

# Mapping the student journey: the many faces of completion and non-completion in VET

---

**Michelle Hall**

National Centre for Vocational Education Research



## Publisher's note

The views and opinions expressed in this document are those of NCVER and do not necessarily reflect the views of the Australian Government, or state and territory governments. Any interpretation of data is the responsibility of the author/project team.

To find other material of interest, search VOCEDplus (the UNESCO/NCVER international database <<http://www.voced.edu.au>>) using the following keywords: Completion; Data analysis; Dropout; Enrolment; Funding; Outcomes of education and training; Participation; Pathways; Qualifications; Research method; Statistical method; Students; Vocational education and training.

© Commonwealth of Australia, 2024



With the exception of the Commonwealth Coat of Arms, the Department's logo, any material protected by a trade mark and where otherwise noted, all material presented in this document is provided under a Creative Commons Attribution 3.0 Australia <<http://creativecommons.org/licenses/by/3.0/au>> licence.

The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided), as is the full legal code for the CC BY 3.0 AU licence <<http://creativecommons.org/licenses/by/3.0/legalcode>>.

The Creative Commons licence conditions do not apply to all logos, graphic design, artwork and photographs. Requests and enquiries concerning other reproduction and rights should be directed to the National Centre for Vocational Education Research (NCVER).

This document should be attributed as Hall, M 2024, *Mapping the student journey: the many faces of completion and non-completion in VET*, NCVER, Adelaide.

This work has been produced by NCVER on behalf of the Australian Government and state and territory governments, with funding provided through the Australian Government Department of Employment and Workplace Relations.

COVER IMAGE: GETTY IMAGES


ISBN 978-1-922801-22-7

TD/TNC 155.03

Published by NCVER, ABN 87 007 967 311  
Level 5, 60 Light Square, Adelaide SA 5000  
PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

Phone +61 8 8230 8400 Email [ncver@ncver.edu.au](mailto:ncver@ncver.edu.au)  
Web <<https://www.ncver.edu.au>> <<https://www.lsay.edu.au>>

### Follow us:

 <<https://x.com/ncver>>

 <<https://www.linkedin.com/company/ncver>>

 <<https://www.facebook.com/ncver.au>>

# Acknowledgements

This work has benefited from support from many people, including Dr Craig Hansen and the NCVER team who contributed to the development of the Master Student Longitudinal Data Construct; members of the Project Advisory Committee and NCVER colleagues Bridget Wibrow, Dr Tabatha Griffin and Melinda Lees, all of whom provided valuable feedback throughout the research project; and NCVER colleagues Zhenyuan Li, Dr Zhihui Zhang and Olga Reyes, who undertook extensive code and data checking.

# Contents



Introduction	7
Overview of the analytical approach	7
Scope of the analysis	8
A note on terminology	8
Compliance muddies the waters in VET	9
Completing a qualification is only one piece of the puzzle	11
The complex interplay between qualification completion, compliance and funding source	12
A deeper look at qualifications with low completion rates: subject activity for non-completers	12
What do training outcomes look like with a student-centric analysis approach?	14
Identifying different student outcomes in VET administrative data	14
What do the data reveal if we consider a broader range of student outcomes?	15
Student movement to other VET	16
A closer look at the student outcome groups	16
Exploring student pathways through VET	22
Students' choice of programs, stand-alone subjects, or a combination thereof	22
Student movement between qualifications by level of education	23
References	27
Appendix A - Longitudinal approach to analysis of student training activity	28
Identifying unique students in VET administrative data	28
Resolving inconsistencies in demographic information	28
Building a longitudinal, student-centric view of training activity	29
Appendix B - Identifying compliance activity	31
Key-word matching	31
Repeat training	31
Identifying compliance activity among subject enrolments	32
Identifying compliance-only program enrolments	32
Identifying skillsets and courses associated with compliance	32
Appendix C - Qualification completion-rates analyses by funding source	34
Completion-rate distributions by funding source	34
Subject activity for non-completers of low completion rate qualifications, by funding source	36
Appendix D - Supplementary data for analysis of training outcomes	38
Subject-enrolment patterns	38
Accessing compliance subjects via programs	39
Comparing student outcome profiles by selected training and student attributes	43
Comparing student outcome profiles for selected student cohorts	44
Appendix E - How does compliance impact on the analysis of student pathways?	47
Appendix F - Popular pathways by level of education	48

# Tables and figures

## Tables

1	Count of qualifications by completion rate, 2016 commencing enrolments, with and without compliance-only enrolments	12
2	Rates of movement to further VET following a 2016 commencing program enrolment, by student outcome group	16
3	Number of enrolled subjects across program enrolments, by student outcome group, 2016 commencing enrolments	17
A1	USI coverage in the Master Student Longitudinal Data Construct, 2015-21	28
B1	Popular compliance stand-alone subjects and subject bundles, 2016	32
B2	Popular compliance training package skillsets and accredited courses, 2016	33
C1	Distribution of completion rates across qualifications, by funding source, 2016 commencing enrolments	35
C2	Count of qualifications by completion rate, 2016 commencing enrolments, by funding source, with and without compliance-only enrolments	36
C3	Count of qualifications by average subject pass rate, for non-completers of low completion rate qualifications, by funding source, 2016 commencing enrolments	37
D1	Outcome groups, 2016 commencing students, with and without compliance-only enrolments	39
D2	Counts of program enrolments by number of enrolled subjects, by student outcome group, 2016 commencing enrolments	39
D3	Top 10 most popular subjects or bundles of subjects undertaken by program non-completers with all subjects having successful outcomes, 2016 commencing programs	41
D4	Student outcome group membership by selected training and student attributes, 2016 commencing students	43
D5	Analysis of program enrolments for student cohorts, split by student outcome groups, 2016 commencing enrolments	45
F1	Top qualification combinations for movement to a higher level of education, for 2016 commencing qualification completers and non-completers, 2016-21	48
F2	Top qualification combinations for movement to a lower level of education, for 2016 commencing qualification completers and non-completers, 2016-21	49
F3	Top qualification combinations for movement to the same level of education, for 2016 commencing qualification completers and non-completers, 2016-21	49

## Figures

1	Distribution of completion rates by qualification for 2016 commencing enrolments	11
2	Average subject pass rates for qualification non-completers in qualifications with low completion rates (34.5% or lower), 2016 commencing enrolments	13
3	Student outcome groups, 2016 commencing students	15

4	Student outcome groups by selected training and student attributes, 2016 commencing students	19
5	Student outcome groups for selected student cohorts, 2016 commencing enrolments (%)	21
6	Student movement between programs, stand-alone subjects, or a combination of the two, 2016-21	22
7	Student movement between enrolments in qualifications, by level of education, 2016-21	24
8	Pathways by level of education for 2016 commencing qualification completers, for selected student cohorts, 2016-21	25
9	Pathways by level of education for 2016 commencing qualification non-completers, for selected student cohorts, 2016-21	25
C1	Distribution of completion rates by qualification for 2016 commencing enrolments: government-funded activity	34
C2	Distribution of completion rates by qualification for 2016 commencing enrolments: domestic fee-for-service activity	35
C3	Distribution of completion rates by qualification for 2016 commencing enrolments: international fee-for-service activity	35
C4	Average subject pass rates by qualification for non-completers, for low completion rate qualifications: government-funded activity	36
C5	Average subject pass rates by qualification for non-completers, for low completion rate qualifications: domestic fee-for-service activity	37
C6	Average subject pass rates by qualification for non-completers, for low completion rate qualifications: international fee-for-service activity	37
D1	2016 commencing program enrolments by number of subjects, split by student outcome group	38
E1	Student movement between programs, stand-alone subjects and a combination of the two, including compliance-only enrolments, 2016-21	47
E2	Student movement between enrolments in qualifications, by level of education, including compliance-only enrolments, 2016-21	47

# Introduction

This document provides technical details and supporting data for the research findings discussed in *The student journey in VET: the many faces of completion and non-completion*. The analysis in this technical document explores:

- an approach to identifying vocational education and training (VET) subject-enrolment activity that serves a compliance or regulatory purpose
- variability in completion rates across VET qualifications and associated differences in patterns of subject enrolments and outcomes
- different indicators of student outcomes in VET, including program completion, subject completion and movement to subsequent VET
- student training pathways, examining the extent to which students undertook programs, stand-alone subjects, or a combination of the two, and how this training choice evolved over time
- student training pathways, exploring the extent to which students went on to enrol in a program at a higher, lower, or the same level of education, and how these pathways compared for students who did and those who did not complete their initial program.

The research project more broadly addressed the topic of completion and non-completion by investigating student outcomes and pathways in VET.

One significant issue for consideration is that many students enrol in VET programs with no intention of completing the full program, participating only in one or two units, often for compliance purposes related to their job. This factor is not taken into account in calculations of qualification-completion rates, with some qualifications affected more than others.

Students may also commence a VET program and decide to switch to another program or provider part-way through their training. Students may choose to do this after completing some units or even without completing any units associated with their initial enrolment. Examining student movement can provide insight into how students are using the VET system.

This analysis uses data from the National VET Provider Collection to explore these varying aspects of student outcomes and pathways.

## Overview of the analytical approach

Until recently, analyses of VET administrative data have been largely contained to looking at training activity within a single collection year.<sup>1</sup> While such analyses can provide some valuable insights, they are limited with respect to understanding student pathways within the VET sector.

The inclusion since 2015 of the unique student identifier (USI) in the National VET Provider Collection presents an opportunity to investigate broader aspects of student engagement with VET, for example, VET pathways. The USI enables enrolments and completions in different VET programs and stand-alone subjects to be attributed to the same student, regardless of the number of times they enrol or their

---

<sup>1</sup> The Total VET Activity (TVA) dataset contains data records from both the National VET Provider and National VET in Schools collections. Data are submitted to NCVET annually and contain the most recent information on subject enrolments, program enrolments and program completions.

provider (registered training organisation; RTO). NCVER has also recently undertaken work to develop a Master Student Longitudinal Data Construct, a tool that enables student-centric analyses of VET administrative data. Appendix A provides methodological detail of this longitudinal approach.

## Scope of the analysis

The aim of this project was to examine student outcomes and pathways in VET. This research focus, particularly the exploration of student pathways, necessitated the longitudinal approach described above.

The data available for the analysis included nationally recognised VET commenced between 2016 and 2021.<sup>2</sup> An extended period of analysis was optimal for gaining a clear understanding of student movement through the VET system. The analysis for this project focused on students who commenced a VET program in 2016 and included their 2016 training, as well as any other training in which those students were enrolled up to and including 2021.

The analysis also explored the subjects in which students enrolled as part of their program. Subject enrolments reported as ‘Non-assessable activity’ or ‘Incomplete due to RTO closure’ were excluded from the analysis scope (fewer than 1% of enrolments) before the following metrics for each program enrolment were derived:

- the number of subjects enrolled in
- the proportion of subjects enrolled in with a successful outcome.<sup>3</sup>

## A note on terminology

In this research, training package qualifications, accredited qualifications, accredited courses and training package skillsets are collectively referred to as ‘VET programs’. Locally developed courses and skillsets, which are not nationally recognised VET programs, were excluded from the analysis.

Furthermore, nationally recognised units of competency are referred to as ‘subjects’. Subjects can be delivered as part of a nationally recognised VET program or as a stand-alone subject enrolment. The term ‘stand-alone subject enrolment’ refers to subjects not associated with a program enrolment, as well as subjects delivered as part of a locally developed (non-nationally recognised) course or skillset.

---

2 ‘Commenced’ includes new commencements, re-enrolments at a new training provider, and re-enrolments after a break in training. Also, it is not possible to determine whether program enrolments in 2015 commenced in 2015 or an earlier year. For this reason, 2016 commencing program enrolments are the earliest available. 2021 data are the latest available at the time of writing.

3 Successful subject outcomes include ‘Competency achieved/Pass’ and ‘Recognition of prior learning – granted’. Unsuccessful subject outcomes include ‘Competency not achieved/fail’, ‘withdrawn/discontinued’, ‘RPL not granted’, or ‘Continuing’ where there is no subsequent record for that enrolment.





# Compliance muddies the waters in VET

A significant volume of VET subject activity serves compliance purposes, whereby employees undertake training to meet the regulatory or licencing requirements of their job (Palmer 2021). Examples include training in first-aid and the responsible service of alcohol. Much of this activity requires periodic renewal.

The Australian VET sector recognises a formal role for training package skillsets in addressing licensing or regulatory requirements; however, these are not particularly well utilised (Stanwick & Siekmann 2019). Palmer (2021) undertook an exploratory analysis of stand-alone subject activity, which revealed that around 73% of this training reflected compliance activity and represented a substantially larger volume of compliance activity than did training package skillsets.

Due to the diverse regulatory requirements across industries, occupations and jurisdictions, it is challenging to definitively identify which training products are offered specifically for these purposes. Palmer's (2021) research used a text pattern-matching approach to categorise stand-alone subject activity according to three regulatory purposes: workplace safety (for example, Prepare to work safely in the construction industry), emergency preparedness (for example, Provide CPR), and/or authority to operate (for example, Licence to operate a forklift truck). As Palmer (2021) notes:

This pattern-matching approach should be viewed as an indicative categorisation, rather than as definitive: it will miscategorise some units and omit others. Nonetheless, it provides an overall sense of the scale of the categories.

Palmer also highlights that compliance activity is relatively distinct from other VET training as it tends to:

- be of short duration
- address skills maintenance rather than the development of new skills
- be relevant only to employees and only those whose job has regulatory requirements
- require refresher training.

As a result of this distinctiveness, identifying and accounting for this type of subject-level compliance activity in the examination of student outcomes and pathways became an important component of this research. It was particularly important because, as our results will show, another approach for accessing compliance subjects is widely used: students enrol in a qualification that includes the compliance subjects they require for their job, although they go on to enrol in only the subjects required for compliance purposes. This may occur due to funding arrangements, reporting systems that generate a program enrolment for these subject enrolments, or other reasons.

In this research, we distinguish between compliance activity in the form of subjects or subject bundles, and the full qualifications that are required to work in some occupations, such as qualifications in electrotechnology, early childhood education and care, and training and assessment. For example, although the Certificate III in Electrotechnology Electrician includes multiple core subjects that address a compliance requirement (for example, Provide cardiopulmonary resuscitation; Apply work health and safety regulations, codes and practices in the workplace), it also includes core and elective subject offerings that do not address workplace safety, emergency preparedness, or authority to operate (for example, Apply environmentally and sustainable procedures in the energy sector; Use drawings,

diagrams, schedules, standards, codes and specifications). Appendix B provides details of our approach to identifying subject- or subject bundle-level compliance activity in this research.

Throughout this work, the extent to which subject- or bundle-level compliance activity impacts on the analysis of student success and student pathways has been evaluated by comparing the results with all data and after removing:

- enrolments in stand-alone compliance subjects (where relevant)
- enrolments in compliance skillsets and courses (that is, bundles of compliance subjects that have been packaged as a course or skillset, such as the Course in First Aid Management of Anaphylaxis 22300VIC, the Responsible Service of Alcohol Skill Set SITSS00055, and the Traffic Management Implementer Skill Set RISS00055)
- enrolments in programs where 100% of the constituent subject enrolments were compliance subjects. The latter will be referred to as ‘compliance-only (program) enrolments’ throughout this technical paper.

