

LONGITUDINAL SURVEYS
OF AUSTRALIAN YOUTH
TECHNICAL REPORT 74

2009 cohort user guide



Longitudinal Surveys of Australian Youth (LSAY)

2009 cohort user guide

National Centre for Vocational Education Research

LONGITUDINAL SURVEYS OF
AUSTRALIAN YOUTH

TECHNICAL PAPER 74

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Additional information relating to this publication is available from the Longitudinal Surveys of Australian Youth Survey (LSAY) website <www.lsay.edu.au/publications/2547.html>.

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User guide updates

Date	Version	Update
June 2020	9.0	Updated for final data release (wave 11, 2019).
August 2019	8.0	Updated for latest data release (wave 10, 2018).
August 2018	7.0	Updated for latest data release (wave 9, 2017). Updated data access arrangements and terms and conditions of use. Added information about the new online data dictionary. Topic areas and data elements have been updated to promote consistency across cohorts. Reference has been added to the Academic Buoyancy Scale (Martin & Marsh 2008).
August 2017	6.0	Updated for latest data release (wave 8, 2016).
October 2016	5.0	Updated for latest data release (wave 7, 2015).
August 2015	4.1	Updated 'Appendix A: Updates to the Y09 data file'.
July 2015	4.0	Updated for latest data release (wave 6, 2014).
September 2014	3.0	Updated for latest data release (wave 5, 2013). Added information about the LSAY pivot tables. Updated references to: <ul style="list-style-type: none">▪ LSAY mailbox▪ PISA documents▪ NCVET fees and charges policy.
February 2014	2.1	Updated 'Appendix A: Updates to the Y09 data file'.
December 2013	2.0	Updated for latest data release (wave 4, 2012). Changed reference to metadata workbook.
October 2012	1.0	Original version of user guide.

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Background

The Longitudinal Surveys of Australian Youth (LSAY) is a research program that tracks young people as they move from school into further study, work and other destinations. It uses large, nationally representative samples of young people to collect information about education and training, work and social development.

It includes surveys conducted from the mid-1970s through to the mid-1990s: the Youth in Transition (YIT) program; the Australian Longitudinal Survey (ALS); the Australian Youth Survey (AYS); and the current LSAY collection, which began in 1995.

Survey participants in the current LSAY collection (collectively known as a 'cohort') enter the study at age 15 years or, as was the case in earlier studies, when they were in Year 9. Individuals are contacted once a year for up to 12 years, but respondents can miss one survey wave and still remain in the survey. Studies began in 1995 (Y95 cohort), 1998 (Y98 cohort), 2003 (Y03 cohort), 2006 (Y06 cohort), 2009 (Y09 cohort) and more recently in 2015 (Y15 cohort). About 14 000 students start out in each cohort.

Since 2003, the initial survey wave has been integrated with the Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA).

The LSAY research program provides a rich source of information to enable a better understanding of young people and their transitions from school to post-school destinations; it also explores their social outcomes, such as wellbeing. Information collected as part of the LSAY program covers a wide range of school and post-school topics, including: student achievement, student aspirations, school retention, social background, attitudes to school, work experiences and what students do when they leave school.

LSAY is managed and funded by the Australian Government Department of Education, Skills and Employment with support from state and territory governments. On 1 July 2007, the National Centre for Vocational Education Research (NCVER) was contracted to provide LSAY analytical and reporting services.

Between 1995 and 2007 the LSAY analytical and reporting services were provided by the Australian Council for Educational Research (ACER) jointly with the Australian Government Department of Education.

More information can be obtained from the LSAY website, or by contacting the LSAY team at NCVER:

Telephone: +61 8 8230 8400 Email: <lsay@ncver.edu.au>

Facsimile: +61 8 8212 3436 Website: <www.lsay.edu.au>

Using this guide

This *User guide* has been developed for users of the LSAY data. The guide brings together the resources available for data users and includes information on: how to access the data, the questionnaires, variable naming conventions, derived variables, the classifications and code frames used, the structure of the data (using topic areas, topic maps and data elements), supporting documentation, sample design and weights.

The LSAY data dictionary complements this user guide. It is designed to provide easy access to LSAY metadata using: ‘topic areas’ to group variables into common themes; and ‘data elements’ to represent variables that are common within and between waves.

Further information about the data dictionary is contained in the ‘The LSAY data’ section of this user guide. The data dictionary can be accessed at: <www.lsay.edu.au/data/lsay-data-dictionary>.

Users may also find the variable listing and metadata workbook useful. This workbook has the same information as the data dictionary but it is presented in Excel rather than as an online tool. The variable listing provides a complete list of the variables in the LSAY data files, as well as metadata for each variable, which includes the questionnaire text, base populations and values. The data can be filtered and inspected by cohort, wave/year, questionnaire section, topic area(s) and/or data element.

Further information about the variable listing and metadata is contained in the ‘The LSAY data’ section of this user guide. The variable listing can be accessed at: <www.lsay.edu.au/publications/2621.html>.

If you have any feedback or issues finding the information you need in this guide, please do not hesitate to contact the LSAY team at NCVER.

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The Y09 cohort

In 2009, a nationally representative sample of 14 251 students aged 15 years was selected to participate in the Programme for International Student Assessment (PISA), conducted by the Organisation for Economic Co-operation and Development (OECD). This sample became the fifth cohort of the LSAY program. This is referred to as the LSAY Y09 cohort.

The PISA sample was constructed by randomly selecting students aged 15 years from a sample of schools designed to represent all states and school sectors. In Australia, 353 schools and 14 251 students participated in PISA. Assessments in mathematical literacy, reading literacy and scientific literacy were administered in schools to provide information on student achievement. Students also completed a background questionnaire about their families, reading activities, English lessons, libraries, strategies used in reading and understanding texts, educational career, life at school, educational and vocational plans, attitudes to school and learning, work experience, workplace learning and part-time work.

In 2010, members of the Y09 cohort were contacted for their annual LSAY telephone interview (conducted by the Wallis Consulting Group) and have been contacted annually since then. The questionnaire for their 2010 interview included questions on school, transitions from school, post-school education and training, work, job history, job search history, non-labour force activities, health, living arrangements and finance, and general attitudes. Subsequent surveys asked similar questions, but with the emphasis changing from school to post-school education, training and work, depending on the person's circumstances. Since 2012, respondents have had the option to complete their interviews online. Respondents from the Y09 cohort completed their final survey in 2019.

Due to both population shifts over time and survey attrition, care needs to be taken when comparing individual waves of the cohort with other samples drawn from different populations. For example, it can be misleading to compare the LSAY Y09 wave 4 (2012) information with information about 18-year-olds from other surveys in the same year.

Prior to the development of this *User guide*, technical papers (including questionnaires, frequency tables and code books) contained information about the LSAY cohorts. Information from the technical papers has been consolidated in the series of user guides, providing a single source for technical information. These technical documents are discussed below.

Questionnaires and frequency tables

The following six questionnaire instruments were used in PISA 2009:

- student questionnaire
- school questionnaire
- parent questionnaire
- information communication technology questionnaire
- education career questionnaire
- reading for school questionnaire.

Parent, information communication technology and education career questionnaires were offered as national options, with Australia participating in all of these with the exception of the parent questionnaire.

The 2009 PISA questionnaires and code books are available from the PISA 2009 database: <<https://www.oecd.org/pisa/pisaproducts/pisa2009database-downloadabledata.htm>>.

The LSAY questionnaires and frequency tables and can be accessed at: <<https://www.lsay.edu.au/publications/search/y09-questionnaires-and-frequency-tables>>. Table 1 provides a summary of the LSAY Y09 questionnaires and frequency tables.

Table 1 Technical documents: questionnaires and frequency tables

Wave/year	Technical report/paper
Wave 1/2009	Technical report no. 70
Wave 2/2010	Technical report no. 71
Wave 3/2011	Technical report no. 72
Wave 4/2012	Technical report no. 80
Wave 5/2013	Technical report no. 83
Wave 6/2014	Technical report no. 85
Wave 7/2015	Technical report no. 87
Wave 8/2016	Technical report no. 89
Wave 9/2017	Technical report no. 95
Wave 10/2018	Technical report no. 97
Wave 11/2019	Technical report no. 99

LSAY QuickStats

LSAY QuickStats provides quick and simple access to summary LSAY data and replaces the previous cohort reports. Data are presented as a series of tables and charts and include information on education and employment pathways, as well as social indicators on living arrangements and satisfaction with life.

Data are organised by wave/year, beginning with the first wave of data collection (e.g. 1/2009) through to the final wave (e.g. 11/2019). For those interested in particular groups of young people, data can be filtered by a range of demographic variables.

LSAY QuickStats can be accessed at <<https://www.lsay.edu.au/data/lsay-quickstats>>.

Pivot tables

The pivot tables complement *LSAY QuickStats* by allowing users to create their own tables from a range of variables. The pivot tables provide the option to drill-down into the data and generate time series on the activities of young people from the first to the most recent survey wave.

Data on key employment, education, study and work, and social indicators are presented. Selected demographics are presented in each of the pivot tables, including: sex, state, geographic location, school sector, country of birth and socioeconomic status.

The pivot tables can be accessed at: <<https://lsay.edu.au/data/pivot-tables>>.

Figure 1 LSAY QuickStats

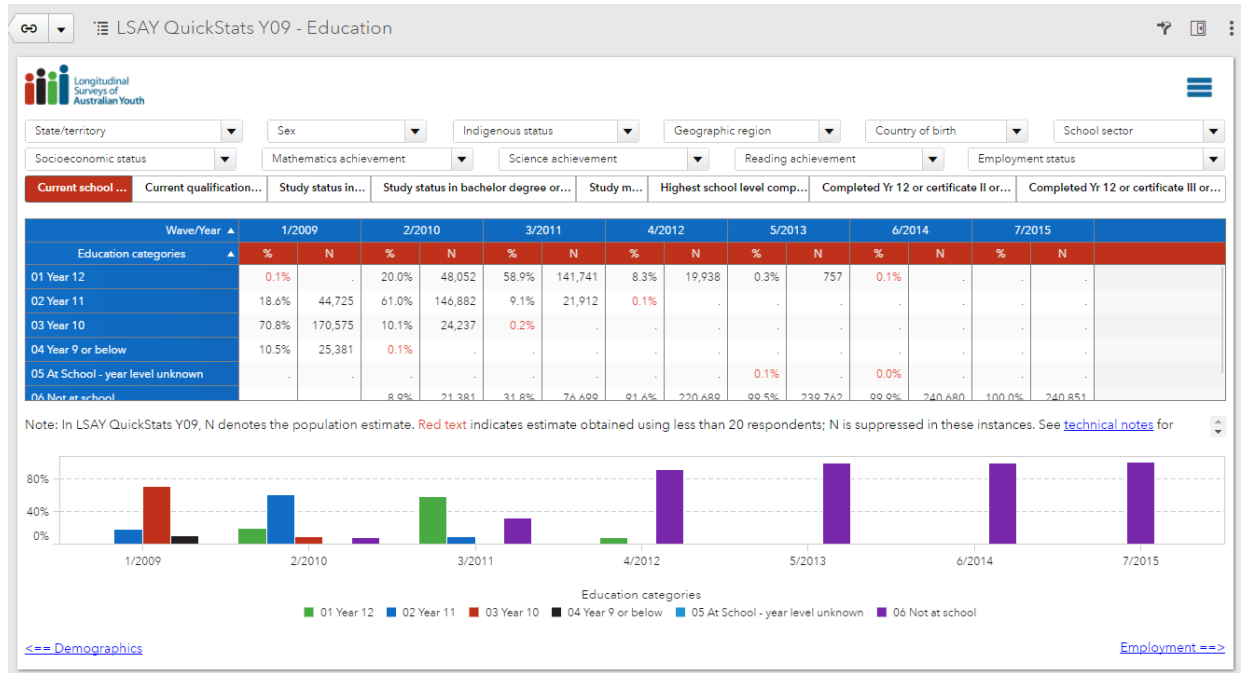
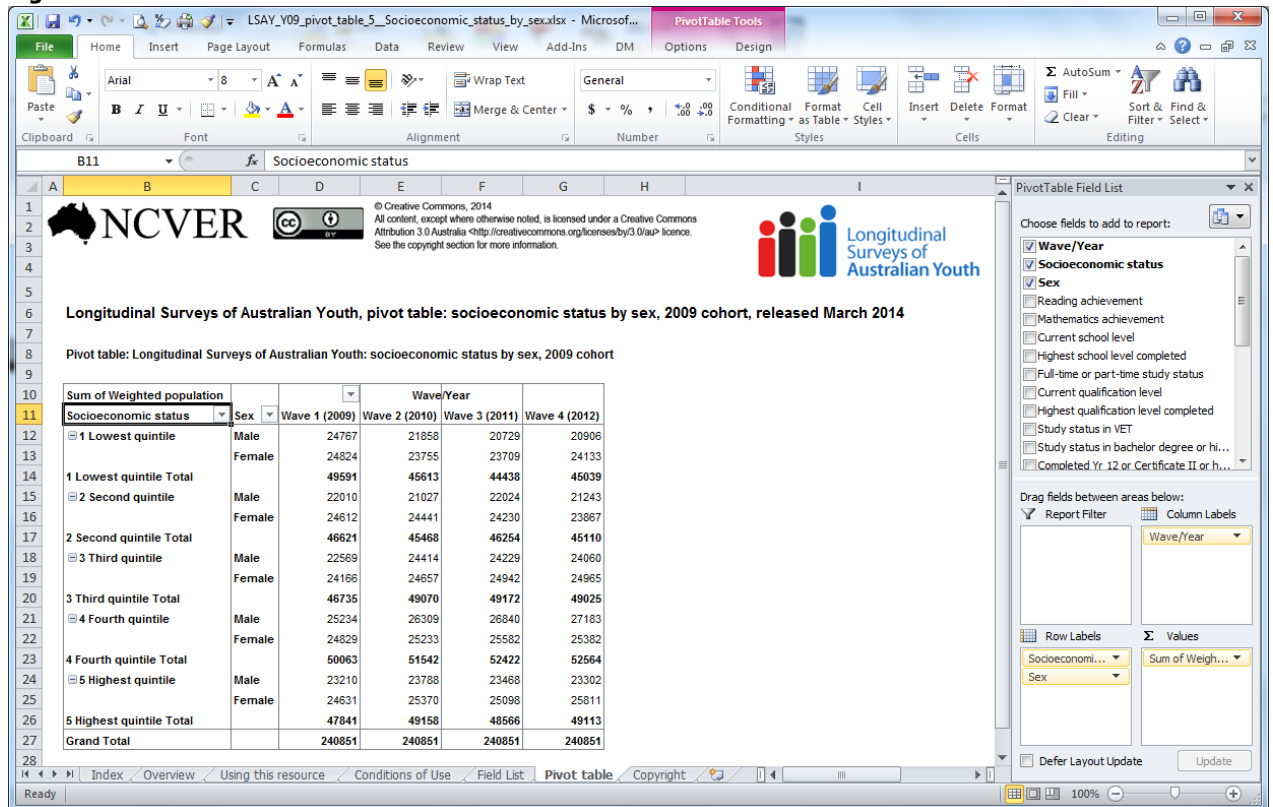


Figure 2 Pivot tables



Other technical papers

Other useful technical papers deal with sampling and weighting methodologies. The PISA technical reports, data analysis manuals and country reports also contain important information about the PISA sample from which the LSAY sample is drawn.

Technical paper number 61, *Weighting the LSAY PISA cohorts*, can be accessed at:
<www.lsay.edu.au/publications/2429.html>.

The PISA 2009 technical report, data analysis manuals and country report provide all the information required to understand the PISA 2009 data (contained in the first wave of the Y09 cohort) and to perform analyses in accordance with the complex methodologies used to collect and process the data. Because the same methods were applied to the PISA 2009 data as for previous cycles, a PISA 2009 data analysis manual was not produced and the PISA 2006 data analysis manuals should be referenced instead.

