NCVER

National Student Outcomes Survey 2020: technical notes

National Centre for Vocational Education Research

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Introduction

VET student outcomes 2020 provides a summary of the outcomes of students who completed nationally recognised vocational education and training (VET) delivered by recognised training organisations (RTOs) in Australia during 2019 using data collected in 2020. The figures are derived from the National Student Outcomes Survey, which is an annual survey of VET students. The National Student Outcomes Survey collects information on VET students' reasons for training and their employment outcomes, satisfaction with training and further study outcomes.

Historically the National Student Outcomes Survey included qualification completers (students who completed a qualification) and subject completers (students who completed at least one subject and left the VET system without obtaining a qualification).[1] To better reflect the training undertaken in the VET system, the number of groups surveyed in 2020 has expanded to cover:

- Qualification completers (previously known as graduates, no definition change to this group): students who completed a training package qualification or an accredited qualification.

- Qualification part-completers: students who enrolled in but only completed part of a training package qualification or an accredited qualification (and are no longer undertaking that training).

- Nationally recognised short course completers: students who completed a training package skill set or an accredited course.

- Nationally recognised short course part-completers: students who enrolled in but only completed part of a training package skill set or accredited course (and are no longer undertaking that training).

- Subject(s) only completers: students who completed one or more subjects not delivered as part of a nationally recognised program[2] and who are no longer undertaking training in the VET sector.

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1 Refer to Attachment A the history of the survey.

2 Subjects not delivered as part of a nationally recognised program include stand-alone nationally recognised subject enrolments and enrolments in nationally recognised subjects that are delivered as part of a non-nationally recognised program.

Survey scope

The 2020 National Student Outcomes Survey was designed to report on the outcomes of students who undertook nationally recognised VET delivered by RTOs. Students are considered in scope of the 2020 survey if:

- they were enrolled and had some contact hours in 2019, and

- they completed the qualification, short-course or subject during 2019, and

- they were 15 year of age or older at 29 May 2020.

Out of scope of the survey are:

- students who undertook recreational, leisure or personal enrichment courses, and

- students under 15 years of age, and

- students from correctional facilities.

This document details the National Student Outcomes survey data that were used to derive the *VET student outcomes 2020* publication and related tools and products.

International onshore VET qualification completers were included as an additional component of the 2020 National Student Outcomes Survey and are reported separately in *International onshore VET qualification completer outcomes*. For this reason, the international survey component is not covered in this document. For further information on the international survey component, refer to the *International onshore qualification completer outcomes* publication page at: <https://www.ncver.edu.au/research-and-statistics/collection/student-outcomes/international-onshore-vet-qualification-completer-outcomes>.

Questionnaire design

The 2020 National Student Outcomes Survey collected data on students':

- main reason for training and whether they achieved that reason

- employment characteristics before and after training

- further study activity

- opinions of, and satisfaction with, the training and training provider

- the main reason for not continuing with the training (only applicable to qualification part-completers and short course part-completers)

- suggestions for improvement.

The 2020 questionnaire suite was designed to ensure students received only questions relevant to them. The questionnaires included:

- pulse (2 minute) questionnaire for continuing students

- short (5 minute) questionnaire, referred to as the 'lite' questionnaire

- full (10 minute) questionnaire.

In 2020, qualification completers received either a full or lite questionnaire depending on the qualification they completed. Those who completed a certificate I received the lite questionnaire and those who completed a certificate II or above received the full questionnaire (figure 1). Those initially identified as part-completers who indicated through the survey that they were continuing in that training, and subject(s) only completers indicating through the survey as doing further training received the pulse questionnaire. All other student groups received the lite questionnaire.

Figure 1 Questionnaires received by student group 2020

Student groups surveyed

| Full questionnaire | Lite questionnaire | Pulse questionnaire |
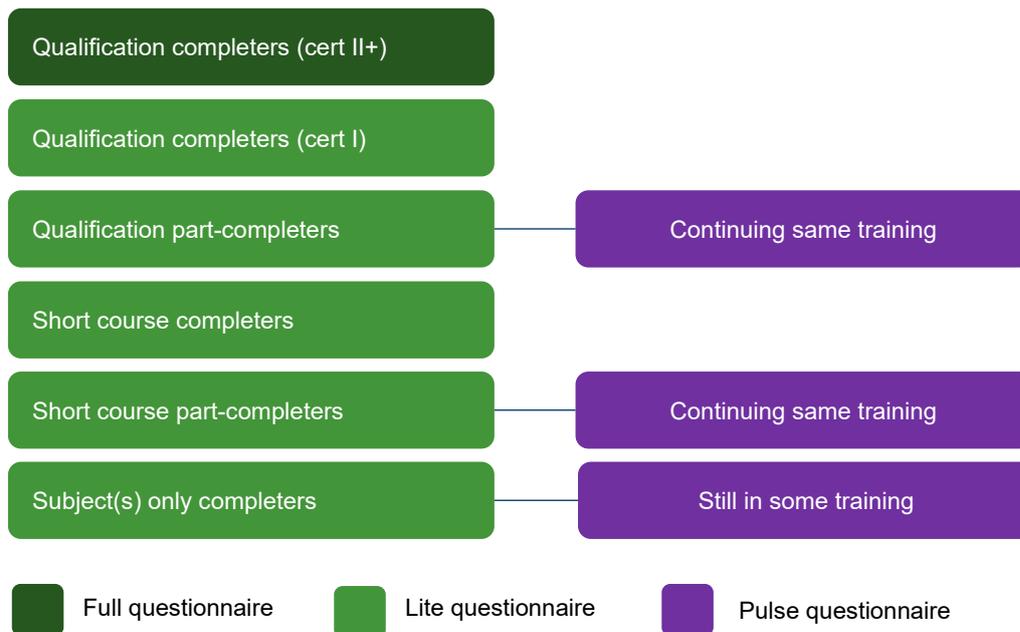
Because most groups did not receive the full questionnaire, the following measures are available only for certificate II and above qualification completers, as the questions used to derive these measures were only asked in the longer questionnaire:

- recommend the training
- training provider type where enrolled in further study
- employed in first full-time job, started after training
- median income after training
- basis of employment before and after training
- personal benefits
- labour force status before training.

