NCVER

National Student Outcomes Survey 2020 (international component): technical notes

National Centre for Vocational Education Research

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Introduction

The National Student Outcomes Survey is an annual survey that collects information on vocational education and training (VET) students' reasons for training and their employment outcomes, their satisfaction with training and further study outcomes. Students included in the survey are those who completed training delivered by registered training organisations (RTOs) in the previous calendar year.

The international component of the National Student Outcome Survey collects information on international students who completed a nationally recognised VET qualification in Australia. Data from the international component of the 2020 National Student Outcomes Survey are presented in the publication *International onshore VET qualification completer outcomes 2020*.[1]

Survey scope

Students are considered in-scope of the international survey component if they completed nationally recognised training delivered by RTOs at certificate I level or higher, and they:

- paid for the training, and

- were 15 years of age or older on 29 May 2020, and

- were enrolled in 2019, and

- completed their qualification in Australia in 2019, and

- had successfully completed at least one subject during 2019, and

- had subject nominal hours reported during 2019.

Out of scope of the survey are international qualification completers who completed their training with an Australian training provider offshore.

Questionnaire design

The 2020 National Student Outcomes Survey collected data on qualification completers':

- reason for training and achievement of reason

- employment characteristics before and after training

- further study activity

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

- suggestions for improvement.

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1 In previous publications, 'international onshore VET qualification completers were called 'international onshore VET graduates'. This represents a change in terminology only.

In addition, the 2020 international component of the National Student Outcomes Survey collected data on:

- country of further study (for those undertaking further study)

- country of employment after training (for those employed after training)

- satisfaction with main job (for those employed after training)

- barriers faced when looking for work

- current country of residence and nationality on passport

- type of visa held (for those residing in Australia)

- satisfaction with support services

- importance of reasons to study in Australia

- type of accommodation while training

- satisfaction with living in Australia while training.

There were several changes to the 2020 questionnaire, including:

- 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. The percentage of students who would recommend their training provider or training is based on the proportion of respondents reporting 'Very likely' or 'Likely' with the relevant questionnaire item.

- The question for barriers to employment was revised with all students asked about barriers faced at any stage when looking for work after training. In 2019 and prior, the question was only asked of those who were looking for work as at the end of May of the survey year. As a result of this change, the 2020 results are not comparable with prior years.

- 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 after training increased or decreased since COVID-19 and whether their job was lost due to COVID-19.

- New questions were added on satisfaction with aspects of the training provider's support services.

- New questions were added on the importance of reasons to study in Australia, type of accommodation while training and satisfaction with various aspects of living in Australia.

- A new question was added on nationality on passport.

- Questions were removed to reduce respondent burden. These include:

  - questions on personal characteristics that were available from the national collections

  - training provider type of further study

  - whether employed in first full-time job after training

  - income after training

  - industry of job before and after training

- hours worked for job before training

- basis of employment before and after training

- personal benefits from training.

The 2020 questionnaire can be viewed from the publication page at <https://www.ncver.edu.au/research-and-statistics/collection/student-outcomes/international-onshore-vet-qualification-completer-outcomes>.

Information on qualification completers was also obtained from the national collections. This included details of qualification completers' personal characteristics and some training information.

Reference periods

Qualification completers were asked to provide information with respect to two reference periods.

The first reference date was 29 May 2020. Qualification completers were asked to supply information on labour force status, employment characteristics and additional study.

The second reference period covered the six months before starting the training. Qualification completers were asked to supply information on labour force status and employment characteristics.

Survey methodology

Population

The population for the international component of the National Student Outcomes Survey came from data submitted as of 21 April 2020 to the National VET Provider Collection and National VET in Schools Collection. The national 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/territory training authorities (STAs) or Boards of Studies. The national collections are administrative collections governed by the Australian Vocational Education and Training Management Information Statistical Standard: VET Provider Collection Specifications Release 8.0 (AVETMISS Release 8.0) and AVETMISS Data Element Definitions Edition 2.3, which are available at: <www.ncver.edu.au>.[2]

Due to overlaps in the organisations submitting data[3], 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

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2 For more information regarding the national collections please refer to Australian vocational education and training statistics explained at <https://www.ncver.edu.au/research-and-statistics/vet-statistics-explained>.

3 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.

- 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).

The following hierarchy was applied to the derivation of the international onshore VET qualification completer population where a qualification completer had completed two or more qualifications in 2019:

- where a student had completed two or more qualifications, the record with the higher qualification level was selected.

- where a student had completed two or more qualifications at the same qualification level, the record with the highest number of hours was selected.