- The *PISA 2009 technical report* is available from:
<<http://www.oecd.org/pisa/pisaproducts/50036771.pdf>>.
- The *PISA 2006 data analysis manual* (for both SAS and SPSS users) is available from:
<https://www.oecd-ilibrary.org/education/pisa-data-analysis-manual-spss-second-edition_9789264056275-en>.
- The PISA 2009 country report (Australia): *Challenges for Australian education: results from PISA 2009* is available from: <<http://www.acer.edu.au/documents/PISA-Report-2009.pdf>>.

Accessing the data

LSAY data files are deposited annually with the Australian Data Archive (ADA) at the Australian National University in Canberra. Permission to use the data and access requirements are managed by the Australian Data Archive. Data access requires authorisation from the Data Archive Manager with applications reviewed and approved by NCVER. The ADA has upgraded to the Dataverse platform which means users can now apply to access the LSAY data online rather than using a paper-based form. The data is available to access free of charge.

The data can be accessed by:

- Registering with the ADA Dataverse.
 1. Navigate to LSAY Dataverse <<https://dataverse.ada.edu.au/dataverse/lsay>>
 2. Select 'Sign Up' from the top-right corner and complete the Dataverse registration form. You will need to validate your email address for your registration to be accepted by Dataverse.
 3. You can explore your Dataverse account by selecting your user name and heading to 'My Data', 'Notifications' or 'Account Information'.
- Requesting access to the LSAY datasets.
 1. Navigate to LSAY Dataverse <<https://dataverse.ada.edu.au/dataverse/lsay>> and login to your ADA Dataverse account.
 2. Navigate to the LSAY cohort you want to access from the list of datasets. *Note: If you want access to multiple cohorts at one time you can select this option when filling out the online application form.*
 3. Scroll down to the data files, select the file type/s you wish to access. Click on 'Request Access' and complete the online application form. **Important: users must comply with the terms and conditions outlined in the user undertaking in order to obtain access to the data** (see following section for details).
 4. A notification email will be sent to you from the ADA.
 5. If your request is approved, you will be able to download the requested files via the LSAY Dataverse.

Further information about accessing the LSAY data is available from the LSAY website:

<<https://www.lsay.edu.au/data/access>>.

Part of NCVER's role is to promote and encourage the use of the LSAY data. If you have any feedback or queries about the data and how to access it, please contact:

NCVER

Email: <lsay@ncver.edu.au>

Telephone: +61 8 8230 8400

Australian Data Archive

Email: <ada@anu.edu.au>

Telephone: 02 6125 2200

Fax: 02 6125 0627

User undertaking

Access to the LSAY unit record data is provided only if the individual requesting access undertakes to comply with the terms and conditions. Individuals must accurately identify themselves when interacting with any entity or technology supporting access to LSAY data. Applications must accurately reflect the intended use of the data. NCVER either directly or through an entity delivering services on its behalf, may seek to verify an applicant's identity and/or confirm the intended use of the data.

Terms and conditions

Authorised data users must undertake and agree to take full responsibility for ensuring LSAY unit record data files will be protected according to the following terms and conditions and hereby undertake to:

- A. Use all information provided by the ADA only for the purposes specified in their application and as approved by NCVER.
- B. Should the unit record data provided by NCVER be used for data matching/linking activities, comply at all times with the following conditions, and with any reasonable direction given by NCVER with respect to the disclosure, use or storage of matched/linked data. Authorised users must undertake to:
 - a. Comply with all applicable laws and regulations (including the Privacy Act 1988 (Cth));
 - b. Comply with all NCVER policies, procedures and protocols, including those published on NCVER's website at <<http://www.ncver.edu.au>> to the extent that they relate to that party's role in the Project;
 - c. Comply with all guidelines published by the Office of the Australian Information Commissioner which are mandatory for that party to comply with when matching/linking data;
 - d. Comply, so far as is reasonably practicable, with all guidelines published by the Office of the Australian Information Commissioner which are relevant to that party's role in the data matching/linking activities/project but which are not mandatorily imposed on that party;
 - e. And ensure compliance with this clause by the authorised user's employees, agents and subcontractors.
- C. Store and protect the data from misuse, interference and loss and from unauthorised access, modification or disclosure, including:
 - a. Protecting the privacy of the data and related individuals who may be identifiable in accordance with the Australian Privacy Principles (APPs) under the Privacy Act 1988 (Cth) as amended by the Privacy Amendment (Enhancing Privacy Protection) Act 2012.
 - b. Not copying, sending or providing the data to other persons or organisations.
 - c. Not attempting to identify an individual, including matching the information with any other information for the purposes of identifying individuals.

- d. Not disclosing information to other persons or organisations on any particular individual or any information in the unit record data where the identity of a particular individual might reasonably be ascertained.
 - e. Not disclosing information on any particular organisation contained in the unit record data to any other person or organisation without the written permission of the organisation to which the information relates.
 - f. Not publishing or disclosing the data or research results in a way that would enable any individual or organisation (other than your own) to be identified.
 - g. Not using the information as a basis for legal, administrative, or other actions that could affect individuals or organisations (other than your own) contained in the unit record data.
 - h. Relinquishing access and not attempting to access the requested data if no longer working on the specified project/purpose, or upon ceasing employment with the specified organisation.
 - i. Ensuring that data in all media (CD-ROMs, DVDs, portable storage devices, electronic files, hard copy) are stored securely with access controls.
 - j. Destroying the data, including any data resulting from matching the unit record file with other datasets, and any copies of it at the conclusion of the specified project/purpose, provided that the organisation may, with NCVER's prior written consent (which will not be unreasonably withheld, but may be granted subject to conditions at NCVER's discretion), retain a single copy of data for archive purposes or to comply with any applicable laws or institutional policy, subject to the organisation continuing to comply with the terms of this undertaking.
 - k. Attribute the source of the data in any publications resulting from the use of the unit record data.
- D. Provide a copy of any final reports and other data products to NCVER unless otherwise agreed by NCVER.
- E. Not do anything or permit anything to be done that may cause NCVER to breach its obligations under the Privacy Act 1988 (Cth) or its Privacy Policy (located at <http://www.ncver.edu.au/privacy.html>).

Authorised users must unconditionally and irrevocably indemnify NCVER against any loss incurred by NCVER (including legal costs, on a solicitor own client basis) as a result of any failure by the Indemnifying Party or any of its officers, employees, contractors, agents or representatives to comply with these terms and conditions for any reason. The Indemnifying Party must on demand from NCVER immediately pay or reimburse NCVER's loss.

Authorised users must undertake to adhere to all conditions listed above and understand that any breach of these terms may result in withdrawal of access to the information and/or incur a legal penalty if there is a breach of the Privacy Act or a breach under Common Law through disclosure of an organisation's commercial in confidence information.

Authorised users must represent and warrant that the information set out in their Request is true and correct and acknowledge that NCVER will rely upon and be induced thereby to grant access to data held by the ADA.

Specific data requests

A specific data request allows you to request customised tables and/or data analysis to be undertaken by NCVER without having to obtain full sets of the data. A specific data request can be made to <lsay@ncver.edu.au>.

There are fees and charges applicable for all data requests. Please refer to NCVER's data access and charging policy: <<https://www.ncver.edu.au/support/support/all-support/data-access-and-charges>>.

LSAY data releases

Information about the latest LSAY data releases is available from the LSAY website: <lsay.edu.au/data/latest.html>.

You may also request to be notified of recent LSAY releases, which include publications and data releases, by subscribing to NCVER's LSAY email alert page at: <lsay.edu.au/subscribe>.

Overview of the questionnaires

Programme for International Student Assessment

The first wave of the LSAY Y09 cohort was incorporated into the OECD's Programme for International Student Assessment (PISA), as was the case with the LSAY Y03 and Y06 cohorts. It is therefore important to understand the PISA 2009 data file when using the data from the LSAY Y09 cohort. The following section briefly describes some of the nuances of the PISA data file. Users are also encouraged to read the PISA technical documents as outlined in table 2.

Table 2 PISA technical documents

Technical report/paper	Web address
<i>PISA data analysis manual</i>	< https://www.oecd-ilibrary.org/fr/education/pisa-data-analysis-manual-spss-second-edition_9789264056275-en >
<i>PISA 2009 technical report</i>	< http://www.oecd.org/pisa/pisaproducts/50036771.pdf >
<i>PISA 2009 Australian country report: Challenges for Australian education – results from PISA 2009</i>	< http://www.acer.edu.au/documents/PISA-Report-2009.pdf >
<i>The role of plausible values in large-scale surveys</i>	< http://www.acer.edu.au/files/plausiblevaluesinsee.pdf >

As part of PISA 2009, students were assessed in mathematical literacy, reading literacy and scientific literacy to provide information on school achievement. In addition, a short questionnaire 'Reading for School' was included at the end of the cognitive booklets to collect information about reading curriculum and pedagogy. Students also completed a background questionnaire about their families, reading activities, time spent learning, their school, language (English) lessons, libraries, strategies used in reading and understanding texts, information communication technology, and their educational career.

PISA 2009 covered three domains: reading literacy, mathematical literacy and scientific literacy. For each PISA data collection, one of these domains is chosen as a major domain, while the others are considered minor domains. A major domain is tested more thoroughly in the year of collection. The major domain for PISA 2009 was reading literacy.

The PISA 2009 assessments consisted of a self-completion written test. Examples of items from the PISA 2009 assessment are available in *PISA 2009 assessment framework: key competencies in reading, mathematics and science* available at: <<http://www.oecd.org/pisa/pisaproducts/44455820.pdf>>.

The *PISA 2009 assessment framework* presents the guiding principles of the PISA 2009 assessment, which are described in terms of the skills students need to acquire, the processes that need to be performed and the context in which knowledge and skills are applied. It also illustrates the assessment domains with a range of sample tasks.

National options

Countries participating in PISA are able to introduce country-specific questions into PISA questionnaires, referred to as 'national options' questions. PISA 2009 national options data items administered in Australia include: time spent learning, out-of-school activities, life at school, post-school study plans, views on science, work, work experience, courses at school (for example, the International Baccalaureate and vocational education and training). For this reason, in addition to the publicly available PISA international data file, a separate national data file is created for Australia

that includes these national options questions. Some variables available from the international data file are omitted from the national data file (for example, country). In addition, some minor differences may exist between the two versions of the data file, for example, the way missing or not applicable values have been assigned to observations, or whether the variables are in numeric or character format.

The PISA data

The PISA international student and school data files are available from the PISA 2009 database: <<http://www.oecd.org/pisa/pisaproducts/pisa2009database-downloadabledata.htm>>. LSAY data can be matched to the PISA international data files by filtering for Australian records using the country identifiers (CNT, COUNTRY) and using student and school identifiers (STIDSTD and SCHOOLID). It is recommended that data users wishing to make international comparisons using PISA data download the international data file available from the PISA database.

Data users are encouraged to read the documents outlined in table 2 to better understand the PISA variables and data.

Plausible values

For PISA 2009, student assessment was undertaken using 13 different test booklets, and students were randomly assigned one of these booklets. In order to counteract any biases resulting from the use of different text booklets, the OECD calculates plausible values. Plausible values allow for the fact that there is measurement error at the individual level (through differing questionnaires), and the determination of these plausible values takes this error into account.

For each student, five plausible values have been calculated for each of the three domains (reading, mathematics and science), and for each of the five reading sub-domains (access and retrieve, integrate and interpret, reflect and evaluate, continuous text and non-continuous text).

Data users are encouraged to read the documents outlined in table 2 to better understand the construction and use of plausible values in LSAY.

How do I use plausible values?

There are five plausible values for each achievement domain and sub-domain. Unbiased estimates of achievement will only be obtained if plausible values are incorporated appropriately. The following are some key points:

- Averaging plausible values over individuals will lead to biased estimates and incorrect standard errors.
- Analysis should be repeated for each plausible value (five times), and any subsequent estimate (for example, coefficients and/or standard errors) combined in an appropriate way to obtain population estimates.
- Plausible values are correlated within a domain and, as such, an analysis may be undertaken using only a single plausible value, noting that standard errors may be incorrect.

Users are reminded that plausible values are not equivalent to the achievement scores in the LSAY Y95 and Y98 cohorts, nor are they equivalent to an individual's raw test scores.

Further information about using plausible values is available from the *PISA 2009 technical report*: <http://www.oecd.org/pisa/pisaproducts/50036771.pdf>.

The LSAY questionnaires

From 2010 (wave 2), students were contacted annually by telephone. Since 2012, respondents have also had the option to complete their interviews online. Respondents are asked a range of questions across the following sections:

- Section A: School
- Section B: Transition from school
- Section C: Post-school study
- Section D: Work
- Section E: Job history
- Section F: Job search activity
- Section G: Not in the labour force
- Section H: Living arrangements, finance and health
- Section J: General attitudes.

The Y09 questionnaires can be accessed at: www.lsay.edu.au/publications/search/y09-questionnaires-and-frequency-tables. Table 1 provides a summary of the technical papers available. The sub-section 'Other technical papers' describes other useful technical papers.

The LSAY data

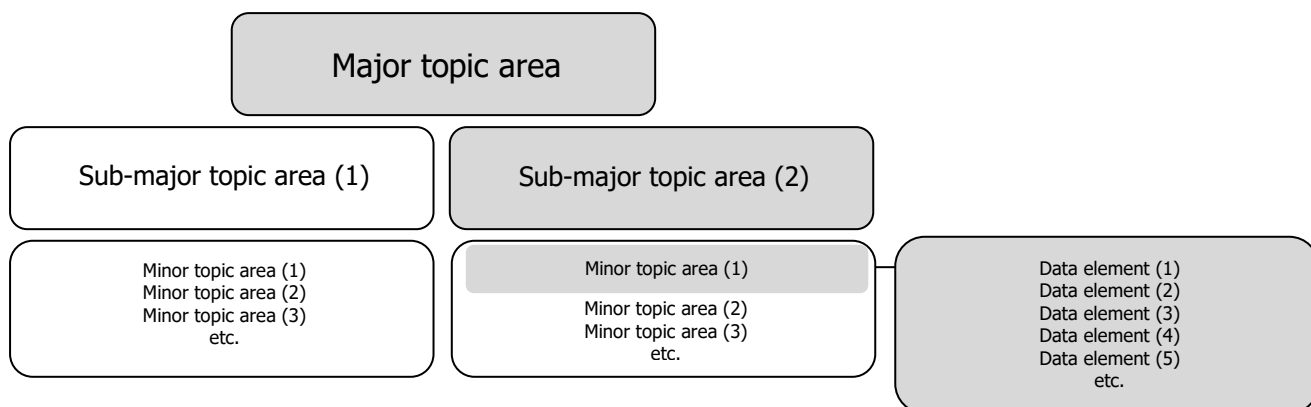
The LSAY data files are large and particularly complex. Close to 700 variables are collected (on average) across each wave, culminating in more than 7000 variables across the entire data file. To improve accessibility of the LSAY data, variables have been grouped into common themes called ‘topic areas’.

Topic areas

The topic areas comprise four hierarchical levels:

- *Major topic areas* are the broadest topic area. There are four major topic areas.
- *Sub-major topic areas* are subdivisions of the major topic areas. There are 11 sub-major topic areas.
- *Minor topic areas* are subdivisions of the sub-major topic areas. There are close to 100 sub-major topic areas.
- *Data elements* are subdivisions of the minor topic areas. There are about 1000 data elements.

Figure 3 LSAY hierarchical levels



The four major topic areas are *Demographics, Education, Employment* and *Social*. The divisions of these major topic areas into sub-major topic areas and minor topic areas are illustrated in figures 4 to 7.