Information on students was also obtained from the 2019 National VET Provider Collection and 2019 National VET in Schools Collection, which was combined with survey responses. This included details of students' personal characteristics and some training information.

Questionnaire changes in 2020

There were several changes to the questionnaire in 2020.

- The inclusion of a category in the 'reasons for not continuing the training' item of 'I completed all the training I intended to when I enrolled'.

- The inclusion of new categories in the 'reasons for training' item of 'To obtain credit points towards my senior secondary schooling' and 'To gain advanced entry to a higher qualification or university'.

- The inclusion of new categories for items on 'further study after training', 'employment after training' and 'looking for work' to understand the impacts of the COVID-19 pandemic on study being cancelled, delayed or postponed, on being employed but temporarily stood down, and on not looking for work due to COVID-19.

- New questions were added on whether hours of employment increased or decreased since COVID-19 and whether respondents had a job that they lost due to COVID-19.

- New questions were added for students aged 15 to 19 years on whether training was undertaken as part of the senior secondary certificate and if so, whether training for main VET subjects was completed in the workplace.

- New questions were added on who paid for the training and satisfaction with the RTO's location, learning resources, facilities and support services.

- The response scale for 'recommend the training provider' and 'recommend the training' changed from a 'Yes / No' response option to a 'Very likely' to 'Very unlikely' 5-point response scale. As a result of this change, the 2020 results are not comparable with prior years. For example, table 1 shows the qualification completer survey estimates for 'recommend the training provider' in 2019 compared with 2020 where 9.7% of qualification completers in 2020 reported the mid-point response item of 'neither likely nor unlikely'. This was offset by a 4.6 percentage point decrease in students recommending the training provider compared with 2019 when the mid-point response item was not available.

Table 1   Recommend the training provider for qualification completers, 2019 and 2020 (%)[1]

Question wording		Recommend the training provider		
2019	2020	2019	2020	Percentage point difference
1. Yes	1. Very likely 2. Likely	88.9	84.3	-4.6
	3. Neither likely nor unlikely	na	9.7	na
2. No	4. Unlikely 5. Very unlikely	11.1	6.0	-5.1

Source: National Student Outcomes Surveys 2019–20
Note: 1. Grey shading indicates a statistically significant difference at the 95% level.

The 2020 questionnaires can be viewed from the publication page at <https://www.ncver.edu.au/research-and-statistics/collection/student-outcomes/vet-student-outcomes>. Attachment B provides a summary of question wording changes between 2019 and 2020.

Survey methodology

The 2020 National Student Outcomes Survey was designed to provide estimates for several purposes, including (where the population size is sufficient) reporting for student types by:

- provider type (TAFE institutes, schools, private training providers, universities and community education providers) at the national level

- provider type (TAFE institutes and private training providers) at the state/territory level

- funding source (Government-funded and fee-for-service) at the state/territory level.

In addition to these reporting requirements, the 2020 National Student Outcomes Survey was designed to provide qualification level data for all qualifications with 300 or more qualification completers nationally and RTO level data for RTOs with:

- 100 or more qualification completers

- 100 or more short course completers

- 550 or more qualification part-completers

- 250 or more short course part-completers and/or

- 550 or more subject(s) only completers.

Population

The population is derived from the National VET Provider Collection and National VET in Schools Collection (figure 2), which are managed in accordance with the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS).[3] The collections hold details on students, the training undertaken, and their achievement. The information is sourced from student enrolment records that are submitted to NCVER either directly from training providers or via state training authorities (STAs) or Boards of Studies. The survey population was extracted for the data submitted as at 21 April 2020.

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3 For more information regarding the National VET Provider Collection and National VET in Schools Collection, please refer to Australian vocational education and training statistics explained at <https://www.ncver.edu.au/research-and-statistics/vet-statistics-explained>.

Figure 2   2020 Student Outcomes Survey population
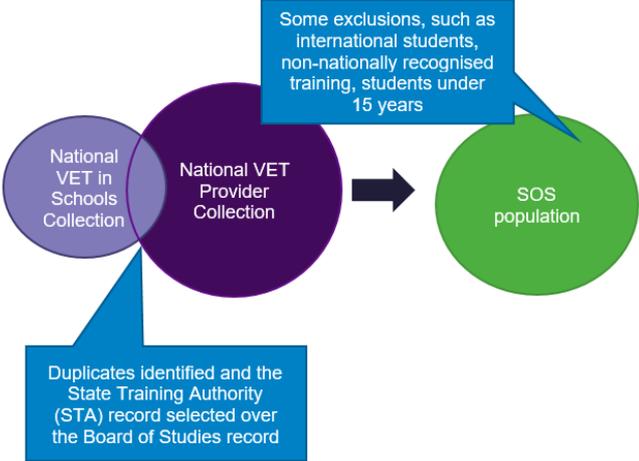
Student types used in reporting

The *VET student outcomes 2020* series presents information on the outcomes of qualification completers, qualification part-completers, short course completers, short course part-completers and subject(s) only completers as defined in figure 3.

