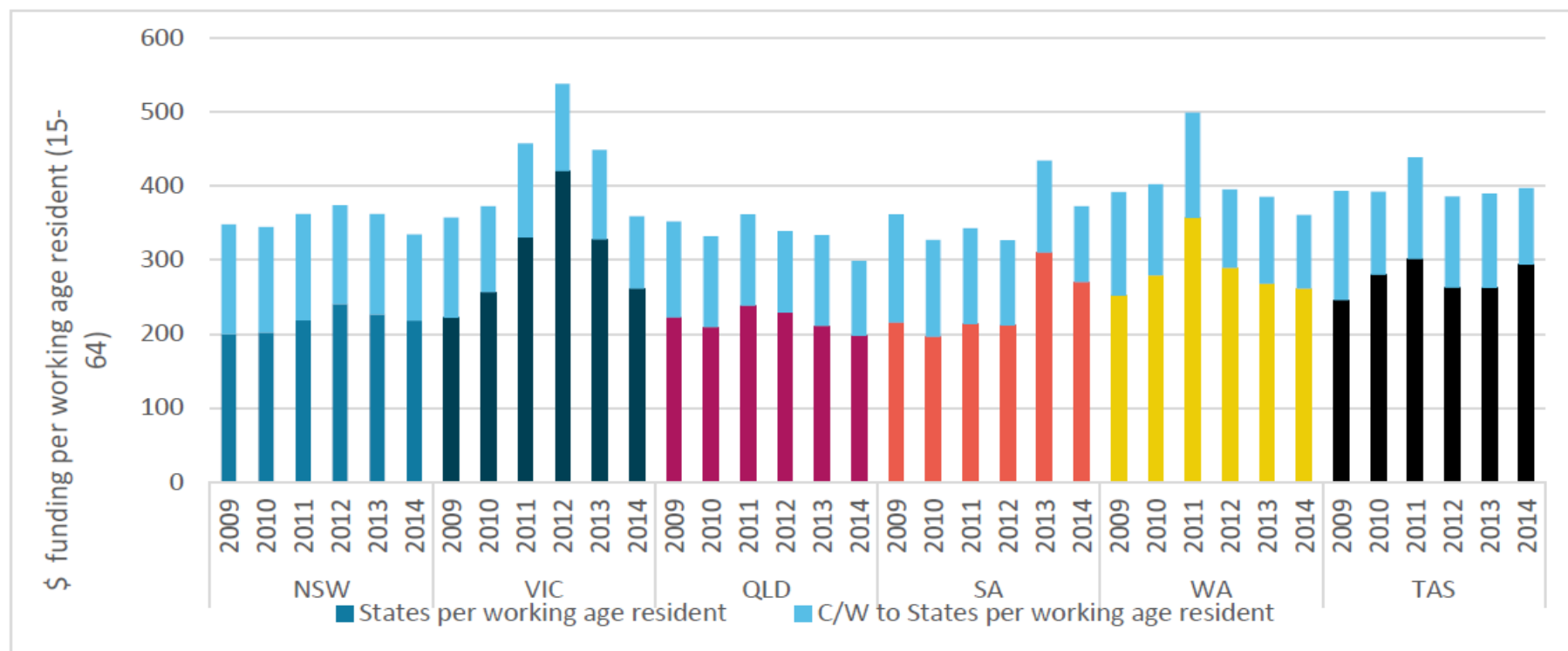
Korbel and Misko (2016) note that there are almost three times as many VET students as there are higher education students in Australia, but at least 35 times as many VET providers. A proliferation of VET providers brings choice as well as complexity for intending VET students. Commonalities and differences between VET providers do influence the overall profile of student participation and are likely to influence how well each provider satisfies the individual priorities of students. Key criteria in evaluating VET offerings are likely to include multiple factors including the perceived quality of programs, teachers and type of training delivered. The TAFE QLD/ CSIRO report, *The Vet Era* points out that the proliferation of VET providers complicates the sector's ability to monitor quality standards and, in some cases, this has affected graduate competencies (Reeson, Mason et al. 2016).

In general, TAFE institutes and private sector organisations do deliver similar training types, but TAFE continues to deliver more training to student markets in trade-related spheres. Private providers and TAFE institutes share the management and commerce training marketing, while a large number of PTOs aggressively target niche training markets e.g. health therapies, occupational health and safety, social services (policing, transport, logistics and security) and culture e.g. music and languages (Anlezark and Foley 2016).

The contestable market and funding arrangements for VET have inevitably seen competition intensify (between states/territories and operators vying for limited funds). The PTOs have competed vigorously (and at times unscrupulously) for market share, with well-documented cases of students ill equipped to complete programs in which they have enrolled (explored later in this report). Funding allocated annually within states/territories varies in line with VET participation and completion (Noonan 2016) with the overall funds apportioned across states/territories shown in Figure 2.

Figure 2 – Government funding allocation to each Australian state/territory over 2009-2014

Note: Variation in finances have generally aligned with each State/Territory's annual VET participation and program completions.



Source: ACIL Allen Consulting VET Finance 2014 NCVER

The overall pool of funding including the allocation of funds within each state has been contentious. The Australian Council for Private Education and Training (ACHPET) has previously expressed the view that NSW Government's allocation of VET funds has been 'cautious', limiting the sector's capacity to grow participation (ACPET 2015). However, the Boston Consulting Group (2016) referred to a controlled rollout of funding reform in NSW that had the two-fold effect of weakening contestability but also allowing the sector some time to adapt to change.

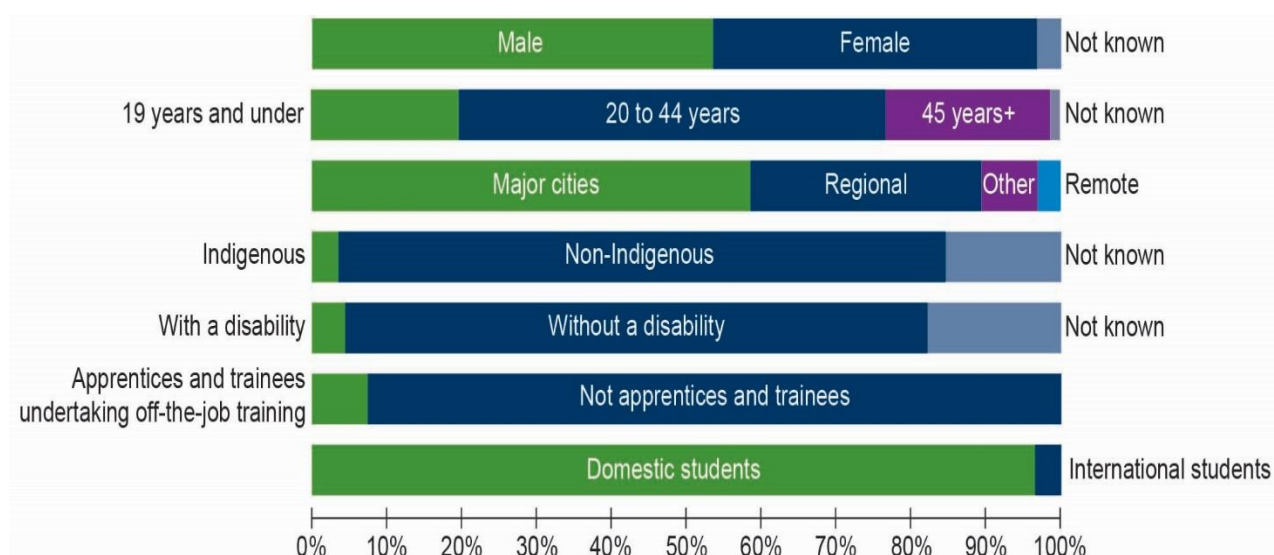
In late 2016, the attention of all providers is on the next round of reforms, which may/may not affect the quality of courses delivered, the range of courses that students can study with funding assistance and, the ability of VET providers to respond to workforce needs (ACHPET, 2016b). Eligibility for government funding, caps on student loans and, students' continued participation in any courses deemed *ineligible* for funding are all key issues that could affect VET provider viability, program completions and future participation (pending outcomes of the review).

3.3 Snapshot of VET participation

In the post-school educational environment, university enrolments have increased, while NCVER data shows declining participation in VET courses nationally. While VET participation can be hampered by any number of factors (as outlined in Section 5), as Reeson et al (2016) point out, the Australian VET market has *no definite boundaries* like the school and higher education sectors. The contestable market spans young people in school, those outside formal schooling, those seeking skills to obtain their first job or acquire new skills, SMEs and start-ups and a raft of others who simply have a lifelong interest in learning.

Each of these segments has their own unique aspirations and vocational training needs, none of which is static in the face of economic shifts and a maturing digital era. Understanding the curriculum and service delivery needs of each segment and the overall profile of current VET participation is therefore vital. Figure 3 below provides a snapshot of VET student characteristics in Australia in 2015.

Figure 3 VET students by selected characteristics



Source: NCVER (2016), *Total Vet Students and Courses in 2015*

With 4.5 million students enrolled in VET (NCVER 2016), New South Wales leads the way with overall VET student numbers (1,338,200 students) across government and non-government providers in 2015, followed by Victoria (1,117,600 students) and Queensland (1,095,600). The greatest share of the NSW market is held by PTOs (who service 816,700 students) followed by TAFE institutes with 364,700 students. However, as noted earlier, a marked decline in all VET participation and completion indicators has been evident since 2012.

While a city-based concentration of VET participation is predictable, the regional student market in Australia remains vital to balanced economic growth. Student segments with lowest proportional representation such as indigenous students, those with a disability, international students and Australia's remotely located students are important, ongoing targets for VET recruitment, albeit off a low enrolment base. In the current climate, PTOs are the primary service providers to international students (3.5% of the VET market).

With Australia's largest urban concentration, NSW has the highest proportion of students in Quintile 1 (most disadvantaged) and Quintile 2, but also in Quintile 5, the least disadvantaged group. According to Griffin (2014), lower level qualifications (e.g. Certificates I to II) appear to provide an entry point to the VET system or a stepping stone to a higher qualification. In general, disadvantaged learners tend to be over-represented in lower-level qualifications and under-represented in higher-level qualifications. Table 1 below shows the participation of equity groups in VET as a percentage of all VET students in 2015 in Australia.

Table 1 – Participation of equity groups in VET

Stated equity group	2015 rate (%)
Indigenous Australians	5.4
Disability	7.7
Women	47.1
Non-English speaking background	19.2
Remote/very remote locations	3.5
Low SES (Lowest quintile)	23.1
Highest prior level of education Year 11 or lower	32.9

Source: National VET Provider Collection 2003–15.

Source: Cited in Atkinson and Stanwick (2016), *Trends in VET: policy and Participation*, NCVER.

The Mission Australia Youth Survey 2015 in New South Wales found that Aboriginal and Torres Strait Islander students were more likely to outline their plan to get an apprenticeship or to attend TAFE or College than non-Aboriginal and Torres Strait Islander students (Cave, Fildes et al. 2015).

3.4 State of play with VET programs

Potentially the most important macro-level impact on the health of the VET sector (participation and completions) is student and employer perceptions of VET education pathways, course content and delivery mechanisms. Declining levels of participation are evident across the *Australian Qualification Framework* (AQF) of Certificates I to IV and training and apprenticeships. Here, unique state/territory level insights to participation declines and retention are important to account for the full range of geographic, socio-economic and situational influences on this trend. Clearly, this process in NSW will be guided by the preliminary framework of drivers and influences presented in Sections 5 and 6 of this report).

NCVER data is informative on training program and package choices. Management and Commerce is the most popular area of VET study in Australia and Business Services and Community Services are the first and second most popular training packages (NCVER 2016). AQF's Certificate III generates the highest enrolments across all program options. Certificate III attracts *close to 40% of all VET students (1 million enrolments)*, although there are divergent views about whether the program in its current form will serve the changing needs of the future workforce.

CEDA (2016) in its recent report, *Vet: securing skills for growth*, recommends that Certificate III plus Diploma and above qualifications should be the sector's two key priorities. However, Reeson et al's (2016) alignment of AQF programs with occupational skill levels in the job market does show that demand for some jobs with skills allied to Certificate 3 is now static, if not flagging. There is still some growth in demand for skills delivered by Certificates II and III, but more insights are vital to unpack the skill sets of the future that are present or absent in all VET programs. A strong case is made by authors of *'The Vet Era'* for program redesign to fully integrate STEM, communication and technical skills to a revised curricula (Reeson, Mason et al. 2016).

Apprenticeships and traineeships, a cornerstone of Australia's positive public perceptions of the VET sector, account for just 7.5% of total student enrolments in 2015 statistics i.e. 278,600 students (NCVER 2016). Among starting apprentices in 2015, construction was the most popular trade category for apprenticeships followed by automotive and engineering trades and then, electro technology and telecommunications. In non-trade occupations, the highest enrolments are in community and personal services, clerical and administrative services and sales. However, a scan of apprenticeship commencements over the past decade shows a major decline, falling from 72,700 in 2005 to 44,200 commencements in 2015 (NCVER 2016).