Figure 4 Major topic area 1 – Demographics

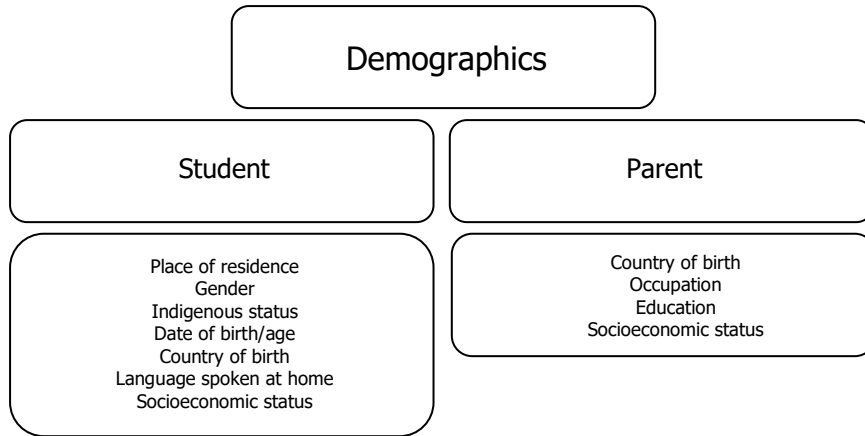


Figure 5 Major topic area 2 – Education

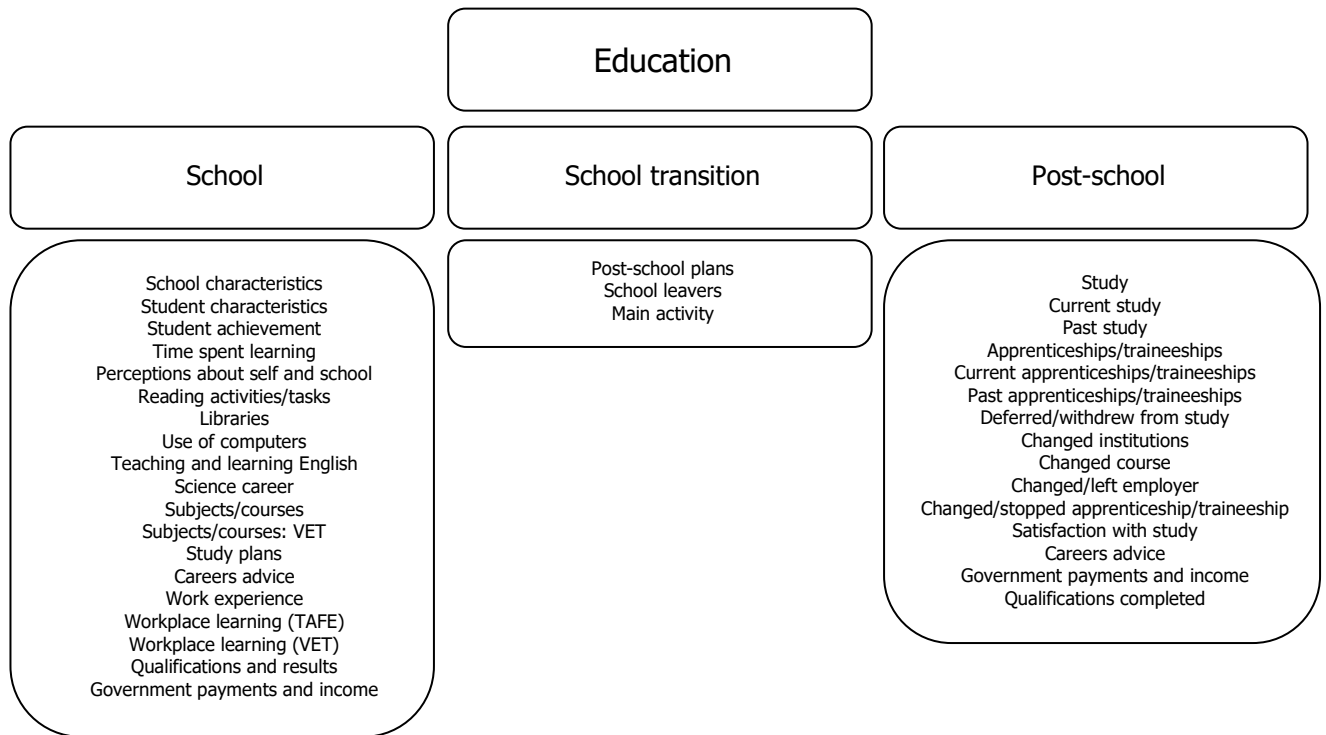


Figure 6 Major topic area 3 – Employment

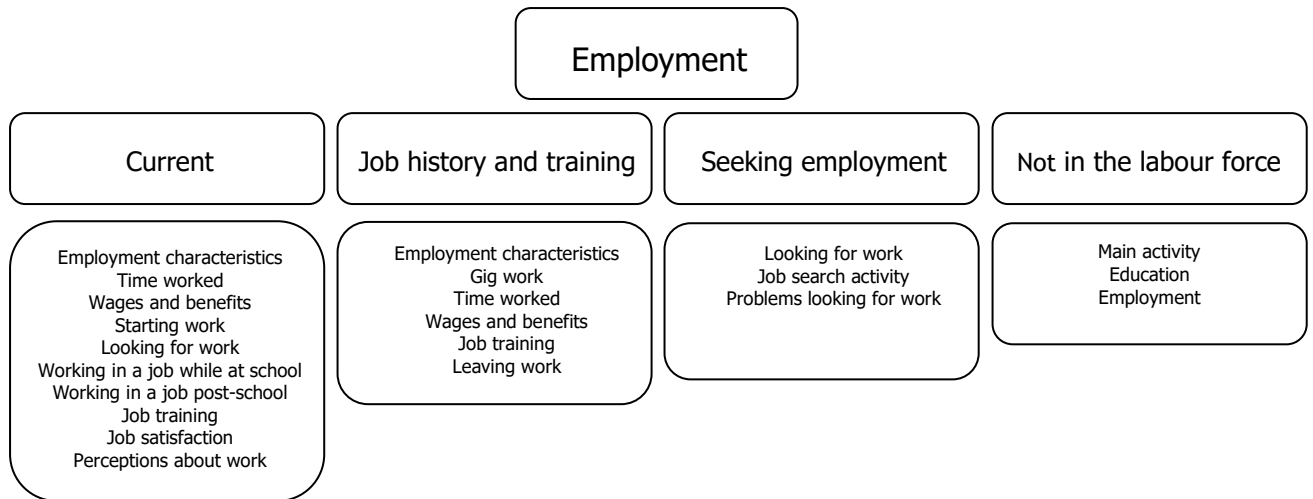
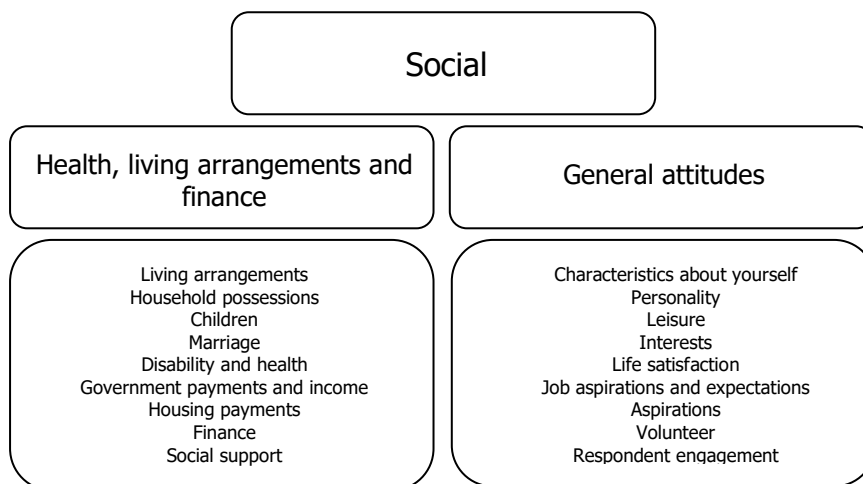


Figure 7 Major topic area 4 – Social



Topic maps

Topic maps have been developed for each of the 11 sub-major topic areas. The topic maps aim to improve accessibility of the LSAY data by linking common questions (or variables) within and between waves. These common variables are identified as *data elements*.

Topic maps by sub-major topic area can be found in the ‘Topic maps’ section of this *User guide*. A summary of the topic maps appears in table 3.

Table 3 Topic maps

Major topic area	Topic map	Sub-major topic area
Demographics	1	Student
	2	Parent
Education	3	School
	4	School transition
	5	Post-school
Employment	6	Current
	7	Job history and training
	8	Seeking employment
	9	Not in the labour force
Social	10	Health, living arrangements and finance
	11	General attitudes

Data elements

Data elements represent variables that are common within and between waves. In some instances, a data element may represent a single variable (when not collected across multiple waves). Information about each data element is contained in the supplementary sections (*Data elements A to D*) of this *User guide*. They can be accessed at: <www.lsay.edu.au/publications/2547.html> under the ‘supporting documents’ tab.

This series of data element documents are identified by their major and sub-major topic area. An overview of these data element documents is given in table 4.

Table 4 User guide data element documents

User guide	Major topic area	Sub-major topic area(s)
Data element A	Demographics	Student Parent
Data element B1	Education	School School transition
Data element B2	Education	Post-school
Data element C	Employment	Current Job history and training Seeking employment Not in the labour force
Data element D	Social	Health, living arrangements and finance General attitudes

For each data element, the following information is provided (where applicable):

- *Data element* – the data element name
- *Purpose* – the information provided by the data element
- *Variables* – the variable name(s) which correspond to this data element
- *Variable type* – whether the variable(s) is/are in numeric or character format
- *Variable label* – includes the question number (where applicable) and a short description of the variable(s)

- *Question* – the question wording for the variable(s)
- *Values* – the possible values the variable(s) can take and corresponding formats
- *Base population* – a description of and the syntax for the respondents sequenced through the question
- *Notes* – other information.

Variable listing/metadata workbook

To further assist in using the LSAY data, an Excel metadata workbook has been developed. It provides a complete listing of all the variables in the LSAY data files, as well as information about each variable. The information contained in this workbook is similar to that contained in the topic maps and data elements documents but can be manipulated using filters to search for and to group variables. Data can be filtered and inspected by cohort, wave/year, questionnaire section, topic area(s) and/or data element.

The variable listing and metadata workbook can be accessed at: <lsay.edu.au/publications/search-for-lsay-publications/2621>.

There are two key worksheets included in the metadata workbook: *Variables* and *Values*. The first worksheet, *Variables*, includes the variable type, variable label, question (wording) and base population. The second worksheet, *Values*, lists each variable and the values that variable can take (where applicable).

The *Variables* and *Values* worksheets list each variable in the order it appears in the data file. Major, sub-major and minor topic areas as well as data elements are provided for each variable. The wave/year and questionnaire section are also included (where applicable).

Variable selection

Not all variables assigned to a data element are directly comparable. Additional attributes such as question wording, values, classifications used and base populations must be considered when selecting variables and analysing the data.

Data elements have been created to assist in grouping variables that have similar attributes to help simplify variable selection. They are unique within a minor topic area but may not be unique across broader topic areas.

For example, the data element, *Study type*, exists under the major and sub-major topic area *Education: Post-school*. This data element appears under two different minor topic areas: *Study* and *Current study*. The *Study* minor topic area may include both past and current study (depending on the questionnaire sequencing). When identifying a data element and/or variable for use, it is important to consider other related data elements that may be located in a different topic area. This is illustrated in figure 8 using an excerpt from the metadata workbook.

Figure 8 Identifying related topic areas

	Cohort	Wave/year	Section	Major topic area	Sub-major topic area	Minor topic area	Data element	Variable	Type	Label	Question	Base
233755	Y09	2/2010	CA	2. Education	Post-school	Study	Study type	LBCA002	Num	CA2 Type of study or training	I would like you to think back t	Study or training since leavin
233838	Y09	2/2010	C	2. Education	Post-school	Current study	Study type	LBC082	Num	C82 Current study or training (not else	Are you currently doing an ap	No current study or training
24426	Y09	3/2011	CA	2. Education	Post-school	Study	Study type	LCCA008	Num	CA8 Type of study or training	What was the first study or tr	Study or training since last in
24660	Y09	3/2011	C	2. Education	Post-school	Current study	Study type	LCC081	Num	C81 Current study or training (not else	Are you currently doing ...	F No current study or training
25189	Y09	4/2012	CA	2. Education	Post-school	Study	Study type	LDCA008	Num	CA8 Type of study or training	What was the first study or tr	Study or training since last in
25424	Y09	4/2012	C	2. Education	Post-school	Current study	Study type	LDC081	Num	C81 Current study or training (not else	Are you currently doing ...	F No current study or training
25822	Y09	5/2013	CA	2. Education	Post-school	Study	Study type	LECA008	Num	CA8 Type of study or training	What was the first study or tr	Study or training since last in
26057	Y09	5/2013	C	2. Education	Post-school	Current study	Study type	LEC081	Num	C81 Current study or training (not else	Are you currently doing...?	No current study or training

To identify variables for analysis and to help with variable selection, refer to the topic maps contained in the ‘Topic maps’ section of this *User guide*. Relevant data elements can be identified by:

- navigating to a major topic area of interest (for example, *Education*)
- identifying a sub-major topic area of interest (for example, *Post-school [education]*)
- identifying a minor topic area of interest (for example, *Current study*)
- inspecting the data elements available within that minor topic area (for example, *Month started study*).

The topic maps show number of times that data element appears within a wave in the column corresponding to the particular wave.

Before using and/or analysing the variables/data elements selected, it is important to consider:

- variable attributes such as question wording, variable values, classifications used and base populations
- data elements which appear more than once in a wave
- data elements which appear more than once across waves
- data elements of the same name across other topic areas (if applicable)
- other data elements that may be closely linked in a topic area or across other topic areas.

Online data dictionary

The online data dictionary uses the LSAY data framework to present information from the LSAY datasets, questionnaires and metadata. The dictionary is organised using topic areas and data elements and indicates the cohorts and waves for which each data element is available.

Making a selection at the topic area or data element level will return the relevant variables in the 'Variables' section of the dictionary. The variable label, question text, base population and notes for that variable are also displayed. Selecting a variable will display the variable formats/labels in the 'Values' section of the data dictionary.

Users can navigate the data dictionary by:

- browsing the data dictionary using the scroll bars
- using the search function to return results for specific keywords, cohorts, waves or topic areas.

The online data dictionary can also be used offline using the Tableau reader free download which can be accessed at: <<https://www.tableau.com/products/reader>>. **For a faster and more responsive version we recommend using the data dictionary offline.**

The data dictionary can be accessed at: <<https://www.lsay.edu.au/data/lsay-data-dictionary>>.

Figure 11 Data dictionary

The screenshot shows the 'ONLINE DATA DICTIONARY' interface. It includes a search bar, filters for Cohort, Wave, and Topic areas, and a table of variables. The 'Country of birth' data element is selected, showing variables for waves Y95, Y98, Y03, Y06, Y09, and Y15.

Topic areas	Data element	Wave 1					Wave 2					
		Y95 (1995)	Y98 (1998)	Y03 (2003)	Y06 (2006)	Y09 (2009)	Y15 (2015)	Y95 (1996)	Y98 (1999)	Y03 (2004)	Y06 (2007)	Y09 (2010)
Demographics	Age of arrival in Australia											
> Student	Country of birth	✓			✓	✓						
>> Country of birth	Country of birth: 3 categories	✓	✓									
	Country of birth: All	✓			✓	✓						
	Country of birth: Australia	✓	✓									
	Country of birth: ISO			✓								
	Country of birth: Major groups	✓	✓									
	Country of birth: Minor groups					✓						
	Country of birth: Other				✓	✓						
	Country of birth: Verbatim		✓									
	Immigration status			✓	✓	✓						
	Immigration status: Australian defini...			✓	✓	✓						
	Year of arrival in Australia	✓	✓									
Demographics	Age	✓	✓	✓	✓	✓						

Variable name	Variable label	Question	Base	Year	
ST17001	Country of birth Self	In what country were you and your parents born?	Total respondents	2009	i
ST11001	Self born in country Q11a	In what country were you and your parents born?	Total respondents	2006	i
RCOB	Respondent's country of birth: Verbatim	Where were you born?	Not available	1995	i

Variable naming conventions

PISA variables

PISA variables only exist as part of wave 1 of the Y09 cohort and have a separate variable naming convention. Naming conventions for different types of PISA variables are summarised in Table 5.