Figure 3   Student group definitions, 2020 National Student Outcomes Survey
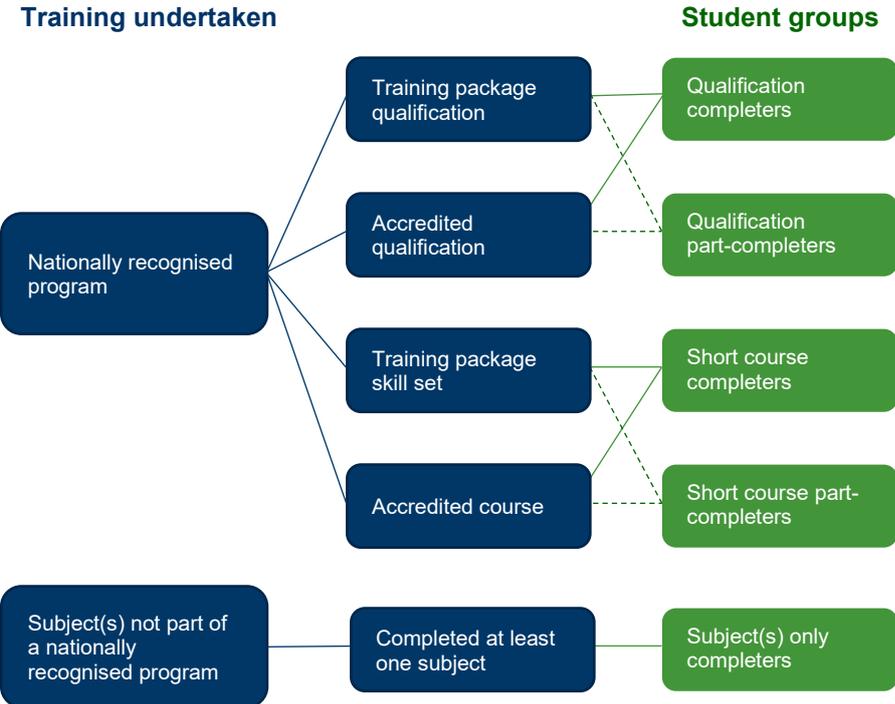
Due to lags in reporting, it is not possible to identify from the sampling frame 'actual' qualification part-completers and 'actual' short course part-completers; that is, those students who have successfully completed part of a qualification or short course *and are no longer undertaking that training*. Instead, samples were drawn for *potential* part-completers, which included students continuing in the training. The final status of respondents is determined through the survey responses. Similarly, it is not possible to identify from the sampling frame 'actual' subject(s) only completers; that is, those students who completed one or more subjects and who are no longer undertaking training in the VET sector. The final

status of these respondents are determined through survey responses. For further information, refer to the *Classification by student type* in the *Estimation* section of this document.

Defining student types in the population

Due to overlaps in the organisations submitting data[4], it is possible for the same training activity to be reported multiple times. A de-duplication process is applied to identify and remove duplicates when extracting the survey population where the same activity is reported for the same training provider in the same year via different data submitters. The de-duplication process requires an exact match on all the following fields:

- encrypted name identifier
- date of birth
- gender
- training organisation identifier
- program identifier
- subject identifier
- activity start date.

When duplicate training activity is identified, the following hierarchy is applied such that only the training activity at the highest hierarchy level is retained in the survey population:

- data submitted by STAs (to the National VET Provider Collection)
- data submitted by RTOs (to the National VET Provider Collection)
- data submitted by Boards of Studies (to the National VET in Schools Collection).

Some students completed one or more programs, others subjects that were not part of a nationally recognised program, and many a combination of both. In such cases, the following hierarchy is applied such that the student is retained in only one student type population after duplicate training activity is removed:

- qualification completer
- other short course completer
- potential qualification part-completer
- potential short course part-completer
- potential subject(s) only completer.

Where a student completed more than one program within the qualification completer, short course completer, potential qualification part-completer or short course part-completer populations, the following sorted hierarchy is applied to the selection[5]:

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4   It is possible for a training provider to submit their data on training activity either directly to NCVER for reporting in the National VET Provider Collection and/or National VET in Schools Collection (the survey frame) or via their STA or Board of Studies.

5   For further information on the data elements that are used for sorting and selecting records for sampling, refer to <https://www.ncver.edu.au/rto-hub/statistical-standard-software/avetmiss-data-element-definitions-edition-2.3>.

- Where a student had completed two or more programs, the record with the highest level of education is retained.

- Where a student had completed two or more programs at the same level of education, the record with the highest number of program enrolment hours is retained.

- Where a student had completed two or more programs with the same number of enrolment hours, the record with the highest number of enrolment hours is selected.

- Where a student had completed two or more programs with the same program field of education identifier, the record with the lowest field of education identifier is selected.

- Where a student had completed two or more programs with the same field of education, the record with the highest program identifier is selected.

- If multiple records remain, the first record in the list is selected.

Where a student completed more than one subject in the potential subject(s) completers population, the following sorted hierarchy is applied to the selection:

- Where a student completed two or more subjects, the record with the highest number of subject enrolment hours is selected.

- Where a student completed two or more subjects with the same number of subject enrolment hours, the record with the most recent date of completion is selected.

- Where a student completed two or more subjects with the same date of completion, the record with the most recent commencement date is selected.

- Where a student completed two or more subjects with the same date of commencement, the record with the government-funded record is selected.

- If multiple records remain, the first record is selected.

Sampling frame

The sampling frame was restricted to those students who were not deceased, and who were available for surveying as reported in the 'survey contact status' field in the 2019 National VET Provider Collection and 2019 National VET in Schools Collection.[6]

The sampling frame was also restricted to records for which student contact details could be obtained in order to send survey invitations. This includes students with a unique student identifier (USI) or whose contact details could be sourced from state training authorities (STAs) or from the contact details reported to NCVER (refer to the *Source of contact details* section in this document for more information). The sample was drawn after these exclusions were made to the frame.

Sampling design

The sample was selected in five parts, with independent samples drawn for each student type.

All records in the sampling frame were selected for the sample for qualification completers, short course completers and potential short course part-completers.

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6   For further information on the Survey contact status field, refer to <https://www.ncver.edu.au/rto-hub/statistical-standard-software/avetmiss-data-element-definitions-edition-2.3>.

For potential qualification part-completers and potential subject(s) only completers, a stratified random sampling design was used with strata defined by cross-classifying state/territory (eight levels), provider type (five levels at a national level: TAFE institutes, universities, schools, community education providers, or private training providers and two levels by state and territory: TAFE institutes and private providers) and funding source (two levels: Government-funded or fee-for-service).These strata are then also aligned with reporting domains at the national and state/territory level, which allows for control of sample size in these domains.