As was the case in Palmer’s (2021) work, our approach is intended to capture the majority of compliance activity within the TVA data but it is not considered to be definitive.

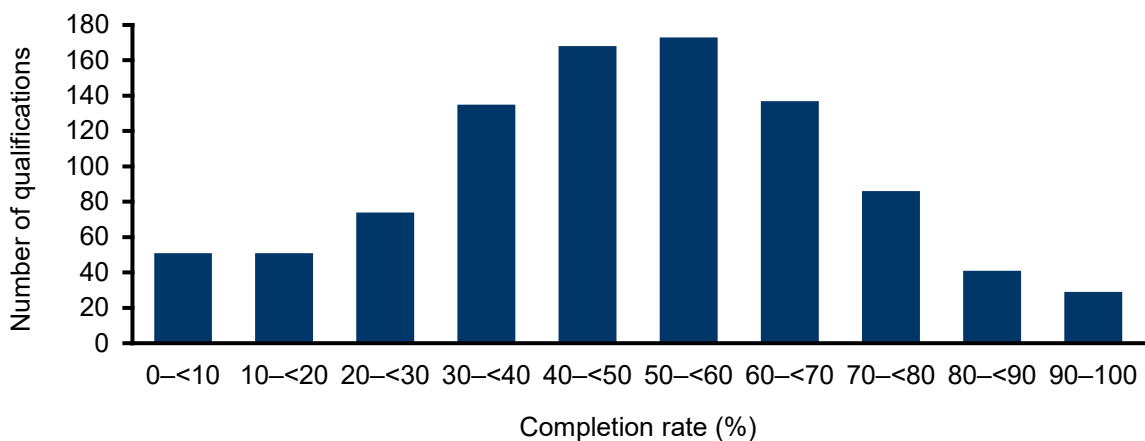


# Completing a qualification is only one piece of the puzzle

The oft-cited metric of successful VET training is the completion rate. For VET qualifications, this is calculated as the proportion of VET qualification enrolments that end in a completion, out of all qualification enrolments that commenced in a particular period of interest.

While overall rates of qualification completion in VET tend to be in the range of 40–50% (NCVER 2022), this is highly variable across qualifications. This can be seen in figure 1 for enrolments that commenced in 2016:<sup>4</sup> the middle bars indicate that completion rates of around 40–60% were the most common across qualifications, but the bar to the far left shows that more than 50 qualifications had completion rates below 10% and the bar to the far right shows that 29 qualifications had completion rates of 90% or above.

**Figure 1** Distribution of completion rates by qualification for 2016 commencing enrolments



Note: Compliance-only enrolments have been excluded  
Source: NCVER Total VET Students and Courses, 2015–21.

Overall, the top 25% of qualifications had completion rates of 63.9% or higher, whereas the bottom 25% of qualifications had completion rates of 34.5% or lower. On the face of it, it may be tempting to conclude that the qualifications with the highest completion rates are the highest quality training products, with the best outcomes for students, while the qualifications with the lowest completion rates are problematic.

However, completion rates are not sensitive to scenarios where students enrol in a program but have no intention of completing that program. Table 1 gives the distribution of completion rates across qualifications when compliance-only enrolments are included compared with the distribution when compliance-only enrolments<sup>5</sup> are excluded (as in figure 1). The general trend is that completion rates increase when compliance-only enrolments are excluded. That is, fewer qualifications have lower completion rates, while more qualifications have higher completion rates.

<sup>4</sup> Qualifications with fewer than 50 commencing enrolments in 2016 have been excluded because completion-rate calculations are less reliable when enrolment numbers are small.

<sup>5</sup> For detail, refer to the section ‘A key role for VET in compliance’.

**Table 1** Count of qualifications by completion rate, 2016 commencing enrolments, with and without compliance-only enrolments

	Qualification-completion rate (%)									
	0–<10	10–<20	20–<30	30–<40	40–<50	50–<60	60–<70	70–<80	80–<90	90–100
With compliance-only enrolments	66	67	85	145	165	164	131	80	38	23
Without compliance-only enrolments	51	51	74	135	168	173	137	86	41	29
	(-22.7%)	(-23.9%)	(-12.9%)	(-6.9%)	(+1.8%)	(+5.5%)	(+4.6%)	(+7.5%)	(+7.9%)	(+26.1%)

Source: NCVET Total VET Students and Courses, 2015–21.

Overall, the analysis showed that the completion rate for all qualifications increases from 42.4% to 46.8% when compliance-only enrolments are excluded. These compliance-only enrolments have been excluded for the analysis discussed in the remainder of this section.

## The complex interplay between qualification completion, compliance and funding source

Appendix C presents the analysis of qualification-completion rates split by funding source. The distribution of completion rates for government-funded qualifications (figure C1, table C1) is similar to the distribution for all qualifications (figure 1). The most notable difference is that government-funded qualifications are more concentrated in the middle of the distribution, between completion rates of 40–70% (58.9% of government-funded qualifications vs 50.6% of all qualifications), while fewer government-funded qualifications have completion rates in the tails of the distribution, below 20% or above 80% (11.7% of government-funded qualifications vs 18.2% of all qualifications).

For domestic fee-for-service activity (figure C2, table C1), the distribution is much flatter and skewed towards lower completion rates. Compliance-only enrolments also have a much more pronounced impact on the qualifications with the lowest completion rates (table C2). However, even after excluding compliance-only enrolments, the bottom 25% of qualifications within domestic fee-for-service activity had completion rates of 24.7% or lower – much lower than the 34.5% or lower for all qualifications. On the other hand, the distribution for international fee-for-service activity is more heavily skewed towards completion rates above 50% (figure C3, table C1) and is minimally affected by compliance-only enrolments (table C2).

## A deeper look at qualifications with low completion rates: subject activity for non-completers

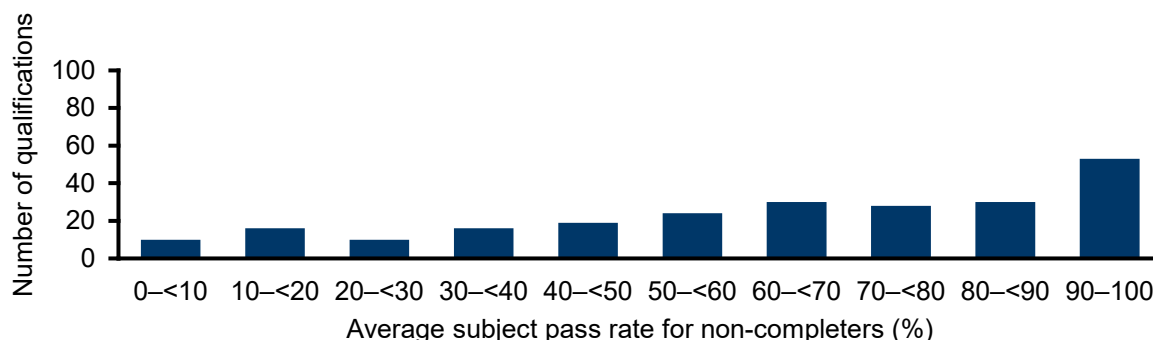
Even after accounting for compliance-only enrolments, there are other scenarios where students may enrol in a program with no intention of completing; for example, students may enrol in a few subjects to broaden or increase their skills base (Papadimitriou 2023). Qualification-completion rates do not shed light on students who have successful outcomes for some or all of the subjects in which they enrol but who do not complete their qualification.

To explore this area, we looked at successful subject completion for qualification non-completers, specifically focusing on qualifications in the bottom 25% of completion rates. These qualifications had completion rates of 34.5% or lower and captured 24.3% of total qualification enrolments.

Examining specifically non-completers of these qualifications, how many subjects did these students successfully complete? Figure 2 demonstrates that even though the completion rates for these

qualifications were low, many non-completers passed most (if not all) of the subjects in which they had enrolled.

**Figure 2 Average subject pass rates for qualification non-completers in qualifications with low completion rates (34.5% or lower), 2016 commencing enrolments**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015-21.

On average, 52.1% of non-completers in qualifications with low completion rates successfully completed 100% of the subjects in which they were enrolled. This does not necessarily imply that these students met the requirements of their qualification but were not awarded it; rather, they may have enrolled in and passed a subset of subjects without meeting the requirements for the full qualification. It is possible that some of these students never intended to complete the full qualification and may have enrolled in the qualification to access only one or two subjects, with the aim of expanding their skills or gaining a new specialisation.

As was the case for qualification-completion rates, subject pass rates for non-completers in qualifications with low completion rates varied by funding source (figures C4, C5 and C6). There were few government-funded qualifications with subject pass rates in the 90-100% range, compared with all qualifications (figure C4). Rather, subject pass rates for non-completers in government-funded qualifications had a broad spread across the 40-50% to 80-90% categories. Subject pass rates for non-completers in domestic fee-for-service qualifications with low completion rates had a pronounced peak in the 90-100% subject pass rate range (figure C5), where compliance-only qualification enrolments were also prominent (table C3). Among domestic fee-for-service qualifications with low completion rates, a higher proportion of non-completers passed all subjects (63.1%), compared with those in government-funded qualifications (41.6%), and all qualifications (52.1%).

Table C3 breaks down compliance-only enrolments among low completion rate qualifications according to funding source. In general, average subject pass rates for non-completers decreased when compliance-only enrolments were excluded. That is, fewer qualifications fell into the categories with higher average subject pass rates. This is because students with compliance-only enrolments, who rarely completed the full qualification, displayed a strong tendency to pass all the subjects in which they had enrolled.



# What do training outcomes look like with a student-centric analysis approach?

The previous section outlined some issues for consideration when evaluating qualification-completion rates as an indicator of student outcomes and success in VET. In this section, the analysis shifts the focus from programs to students, broadening the perspective on student outcomes to take account of the additional indicators available in the national VET data.

This analysis focuses on students who commenced a VET program in 2016 – whether it was a training package qualification, accredited qualification, accredited course or training package skillset. After removing compliance-only enrolments, the analysis captures activity for 1 477 300 students, across 1 779 000 program enrolments that commenced in 2016.

## Identifying different student outcomes in VET administrative data

From the data, we grouped students as follows:

- *program completers*: 730 700 students who completed one or more<sup>6</sup> of their 2016 commencing program enrolments
- *program non-completers, all successful subject outcomes*: 291 900 students without a completion for any of their 2016 commencing program enrolments, who had successful outcomes for all subjects in which they had enrolled as part of one or more of their 2016 commencing program enrolments
- *program non-completers, some but not all successful subject outcomes*: 214 200 students without a completion for any of their 2016 commencing program enrolments, who passed some but not all subjects in which they had enrolled as part of their 2016 commencing program enrolment/s
- *program non-completers, no successful subject outcomes, movement to another program*: 79 700 students without a completion for any of their 2016 commencing program enrolments, who did not pass any subjects in which they had enrolled as part of their 2016 commencing program enrolment/s, and who went on to commence another VET program between 2017 and 2021
- *program non-completers, no successful subject outcomes, did not move to another program*: 160 700 students without a completion for any of their 2016 commencing program enrolments, who did not pass any subjects in which they had enrolled as part of their 2016 commencing program enrolment/s, and who did not go on to commence another VET program between 2017 and 2021.

The summary above demonstrates the diversity of training outcomes available in the VET data, including subject completion and continued engagement with the VET system. This approach is not intended to definitively characterise student success in VET. As explored in the accompanying research summary, *The student journey in VET: the many faces of completion and non-completion*, successful outcomes

---

<sup>6</sup> Students may have commenced more than one VET program in 2016.

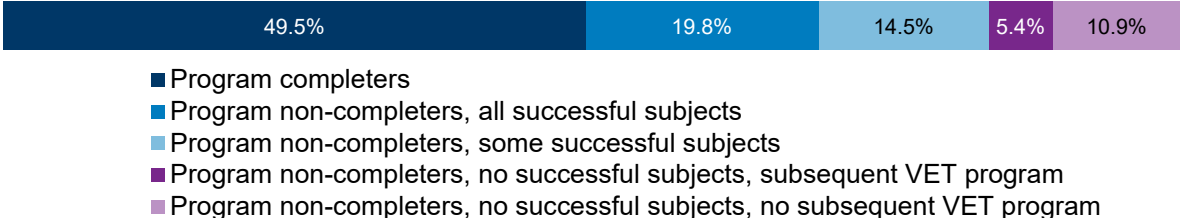
following training may include movement into employment, the personal or social benefits gained through training, and improved skills, none of which are captured in the VET data. That said, success is complex: for example, students with one or more outcome indicators in the VET data are not guaranteed success in securing paid employment. Conversely, students who discontinue their programs because they found success through other avenues – that is, students without outcome indicators in the VET data – have positive outcomes following their training.

## What do the data reveal if we consider a broader range of student outcomes?

As shown in the previous section, qualification-completion rates rose from 42.4% to 46.8% once compliance-only enrolments were excluded. Shifting the focus from qualification enrolments to students increases this figure further: 49.5% of students who commenced a program in 2016 completed at least one of those programs (figure 3). This is because many students – 11.9% of the program completers group – commenced more than one program in 2016 and had a mix of completion and non-completion for these enrolments.

Looking beyond program outcomes to explore successful subjects in non-completed programs provides some insight into those students who may have had no intention of completing their program in the first place. Here we see that almost 20% of students passed all the subjects in which they had enrolled, despite not completing their program. A further 14.5% of students passed some but not all their subjects. The remaining 16.3% of students neither completed their program nor passed any subjects (figure 3).

**Figure 3 Student outcome groups, 2016 commencing students**



Note: Compliance-only enrolments have been excluded.  
 Source: NCVET Total VET Students and Courses, 2015–21.

If we look at the latter two groups – those with no successful subjects – more closely, we can see that around 5% subsequently enrolled in another VET program. For those students who remained engaged with the VET system, further analysis revealed that 42.8% went on to complete a subsequent VET program. The current analysis is not able to determine whether those eventual completions were facilitated by the initial non-completed programs, although it is possible that the earlier training enabled these students to make a better subsequent choice.

The underlying data for figure 3, along with a comparison to the data when compliance-only enrolments are included, can be found in table D1 (appendix D).

## Student movement to other VET

Of the students who did not complete their program, had no successful subjects, and who moved to other VET (5.4% of students shown in figure 3):

- 68.5% changed training providers.
- 45.4% commenced a program in a different training package.
- 34.6% commenced a program at a lower level, compared with 18.4% who commenced a program at a higher level and 31.5% who commenced a program at the same level of education.<sup>7</sup>

As noted above, almost 43% of non-completers who enrolled in further VET went on to complete a subsequent program. This dovetails with the earlier finding that many students had a mix of completion and non-completion for their 2016 commencing enrolments; here we also see a mix of completion and non-completion across commencing years.

The non-completer group described above were not the only students who went on to further training, however. Table 2 shows, for each of the training outcome groups, the percentage of students who went on to another VET program. Overall, more than 40% of students who commenced a program in 2016 went on to commence another program, between 2017 and 2021. An analysis of student movement is given in detail in the section ‘Exploring student pathways through VET’.