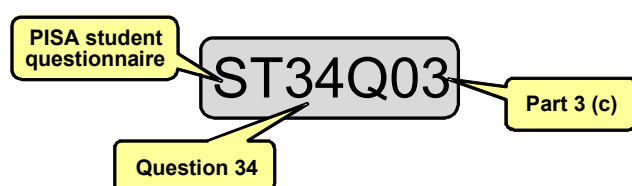
The student questionnaire instruments for PISA 2009 are comprised of the following components:

- the student questionnaire (ST)
- the information communication technology questionnaire (IC)
- the education career questionnaire (EC)
- the reading for school questionnaire (RFS).

Most PISA variables are named using the following convention: questionnaire component, question number, and question part (where applicable). For example, the variable:

- ST16Q01 is question number 16 from the student questionnaire
- ST34Q03 is question number 34 (part c) from the student questionnaire
- IC01Q01 is question number 1 from the information communication technology questionnaire.

Figure 9 PISA variable naming convention



Countries are also able to introduce country-specific questions in the PISA questionnaires, referred to as 'national options' questions. These are denoted by the character 'N' (for example, ST60N01), rather than the character 'Q'.

Plausible values and replicate weights

Plausible values are used to report student achievement in PISA. There are five plausible values for each of the domains and sub-domains¹ and the PISA student achievement variables take this information into account in the variable name. For example, the variable:

- PV1MATH points to the first plausible value in the maths domain
- PV4SCIE points to the fourth plausible value in the science domain
- PV3READ1 points to the third plausible value in the first reading sub-domain: access and retrieve

¹ The PISA 2009 major assessment domains are reading, mathematics and science. The PISA 2009 reading sub-domains are access and retrieve, integrate and interpret, reflect and evaluate, continuous text, and non-continuous text.

- PV4READ5 points to the fourth plausible value in the fifth reading sub-domain: non-continuous text.

Replicate weights have been used to estimate sampling variances for population estimates derived from a complex sample design. The weights are simply named chronologically from W_FSTR1 to W_FSTR80. The variable W_FSTUWT is the final student weight.

Detailed information about plausible values and replicate weights is available from the PISA data analysis manuals located at:

<<http://www.oecd.org/pisa/pisaproducts/pisadataanalysismanualspssandsassecondedition.htm>>.

Simple and scale indices

Two types of indices are provided in the PISA data file: simple indices and scale indices. Simple indices are constructed by arithmetically transforming or recoding one or more items, for example, age. Scale indices combine several answers provided by students or principals to build a broader, not directly observable, concept. For example, CULTPOSS is a student-level scale index derived from cultural possessions such as classic literature, books of poetry and works of art.

Simple and scale indices appear towards the end of the PISA (wave 1) data and tend to be descriptive rather than carrying a variable naming convention.

Table 5 Summary of PISA variable naming conventions

PISA variable	Examples of PISA variable names	Description
Standard variables	ST16Q01 IC05Q01 ST34Q03	The first two characters indicate the questionnaire instrument. The PISA questionnaire instruments are the student questionnaire (ST), and the information communication technology questionnaire (IC). The following two digits indicate the question number (e.g. ST16 is question 16 from the student questionnaire). The final three characters are the question part or sub-section. So ST34Q03 is part 3 of question 34 from the student questionnaire.
National options	ST60N01	The fifth character 'N' (rather than 'Q') indicates that the question is a national options question.
Student achievement/ plausible values	PV1SCIE PV4READ PV4READ5	The first two characters 'PV' indicate the variable is a plausible value. The next character indicates whether it is the first plausible value up to the fifth plausible value. The next four characters indicate the domain or sub-domain. <ul style="list-style-type: none"> • PV1SCIE indicates that the variable is the first plausible value from the science domain • PV4READ indicates that the variable is the fourth plausible value from the reading domain • PV4READ5 points to the fourth plausible value in the fifth reading sub-domain. <i>For further information on plausible values, see section, 'Overview of the questionnaires: Plausible values'.</i>
PISA weights	W_FSTR1 W_FSTR80 W_FSTUWT CNTFAC	Replicate weights are identified using the characters 'W_FSTR' followed by a chronological number. W_FSTUWT is the final student weight. CNTFAC are country weight factors for equal weights. <i>For further information on PISA weights, see the PISA 2006 data analysis manual.</i>
Indices	AGE HISCED CULTPOSS	Student and school-level simple and scaled indices tend to be descriptive rather than adopting a naming convention.

LSAY standard variables

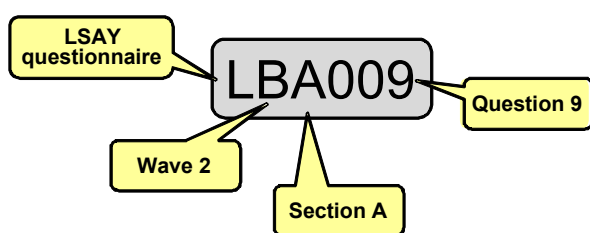
Most variable names are constructed using four pieces of information: the questionnaire instrument, the survey wave, the questionnaire section and the question number.

The character 'L' is used to identify the survey instrument, where L represents the LSAY survey instrument (as opposed to the PISA survey instrument). A wave identifier is used to identify the survey wave from wave 2 (when the LSAY survey instrument is first used). The second survey wave is allocated a B, the third survey wave is allocated a C, etc. The section identifier is used to identify the section of the questionnaire. The question identifier is used to identify the question number.

For example, the variable LBA009 refers to:

- the LSAY survey instrument, denoted by the first character 'L'
- wave 2, denoted by the second character 'B'
- section A, denoted by the third character 'A'
- question 9, denoted by the last three characters '009'.

Figure 10 LSAY standard variable naming convention



LSAY non-standard variables

There are a series of other variables that do not take the standard variable naming convention mentioned above. These variables are summarised in the following table.

Table 6 Summary of LSAY non-standard variable naming conventions

Non-standard variable	Examples of non-standard variable names	Description
Demographics	INDIG	Some demographic variables, such as Indigenous status, tend to be descriptive rather than adopting a naming convention.
School characteristics	STATE SECTOR	School characteristics, such as state of the school and school sector, tend to be descriptive rather than adopting a naming convention.
Derived variables	XLFS2009 XCEL2010	Derived variables have been constructed across all waves to summarise key information such as labour force status and current education level. <i>For further information about derived variables see the section, 'Derived variables'.</i>
IN flag	IN2009 IN2011	IN flags have been created for each survey year to indicate whether a respondent participated in the survey in that year. If the value of the IN flag is equal to 1, this indicates that the respondent participated in that year's survey. IN flag variables are denoted by the two characters 'IN' followed by four digits for the survey year.

Non-standard variable	Examples of non-standard variable names	Description
Interview dates	LBWID LBWIM LBWIY INTDAT09 INTSAS09	Day of interview, month of interview, and year of interview are collected each survey year and consolidated into an interview date variable. Interview date variables use the same variable naming convention for the first two characters, followed by the two characters 'W', and then 'D' for day of interview, 'M' for month of interview, or 'Y' for year of interview. The INTDAT and INTSAS variables are the consolidated interview date variables (in both character and SAS® date format respectively), followed by two digits for the survey year.
Postcode	PC2008 PC2009	Respondents' home postcodes are indicated by the first two characters 'PC' followed by the year of interview.
Sample and derived items	LBWSAM01 LCWSAM08 LDWDV01	Sample and derived items look at information from surveys of previous years. They have been created to enable more efficient and effective direction of questions. For example, the variable LCWSAM08 looks at whether the respondent had a job at the previous interview. Questions about whether respondents have the same job as reported at their last interview would only be asked of those who were recorded as being employed at the previous interview. Sample items are denoted by: <ul style="list-style-type: none"> ▪ the first character 'L' (to indicate the LSAY survey instrument was used) ▪ followed by the wave identifier (A to F) ▪ followed by the character 'W' ▪ followed by the characters 'SAM', or 'DV' for items derived by the field contractor ▪ followed by two digits denoting the sample/derived item.
Weights	WT10GEN ACH10WT WT2010 WT10GENP ACH10WTP WT2010P	Weight variables are denoted by the two characters 'WT', either at the beginning or end of the variable name. Two sets of weight variables are produced: the first reproduces the sample sizes in each wave, and the second (denoted by 'P' at the end of the variable name) reproduces the population size at each wave. <i>For further information about weights see section, 'Weights' in the chapter 'Sample and survey design'.</i>

Derived variables

A series of derived variables has been developed to simplify use of the LSAY data and provide useful measures for analysis. The derived variables focus on the areas of educational attainment, employment, measures of engagement in study and work, and social indicators. Table 7 summarises the series of derived variables available on the Y09 data file.

Derived variables are denoted by the character X, followed by three characters uniquely identifying the derived variable, followed by four digits for the survey year.

Detailed technical documentation outlining how the variables are derived as well as their properties is available at <www.lsay.edu.au/publications/2551.html>.

Table 7 Derived variables

Indicators	Derived variable	Variable name
Education	Current school level	XCSLYYYY
	Current qualification level	XCELYYYY
	Highest school level completed	XHSLYYYY
	Highest qualification level completed	XHELYYYY
	Study status in VET	XVETYYYY
	Study status in bachelor degree or higher	XBACYYYY
	Full-time or part-time study status	XFTSYYYY
	Completed Year 12 or certificate II or higher	X122YYYY
	Completed Year 12 or certificate III or higher	X123YYYY
Employment	Labour force status	XLFSYYYY
	Full-time or part-time employment status	XFTPYYYY
	Permanent or casual employment	XEMPYYYY
	Status in apprenticeship/traineeship	XATRYYYY
	Job mobility during last year	XMOBYYYY
	Occupation (1 digit ANZSCO first edition)	XOCCYYYY
	Average weekly pay	XWKPYYYY
	Average hourly pay	XHRPYYYY
	Average weekly hours worked	XHRSYYYY
	Any spell of unemployment during the year	XUNEYYYY
	In full-time employment or full-time education	XFTEYYYY
Social	Marital status	XMARYYYY
	Living with parent(s)	XATHYYYY
	Living in own home	XOWNYYYY
	Number of dependent children	XCHYYYY

Sample and survey design

In 2009, a nationally representative sample of 15-year-old students was selected to participate in PISA conducted by the OECD; 14 251 students were selected. The initial LSAY survey wave (wave 1) for 2009 was integrated with PISA, and this group of young people became the fifth LSAY cohort.

The 2009 PISA sample comprised 353 schools from all states and territories. This sample was designed to be representative of students across Australia, using state/territory, school sector, geographic location as the main strata. The gender composition of the school and Index of Community Socio-Educational Advantage (or ICSEA) are also considered as part of the sample design and are used as implicit factors in the stratification of the sample for the PISA 2009 cohorts.

Within each school, 48 non-Indigenous students were selected at random, and all age-eligible Indigenous students were sampled. In schools with fewer than 48 students, all 15-year-olds were selected. Smaller jurisdictions and Indigenous students were oversampled to ensure that reliable results can be produced by state and Indigenous status.

These students were contacted in 2010 to undertake follow-up telephone interviews as part of the LSAY program. This interview collected further information on the respondent's school experience, school and post-school intentions, school leavers and their transitions from school, post-school study, employment, living arrangements, finance, health and general attitudes. Since 2010, respondents have been contacted annually using computer-assisted telephone interviews and since 2012, respondents have also had the option to complete their interviews online. Participants from the Y09 cohort completed their final LSAY interview in 2019.

Further information about the survey design for PISA 2009 can be found from the:

- *PISA 2009 technical report* which can be accessed at: <<http://www.oecd.org/pisa/pisaproducts/50036771.pdf>>
- *PISA 2009 Australian country report: Challenges for Australian education: results from PISA 2009* which can be accessed at: <<http://www.acer.edu.au/documents/PISA-Report-2009.pdf>>.

Response rates

Table 8 shows the sample sizes and response rates for each LSAY Y09 survey wave from the first wave in 2009 through to the final wave in 2019.

Table 8 Sample sizes and response rates

	Wave/year										
	1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Age at June 30	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7	24.7	25.7
Sample size (n)	14,251	8,759	7,626	6,541	5,787	5,082	4,529	4,037	3,518	3,234	2,933
% of wave 1	100	61.5	53.5	45.9	40.6	35.7	31.8	28.3	24.7	22.7	20.6
% previous wave		61.5	87.1	85.8	88.5	87.8	89.1	89.1	87.1	91.9	90.7

Sources of error

Estimates based on sample surveys have two major sources of error: non-sampling and sampling error. A brief description of the two types and an outline of what can be done to overcome the effects of these errors are given below.

Non-sampling error

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Some common examples of non-sampling error include: non-response, incorrect responses, missing responses, and interviewer and processing error. Non-sampling error can be accounted for, in part, by using weighted estimates to adjust for non-response. However, there are no statistical measures to accurately adjust for other types of non-sampling error. Nevertheless, other types of non-sampling error can be minimised through good questionnaire design, training and monitoring of interviewers, the use of computer-assisted interviews and effective data-checking and processing procedures.

Non-response

All surveys suffer from error related to non-response. Non-response is a form of non-sampling error that can be taken into account in the analysis of survey data. There are typically two forms of survey non-response:

- *Item non-response* occurs when a respondent does not answer all the questions in the survey.
- *Unit non-response* occurs when not all respondents answer the survey due to, for example, refusal to participate, or inaccurate contact details.

Item non-response can be minimised with the use of CATI, which can forward-feed information from previous interviews. Item non-response is generally treated using imputations. There are currently no imputed data for missing values in LSAY. However, data users can apply a number of techniques to help make the data more complete. The use of statistical modelling techniques, such as multiple imputation, allows data users to estimate item non-response, along with their respective standard errors.

Unit non-response (also called attrition) can lead to biased population estimates and incorrect standard errors, particularly if certain groups of the sample drop out at differing rates. Survey attrition is counteracted by attempting to maximise the year-on-year response rate, appropriate statistical modelling techniques, and/or the application of appropriate survey weights.

Weights

In order for the LSAY sample to more accurately represent the population of Australian 15-year-olds in 2009, the collected sample must be weighted to account for differences in the sampling distributions from the original population distribution that may have arisen during the sampling process.

In 2010, NCVER reviewed the weighting methodology used for the LSAY Y03 cohort. As a result of this review, a logistic regression approach to weighting has been adopted. This methodology is consistent with the approach taken to calculate the Y06 and Y09 weights. These weights are provided in the data files deposited with the Australian Data Archive.

Further detailed information regarding the current weighting methodology used is available from technical paper number 61, *Weighting the LSAY PISA cohorts* available at:

<www.lsay.edu.au/publications/2429.html>.

There are two weighting procedures applied to the LSAY data:

1. *Sample weights* reflect the original sample design and ensure that the sample matches the population distribution from which the original sample was drawn. In the Y09 cohort, two sampling weights have been created. The first weights sum to the sample size for that given wave. For example, the sample weights add to 14 251 in wave 1, 8759 in wave 2, etc. In the second set of weights, the sum of the weights equals the original population from which the sample was drawn (240 851). Students from states and territories with smaller numbers of 15-year-olds are over-sampled and students from jurisdictions with larger numbers of 15-year-olds are under-sampled. In order for the sample to more accurately represent the population of Australian 15-year-olds, the sample is weighted so that sample sizes within strata are proportional to the original population sizes of the states and territories (that is, strata).
2. *Attrition weights* are used to address unit non-response by ensuring that the distribution of the sample matches the distribution of the sample population. Attrition weights used in LSAY account for wave-on-wave attrition from the first wave.

In calculating attrition weights, a non-response analysis was undertaken to determine the factors that contributed to attrition. The use of attrition weights ensures that distributions in each wave match those obtained in PISA (for the factors identified as contributing to attrition). Logistic regressions have been used to calculate attrition weights. The response variable of whether or not a respondent replied to the survey in a given year was regressed against a series of factors that may contribute to non-response. The inverse of the predicted probability of responding then forms the attrition weights.

The final LSAY weights for each wave combine both the sample and attrition weights. Two sets of final weights are produced. The first reproduces the sample sizes in each wave, and the second reproduces the population size (240 851) at each wave. In both cases, the distributions in each wave match those obtained in the original population.