In addition, all potential qualification part-completers from an RTO with 550 or more of these students on the frame were included in a certainty stratum. Similarly, all potential subject(s) only completers from an RTO with 550 or more of these students on the frame were included in a certainty stratum. Within the non-certainty strata, units were selected using systematic probability proportional to size sampling. The size measure was used to increase the chance that units from targeted RTOs were sampled. Before sampling, units were sorted by provider type, funding source, age, gender, broad field of education, and Indigenous status to ensure the sample was representative with respect to these variables.

Source of contact details

Students' contact details (i.e. name, address, telephone/mobile numbers and email address) for the 2020 survey were sourced from STAs, the Office of the Student Identifiers Registrar (OSIR) or NCVER (from the *Client Postal Details* file submitted to the National VET Provider Collection).

STAs provided the contact details for the students whose National VET Provider Collection data originated from STAs, with the exception of two STAs who requested NCVER provide the contact details. The OSIR and NCVER provided the contact details for all remaining students, with the OSIR only able to provide the contact details for students that had a USI.

Following the provision and cleaning of contact details, survey invitations were sent to 891 715 students (table 2).

Table 2   The number of students in the population and sampling frame and the number of students invited to complete the 2020 survey by student type at sampling

Student type at sampling	Population	Sampling frame[1]	Survey invitations sent
Qualification completers	572 273	499 993	490 060
Short course completers	78 041	66 684	65 272
Potential qualification part-completers	572 165	455 000	100 997
Potential short course part-completers	42 826	32 698	31 370
Potential subject(s) only completers	2 632 852	1 886 447	204 016
Total	**3 898 157**	**2 940 822**	**891 715**

Note: 1 The sampling frame refers to the records from the population available for surveying and for which contact details could be obtained in order to send survey invitations.

Fieldwork

The 2020 data were collected by way of a self-enumeration online questionnaire or telephone interview. The details of the fieldwork methodology are provided below.

Financial incentive

A financial incentive, managed by the fieldwork contractor, was offered as a means of increasing the response rate. A rolling prize draw structure was used to maximise early response rates by offering more chances to win the earlier the survey is completed. Ten prize draws were conducted, timed to coincide with reminder activity, with winners selected at random (table 3).

Table 3 Prize draw details, 2020

Prize draw	Close date	Prize draw details	Total prize value
1	29 June	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
2	6 July	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
3	13 July	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
4	20 July	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
5	27 July	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
6	3 August	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
7	10 August	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
8	17 August	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
9	24 August	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000
10	31 August	1 x $1 000, 2 x $500 and 8 x $250 EFTPOS gift-cards	$4 000

Email communications

An invitation to complete the survey online was sent to all students with a valid email address on 23 June 2020. This email invitation contained a unique login code and an embedded link with direct access to the online survey.

Ten reminder emails with the embedded link to the online survey were sent to students who had not completed the survey. These emails were timed to coincide with a weekly prize draw and were sent during 2020 on 29 June, 6 July, 13 July, 20 July, 27 July, 3 August, 7 August, 13 August, 20 August and 31 August.

The content of invitation and reminder emails varied slightly, with different themes used to encourage survey participation, ranging from the importance of the survey to the chance to win a prize.

SMS communications

Students who had a valid mobile number but no email were sent an SMS invitation to participate in the survey on 23 June 2020. All other students who had a valid mobile number were sent an initial SMS invitation/reminder on 29 June 2020.

Following these initial SMS communications, up to five SMS reminders were sent to students with a valid mobile number who had not completed the survey. These were sent during 2020 on 6 July, 20 July, 27

July, 31 July and 31 August. The SMS reminder sent on 6 July was sent to all students with a valid mobile who had not responded to the survey. All other SMS reminders were targeted to specific students.

Personalised letter

Students with a mailing address and no email were sent a hard-copy letter inviting them to complete the survey. The invitation letters were lodged with Australia Post on 19 June 2020. A second batch of letter invitations were lodged with Australia Post on 3 July for students with a mailing address and email address where the email invitation had bounced.

A letter, timed to arrive the same time or just after the email invitation to students, was sent to the parents/guardians of all students with a mailing address aged 15 to 17 years. The letter informed parents about the survey, including how students' personal information is managed and protected, and asked them to encourage their child to participate.

All students with a mailing address who had not responded to the survey were sent a hard-copy reminder letter approximately three to four weeks after the initial contact inviting them to complete the survey. The reminder letters were lodged with Australia Post on 24 July.

Students with a mailing address only who had not responded to the survey approximately six weeks after the initial contact were sent a third hard-copy letter, lodged with Australia Post on 13 August 2020.

For further information on the content of the letters, refer to the invitation letter supporting documents at <https://www.ncver.edu.au/research-and-statistics/collections/student-outcomes/vet-student-outcomes>.

Reminder calls

Approximately 5 000 reminder calls were completed from 20 July to 27 July 2020. Students sampled for telephone interview were excluded from the reminder calls. The aim of the reminder calls was to boost survey responses with relatively lower cost than telephone interviewing.

Telephone follow-up

Telephone interviewing commenced approximately six weeks after the initial survey invitations was sent with the aim of boosting survey responses. Over 11 000[7] students completed the survey over the telephone to boost responses in low responding groups (for example students in remote and very remote areas), selected RTOs and in other key reporting groups where more responses were required to meet the precision requirements of the survey design, such as reporting by state and territory and funding source.

Privacy

All students were sent a link to the privacy notice. The privacy notice compiled with the Australian Privacy Principles and provided further information on how personal information would be managed and protected. For further information on the privacy notice, refer to <https://www.ncver.edu.au/research-and-statistics/information-for-student-outcomes-survey-participants>.

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7 Includes approximately 1 200 telephone interviews funded by an STA.

Students' names, addresses, telephone numbers and email addresses were used by the fieldwork contractor during the fieldwork stage. The fieldwork contractor worked with an external service provider for printing and collation services and email distribution services. The fieldwork contractor provided the students' contact details to the external providers for the purposes of administering the survey. Contact details of students held by the fieldwork contractor or the external providers for the purpose of this survey are destroyed upon conclusion of the project.