New apprenticeships and traineeships in 2015 are 35-50% lower in number than a decade ago. VET opinion leaders are calling for a strategic overhaul of programs to ensure that all core offerings are relevant and adaptable to job needs of the present and future. The CEDA (2016) report suggests it may be time to consider fewer qualifications, refining Certificate III where demand is highest and promoting Diplomas where students' higher level skills/insights are developed. The report notes that "Certificate IV and Advanced Diplomas tend to serve niche, rather than broad markets" (CEDA 2016 p. 26).

Frequently overlooked, but still central to a vibrant and accessible VET sector is the VET in Schools program (VETis) designed to improve opportunities and pathways for secondary school students and maximise the number of students completing Grade 12 (Department of Education and Training 2015, Anlezark and Foley 2016). Over 240,000 students in the 15 to 19 year age group in Australia participate in VETis each year (2016) with an over-representation of disadvantaged students. Importantly, VETis includes any nationally recognised VET activity counted as credit towards a senior secondary certificate. A strength of the NSW VET in Schools arrangement is the compulsory structured workplace learning arrangements that students undertake as part of their HSC (NSW Business Chamber 2015). With VET trending towards a tighter interface between schools, industry and academic programs around the world, insights to the current and future value of school-based programs in encouraging post-secondary VET participation are important.

3.5 VET reform and renewal - the offshore experience

VET has suffered from the 'middle child syndrome', often viewed as the fall back option for non-academic students in Australia. Similar public image issues exist offshore, but school-based models are longstanding (and increasingly progressive) e.g. in Germany, Switzerland, the Netherlands and Denmark and Hong Kong. In the EU 2020 strategy, where education is at the core of achieving smart, sustainable and inclusive growth and in the UK, the focus is now on *combined school and work-based programmes* (OECD 2016). Similarly, in

Hong Kong, the new secondary school model embeds VET in the curriculum (CEDA 2016).

Vocational education and training at upper secondary level is a longstanding tradition in Denmark, Norway and Finland and almost all VET provision is government regulated to streamline the delivery of VET and ‘social partnerships’ with industry. Across Scandinavia, VET graduates with high craft and industrial trade skills enjoy high status and a high employment rate (Andersen and Kruse 2014). Denmark has traditionally had a fairly rigid dual VET and academic system, similar to Germany, but more school based (Jørgensen 2014). Until recently, there was no real ability for students to move between VET and academic paths and VET students did not usually achieve entrance qualifications to higher education (Jørgensen 2014). In 2014-15, this changed with the arrival of the new Danish *eux* - a program that goes beyond the school based Swedish and Finnish upper secondary vocational programmes to combine vocational qualifications with eligibility for higher education (Jorgenson 2015). While somewhat lengthy to complete, the *eux* gives students direct access to skilled employment (a skilled workers certificate) and immersion in vocational and general subjects in a hybrid program.

The dual vocational and academic model also sits at the heart of VET in Germany, which has the two learning venues of companies and VET schools. According to Backes-Gellner (2014), major innovations in German and Swiss business occur through highly skilled university graduates and highly skilled vocational graduates working together (a common practice on projects to bridge the gap between academic thinking and occupational knowledge). In Switzerland, VET reforms have already seen 40% of top performing Swiss 15 year olds engaged in a vocational career path of shorter duration. Students undertake a four-year apprenticeship program at a company and spend up to two days weekly in classes.

Equally innovative are the VET reforms featured in the new *UK Post 16 Skills Plan*. A world-class technical option that will begin in the last two years of secondary school and continue through to tertiary level, the new VET program is described as a ‘distinctive, prestigious, high quality offer’ (Department for Education 2016). Responding to the Wolf Report (2011), the UK government’s aim is to reformulate VET so that it has recognised market value and enables students to switch between academic and technical education options. Outside the new school based VET system, the UK Government is also proactively establishing new national colleges and VET programs to lead the way in high growth sectors e.g. nuclear, digital skills, high-speed rail, onshore oil and gas and cultural industries. By 2025, 70% of highly skilled workers in the nuclear industry will retire at the very same time that the UK is investing in a new nuclear power stations and new VET graduates will be needed to fill the gap (Department for Education 2016).

In summary, the newly emerging models in the UK, EU nations and in Hong Kong each provide a reference point for Australia to consider future pathways. In progressive VET solutions, *hybrid* school and work-based VET programs with pathways to higher education are breaking down the ‘them and us’ divide between VET and academia. With well-planned pathways, the negative imagery of VET as the ‘middle child’ is expected to diminish. A new image for VET could potentially turn around the statistics observed by Lamb et al (2015) that over one-quarter of all young Australians in their mid-20s are not earning or learning and annual cohorts of over 90,000 young Australians are struggling to establish stable study and work careers.

Largely because of European success stories and frustration with the VET-University divide, Australia’s interest in education pathways afforded by the school-VET-university relationship is rising. However, there is little evidence yet of a robust discussion of EU style VET reforms. Various commentators acknowledge that job demand globally is polarising to very high skill sets or low skilled sets and that digital literacy in all jobs will underpin workplace survival (Goos, Manning et al. 2014). The greater potential of offshore VET models to address these changes has been underlined by a range of commentators (NSW Business Chamber 2015, Atkinson and Stanwick 2016, CEDA 2016, Reeson, Mason et al. 2016) but a fuller review of VET

curricula and pathways between schools, VET and universities (and a national roadmap) would no doubt precede any EU style reform.

4. VET Participation and Completion – Key Indicators

4.1 Australian VET participation (Government and Non-Government Funded VET)

While NCVER's publication, *Total VET Students and Courses - 2015* (NCVER 2016) reports 4.5 million enrolled students in all types of VET in 2015, it also notes a lower number of program enrolments overall at 3.5 million (showing a marginal 1.8% decline from 2014). The total number of VET students, again in all types of VET, rose by 16.8%. Among 15 to 64 year old Australians, 26.8% were engaged in some form of VET. However, declining VET program commencements are also a concern for sector leaders with reasons for these trends, particularly in government funded VET, now the focus of this NSW research. Table 2 below examines 2015 data from NCVER's Data Slicer (sourced October 2016), also comparing the state of play for VET overall in NSW and Victoria.

Table 2 – VET Participation in Australia: A 2014/15 Snapshot

VET Participation	2014	2015	% Change
Overall VET students - Australia	3 908 010	4 542 620	16.2
Program enrolments - Australia	3 580 965	3 515 475	-1.8
VET students - NSW	1 132 440	1 338 185	18.2
Program enrolments - NSW	1 009 690	1 020 065	1.0
VET Students - Victoria	1 052 290	1 117 595	6.2
Program enrolments - Victoria	995 790	878 230	-11.8
Certificate I enrolments - Australia	236 615	212 545	-10.2
Certificate I enrolments - NSW	34 025	37 680	10.7
Certificate I - Victoria enrolments	55 400	42 630	-23.1
Certificate II enrolments - Australia	697 600	609 790	-12.6
Certificate II enrolments - NSW	204 570	173 365	-15.3
Certificate II enrolments - Victoria	175 250	135 120	-22.9
Certificate III enrolments - Australia	1098 870	1000 655	-8.9
Certificate III enrolments - NSW	245 205	231 645	-5.5
Certificate III enrolments - Victoria	334 015	280 575	-16.0
Certificate IV enrolments- Australia	568 140	540 260	-4.9
Certificate IV enrolments- NSW	152 320	150 815	-1.0
Certificate IV enrolments - Victoria	189 520	168 515	-11.1
Diploma/above enrolments - Australia	492 045	646 235	31.3
Diploma/above enrolments - NSW	182 735	256 020	40.1
Diploma/above enrolments - Victoria	118 890	139 900	17.7

It is useful to compare Australia's overall VET participation with OECD indicators. The OECD (2016) reports that almost three quarters of 25-64 year old upper secondary school students across OECD nations were enrolled in vocational programs in 2014 (OECD 2016). In countries such as France, Latvia and Slovenia, almost all adults over 24 years old enrolled in upper secondary school follow vocational programs. Australia is included in a long list of countries where a high proportion of enrolled adult students are in VET with general programs accounting for only 10 of 30 nations providing data to the OECD (2016).

NCVER's (2016) *Total VET Students and Courses – 2015* showed student numbers in VET rising by 16.2% nationally over 2014/15 with NSW outstripping national results by a further two percentage points at 18.2%. Notably, the increase in VET student numbers in Victoria in 2015, again for all types of VET programs, was just one third of the increase observed in NSW. Across all programs, indigenous participation improved over 2014-15. A 13% increase in indigenous students (to 165,485 nationally) and an 11% increase in NSW (to 58,195 at state level) was observed. In contrast to the wider results shown for all VET providers in the NCVER data, as discussed next in Section 4.2, there is evidence of far less promising results in 2015 in the government funded VET sector.

For government and non-government VET programs combined, however, we do see a consistent decline in enrolments across all programs with the exception of the Diploma/above offerings. In New South Wales, Diploma/above enrolments increased markedly with 40.1% growth outstripping national growth of 31.3%. Reflecting wider concern about the perceived relevance of lower level Certificate programs, Certificates I and II suffered in 2015 in most states across providers (government funded and others). However, NSW did see growth of 10.7% in Certificate I enrolments. Certificate III enrolments fell, but only marginally compared with other certificate levels. There is a strong vein of commentary about the tighter alignment of Certificate III to industry needs, but further insights would pinpoint whether the drop in program enrolments relates to program-specific factors and/or other influences.

To simultaneously consider 'lead' and 'lag' indicators of VET participation, a review of the 2014 Student Outcomes Survey (NCVER 2015) does not point to emerging dissatisfaction with AQF Certificate programs - well over 80% of graduates and subject completers were satisfied with their training and the certificate programs fulfilled students' main reason for participating in VET (NCVER 2015). In summary, across all VET programs, Table 2 shows the decline in enrolments to be greater in Victoria than New South Wales. The fall in enrolments in New South Wales is only marginally different (higher or lower) than national level indicators across most programs. In contrast, program enrolments in Victoria in 2015 (across all VET providers) were trending around 50% lower than national statistics. While controversies around PTO marketing in Victoria and issues of funding may be pivotal, our purpose here is to understand the broader enrolment decline in Australia and more specifically, student decision-making that drives participation in New South Wales.

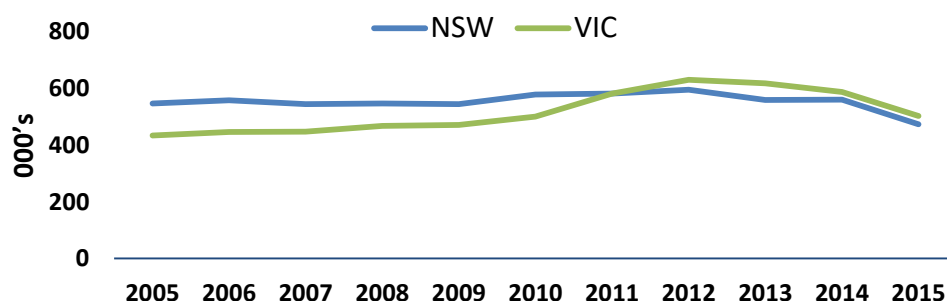
4.2 A look at Government-Funded VET Performance

Clearly, there is a large difference between total VET participation figures for Australia (4.5 million students as noted earlier) and the government-funded VET participation figure of 1.6 million students in 2015 (NCVER 2016). Compared with the 16.8% rise in total VET participation reported for the entire sector, there was a decline of 10.7% between 2014 and 2015 in the government-funded sector.

As the NCVER (2016 p. 5) notes, "in absolute numbers, New South Wales experienced the greatest decline in student numbers (86,300 fewer students or 15.4%) closely followed by Victoria (83,900 fewer students or 14.3%). In 2015, Victoria remained the largest provider of government-funded VET in Australia with 503,600 students or 31.5% of the national total. However, a comparison of the growth trajectory from 2005 through to 2015 in NSW and Victoria does show Victoria's rise and fall from 2011 through to 2015 that has

significantly narrowed the gap in VET participation figures between the two states. Figure 4 shows a snapshot of this comparative performance of NSW and Victoria over a ten-year period.

Figure 4 - Longitudinal data on NSW and Victoria VET participation levels



Mirroring the observations made earlier for combined providers (i.e. government-funded providers and others), student numbers declined at all AQF qualification levels in the government-funded sector except associate degrees (an 83% increase off a small base) and graduate diplomas which saw a 7.2% increase, again off a small base (NCVER 2016). Those studying non-AQF programs did increase in 2015 (by around 2%) mostly because more students (a further 11.8%) were involved in non-award programs and other recognised programs (a 4.3% increase). Government funded training by state/territory declined the most in South Australia (16.8% down), followed by NSW with a higher decline (15.4%) than Victoria (14.3% decline).

Contrasts between the wider VET sector and government-funded VET were also evident with regard to the participation of disadvantaged groups in 2015. While indigenous participation increased in the VET sector generally, a 3.8% decline occurred across government-funded providers (NCVER 2016). Disabled students and those from non-English speaking backgrounds also reduced in number. Table 3 shows overall student participation in the government-funded VET sector across states/territories from 2003 to 2015 including the proportional fall in student numbers in NSW, Victoria and South Australia. While NSW suffered a somewhat larger decline than Victoria, the size of the fall since 2013 is greater in Victoria.