Users must be aware that bias resulting from survey attrition may not be fully accounted for in the weighting strategies used. To allow users to determine the effectiveness of the attrition weights, both weighted and unweighted data can be selected from the *LSAY QuickStats* 'Demographics' tables which can be accessed at: <<https://www.lsay.edu.au/data/lsay-quickstats>>. Researchers are encouraged to determine their own weighting or analysis methodology to counteract attrition; this may include using methods of multiple imputations for missing values.

Table 9 shows the three different types of available weights and the variable naming convention for each, where YY or YYYY denotes the survey year at two or four digits respectively. Weights that sum to the population size are denoted by 'P' at the end of the weight variable.

Table 9 Weight variables

Weight	Variables	Sum
Sample weight	WTYYGEN	Sample size in YY
Sample weight (N)	WTYYGENP	Population size (240 851)
Attrition weight	ACHYYWT	Sample size in YY
Attrition weight (N)	ACHYYWTP	Population size (240 851)
Final weight	WTYYYY	Sample size in YYYY
Final weight (N)	WTYYYYP	Population size (240 851)

Sampling error

Users of the LSAY data must consider the size of the sampling error when deriving or interpreting estimates obtained from LSAY. Sampling error arises because estimates are obtained from the use of a sample rather than from measuring the entire population. It is possible to select many different individual samples from a single population; each of these would provide a different population estimate. An estimate obtained from a sample is subject to sample-to-sample variation (sampling error). In random (probability) sampling, the size of the sampling error (for a given sample) is measured using the standard error of the estimate.

It is important that users take into consideration the reliability of estimates obtained from survey data. Standard errors, confidence intervals and relative standard errors (RSEs) can be calculated to determine the reliability of the estimate(s).

The greatest contributor to standard error is the sample size. Small sample sizes generally result in higher standard errors and wider confidence intervals. The relative standard error enables a comparison of the accuracy between two different estimates. An estimate with a high relative standard error or wide confidence interval should be used with caution, and users are advised against relying on estimates obtained from sample sizes of fewer than five, or estimates that have a relative standard error greater than 25%.

Standard errors

The standard error of an estimate indicates the accuracy to which that estimate approximates the true population parameter. There are multiple methods for calculating the standard errors in complex surveys. One method commonly used is the Taylor series expansion.² These standard errors can then be used to calculate confidence intervals and relative standard errors.

Confidence intervals

The confidence interval is an interval estimate of the population parameter. Sample estimates which have high standard errors will have wide confidence intervals.

The mathematical derivation of a 95% confidence interval for a proportion is:

$$\hat{p} \pm 2 \times se(\hat{p})$$

where \hat{p} is the estimate obtained from the sample, and $se(\hat{p})$ is the standard error of the estimate (typically obtained from a statistical analysis package).

Relative standard errors

The relative standard error is a standardised measure that enables the comparison between different estimates in terms of their reliability. The relative standard error is derived by dividing the standard error of the estimate by the estimate itself, expressed as a percentage:

$$RSE(\hat{p}) = \frac{se(\hat{p})}{\hat{p}} \times 100$$

² For further information on this technique, users should consult William Cochran, *Sampling techniques*, 3rd edn, John Wiley and Sons, New York, 1977, sections 11.18, 11.19, 11.20.

Examples

Consider the following estimates of highest school level completed (XHSL2010) to 2010 taken from the Y09 cohort reports. In this example, estimates obtained from a large sample are compared with estimates obtained from a small sample. Table 10 presents the highest school level for all respondents (large sample), while table 11 presents the highest school level obtained for those from remote areas (small sample).

Table 10 Estimates, standard errors, RSEs and confidence limits for highest school level completed, Y09 cohort in 2010 for a large sample (all respondents)

Year level	Frequency	%	Standard error of %	RSE (%)	95% confidence interval	
					Lower limit	Upper limit
Year 12	63	0.75	0.10	13.84	0.55	0.95
Year 11	1817	21.45	0.51	2.37	20.45	22.44
Year 10	5990	67.08	0.61	0.91	65.88	68.28
Year 9 or below	889	10.72	0.44	4.14	9.85	11.59
Total	7626	100				

Table 11 Estimates, standard errors, RSEs and confidence limits for highest school level completed, Y09 cohort in 2010 for a small sample (remote respondents)

Year level	Frequency	%	Standard error of %	RSE (%)	95% confidence interval	
					Lower limit	Upper limit
Year 12	4	2.46**	1.40	56.83	0.00	5.21
Year 11	47	31.86	5.01	15.73	21.99	41.73
Year 10	182	62.34	5.08	8.16	52.33	72.36
Year 9 or below	10	3.34*	1.44	43.08	0.51	6.17
Total	243	100.00				

Notes: * Estimate has a relative standard error greater than 25%.

** Estimate has a sample size of fewer than five.

Using this example, we see the estimate for all respondents who finished Year 11 is 21.45%, with a relative standard error of 2.37%. The estimate for remote respondents who finished Year 11 is 31.86%, with a relative standard error of 15.73%. Both estimates have a relative standard error of less than 25%, so are considered reliable; however, the estimate for remote respondents is much less reliable than the estimate for all respondents, given that the relative standard error for remote respondents (15.73%) is considerably higher than that of all respondents (2.37%).

In addition, we would not recommend using estimates obtained from respondents from remote areas who have completed Year 12 or Year 9 or below, as the relative standard errors are higher than 25%.

The interpretation of the confidence intervals for all respondents (table 10) is: we are 95% confident that the true population estimate of Year 11 completion lies between 20.45 and 22.44%.

Classifications and code frames

There are a number of variables contained in the LSAY data files that are coded using standard classifications. The information for these variables is collected using open-ended questions, and verbatim responses are recorded. These responses are then coded using standard classifications.

The details of these classifications are not provided in the supporting documentation because they are very lengthy and can be summarised in a variety of ways. This section provides a summary of the classifications and code frames used for each survey wave along with references to the coding frameworks.

Table 12 Summary of classifications and code frames used in the LSAY Y09 data file

Wave/year	Education	Occupation	Industry	Institution
1/2009	ISCED 97	ISCO 88 ANZSCO 1st edition	Not applicable	Not applicable
2/2010	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
3/2011	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
4/2012	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
5/2013	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
6/2014	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
7/2015	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
8/2016	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
9/2017	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
10/2018	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
11/2019	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame

Notes: ISCED – International Standard Classification of Education
 ASCED – Australian Standard Classification of Education
 ISCO – International Standard Classification of Occupations
 ANZSCO – Australian and New Zealand Standard Classification of Occupations
 ANZSIC – Australian and New Zealand Standard Industrial Classification.

Education

The International Standard Classification of Education (ISCED) 1997 is used to code parental education levels and expected student educational levels in the first wave of the 2009 cohort as part of PISA.

The ISCED has the following categories:

- ISCED 1 (primary education)
- ISCED 2 (lower secondary e.g. up to Year 10)
- ISCED 3B or 3C (vocational/pre-vocational upper secondary e.g. Year 11 with Certificate III)
- ISCED 3A (upper secondary e.g. Year 12)
- ISCED 4 (non-tertiary post-secondary e.g. certificate IV)
- ISCED 5B (vocational tertiary e.g. diploma)
- ISCED 5A or 6 (theoretically oriented tertiary and postgraduate e.g. bachelor degree, postgraduate degree).

Further information about ISCED is available at:

<http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-1997-en_0.pdf>.

The Australian Standard Classification of Education³ (ASCED) is used to code the area of study from wave 2 (2010).

Occupation

The International Standard Classification of Occupations (ISCO) 88 is used to code parental occupation in the first wave of the 2009 cohort as part of PISA.

Further information about ISCO is available at:

<www.ilo.org/public/english/bureau/stat/isco/isco88/index.htm>

The Australian and New Zealand Standard Classification of Occupations⁴ (ANZSCO) first edition is used to code the remaining occupational data. The ‘national options’ questions relating to occupation asked at wave 1 as part of PISA have been coded using ANZSCO. This includes information about the kind of work respondents had at wave 1, and the type of job the respondent expects to have at age 30.

Industry

The Australian and New Zealand Standard Industrial Classification⁵ (ANZSIC) 2006 is used to code industries for all waves of the 2009 cohort.

Institution

Non-standard institution code frames have been developed specifically for LSAY to enable consistent coding of education institutions. The code frame incorporates information about the institution campus and uses six digits to code institutions (including campus) from wave 2 (2010).

The institution code frame can be accessed at: <www.lsay.edu.au/publications/2547.html> under the ‘Supporting documents’ tab.

³ ABS (Australian Bureau of Statistics), *Australian Standard Classification of Education (ASCED)*, cat.no.1272.0, Canberra, 2001.

⁴ ABS, *Australian and New Zealand Standard Classification of Occupations*, 1st edn, cat.no.1220.0, ABS, 2006.

⁵ ABS, *Australian and New Zealand Standard Industrial Classification*, cat.no.1292.0, Canberra, 2006.

Topic maps

The following series of topic maps list the data elements for each sub-major topic area by minor topic area. The digits within the tables indicate the number of times the data element appears within a wave. This is equivalent to the number of variables corresponding to the data element in a single wave.

‘Topic map 1: Demographics – Student’ contains demographic information relating to respondents’ place of residence, gender, Indigenous status, date of birth and age, country of birth, language spoken at home, and socioeconomic status.

‘Topic map 2: Demographics – Parent’ contains demographic information relating to the country of birth, occupation and education levels of a respondent’s mother and father.

‘Topic map 3: Education – School’ contains school education information relating to respondents’ school characteristics, student characteristics, student achievement, time spent learning, perceptions about self and school, reading activities, libraries, use of computers, learning English, views on science, subjects and courses, school plans, careers advice, work experience, workplace learning, qualifications and results, and government payments and income.

‘Topic map 4: Education – School transition’ contains school transition information about intentions and reasons for leaving school, post-school plans, and school leavers’ main activity since leaving school.

‘Topic map 5: Education – Post-school’ contains post-school education information relating to study (including current and past study, apprenticeships and traineeships), qualifications obtained, reasons for withdrawing/deferring from study, changes in study status and/or details (including changes to course, institution, employer, and apprenticeship or traineeship), satisfaction with study, careers advice, and government payments and income.

It is worth noting that within the following minor topic areas:

- ‘Study’ may refer to past and/or current study as well as apprenticeships and traineeships (for some waves).
- ‘Current study’ may refer to apprenticeships and traineeships (for some waves).
- ‘Past study’ may refer to apprenticeships and traineeships (for some waves).
- ‘Apprenticeship/traineeships’ may refer to past and/or current apprenticeships (for some waves).

‘Topic map 6: Employment – Current’ contains respondents’ current employment including: employment characteristics, time worked, wages and benefits, when started and left work, reasons for leaving work, employment while at school, post-school employment, job training, job satisfaction and perceptions about work.

‘Topic map 7: Employment – Job history and training’ contains respondents’ job history and training information (including any other employment currently undertaken by the respondent) relating to employment characteristics, time worked, wages and benefits, job training undertaken and reasons for leaving work.

‘Topic map 8: Employment – Seeking employment’ contains information about respondents’ job-seeking behaviour, including whether they were looking for work, job search activity details and problems looking for work.

‘Topic map 9: Employment – Not in the labour force’ contains respondents’ main activity while not in the labour force and their intentions for seeking employment or commencing study.

‘Topic map 10: Social – Health, living arrangements and finance’ contains information about respondents’ living arrangements, household possessions, children, marriage, disability and health, government payments, housing payments and financial circumstances.

‘Topic map 11: Social – General attitudes’ contains information about what respondents do in their leisure time, their satisfaction with life, job and life aspirations and expectations, any volunteer work undertaken and their engagement with the LSAY program.

Topic map 1: Demographics — Student

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Place of residence	State		1	1	1	1	1	1	1	1	1	1
	Postcode		1	1	1	1	1	1	1	1	1	1
Gender	Sex	1	1									
Indigenous status	ATSI	1										
Date of birth/ age	Age	1										
	Date of birth: Month	1										
	Date of birth: Year	1										
	Date of birth	1										
	Date of birth: SAS date	1										
Country of birth	Country of birth	1										
	Country of birth: Other	1										
	Country of birth: All	1										
	Immigration status	1										
	Immigration status: Australian definition	1										
	Age of arrival in Australia	1										
	Language spoken at home: All	1										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Language spoken at home	Language spoken at home: 3 digit	1										
	Language spoken at home: English/other	2										
Socioeconomic status	Cultural possessions (index)	1										
	Educational resources (index)	1										
	Household possessions (index)	1										
	Wealth (index)	1										
	Economic social and cultural status (index)	2										

Topic map 2: Demographics — Parent

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Country of birth	Mother's country of birth	1										
	Mother's country of birth: Other	1										
	Mother's country of birth: All	1										
	Father's country of birth	1										
	Father's country of birth: Other	1										
	Father's country of birth: All	1										
Occupation	Mother's occupation (ISCO)	1										
	Mother's occupation: White/blue collar classification	1										
	Mother's main activity	1										
	Mother works in job/business		1									
	Mother works full/part-time		1									
	Mother's occupation (ANZSCO)		1									
	Mother's main activity: Other		1									
	Father's occupation (ISCO)	1										
	Father's occupation: White/blue collar classification	1										
	Father's main activity	1										
	Father works in job/business		1									
	Father works full/part-time		1									
	Father's occupation (ANZSCO)		1									
	Father's main activity: Other		1									

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Parents' occupation: White/blue collar classification	1										
Education	Mother's schooling	1										
	Mother's qualifications: Post-secondary training certificate	1										
	Mother's qualifications: Post-secondary training qualification	1										
	Mother's qualifications: University	1										
	Mother's qualifications: Doctorate (PhD) or equivalent	1										
	Mother's highest education level (ISCED)	1										
	Mother's qualifications: Post-secondary qualification		1									
	Mother's qualifications: Post-secondary qualification (type)		1									
	Father's schooling	1										
	Father's qualifications: Post-secondary training certificate	1										
	Father's qualifications: Post-secondary training qualification	1										
	Father's qualifications: University	1										
	Father's qualifications: Doctorate (PhD) or equivalent	1										
	Father's highest education level (ISCED)	1										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Father's qualifications: Post-secondary qualification		1									
	Father's qualifications: Post-secondary qualification (type)		1									
	Parents' highest education level (ISCED)	1										
	Parents' highest education level (years)	1										
Socioeconomic status	Mother's ISEI score	1										
	Father's ISEI score	1										
	Parents' ISEI score	1										

Topic map 3: Education — School

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
School characteristics	School offers IB		1	1	1							
	Geographic location	1										
	School state	1	1	2	2	1	1					
	School postcode	1										
	School sector	1	1	1	1							
	School identifier	1										
Student characteristics	Student identifier	2										
	At school		1	2	2	2	2					
	At school (at last interview)			1	1	1						
	Year level	1	1	1	1							
	Full-time or part-time study		1	1	1							
	Study program	1										
	ISCED level	1										
	ISCED program	1										
	ISCED orientation	1										
	Studying for IB	1	1	1	1							
	Studying for IB (at last interview)			1	1							
	Attended kindergarten/pre-school	1										
	Age commenced primary school	1										
	Repeated year level: primary	1										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Repeated year level: lower secondary	1										
	Repeated year level: Year 11 or 12	1										
	Missed primary school	1										
	Missed secondary school	1										
	Changed schools (primary)	1										
	Changed schools (secondary)	1										
	Changed schools/same school		1	1	1							
	Changed schools: Month		1	1	1							
	Changed schools: Year		1	1	1							
	Current school level (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Student achievement	Plausible value in maths	5										
	Plausible value in reading	5										
	Plausible value in science	5										
	Plausible value in reading: Access and retrieve	5										
	Plausible value in reading: Integrate and interpret	5										
	Plausible value in reading: Reflect and evaluate	5										
	Plausible value in reading: Continuous text	5										
	Plausible value in reading: Non-continuous text	5										
	English mark	1										
Time spent learning	Minutes per class	3										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Minutes per week	3										
	Classes	4										
	Out-of-school	13										
	Out-of-school (primary)	3										
	Science	1										
	Mathematics	1										
	Other	1										
Perceptions about self and school	Subjects: English	1										
	Subjects: Maths	1										
	Subjects: Science	1										
	Subjects: Overall	1										
	Attitudes towards school	5										
	Student teacher relations	6										
	Life at school: Learn important things	1										
	Life at school: Feel happy	1										
	Life at school: Preparation for future	1										
	Life at school: Like learning	1										
	Life at school: Useful skills	1										
	Life at school: Enjoy being there	1										
	Life at school: Help in adult life	1										
	Life at school: I like to go to school	1										
	Life at school: Interesting work	1										
Life at school: Learning is fun	1											