**Table 2 Rates of movement to further VET following a 2016 commencing program enrolment, by student outcome group**

Student group	Total number of students	Number of students who moved into other VET (%)
All students	1 477 300	638 300 (43.2%)
Program completers	730 700	341 600 (46.8%)
Program non-completers, all successful subjects	291 900	118 800 (40.7%)
Program non-completers, some successful subjects	214 200	98 200 (45.9%)
Program non-completers, no successful subjects, moved into other VET	79 700	79 700 (100%)
Program non-completers, no successful subjects, no movement into other VET	160 700	N.A.

Note: Excludes compliance-only enrolments. Note that the 2016 commencing enrolments may not reflect initial engagement with the VET system, as students may have participated in VET prior to 2016. Student counts have been rounded to the nearest 100.

Source: NCVER Total VET Students and Courses, 2015–21.

## A closer look at the student outcome groups

Do the groups differ in systematic ways, over and above the outcome indicators in the VET data? The following analysis explores patterns in the number of subjects enrolled, the prevalence of compliance-only enrolments, how the attributes of training correlate with outcomes, how student characteristics at commencement correlate with outcomes, and how outcome profiles differ for various student cohorts.

<sup>7</sup> Percentages do not sum to 100% because some students moved from one-to-many, many-to-one, or many-to-many levels of education.



## Subject-enrolment patterns

One way in which the groups differed markedly was in the number of subjects in which they enrolled as part of their programs, which is summarised in table 3 and shown in detail in figure D1.

**Table 3 Number of enrolled subjects across program enrolments, by student outcome group, 2016 commencing enrolments**

	Number of program enrolments	Program enrolments by number of enrolled subjects		
		Bottom 25%	Middle 50%	Top 25%
Completed programs	828 000	1–8	8–14	14+
Non-completed programs, all successful subjects	366 000	1	1–8	8+
Non-completed programs, some successful subjects	272 000	2–6	6–13	13+
Non-completed programs, no successful subjects, movement to other VET	87 000	1–2	2–11	11+
Non-completed programs, no successful subjects, no movement to other VET	172 000	1	1–10	10+

Note: Compliance-only enrolments have been excluded. Enrolment counts have been rounded to the nearest 1000.

Source: NCVET Total VET Students and Courses, 2015–21.

Students who completed their program had a strong tendency to enrol in more subjects than the other outcome groups: 75% of completed programs had eight or more enrolled subjects. This broadly makes sense, as these students met the requirements for their program. However, students who did not complete their programs but passed all their subjects had a strikingly different pattern. This group accounted for around a fifth of all students, and the results showed that these students had a strong tendency to enrol in very few subjects: more than a quarter of their enrolments had only a single subject, and 75% had eight or fewer.

By contrast, the group of program non-completers who passed some but not all subjects had a similar pattern to program completers, with slightly fewer subjects undertaken per program enrolment on average (and fewer program enrolments overall). Again, this makes sense, as these students did not achieve a completion so presumably fell short of the requirements for their program.

Both groups of program non-completers with no passed subjects (those who moved onto other VET and those who did not) had subject-enrolment patterns somewhere in the middle:

- they had fewer subjects per enrolment on average than the group of program completers and the group of program non-completers with some successful subjects
- they did not demonstrate the strong concentration of enrolments with only a single subject that was seen for non-completers who passed all their subjects.

## Accessing compliance subjects via programs

Compliance-only enrolments have been excluded from the data presented in figure 3 and table 2, but an examination of the data with compliance-only enrolments included is also informative and is another point of difference between the outcome groups. Compliance activity was heavily concentrated among the group of non-completers with successful outcomes for all subjects. Overall, 36.6% of these students had enrolled in compliance activity only, compared with just 4.7% of students in the other groups combined. This suggests that many students enrolled in a program to access just one or two compliance subjects.

Table D2 compares, for each of the student outcome groups, the number of subjects in which students had enrolled, with and without compliance-only enrolments. Compliance-only enrolments were most prevalent among program completers, as well as the program non-completers who had passed all their subjects. For program completers, these may include skillsets and accredited courses. Across all groups, compliance-only enrolments tended to have between one and three enrolled subjects.

The prevalence of compliance activity among non-completers who completed all their subjects is also evident in table D3, which shows the most popular subjects or bundles of subjects undertaken by this group, by number of enrolments. The top 10 subjects/bundles consisted entirely of compliance subjects. Many were accessed through a variety of different programs, but in the main, one or two programs accounted for most enrolments.

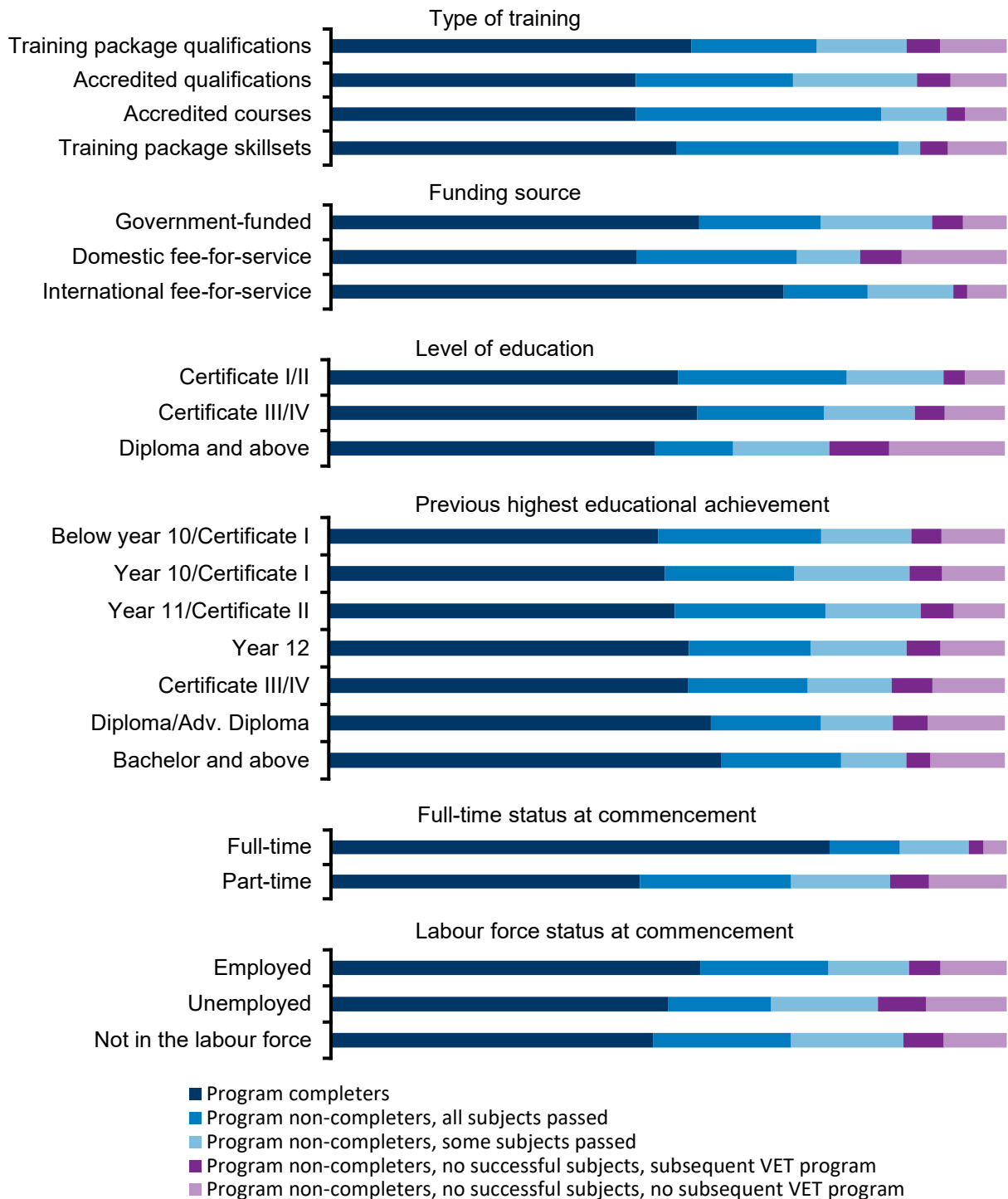
The popular subjects/bundles shown in table D2 overlap with Palmer's (2021) findings of the most popular subjects/bundles undertaken as stand-alone subject enrolments in 2019 (that is, they were not undertaken as part of an enrolment in a nationally recognised program). Two entries in table D2 were not identified by Palmer as popular stand-alone bundles: the bundle of Communicate in the workplace, Work safely and follow WHS policies and procedures, and Control traffic with stop-slow bat, which were undertaken as part of the Traffic Controller skillset; and Identify and report asbestos materials and/or products, which was undertaken as part of the Course in Asbestos Awareness.

Several subjects/bundles identified by Palmer (2021) were not identified as popular subjects/bundles undertaken as part of a program, including various bundles of first-aid subjects; the bundle of Provide cardiopulmonary resuscitation and Perform rescue from a live LV panel; and the bundle of Provide responsible service of alcohol and Provide responsible gambling services.

## Comparing student outcome profiles by training and student attributes

Figure 4 shows the distribution of student outcome groups according to type of training, funding source, level of education, highest educational achievement, labour force status at commencement and full-time status at commencement. The underlying data can be found in table D4.

**Figure 4 Student outcome groups by selected training and student attributes, 2016 commencing students**



Note: Compliance-only enrolments have been excluded.

Source: NCVET Total VET Students and Courses, 2015–21.

The proportion of program completers was higher among enrolments in training package qualifications (53.3%) and training package skillsets (51.0%) than among enrolments in accredited qualifications (45.1%) and accredited courses (45.1%). The proportion of non-completers who passed all subjects was more than

a third for enrolments in accredited courses (36.3%) and training package skillsets (32.9%), which tend to be shorter in duration, and less than a quarter among enrolments in training package qualifications (18.5%) and accredited qualifications (23.2%), which tend to be longer in duration.

Program completers were less prevalent among domestic fee-for-service enrolments (45.2%) than among government-funded (domestic) enrolments (54.5%) and international fee-for-service enrolments (67.0%).

When comparing training outcome indicators by level of education, enrolments at certificate III/IV level had the highest proportion of program completers (54.5%). The relatively low proportion of program completers at diploma level or above (48.2%) is likely to be partly attributable to the VET FEE-HELP scheme, which was associated with significant non-completion at the diploma/advanced diploma level. With the effect of VET FEE Help diminishing over time, a clear trend has emerged for qualification completion rates in 2017 and 2018 whereby completion rates increase across higher levels of VET programs. For these more recent years, completion rates are highest for qualifications at diploma level or above when compared with qualifications at lower VET levels (NCVER 2022). Enrolments at certificate I/II level had the highest proportion of program non-completers who had passed all subjects (24.9%).

As previous highest educational achievement increased, there was a steady increase in the proportion of program completers, ranging from 48.7% for students whose previous educational achievement was below Year 10 or certificate I level, to 58.1% for those with a degree at bachelor level or higher. Conversely, the proportion of program non-completers who passed all subjects tended to decrease as previous educational achievement increased.

Of all the splits examined, the highest proportion of program completers was among full-time commencing activity (73.8%, compared with 45.7% among part-time commencing enrolments). However, it is important to note that students who commenced their training full-time accounted for less than a quarter of the cohort analysed (23.4%).

The proportion of program completers was highest for students who were employed at the time they commenced their enrolment (54.6%), compared with students who were unemployed (49.9%) and those not in the labour force (47.7%). Students not in the labour force had the highest tendency towards non-completion but passing all their subjects (20.4%, compared with 18.9% for students who were employed and 15.2% for students who were unemployed).

## Comparing student outcome profiles for selected student cohorts

The analysis was also conducted for selected student cohorts:<sup>8</sup>

- female learners
- Indigenous learners
- learners with a remote place of residence
- youth<sup>9</sup>
- learners with a disability
- domestic learners with a language other than English (LOTE) spoken at home
- international students.

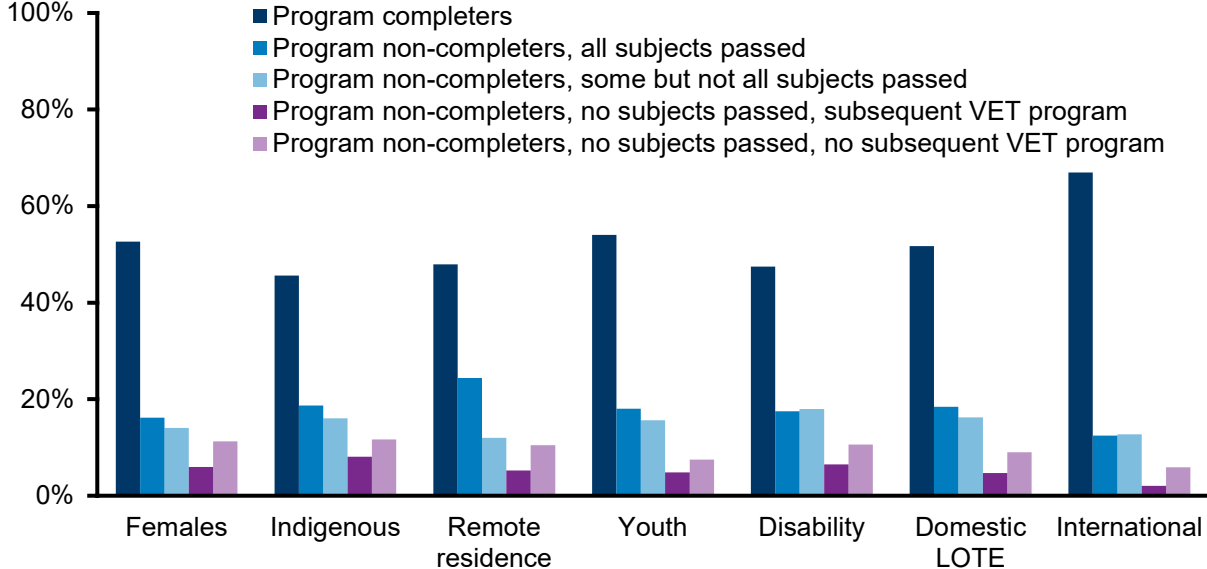
---

8 Demographic information has been derived from 2016 commencing enrolment records for each student. For detail, see section 'Resolving inconsistencies in demographic information'.

9 Learners aged under 25 years. Not all jurisdictions report demographic information for students enrolled in VET in Schools programs. For this reason, young people may be under-reported where age of the student cannot be determined.

Figure 5 shows the student outcome profiles for each student cohort. The pattern of outcomes is relatively consistent across the cohorts, but differences emerge in the relative size of the various outcome groups. For example, a greater proportion of students with a remote place of residence did not complete their program but passed all their subjects (24.4%), compared with less than 20% for the other groups. Students with a disability had the highest proportion of students (17.9%) who did not complete their program and completed some but not all of their subjects.

**Figure 5 Student outcome groups for selected student cohorts, 2016 commencing enrolments (%)**



Note: Compliance-only enrolments have been excluded.  
 Source: NCVET Total VET Students and Courses, 2015–21.

The underlying data for figure 5 can be found in table D5, which also provides additional details for each student cohort (split by outcome group), including median age, enrolment counts, and the split of enrolments by type of training, level of education, and full-time status at commencement.