Table 3 - Government-funded VET students by states or territories, 2003–15 ('000)

Year	NSW	Vic.	Qld.	SA	WA	Tas.	NT	ACT	Australia
2003	580.8	468.7	297.6	114.4	130.4	35.8	19.9	21.8	1 669.4
2004	513.3	457.9	278.8	115.3	126.5	38.5	19.7	22.3	1 572.2
2005	547.0	434.3	290.4	118.2	130.1	39.7	21.2	23.0	1 603.9
2006	558.8	446.2	293.3	114.1	137.2	41.8	21.8	23.6	1 636.9
2007	545.4	448.1	287.0	115.8	142.3	43.9	22.7	24.0	1 629.2
2008	547.3	468.5	290.6	118.9	149.1	46.3	22.2	24.7	1 667.4
2009	545.2	471.0	288.8	121.9	157.2	43.2	23.6	26.5	1 677.3
2010	578.2	500.8	300.8	123.9	166.0	49.6	24.0	29.4	1 772.6
2011	582.0	581.7	304.3	123.0	167.7	47.4	24.4	29.4	1 860.1
2012	595.3	631.1	290.7	142.5	167.3	43.0	24.3	30.1	1 924.1
2013	560.0	618.2	251.9	165.7	163.8	43.0	22.9	28.5	1 853.9
2014	560.3	587.5	264.1	129.8	152.6	43.8	25.1	25.9	1 789.1

2015	474.0	503.6	283.3	108.1	145.0	36.6	24.1	23.2	1 597.8
2014-15 % change	-15.4	-14.3	7.3	-16.8	-5.0	-16.4	-4.0	-10.3	-10.7

4.3 Program and training package preferences

As shown in NCVER's 2015 data on training packages (NCVER 2016), there are some variations in the market dominance of different package types in each state. Community Services packages had the highest enrolments in Victoria and not surprisingly, the most highly sought after packages in NSW were in Business Services. Financial Services packages attracted more than double the number of enrolments in NSW than Victoria. In total, there were 792,000 program enrolments in NSW, compared with 653,500 in Victoria.

New South Wales boosted its enrolments in Diploma/above programs reflecting the continued rise in higher education enrolments in Australia. However, it is worth noting that graduate and 'subject completer' satisfaction with the quality of Diploma/higher education offerings in 2014 sat at 71.8% (10 points lower than other VET programs). Fulfilment of the students' main reason for doing a Diploma also came in at 66.8%, again 10 points lower than other VET programs. While the VET sector is largely the home of Diploma level study, degree programs would undoubtedly be 'weighed up' against other university offerings. The impact of enrolment declines on student numbers is important to understand. In NSW, the most substantial decline in real enrolment numbers occurred at Certificate II level.

Another VET activity of importance in examining participation trends is VET in Schools (VETis). Over 240,000 students nationally were involved in VETis last year with subjects studied drawn from Certificates I to III (CEDA 2016). As noted earlier, there is recognition of the subjects studied by NSW students via the HSC. However, participation is hampered by a narrow suite of subject offerings (restrained in part by fees levied for service). In considering the wider impact of VET in Schools on participation, a key weakness of the Australian approach is its failure to provide EU style school-VET-university pathways that would potentially attract and retain a more diverse student cohort (across socio-economic groupings).

Not included in the earlier table are Australia's apprenticeship and trainee commencements and these are shown in Table 4 below. A long-term decline in numbers is evident over the decade to 2015. The table shows a freefall from 2012 to 2015, coinciding with a wider decline in VET participation (NCVER 2016).

Table 4 – Apprentices and trainees by training contract status, 2005-15 ('000)

Training contract status	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Commencements	262.1	266.4	275.8	288.8	271.8	315.0	320.8	330.6	245.9	190.4	171.2
Completions	136.7	141.6	146.7	154.8	160.6	169.7	182.2	194.3	192.5	156.1	118.6
In-training (as at 31 December)	390.7	395.7	404.3	414.9	410.3	434.9	443.0	445.0	383.6	315.9	278.6
Cancellations/withdrawals	126.1	126.8	132.2	134.9	124.0	132.9	142.9	145.3	122.5	109.9	98.2

ACHPET (2015) links this drop in apprentices and trainees to Australia's broader economic restructure, higher levels of unemployment and government funding shifts (e.g. employer incentive payments for traineeships that were withdrawn in 2012 for occupations not on the National Skills Needs List). However, Deloitte Access Economics (cited in ACHPET, 2015) points out that while incentives did boost apprenticeship uptake, they did not deliver improved outcomes for workers. In practice, employer incentives were associated with a greater likelihood of apprenticeship cancellation. Apprenticeship commencements were

marginally lower in New South Wales (72,700) in 2014 when compared with Victoria (79,900) which had the highest number of commencements of all Australian states/territories. The majority of apprentices and trainees were male, 19 years of age or younger, employed full time and enrolled in a Certificate III program. That apprentices and trainees are fewer in number would explain the decline in Certificate III enrolments.

Data that is also important to consider in looking at annual program enrolments is the *ratio between students who initially enrol and those who actually commence their program* – New South Wales IVET figures suggest that around 25-30% of students who initially enrol do not progress through to commencement. In this regard, the Woolcott research will obtain deeper insights to student decision-making and intentions in the lead-up to enrolment and during post-enrolment (prior to commencement) to properly grasp the VET sector opportunity loss.

4.4 Student completion of VET programs

Australia's VET completions data for 2014 (and a further comparison of VET performance in NSW and Victoria) underpins Woolcott's second area of focus in understanding VET student decision making (i.e. the demographic, geographic, psychographic and diverse situational influences on the decision to leave, withdraw or continue). As shown earlier in Table 4, completion of apprenticeships and traineeships fell sharply in 2014 but cancellations/withdrawals also fell. However, over time, enrolment cancellations have not really fluctuated that much. Table 5 below again draws on the NCVER Data Slicer to profile VET completions across all categories of VET providers in Australia, NSW and Victoria. Here, it is evident that VET program completions have fallen nationally by 9.4% over 2014/15.

Table 5 – VET Program Completions in Australia: A 2014/15 Snapshot

VET Program Completions	2014	2015	% Change
Overall completions- Australia	900 925	815 905	-9.4%
Program completions - NSW	244 870	214 415	-12.4%
Program completions - Victoria	272 110	228 395	-16%
Certificate I completions- Australia	62 680	50 625	-19.2%
Certificate I completions – NSW	8 755	8 015	-8.4%
Certificate I completions - Victoria	15 435	9 125	-40.8%
Certificate II completions - Australia	176 855	176 835	-.01
Certificate II completions - NSW	41 620	43 820	5%
Certificate II completions - Victoria	46 430	36 575	-21.2%
Certificate III completions - Australia	332 750	286 560	-13.8%
Certificate III completions - NSW	95 540	75 035	-21.4%
Certificate III completions - Victoria	109 280	85 280	-21.9%
Certificate IV completions- Australia	195 175	171 535	-12.1%
Certificate IV completions- NSW	57 025	48 155	-15.5%
Certificate IV completions - Victoria	60 480	56 450	-6.6%
Diploma/above completions - Australia	133 465	130 350	-2.3%
Diploma/above completions - NSW	41 925	39 390	-6%

Diploma/above completions - Victoria	40 490	40 965	1.1%
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The table shows New South Wales falling below the national statistic by 3 percentage points while Victoria had an even larger decline (16%) in overall enrolments. Looking across the VET programs, the largest fall in completions was in Victoria's Certificate I program (with a 40.8% decline over 2014-15). Declines of just over 20% can be seen in Certificates I and II. For New South Wales, Certificate III completions show the largest decline at 21.4%. Program completion by Aboriginal students fell only marginally from 9,790 to 9,520 in 2014.

4.5 A look at Government Funded VET Program and Student Completions

In the national results shown in Table 6 below for government-funded VET programs only (NCVER 2016), a pattern of decline in student completions is also evident. Here, the decline in completions in Graduate Certificates (a 67% decline) is quite marked along with Bachelor degrees (35.2% decline). This is interesting in light of the marginally lower levels of satisfaction with these courses also shown in the most recent Student Outcomes Survey (NCVER 2015). However, the decline is also marked in Certificate I (down 21.5% with completions from 2014 to 2015), reflecting the wider scrutiny on curriculum relevance at the lower level.

Table 6 - Government-funded AQF program completions, 2011–14

	2011 (’000)	2012 (’000)	2013 (’000)	2014 (’000)	2013–14 % change
Diploma or higher	85.5	90.7	81.1	78.8	-2.9
Graduate diploma	0.1	0.0	0.0	0.2	**
Graduate certificate	1.4	1.3	1.3	0.4	-67.0
Bachelor degree (Honours & Pass)	0.3	0.4	0.3	0.2	-35.2
Advanced diploma	12.8	12.8	11.2	10.4	-7.1
Associate degree	0.0	0.1	0.0	0.1	**
Diploma	70.9	76.0	68.3	67.5	-1.2
Certificate IV	110.3	132.6	118.6	116.2	-2.0
Certificate III	200.7	229.7	227.7	258.1	13.3
Certificate II	98.2	97.0	96.3	93.5	-2.9
Certificate I	24.4	32.5	38.5	30.2	-21.5
Type of Accreditation					
National training package qualifications	470.8	524.3	496.6	522.8	5.3
Nationally/locally accredited and higher level programs	48.2	58.2	65.7	54.1	-17.6
Total Qualification Completions	519.0	582.5	562.2	576.9	2.6

(Source: NCVER, 2016) ** Percentage change not calculated due to small base numbers.

The table suggests that nationally/locally accredited and higher-level programs are experiencing real declines. In these programs, there is a fall of 17.6% in completions in 2015 compared to the 5.3% growth in

completion of national training package qualifications.

Turning to NSW student completions of government-funded VET programs (NCVER 2015), we can see in Table 7 below that NCVER data also points to some significant changes in completions. Here, completions have declined across all programs between 2014 and 2015 with a marked drop in completions by those studying with TAFE /other government providers and also community education providers (albeit with smaller numbers involved). The decline across programs is consistent, but somewhat different to national indicators for the government-funded VET sector. Broadly comparing Tables 6 and 7, the decline at the grassroots in Certificate I and at the upper end in Diplomas/Higher is not as marked in New South Wales as it is nationally.

Table 7 - New South Wales student completions in the Government-Funded VET sector

NSW Student Completions											
NSW	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)	('000)
TAFE/ other government	422.0	413.9	395.6	397.6	402.3	423.7	424.6	445.0	427.7	427.0	358.4
Community education	80.9	60.6	62.1	58.6	56.1	51.1	45.7	42.4	39.4	36.5	25.4
Other registered providers	44.0	84.3	87.7	91.0	86.8	103.4	111.7	107.8	92.8	96.9	90.2
Major Programs											
Diploma/higher	44.2	44.3	42.5	44.3	50.6	65.8	74.0	78.7	80.7	100.6	91.8
Certificate IV	57.6	56.4	58.3	60.4	69.3	79.5	86.8	91.7	82.9	80.3	59.4
Certificate III	122.8	127.8	134.2	144.1	145.9	152.0	158.3	161.1	159.8	154.3	130.3
Certificate II	69.8	102.5	98.1	97.8	95.1	101.6	104.8	109.0	97.1	92.7	75.1
Certificate I	24.1	31.4	30.1	25.0	26.4	24.5	19.1	21.8	18.1	18.7	14.1
Non AQF level	228.5	196.4	182.2	175.7	157.9	154.9	139.1	133.0	121.3	113.8	103.3
TOTAL	547.0	558.8	545.4	547.3	545.2	578.2	582.0	595.3	560.0	560.3	474.0

In this table, it is again evident that the serious drop-off in completions began around 2012, when regulatory changes in the sector occurred, with clear evidence of the decline showing in the 2013 data collection. However, for TAFE and other government providers in NSW, the overall completions figure held steady across 2013 and 2014 (around 427,000) and then fell in 2015. This noticeable fall in completions in the 2015 year (compared to the previous two years) is a pattern right across the major programs.

Against this backdrop of declining completions, the projected completion rates off each year's enrolment are quite important. NCVER (2016) data in Table 8 shows estimated completion rates and 'subject load pass rates' across Australian states/territories for government-funded programs at Certificate I and above. For programs begun in 2014, the project completion is now 38% (up from 34.5% for programs begun in 2013).