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Life at school: Worthwhile learning	1										
	Life at school: Feel safe and secure	1										
	Life at school: Achieve standard satisfactory to me	1										
	Life at school: Can be successful	1										
	Life at school: Can cope with work	1										
	Life at school: Chance to do interesting work	1										
	Life at school: Do extra work	1										
	Life at school: Enjoy what I do	1										
	Life at school: Get excited about work	1										
	Life at school: Give marks I deserve	1										
	Life at school: Learn to work hard	1										
	Life at school: Like to ask questions	1										
	Life at school: Satisfactory standard in my work	1										
	Life at school: Success as student	1										
	Life at school: Teachers are fair	1										
	Life at school: Teachers help me	1										
	Life at school: Teachers listen	1										
	Life at school: Teachers take personal interest	1										
	Life at school: Treated fairly in class	1										
	Life at school: Try to do my best	1										
	Academic buoyancy		5									
Reading activities/ tasks	Time spent	1										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Enjoyment	13										
	Diversity	6										
	Online	7										
	Study strategies	16										
	Understanding and memorising	7										
	Summarising	6										
	Texts and tasks for school	21										
Libraries	Use of libraries	8										
	School has library	1										
Use of computers	At school	10										
	Resources: home	10										
	Resources: school	6										
	Entertainment	10										
	At home for school work	6										
	Self-confidence	6										
	Time spent in class	4										
	Time spent outside class	1										
	Attitudes	5										
	Used computer	1										
Teaching and learning	Class size	1										
English	Disciplinary climate	6										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Stimulating	8										
	Strategies	10										
Science career	Future	3										
Subjects/ courses	Provided school subject information			1	1							
	English		1	1	1							
	English subject		4	4	4							
	LOTE		1	1	1							
	LOTE subject		4	4	4							
	Mathematics		1	1	1							
	Maths subject		4	4	4							
	Science		1	1	1							
	Science subject		4	4	4							
	Business		1	1	1							
	Business subject		4	4	4							
	Humanities/SOSE		1	1	1							
	Humanities/SOSE subject		4	4	4							
	Creative/performing arts		1	1	1							
	Creative/performing arts subject		4	4	4							
	Health and physical education		1	1	1							
	Health and physical education subject		4	4	4							
	Computing		1	1	1							
	Computing subject		4	4	4							
	Home economics		1	1	1							

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Home economics subject		4	4	4							
	Technology		1	1	1							
	Technology subject		4	4	4							
	Other		1	1	1							
	Other subject		4	4	4							
	Other study		1	1	1							
	Qualification		1	1	1							
Subjects/ courses: VET	VET subjects	1	1	1	1							
	Number of VET subjects		1	1	1							
	VET subjects part of apprenticeship/traineeship	1	1	1	1							
	VET subjects at school		1	1	1							
	VET subjects at TAFE		1	1	1							
	VET subjects at ACE		1	1	1							
	VET subjects at other training organisation		1	1	1							
	TAFE subjects	1										
	TAFE subjects part of apprenticeship/traineeship	1										
	English subject is VET		4	4	4							
	LOTE subject is VET		4	4	4							
	Maths subject is VET		4	4	4							
	Science subject is VET		4	4	4							
	Business subject is VET		4	4	4							

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Humanities/SOSE subject is VET		4	4	4							
	Creative/performing arts subject is VET		4	4	4							
	Health and physical education subject is VET		4	4	4							
	Computing subject is VET		4	4	4							
	Home economics subject is VET		4	4	4							
	Technology subject is VET		4	4	4							
	Other subject is VET		4	4	4							
Study plans	Complete Year 10	1										
	Complete Year 10/11/other training	1										
	Complete Year 12	2										
	Plan to go on to Year 12		1	1	1							
	Complete post-secondary certificate	1										
	Complete post-secondary qualification	1										
	Complete university	1										
Careers advice	Helped to develop formal plan		1	1	1	1	1					
	Helped to make career decision		1	1	1	1	1					
	Helped to make subject/course decision		1	1	1	1	1					
	Helped to prepare to apply for job		1	1	1	1	1					
	Helped to prepare post-school study application		1	1	1	1	1					
	Helped to develop formal plan (at school)		1	1	1							
	Helped to make career decision (at school)		1	1	1							

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Helped to make subject/course decision (at school)		1	1	1							
	Helped to prepare to apply for job (at school)		1	1	1							
	Helped to prepare post-school study application (at school)		1	1	1							
	Talked with family		1	1	1							
	Talked with friends		1	1	1							
	Talked to careers guidance officer			1	1							
	Talked to a teacher			1	1							
	Talked to a teacher/careers guidance officer		1									
	Talked with person in desired job		1	1	1							
	Questionnaire		1									
	Visited workplace		1	1	1							
	University information session		1	1	1							
	TAFE information session		1	1	1							
	Careers expo/fair		1	1	1							
	Used internet site/computer program		1	1	1							
	Most useful careers advice		1	1	1							
Work experience	Work experience	1	1									
	Work experience (undertaken)		1									
	Number of days	1	1									
	Teaches what work is really like	1	1									

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Teaches about people	1	1									
	Teaches about instructions	1	1									
	Teaches about thinking for yourself	1	1									
	Teaches about confidence	1	1									
	Teaches about job skills	1	1									
	Teaches about work conditions	1	1									
	Teaches about your future career	1	1									
Workplace learning (TAFE)	Workplace learning	3										
	Number of days (planned)	1										
	Number of days	1										
	Teaches what work is really like	1										
	Teaches about people	1										
	Teaches about instructions	1										
	Teaches about thinking for yourself	1										
	Teaches about confidence	1										
	Teaches about job skills	1										
	Teaches about work conditions	1										
	Teaches about your future career	1										
Workplace learning (VET)	Workplace learning	3	1	1	1							
	Workplace learning (undertaken)		1	1	1							
	Time specified		1	1	1							
	Number of days (planned)	1										
	Number of days	1	1	1	1							

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Number of hours		1	1	1							
	Teaches what work is really like	1	1	1	1							
	Teaches about people	1	1	1	1							
	Teaches about instructions	1	1	1	1							
	Teaches about thinking for yourself	1	1	1	1							
	Teaches about confidence	1	1	1	1							
	Teaches about job skills	1	1	1	1							
	Teaches about work conditions	1	1	1	1							
	Teaches about your future career	1	1	1	1							
	Certificate of attainment		1	1	1							
Qualifications and results	Awarded certificate			1	1	1	1					
	Received any other certificate			1	1	1	1					
	Certificate name			2	3	3	3					
	Received (state-specific) score			1	1	1	1					
	Result			1	2	2	2					
	Highest school level completed (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Completed Year 12 or certificate II or higher (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Completed Year 12 or certificate III or higher (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Government payments and income	Receive Youth Allowance/AUSTUDY/ABSTUDY		1	1	1							

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Fortnightly Youth Allowance/ABSTUDY payment		1	1	1							
	Gone to school without Youth Allowance/AUSTUDY/ABSTUDY		1	1	1							

Topic map 4: Education — School transition

Minor topic area	Data element	Wave/year																		
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019								
Post-school plans	Student plans	1																		
	Student plans (immediate)		1	1	1															
	Student plans (eventual)		1	1	1															
	Parents' plans	1																		
	Friends' plans	1																		
	Study plans	1	1	1	1															
	Study plans: Verbatim	1																		
	Study plans: Type		1	1	1															
	Study plans: Timeframe		1	1	1															
	Influence: Family		1	1	1															
	Influence: Friends		1	1	1															
	Influence: School teachers		1	1	1															
	Influence: university/tafe representatives		1	1	1															
	Influence: Media		1	1	1															
	Influence: Career advisors		1	1	1															
	Influence: job		1	1	1															
	Influence: Information from employers		1	1	1															
	Influence: school work experience		1	1	1															
	Influence: community groups		1	1	1															
	Prepared to make decisions about future		1	1	1															

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Better prepared: school subject information		1	1	1							
	Better prepared: work experience/on-the-job training		1	1	1							
	Better prepared: career options information/tools		1	1	1							
	Better prepared: future study options		1	1	1							
	Better prepared: support		1	1	1							
	Better prepared: other		1	1	1							
School leavers	Left school before completing Year 12		1	1	1	1						
	Month left school		1	1	1	1	1					
	Year left school		1	2	2	2	2					
	Year level left school		1	1	1	2	2					
	Prepared to make decisions about future career		1	1	1	1	1					
	Main activity		1	1	1	1	1					
	Reason: Have job/apprenticeship		1	1	1	1	1					
	Reason: Wanted job/apprenticeship/traineeship		1	1	1	1	1					
	Reason: Not doing very well at school		1	1	1	1	1					
	Reason: Study/training not available at school		1	1	1	1	1					
	Reason: Didn't like school		1	1	1	1	1					
	Reason: Financially difficult		1	1								
	Reason: Teachers		1	1								
	Reason: Earn own money		1	1	1	1	1					

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Reason: Parents		1	1								
	Reason: Year 12 wouldn't help get a job		1	1								
	Reason: Year 12 wouldn't help with further study/training		1	1	1	1	1					
	Reason: Main reason		1	1	1	1	1					
	Feelings about having left school		1	1	1	1	1					
	Received study/training advice: University		1	1	1	1	1					
	Received study/training advice: TAFE		1	1	1	1	1					
	Received study/training advice: Other educational organisation		1	1	1	1	1					
	Received study/training advice: None		1	1	1	1	1					
	Study/training advice: On-campus (university)		1	1	1	1	1					
	Study/training advice: On-campus (TAFE)		1	1	1	1	1					
	Study/training advice: On-campus (other)		1	1	1	1	1					
	Study/training advice: Mentoring		1	1	1	1	1					
	Study/training advice: Summer school/short course		1	1	1	1	1					
	Study/training advice: Youth Allowance		1	1	1	1	1					
	Main reason returned to school			1	1	1	1					
Main activity	Main activity				1	1	1	1	1	1	1	1

Topic map 5: Education — Post-school

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Study	Study status (at last interview)			1	1	1	1	1	1	1	1	1
	Still studying		4	6	6	6	6	5	5	5	5	5
	Confirmation of study			1	1	1	1	1	1	1	1	1
	Confirmation of deferred study			1	1	1	1	1	1	1	1	1
	Resumption of deferred study			1	1	1	1	1	1	1	1	1
	Commenced study		1	1	1	1	1	1	1	1	1	1
	Study type		1	1	1	1	1	1	1	1	1	1
	Qualification		2	2	2	2	2	2	2	2	2	2
	Qualification (at last interview)			1	1	1	1	1	1	1	1	1
	Main area of study		2	2	2	2	2	2	2	2	2	2
	Institution		2	4	4	4	4	4	4	4	4	4
	Month started study		1	1	1	1	1	1	1	1	1	1
	Year started study		1	1	1	1	1	1	1	1	1	1
	Applied for university place		1	1	1	1						
	Intend to apply for university place		1	1	1	1						
	Intend to reapply for university place		1	2	2	2						
	First preference		1	1	1	1						
	First preference: Offered place		1	1	1	1						
	First preference: Institution		1	1	1	1						
	First preference: Accepted place			1	1	1						
First preference: Reason did not take up place (taking break/holiday/travelling)		1	1	1	1							

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	First preference: Reason did not take up place (required leaving home)		1	1	1	1						
	First preference: Reason did not take up place (need Youth Allowance)		1	1	1	1						
	First preference: Reason did not take up place (considering options)		1	1	1	1						
	First preference: Reason did not take up place (course costs)		1	1	1	1						
	First preference: Reason did not take up place (financial)		1	1	1	1						
	First preference: Reason did not take up place (prefer to work)		1	1	1	1						
	First preference: Reason did not take up place (prefer to study at TAFE)		1	1	1	1						
	First preference: Reason did not take up place (other)		1	1	1	1						
	First preference: Reason did not take up place (did not have sufficient marks)					1	1					
	First preference: Reason did not take up place (main reason)		1	1	1	1						
	University: Offered place		1	1	1	1						
	University: Institution		1	1	1	1						
	University: Accepted place		1	1	1	1						
	University: Reason did not take up place (taking break/holiday/travel)		1	1	1	1						

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	University: Reason did not take up place (required leaving home)		1	1	1	1						
	University: Reason did not take up place (need Youth Allowance)		1	1	1	1						
	University: Reason did not take up place (considering options)		1	1	1	1						
	University: Reason did not take up place (course costs)		1	1	1	1						
	University: Reason did not take up place (financial)		1	1	1	1						
	University: Reason did not take up place (prefer to work)		1	1	1	1						
	University: Reason did not take up place (prefer to study at TAFE)		1	1	1	1						
	University: Reason did not take up place (other)		1	1	1	1						
	University: Reason did not take up place (main reason)		1	1	1	1						
	Study status in bachelor degree or higher (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Study status in VET (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Current study	Study type		1	1	1	1	1	1	1	1	1	1
	Qualification		1	1	1	1	1	1	1	1	1	1
	Main area of study		1	2	2	2	2	2	2	2	2	2
	Institution		3	10	10	10	10	10	10	10	10	10
	Full-time or part-time study		3	4	4	4	4	4	4	4	4	4
	Month started study		1	2	2	2	2	2	2	2	2	2
	Year started study		1	2	2	2	2	2	2	2	2	2

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Month expect to complete study		1	1	1	1	1	1	1	1	1	1
	Year expect to complete study		1	1	1	1	1	1	1	1	1	1
	Current qualification level (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Full-time or part-time study status (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Past study	Study completed/withdrawn/deferred/changed		2	2	2	2	2	2	2	2	2	2
	Main area of study			2	2	2	2	2	2	2	2	2
	Institution		2	4	4	4	4	4	4	4	4	4
	Full-time or part-time study		3	3	3	3	3	3	3	3	3	3
	Month stopped study		3	3	3	3	3	3	3	3	3	3
	Year stopped study		3	3	3	3	3	3	3	3	3	3
	Highest qualification level completed (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Apprenticeships/ traineeships	Still studying		1	2	2	2	2	2	2	2	2	2
	Confirmation of apprenticeship/traineeship			1	1	1	1	1	1	1	1	1
	Month started study		1	1	1	1	1	1	1	1	1	1
	Year started study		1	1	1	1	1	1	1	1	1	1
	Qualification		1	1	1	1	1	1	1	1	1	1
	Main area of study		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Employer type		1	1	1	1	1	1	1	1	1	1
	Classes/off-the-job training at TAFE		1	1	1	1	1	1	1	1	1	1
	Provider of off-the-job training		1	1	1	1	1	1	1	1	1	1
	Status in apprenticeship/traineeship (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Current apprenticeships/ traineeships	Full-time or part-time study		2	2	2	2	2	2	2	2	2	2
	Employer type		2	2	2	2	2	2	2	2	2	2
	Classes/off-the-job training at TAFE		1	1	1	1	1	1	1	1	1	1
	Provider of off-the-job training		1	1	1	1	1	1	1	1	1	1
	Month expect to complete study		1	1	1	1	1	1	1	1	1	1
	Year expect to complete study		1	1	1	1	1	1	1	1	1	1
Past apprenticeships/ traineeships	Study completed/withdrawn/time out/other		1	1	1	1	1	1	1	1	1	1
	Employer type		1	1	1	1	1	1	1	1	1	1
	Reason apprenticeship/traineeship ended		1	1	1	1	1	1	1	1	1	1
	Month stopped study		1	1	1	1	1	1	1	1	1	1
	Year stopped study		1	1	1	1	1	1	1	1	1	1
Deferred/ withdrew from study	Reason: Problems juggling study and work commitments		1	1	1	1	1	1	1	1	1	1
	Reason: Wanted job/apprenticeship/traineeship		1	1	1	1	1	1	1	1	1	1
	Reason: Financially difficult		1	1	1	1	1	1	1	1	1	1
	Reason: Lost interest		1	1	1	1	1	1	1	1	1	1
	Reason: Never wanted to study		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Reason: Course was not what you wanted		1	1	1	1	1	1	1	1	1	1
	Reason: Wouldn't have led to good job/career		1	1	1	1	1	1	1	1	1	1
	Reason: Poor results		1	1	1	1	1	1	1	1	1	1
	Reason: Study load		1	1	1	1	1	1	1	1	1	1
	Reason: Never intended to complete the course		1	1	1	1	1	1	1	1	1	1
	Reason: Because of problems with access or transport		1	1	1	1	1	1	1	1	1	1
	Reason: Because of health or personal reasons		1	1	1	1	1	1	1	1	1	1
	Reason: Main reason		1	1	1	1	1	1	1	1	1	1
Changed institutions	Same institution		5	7	7	7	7	7	7	7	7	7
	Reason: Not first choice		5	7	7	7	7	7	7	7	7	7
	Reason: Better quality education		5	7	7	7	7	7	7	7	7	7
	Reason: Poor results		5	7	7	7	7	7	7	7	7	7
	Reason: The course wasn't exactly what you wanted		5	7	7	7	7	7	7	7	7	7
	Reason: Course not available at first institution		5	7	7	7	7	7	7	7	7	7
	Reason: Because of easier access or better transport		5	7	7	7	7	7	7	7	7	7
	Reason: Because of health or personal reasons		5	7	7	7	7	7	7	7	7	7