# → Exploring student pathways through VET

The previous section highlighted that an analysis of continued engagement with VET after an initial enrolment has the capacity to uncover nuanced participation and outcomes in the VET data, in that many students remained engaged with VET beyond their first program enrolment and many students who did not complete their earlier program went on to complete a subsequent program.

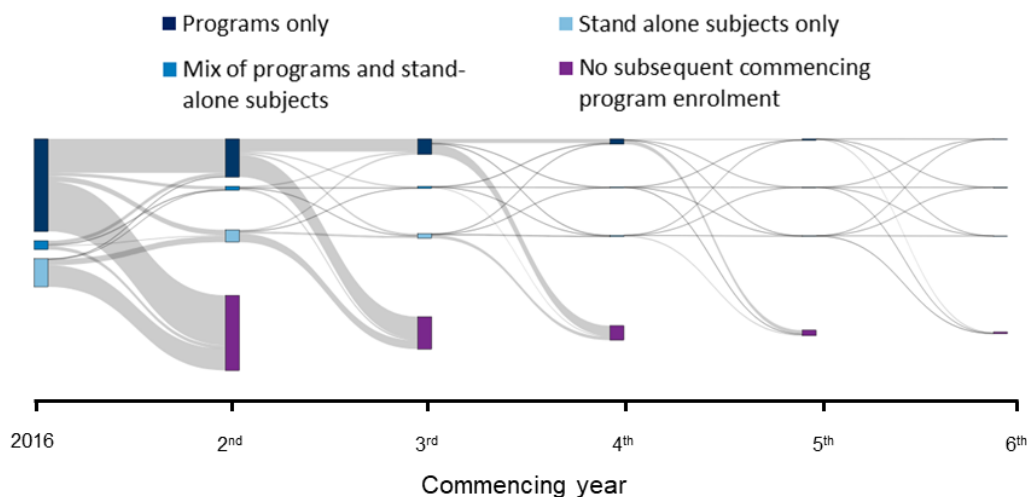
In this section we explore patterns of student movement through VET in more detail. The analysis again focuses on students who commenced a VET enrolment in 2016, first examining both stand-alone subject activity and programs, and then looking at pathways between qualifications according to level of education. The analysis includes students' 2016 commencing activity, as well as any additional training commenced between 2017 and 2021. The analysis does not necessarily reflect pathways following *initial* engagement with VET, because students may have enrolled in VET prior to 2016. The results are presented here with compliance activity excluded.

## Students' choice of programs, stand-alone subjects, or a combination thereof

Here we look at enrolments in programs and stand-alone subjects and the extent to which students chose to 'mix and match' them. A total of 1 962 000 students commenced a VET program or stand-alone subject in 2016. Most students did not go on to a second commencing enrolment, but for the 42.0% who did, their second commencing enrolment(s) could have commenced in any year between 2017 and 2021. For those with enrolments in a third commencing year, this could have been in any year between 2018 and 2021, and so on.

Figure 6 shows movement between programs, stand-alone subjects, or a combination of the two. In the figure, the length of the bars (representing groups of students at different commencing time points) and the width of the ribbons (representing transitions between time points) are scaled to reflect student counts. Figure E1 in appendix E shows the contribution of compliance activity to this pathway.

**Figure 6 Student movement between programs, stand-alone subjects, or a combination of the two, 2016–21**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.

In 2016, most students (71.5%) commenced programs only. This compared with 21.6% who commenced stand-alone subjects only, and 6.9% who commenced a combination of the two.

For students who went on to enrol in other VET, this pattern of training choice remained relatively consistent across time. However, a closer look at figure 6 reveals some detail relating to the more popular pathways for students who went on to commence another enrolment:

- 62.4% continued to enrol in programs only in their second commencing year.
- 15.9% moved from programs only in 2016 to either stand-alone subjects only or a combination of stand-alone subjects and programs in their second commencing year.
- 10.6% continued to enrol in stand-alone subjects only in their second commencing year.
- 8.3% moved from a combination of stand-alone subjects and programs in 2016 to either programs only or a combination of stand-alone subjects and programs in their second commencing year.
- 1.0% moved from stand-alone subjects only in 2016 to either programs only or a combination of subjects and programs in their second commencing year.

The general picture is that students who went on to other VET tended to enrol in:

- programs only; or,
- initially in programs only, before moving on to stand-alone subjects (either alone, or in combination with a program); or
- stand-alone subjects only.

It was less common for students to move from stand-alone subjects or mixed enrolments to enrolments in programs.

## Student movement between qualifications by level of education

The second pathway analysis focuses on movement between enrolments according to level of education and includes students with enrolments in Australian Qualifications Framework (AQF) level qualifications.

### Enrolment pathways

A total of 1 439 800 students commenced a qualification in 2016. Of these students:

- 62.3% did not go on to enrol in another qualification between 2017 and 2021.<sup>10</sup>
- 37.7% did go on to enrol in another qualification between 2017 to 2021.

Pathways between qualifications according to level of education were analysed for the 468 800 students who commenced a qualification in 2016 and went on to another commencing qualification enrolment between 2017 and 2021 (figure 7)<sup>11</sup>. The results are similar if compliance-only enrolments are included (Appendix E, figure E2; 6.2% of students had all compliance-only activity).

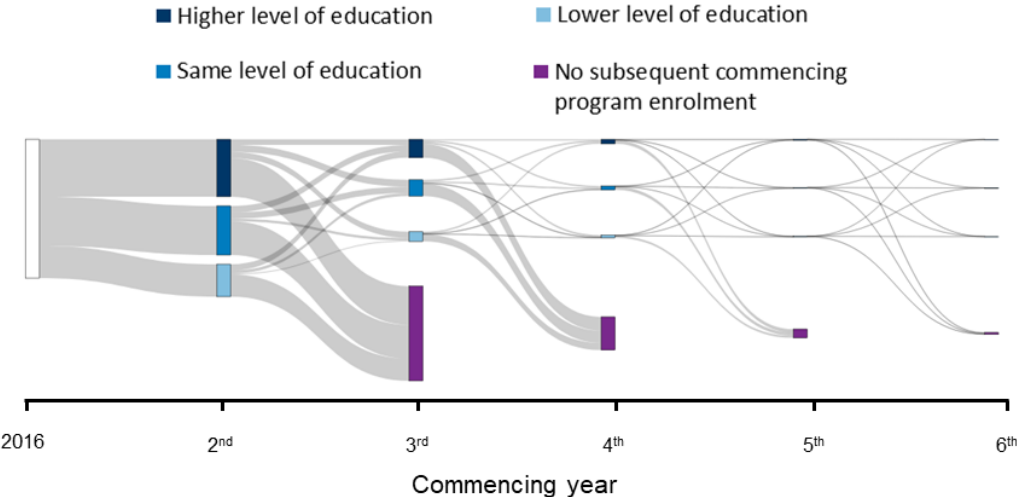
---

<sup>10</sup> These students may have undertaken a VET qualification prior to their 2016 commencing enrolment and/or they may go on to another qualification in 2022 or beyond.

<sup>11</sup> Pathways by level of education were not analysed for the 5.2% of students who had commencing enrolments across mixed levels of education in 2016. These may include students who studied multiple things concurrently or sequentially in 2016.

From their 2016 to their second commencing enrolment, students were more likely to go on to enrol in a qualification at the same (35.4%) or a higher (41.3%) level of education than at a lower level of education (23.4%). Most students did not continue to a third commencing enrolment, and very few students had commencing enrolments in every year between 2016 and 2021. For the students who did go on to a third commencing enrolment, a similar pattern is evident: figure 7 shows that the ribbons flowing into a higher or the same level of education are more substantial than the ribbons flowing into a lower level of education.

**Figure 7 Student movement between enrolments in qualifications, by level of education, 2016–21**



Note: Students who enrolled across mixed levels of education in 2016 and students who commenced a program in 2016 but did not commence another program between 2017 and 2021 are not shown in the figure. Compliance-only enrolments have been excluded. Source: NCVET Total VET Students and Courses, 2015–21.

**Comparing VET pathways for qualification completers and non-completers**

The analysis also investigated the distinct pathways taken by 262 300 completers and 232 000 non-completers of 2016 commencing qualifications. Importantly, students were treated as ‘completers’ for this analysis if they completed at least one of their 2016 commencing enrolments. For these students, any non-completed 2016 enrolments have not been analysed in this section. The group of ‘non-completers’ includes students with no completion for any of their 2016 commencing enrolments and no 2016 commencing enrolment still enrolled in 2021. For both completers and non-completers, any subsequent qualification enrolment between 2017 and 2021 was taken as movement to subsequent VET, regardless of whether the subsequent qualification was completed.

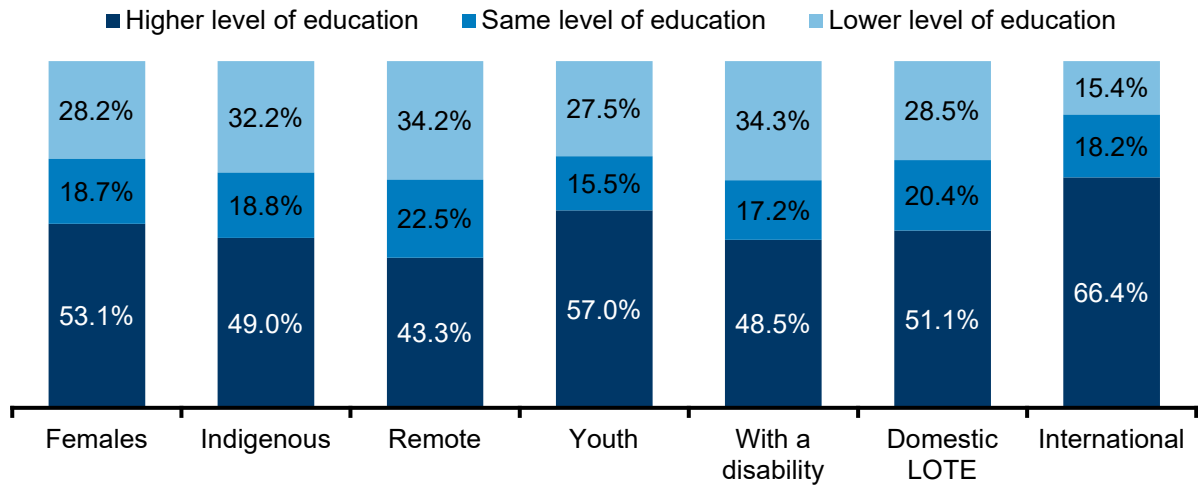
The broad finding was that movement to a higher level of education was more likely among qualification completers than among qualification non-completers. More than half (51.2%) of 2016 qualification completers who went on to another qualification enrolled at a higher level of education, compared with 31.5% of non-completers who went on to enrol in another VET qualification.

**Pathways by level of education for various student cohorts**

Rates of movement to higher, lower, and the same level of education for various student cohorts are shown in figure 8 (qualification completers) and figure 9 (qualification non-completers). The student cohorts analysed were the same as in the previous section.



**Figure 8 Pathways by level of education for 2016 commencing qualification completers, for selected student cohorts, 2016–21**



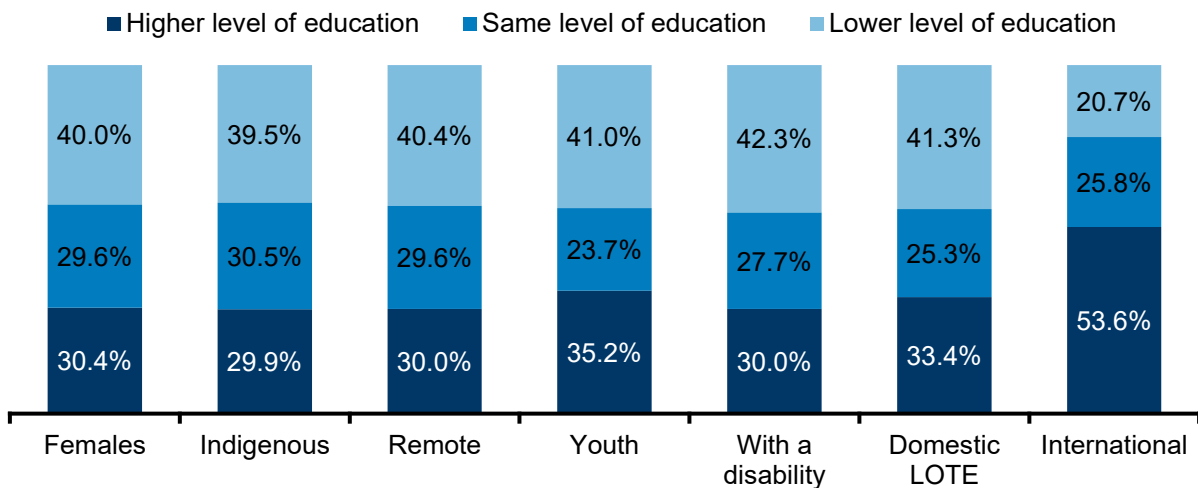
Note: Students who enrolled across mixed levels of education in 2016 and students who commenced a program in 2016 but did not commence another program between 2017 and 2021 are not shown in the figure.

Compliance-only enrolments have been excluded.

Source: NCVET Total VET Students and Courses, 2015–21.

Looking at students who completed one of their 2016 commencing qualifications (figure 8), we see that international students and youth had the highest rates of movement to qualifications at higher levels, whereas students with a disability and remote learners had the highest rates of movement to lower levels of education.

**Figure 9 Pathways by level of education for 2016 commencing qualification non-completers, for selected student cohorts, 2016–21**



Note: Students who enrolled across mixed levels of education in 2016 and students who commenced a program in 2016 but did not commence another program between 2017 and 2021 are not shown in the figure.

Compliance-only enrolments have been excluded.

Source: NCVET Total VET Students and Courses, 2015–21.

When comparing the results for completers of 2016 commencing qualifications (figure 8) with the results for students who did not complete a 2016 commencing qualification (figure 9), we see that rates of movement to a qualification at a higher level were lower for all the non-completer cohorts analysed, whereas rates of movement to a qualification at a lower or the same level of education were higher for all non-completer cohorts.

As was the case for completers, international students and youth who did not complete a 2016 commencing qualification had the highest rates of movement to qualifications at higher levels compared with the other cohorts analysed. Students with a disability and domestic LOTE students had the highest rates of movement to qualifications at lower levels of education compared with the other cohorts.

### Popular pathways by level of education

The most popular pathways between qualification enrolments by level of education are presented in appendix F, for movement to a higher (table F1), lower (table F2), or the same (table F3) level of education, separately for completers and non-completers of 2016 commencing qualifications.

Movement was generally to a qualification in a related area, for both 2016 qualification completers and non-completers, regardless of whether they went on to enrol in a qualification at a higher level, the same level, or a lower level of education.