Table 8 - Estimated completion rates and load pass rates by state and territory for government-funded programs at certificate I and above, commencing 2010–14

State or territory	Est. program completion rate (%)					Subject load pass rate (%)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
New South Wales	38.6	38.8	38.0	34.2	38.6	80.2	80.4	79.5	78.8	80.1
Victoria	31.7	34.5	37.3	33.9	35.9	78.0	82.5	83.4	83.3	81.2
Queensland	33.3	35.9	31.9	33.3	43.9	87.7	89.5	88.8	89.2	91.7
South Australia	32.3	35.3	38.4	38.5	32.8	87.2	84.1	86.8	87.3	86.5
Western Australia	35.1	36.2	34.6	36.8	37.6	80.5	81.2	81.2	82.3	83.1
Tasmania	20.1	23.5	25.3	25.8	35.8	80.3	81.6	82.2	80.5	80.7
Northern Territory	22.6	27.3	30.9	34.8	35.3	76.7	75.4	77.7	79.4	73.9
ACT	44.8	40.5	32.1	41.2	39.4	81.8	82.6	81.1	84.7	85.1
Australia	33.8	35.7	36.1	34.5	38.0	81.2	83.0	83.1	83.1	83.0

Importantly, NCVER's estimated program completion rate changes markedly when the same projections are done for full time students, aged 25 years and under with no prior post-school program completion. As shown in Table 9, the likelihood of completion for programs begun in 2014 in this student group shifts up to 55.2% in NSW and Victoria (NCVER 2016).

Table 9 - Estimated completion and load pass rates by state/ territory for government funded programs at Cert I or above, 2010-14 (full time, aged 25 years/under, no prior post-school program completion)

State or territory	Estimated completion rate (%)					Subject load pass rate (%)				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
New South Wales	49.8	52.0	51.7	47.6	55.2	75.3	75.7	76.2	76.9	78.7
Victoria	40.6	39.7	44.0	35.9	48.1	75.4	79.1	80.6	86.6	90.1

Subject 'load pass rates' are less robust in NSW but show relatively high pass rates for those commencing programs in Victoria across 2010 to 2014.

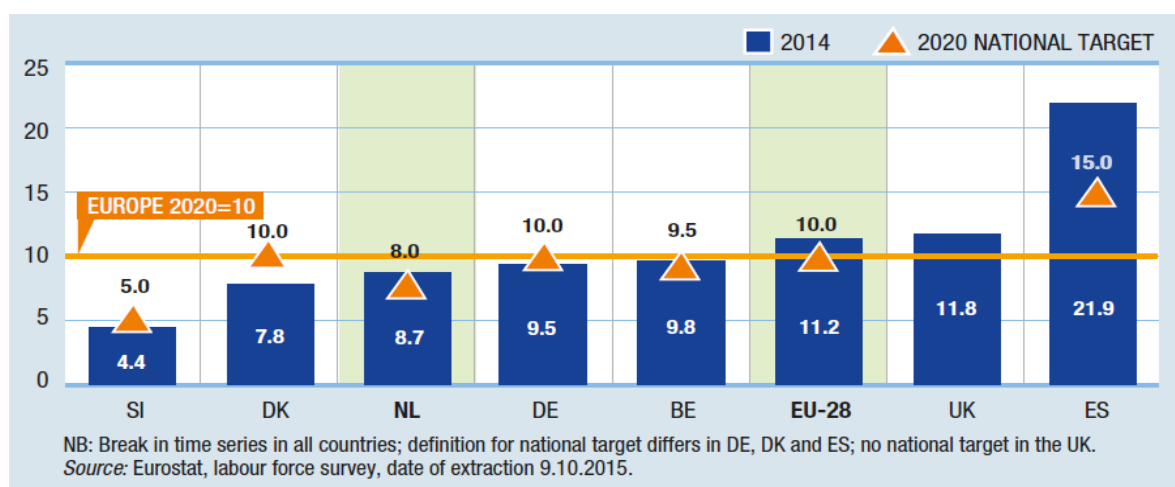
4.6 Shared Concerns in Australia and Offshore about Completions

NCVER (2016) has separately projected completion rates of 48.9% for apprenticeships and traineeships begun in the December quarter of 2015. This compares with estimated five year qualification completion rates of 42% for New Zealand trainees and 51% for New Zealand apprentices commencing in 2014 (Alkema and Dawson 2016). The New Zealand projections, while somewhat higher than Australia's estimates, are still low. To achieve better outcomes in New Zealand, Alkema and Dawson have completed a recent, insightful study on factors behind program non-completion (discussed in Section 5 along with other literature on non-completion).

Anlezark and Foley (2016) note that TAFE institutes and PTOs have a similar distribution of reported completions with the majority occurring at the Certificate III level and fewer completions at lower or higher levels. These authors suggest there are almost twice as many completions by students at Certificate III and IV levels by students who train with PTOs versus TAFE institutes. However, the nature of training by PTOs is such that programs delivered often align with training as a job requirement.

While there are no comparable indicators (or uniform definitions of non-completion) for VET programs across the European Union and the UK, the EU 2020 target for 'early leaving' in education and training (non-completion of integrated school and work-based VET programs) is currently set at 10%. The graph below taken from the Netherlands 2016 report to the European Centre for the Development of Vocational Learning (Cedafo 2016) provides a snapshot of progress towards 'early leaving' targets across seven EU nations plus the EU as a whole.

Figure 5 – 'Early Leaving' from Education and Training across the EU in 2014



Source: Cedafo and Refernet Netherlands (2016), *Spotlight on VET in the Netherlands*, EU: Paris.

The multi-nation scan of 'early leaving' from upper secondary school VET programs shows many nations that are either close to achieving the EU 2020 target or have already taken their 'early leaving' statistic to a lower level. A quick review of Figure 4 shows that Germany (DE), Belgium (BE), the Netherlands (NL), Slovenia (SI) and Denmark (DK) are already sitting below the EU target (recognising that there are some minor variations in 'early leaving' definitions and a break the time series noted at the bottom of the graph). Overall, the UK and Europe experience of VET sector reform and restructure (and strategies to improve early leaving and non-completion) deserve greater scrutiny.

5. VET Participation Drivers and Constraints

As shown in earlier sections, the number of overall students in VET has continued to increase in Australia (showing marginal to moderate increases) even though most VET program enrolments have markedly declined in recent years. The landscape has most definitely shifted since 2012. Apart from more conservative public funding (NSW reduced its training funding following market reform unlike other states), reference has been made to student visa changes, the growth in PTOs impacting the TAFE sector and Australia's emphasis on boosting enrolments in higher level VET (and university) at the expense of Certificate level VET programs and training.

The annual NCVER Student Outcome Survey in 2014 (NCVER 2015) reported that 84.6% of students gave their main reason for undertaking training as 'employment related'. Atkinson and Stanwyk (2016) observe that while students who are 24 years old or under traditionally make up over 40% of the public VET system, this is the group where the rate of decline in enrolments has been most evident since 2012. As a result, we begin our look at drivers and influences on participation by considering the issues, concerns and aspirations of youth.

5.1 Youth outlook and aspirations

Mission Australia's Youth Survey 2015 (with 18,994 responses across 15-19 year olds) investigated not just how positive young people were about their future, but also the key issues of concern to them (Cave, Fildes et al. 2015). Overall, 4,718 young people from NSW participated and of those 6 out of 10 felt they were either very positive or positive about the future (Cave, Fildes et al. 2015). The issues of most concern to them were: *coping with stress, school and study problems and body image issues* (Cave, Fildes et al. 2015).

With regard to vocational choice and related decisions, the personality, interests and abilities of young people are in focus along with the social environment e.g., how it fits/differs from the background of their parents e.g. education, lifestyle (Schnitzler 2016). For NSW youth, it is likely that social background and family influences are the major drivers of decisions about post-secondary VET options and/or university. Friendships and family featured as the most highly valued items among NSW youth. When asked whom they would go to for advice or help on important issues in their lives, the top three sources were friends, parents and relatives/family/friends. Over half said they would go to the internet, while one in four said they would go to their teacher and about one quarter said they would go to their school counsellor. For NSW youth, the top suite of important issues in Australia today included alcohol and drugs (25.8%), equity and discrimination (24.1%), the economy and financial matters (19.9%) and mental health issues (17.2%).

At state level, two thirds planned to go to university, while only 14.1% planned to attend TAFE or college and 9.9% reported that they were planning to undertake an apprenticeship. Disadvantaged groups including indigenous students were more likely to be among those planning to get an apprenticeship or attend TAFE or technical colleges. The top three barriers to achieving study/work goals across all students were perceived academic ability, financial difficulty and family responsibilities. More females than males were concerned about school or study (here, 46% of females were very or extremely concerned compared with 22.5% of males). Other high-ranking barriers were a lack of jobs and physical or mental health issues.

In general, Cave et al (2015) saw these responses among NSW youth as similar to previous studies. While not directly linked to VET sector participation, these issues and concerns do point to the mindset of the most important target market of the VET sector in New South Wales. However, as Fisher (2014) points out, students in technical colleges are very diverse and that diversity generates rich and complex situations that underpin motives for participation.

5.2 Student markets, VET providers and VET outcomes

The majority of students undertake training for employment reasons (84.6% % of the market in 2015) with much smaller groups undertaking training to complete an apprenticeship (22.7%) or for personal development (11.3%). NCVER data provides fuller insights on the socio-demographic descriptors of students (age, gender, place of study etc.) and the number of students across VET programs in different socio-demographic categories. Participation indicators such as program enrolments, training package popularity and VET completions (already discussed) are all readily available.

The Student Outcome Survey (NCVER 2015) provides further insights, e.g. almost three quarters (74.2% of students in 2015) are in employment after training (with this statistic marginally down from 77.6% in 2014). We also know that around one third of students do enrol in further study after training with 24.6% going on to study at a TAFE Institute or via a PTO. Importantly, this survey also tells us that students are highly satisfied with VET teaching (89.4%) and assessment (88.7%) with similarly high proportions satisfied with the quality of training which delivers on their main reason for undertaking the program. The relevance of the training and students' willingness to recommend their chosen program were also very high. Results for NSW show the same very high results as those reported for Australia as a whole.

What appears to be missing in the literature are deeper market segmentation studies and deeper insights to students (and their parents) as 'consumers'. We also know far less about mature age students than youth. There is a greater concentration on the motives and aspirations of youth to participate or not participate in VET and very little readily available research on the 25 to 64 year age group (mature age students in employment and those seeking re-entry to the workforce). Segmentation studies that go beyond socio-demographic descriptors of markets are not readily available.

The TAFE NSW study completed by the Boston Consulting Group (BCG 2015) categorised VET students as: premium students (niche education seekers with a focus on quality and reputation), value students (quality education seekers), price-sensitive students (willing to trade quality for price) and agnostic students (often vulnerable students and those susceptible to 'push' factors e.g. brokers and government requirements). The BCG put the largest chunk of TAFE NSW enrolments (40-50%) into the 'value' category followed by the price-sensitive market (25-35%). It was suggested that 'Premium' students (5-10% of the TAFE NSW students) are largely targeted by high quality providers focused on a small sub-set of courses with price premiums, strong brands, reputations and high margins. According to the BCG, large reputable providers (who leverage their scale in this space) target 'Value' students and some additional providers are entering this market. Highly adaptive providers, many of them SMEs who serve the lower end of the market, are focusing on Price Sensitive Students and Agnostic Students. The agnostic group are the most vulnerable to aggressive, private sector providers who have enticed this group with very low fees.

5.3 Socio-emotional issues

Hillman's (2010) study of attitudes, intentions and participation in education points out that education in early years (previous schooling achievements) is a significant factor in post school decision making. However, *socio-emotional factors* are critical drivers. Feelings of alienation (or inclusion), a sense of place in the school community, supportive relationships, positive attitudes and engagement with teachers, interest in learning and participation in extra-curricular activities outside school are all relevant in decision-making. These were real issues arising for NSW youth in Cave et al's (2015) Mission Australia study. Personal concerns about academic ability, stress and school and study problems are pivotal. Students' families, friends, the internet and teachers are all points of reference in their decision-making.

How young people see themselves within their own social milieu and community setting is influential in shaping their aspirations and confidence to succeed in different education pathways. Fabiansson (2015) study of young people's social status identification within their networks and how it impacted their self-perception and future aspirations is telling. Those in high status groups (with a sense of social belonging) showed more confidence overall in their abilities. This social status in turn gives them access to resources, a wider choice of educational pathways and leisure activities, cultivating their self-confidence in their personal ability to succeed (Fabiansson 2015).

5.4 Gender stereotyping

Gender stereotyping also has its impacts. In NSW in 2015, a higher proportion of females (70.7% compared to 54.7% of males) said that university was their chosen option and a greater proportion of males were planning to undertake an apprenticeship. The under-representation of women in male-dominated industries still affects gender equality, industry performance and the national economy.

Although initiatives to encourage females towards occupational and skills diversity (e.g. STEM promotion) has markedly increased, fairly recent research still shows young Australian women not adequately orientated towards trades as a viable career option (Butler, Clarke et al. 2014). Factors that affect women's choices to enter into male dominated skills trades are important to understand. Skulmoski (2015) studying female apprenticeships in Canada refer to earlier studies that show four characteristics of young women who enter male-dominated occupations, these being a perceived innate ability, a strong sense of self, a desire for independence and having good role models. However, much of this research focuses on the apprenticeship domain only.

5.5 Issues of academic ability (perceived and real)

Academic ability (perceived and real) is no doubt a real decision influence. Australia-wide, Nguyen (2010) notes that academic ability, more than prior exposure to the current VET in schools programs impacts post-school VET participation – “Post-school plans are fundamentally shaped by vocational aspirations which are also linked to cognitive ability” (Nguyen 2010 p, 8). If schools become a point of reference, Butler et al (2014) has noted that many schools across Australia still reinforce a long held view that trades are an appropriate choice only for those who are unsuitable for higher education or professional careers.