Response rate

National response rates were 33.8% for qualification completers, 26.1% for short course completers, 27.4% for potential qualification part-completers, 26.2% for potential short course part-completers and 23.2% for potential subject(s) only completers. Details of the response rates achieved at the national level are shown in table 4.

Table 4 Survey response summary by student type at sampling, 2020 (%)

	Qualification completers		Short course completers		Potential qualification part-completers		Potential short course part-completers		Potential subject(s) only completers	
	No.	%	No.	%	No.	%	No.	%	No.	%
Survey invitations	490 060	100.0	65 272	100.0	100 997	100.0	31 370	100.0	204 016	100.0
Responded	165 821	33.8	17 048	26.1	27 660	27.4	8 218	26.2	47 427	23.2
Did not respond	116 668	23.8	18 415	28.2	25 961	25.7	8 730	27.8	58 025	28.4
Sample loss[1]	58 245	11.9	8 795	13.5	14 094	14.0	4 576	14.6	26 024	12.8
Refused	58 423	11.9	9 620	14.7	11 867	11.7	4 154	13.2	32 001	15.7
No response	207 571	42.4	29 809	45.7	47 376	46.9	14 422	46.0	98 564	48.3

Note   1. Sample loss includes returned to sender records.

Table 5 shows the response rates by type of contact details available to send survey invites/reminders.

Table 5   Survey response rates by type of contact details by student type at sampling, 2020 (%)

Type of contact details[1]	Qualification completers	Short course completers	Potential qualification part-completers	Potential short course part-completers	Potential subject(s) only completers
Email, address and mobile	39.3	32.1	33.3	32	28.4
Email and address	12.9	9.6	11.8	9.5	10.0
Email and mobile	27.0	24.3	22.7	20.1	19.2
Email only	12.8	7.9	8.4	9.4	8.6
Address and mobile	32.3	21.4	27.5	28	21.8
Address only	12.2	7.7	6.6	6.2	7.0
Mobile only	20.0	16.5	16.3	20.2	14.2
Total	**33.8**	**26.1**	**27.4**	**26.2**	**23.2**

Note   1. The type of contact details is based on the contact details post-fieldwork whereby groups are re-classified to adjust for students whereby mail/email or SMS was reported as returned to sender.

Tables 6 shows the response rates for students by state or territory of student residential address.

Table 6   **Survey response rates by state and territory of student residential address by student type at sampling, 2020 (%)**

State/territory of students' residence	Qualification completers	Short course completers	Potential qualification part-completers	Potential short course part-completers	Potential subject(s) only completers
New South Wales	33.2	23.8	23.4	24.5	22.4
Victoria	34.8	29.6	33.9	27.9	27.2
Queensland	32.2	26.9	21.7	27.2	21.5
South Australia	37.5	31.0	29.8	28.7	23.5
Western Australia	32.6	20.2	27.2	23.6	19.8
Tasmania	42.2	33.6	28.8	31.6	28.4
Northern Territory	35.7	32.8	22.4	21.5	19.9
Australian Capital Territory	47.7	25.7	33.9	22.6	27.2
Total	**33.8**	**26.1**	**27.4**	**26.2**	**23.2**

Estimation

Classification by student type

Qualification completers and short course completers were classified as per the sampling frame (National VET Provider and National VET in Schools collections), with the exception of 441 qualification completers at an RTO that indicated during fieldwork that they had incorrectly reported students to the National VET Provider Collection as qualification completers. As a result of this advice, the 441 qualification completers at this RTO were allocated to the subject(s) only completer group, of which 60 responded to the survey.

On completion of the fieldwork, potential qualification and short course part-completers were classified into one of the following groups: qualification part-completers, short course part-completers or continuing in the same training, based on the answer to the following question.

- 'Are you still enrolled in the training?' (Question 1 in the 2020 survey, only answered by part-completers).

On completion of the fieldwork, potential subject(s) only completer respondents were classified into one of the following groups: subject(s) only completers or continuing in some training, based on the answer to the following question.

- 'Are you currently enrolled in any other training with a TAFE institute, TAFE division of a university, Registered Private Provider or Adult and Community Education provider?' (Question 4 in the 2020 survey).

Those classified as continuing students were excluded from reporting. Table 6 shows the final reporting status of all student respondents by their student type at sampling.

Table 7   Reporting status of all student respondents by student type at sampling, 2020

Reporting status	Student type at sampling					Total	
	Qualification completers[1]	Short course completers	Potential qualification part-completers	Potential short course part-completers	Potential subject(s) only completers[1]	*Number*	*%*
Qualification completer	165 761	na	na	na	na	165 761	62.3
Short course completer	na	17 048	na	na	na	17 048	6.4
Actual qualification part-completer	na	na	16 056	na	na	16 056	6.0
Actual short course part-completer	na	na	na	5 407	na	5 407	2.0
Actual subject(s) only completer	na	na	na	na	40 541	40 541	15.2
Part-completer continuing in the same training	na	na	11 604	2 811	na	14 415	5.4
Subject(s) only completer still in some training	na	na	na	na	6 946	6 946	2.6
Total	**165 761**	**17 048**	**27 660**	**8 218**	**47 487**	**266 174**	**100.0**

Notes   1. The student type at sampling was adjusted post-sampling due a misclassification of subject(only) students as qualification completers in the National VET Provider Collection. For this reason, the number of responses for qualification completers and potential subject(s) only completers in this table do not match the response rate tables where this adjustment has not been made.

Throughout all NCVER-published resources, the terms 'qualification part-completers' and 'short course part-completers' exclusively refers to 'actual' part-completers; that is, students who enrolled in a qualification/short course and are no longer undertaking that training. Similarly, throughout all NCVER published resources, the term 'subject(s) only completers' refers to 'actual' subject(s) only completers; that is, students who completed one or more subjects not delivered as part of a nationally recognised program and are no longer undertaking training in the VET sector.