## References

- Palmer, B 2021, An analysis of 'micro-credentials' in VET, NCVER, Adelaide, viewed May 2023, <<https://www.ncver.edu.au/research-and-statistics/publications/all-publications/an-analysis-of-micro-credentials-in-vet>>.
- Papadimitriou, D 2023, *National vocational education and training completions*, Skills SA, Adelaide, viewed 21 February 2024, <<https://skills.sa.gov.au/national-vet-completions>>.
- Stanwick, J & Siekmann, G 2019, *Are skill sets booming? An analysis of training package skill sets*, NCVER, Adelaide, viewed May 2023, <[https://www.ncver.edu.au/\\_\\_data/assets/pdf\\_file/0033/7863144/Are-skill-sets-booming.pdf](https://www.ncver.edu.au/__data/assets/pdf_file/0033/7863144/Are-skill-sets-booming.pdf)>.
- NCVER (National Centre for Vocational Education Research) 2022, *VET qualification-completion rates 2021*, NCVER, Adelaide, viewed September 2023, <<https://www.ncver.edu.au/research-and-statistics/publications/all-publications/vet-qualification-completion-rates-2021>>.
- NCVER (National Centre for Vocational Education Research) 2023, *VET qualification-completion rates 2022*, NCVER, Adelaide, viewed April 2024, <<https://www.ncver.edu.au/research-and-statistics/publications/all-publications/vet-qualification-completion-rates-2022>>.



# Appendix A – Longitudinal approach to analysis of student training activity

## Identifying unique students in VET administrative data

Where possible, the Master Student Longitudinal Data Construct identifies students using the USI. Where the USI has not been reported, a combination of encrypted student name, gender and date of birth is used as a secondary identification method.<sup>12</sup> Using this logic, students are assigned a Master Student Key.

Additional data cleansing is applied where data quality is not considered to be sufficiently robust to accurately identify students. Enrolment data are excluded from analysis for Master Student Keys where:

- a USI has been reported against dates of birth in more than one year (0.5% of students)
- neither a USI nor a date of birth have been reported (0.7% of students).

Table A1 shows the proportion of Master Student Keys associated with a USI for 2015–21, following the cleansing process described above.<sup>13</sup> USI coverage ranged from 71.5% in 2015 and has increased year on year to 96% in 2021.

**Table A1 USI coverage in the Master Student Longitudinal Data Construct, 2015–21**

Collection year	Total students	Students with a USI
2015	2 617 300	1 872 500 (71.5%)
2016	2 742 400	2 268 400 (82.7%)
2017	2 829 800	2 436 400 (86.1%)
2018	2 832 100	2 653 700 (93.7%)
2019	2 729 900	2 582 900 (94.6%)
2020	2 517 100	2 409 200 (95.7%)
2021	2 765 000	2 655 500 (96.0%)

Note. Student counts have been rounded to the nearest 100.  
Source: NCVET Total VET Students and Courses, 2015–21.

## Resolving inconsistencies in demographic information

Multiple enrolment records may exist for the same student in any given collection year, for example, if the student enrolled in more than one program. Demographic information submitted for the same student is not always consistent across records.

Conflicts can arise if:

- enrolment records are submitted with incomplete information, for example, if it is not known whether a language other than English is spoken at home
- data-entry errors have occurred, for example, the day and month of a student’s date of birth has been swapped across records

12 Training activity may not be identified as belonging to the same student if it has been submitted without a USI and with differences in the secondary keys. For example, if there is a discrepancy in the student’s name, date of birth or gender across training records, this will not be detected as belonging to the same student.

13 USI coverage for students under 18 years of age tends to be around 10% lower than for all students. This is partly because some jurisdictions do not report USIs for enrolments in ‘VET delivered to secondary school students’ programs. Tracking students is less robust in the absence of a USI, and pathways analysis may therefore be less accurate for young people.

- variables have had a genuine change over time, for example, a student may report not having a disability for one enrolment but may acquire a disability over time.

Within the National VET Provider Collection there is no way of knowing whether conflicting demographic information for the same student is valid or erroneous. In the context of NCVET's longitudinal approach to the analysis of student training activity, logic was applied to resolve any inconsistencies and to determine one set of demographic information for each student in each collection year.

The logic applied ignores any missing values, and searches for the majority value that has been reported for each demographic variable. Where there is no majority value, a value of 'mixed' is assigned. 'Mixed' values are treated as unknown in the analysis. With this logic, demographics for any available collection year can be examined, as appropriate to the research question.

## Building a longitudinal, student-centric view of training activity

Several preparatory steps are required to cleanse and collate training activity across collection years:

1. *Supersession*: NCVET applies a methodology to account for the supersession of subjects, programs and RTOs.<sup>14</sup> For this analysis, supersession has been applied such that subjects, programs and RTOs have been assigned the national identifiers that were current in 2021 (the latest data available). This means training activity can be tracked over time and program enrolments can be linked to their corresponding program completion records (where applicable), even when the identifier for the subject/program/RTO has changed through supersession.
2. *De-duplication*: the Total VET Activity dataset contains records on subject enrolments, program enrolments and program completions. These records are reported to NCVET through multiple submission pathways, and duplicate records are common. Once unique students have been identified and supersession has been taken into account, de-duplication is undertaken to remove:
  - multiple subject-enrolment records that exist for the same student in the same subject at the same RTO with the same 'activity start date'. In this case, the latest record is retained to ensure that the most up-to-date information on the subject outcome is analysed (whether ongoing, passed etc.)
  - multiple program enrolment records that exist for the same student in the same program at the same RTO in the same year
  - multiple program completion records that exist for the same student in the same program at the same RTO with the same completion year.
3. *Completion status*: once the program enrolment and completion records have been cleansed, linkage is applied if the enrolment and completion records share the same Master Student Key, superseded program identifier and (optionally<sup>15</sup>) superseded RTO identifier. An enrolment record can only be linked to a completion record if the enrolment year is the same or earlier than the completion year.

---

<sup>14</sup> Information about the equivalence of superseded training products is not available in the data.

<sup>15</sup> Linkage excluding RTO allows a completion record to be linked to corresponding enrolment records regardless of whether the student has changed providers, whereas linkage including RTO treats enrolments in the same program at different RTOs as distinct enrolments.

Furthermore, if an enrolment record links to multiple completion records (with different completion years), only the earliest valid completion record will be retained.<sup>16</sup>

4. *Collating program enrolments*: a student's enrolment in a VET program often spans multiple collection years. In NCVER's approach, a student's enrolment records are collated in the same program and (optionally) at the same RTO if the enrolments are reported in consecutive collection years and without an intervening completion record. The following information is derived for each distinct collated set of enrolment records:
- commencing year: the first year for this enrolment; to derive the commencing year, a corresponding enrolment must not be present in the preceding year
  - completion status: this could be a completion (a completion record has been linked), a continuing enrolment (an enrolment record exists in the latest available year of data), or a non-completion (no completion record has been linked and/or there has been a break in series)
  - completion year (if a completion record has been linked).

Once the training activity data have been prepared, activity can be aggregated, summarised and analysed across various levels of analysis, including subjects, programs (collated across years and including information on the year of commencement, program outcome and completion year if applicable), RTOs and students.

---

<sup>16</sup> This can occur if a student successfully completes the same program at the same RTO multiple times. For example, Course in First Aid Management of Anaphylaxis (22300VIC) was a short-duration course, valid for three years from completion date, with annual refresher training recommended for workers in education or childcare.

# Appendix B – Identifying compliance activity

A two-step approach was used to identify subjects with a compliance purpose. The first step was a key-word approach, based on Palmer (2021). The key-word matching was applied to subjects delivered as part of a nationally recognised program in 2016 and stand-alone subject enrolments between 2016 and 2021.

The second step drew on our longitudinal analysis approach to examine repeat training. This analysis of repeat training identified stand-alone subjects that students had undertaken successfully multiple times between 2016 and 2021. This second step was included to complement Palmer’s approach, given the heavy emphasis on skills maintenance in compliance training.

## Key-word matching

Palmer (2021) conducted exploratory analyses into stand-alone subject activity in VET and found that a significant volume of this training appeared to serve a compliance or regulatory role. Palmer proposed a framework to categorise these subjects as addressing one or more of workplace safety, emergency preparedness, and authority to operate. The framework was based on a pattern-matching approach applied to the subject name and/or the subject identifier.

The current research used the keywords identified by Palmer to identify compliance activity among subjects with least 100 enrolments in a year. The following terms included for key-word matching:

- subject identifier includes:
  - ‘WHS’, ‘PUAFIR’
- subject name includes:
  - ‘WHS’, ‘health and safety’, ‘safely’, ‘safe work’, ‘safe operation’, ‘workplace safety’, ‘food safety’, ‘manual handling’, ‘hazard’, ‘HACCP’
  - ‘first aid’, ‘fire’, ‘firearm’, ‘crisis situation’, ‘rescue’
  - ‘licence’, ‘scaffolding’, ‘crane’, ‘forklift’, ‘platform’, ‘excavator’, ‘dozer’, ‘roller’, ‘loader’, ‘load and unload goods’, ‘truck’, ‘quad’, ‘4WD’, ‘four wheel drive’, ‘rigid vehicle’, ‘operate a light vehicle’, ‘combination vehicle’, ‘drive and manoeuvre trailers’, ‘utility vehicle’, ‘operate vehicles in the field’, ‘chipper/mulcher’, ‘telescopic materials handler’, ‘chainsaw’, ‘asbestos’, ‘weld’, ‘underground lifting operations’, ‘traffic’

Based on visual inspection of the subject names, the following additional keywords were included for key-word matching:

- subject name includes:
  - ‘infection’, ‘survival’, ‘incident’, ‘emergency’, ‘anaphylaxis’, ‘commercial vehicle’.

## Repeat training

In addition to the key-word approach, repeat training activity in stand-alone subjects was examined. This step involved identifying students who had completed the same stand-alone subject with an

outcome of ‘Competency achieved/Pass’ two or more times between 2016 and 2021. Subjects with very low levels of repeat activity were excluded; each of these excluded subjects had fewer than 1487 repeat enrolments between 2016 and 2021, which accounted for less than 0.01% of repeat enrolments in this period.

## Identifying compliance activity among subject enrolments

The two-step process described above identified a total of 704 compliance subjects.<sup>17</sup> In 2016, these subjects accounted for 80.5% of enrolments in stand-alone subjects and 16.4% of subject enrolments that were delivered as part of a program enrolment.

Table B1 presents the most popular compliance subjects or bundles of subjects that were undertaken as stand-alone subject enrolments in 2016. These align closely with Palmer’s (2021) findings.

**Table B1 Popular compliance stand-alone subjects and subject bundles, 2016**

Subject name/s	Subject identifier/s	Number of enrolments
Provide Cardiopulmonary Resuscitation	HLTAID009	368 000
Provide Cardiopulmonary Resuscitation + Provide Basic Emergency Life Support + Provide First Aid	HLTAID009 HLTAID010 HLTAID011	280 000
Prepare to Work Safely in the Construction Industry	CPCCWHS1001	137 000
Provide First Aid	HLTAID011	133 000
Provide responsible service of alcohol	SITHFAB002	120 000

Note. Enrolment counts have been rounded to the nearest 1000.

Source: NCVET Total VET Students and Courses, 2016.

## Identifying compliance-only program enrolments

After identifying compliance subjects, they were mapped to the subjects in which students had enrolled as part of a VET program. For each program enrolment, the proportion of compliance subjects in which students were enrolled as part of that program was calculated. Program enrolments were then flagged if 100% of the associated subject activity was compliance activity. These enrolments were removed from much of the analysis, as indicated throughout.

## Identifying skillsets and courses associated with compliance

As well as identifying compliance activity among subjects and mapping these to program enrolments, the analysis identified compliance activity among accredited courses and training package skillsets, using the combination of key word and repeat training described above.

A total of 59 accredited courses and training package skillsets were identified using the two-step approach. In 2016, these programs accounted for 58.4% of all enrolments in accredited courses and training package skillsets.

<sup>17</sup> Of the 704 subjects identified, 603 were identified using the key-word approach only, 38 were identified using the repeat training approach only, and 63 were identified by both approaches.



Table B2 shows the most popular compliance skillsets and courses in 2016. There is overlap between the compliance subjects offered through skillsets and courses and those that students undertook as stand-alone enrolments.

**Table B2 Popular compliance training package skillsets and accredited courses, 2016**

<b>Skillset/Accredited course</b>	<b>Subject/s</b>	<b>Number of enrolments</b>
Course in First Aid Management of Anaphylaxis 22300VIC	Provide first aid management of anaphylaxis (VU21800) + Develop risk minimisation and risk management strategies for anaphylaxis (VU21801)	18 000
Management of Asthma Risks & Emergencies in the Workplace 22282VIC	Manage asthma risks and emergencies in the workplace (VU21658)	17 000
Responsible Service of Alcohol SITSS00055	Provide responsible service of alcohol (SITHFAB002)	15 000
Traffic Management Implementer Skill Set RIISS00055	Communicate in the workplace (RIICOM201E) + Work safely and follow WHS policies and procedures (RIIWHS201E) + Implement traffic management plans (RIIWHS302E)	6 000
Course in Firearms Safety 30989QLD	Demonstrate knowledge of firearms legislation, firearms and community safety (WSCQPS001A) + Demonstrate use of Category A and B firearms safely (WSCQPS002A)	6 000

Note. Enrolment counts have been rounded to the nearest 1000.

Source: NCVET Total VET Students and Courses, 2016.

# Appendix C – Qualification completion-rates analysis by funding source

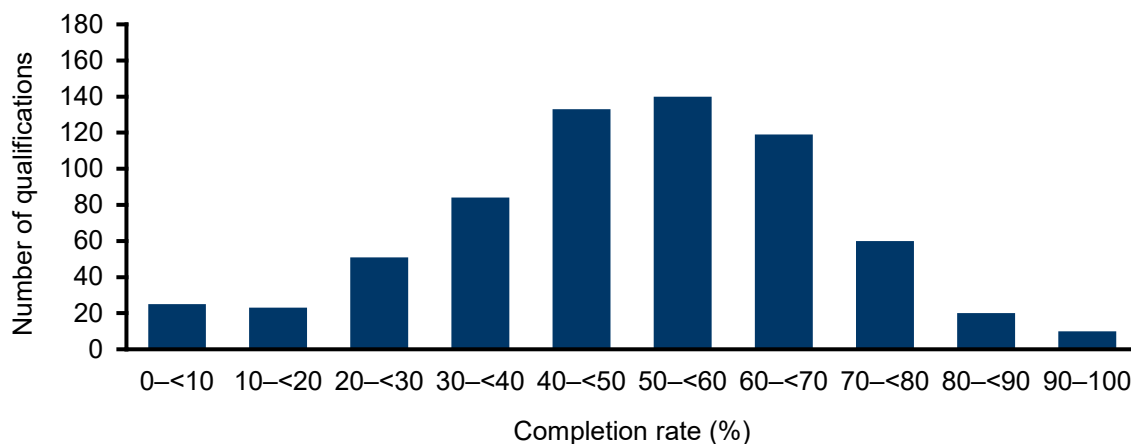
The results presented here provide:

- an analysis of qualification-completion rates, separately for government-funded, domestic fee-for-service and international fee-for-service activity
- a comparison of qualification-completion rates with and without the inclusion of compliance-only enrolments, split by funding source
- subject outcomes for non-completers of low completion rate qualifications, separately for government-funded, domestic fee-for-service and international fee-for-service activity
- a comparison of subject outcomes for non-completers of low completion rate qualifications, with and without the inclusion of compliance-only enrolments, split by funding source.