Reports internationally show that students don't receive enough information for VET to be featured in their aspirations – in some countries, research suggests that vocational opportunities have not been presented as an option at all and in some cases students have been actively discouraged from pursuing a vocational path (European Commission/EACEA/Eurydice/Cedefop 2014). Across all countries, a negative image of VET is a key research finding. When young people enrol in VET programs, they often do so with a view that they are 'not good enough' and that vocational education and the jobs that it gives will not lead to a high level of recognition and prestige in society.

5.6 Public image of VET as a 'second choice'

CEDA (2016) refers to the misconception among the general public in Australia that VET is primarily about apprenticeships and traineeships and solely the domain of those seeking blue collar jobs. In a bid to get more young people into and through university degrees, we have become fixated on higher education meeting Australia's skill needs. CEDA's (2016) report suggests students are being admitted to university even if they are more vocationally inclined. Snowden and Lewis (2015) have concluded that public communication (both media and general discourse) in Australia continues to position universities as exclusive, while VET is promoted as having less rigorous standards suited to trade occupations. Public mediated discourse “validates traditional aspirational pathways for universities as a viable choice for the

best students and reinforces the role of the VET sector as a safer, pragmatic, but inferior option for students with lower academic success at secondary level (Snowden and Lewis 2015 , p. 596)".

5.7 Family influences

In general, studies in Australia and offshore show family role models, stereotypes and bias are very influential in shaping the outlook of youth and the inclusion of VET in their aspirations. The importance of the family in shaping young people's social identity, behaviour, attitudes and choices is strongly emphasised by Fabiansson (2015) who listened to hundreds of Australian students' stories. Research elsewhere (European Commission/EACEA/Eurydice/Cedefop 2014) suggests that family often prefer young people to try academic pathways before going to VET programs. Hence, a pattern emerges of young people going to VET programs as a second choice or 'fall back'. The 'second choice' association with VET is strong, but education and career 'inheritance' from families and socio-economic status are powerful influences on young people's perceptions of VET and their future career options (Kersh and Juul 2015).

5.8 Socio-economic status

There is a view (rightfully placed) that the VET sector fulfils an important role around social equity, providing skills that may not be adequately captured elsewhere (CEDA 2016). Young people do adjust their aspirations in response to financial constraints early in their school life (Bednarz 2014) which may limit their later options. Research in NSW shows a very small proportion of Year 12 school completers from the highest SES group going into higher-level VET courses with lower SES groups still the most likely enrollees (NSW Business Chamber 2015).

Difficult family situations such as unemployment, low household income and low levels of parental education have a lasting effect on attitudes towards learning and educational achievement. Schnitzler (2016) cites wide-ranging literature to support the general perpetuation of social status. In Australia, disadvantaged groups including indigenous students tend to see VET as an entry point to post-school education (Griffin 2014), but many do not transition from lower level VET courses to higher-level VET or university. For apprentices, the initial low pay and difficult financial circumstances encountered can be obstacles to participation (and a deterrent to continuing). At least a quarter of apprentices and trainees report that they need to seek financial assistance from friends or family, some struggle to pay basic bills and some have itinerant living arrangements (moving between friends and family members) creating a level of ill-defined homelessness (Cebulla and Goodwin-Smith 2015).

5.9 Government funding, PTO marketing and pricing of VET programs

Government funding priorities, the mechanics of the VET-FEE Help Scheme and the related cost pressures felt by consumers is a subject of increased scrutiny. Shared funding arrangements between Federal and state governments have had some weaknesses and there has been a meteoric rise in VET FEE-Help loans since the scheme commenced in 2009 (Atkinson and Stanwick 2016). An NCVER analysis has shown that almost three quarters of loans have gone to students who are completing training with private providers.

Marketing activities within the VET sector have been a macro-level factor affecting participation and retention, with students' limited understandings of their VET enrolment and related misinformation by unscrupulous PTOs causing major challenges and some dropouts in recent years. A small number of unethical providers have regularly signed up students who have had insufficient insight to the provider's fee structure (often higher than realised). The financial implications of these choices have created major cost pressures for some students. While this affects students in the system, rather than 'would be' students, negative media exposure has been intense. A number of providers have offered inducements such as iPads, cash and vouchers to prospective students to enrol in a course and request VET FEE-HELP. Unethical

marketing behaviours that date back to the 2012 expansion of the VET FEE-HELP scheme (Australian Government 2016) include:

- The targeting of potential students and vulnerable people in low socio-economic areas (who were more susceptible to inducements such as iPads)
- Misinformation about VET FEE-HELP, at times leading students to believe either that the course was free or that the loan would only need repayment once their income reached a certain threshold. Some providers advised students that they might never have to repay their loan, as they were unlikely to reach the repayment threshold.
- The enrolment of students in multiple courses by multiple providers (with or without the student's knowledge or full understanding of this activity or its implications)
- The enrolment of students close to the census date without adequate time or capacity for them to consider their study or payment options (and the impacts of the debt) – at times, barriers were also created to prohibit withdrawal prior to the census date.
- The enrolment of students for online course who were not computer literate and/or did not own a computer or have adequate internet access for this mode of delivery
- Manipulating the product on offer by embedding lower level qualifications into courses at the Diploma and above level to attract VET FEE-HELP – this practice, known as 'qualification creep', has been endemic among some PTOs. Initially, students enrol in a higher-level qualification but once they have completed enough studies to receive a lower level qualification, they withdraw from the additional study and receive a Certificate rather than a Diploma.

In recent years, the Federal government had limited powers to withhold payment to a provider that has not complied with HESA and VET guidelines and has not been able to investigate issues effectively (i.e. seize computers and documents) to verify the facts surrounding individual cases (Australian Government 2016). However, major changes in 2016 have seen the introduction of sixteen separate reforms to address unethical marketing practices and the abuse of student entitlements. These reforms have now regulated to prevent unacceptable marketing conduct including the offer of inducements, failing to provide relevant information about a VET course, and, engaging in a range of prohibitive marketing techniques. In NSW, (Bagshaw 2015) reported that teachers felt that NSW actions to control TAFE fees would not be enough to curb 'plummeting enrolments'. While empirical research on the impact of rising fees on new enrolments is lacking, the impact of fees on enrolments is of interest with anecdotal evidence of fees for some courses rising to four times the price advertised in just one to two years.

5.10 Labour market and perception of available jobs

For apprentices and trainees, a factor affecting participation is the overall labour market with both perceptions about available jobs and actual job availability being influential. Trade apprenticeship training is especially susceptible to changes in employment conditions. There is a link between the overall numbers of trade apprenticeships in training and the unemployment rate (Atkinson and Stanwick 2016). However, perceptions of the overall return on time invested for the low wages early in training is another issue. The recent 'plummet' in apprenticeship contracts has now caused the Immigration Department to remove some categories from the skilled occupations list, replacing them with other occupations simply because apprentices (numbers and relevant types) cannot be found in Australia. Employers can now import additional carpenters, electricians, plumbers and bricklayers to complete their projects (Bita, 2016).

5.11 Influences on minority group participation

Disadvantaged groups are not homogenous and therefore each segment experiences both unique and overlapping barriers (and opportunities) for VET participation. Issues may arise linked to family circumstance, illness, disability, self-confidence and motivation, indigenous or ethnic origin, language, literacy and numeracy, financial issues, geographic isolation and specific cultural beliefs and values.

Disabled students, who are greater in number than indigenous students (currently 7.7% of all VET students in Australia), have their own unique set of participation influences. While the desire to participate is no doubt high, transport and access, difficulty in completing some tasks in a timely way, gaining access to facilities and participating equally with other students in 'group projects' are among the challenges that need to be overcome. Because of these issues, VET participation requires additional services and time that may or may not be available to the level needed, pending each student's circumstance.

Australian research shows that Aboriginal and Torres Strait Island (ATSI) students are far less likely to indicate an intention to go to university and were more likely to plan an apprenticeship or attendance at a TAFE or college (Cave, Fildes et al. 2015). However, as shown earlier, ATSI people still comprised just 5.4% of overall VET enrolment in 2015. Issues of literacy and numeracy at early stages of schooling, regional isolation, discrimination, family problems, alcohol and drug issues are all potential influences.

On the positive side, outreach to ATSI students and programs designed to re-engage indigenous students in post-secondary schooling also influence VET participation, e.g. the Indigenous Youth Careers Pathways. Pre-employment programs (that often use employment services providers) to ensure indigenous engagement in the workplace are growing, e.g. the NSW 'Indigenous Police – Recruiting Our Way' program, the pre-employment program for Sydney Metro Northwest and others.

For young ATSI people, two key factors that can affect their study and work goals are family responsibilities (culturally important extended family networks) and 'where they live'. TAFE Western is the single largest provider of VET for Aboriginal students in Australia (with around 7,000 enrolments each year). This is an especially important program as it not only creates employment for indigenous people in the Riverina and New England regions, but it also trains employers on how to find the right person for the job and delivers cultural competence training (enabling indigenous people to successfully utilise VET and make a successful transition to the workplace).

Statistics show that foreign-born students, i.e. those with a migrant background, generally face greater challenges in participating in education than those born locally. A range of factors can impede VET participation including language, perceptions of cultural equity and discrimination, socio-economic segregation and limited access to or knowledge of appropriate learning support (European Commission/EACEA/Eurydice/Cedefop 2014).

Other more specific issues may be family expectation and culturally aligned perceptions of gender and women's engagement in the workforce generally. Some have a strong feeling of identification with an ethnic community in a specific urban context where there is no VET training facility or related information. Low levels of proficiency in English are potentially the greatest impediment for VET participation by migrants and ultimately, the main impediment to entering the workforce. However, a proportion of migrants already have a higher educational qualification from their home country and still opt to undertake VET qualifications in Australia as a stepping-stone (a practice that would positively influence VET enrolments). For migrants, a lack of recognition of their qualifications in Australia, lack of jobs in the area where they live and issues of social inclusion all play a role in their decision to turn to VET options. Enrolments in personal and community services training courses by female migrants are increasing and

these students often hear/talk about options with their migrant friends (Elliott, Shanks et al. 2016). While they may not find VET courses to be academically challenging, they do struggle with ‘finding their way’ around Australia’s educational framework, e.g. enrolment, study assistance, how to use the library etc.

5.12 Geo-social factors

Geography is a key consideration in post-secondary school decision making and it does affect VET participation. At a practical level, distance from centres of learning, lack of transport, lack of broadband, costs of travel, limited education providers and programs are among geo-social factors influencing VET participation. Physical location can be very much a practical impediment. Transition to post-secondary school education including VET programs by young people in rural and regional NSW is much lower than in Sydney, although the transition to apprenticeships may be more evident among regional school completers (NSW Business Chamber 2015). Regional students are still more likely to enter the job market directly and are therefore more likely to find themselves in part-time work or unemployed. In Victoria, regional school completers are twice as likely to defer a university offer with reasons linked to costs, distance and the challenges of relocating to a large city.

Webb et al’s (2015) Australian research on geo-social influences notes the generally strong influence of fathers on sons (a tendency to go with traditions established by them occupationally that may mean they stay closer to home geography). By comparison, young women are more likely to leave and go elsewhere to pursue their own opportunities. The psychology attached to the physical and structural geography of where young people live and learn is quite important (Webb, Black et al. 2015) - many young people elect to stay in or return to familiar environments, but exposure to new ideas or experience can ‘disrupt’ strong ties with ‘the familiar’. Disruption and geographic movement is more likely in females than males with young men somewhat more likely to adapt their aspirations to ways that they have been socialised which at times sees them stay closer to home. Expanded geographic horizons related to wider reading, travel (family initiated or school trips) plus interests and activities outside the norms or geography of the local community can shift the thinking of young people to options outside their home geography.

5.13 Critical events and disruptions

Critical incidents or interruptions to life patterns (positive and negative) often affect VET participation. In general, these incidents include chance encounters with people or situations that change a young person’s views (disrupting their ties to a familiar and predictable path) through to major life events such as family problems, the illness of family members or a social problem, e.g. alcohol or drug issues. These specific background problems, key events, moments and chance encounters with others living different lives (positive and negative) can be the trigger for a change process and a decision to participate or not participate in VET (or higher education) options.

5.14 Influence of VET programs in schools

For many Australian students, post-school plans change little between Years 11 and 12. There is evidence that only small groups of students (males and females) participating in VET in school programs change their plans towards VET or have their plans to pursue VET studies reinforced (Nguyen 2010). In their studies in Victoria and South Australia, Webb et al (2015) found that providing VET in schools afforded more opportunities - teachers and schools were able to change cultures and aspirations by exposing young people to a broad VET curriculum. However, the extent to which the types of VET programs in schools in Australia have the capacity to affect post-school participation deserves scrutiny.

The approach taken to VET in Schools programs in each State is variable. Previous research has shown a number of factors that impact success. These include a high level of social selection (low SES students are

more likely to participate), narrow VET subject options and a lack of program coherence. VET choices are often not well linked to the rest of the study program and resource implications for schools (staff and budgets are often too stretched to successfully deliver VET programs). The image of VET (with traditional subjects given a higher priority) and variations in school success in forming links with local business and tradespeople are also influential (NSW Business Chamber 2015).

