



Apprentice and trainee experience and destinations survey 2019: technical notes

National Centre for Vocational
Education Research

This document was produced as an added resource for further information on Apprentice and Trainee Experience and Destinations 2019. The report is available on the NCVER Portal: <https://www.ncver.edu.au/research-and-statistics/collections/apprentice-and-trainee-experience-and-destinations>.

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Introduction

The Apprentice and Trainee Experience and Destinations 2019 publication provides a summary of the outcomes of students who completed or cancelled/withdrew from their apprenticeship or traineeship in 2018. The figures are derived from the 2019 Apprentice and Trainee Experience and Destination survey. This document provides information about the survey data that were used to derive the *Apprentice and Trainee Experience and Destinations* publication and data products.

The focus of the survey is on the outcomes of apprentices and trainees and their satisfaction with their apprenticeship or traineeship. Information collected includes personal and training characteristics, satisfaction with training, employment outcomes, and further study activity.

The survey was conducted online and by telephone (using Computer Assisted Telephone Interviewing - CATI) between May and August 2019. A total of 11 023 interviews were completed, with 8 615 interviews with completers and 2 408 interviews with non-completers. The average time taken to complete the interview was 13.1 minutes. Interviews were conducted by IPSOS, the field work contractor, on behalf of the National Centre for Vocational Education Research (NCVER).

Background

This is the first time the Apprentice and Trainee Experience and Destination Survey has been run in its current form. Similar surveys were run in 2008 and 2010. Although these surveys had different scopes and methodologies, many of the same questions were asked. The previous surveys included apprentice and trainees under 18 years of age, which the 2019 survey did not. Also, previous surveys covered apprentices and trainees who had left their apprenticeship or traineeship within a three-month period, while the 2019 survey covered all apprentices and trainees who left within a calendar year. It is because of these differences in scope and periods covered that comparisons with previous surveys have not been included in the *2019 Apprentice and Trainee Experience and Destinations* publication.

More detailed information on the 2010 survey can be found at:

<https://www.ncver.edu.au/research-and-statistics/publications/all-publications/australian-vocational-education-and-training-statistics-apprentice-and-trainee-destinations-2010>

More detailed information on the 2008 survey can be found at:

<https://www.voced.edu.au/content/ngv%3A55526>

Survey scope

For this survey, an apprentice or trainee is defined as “a person who undertook a contract of training with an employer and a training provider”. The scope of the survey was all apprentices and trainees, aged 18 years and over, who left their training between January and December 2018, regardless of whether they re-entered the system later in a different occupational apprenticeship or traineeship.

Students are considered in scope of the 2019 survey if they:

- completed all of the requirements of a contract of training in 2018
- cancelled or withdrew from a contract of training in 2018 prior to completing all prescribed requirements of their apprenticeship or traineeship.

Out of scope of the survey are:

- students under 18 years of age as at the commencement date for interviewing (31st of May 2019)
- apprentices and trainees whose record was ‘withheld’ due to being incarcerated or identified as not for contacting by state training authorities.

Questionnaire design

The 2019 Apprentice and Trainee Experience and Destination Survey collected data on apprentices’ and trainees’:

- reason for training
- employment characteristics before and after training
- further study activity
- opinions of, and satisfaction with, the apprenticeship/traineeship, including off-the-job training and employment
- suggestions for improvement.

Information on apprentices and trainees was also obtained from the 2018 National Apprentice and Trainee Collection, from which the survey sample was selected. This included details of the apprentices’ or trainees’ personal characteristics and some training information.

The questionnaire was designed to answer the following research questions:

- What are the destinations of apprentices and trainees who complete and do not complete their training?
- What are the main reasons for not completing an apprenticeship or traineeship?
- Are those who complete an apprenticeship or traineeship more likely to remain in an occupation related to their training than those who do not complete their training?

The 2019 questionnaire was based on the 2010 and 2008 questionnaires, as well as relevant questions from the National Student Outcomes Survey. The 2019 questionnaire can be viewed from the publication page at < <https://www.ncver.edu.au/research-and-statistics/collections/apprentice-and-trainee-experience-and-destinations>>.