## Completion-rate distributions by funding source

Government-funded activity accounts for 56.1% of enrolments, across 665 qualifications, after excluding compliance-only enrolments. The distribution of qualifications by completion rate for government-funded activity is shown in figure C1.

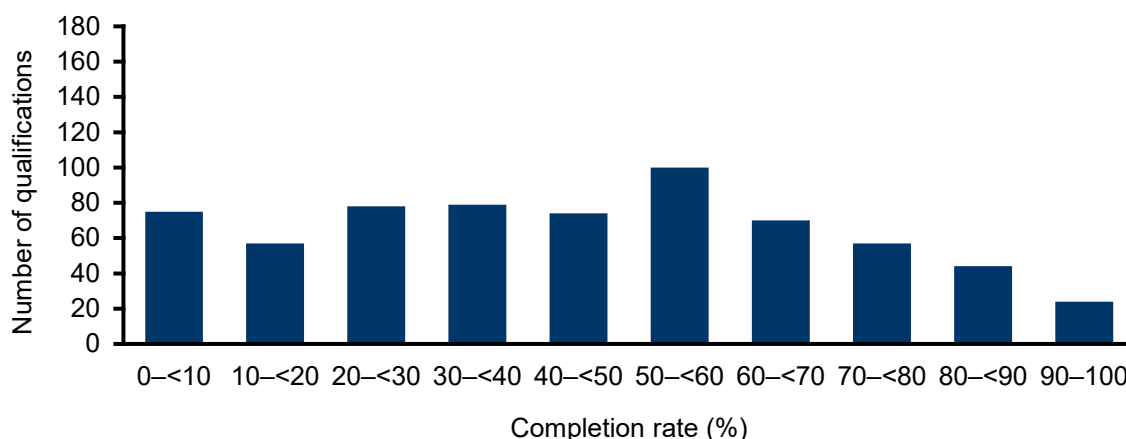
**Figure C1 Distribution of completion rates by qualification for 2016 commencing enrolments: government-funded activity**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.

Domestic fee-for-service activity accounts for 34.9% of enrolments, across 658 qualifications, after excluding compliance-only enrolments. The distribution of qualifications by completion rate for domestic fee-for-service activity is shown in figure C2.

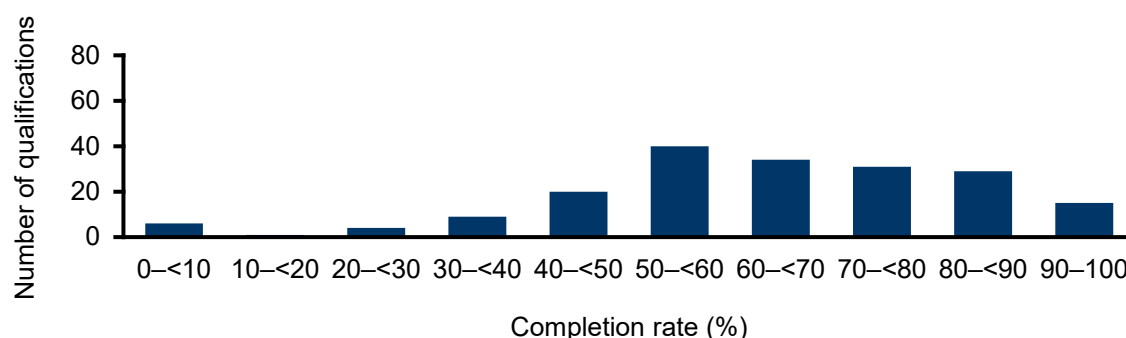
**Figure C2 Distribution of completion rates by qualification for 2016 commencing enrolments: domestic fee-for-service activity**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.

International fee-for-service activity accounts for just 8.9% of enrolments, across 189 qualifications, after excluding compliance-only enrolments. The distribution of qualifications by completion rate for international fee-for-service activity is shown in figure C3.

**Figure C3 Distribution of completion rates by qualification for 2016 commencing enrolments: international fee-for-service activity**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.

Table C1 summarises the differences in completion rates for the lowest and highest 25% of qualifications for government-funded, domestic fee-for-service, and international fee-for-service activity.

**Table C1 Distribution of completion rates across qualifications, by funding source, 2016 commencing enrolments**

	Number of qualifications	Qualification-completion rates		
		Bottom 25%	Middle 50%	Top 25%
Government-funded	665	0–38.2%	38.3%–62.7%	62.9–98.5%
Domestic fee-for-service	658	0–24.7%	24.8%–63.8%	64.0–100%
International fee-for-service	189	0–51.9%	52.2%–78.1%	78.9–100%

Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.

Table C2 shows the distribution of completion rates across qualifications when compliance-only enrolments are included and when they are excluded, split by funding source.

**Table C2 Count of qualifications by completion rate, 2016 commencing enrolments, by funding source, with and without compliance-only enrolments**

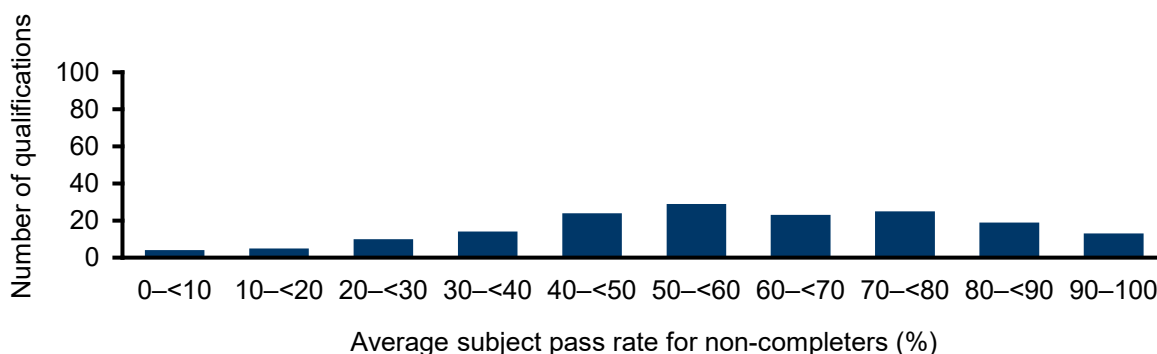
	Qualification-completion rate (%)									
	0–<10	10–<20	20–<30	30–<40	40–<50	50–<60	60–<70	70–<80	80–<90	90–100
<b>Government-funded</b>										
With compliance-only enrolments	28	29	59	100	128	136	112	55	16	10
Without compliance-only enrolments	25	23	51	84	133	140	119	60	20	10
	(-3)	(-6)	(-8)	(-16)	(+5)	(+4)	(+7)	(+5)	(+4)	(+/-0)
<b>Domestic fee-for-service</b>										
With compliance-only enrolments	103	67	75	88	77	99	68	52	37	21
Without compliance-only enrolments	75	57	78	79	74	100	70	57	44	24
	(-28)	(-10)	(+3)	(-9)	(-3)	(+1)	(+2)	(+5)	(+7)	(+3)
<b>International fee-for-service</b>										
With compliance-only enrolments	14	1	5	10	22	41	37	31	27	14
Without compliance-only enrolments	6	1	4	9	20	40	34	31	29	15
	(-8)	(+/-0)	(-1)	(-1)	(-2)	(-1)	(-3)	(+/-0)	(+2)	(+1)

Source: NCVET Total VET Students and Courses, 2015–21.

## Subject activity for non-completers of low completion rate qualifications, by funding source

The following figures present the analyses of qualifications with low completion rates<sup>18</sup> for the 2016 commencing cohort. For government-funded activity (figure C4), there were 166 qualifications with completion rates of 38.2% or lower, which accounted for 19.4% of government-funded enrolments.

**Figure C4 Average subject pass rates by qualification for non-completers, for low completion rate qualifications: government-funded activity**



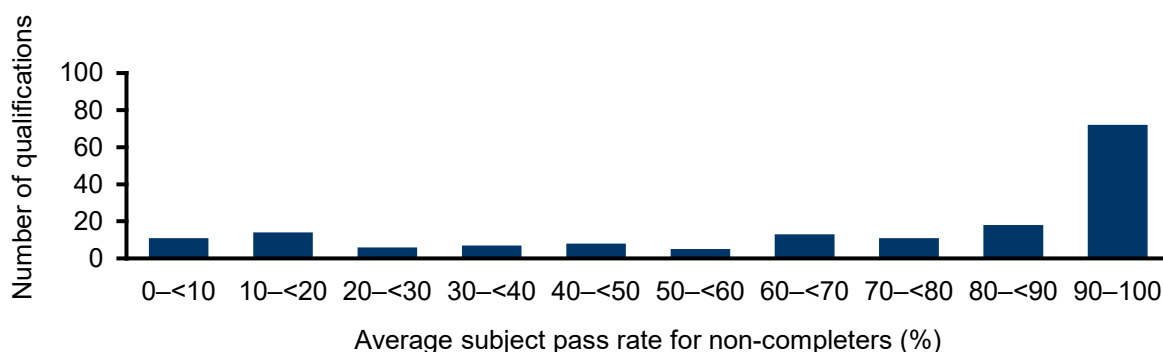
Note: Compliance-only enrolments have been excluded.

Source: NCVET Total VET Students and Courses, 2015–21.

For qualifications with low completion rates, the average subject pass rates for students who did not complete is shown in figure C5 for domestic fee-for-service activity and in figure C6 for international fee-for-service activity. For domestic fee-for-service activity, there were 165 qualifications, which accounted for 21.1% of domestic fee-for-service enrolments. For international fee-for-service activity, there were only 47 qualifications with low completion rates. (They accounted for 19.7% of international fee-for-service enrolments.)

<sup>18</sup> Low completion rates have been defined based on the 25% of qualifications with the lowest completion rates.

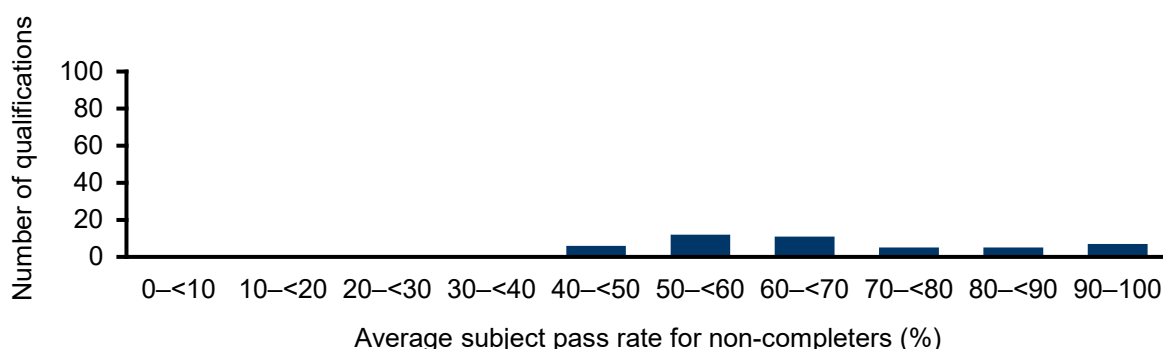
**Figure C5 Average subject pass rates by qualification for non-completers, for low completion rate qualifications: domestic fee-for-service activity**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015-21.

For international fee-for-service activity, there were only 47 qualifications with low completion rates, which accounted for 19.7% of international fee-for-service enrolments.

**Figure C6 Average subject pass rates by qualification for non-completers, for low completion rate qualifications: international fee-for-service activity**



Note: Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015-21.

Table C3 gives the distribution of subject pass rates for non-completers of low completion rate qualifications. The data are shown with and without compliance-only enrolments, split by funding source.

**Table C3 Count of qualifications by average subject pass rate, for non-completers of low completion rate qualifications, by funding source, 2016 commencing enrolments**

	Average subject pass rate for non-completers (%)									
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
<b>Government-funded</b>										
With compliance-only enrolments	4	5	6	12	18	25	27	26	25	20
Without compliance-only enrolments	4	5	10	14	24	29	23	25	19	13
	(+/-0)	(+/-0)	(+4)	(+2)	(+6)	(+4)	(-4)	(-1)	(-6)	(-7)
<b>Domestic fee-for-service</b>										
With compliance-only enrolments	10	10	7	5	2	5	8	8	19	98
Without compliance-only enrolments	11	14	6	7	8	5	13	11	18	72
	(+1)	(+4)	(-1)	(+2)	(+6)	(+/-0)	(+5)	(+3)	(-1)	(-26)
<b>International fee-for-service</b>										
With compliance-only enrolments	1	0	0	0	5	11	8	6	4	16
Without compliance-only enrolments	1	0	0	0	6	12	11	5	5	7
	(+/-0)	(+/-0)	(+/-0)	(+/-0)	(+1)	(+1)	(+3)	(-1)	(+1)	(-9)

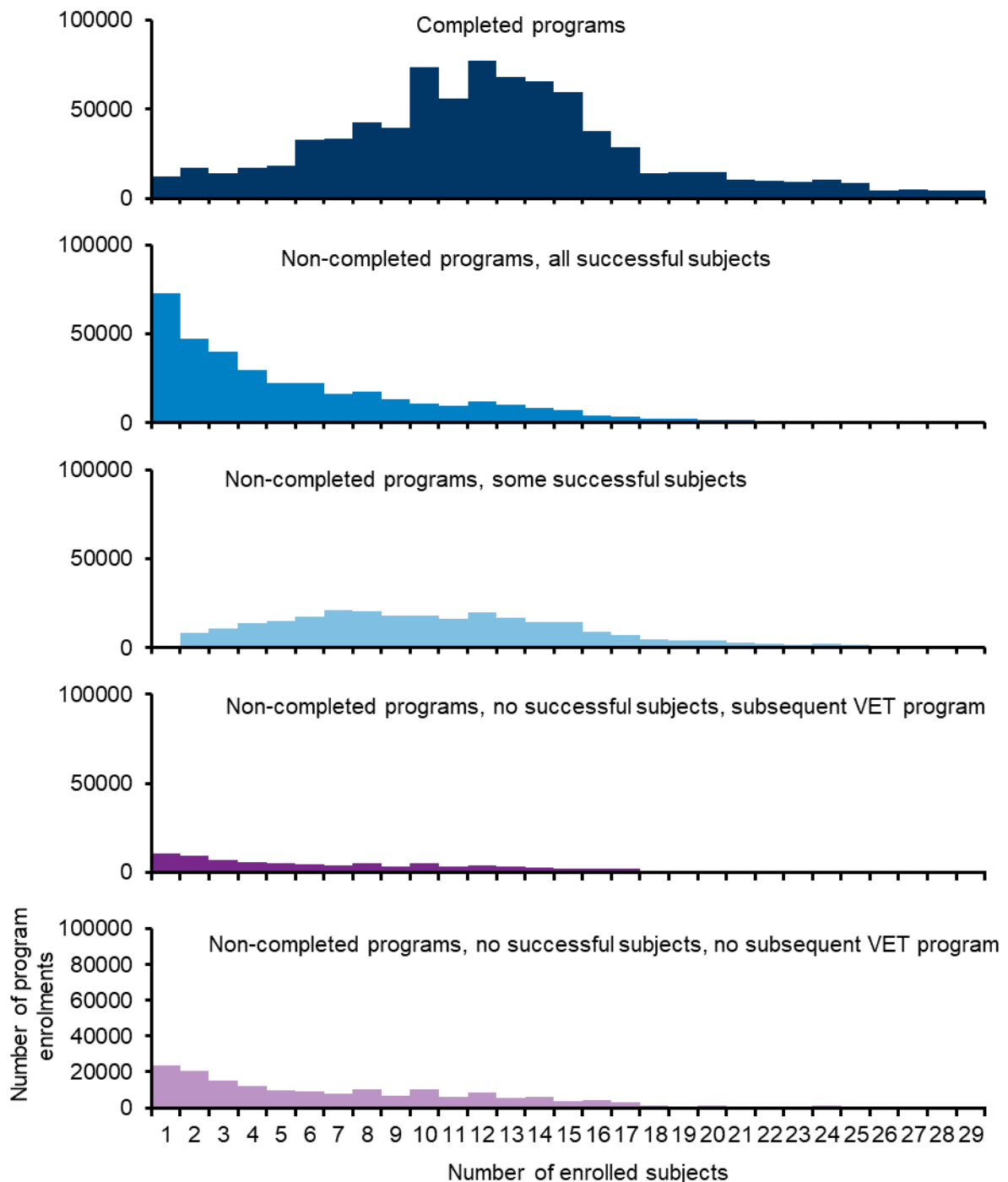
Source: NCVET Total VET Students and Courses, 2015-21.