Weighting

The sample of respondents may not accurately represent the population due to known sources of bias such as unequal probability of selection, as well as other sources of bias such as non-response. The weighting procedure attempts to minimise bias so that the weighted sample represents the population and can be used to produce accurate estimates.

The weighting procedure was undertaken separately for each of the five main groups through the following steps:

1.   A base weight was calculated for each sampled unit in each of the five samples as the inverse of the probability that unit was selected in the sample.

2.   Adjustments were made to correctly assign those 441 subject(s) only completer group respondents who had incorrectly been reported as qualification completers in the National VET Provider Collection.

3.   A raking procedure was used to adjust the weights to account for non-response and to ensure weighted marginal distributions matched population marginal distributions in each group. Prior Variables chosen for raking were those that were important predictors of non-response and key reporting variables, as well as key reporting variables:

- provider type (five categories: schools, TAFE institutes, universities, community education providers and private training providers)
- state/territory of residence (eight categories: New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory and the Australian Capital Territory)
- funding source (two categories: Government-funded and fee-for-service)
- gender (three categories: male, female, unknown)
- age group (five ranges: 15 to 19 years, 20 to 24 years, 25 to 34 years, 35 to 49 years and 50 years and over).

Reliability of estimates

Two types of error are possible in an estimate based on a survey: sampling error and non-sampling error. *Non-sampling error* may occur for reasons such as non-response bias, incorrect responses, interviewer errors, attrition and processing errors. *Sampling error* occurs because estimates are calculated from a random sample of the population. The estimates may differ from the true population value (that is, the value if the whole population had been sampled and responded to the survey) as well from estimates that would be produced if a different sample had by chance been selected.

By convention, a 95% confidence level is used to judge the amount of sampling error in an estimate. The confidence interval for an estimate is calculated using the formula:

$$\text{estimate} \pm 1.96 \times \text{SE}$$

where SE is the standard error of the estimate returned by SAS software (the standard error is an estimate of how much variation there is expected to be in a published estimate from one sample to another, based on the randomness of sample selection), taking into account the sampling design and population size. The chance that a 95% confidence interval contains the true population value is 19 in 20.

The half-width of the confidence interval, $1.96 \times \text{SE}$, is often referred to as the *margin of error*. The margin of error is provided for key variables in the DataBuilder <https://www.ncver.edu.au/research-and-statistics/collection/student-outcomes/vet-student-outcomes> and can be used to calculate the 95% confidence intervals.

Attachment A: History of the survey

The National Student Outcomes Survey was first conducted in 1995 and has been conducted annually by NCVER since 1997.

1995 (conducted by the Australian Bureau of Statistics), 1997 and 1998

- The survey was known as the Graduate Destination Survey and was a census of TAFE graduates with a qualification involving at least 200 hours or one semester of training.

1999

- The survey was renamed the Student Outcomes Survey and remained a census of graduates with a qualification involving at least 200 hours or one semester of training.

- For the first time, a small sample of module completers was introduced. The survey was also expanded to include students from community education, private training and other government providers.

- Separate questionnaires were used for graduates and module completers.

- Only information on TAFE students was published.

2000, 2001 and 2002

- A sample survey of graduates and module completers. For graduates, the minimum training length condition was removed.

- Separate questionnaires continued to be used for qualification completers and module completers.

2003

- The option to complete the survey via the internet was introduced.

- Students selected as module completers who identified themselves as graduates were reported as graduates. Previously, responses of these people were collected, but not used in reporting. At the aggregate level, this change made no difference, but for sub-populations the effect may be greater.

2004

- For the first time the same questionnaire was used for graduates and module completers.

2005

- Information on government-funded students from community education and private training providers was published for the first time.

2006, 2007 and 2008

- No changes were made.

2009

- A new recognition of prior learning (RPL) question block was included in the survey, replacing the one used previously.

2010

- No changes were made.

2011

- For the first time those with email addresses were invited to complete the survey online via email and/or a primary approach letter rather than being sent a hard-copy questionnaire.

2012

- For the first time ALL respondents received a primary approach letter inviting them to complete the survey online at the first mailing, rather than a hard-copy questionnaire. As in previous years, those with an email address also received an email invitation. Hard-copy questionnaires were only sent to those who did not complete online by a certain date.

- Students selected as potential module completers who identified themselves as graduates were modelled to determine final status. Previously, responses of these students were reported as graduates. Data were backdated to 2005.

2013

- Sampling changed from proportional allocation to sampling based on more balanced sampling error across institutes for the main survey variable, labour force status after training. The target sampling error for graduates was 4% and 8% for module completers, per institute.

2014

- The scope was expanded to include students from all jurisdictions who completed their training with a community education provider. This resulted in information being collected for New South Wales, Victoria, Queensland and Western Australia. Prior to 2014 only students from community education providers in New South Wales and Victoria were included in the survey.

2015

- Survey responses from fee-for-service students from community education providers were excluded from reporting and the summary publication was renamed *Government-funded student outcomes*. Data were backdated to 2006.

- Module completers were renamed to subject completers. The terminology was applied back to 2005.

2016

- The survey was expanded to report on the outcomes of students who completed their qualification on a fee-for service basis through private providers.

- The questionnaire was revised to a shorter, more user-friendly version that could be used on mobile devices. This questionnaire was implemented in 2016 for all students (TAFE institutes, universities, other government providers, private training providers and community education providers).

- As a result of shortening the questionnaire, the questions used to classify subject completers were streamlined, and the classification of subject completers was improved. Data for subject completers in previous years were backdated to 2006 using this improved derivation.

2017

- The expanded survey scope, which includes fee-for-service students from private training and community education providers, was applied to subject completers.

- International onshore VET qualification completers were included as an additional component of the National Student Outcomes Survey.

- The reminder postcard and the hard-copy questionnaire were removed from the contact methodology.

- Students under 18 years of age were excluded from scope. Data from previous years were backdated.