Reference period

Students were asked to provide information with respect to three reference periods:

- The first period was the *last week of their apprenticeship or traineeship* (somewhere between January and December 2018). Apprentices and trainees were asked to provide information on their employment characteristics, income, occupation, and industry of employment. It is important to note that for completers the last week of an apprenticeship or traineeship may be up to four years after they commenced. For non-completers, the last week of an apprenticeship or traineeship may have been anywhere from only a few weeks after commencing their training to nearly full-term.
- The second reference date was *31 May 2019*. Students were asked to supply information on their labour force status, employment characteristics, income, occupation, industry of employment and relevance of their apprenticeship or traineeship to their main job.
- The third reference period covered the *six months before starting the apprenticeship or traineeship*. Students were asked to supply information on their labour force status, occupation and industry of employment.

Survey methodology

The 2019 Apprentice and Trainee Experience and Destination Survey was designed to report by:

- State (each of the eight states and territories)
- Contract status (completions, cancellations/withdrawals)
- Trade occupation category (trade and non-trade)

The sampling approach was a stratified random sample designed to meet all reporting requirements.

Sample design and frame

The population comes from the National Apprentice and Trainee Collection. The collection holds details of each commencement, cancellation, withdrawal, completion, or expiration associated with the life of an Apprenticeship/Traineeship Training Contract. The information is sourced from contracts of training that are submitted to NCVET via state training authorities (STAs) in the March 2019 data submission. The National Apprentice and Trainee Collection no. 99 (March 2019 estimates) was used as the sampling frame for the survey. The National Apprentice and Trainee Collection is managed in accordance with the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS).¹

Before the sample was drawn, all records with a contract status of completion and cancellation or withdrawal in the 2018 calendar year were selected. Multiple records were selected for some

¹ For more information regarding the National Apprentice and Trainee Collection please refer to Australian vocational education and training statistics explained at <<https://www.ncver.edu.au/research-and-statistics/vet-statistics-explained>>.

individuals (for example, an individual may have cancelled from one apprenticeship, and recommenced and completed in another during this same period). As the survey was based on individuals and not training contracts, a set of criteria was followed so that only one record appeared for each individual.

The selection of potential survey participants in the population was based on the most recent effect date:

- Where more than one record appeared for an individual, the most recently dated record was chosen (for example, if an individual held a cancellation record dated 1 May and a completion record dated 1 June, the completion record was chosen).

After removing apprentices and trainees under the age of 18 (as at 31 May 2019), a stratified random sample was selected to meet precision requirements. The sample was stratified by state, completions/non-completions and trade/non-trade occupation of the apprentice and trainee. That is, the stratification variable is:

$$\text{state} \times \text{completion status} \times \text{trade status}$$

The sample was allocated across states with probability proportional to population size. The following assumptions were used in designing the sample:

- Response rate of 45% for completers and 40% for non-completers;
- Design effect of 1.1;
- Proportion being estimated of 0.5;
- Expected margin of error of 0.05, i.e. a 95% confidence interval around the estimated proportion of +/- 0.05.

To meet precision requirements all students in Tasmania, Northern Territory and Australian Capital Territory were selected in the sample with certainty.

A total of 43 444 apprentices and trainees were selected with the aim of achieving 12 500 interviews (table 1).

Table 1 Survey sample selections and target number of interviews by respondents' contract status at the time of sampling

Contract status when sampled (March 2019 estimates - Collection 99)	Population	Sample selections	Target number of interviews
Completion	81 081	22 632	6 250
Cancellation/Withdrawal	70 059	20 812	6 250
Total	151 140	43 444	12 500

Contact details of all selected apprentices and trainees were then supplied to the field work contractor by the State Training Authority (STA) in each state and territory. They provided the name, address, telephone number and email address of the apprentice or trainee directly to the fieldwork contractor.

Fieldwork

The 2019 data were collected by way of a self-enumeration online questionnaire or telephone interviewing. The details of the fieldwork methodology are provided below.

Personalised letter

A personalised primary approach letter (PAL) was the first contact method used in the 2019 Apprentice and Trainee Experience and Destination Survey. Respondents with a mailing address were sent a hard-copy letter inviting them to complete the survey online. The sending of letters was staggered by state/territory, between 29 May and 5 June 2019.