# Appendix D – Supplementary data for analysis of training outcomes

## Subject-enrolment patterns

Figure D1 demonstrates the dispersion of program enrolments according to the number of subjects in which students had enrolled, for each of the student outcome groups.

**Figure D1 2016 commencing program enrolments by number of enrolled subjects, split by student outcome group**



Note. Programs with 30 or more subject enrolments are not shown. Compliance-only enrolments have been excluded.

## Accessing compliance subjects via programs

Table D1 gives the number of students across the student outcome groups when compliance-only enrolments are included and when they are excluded.

**Table D1 Outcome groups, 2016 commencing students, with and without compliance-only enrolments**

	Program completers	Program non-completers, all subjects	Program non-completers, some but not all subjects	Program non-completers, no subjects passed, subsequent VET	Program non-completers, no subjects passed, no subsequent VET
With compliance-only enrolments	784 200 (46.0%)	460 800 (27.0%)	210 500 (12.3%)	83 600 (4.9%)	165 600 (9.7%)
Without compliance-only enrolments	730 700 (49.5%)	291 900 (19.8%)	214 200 (14.5%)	79 700 (5.4%)	160 700 (10.9%)

Note. Student counts have been rounded to the nearest 100.

Source: NCVET Total VET Students and Courses, 2015–21.

Table D2 looks at how compliance-only enrolments affect the distribution presented in figure D1. The data compare patterns in the number of subjects in which students enrolled, with and without the inclusion of compliance-only enrolments, split by the student outcome groups.

**Table D2 Counts of program enrolments by number of enrolled subjects, by student outcome group, 2016 commencing enrolments**

	Number of enrolled subjects									
	1	2	3	4	5	6	7	8	9	10
<b>Completed programs</b>										
With compliance-only enrolments	55 000	45 000	17 000	19 000	19 000	33 000	34 000	43 000	40 000	74 000
Without compliance-only enrolments	12 000 (-77.9%)	17 000 (-62.4%)	14 000 (-20.4%)	17 000 (-8.3%)	19 000 (-3.8%)	33 000 (-0.6%)	34 000 (-0.3%)	43 000 (-0.3%)	40 000 (-0.6%)	74 000 (-0.8%)
<b>Non-completed programs, all subjects passed</b>										
With compliance-only enrolments	228 000	83 000	59 000	39 000	24 000	23 000	17 000	18 000	14 000	11 000
Without compliance-only enrolments	73 000 (-68.1%)	47 000 (-43.2%)	40 000 (-32.1%)	30 000 (-24.2%)	23 000 (-6.4%)	22 000 (-3.5%)	17 000 (-3.8%)	18 000 (-1.0%)	14 000 (-1.5%)	11 000 (-1.0%)
<b>Non-completed programs, some but not all subjects passed</b>										
With compliance-only enrolments	-	9 000	11 000	14 000	15 000	18 000	21 000	21 000	18 000	18 000
Without compliance-only enrolments	-	8 000 (-6.5%)	11 000 (-3.6%)	14 000 (-1.1%)	15 000 (-0.5%)	17 000 (-0.2%)	21 000 (-0.1%)	21 000 (-0.2%)	18 000 (-0.4%)	18 000 (-0.1%)
<b>Non-completed programs, no subjects passed, subsequent VET program</b>										
With compliance-only enrolments	14 000	10 000	8 000	6 000	5 000	5 000	4 000	5 000	4 000	5 000
Without compliance-only enrolments	11 000 (-20.0%)	9 000 (-6.4%)	7 000 (-11.7%)	6 000 (-0.9%)	5 000 (-0.9%)	5 000 (+0.1%)	4 000 (+0.3%)	5 000 (-0.1%)	3 000 (-2.6%)	5 000 (+0.2%)
<b>Non-completed programs, no subjects passed, no subsequent VET program</b>										
With compliance-only enrolments	28 000	22 000	16 000	12 000	10 000	9 000	8 000	10 000	7 000	10 000
Without compliance-only enrolments	24 000 (-17.3%)	21 000 (-6.4%)	15 000 (-8.4%)	12 000 (+1.1%)	10 000 (+0.6%)	9 000 (+1.4%)	8 000 (+1.6%)	10 000 (+1.6%)	7 000 (+1.2%)	10 000 (+2.3%)

Note: Program enrolments with more than 10 subjects are not shown in the table above. The presence of compliance-only enrolments is heavily concentrated in enrolments with a small number of enrolled subjects. Enrolment counts have been rounded to the nearest 1000.

Source: NCVET Total VET Students and Courses, 2015–21.

Table D3 gives the most popular subjects/subject bundles for non-completers with all successful subject outcomes; in other words, subjects or bundles that were successfully completed as part of an enrolment in a nationally recognised program, although the program was not completed.



**Table D3 Top 10 most popular subjects or bundles of subjects undertaken by program non-completers with all subjects having successful outcomes, 2016 commencing programs**

Subject bundle	# enrolments	# programs	Top programs (% of total enrolments for group, by subject/bundle)
Prepare to work safely in the construction industry (CPCCWHS1001)	34 000	54	Certificate I in Construction CPC10120 (92.9%)
Safely access the rail corridor (TLIF0020)	13 000	7	Certificate II in Track Protection TLI21921 (64.7%) Certificate II in Rail Infrastructure TLI27121 (31%) Skillset – Responsible Service of Alcohol SITSS00055 (47.5%)
Provide responsible service of alcohol (SITHFAB002)	13 000	25	Certificate II in Hospitality SIT20316 (19.4%) Certificate IV in Hospitality SIT40416 (17.8%) Certificate III in Hospitality SIT30616 (8.8%) Certificate III in Civil Construction Plant Operations RII30820 (45.1%)
Work safely at heights (RIIWHS204E)	9 000	24	Certificate II in Surface Extraction Operations RII20220 (26.2%) Certificate II in Resources and Infrastructure Work Preparation RII20120 (9.8%) Certificate III in Civil Construction RII30920 (7.9%) Certificate III in Supply Chain Operations TLI30321 (34.6%)
Licence to operate a forklift truck (TLILIC0003)	8 000	34	Certificate III in Dogging CPC30511 (16%) Certificate II in Supply Chain Operations TLI20421 (13.7%) Certificate II in Construction CPC20120 (7.8%) Certificate III in Individual Support CHC33015 (9.8%) Certificate III in Surface Extraction Operations RII30120 (8.7%) Certificate III in Hospitality SIT30616 (7.6%)
Provide first aid (HLTAID011)	7 000	129	Certificate III in Wool Clip Preparation AHC33016 (6.3%) Certificate III in Basic Health Care HLT31220 (5.9%) Certificate III in Civil Construction Plant Operations RII30820 (5.5%) Certificate II in Community Services CHC22015 (5.2%) Certificate II in Kitchen Operations SIT20416 (46.6%) Certificate II in Hospitality SIT20316 (10.9%) Certificate III in Hospitality SIT30616 (10.3%) Certificate III in Catering Operations SIT30916 (9.7%) Skillset – Food Handling SITSS00050 (7.0%) Certificate I in Hospitality SIT10216 (6.9%)
Use hygienic practices for food safety (SITXFSA001)	5 000	29	Certificate III in Hospitality SIT30616 (10.3%) Certificate III in Catering Operations SIT30916 (9.7%) Skillset – Food Handling SITSS00050 (7.0%) Certificate I in Hospitality SIT10216 (6.9%)
Communicate in the workplace (RIICOM201E)			
Work safely and follow WHS policies and procedures (RIIWHS201E)	4 000	3	Skillset – Traffic Controller RIISS00054 (97.0%)
Control traffic with stop-slow bat (RIIWHS205E)			
Identify and report asbestos materials and/or products (ASBIRA001A)	4 000	1	Course in Asbestos Awareness 10314NAT (100.0%)
Provide cardiopulmonary resuscitation (HLTAID009)	3 000	52	Certificate III in Aquatics and Community Recreation SIS31015 (20.4%) Certificate III in Health Services Assistance HLT33115 (12.5%)

Certificate IV in Work Health and Safety BSB41419 (10.0%)  
Certificate II in Transmission Structure and Line Assembly UET20421 (7.7%)  
Certificate III in Early Childhood Education and Care CHC30121 (6.4%)  
Certificate III in Sport and Recreation SIS30115 (5.6%)

---

Note: Top programs had at least 100 commencing enrolments in 2016 and accounted for at least 5% of enrolments for the subject/bundle by the non-completer group with all successful subjects. Enrolment counts have been rounded to the nearest 1000.

Source: NCVET Total VET Students and Courses, 2015–21.

## Comparing student outcome profiles by selected training and student attributes

Table D4 shows the top 10 popular subjects or bundles of subjects for program non-completers with successful subject outcomes for all subjects.

**Table D4 Student outcome group membership by selected training and student attributes, 2016 commencing students**

	Program completers	Program non-completers, all subjects	Program non-completers, some but	Program non-completers, no subjects passed, subsequent VET	
<b>Type of training</b>					
Training package qualifications	53.3%	18.5%	13.3%	5.0%	9.9%
Accredited qualifications	45.1%	23.2%	18.4%	5.0%	8.4%
Accredited courses	45.1%	36.3%	9.7%	2.7%	6.2%
Training package skillsets	51.0%	32.9%	3.2%	4.1%	8.8%
<b>Funding source</b>					
Government-funded	54.5%	18.0%	16.5%	4.6%	6.5%
Domestic fee-for-service	45.2%	23.7%	9.4%	6.1%	15.6%
International fee-for-service	67.0%	12.4%	12.7%	2.0%	5.9%
<b>Level of education</b>					
Certificate I/II	51.7%	24.9%	14.3%	3.1%	5.9%
Certificate III/IV	54.5%	18.7%	13.4%	4.4%	8.9%
Diploma and above (Government-funded)	54.9%	9.1%	18.4%	8.0%	9.6%
Diploma and above (Fee-for-service)	45.9%	12.5%	12.8%	9.1%	19.7%
<b>Previous highest educational achievement</b>					
Below Year 10/Certificate I	48.7%	24.1%	13.4%	4.4%	9.4%
Year 10/Certificate I	49.7%	19.1%	17.1%	4.8%	9.3%
Year 11/Certificate II	51.2%	22.3%	14.1%	4.9%	7.6%
Year 12	53.3%	18.0%	14.2%	5.0%	9.5%
Certificate III/IV	53.2%	17.6%	12.5%	6.0%	10.7%
Diploma/Advanced diploma	56.5%	16.2%	10.6%	5.2%	11.4%
Bachelor and above	58.1%	17.7%	9.7%	3.5%	11.0%
<b>Full-time status at commencement</b>					
Full-time	73.8%	10.3%	10.2%	2.2%	3.5%
Part-time	45.7%	22.3%	14.7%	5.7%	11.5%
<b>Labour force status at commencement</b>					
Employed	54.6%	18.9%	11.9%	4.7%	9.8%
Unemployed	49.9%	15.2%	15.8%	7.1%	12.0%
Not in the labour force	47.7%	20.4%	16.7%	6.0%	9.4%

Note: Compliance-only enrolments have been excluded.

Source: NCVET Total VET Students and Courses, 2015–21.

## Comparing student outcome profiles for selected student cohorts

Table D5 presents data for all students and for various student cohorts, split by the student outcome groups, including:

- the median age of students, in years
- the number of program enrolments, also expressed as a percentage of all enrolments for the cohort across all outcome groups
- for all students, the percentage of enrolments by type of training, level of education and study mode at commencement
- for the student cohorts, the percentage-point difference in enrolments for the cohort compared with all students, by type of training, level of education and study mode at commencement.

For example, there were 451 000 enrolments for female program completers, which accounted for 52.6% of all enrolments for female students. For female program completers, training package qualifications accounted for fewer enrolments than for all students, by 1.4 percentage points, while accredited qualifications accounted for more enrolments, by 1.3 percentage points.