- Government-funded training was broadly defined as all activity delivered by government providers and government-funded activity delivered by community education and private training providers. In 2017 the scope of government-funded training was revised and data for previous years have been back-cast. Government-funded training now includes only Commonwealth and state/territory government-funded training (either Commonwealth or state-recurrent funding, Commonwealth specific-purpose funding or state-specific funding) from all training providers. All fee-for-service activity from training providers has been excluded.

- The derivation of qualification completers and subject completers changed to be more in line with administrative data. Previously, due to lags in the reporting of a large number of qualifications completed to the National VET Provider Collection, government-funded students who were sampled as subject completers were reported as qualification completers if they self-reported completing a qualification and were deemed eligible for that qualification via a logistic regression model. From 2017, those who self-report completing a qualification, are reported as subject completers, as per the administrative data (or sample selection). Data have been back-cast for 2016, the year the data quality improvement is first seen. For further information, refer to the technical paper 'Student Outcomes Survey: self-reported qualification completer model review', available at <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/student-outcomes-survey-self-reported-qualification completer-model-review>.

2018

- Non-respondents with a mailing address were sent a hard copy letter approximately four weeks after the initial email contact. This represents a change to the previous methodology where the hard-copy letter was sent to all students at the commencement of the survey.

- In 2018, more RTOs received data about their students' satisfaction and training outcomes than in previous years. The 2019 survey was designed to provide data for all RTOs with:
  - 100 or more domestic qualification completers in 2017, and/or
  - 860 or more domestic potential subject completers in 2017.

2019

- In 2019, the scope of the survey was modified to cover students who completed nationally recognised VET delivered by RTOs in Australia. Students who undertook non-nationally recognised training were excluded from the survey. The revised survey scope had no statistically significant effect on the national survey results, and as such the revised scope was not applied to estimates prior to 2019.

- Following a trial in 2018, the 2019 questionnaire was revised. The changes include:
  - minor changes to question wording to questions on 'further study after training' and 'level of further study after training'
  - changes to question wording and a change from an agreement scale to a satisfaction scale for questions on satisfied with teaching and assessment and satisfied overall

- a change in the order of the satisfied with teaching and assessment questions to appear after the developed problem-solving, improved writing skills and improved numerical skills bank of questions

- the inclusion of a new category in the job-related benefits item of 'gained extra skills for my job'

- new questions added on 'improved numerical skills' and 'better job after training'.

- In 2019, NCVER conducted a national Apprentice and Trainee Experience and Destination (ATED) Survey that was integrated with the 2019 National Student Outcomes Survey. The surveys ran concurrently. Key National Student Outcomes Survey questions were included in the ATED questionnaire alongside other questions specific to apprentices and trainees. Where a student was sampled for the National Student Outcomes Survey and the ATED Survey, they were invited to participate in one survey only—ATED. Following a mode effects analysis, the responses to the National Student Outcomes Survey questions for students sampled for both surveys were merged back into the National Student Outcomes Survey dataset. As a result of this approach, apprentices and trainees sampled for both surveys did not answer all questions in the National Student Outcomes Survey.

2020

- In 2020, students aged 15 to 17 years and those undertaking VET in Schools were included in the survey.

- Following a review of the subject completer group, the 2020 survey was designed to report by the following student types:

  - qualification completers (previously known as graduates, no definition change).

  - short course completers

  - qualification part-completers

  - short course part-completers

  - subject(s) only completers.

- Due to significant changes in the way student groups are reported in the 2020 survey, time-series information is not available for the following student groups: short course completers, short course part-completers and subject(s) only completers. A two-year time-series is available for qualification part-completers.

- To minimise burden, a shorter version of the questionnaire was used for all students with the exception of students who completed a qualification at certificate II or above.

- There were some questionnaire changes in 2020, including a change to the response scale for recommend the training provider and recommend the training from a 'Yes / No' response option to a 'Very likely' to 'very unlikely' response scale. The results from a trial of this change in scale suggest that the 2020 responses for these questions may differ to prior years due to the changes in question wording and the results are not comparable with prior years.

Attachment B: Question wording changes from 2019 to 2020

Table B1   Summary of the changes to question wording from 2019 to 2020

2019 question wording	2020 question wording
Q2. Have you completed all the training required to gain the qualification <insert training details>? 1. Yes 2. No	Q2. Have you completed all the training required to gain the <insert training details>? 1. Yes 2. No
Q3. What was your main reason for choosing not to continue the training? (Please select one option only) 1. I changed jobs or started a new job 2. I lost my job 3. I learnt the skills I needed for my job 4. I achieved my training goals 5. I started other training 6. The training no longer related to my plans 7. The training was not what I expected 8. The training timetable was not flexible enough 9. Family or personal reasons Response option not offered in 2019 10. Other reason (please specify)	Q3. What was your main reason for choosing not to continue the training? (Please select one option only) 1. I changed jobs or started a new job 2. I lost my job 3. I learnt the skills I needed for my job 4. I achieved my training goals 5. I started other training 6. The training no longer related to my plans 7. The training was not what I expected 8. The training timetable was not flexible enough 9. Family or personal reasons 10. I completed all the training I intended to when I enrolled 11. Other reason (please specify)
No corresponding question in 2019	Q4. Are you currently enrolled in any other training with a TAFE institute, TAFE division of a university, Registered Private Provider or Adult and Community Education provider? 1. Yes 2. Yes – but course delayed or postponed due to COVID-19 3. No
Q4. What was your main reason for doing the training? (Please select one option only) 1. To get a job 2. To develop or start my own business 3. To try for a different career 4. To get a better job or promotion 5. It was a requirement of my job 6. I wanted extra skills for my job Response option not offered in 2019 Response option not offered in 2019 7. To get into another course of study 8. To improve my general education skills 9. To get skills for community/voluntary work 10. To increase my self-esteem 11. Other reason (please specify)	Q5. What was your main reason for doing the training? (Please select one option only) 1. To get a job 2. To develop or start my own business 3. To try for a different career 4. To get a better job or promotion 5. It was a requirement of my job 6. I wanted extra skills for my job 7. To obtain credit points towards my senior secondary schooling 8. To gain advanced entry to a higher qualification or university 9. To get into another course of study 10. To improve my general education skills 11. To get skills for community/voluntary work 12. To increase my self-esteem 13. Other reason (please specify)
Q6. Was your training part of an apprenticeship or traineeship? 1. Yes	No corresponding question in 2020 - information obtained from VET provider collection