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Reason: Main reason		5	7	7	7	7	7	7	7	7	7
Changed course	Same course			2	2	2	2	2	2	2	2	2
	Reason: Course costs		1	2	2	2	2	2	2	2	2	2
	Reason: The first course was a pre-requisite for the second course		1	2	2	2	2	2	2	2	2	2
	Reason: Didn't like the first course		1	2	2	2	2	2	2	2	2	2
	Reason: Course was not what you wanted		1	2	2	2	2	2	2	2	2	2
	Reason: Better career prospects		1	2	2	2	2	2	2	2	2	2
	Reason: Poor results		1	2	2	2	2	2	2	2	2	2
	Reason: Study load		1	2	2	2	2	2	2	2	2	2
	Reason: Preferred to do second course		1	2	2	2	2	2	2	2	2	2
	Reason: Because of health or personal reasons		1	2	2	2	2	2	2	2	2	2
	Reason: Main reason		1	2	2	2	2	2	2	2	2	2
Changed/ left employer	Same employer		2	2	2	2	2	2	2	2	2	2
	Circumstances of changing employer		2	2	2	2	2	2	2	2	2	2
	Reason: Someone offered you a better job		2	2	2	2	2	2	2	2	2	2
	Reason: Boss/other people at work		2	2	2	2	2	2	2	2	2	2
	Reason: On-the-job training		2	2	2	2	2	2	2	2	2	2
	Reason: Because of problems with travelling or transport		2	2	2	2	2	2	2	2	2	2
	Reason: Because of health or personal reasons		2	2	2	2	2	2	2	2	2	2

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Reason: Main reason		2	2	2	2	2	2	2	2	2	2
	Way in which next job was better			2	2	2	2	2	2	2	2	2
	Month changed employer		2	2	2	2	2	2	2	2	2	2
	Year changed employer		2	2	2	2	2	2	2	2	2	2
Changed/ stopped apprenticeship/ traineeship	Reason: Offered better job		1	1	1	1	1	1	1	1	1	1
	Reason: Pay		1	1	1	1	1	1	1	1	1	1
	Reason: Job prospects		1	1	1	1	1	1	1	1	1	1
	Reason: Type of work		1	1	1	1	1	1	1	1	1	1
	Reason: Boss/other people at work		1	1	1	1	1	1	1	1	1	1
	Reason: On-the-job training		1	1	1	1	1	1	1	1	1	1
	Reason: Off-the-job training		1	1	1	1	1	1	1	1	1	1
	Reason: Study/training too difficult		1	1	1	1	1	1	1	1	1	1
	Reason: Because of problems with travelling or transport		1	1	1	1	1	1	1	1	1	1
	Reason: Because of health or personal reasons		1	1	1	1	1	1	1	1	1	1
	Reason: Main reason		1	1	1	1	1	1	1	1	1	1
Satisfaction with study	Problem-solving skills		1	1	1	1	1	1	1	1	1	1
	Analytic skills		1	1	1	1	1	1	1	1	1	1
	Ability to work as a team member		1	1	1	1	1	1	1	1	1	1
	Confidence in tackling unfamiliar problems		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Communication skills		1	1	1	1	1	1	1	1	1	1
	Work planning		1	1	1	1	1	1	1	1	1	1
	Overall satisfaction		1	1	1	1	1	1	1	1	1	1
	Improved career prospects		1	1	1	1	1	1	1	1	1	1
	Helped make contacts		1	1	1	1	1	1	1	1	1	1
	Impressions: Like being tertiary student		1	1	1	1						
	Impressions: Student life suits you		1	1	1	1						
	Impressions: Like campus atmosphere		1	1	1	1						
	Impressions: Student life meets expectations		1	1	1	1						
	Impressions: Made close friends		1	1	1	1						
	Problems: Paying fees		1	1	1	1						
	Problems: Juggling study and work commitments		1	1	1	1						
	Problems: Course more difficult than expected		1	1	1	1						
	Problems: Conflict between family and study		1	1	1	1						
	Problems: Caring for children or other family members		1	1	1	1						
	Problems: Balancing personal relationships		1	1	1	1						
	Problems: Fitting in with other students and making friends		1	1	1	1						
	Problems: Finding time for other commitments		1	1	1	1						
	Problems: Other		1	1	1	1						
	Problems: None		1	1	1	1						

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Problems: Main problem		1	1	1	1						
Careers advice	Careers guidance officer			1	1	1	1	1	1			
	Questionnaire			1	1	1	1	1	1			
	Job application assistance			1	1	1	1	1	1			
	Information about further study			1	1	1	1	1	1			
	Online tool			1	1	1	1	1	1			
	Source: Educational institution			1	1	1	1	1	1			
	Source: Employer program			1	1	1	1	1	1			
	Source: Internet			1	1	1	1	1	1			
	Source: Government agency			1	1	1	1	1	1			
	Source: Private provider (you paid)			1	1	1	1	1	1			
	Source: Other			1	1	1	1	1	1			
	Usefulness			1	1	1	1	1	1			
	Reason for not accessing careers advice			1	1	1	1	1	1			
Government payments and income	Sources of income: Study payment (Youth Allowance/ABSTUDY/AUSTUDY)		1	1	1	1	1	1	1	1	1	1
	Amount of study payment received (fortnight)		1	1	1	1	1	1	1	1	1	1
	Youth Allowance/ABSTUDY (independent/dependent)		1	1	1	1	1	1	1	1	1	1
	Sources of income: Paid work		1	1	1	1	1	1	1	1	1	1
	Sources of income: Parents or family		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Sources of income: Scholarship or cadetship		1	1	1	1	1	1	1	1	1	1
	Sources of income: Other government allowance		1	1	1	1	1	1	1	1	1	1
	Sources of income: Other		1	1	1	1	1	1	1	1	1	1
	Sources of income: None		1	1	1	1	1	1	1	1	1	1
	Course fees: None		1	1								
	Course fees: Respondent		1	1								
	Course fees: Parents/family		1	1								
	Course fees: Employer		1	1								
	Course fees: Government		1	1								
	Course fees: Other		1	1								
	Commonwealth supported (HECS)		1	1	1	1	1	1	1	1	1	1
	Commonwealth supported (HECS)/full-fee paying		1	1	1	1	1	1	1	1	1	1
	Full-fee paying		1									
	Full-fee paying: FEE-HELP			1	1	1	1	1	1	1	1	1
	Full-fee paying: Up-front			1	1	1	1	1	1	1	1	1
	Full-fee paying: Payment scheme			1	1	1	1	1	1	1	1	1
	Full-fee paying: Employer			1	1	1	1	1	1	1	1	1
	Full-fee paying: Scholarship			1	1	1	1	1	1	1	1	1
Qualifications completed	Certificate I											1
	Certificate II											1
	Certificate III											1
	Certificate IV											1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Certificate level unknown											1
	Traineeship											1
	Apprenticeship											1
	VET/TAFE diploma											1
	VET/TAFE advanced diploma/associate degree											1
	University diploma											1
	University advanced diploma/associate degree											1
	Bachelor degree											1
	Bachelor degree with Honours											1
	VET/TAFE graduate diploma/graduate certificate											1
	University graduate diploma/graduate certificate											1
	Masters degree											1
	PhD or other doctorate											1
	Other											1
	None											1
	Don't know											1

Topic map 6: Employment - Current

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Employment characteristics	Work in job/business/farm		1	1	1	1	1	1	1	1	1	1
	Still have job (reported at last interview)			1	1	1	1	1	1	1	1	1
	Away from job		1	1	1	1	1	1	1	1	1	1
	School holiday/seasonal job		1	1	1	1						
	More than one job		1	1	1	1	1	1	1	1	1	1
	Number of other jobs had		1	1	1	1	1	1	1	1	1	1
	Wages/salary/self-employed		1	1	1	1	1	1	1	1	1	1
	Kind of work (ANZSCO)	1	1	1	1	1	1	1	1	1	1	1
	Employer's main kind of business (ANZSIC)		1	1	1	1	1	1	1	1	1	1
	Change of work conditions: Pay			1								
	Change of work conditions: Skills			1	1	1	1	1	1	1	1	1
	Change of work conditions: Responsibility			1	1	1	1	1	1	1	1	1
	Change of work conditions: Promotion			1	1	1	1	1	1	1	1	1
	Part-time/casual	1										
	Workplace learning job		1	1	1							
	Labour force status (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Permanent or casual employment (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Occupation (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	In full-time employment or full-time education (derived variable)	1	1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Job mobility during last year (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Any spell of unemployment during the year (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Time worked	Hours worked per week (present job)	1	1	1	1	1	1	1	1	1	1	1
	Hours worked per week (main job if more than one)		1	1	1	1	1	1	1	1	1	1
	Hours worked per week (all jobs if more than one)		1	1	1	1	1	1	1	1	1	1
	Hours worked per week (job reported at last interview)			1	1	1	1	1	1	1	1	1
	Hours worked per week (weekdays)	1										
	Hours worked per week (weekend)	1										
	Prefer different hours		1	1	1	1	1	1	1	1	1	1
	Preferred weekly hours		1	1	1	1	1	1	1	1	1	1
	Months worked		13	20	21	21	21	21	21	21	21	21
	Full-time or part-time employment status (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Average weekly hours worked (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Wages and benefits	Frequency of pay	1	1	1	1	2	2	2	2	2	2	2
	Pay type				1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Gross pay		2	1								
	Take home pay		1	1								
	Take-home pay (dollars)	1										
	Take-home pay (cents)	1										
	Pay (after tax)				1	1	1	1	1	1	1	1
	Pay (before tax)				1	1	1	1	1	1	1	1
	Pay (unknown tax type)				1	1	1	1	1	1	1	1
	Hourly rate		1	1								
	Hourly rate (after tax)				1	1	1	1	1	1	1	1
	Hourly rate (before tax)				1	1	1	1	1	1	1	1
	Hourly rate (unknown tax type)				1	1	1	1	1	1	1	1
	Annual salary		1	1								
	Annual salary (after tax)				1	1	1	1	1	1	1	1
	Annual salary (before tax)				1	1	1	1	1	1	1	1
	Annual salary (unknown tax type)				1	1	1	1	1	1	1	1
	Tax type				1	1	1	1	1	1	1	1
	Pay (after tax, previously specified before tax)				1	1	1	1	1	1	1	1
	Pay (before tax, previously specified after tax)				1	1	1	1	1	1	1	1
	Average weekly earnings		1	1	1	1	1	1	1	1	1	1
	Annual/sick leave		1	1	1	1	1	1	1	1	1	1
	Average weekly pay (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Average hourly pay (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Starting work	Month began job		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Year began job		1	1	1	1	1	1	1	1	1	1
	How found job		1	1	1	1	1	1	1	1	1	1
Looking for work	Looking for work		1	1	1	1	1	1	1	1	1	1
	Looking for work: Additional or to change jobs		1	1	1	1	1	1	1	1	1	1
Working in a job while at school	Reasons for working: Career	1										
	Reasons for working: Enjoy work	1										
	Reasons for working: Family need money	1										
	Reasons for working: Independence	1										
	Reasons for working: Help get job later	1										
	Reasons for working: Family business	1										
	Reasons for working: Support myself	1										
	Reasons for working: Spending money	1										
	Reasons for working: Counts towards school leaving certificate	1										
Working in a job post-school	Full-time job since leaving school		1	1	1	1	1					
	Full-time job since leaving full-time study		1	1	1	1	1					
	Time taken to find full-time job		1	1	1	1	1					
	Still have job		1	1	1	1	1					

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Job training	Classroom-based training		1	1	1	1	1					
	Hours of classroom-based training		1	1	1	1	1					
	Training outside workplace		1	1	1	1	1					
	Hours of training outside workplace		1	1	1	1	1					
	On-the-job training		1	1	1	1	1					
	Training helped get promotion or pay rise		1	1	1	1	1					
	Training could help to get promotion or pay rise		1	1	1	1	1					
	Training could help to get more responsibility		1	1	1	1	1					
	Training could help to get a different type of job		1	1	1	1	1					
	Use of training		1	1	1	1	1					
Suitable amount of training received		1	1	1	1	1						
Job satisfaction	Like job as career		1	1	1	1	1	1	1	1	1	1
	Kind of work		1	1	1	1	1	1	1	1	1	1
	Utilise skills/experience			1	1	1	1	1	1	1	1	1
	Immediate boss/supervisor		1	1	1	1	1	1	1	1	1	1
	Other people		1	1	1	1	1	1	1	1	1	1
	Pay		1	1	1	1	1	1	1	1	1	1
	Opportunities for training		1	1	1	1	1	1	1	1	1	1
	Tasks assigned		1	1	1	1	1	1	1	1	1	1
	Recognition		1	1	1	1	1	1	1	1	1	1
	Opportunities for promotion		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Perceptions about work	Teaches what work is really like		1	1	1		1	1	1	1	1	1
	Teaches about people		1	1	1		1	1	1	1	1	1
	Teaches about instructions		1	1	1		1	1	1	1	1	1
	Teaches about thinking for yourself		1	1	1		1	1	1	1	1	1
	Teaches about confidence		1	1	1		1	1	1	1	1	1
	Teaches about work conditions		1	1	1		1	1	1	1	1	1
	Teaches about career you would like		1	1	1		1	1	1	1	1	1

Topic map 7: Employment — Job history and training

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Employment characteristics	Work in job/business/farm (at last interview)			1	1	1	1	1	1	1	1	1
	Re-definition of second job as main job			1	1	1	1	1	1	1	1	1
	Kind of work (ANZSCO)		1	1								
	Kind of work: Other/second job (ANZSCO)		1	1	1	1	1	1	1	1	1	1
	Kind of work: Other/third job (ANZSCO)		1	1	1	1	1	1	1	1	1	1
	Employer's main kind of business (ANZSIC)		1	1								
	Employer's main kind of business: Other/second job (ANZSIC)		1	1	1	1	1	1	1	1	1	1
	Employer's main kind of business: Other/third job (ANZSIC)		1	1	1	1	1	1	1	1	1	1
	Wages/salary/self-employed: Other/second job		1	1	1	1	1	1	1	1	1	1
	Wages/salary/self-employed: Other/third job		1	1	1	1	1	1	1	1	1	1
Gig work	Earned money by taking on gig jobs										1	1
	Already reported gig job										1	1
	Gig jobs or tasks										5	5
	Importance: Income earned										1	1
	Reasons for taking on gig jobs										6	6
	Pay										1	1