5.15 Career advice and counselling

A lack of vision about a future pathway is endemic as students approach the latter years of their schooling. A rather passive and disengaged attitude develops (European Commission/EACEA/Eurydice/Cedefop 2014) in the face of limited information and negative images of VET then tend to have a greater impact. The OECD has noted that timely and accurate insights to the labour market and career options does impact students' career and educational choices in Australia (OECD 2016). A primary focus on university entry and a skew towards information about university courses has serious implications for VET participation. The overall time taken to explain current university course alternatives and pathways to entry far outweighs the time and resources devoted to course advice or even broad information sharing about VET. Much depends on the teachers' own backgrounds, orientations, and labour market insights.

In Australia, the proliferation of PTOs, many of them small in size with a range of delivery agents, has had its own impact on perceptions of VET as a post-secondary school option. Negative media coverage and word of mouth communication about students who have enrolled in courses unsuited to their academic abilities are influential. However, research by Myconos et al (2016) among private providers also shows that PTOs recognise that this is a role TAFE institutes have traditionally played. There is a commitment to support students, but many PTOs feel somewhat ill equipped to provide well-rounded guidance to young people who are yet to articulate or make a clear decision about their preferred vocational pathway.

5.16 VET participation influences – A summary of observations

There is ample evidence to suggest that multiple factors affect VET participation globally and will also influence NSW program enrolments. The decision to enrol in a VET program harks back to any number of attributes including individual characteristics and family background, the viewpoints of family and peers, socio-economic circumstance, Aboriginality or ethnicity, disability, gender issues and more. Some have also suggested that some young people are compelled into VET 'by chance, not choice' (Brown 2016). Others enrol to fulfil employment requirements or upskill in order to gain promotion or open a new business, while still others enrol for the love of learning (Reeson, Mason et al. 2016).

Despite the plethora of VET participation influences canvassed in current literature, *we know very little about the actual choice making process* and the factors filtered out or given a high priority in deciding on VET programs and providers. The 'trade-off' process (if indeed the majority of students consciously engage in one) deserves greater scrutiny and this is the subject of a new stream of research (Brown 2016). More insights to students' screening processes to arrive at a final choice set and the number and type of providers in the choice set would be valuable. In addition, information is scant about the 'fall-off' in student numbers between the time of enrolment and the date of actual commencement. Table 6 below summarises all key observations on VET participation influences derived from our literature review.

Table 6 - VET Participation : A summary snapshot of key drivers, influences and constraints

Youth outlook and aspirations: In NSW, over half of the students in Mission Australia's 2015 youth study (spanning 4,718 students in the 15-19 year age category) are positive/very positive about their future but their key concerns (pertinent to post-school education including VET) are coping with stress, school and study problems and body image issues.

Social background, family and friends influence the study choices of NSW youth. The top three barriers to study/work goals are perceived academic ability, financial issues and family responsibilities. Only 14.1% planned to enrol in VET and 9.9% planned an apprenticeship.

Education (previous school achievements) is a significant factor in post-school education choices together with academic ability (perceived and real).

Socio-emotional issues are pivotal and include feelings of alienation (or inclusion), a sense of place in the school community, supportive relationships, positive attitudes and engagement with teachers, interest in learning and involvement in extra-curricular activities. How young people see themselves in their social and community setting directly influences their pathway to VET (or university).

Gender stereotyping – Recent research still shows young Australian women not oriented towards vocational careers or trades as a viable option – those who pursue a trade have been found to have a perceived innate ability in a particular occupation, a strong sense of self, independence and role models.

Occupational stereotyping – Many schools still reinforce a view that trades are only appropriate for those who are not suited to higher education and professional careers. When young people enrol in VET, they do so feeling they are 'not good enough' and VET will not give a high level of recognition or prestige.

The public image of VET (media and opinion leader communication) tends to reinforce the existing view of VET as a safer, pragmatic, but inferior option for youth with lower academic performance records. VET is a 'second choice' or a fall back in the event that an academic path is unsuccessful.

Family role models, stereotypes and bias are influential in shaping the outlook of youth. There is a strong influence of fathers on sons (a 'heritage' bias) while women are less constrained and tend to explore/move elsewhere. Education and career inheritance is still alive and well in families.

Young people adjust their educational aspirations in response to financial constraints early in life. Difficult family circumstances, unemployment, low household income and related low levels of parental education have long lasting impacts (some then participate in VET, but see it as an inferior choice)

The majority of students undertake training for employment reasons with much smaller groups undertaking training to complete an apprenticeship or for personal development. The vast majority is satisfied with VET teaching and assessment with similarly high proportions satisfied with the overall quality of training and achievement of their main reason for undertaking the training. Thus, there is no reason to assume that teaching quality (or its related image) affects VET participation.

Market segmentation studies beyond NCVER data are limited. BCG (2016) categorised VET students in NSW as: premium students (niche education seekers with a focus on quality and reputation), value students (quality education seekers), price-sensitive students (willing to trade quality for price) and agnostic students (vulnerable and susceptible to ‘push’ factors e.g. brokers, government requirements).

Disadvantaged groups are not homogenous and each experiences unique and overlapping barriers to participation. Issues include family problems, illness, disability, self-confidence and motivation, indigenous or ethnic origin, language, literacy and numeracy, financial issues, geographic isolation and/or cultural beliefs and values. Disabled students encounter transport/access issues and challenges with group work and need additional services and time that may or may not be available or understood.

Disadvantaged student groups (particularly indigenous students) tend to see VET as an entry point (via lower level VET programs) but many do not transition to higher-level VET courses or university.

Indigenous students are far less likely to plan to go to university and more likely to plan an apprenticeship or other VET involvement. Literacy and numeracy, regional isolation, equity and discrimination, family problems, alcohol and drug issues are all pivotal influences.

Geography is a key consideration including distance from major learning facilities, transport, access to broadband, cost of travel, limited providers and program choice are all key issues. Geo-social influences relate to willingness to move / stay near home. Regional students are more likely to enter the job market directly with outcomes of part time work or unemployment. Disruption to family tradition and movement elsewhere to study or work is more likely among females than males.

Students generally have insufficient, front-end insights to the different fee structures of providers (often higher than realised) and have created major cost pressures for some students. Perceptions of cost and varying prices have attracted a renewed focus based on adverse PTO business practices.

Migrants generally face greater challenges in VET participation than those born locally. Key issues are language, cultural equity and discrimination issues, socio-economic segregation and limited access to or knowledge of appropriate learning support. Identification with an ethnic neighbourhood with no VET facilities and culturally specific gender perceptions are other possible influences on participation.

Financial circumstances can be a major deterrent to post-school education including VET programs. At least a quarter of apprentices and trainees seek financial assistance from friends and family and some have itinerant living arrangements (moving between family and friends). Initial low pay and perceived difficulties with finance are deterrents.

Critical events and disruptions: Specific background problems, key events, moments or chance encounters with people living different lives (positive or negative) can be the trigger for a change process and a related decision to participate or not participate in post-school education including VET.

VET programs in schools positively affect post-school VET participation for small groups of students. These programs can lead students to change their plans towards VET or reinforce their decision to enrol, but much depends on the program with many weaknesses in the current VET in Schools approach.

Negative media coverage about students enrolled in courses unsuited to their abilities or interests (and/or financial circumstance) may affect the public image of VET and future enrolments. Research among PTOs has found that while they recognise TAFE has traditionally assisted students with career planning, some do not feel well equipped to provide guidance to young people.

Career advice and counselling is not proactively educating students about VET options in a positive way

or exposing them to adequate information about VET options - university advice is favoured. Many students lack a vision for their future pathway in senior secondary schooling. Timely and accurate insights to labour market opportunities and career choices can assist but the skew to university advice seriously impedes VET participation. Much depends on the teacher or advisor's own background and insights.

6. VET Program Completion – Key influences

Early leaving from education and training (ELET) and from VET specifically (termed ELVET) are global phenomena attracting increased enquiry/research and prompting national and transnational strategies, e.g. EU 2020 targets to minimise early leaving from education generally. While most nations monitor VET program completions annually, the completion rate is a longitudinal measure (estimated and measured over the life of each program, which may be 3 to 5 years). Section 4 outlined Australia's VET non-completions which are currently high and of increasing concern to VET sector leaders. Here, we examine the underlying drivers and influences of non-retention or failure to complete VET programs.

Understandably, there is an overriding emphasis in every country to ensure that early leaving from schooling (prior to completion of Grade 12) is kept to a minimum, so it is not surprising that ELVET is higher than early leaving from school in most developed nations. As Fieger (2015, p.2) points out, VET completions are often substantially lower than in the university sector and have less stigma because there is a general understanding that there are multiple drivers of non-completion and shifts in direction by VET students (including finding the job that the student wanted during the training program). A number of students switch programs or move between employers (e.g. during apprenticeships), so it is important to understand those behaviours in discussing drivers of non-completion. In addition, the VET sector often provides an avenue for people to re-enter the workforce. Subject completion or even part completion of a program may fulfil their individual goal for training or self-improvement.

Research into ELVET points to issues related to individual student characteristics and aspirations; family influences, social circumstance and location; culture and ethnicity; program choice, suitability and critical milestones; personal finances and economic factors plus critical incidents or events. In addition, there is a range of unique influences on non-completion of apprenticeships and traineeships. These topics are now individually explored for their contribution to the VET sector's performance on program completions.

6.1 Individual characteristics and aspirations

In terms of VET non-completion, generational differences in aspirations and expectations can be relevant. For example, demographer, Bernard Salt and others (Bednarz 2014) place some emphasis on Generation Y characteristics (e.g. fearlessness of the future with a belief there are plenty of options, they are always on the lookout for a better opportunity). In this regard, Bednarz (2014) makes reference to the high level of mobility of Gen Y who often leave employment to do something they see to be either different or better (with opportunity versus money seemingly more important).

In this context, clarity of personal goals and a strong, front-end intention to complete are quite influential variables. As Roy et al (2010) note, identifying students' intentions at the start of their program is vital to understand how they view their progress and the likelihood of withdrawal and non-completion as the program advances. Learned (2010) found that confidence about career goals and the reasons for doing a course are positively related to program attendance and participation and completion of modules. In New Zealand, Alkema et al's (2016) more recent study found that the intensity of motivation at the front end is influential both in the trainee's decision to start and their ability to continue to completion (e.g. students described themselves as 'keen as', 'really keen, optimistic and motivated').

Related to motivation is commitment and here Roy et al (2010) point out that their study of TAFE NSW completions found that failure to complete was not related to one single factor – the discontinuation was not always a conscious decision, but rather students had 'drifted off' due to a combination of course, work-

related and personal factors. Fisher (2014) has found that a strong self-identity and psychological variables tend to layer over variables such as age, gender and employment status in impacting VET completions – in particular, how people think of themselves (their individuality, sense of belonging and place in the world) affect motivation and course completion. More specifically, a sense of identity and belonging at college or work, and the extent to which students identify with physical places and the people involved in a course or program impacts their decision to stay on and complete the VET course (Fisher 2014).

In Denmark as in Australia, it is lower socio-economic bands that are more likely to enrol in VET programs and as a result psychosocial factors are seen by Jorgenson (2014) as particularly important. Inequalities in the social recruitment to VET results in a high number of students who are burdened by social and psychological issues e.g. economic, housing, family etc. (Jørgensen 2014). Against this backdrop, there are more students who are less likely to complete or who will need more support to do so.

Outcomes of Australian studies differ in their conclusions about the impact of demographic variables. Roy et al (2010) acknowledge a correlation between student characteristics and completions but noted that age was only weakly correlated with completions and Fisher (2014) found age to be irrelevant in her study of student motivations to complete VET programs. However, Fieger (2015) has found that increasing age is generally accompanied by a higher level of non-completion. While young students (e.g. 15 year olds) enrolled in low-level qualifications (Certificates I and II) have the lowest likelihood of completion and those in Certificates III and IV had a higher likelihood (around 10 percentage points higher). With advancing age, the probability of finishing decreases, becoming almost equivalent to that of a young, Certificate I student. The age influence relates to the overall hours absorbed by the enrolment (Fieger 2015, p.8).

The impact of gender is interesting with two factors at play, firstly the generally higher involvement of males in VET (especially apprenticeships) than females across most developed nations and in turn, the greater tendency for a male-dominated culture to prevail in a 'tradie' workplace. In Europe and in Australia, males do not leave without completing their program more than females. Instead, the extent to which gender affects 'dropping out' is more related to whether the profession is male or female dominated (European Commission/EACEA/Eurydice/Cedefop 2014). Females terminate apprenticeship contracts and move around to some degree based on the male-orientation of the workplace, but these moves are not termed 'early leaving', just a shift in the setting where the apprenticeship occurs.

6.2 Program choice, suitability and milestones to completion

Brown (2016) suggests that contestability in the VET market brought with it some direct encouragement for VET clients to 'shop around' for their provider and program of choice. However, students are not likely to complete their course if they enrol in an unsuitable course. According to Roy et al (2010), some studies have shown that more choice equates with lower completion rates. Choices made in the context of diverse options, limited information and a lack of clarity about career goals have less chance of completion.