2019 question wording	2020 question wording
2. No	
Q7. Would you recommend the training? 1. Yes 2. No Response options changed in 2020 Response options changed in 2020 Response options changed in 2020	Q7. How likely are you to recommend the training? 1. Very likely 2. Likely 3. Neither likely nor unlikely 4. Unlikely 5. Very unlikely
Q8. Would you recommend the training provider? 1. Yes 2. No Response options changed in 2020 Response options changed in 2020 Response options changed in 2020	Q8. How likely are you to recommend the training provider? 1. Very likely 2. Likely 3. Neither likely nor unlikely 4. Unlikely 5. Very unlikely
No corresponding question in 2019	Q9. At any point during your training have you seriously thought about dropping out? 1. Yes 2. No
No corresponding question in 2019	Q10. Why did you think about dropping out of your training? (Multiple response) 1. Got offered a job / better job 2. Too hard to juggle work and study 3. To start another course of study 4. Course fees too high 5. Financial reasons 6. Course was too hard 7. The training was not what I expected 8. Family or personal reasons 9. Other reason (please specify) _____
No corresponding question in 2019	Q11. Did you undertake any of the <insert training details> as part of your senior secondary schooling at a school, a TAFE institute or another training organisation? (Please select all options that apply) 1. Yes – at my school 2. Yes – at another school 3. Yes – at a TAFE institute 4. Yes – at another training provider 5. No
No corresponding question in 2019	Q12. Did you complete any training in a real workplace as part of your main VET subject? 1. Yes – 1 week or less 2. Yes – 2-4 weeks 3. Yes – 5 weeks or more 4. Yes – as an Australian School-based Apprenticeship/ Traineeship 5. No
No corresponding question in 2019	Q13. How did you pay for your training? (single response) 1. My employer paid 2. My partner/my parents/another family member/a friend paid 3. I paid the fees outright

2019 question wording	2020 question wording
	4. I took out a Commonwealth VET student loan
	5. I paid using a loan or payment plan offered by the training provider
	6. I did not need to pay a fee (paid for by government)
	7. Other (please specify) _____
No corresponding question in 2019	Q20. How satisfied are you with the facilities available at your training provider (e.g. classrooms, workshops)?
	1. Very satisfied
	2. Satisfied
	3. Neither satisfied nor dissatisfied
	4. Dissatisfied
	5. Very dissatisfied
	6. Not applicable
No corresponding question in 2019	Q21. How satisfied are you with the learning resources provided by the trainer (e.g. text books, online materials)?
	1. Very satisfied
	2. Satisfied
	3. Neither satisfied nor dissatisfied
	4. Dissatisfied
	5. Very dissatisfied
	6. Not applicable
No corresponding question in 2019	Q22. How satisfied are you with the location of your training provider?
	1. Very satisfied
	2. Satisfied
	3. Neither satisfied nor dissatisfied
	4. Dissatisfied
	5. Very dissatisfied
	6. Not applicable
No corresponding question in 2019	Q23. How satisfied are you with the support services offered by your training provider?
	1. Very satisfied
	2. Satisfied
	3. Neither satisfied nor dissatisfied
	4. Dissatisfied
	5. Very dissatisfied
	6. Don't know/did not access
Q15. Have you commenced another course or further study since undertaking the training in <insert training details>?	Q24. Have you enrolled in another course or further study since undertaking the training in <insert training details>?
1. No	1. No
2. Yes, but cancelled or withdrew	2. Yes, but I cancelled or withdrew
Response option not offered in 2019	3. Yes, but course was cancelled due to COVID-19
Response option not offered in 2019	4. Yes, but course was delayed or postponed due to COVID-19
3. Yes, still ongoing	5. Yes, still ongoing
4. Yes, finished	6. Yes, finished
Q19. Did you have a job of any kind at 31st May 2019?	Q27. Did you have a job of any kind at 29th May 2020?
1. Yes	1. Yes, worked for payment or profit
Response option not offered in 2019	2. Yes, but absent on holidays, paid leave or on strike
Response option not offered in 2019	3. Yes, but temporarily stood down
Response option not offered in 2019	4. Yes, unpaid work in a family business

2019 question wording	2020 question wording
Response option not offered in 2019 2. No	5. Yes, other unpaid work 6. No
Q21. How many hours did you usually work each week in your main job at 31st May 2019? 1. 35 hours or more per week 2. 1-34 hours per week Response option not offered in 2019	Q28. How many hours did you usually work each week in your main job at 29th May 2020? 1. 35 hours or more per week 2. 1-34 hours per week 3. 0 hours per week
No corresponding question in 2019	Q29. Have your hours changed since COVID-19? Note: Government restrictions due to COVID-19 were put in place from March 2020. 1. Yes, hours have increased 2. Yes, hours have decreased 3. No
No corresponding question in 2019	Q39. Did you have a job prior to 29th May 2020 which you lost due to COVID-19? (If Q27=3) Were you temporarily stood down due to COVID-19? 1. Yes 2. No
Q32. Were you actively looking for work at 31st May 2019 (even if you were already working)? (Please select one option only) 1. Yes – mainly looking for full-time work 2. Yes – mainly looking for part-time work Response option not offered in 2019 3. No – not looking for work	Q40. Were you actively looking for work at 29th May 2020 (even if you were already working)? (Please select one option only) 1. Yes – mainly looking for full-time work 2. Yes – mainly looking for part-time work 3. No – not looking for work due to COVID-19 4. No – not looking for work but not due to COVID-19