**Table D5 Analysis of program enrolments for student cohorts, split by student outcome groups, 2016 commencing enrolments**

	Median age (years)	Enrolments (% of total for student cohort)	Type of training			Level of education			Study mode	
			Training package qualifications	Accredited qualifications	Accredited courses and training package skillsets	Certificate I/II	Certificate III/IV	Diploma and above	Full-time at commencement	
<b>Completed programs</b>										
All students	25	930 000 (52.3%)	88.3%	8.9%	2.8%	27.0%	52.0%	18.2%	33.0%	
Females	26	451 000 (52.6%)	-1.4%	+1.3%	+0.1%	-3.8%	-0.6%	+4.2%	+1.1%	
Indigenous	21	49 000 (45.6%)	-2.4%	+1.4%	+0.9%	+17.3%	-10.2%	-8.1%	-3.5%	
Remote residence	25	24 000 (47.9%)	+1.8%	-2.9%	+1.1%	+15.4%	-6.0%	-10.5%	-7.1%	
Youth	18	453 000 (54.0%)	+1.0%	+0.5%	-1.5%	+13.7%	-7.9%	-4.3%	-3.9%	
Disability	25	53 000 (47.4%)	-8.2%	+5.7%	+2.5%	+12.6%	-7.9%	-7.2%	+4.8%	
Domestic LOTE	32	121 000 (51.7%)	-9.3%	+7.9%	+1.4%	-0.3%	-0.1%	-1.1%	+5.4%	
International	25	104 000 (66.9%)	-1.5%	+3.9%	-2.3%	-18.7%	-2.4%	+23.4%	+10.3%	
<b>Non-completed programs, all subjects passed</b>										
All students	27	347 000 (19.5%)	82.2%	12.3%	5.5%	34.9%	47.8%	11.7%	12.4%	
Females	27	139 000 (16.2%)	-1.2%	+0.9%	+0.3%	-6.2%	+0.2%	+5.8%	+1.4%	
Indigenous	25	20 000 (18.7%)	-2.6%	+0.8%	+1.7%	+17.4%	-13.1%	-6.0%	-3.8%	
Remote residence	32	12 000 (24.4%)	+3.5%	-5.7%	+2.3%	+6.9%	-2.2%	-6.8%	-5.4%	
Youth	17	151 000 (18.0%)	+1.6%	+1.3%	-2.9%	+9.0%	-2.3%	-3.7%	+0.2%	
Disability	29	19 000 (17.5%)	-8.4%	+5.8%	+2.6%	+18.3%	-15.3%	-5.4%	-2.4%	
Domestic LOTE	34	43 000 (18.4%)	-20.8%	+17.1%	+3.8%	+4.4%	-6.7%	-1.4%	+2.9%	
International	26	19 000 (12.4%)	+5.3%	-0.4%	-4.9%	-27.0%	-4.3%	+36.3%	+18.6%	
<b>Non-completed programs, some but not all subjects passed</b>										
All students	23	243 000 (13.7%)	84.5%	13.8%	1.7%	28.7%	49.0%	20.6%	17.5%	
Females	25	120 000 (14.0%)	-0.1%	-0.2%	+0.3%	-4.6%	-0.7%	+4.9%	+0.4%	
Indigenous	20	17 000 (16.0%)	+2.9%	-2.2%	-0.7%	+15.4%	-7.1%	-7.6%	-3.8%	
Remote residence	23	6 000 (12.0%)	+3.5%	-3.2%	-0.3%	+16.7%	-6.4%	-10.0%	-9.1%	
Youth	18	131 000 (15.6%)	+3.1%	-1.8%	-1.3%	+10.1%	-3.8%	-4.9%	+0.1%	
Disability	27	20 000 (17.9%)	-5.4%	+4.6%	+0.8%	+6.6%	-0.9%	-6.5%	+3.1%	
Domestic LOTE	33	38 000 (16.2%)	-26.1%	+20.6%	+5.5%	+6.6%	-6.3%	-5.9%	+3.8%	
International	25	20 000 (12.7%)	+3.3%	-1.7%	-1.6%	-22.2%	-0.7%	+24.5%	+13.1%	

<b>Non-completed programs, no subjects passed, subsequent VET program</b>									
All students	26	87 000 (4.9%)	87.6%	10.4%	2.0%	17.4%	44.9%	35.7%	10.3%
Females	26	51 000 (5.9%)	+0.5%	-0.6%	+0.1%	-3.3%	-0.8%	+4.0%	+0.5%
Indigenous	23	9 000 (8.1%)	+1.6%	-1.2%	-0.5%	+9.6%	-4.7%	-4.4%	-1.3%
Remote residence	27	3 000 (5.2%)	+1.9%	-2.0%	+0.1%	+13.9%	-1.6%	-12.4%	-4.0%
Youth	19	41 000 (4.8%)	+1.7%	-0.5%	-1.2%	+8.3%	-2.8%	-4.2%	+0.4%
Disability	27	7 000 (6.5%)	-3.5%	+2.9%	+0.6%	+6.5%	+0.6%	-7.7%	+1.7%
Domestic LOTE	32	11 000 (4.7%)	-22.3%	+17.7%	+4.6%	+7.2%	+0.1%	-11.9%	+3.3%
International	25	3 000 (2.1%)	-6.3%	+8.1%	-1.8%	-9.2%	+0.2%	+10.8%	+5.3%
<b>Non-completed programs, no subjects passed, no subsequent VET program</b>									
All students	29	172 000 (9.7%)	88.8%	8.9%	2.3%	16.8%	45.9%	35.0%	8.5%
Females	30	97 000 (11.3%)	+0.5%	-0.5%	+0.0%	-2.7%	+0.0%	+2.7%	-0.1%
Indigenous	25	12 000 (11.6%)	+1.4%	-1.1%	-0.2%	+13.1%	-14.2%	+1.4%	+0.0%
Remote residence	29	5 000 (10.5%)	+1.6%	-1.9%	+0.2%	+13.5%	-3.0%	-10.8%	-3.7%
Youth	19	63 000 (7.5%)	+1.1%	+0.4%	-1.4%	+13.6%	-5.5%	-6.7%	+0.5%
Disability	34	12 000 (10.6%)	-4.3%	+3.6%	+0.7%	+7.7%	-2.9%	-5.6%	+1.2%
Domestic LOTE	34	21 000 (9.0%)	-19.5%	+15.2%	+4.2%	+9.5%	-3.0%	-10.8%	+0.9%
International	26	9 000 (5.9%)	-6.5%	+8.7%	-2.2%	-9.1%	+2.2%	+9.2%	+1.2%

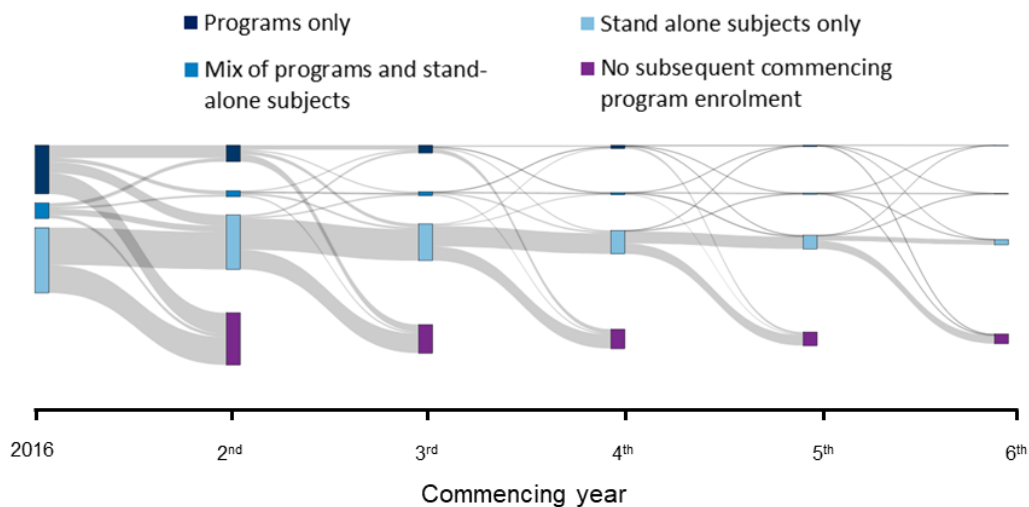
Note: Compliance-only enrolments have been excluded. Enrolment counts have been rounded to the nearest 1000.  
Source: NCVET Total VET Students and Courses, 2015–21.



## Appendix E – How does compliance impact on the analysis of student pathways?

Figure E1 shows student pathways between programs, stand-alone subjects and a combination of the two, for students who commenced a program in 2016, with compliance-only enrolments included.

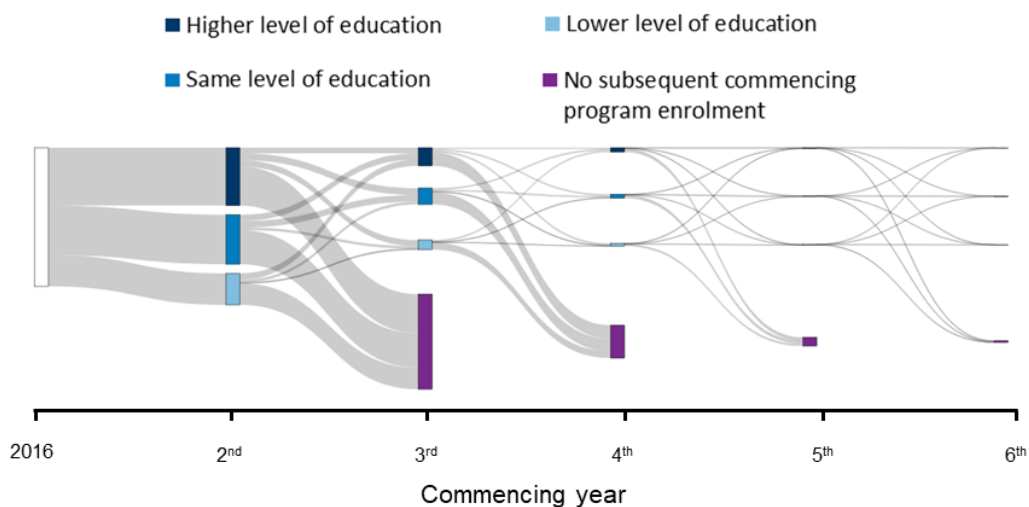
**Figure E1 Student movement between programs, stand-alone subjects and a combination of the two, including compliance-only enrolments, 2016–21**



Source: NCVET Total VET Students and Courses, 2015–21.

Figure E2 shows student movement to qualifications at a higher, lower or the same level of education for students who commenced a program in 2016, with compliance-only enrolments included.

**Figure E2 Student movement between enrolments in qualifications, by level of education, including compliance-only enrolments, 2016–21**



Note: Students who enrolled across mixed levels of education in 2016 and students who commenced a program in 2016 but did not commence another program between 2017 and 2021 are not shown in the figure.

Source: NCVET Total VET Students and Courses, 2015–21.



## Appendix F – Popular pathways by level of education

The tables that follow show the top pathways between enrolments by level of education, for completers and non-completers of 2016 commencing qualifications.

‘Completers’ include students with a completion for at least one of their 2016 commencing qualifications. For these students, only their completed 2016 qualifications have been analysed. ‘Non-completers’ include students with no completion for any of their 2016 commencing qualifications and no 2016 commencing qualification in which they are still enrolled in 2021. For both groups, pathways include movement to any subsequent enrolment, regardless of whether the subsequent qualification was completed.

Table F1 shows movement to a subsequent qualification at a higher level of education.

**Table F1 Top qualification combinations for movement to a higher level of education, for 2016 commencing qualification completers and non-completers, 2016–21**

2016 commencing enrolment	Second commencing enrolment	Students (%)
<b>Completers of 2016 commencing enrolments: 134 300 students</b>		
Certificate III in Early Childhood Education and Care (CHC30121)	Diploma of Early Childhood Education and Care (CHC50121)	3.8%
Certificate III in Carpentry (CPC30220)	Certificate IV in Building and Construction (CPC40120)	1.2%
Certificate III in Individual Support (CHC33015)	Certificate IV in Ageing Support (CHC43015)	1.2%
Certificate III in Commercial Cookery (SIT30816)	Certificate IV in Commercial Cookery (SIT40516)	1.1%
Certificate II in Workplace Skills (BSB20120)	Certificate III in Business (BSB30120)	1.1%
<b>Non-completers of 2016 commencing enrolments: 73 000 students</b>		
Certificate III in Early Childhood Education and Care (CHC30121)	Diploma of Early Childhood Education and Care (CHC50121)	1.2%
Certificate I in Spoken and Written English (10362NAT)	Certificate II in Spoken and Written English (10363NAT)	1.0%
Certificate II in Spoken and Written English (10363NAT)	Certificate III in Spoken and Written English (10364NAT)	0.9%
Certificate II in Workplace Skills (BSB20120)	Certificate III in Business (BSB30120)	0.8%
Diploma of Leadership and Management (BSB50420)	Advanced Diploma of Leadership and Management (BSB60420)	0.6%

Note: Student counts have been rounded to the nearest 100. Compliance-only enrolments have been excluded.

Source: NCVET Total VET Students and Courses, 2015–21.

Table F2 shows movement to a subsequent qualification at a lower level of education.



**Table F2 Top qualification combinations for movement to a lower level of education, for 2016 commencing qualification completers and non-completers, 2016–21**

2016 commencing enrolment	Second commencing enrolment	Students (%)
<b>Completers of 2016 commencing enrolments: 50 700 students</b>		
Diploma of Early Childhood Education and Care (CHC50121)	Certificate III in Early Childhood Education and Care (CHC30121)	1.2%
Certificate III in Automotive Underbody Technology (AUR32518)	Certificate II in Automotive Tyre Servicing Technology (AUR21920)	0.8%
Diploma of Nursing (HLT54121)	Certificate III in Health Services Assistance (HLT33115)	0.8%
Certificate III in Surface Extraction Operations (RII30120)	Certificate II in Surface Extraction Operations (RII20220)	0.7%
Certificate III in Electrotechnology Electrician (UEE30820)	Certificate II in Skills for Work and Vocational Pathways (FSK20119)	0.6%
<b>Non-completers of 2016 commencing enrolments: 63 700 students</b>		
Diploma of Early Childhood Education and Care (CHC50121)	Certificate III in Early Childhood Education and Care (CHC30121)	1.3%
Certificate III in Catering Operations (SIT30916)	Certificate II in Kitchen Operations (SIT20416)	0.8%
Diploma of Business (BSB50120)	Certificate III in Business (BSB30120)	0.7%
Certificate IV in Fitness (SIS40221)	Certificate III in Fitness (SIS30321)	0.6%
Diploma of Early Childhood Education and Care (CHC50121)	Certificate III in Individual Support (CHC33015)	0.6%

Note: Student counts have been rounded to the nearest 100. Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.

Table F3 shows movement to a subsequent qualification at the same level of education. Movement at the same level of education may include re-enrolment in the same qualification due to a change of provider, a break between training, or program supersession.

**Table F3 Top qualification combinations for movement to the same level of education, for 2016 commencing qualification completers and non-completers, 2016–21**

2016 commencing enrolment	Second commencing enrolment	Students (%)
<b>Completers of 2016 commencing enrolments: 77 300 students</b>		
Certificate IV in Training and Assessment (TAE40116)	Certificate IV in Training and Assessment (TAE40116)	3.5%
Certificate III in Individual Support (CHC33015)	Certificate III in Individual Support (CHC33015)	0.8%
Certificate III in Business (BSB30120)	Certificate III in Business (BSB30120)	0.8%
Diploma of Early Childhood Education and Care (CHC50121)	Diploma of Early Childhood Education and Care (CHC50121)	0.6%
Certificate III in Automotive Underbody Technology (AUR32518)	Certificate III in Automotive Underbody Technology (AUR32518)	0.5%
<b>Non-completers of 2016 commencing enrolments: 95 200 students</b>		
Diploma of Early Childhood Education and Care (CHC50121)	Diploma of Early Childhood Education and Care (CHC50121)	2.8%
Certificate III in Carpentry (CPC30220)	Certificate III in Carpentry (CPC30220)	1.5%
Certificate IV in Training and Assessment (TAE40116)	Certificate IV in Training and Assessment (TAE40116)	1.2%
Certificate III in Early Childhood Education and Care (CHC30121)	Certificate III in Early Childhood Education and Care (CHC30121)	1.1%
Certificate III in Individual Support (CHC33015)	Certificate III in Individual Support (CHC33015)	1.1%

Note: Student counts have been rounded to the nearest 100. Compliance-only enrolments have been excluded.  
Source: NCVET Total VET Students and Courses, 2015–21.



**National Centre for Vocational Education Research**


Level 5, 60 Light Square, Adelaide, SA 5000


PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

**Phone** +61 8 8230 8400 **Email** [ncver@ncver.edu.au](mailto:ncver@ncver.edu.au)

**Web** <https://www.ncver.edu.au> <http://www.isay.edu.au>

**Follow us:**  <https://x.com/ncver>

 <https://www.linkedin.com/company/ncver>

 <https://www.facebook.com/ncver.au>