At times, young school leavers have chosen a course without really understanding what it involves and its fit with their needs e.g. 'I kind of threw myself into it...I'd finished high school and didn't want to just do nothing. I really didn't know what I wanted to do'. Arguably, some students and parents may be equally ill equipped with knowledge and time to 'shop around' for their 'ideal' VET provider. With various criticisms levelled at course advisors (and the PTOs' general ability to appropriately advise/counsel students), the capacity to evaluate the claims made by course recruiters is unlikely to be widespread and less so, among disadvantaged communities.

Upon enrolment, students sometimes find that VET qualifications are not as practical and concrete as they had initially expected, with a wad of theory covered before they get to experience the practice (European Commission/EACEA/Eurydice/Cedefop 2014, CEDA 2016). However, there is also some offshore evidence that some students who start a VET program give up early because they do not have the necessary fundamental skills in reading, writing and maths for their chosen VET course (Cedefop 2016). This issue of educational readiness is of some concern in Australia as well (NSW Business Chamber 2015). To counter the same problem, Hong Kong has introduced applied learning in VET programs at senior secondary school level to build foundation skills, thinking skills, people skills, values and attitudes and career-related competencies (CEDA 2016).

In their research among private training organisations, Myconas et al (2016) found general agreement that completion was higher in trade-based programs, employment-based training programs and programs with structured workplace learning. Completion rates were far lower for learners with less than Year 11 schooling. This coincides with wider research findings that indicate students with a generally low level of academic performance (including low levels of literacy and numeracy) prior to leaving secondary school are far more likely to drop out of VET courses prematurely.

During any VET program, some researchers (e.g. Karmel and Mlotkowski 2010) have noted there are recognised ‘problem phases’ or ‘hot spots’ that are usually the difficult or lengthy units of competency that students struggle with. A first hot spot is the beginning of a VET course, a time slot when students can withdraw quickly and not go on to commence their course regardless of having already enrolled. Roy et al (2010) reported that very young students who had only completed up to Grade 10 were found most likely to not complete their studies and discontinue within eight weeks of commencement. In this context, some have reviewed VET course structures and developed pathways to mitigate risk of ‘drop outs’ during these hot spots or difficult milestones (Roy and Rickard 2010). However, in some cases, research has found that the majority of those who left a program had simply not been able to pursue their first choice of course at the outset.

6.3 Family influences, social circumstances and location

Persistent inequalities of outcome remain for young people from lower socio-economic backgrounds (NSW Business Chamber 2015). A wider range of family issues can affect VET program continuation. Where the choice of VET is stigmatised (a student enrolls in a particular program because they are told they are not ‘good enough’ for other education options) this is detrimental to program completion. However, apart from family expectations that are more oriented towards higher education than VET programs (negative views that VET is a ‘fall back’ option), there are a range of difficult family circumstances that can affect program completion. Examples include situations where parents have very low levels of education themselves and related to that, a cycle of poverty, domestic violence, physical or mental health issues and in some cases, a need for their own children to care for them.

Family support (and the lack of it) appears to be influential in non-completion. In situations where families have low incomes and low levels of education, there is generally less support in making occupational choices and a higher incidence of non-completion (Kersh and Juul 2015). There is some evidence that male students from migrant backgrounds are especially prone to drop out earlier in situations where parents also have a low level of education (European Commission/EACEA/Eurydice/Cedefop 2014).

Bednarz (2014) has also found the location of families impacts the likelihood of completion. Although those living in rural areas have been found to be more likely to complete apprenticeships (based on fewer options available to them), in Victoria, research has found that rural students more generally are behind their city peers in terms of academic achievement (DEECD 2014).

6.4 Culture and ethnicity

Just as participation in VET qualifications is impacted by an Aboriginal heritage or ethnicity, so too is the incidence of program completion in the VET sector. Over time, Aboriginality has generally been correlated with low levels of program completion (Roy and Rickard 2010). Unemployment is especially high in some remote areas and young indigenous people can become the victims of ‘entrenched employment exclusion’ and drop out of programs due to limited expectations of employment (Griffin 2014). The existence of course completion gaps have been found to be greater among indigenous students than other disadvantaged groups.

Globally, migrants (across nearly all countries) are also more prone to dropouts from VET program. Nowadays, migrants make up a significant proportion of VET enrolment in major cities and in nations where there has traditionally not been a good VET retention rate. Prior academic achievement or failure linked to language skills, poverty and expectations that young people will work in the family business can be detrimental to VET program completion. Traditionally, graduates with low levels of proficiency in English have significant difficulties in finding employment and their chances of finding a job after VET program completion is 45% lower than English speaking graduates (McVicar and Tabasso 2016).

6.5 Personal finances and economic factors

The socio-economic status of students seems to exert a stronger influence on the probability of leaving education and training than most other factors. Marked changes in economic or employment circumstances do have a direct impact on course completion. Apart from entrenched economic disadvantage, completion is less likely when enrolled students find a full time job and discontinue their training. Discontinuation of the program is most likely if the student is close to completion and accepts a well-paid job in the workforce, but is still able to finalise the certification process.

VET FEE-Help loans are income contingent and here, NCVER data is especially revealing about links between those who have received VET FEE-Help and course completion. In recent NCVER research (2016) it was noted that students who were eligible to receive a loan between 2009 and 2012 have a 21% probability of completing their training i.e. they have an 80% chance of non-completion.

Unfortunately, it is also reported that students most likely to access VET FEE-HELP loans in recent times (2013 to 2014) have similar characteristics to those who are least likely to finish their training (i.e. the 2009-2012 student cohort). These students are not in employment but are studying full time and engaged in training in the field of management and commerce (NCVER 2016).

As noted earlier, unethical marketing activity, especially in low socio-economic suburbs, has led to a number of students enrolled without the academic capability and/or motivation to complete their course. At times believing that ‘brokers’ representing private sector providers were government representatives, some students have been susceptible to mistruths, often misunderstanding both funding and repayment arrangements (Australian Government 2016). At times, the providers’ abolition of up-front fees has led students to believe their course was free (and unscrupulous providers have reinforced this notion). The potential impact on both VET student commencements and completions is far-reaching.

The recent publication, *Redesigning VET FEE-HELP – A Discussion Paper* (Australian Government 2016) reiterates the problem of inappropriate enrolment practices leading students to enrol in courses they had little to no potential to complete and, the lack of incentive for providers to improve or impose penalties or remove access to the scheme in the event of low attendance or non-completion.

For many students, the price or fee structure for courses has become problematic. Bagshaw (2015) cites examples of students whose courses have surged to almost four times the initial price and some have had

to drop out of their course, based on their inability to justify the cost. One young design student said, “The debt is just too great. It went up from \$1,200 last year to \$12,000 this year and you never know if you are going to be able to pay it back with the income from design’ (Bagshaw 2015).

6.6 Specific influences on apprenticeship completion

The primary reason for non-completion of apprenticeships across developed nations is the quality and issues associated with the employment experience (Bednarz 2014). The notion of a psychological and formal contract with the employer based on a sense of ‘fairness, varied work, on-the-job training by a skilled tradesperson with strong mentoring skills, a good boss and a safe workplace free from bullying’ is an overriding expectation of today’s apprentice (Dickie, McDonald et al. 2011).

Not liking the work and pursuing other opportunities are secondary issues to the relationship with the employer. According to Bednarz (2014), 60% of those who do not complete apprenticeships opt out in the first year. Issues associated with off the job training accounted for less than 5% of apprenticeship movement between employers and/or discontinued programs. Interestingly, low pay does not top the list as a reason for not completing and is cited by less than 10% of apprentices as a reason for non-completion despite the financial difficulties encountered.

Management style is a major issue affecting the owner-apprentice relationship and (Dickie, McDonald et al. 2011) note that owners who mentor apprentices in a positive way are more likely to retain them. While apprentices generally have very low wages at the outset, many of the ‘best practice’ employers tend to pay them above what is required and also add value by loaning a vehicle if they are saving for a car or helping with uniforms (Mitchell, Dobbs et al. 2008). Age does appear to be a factor in apprenticeship non-completion in some research i.e. younger age groups below 24 years may be less likely to complete. Those 45 years and over usually complete and the probability of completion increases when an apprentice has a higher level of secondary schooling (Anlezark and Foley 2016).

In general, completion rates are higher with large employers who employ many apprentices and lowest for those who just have one apprentice to assist in the business. Overall, the larger employers are better organised and have a system of support shared with other apprentices (a social network) and an organised approach to training each apprentice. However, in the Australian setting, apprenticeship arrangements mostly involve small business owners with few apprentices. In New Zealand, similar issues exist and Alkema et al (2016) in their very recent research noted that apprentices said that the training/learning at work was definitely not what could be described as an effective learning experience (with very little structure, sub-optimal support and limited encouragement). For the New Zealand apprentices, these deficiencies (again related to the overall employment experience) were the main contributing factors to non-completion.

A key risk for apprentices in leaving their contractual arrangements is the ability to find another suitable business owner willing to take them on. It is highly risky for apprentices to discontinue an employer relationship in times of economic hardship. However, the overall depth of discontent experienced by apprentices in their employment context is often sufficient to push them to discontinue the program. Globally, there is a widespread view that employers of apprentices need more structured training in how to mentor, train and manage apprentices (Hensen 2014). In wide-ranging interviews conducted with industry stakeholders, Huntly Consulting (2008) concluded that almost everybody involved believed that the apprenticeship system was out of touch with young people; failing to understand the motivations and mindset of commencing apprentices who are under 24 years of age.

A major issue in tracking apprenticeship completions is that movement from one employer to the next (as often occurs) is not always properly recorded i.e. the original contract may be recorded as incomplete, when in fact the student has gone on to complete the apprenticeship with another business owner (Bednarz 2014).

The significant decline in apprenticeship take-ups and completions has primarily been blamed on disrupted or changing industries and related employment opportunities plus government decisions to shift funding for employer incentives (ACPET 2015) away from some occupations to others deemed to be a higher economic priority. Incentive payments were designed to support successful completion of apprenticeships and traineeships at Certificate III and above, but Deloitte Access Economics (2012) did find that incentives were actually associated with a higher likelihood of apprenticeship or traineeship cancellation (except in the case of Indigenous or disadvantaged groups).

6.7 Satisfaction with teaching, course content and delivery

In some studies, staff attributes, behaviours, and the quality of teaching and learning practices and relationships with teacher have been emphasised (Roy and Rickard 2010). However, student satisfaction levels with the quality of the VET experience and its fulfilments of their main goal for enrolment are extremely high in NCVER Student Outcomes Surveys. While earlier authors found non-completions were linked to program and teaching satisfaction, Fieger's (2015) study found that satisfaction with teaching and assessment had a negligible impact. The intention to complete was far more powerful in increasing the probability of completion, increasing substantially for Certificates III and IV and Diploma students.

6.8 Critical incidents or events

Critical incidences, events and encounters (positive and negative) of an unexpected nature impact VET participation and similarly have the potential to influence completions. Little is published about these incidents that are broadly reported as major life events, personal or family illness or tragedy, personal difficulties and crises (in some cases, drug and alcohol related). For some students, these events will lead to discontinued program of study, but there is evidence to suggest that non-completion for many people is followed within the short to long term by further VET program participation (in the same program or an entirely different or complementary course). Table 7 below summarises our findings on VET completion and related influences and constraints.

Table 7 - VET Program Completions : A summary snapshot of key influences and constraints

Generational differences in aspirations and expectations may be relevant in VET completions. Bernard Salt emphasises young people who are 'fearless of the future, highly mobile and always on the lookout for something that is different or apparently better'.

Clarity of personal career goals and a strong, front-end intention to complete are influential variables in program completions. Confidence in personal goals and reasons for doing a course are positively related to program attendance, participation and completion of training modules.

A previous TAFE NSW study found failure to complete was not related to one single factor. Discontinuing a program was not always a conscious decision but rather students 'drifted off' due to a combination of course, work-related and personal factors.

A strong self-identity and psychological variables tend to layer over variables such as age, gender and employment status in impacting VET completions. A sense of identity and belonging at college or work and extent to which students identify with physical places and people impact their decision to stay on.

Social inequality in front-end recruitment or attraction of students in VET programs results in various psychosocial factors that impact completions e.g. economic, housing, social and family issues.

Age as a single variable is only weakly correlated with VET completions. However, increasing age is accompanied by a high level of non-completion linked to the hours absorbed by the enrolment.

Gender influences are linked to the higher number of males in VET programs and in turn, male-dominated workplace cultures. Females terminate apprenticeships to some degree based on male-dominated workplaces, but just shift settings rather than ‘drop out’ of programs.

Some studies show that more program and provider choice equates with lower completion rates. Choices made in the context of diverse options, limited information and a lack of clarity about career goals have less chance of completion. Some students and parents are ill equipped to ‘shop around’ for providers and judgements are less likely to be effective in disadvantaged communities.

Students sometimes find programs are not as practical and concrete as they expected. Some who start programs give up early because they **lack the necessary reading, writing and maths skills to succeed.**

VET program completion is higher in trade-based programs, employment-based training programs and structured workplace learning.