Email

An invitation to complete the survey online was sent to all students with a valid email address on 6 June 2019. This email invitation contained a unique login code and an embedded link with direct access to the online survey.

Six reminder emails with the embedded link to the online survey were sent to students who had not completed the survey via online or telephone (CATI). These emails were sent on 15 June, 27 June, 8 July, 17 July, 25 July and 16 August 2019. Email reminders contained a link to the survey, along with each student's unique login code.

SMS communications

Students who had a valid mobile number were sent an SMS invitation to participate in the survey on 12 June 2019.

Following this initial SMS invitation, four SMS reminders were sent to all students with a valid mobile number who had not completed the survey. These SMSs were sent on 1 July, 10 July, 25 July and 9 August 2019.

Telephone follow-up

Telephone interviewing commenced on 27 June 2019, approximately three weeks after the initial letter and online survey link was sent with the aim of boosting survey responses. Towards the end of fieldwork calls were targeted towards those states that were lacking in numbers of contract statuses that were still requiring more interviews.

Any students who considered themselves as continuing in the selected apprenticeship or traineeship (i.e. not completed or cancelled/withdrawn) were thanked for their time and the call interview terminated.

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. Five prize draws were conducted, timed to coincide with reminder activity, with winners selected at random (table 2).

Table 2 Prize draw details, 2019

Prize draw	Close date	Prize draw details	Total prize value
1	16 June	1 x \$1,000, 2 x \$500 and 2 x \$250 EFTPOS gift-cards	\$2,500
2	30 June	1 x \$1,000, 2 x \$500 and 2 x \$250 EFTPOS gift-cards	\$2,500
3	14 July	1 x \$1,000, 2 x \$500 and 2 x \$250 EFTPOS gift-cards	\$2,500
4	28 July	1 x \$1,000, 2 x \$500 and 2 x \$250 EFTPOS gift-cards	\$2,500
5	11 August	1 x \$1,000, 2 x \$500 and 2 x \$250 EFTPOS gift-cards	\$2,500

Privacy

All apprentices and trainees were sent a link to a privacy notice. The privacy notice complied 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/apprentice-and-trainee-experience-and-destinations-survey/2019-apprentice-and-trainee-experience-and-destinations-survey-privacy-notice>.

Peoples' 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. The fieldwork contractor provided the peoples' contact details to the printing provider for the purposes of administering the survey. Contact details of apprentices and trainees held by the fieldwork contractor or the external printing provider for the purpose of this survey were destroyed upon conclusion of the project.

Reporting

Findings are reported for two groups, completers and non-completers, depending on respondents' answers to the survey and contract status at the time of surveying, where:

- Completers refer to those apprentices and trainees who are reported as completing all of the prescribed requirements of their apprenticeship or traineeship contract or those who self-identify as completing all requirements in 2018.
- Non-completers refer to those apprentices and trainees who cancelled or withdrew from their contract of training prior to completing all prescribed requirements and self-identify as cancelling or withdrawing in 2018.

Survey response

Response rate

The national response rates for completers and non-completers were 38.2% and 13.9% respectively. Details of the response rates achieved at the national level for apprentices and trainees are shown in table 3.

Table 3 Survey response summary for completers and non-completers, 2019

	Completers		Non-completers		Total	
	Number	%	Number	%	Number	%
Survey invitations	22 533	na	19 037	na	41 570	na
Responded ¹	8615	38.2	2408	13.9	11 023	27.7
Did not respond	13 376	59.4	14 399	83.3	27 775	69.8
Mail returned to sender	840	3.7	854	4.9	1694	4.3
Email return to sender	146	0.6	107	0.6	253	0.6
SMS return to sender	30	0.1	37	0.2	67	0.2
Refused	5212	39.0	5554	38.6	10 766	38.8
No response	8164	61.0	8845	61.4	17 009	61.2
Partial response ²	542	2.4	480	2.8	1022	2.6

Notes 1 'Responded' excludes 1750 "on-going" apprentices and trainees who were removed from reporting because they were out of scope of the project.

2 Partial response excludes 168 "on-going" apprentices and trainees who were removed from reporting because they were out of scope of the project.