- where a student had completed two or more qualifications with the same number of hours, the first record from the sorted program identifier (descending order) was selected.

- where a student had completed two or more qualifications with the same program identifier, the record with a valid USI was selected.

The application of this methodology resulted in a population of 68 912 international onshore VET qualification completers. Of these, 38 qualification completers were from the National VET in Schools Collection.

Sampling frame

The international survey component was conducted as a census of the sampling frame, with the sampling frame derived as outlined below.

Qualification completers were removed from the sampling frame if they were:

- surveyed for the 2020 domestic student component of the survey, to reduce survey burden

- deceased.

Qualification completers were included in the sampling frame if:

- they were available for surveying as reported in the 'survey contact status' field in the 2019 national collections[4]

- student contact details could be obtained.

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4 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 the 2020 survey, the following three sources were available to obtain students' contact details.

- The Office of the Student Identifiers Registrar (OSIR) where students had a unique student identifier (USI).

- STAs where contact details were available. This included students from:
  - TAFE institutes[5] in New South Wales, Victoria, Queensland, South Australia, Western Australia, the Northern Territory and the Australian Capital Territory, and
  - private training providers in Victoria, South Australia and the Northern Territory, and
  - community education providers in Victoria.

- NCVER for students whose contact details could not be sourced from OSIR or STAs but whose Client Postal Details file was submitted to the 2019 National VET Provider Collection.

The application of this methodology resulted in 58 591 qualification completers in the sampling frame. After applying the criteria, the sampling frame did not contain any qualification completers from the National VET in Schools Collection.

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

International onshore qualification completers were eligible to win prizes in the same prize draw offered in the domestic student component of the National Student Outcomes Survey. This 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 1).

Table 1 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

5 This includes universities in some states and territories.

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

Qualification completers who had a valid Australian 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 Australian mobile number were sent an SMS reminder on 29 June 2020.

Following these initial SMS communications, up to four SMS reminders were sent to students with a valid Australian mobile number who had not completed the survey. These were sent during 2020 on 6 July, 20 July, 27 July, and 31 July.

Privacy

All email communications qualification completers received included a link to the online privacy notice, which complied with the Australian Privacy Principles. The privacy notice stated that NCVER would not release information from the survey that would enable an individual survey respondent to be identified. For further information on the privacy notice, refer to the 2020 primary approach email <https://www.ncver.edu.au/data/collection/student-outcomes/international-onshore-vet-graduate-outcomes>.

Qualification completers' names, telephone numbers and email addresses were used by the fieldwork contractor during the fieldwork stage. Contact details of qualification completers held by the fieldwork contractor for the purpose of this survey are destroyed upon conclusion of the project.

Survey response

58 591 qualification completers received an invitation to complete the survey. Of these, 15 521 responded to the survey. The national response rate for international onshore VET qualification completers was 26.5% (see table 2).

Table 2   Survey response summary for international onshore VET qualification completers, 2020

	Qualification completers	
	Number	**%**
Survey invitations	58 591	100.0
Responded	15 521	26.5
Sample loss[1]	11 251	19.2
Refused	3 402	5.8
No response	28 417	48.5

Note   1. Sample loss includes returned to sender records.

Estimation

Weighting

Weighting is necessary to ensure the respondents represent the population as well as possible. The weighting procedure attempts to minimise bias so that the weighted responses represent the population and can be used to produce accurate estimates.

The weighting procedure consisted of four main steps:

1.   A base weight was calculated for each unit, based on the probability of selection. Since a census approach was used, the base weight is equal to 1 for every respondent.

2.   Base weights were adjusted to account for de-duplication of the population file, which ensured that individuals are only listed once on the sampling frame.

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. Variables chosen for raking were those that were important predictors of non-response and key reporting variables, as well as key reporting variables:

  -   state/territory of training organisation (eight categories: New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory and the Australian Capital Territory)

  -   age group (five ranges: 15—19, 20—24, 25—34, 35—49, 50 years and over)

  -   provider type (four categories: TAFE institutes, universities, community education providers and private training providers/enterprise providers)

  -   gender (two categories: males, females)

4.   Large weights were trimmed to reduce variance.

The population benchmarks used were based on the 2019 National VET Provider and National VET in Schools Collection.

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 been selected by chance.

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 all estimates in the DataBuilder and Excel products at <https://www.ncver.edu.au/research-and-statistics/collection/student-outcomes/international-onshore-vet-qualification-completer-outcomes> and can be used to calculate the 95% confidence intervals.