Completion indicators are weaker for students with less than Year 11 schooling and those with poor performance (i.e. literacy and numeracy) at the end of school are far more likely to drop out early.

There are ‘hot spots’ or problem phases in programs when students can withdraw or drop out quickly. The first of these is the beginning of a VET course. Young students who have only completed up to Grade 10 are more likely to finish within the first eight weeks of commencement.

Some research suggests that the majority of those who leave VET programs do so simply because they have been unable to pursue their first choice of course at the outset.

Students told to enrol in a particular program because they are not suited or ‘good enough’ to take other programs are less likely to complete. Negative views about VET – ‘a fall back option or second choice’ can accompany mismatched expectations and non-completion.

Various family problems and issues are associated with VET completion likelihood. These are parents with low levels of education themselves, a cycle of poverty, domestic violence, physical or mental health issues and a need for children to sometimes care for their parents.

Family/student location is often associated with program completion. Although those living in region areas are more likely to complete apprenticeships, rural students are generally found to be behind their peers in the city in terms of academic achievement.

Aboriginality is generally highly correlated with VET program non-completion. Unemployment is also high in remote areas and some young indigenous people are victims of entrenched employment exclusion (at times leaving programs due to an absence of related employment).

Migrants are also more prone to program non-completion. Migrants make up a significant proportion of VET enrolments in cities across many developed nations. Language skills, poverty, expectations to work in the family business, culturally defined gender issues are influential. (The chance of finding a job post-graduation is 45% lower than that of an English-speaking graduate).

Socio-economic status of students has a stronger probability of influence on non-completion than most other factors. Students who were eligible for a VET FEE-HELP loan over 2009-12 have a 21% probability of completing their training (a 79% chance of non-completion). For many students, the price or fee structure for VET options has become problematic and either has/could prohibit completion.

The primary reason for non-completion of apprenticeships across developed nations is the quality and issues associated with the employment experience. A sense of fairness, varied work, on-the-job training, strong mentoring, a good boss and a safe workplace free from bullying are key factors. Not liking the work and pursuing other opportunities were secondary to the employer-student relationship.

In general, 60% of apprentices who do not complete leave within the first year. Those who leave much later are more likely to leave for personal reasons than those linked directly to the employer

Low pay does not top the list of reasons for non-completion despite the financial difficulties that apprentices encounter. Low pay is a cited reason for leaving among less than 10% of apprentices.

Management style is a major issue affecting employer-apprentice relationships. Those who mentor apprentices in a positive way are more likely to retain them. Completion rates are higher with large employers with many apprentices and lower with small employers with only one apprentice.

A key risk for apprentices leaving their contractual arrangements is the ability to find another suitable business owner to take them on. Employers of apprentices need more structured training in how to mentor, train and manage apprentices. Research shows most stakeholders agree that the apprenticeship system is out of touch with young people, failing to understand their motivations and mindset.

The decline in apprenticeship take-ups and completions is largely blamed on a disrupted and changing economy and government funding decisions i.e. to re-direct incentive payments to occupations in line with future growth.

Student satisfaction with the quality of teaching and program content is very high (as shown in VET Student Outcomes Surveys and is generally found to have a negligible impact on completions).

Critical incidents, events and encounters (positive and negative) of an unexpected nature can influence VET participation and completions. There is very little reference to these incidents in relation to completion. Broadly included are: major life events, personal or family illness and other crises.

7. The Way Forward – Research hypotheses to be tested in NSW

Woolcott's comprehensive scan and analysis of national and offshore literature on the VET sector has captured wide-ranging macro-level trends, influences, and recent data on VET participation and completions. These findings have underpinned the development of specific hypotheses to be tested in our Phase 2 qualitative and quantitative research.

7.1 Research Hypotheses

This section outlines the hypotheses to be explored in each of the primary areas of our enquiry into the VET student market in New South Wales. These areas include the demographic, socio-economic, educational and geographic characteristics of the student market, specific VET participation drivers, influences during the information gathering stage, individual perceptions (family/other influencers); and, issues associated with non-completion of VET programs.

Demography and sociological characteristics:

Based on the literature review we hypothesise that:

- *The educational background* (including actual and perceived academic ability) will be a major factor associated with interest in VET participation among potential students/trainees and their families. Students with a lower level of achievement, a lack of academic confidence or comfort in the school setting are likely to be impeded in their education choices generally, but are more likely to enrol in VET.
- Secondary school students from a *lower socio-economic background* with difficult financial circumstances are also more likely to include VET program enrolment in their post-school options (with government funded VET providers the more likely choices for these students).
- Family role models, related stereotyping and bias among family members towards occupational choices and educational pathways are likely to be influential for many NSW residents considering VET.
- Potential VET students in younger age segments may perceive VET enrolment as *a stepping-stone to a specific occupation* (potentially influenced by a job-related heritage in their family). Students within a somewhat wider demographic group are likely to see VET enrolment as *a second choice* or 'fall back' if university entry is not attained.
- Other characteristics likely to be associated with VET participation are *gender, culture (indigenous or migrant background), disability, and physical distance from educational institutions*.
- Gender has some influence in decision-making about trade-related careers, with *males still more orientated towards apprenticeships* than females. However, those females who have an existing occupational focus (linked to a perceived innate ability), a sense of confidence and good role models are likely to view VET enrolment positively.
- For *indigenous students, migrants and those living in remote or regional towns/cities*, VET participation is likely to be a primary consideration (if post-school education is considered). Lack of jobs, perceptions of inequity or discrimination, lack of confidence, language/literacy, family issues and educational

competency (real and perceived) are likely to be contributing factors to educational motivation (VET and university).

- *Enrolment at lower levels with an intent to progress to a higher-level*, e.g. VET programs and/or university, is anticipated among indigenous students, migrants and those who see VET as a ‘fall back’ option.
- *Among migrant students, two possible groups could emerge:*
 1. Those who already have a degree/university qualification from elsewhere (challenged by language or unrecognised qualifications) who see VET as a first point of entry; and
 2. Those who see VET as their only option based on a range of issues. Potential influences are displacement and or issues of belonging, language issues, discrimination, financial circumstance, a low level of education, knowledge of educational options at family level and, other culturally specific, family influences.
- *Geo-social influences* are likely to influence students in city and regional areas - closeness to home, expectations of mirroring a parent’s career, cost of travel and transport options and aspects of social belonging (within a particular social milieu) are all influential in a decision to enrol in VET programs. For some students, staying close to home and directly entering the workforce (with part time work or unemployment a high likelihood) is preferable to making a move to the city.
- *Market segments* that emerge from our investigation could coalesce within BCG’s four groupings. These are: *premium students* (niche education seekers looking for specific professional training/education options via private providers with dedicated programs in their field of interest), *value students* (seeking quality at an affordable price), *‘price sensitive’ students* (economic disadvantage is the key influence) and *agnostics* (those who are vulnerable, living in difficult circumstances, potentially with lower levels of academic performance also impacting choice).

VET participation drivers and influences:

Other specific influences we expect to observe are:

- The *public image of VET as a blue-collar option* and a ‘second choice’ pathway (with somewhat lower levels of recognition and prestige) is a powerful one, crossing all socio-demographic groups.
- *Negative media coverage about the VET sector, loans, fees and difficulties encountered* by students signed up by private providers may contribute to negative imagery among some potential students.
- *VET in Schools programs are likely to be an influence for small groups* of students, along with career counselling and individual teachers who have somewhat greater insight to VET options.
- *A lack of a clear vision or plan* and a lack of *timely and accurate insights* is a further issue encountered by many students which impacts TAFE participation.
- *Critical events and disruptions* are likely to emerge as an influence on participation across all age groups, e.g. shifting employment opportunities, job loss, the need to upskill as well as individual social issues and crises.

Information seeking and decision-making:

Factors with the potential to impact VET decision-making include:

- *Viewpoints of the immediate family, peers and the internet.* Teachers and career counsellors are also likely to be sources of information, but less influential. ‘Chance encounters’ with individuals connected with a particular career or involvement in VET are also driving factors in some cases.
- Knowledge of *where to locate information, suitable program choices to consider and the criteria for deciding between options* are challenges for potential VET students (and their families). The internet is a key source (with some families, e.g. migrants and others, struggling with the complexities of websites, providers and course information).
- Social media potentially plays a strong role for youth in New South Wales, both for peer communication about post-school options and seeking insights about VET programs and providers.

Drivers and influences associated with non-completion of VET programs

Here, we would expect to observe influences that include:

- Generational issues, i.e. the widely discussed Gen Y expectation of *‘many options available with little need to stay in the one program or place if a better option appears’* may be a factor in non-completion of VET programs. This is a broader issue of personal outlook, self-identity and confidence (that may/may not typify ‘non completers’ in New South Wales).
- A strong *‘front end’ intention by students to complete* their chosen program is positively correlated with actual completions. References to *‘a passion to undertake the program’, ‘succeed’* and *‘a sense of excitement about getting started’* are likely to be phrases employed by ‘completers’.
- The *inability to pursue a ‘first choice’* VET program is also a typical driver of non-completion.
- *Hot spots or problem phases* in programs when students can withdraw quickly lead to drop outs, e.g. at the beginning of a VET course.
- Some give up early because of a *lack of foundation skills* such as reading, writing and maths.
- A *general loss of motivation linked to multiple factors* gradually pulls some students away. Non-completers sometimes *‘drift away’* with increased lack of attendance preceding their drop out and failure to complete. Conversely, a strong sense of identity, a sustained focus and motivation tends to characterise those who complete programs.
- For mature age attendees *time pressures and the overall hours involved in program enrolment* can impact completion.
- Family obligations and/or problems, a limited employment outlook, distance from home and discriminatory issues are likely *barriers to completion for indigenous students* in New South Wales (mirroring findings elsewhere). The likelihood of completion is higher for those who have been attracted to VET via *indigenous outreach programs* and private sector ‘workplace’ programs.
- For migrant students, *family responsibilities, language challenges, difficulties in understanding and negotiating the education system and finding a job* in advance of program completion are all possible

influences. The need to travel outside the familiar, i.e. a migrant-intensive neighbourhood to attend TAFE and *discrimination* may impede program completion.

- Those who leave apprenticeships will mostly do so in the first year and are very likely to be prompted by an unsatisfactory relationship with the employer. Some will leave based on a perception of a wrong job choice, but conditions on the job, e.g. lack of meaningful work, limited mentoring and poor quality training influence non-completion. Low remuneration is top of mind, but less likely to be associated with a decision not to complete.
- Female apprentices tend to move around in part due to gender issues, i.e. male-dominated workplaces but a gender bias is not a strong pattern in non-completions.
- Satisfaction with teachers, the quality of teaching and VET program content is less likely to be an influence or predictor of non-completions for most students.
- The socio-economic status of students is often an over-riding factor (with related social problems and barriers). Withdrawal and non-completion of programs is correlated with the receipt of VET FEE-HELP loans. For some students, non-payments and changes in eligibility for loans after enrolment are likely to be factors.
- Critical incidents and events in the lives of students and/or their families also have an influence on VET program completions. This is an often-cited reason for withdrawal with some students leaving for medium to long periods, causing program enrolments to lapse (regardless of their future intent to re-engage with the program).
- Structural disconnects between high school, VET and university are longstanding. Some students will begin VET programs with a view to advancing and fail to complete or progress due to mismatched expectations and 'front end' uncertainty about their chosen pathway that continues after enrolment.

7.2 Final observations

The preceding hypotheses are pertinent in the design of the qualitative and quantitative explorations. With numerous factors and influences (discrete and overlapping) associated with VET participation and completion, it is vitally important to establish the more powerful predictors within different cohorts in New South Wales. In this regard, the themes and findings arising from the literature review provide an important frame of reference to structure our interviews, mini-group discussions and survey questions.

Many macro-level trends in the VET sector have been captured in this report (e.g. regulatory changes, questions about VET program fit with the future labour market, past marketing practices of providers and public image issues that impact perceptions). These offer a rich backdrop to understanding micro-level influences on student decision making. The sector has experienced significant changes since 2012 with marked declines in enrolments and completions across states/territories and within all VET program offerings (albeit less so in higher-level VET qualifications).

In designing the next phase of this research, Woolcott will use this 'funnel' of sector wide trends and influences, together with attributes and behaviours at the provider, program and student level to build robust tools of enquiry. At each stage of the research, we will return to the initial hypotheses to interrogate

the findings and reflect on their relevance to VET students and their participation and retention in the New South Wales VET sector.

In this vein, our qualitative research is highly structured, but also exploratory to take account of the nuances of different demographic groups and geographies. The geo-social influences in metro versus regional/rural areas and the different employment contexts and demographics in sub-regions of New South Wales will no doubt provide a further context in which to explore, test and confirm key influences on VET enrolments and completions. It is likely that case studies will emerge from early qualitative work to illustrate and further contextualise the survey outcomes.

Next steps in progressing our investigation are: the further development of the qualitative method, the development and approval of Phase 2 questions and recruitment for the qualitative phase. Woolcott looks forward to collaborating with the NSW Skills Board as we refine and deliver this important phase of the investigation.

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