Table 4 shows the response rates¹ by type of contact details available to send survey invites/reminders.

Table 4 Survey response rates for apprentice/trainee by type of contact details, 2019 (%)

Type of contact details	Outcome of apprentice/trainee		
	Completers	Non-completers	Total
Email, address and mobile	39.0	14.1	31.2
Email and address	26.6	3.4	19.0
Email and mobile	60.2	32.3	52.4
Email only	27.3	0.0	10.7
Address and mobile	28.7	10.3	23.5
Address only	9.1	0.0	4.7
Mobile only	55.8	8.6	39.6
Total	38.2	13.9	30.7

Notes 1 The response rate excludes 1750 "on-going" apprentices and trainees who were removed from reporting because they were out of scope of the project.

Tables 5 shows the response rates for apprentices or trainees by state or territory of residence.

Table 5 Survey response rates¹ for apprentice/trainee by state or territory of residence, 2019 (%)

State/territory of apprentice/trainee	Outcome of apprentice/trainee		
	Completers	Non-completers	Total
New South Wales	36.3	12.5	29.8
Victoria	35.4	12.1	28.9
Queensland	36.1	15.0	29.6
South Australia	38.0	17.5	31.3
Western Australia	36.9	12.9	27.7
Tasmania	40.0	16.4	34.0
Northern Territory	40.7	12.6	29.4
Australian Capital Territory	51.3	14.6	39.1
Total	38.2	13.9	30.7

Notes 1 The response rate excludes 1750 "on-going" apprentices and trainees who were removed from reporting because they were out of scope of the project.

Estimation

Classification of completers and non-completers for reporting

There were two possible ways to be defined as a “completer”. Firstly, for all apprentices and trainees who were classified as a completer in the National Apprentice and Trainee Collection and responded as being a completer in the survey then they were reported as a completer in the publication.

For other respondents, if they stated they were a completer in the survey (regardless of if they were classified as a non-completer in the National Apprentice and Trainee collection) they were converted to be a completer for the publication.

To be a non-completer - they must have been a non-completer in the National Apprentice and Trainee collection AND in the survey.

Table 6 Sample status (2018) by reporting status of all respondents, 2019

Sample status	Completers		Non-completers		Total
	Number	%	Number	%	Number
Complete	7 825	90.8	na	na	7 825
Cancelled	725	8.4	2 011	83.5	2 736
Withdrawn	65	0.8	397	16.5	462
Total	8 615	100.0	2 408	100.0	11 023

Notes 1 Reporting status excludes 1750 “on-going” apprentices and trainees who were removed from reporting because they were out of scope of the project (1 557 sample status of ‘cancelled’ and 193 sample status of ‘withdrawn’).

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 consisted of three main steps:

- 1 A base weight was calculated for each sampled unit as the inverse of the probability that unit was selected in the sample.
- 2 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:
 - Contract (2 categories: Completion, Cancellation/withdrawal)
 - provider type (4 categories: TAFE, university, community education provider and private training provider)
 - state/territory of residence (8 categories: New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, Northern Territory and the Australian Capital Territory)

- Employer size (10 categories: 1-4, 5-9, 10-19, 20-49, 50-99, 100-199, 200-499, 500-999, >=1000)
- Gender (2 categories: male, female)
- Age group (4 ranges: 18 to 24 years, 25 to 34 years, 35 to 49 years and 50 years and over)
- Indigenous status (2 categories: Indigenous, non-Indigenous).

3 Large weights were trimmed to reduce variance.

All published percentages have been derived based on stated responses. As the survey was undertaken as a sample rather than a census, responses have been weighted to population benchmarks of apprentices and trainees who left their training between January and December 2018, the target population for the survey.

There are lags in reporting contract information to the National Apprentice and Trainee Collection. Therefore, numbers for the same period (in this case January to December 2018) change between collection quarters. The sample was drawn from the National Apprentice and Trainee Collection no. 99 (March 2019 estimates) and population counts weighted back to this same collection and time period.

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 Excel summary tables at <https://www.ncver.edu.au/research-and-statistics/collections/apprentice-and-trainee-experience-and-destinations> and can be used to calculate the 95% confidence intervals.