	Frequency of pay									1	1
Time worked	Hours worked per week: Other/second job	1	1	1	1	1	1	1	1	1	1
	Hours worked per week: Other/third job	1	1	1	1	1	1	1	1	1	1
Wages and benefits	Frequency of pay: Other/second job			1	2	2	2	2	2	2	2
	Frequency of pay: Other/third job			1	2	2	2	2	2	2	2
	Pay type: Other/second job	1	1	1	1	1	1	1	1	1	1
	Pay type: Other/third job	1	1	1	1	1	1	1	1	1	1
	Gross weekly pay: Other/second job	1	1								
	Gross weekly pay: Other/third job	1	1								
	Pay (after tax): Other/second job			1	1	1	1	1	1	1	1
	Pay (after tax): Other/third job			1	1	1	1	1	1	1	1
	Pay (before tax): Other/second job			1	1	1	1	1	1	1	1
	Pay (before tax): Other/third job			1	1	1	1	1	1	1	1
	Pay (unknown tax type): Other/second job			1	1	1	1	1	1	1	1
	Pay (unknown tax type): Other/third job			1	1	1	1	1	1	1	1
	Hourly rate: Other/second job	1	1								
	Hourly rate: Other/third job	1	1								
	Hourly rate (after tax): Other/second job			1	1	1	1	1	1	1	1
	Hourly rate (after tax): Other/third job			1	1	1	1	1	1	1	1
	Hourly rate (before tax): Other/second job			1	1	1	1	1	1	1	1
Hourly rate (before tax): Other/third job			1	1	1	1	1	1	1	1	
Hourly rate (unknown tax type): Other/second job			1	1	1	1	1	1	1	1	

Hourly rate (unknown tax type): Other/third job		1	1	1	1	1	1	1	1
Annual salary: Other/second job	1	1							
Annual salary: Other/third job	1	1							
Annual salary (after tax): Other/second job		1	1	1	1	1	1	1	1
Annual salary (after tax): Other/third job		1	1	1	1	1	1	1	1
Annual salary (before tax): Other/second job		1	1	1	1	1	1	1	1
Annual salary (before tax): Other/third job		1	1	1	1	1	1	1	1
Annual salary (unknown tax type): Other/second job		1	1	1	1	1	1	1	1
Annual salary (unknown tax type): Other/third job		1	1	1	1	1	1	1	1
Tax type: Other/second job		1	1	1	1	1	1	1	1
Tax type: Other/third job		1	1	1	1	1	1	1	1
Pay (after tax, previously specified before tax): Other/second job		1	1	1	1	1	1	1	1
Pay (after tax, previously specified before tax): Other/third job		1	1	1	1	1	1	1	1
Pay (before tax, previously specified after tax): Other/second job		1	1	1	1	1	1	1	1
Pay (before tax, previously specified after tax): Other/third job		1	1	1	1	1	1	1	1
Average weekly earnings: Other/second job	1	1	1	1	1	1	1	1	1
Average weekly earnings: Other/third job	1	1	1	1	1	1	1	1	1
<hr/>									
Job training	Classroom-based training	1	1	1	1	1			
	Hours of classroom-based training	1	1	1	1	1			
	Training outside workplace	1	1	1	1	1			

Hours of training outside workplace	1	1	1	1	1
On-the-job training	1	1	1	1	1
Training helped get promotion or pay rise	1	1	1	1	1
Training could help to get more responsibility	1	1	1	1	1
Training could help to get a different type of job	1	1	1	1	1
Suitable amount of training received	1	1	1	1	1

Leaving work	Circumstances of changing employer		2	2	2	2	2	2	2	2
	Main reason left job	1	3	2	2	2	2	2	2	2
	Month left/finished job		2	2	2	2	2	2	2	2
	Year left/finished job		2	2	2	2	2	2	2	2
	Way in which next job was better		1	2	2	2	2	2	2	2

Topic map 8: Employment — Seeking employment

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Looking for work	Looking for work: In the last 4 weeks		1	1	1	1	1	1	1	1	1	1
	Looking for full-time or part-time work		1	1	1	1	1	1	1	1	1	1
	Prefer full-time work		1	1	1	1	1	1	1	1	1	1
	Available for work last week		1	1	1	1	1	1	1	1	1	1
Job search activity	Looked for work		1	1	1	1	1	1	1	1	1	1
	Number of weeks looking for work		1									
	Months looking for work		13	20	21	21	21	21	21	21	21	21
	Registered with Centrelink/jobactive provider		1	1	1	1	1	1	1	1	1	1
	Checked Centrelink touchscreens/computers/used government website or app		1	1	1	1	1	1	1	1	1	1
	Checked factory/workplace noticeboards		1	1	1	1	1	1	1	1	1	1
	Checked/registered with Job Network/Job Services member		1	1	1	1	1	1				
	Checked/registered with any other employment agency		1	1	1	1	1	1	1	1	1	1
	Looked at advertisements in newspaper/on noticeboards/on the internet		1	1	1	1	1	1	1	1	1	1
	Answered advertisements in newspaper/on noticeboards/on the internet		1	1	1	1	1	1	1	1	1	1
	Contacted friends or relatives		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Written/phoned/approached an employer about a job		1	1	1	1	1	1	1	1	1	1
	Asked school or another organisation for advice		1	1	1	1	1	1	1	1	1	1
	Advertised/tendered for work		1	1	1	1	1	1	1	1	1	1
Problems looking for work	Health problems or some disability		1	1	1	1	1	1	1	1	1	1
	Problems with childcare		1	1								
	Don't have suitable transport		1	1	1	1	1	1	1	1	1	1
	Not enough of the right kind of education		1	1	1	1	1	1	1	1	1	1
	Don't have enough work experience		1	1	1	1	1	1	1	1	1	1
	Not enough jobs available		1	1	1	1	1	1	1	1	1	1
	Gender		1	1								
	Racial/ethnic background		1	1								
	Age, gender or other discrimination		1	1								
	Age discrimination		1	1	1	1	1	1	1	1	1	1
	Other discrimination		1	1								
	Need better reading and writing skills		1	1								
	Don't have good interview skills		1	1	1	1	1	1	1	1	1	1
	Lack of skills in writing job applications		1	1	1	1	1	1	1	1	1	1
	Lack confidence		1	1	1	1	1	1	1	1	1	1
	Not good with numbers		1	1								
Poor language or communication skills		1	1									

Topic map 9: Employment — Not in the labour force

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Main activity	Main activity		1	1	1	1	1	1	1	1	1	1
Education	Likelihood of beginning full-time study		1	1	1	1	1	1	1	1	1	1
	Timeframe for beginning study		1	1	1	1	1	1	1	1	1	1
Employment	Likelihood of seeking employment		1	1	1	1	1	1	1	1	1	1
	Timeframe for seeking employment		1	1	1	1	1	1	1	1	1	1

Topic map 10: Social — Health, living arrangements and finance

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Living arrangements	Family structure	1										
	Type of accommodation				1	1	1	1	1	1	1	1
	Live with parents		1	1	1	1	1	1	1	1	1	1
	Father/step-father	1	1	1	1	1	1	1	1	1	1	1
	Mother/step-mother	1	1	1	1	1	1	1	1	1	1	1
	Brother/step-brother	1	1	1	1	1	1	1	1	1	1	1
	Sister/step-sister	1	1	1	1	1	1	1	1	1	1	1
	Grandparent(s)	1										
	Number of (other) people in household	1	1	1	1	1	1	1	1	1	1	1
	Partner: Husband/wife/boyfriend/girlfriend		3	3	1	1	1	1	1	1	1	1
	Own children		1	1	1	1	1	1	1	1	1	1
	Other relatives		1	1	1	1	1	1	1	1	1	1
	Non-relatives		1	1	1	1	1	1	1	1	1	1
	Father-in-law/partner's father				1	1	1	1	1	1	1	1
	Mother-in-law/partner's mother				1	1	1	1	1	1	1	1
	Husband/wife/partner currently working				1	1	1	1	1	1	1	1
	Husband/wife/partner other activity				1	1	1	1	1	1	1	1
	Husband/wife/partner works full-time or part-time				1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Husband/wife/partner current occupation (ANZSCO)				1	1	1	1	1	1	1	1
	Living with parent(s) (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Living in own home (derived variable)	1	1	1	1	1	1	1	1	1	1	1
	Number of dependent children (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Household possessions	Desk	1										
	Own room	1										
	Quiet study place	1										
	Computer	1										
	Software	1										
	Internet	1										
	Literature	1										
	Poetry	1										
	Art	1										
	Textbooks	1										
	Technical reference books	1										
	Dictionary	1										
	Dishwasher	1										
	DVD/VCR	1										
	Cable/pay TV	1										
	Digital camera	1										
	Plasma TV	1										
	Number of mobile phones	1										
	Number of TVs	1										

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Number of computers	1										
	Number of cars	1										
	Number of rooms with bath/shower	1										
	Number of books	1										
Children	Number of children				1	1	1	1	1	1	1	1
	Age of children				3	2	3	4	5	4	5	5
	Child(ren) are step-child(ren)/fostered				1	1	1	1	1	1	1	1
Marriage	Marital status				1	1	1	1	1	1	1	1
	Marital status (at last interview)					1	1	1	1	1	1	1
	Month married				1	1	1	1	1	1	1	1
	Year married				1	1	1	1	1	1	1	1
	Lived together before marriage				1	1	1	1	1	1	1	1
	Length of time living with partner				1	1	1	1	1	1	1	1
	Marital status (derived variable)	1	1	1	1	1	1	1	1	1	1	1
Disability and health	General health		1		1	1	1	1	1	1	1	1
	Disability/health problem limits amount or type of work					1		1			1	
	Disability/health problem(s): Arms/legs/hands/feet/back or neck					1		1			1	
	Disability/health problem(s): Seeing					1		1			1	

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Disability/health problem(s): Hearing					1		1			1	
	Disability/health problem(s): Skin/allergies					1		1			1	
	Disability/health problem(s): Breathing/asthma/bronchitis					1		1			1	
	Disability/health problem(s): Heart/blood pressure					1		1			1	
	Disability/health problem(s): Stomach/liver/kidney/digestive problem(s)					1		1			1	
	Disability/health problem(s): Diabetes					1		1			1	
	Disability/health problem(s): Mental health, nervous or emotional condition					1		1			1	
	Disability/health problem(s): Epilepsy					1		1			1	
	Disability/health problem(s): Dyslexia/other learning problem(s)					1		1			1	
	Disability/health problem(s): Chronic fatigue/post-viral syndromes					1		1			1	
	Disability/health problem(s): Other problem(s) or disabilities					1		1			1	
	Disability/health problem(s): Don't know							1			1	
	Disability/health problem(s): Prefer not to say							1			1	
	You felt nervous						1		1			1
	You felt hopeless						1		1			1
	You felt restless or fidgety						1		1			1
	You felt that everything was an effort						1		1			1
	You felt so sad that nothing would cheer you up						1		1			1
	You felt worthless						1		1			1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
Government payments and income	Youth Allowance/Newstart Allowance	1	1	1	1	1	1	1	1	1	1	1
	Parenting Payment	1	1	1	1	1	1	1	1	1	1	1
	Sickness Allowance	1	1	1	1	1	1	1	1	1	1	1
	Disability Support Pension	1	1	1	1	1	1	1	1	1	1	1
	Family Tax Benefit	1	1	1	1	1	1	1	1	1	1	1
	Rent Assistance				1	1	1	1	1	1	1	1
	Other government payment	1	1	1	1	1	1	1	1	1	1	1
	None of these	1	1	1	1	1	1	1	1	1	1	1
	Amount per fortnight received in government payments	1	1									
	Amount per year received in government payments			1								
	Amount received: Youth Allowance/Newstart Allowance				1	1	1	1	1	1	1	1
	Amount received: Parenting Payment				1	1	1	1	1	1	1	1
	Amount received: Sickness Allowance				1	1	1	1	1	1	1	1
	Amount received: Disability Support Pension				1	1	1	1	1	1	1	1
	Amount received: Family Tax Benefit				1	1	1	1	1	1	1	1
	Amount received: Rent Assistance				1	1	1	1	1	1	1	1
	Amount received: Other government payment				1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Frequency of receiving Youth Allowance/Newstart Allowance				1	1	1	1	1	1	1	1
	Frequency of receiving Parenting Payment				1	1	1	1	1	1	1	1
	Frequency of receiving Sickness Allowance				1	1	1	1	1	1	1	1
	Frequency of receiving Disability Support Pension				1	1	1	1	1	1	1	1
	Frequency of receiving Family Tax Benefit				1	1	1	1	1	1	1	1
	Frequency of receiving Rent Assistance				1	1	1	1	1	1	1	1
	Frequency of receiving other government payment				1	1	1	1	1	1	1	1
Housing payments	Amount of housing payments				1	1	1	1	1	1	1	1
	Frequency of housing payments				1	1	1	1	1	1	1	1
Finance	Use of credit card					1	1	1	1	1	1	1
	Frequency of clearing debt on credit card					1	1	1	1	1	1	1
	Able to save money					1	1	1	1	1	1	1
	Frequency of saving money					1	1	1	1	1	1	1
	Managing financially					1	1	1	1	1	1	1
	Shortage of money: Sold something because you needed money					1	1	1	1	1	1	1
	Shortage of money: Went without meals					1	1	1	1	1	1	1
	Shortage of money: Had to ask family or friends for money					1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Shortage of money: Had to borrow money					1	1	1	1	1	1	1
	Shortage of money: Didn't get medicines or go to a doctor					1	1	1	1	1	1	1
	Shortage of money: Couldn't buy text books or other study materials					1	1	1	1	1	1	1
	Shortage of money: Couldn't buy other things you needed					1	1	1	1	1	1	1
	Shortage of money: Couldn't pay electricity, gas or telephone bills					1	1	1	1	1	1	1
	Shortage of money: Couldn't pay mortgage/rent on time					1	1	1	1	1	1	1
	Shortage of money: Couldn't afford to heat your home					1	1	1	1	1	1	1
Social support	Access to social support										1	1
	Type of social support										10	11

Topic map 11: Social — General attitudes

Minor topic area	Data element	Wave/year											
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019	
Characteristics about yourself	Soft skills												14
Personality	Agreeableness												2
	Conscientiousness												2
	Extroversion												2
	Openness												2
	Neuroticism												2
Leisure	Hours spent watching TV	1											
	Hours spent listening to music	1											
	Hours spent playing sport	1											
	Hours spent reading for pleasure	1											
	Hours spent doing unpaid/volunteer work	1											
	Hours spent using the internet for pleasure	1											
	Go to the library				1		1				1		
	Read books				1		1				1		

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Read newspapers or magazines			1			1			1		
	Use the Internet for social networking			1			1			1		
	Play computer or video games			1			1			1		
	Play sport or do exercise			1			1			1	1	1
	Community activities			1			1			1		
	Go to church/place of worship			1			1			1		
	Volunteer			1			1			1		
Interests	Learning new things						1					
	Thinking about why the world is in its current state						1					
	Finding out why things happened						1					
	Finding out more about things you do not understand						1					
	Finding out more about a new idea						1					
	Finding out how something works						1					
	Improving skills after started work						1					
	Learn new skills after started work						1					
Life satisfaction	The work you do		1	1	1	1	1	1	1	1	1	1
	What you do in your spare time		1	1	1	1	1	1	1	1	1	1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	How you get on with people		1	1	1	1	1	1	1	1	1	1
	The money you get each week		1	1	1	1	1	1	1	1	1	1
	Your social life		1	1	1	1	1	1	1	1	1	1
	Your independence		1	1	1	1	1	1	1	1	1	1
	Your career prospects		1	1	1	1	1	1	1	1	1	1
	Your future		1	1	1	1	1	1	1	1	1	1
	Your life at home		1	1	1	1	1	1	1	1	1	1
	Your standard of living		1	1	1	1	1	1	1	1	1	1
	The way the country is run							1	1	1	1	1
	The state of the economy							1	1	1	1	1
	Where you live		1	1	1	1	1	1	1	1	1	1
	Your life as a whole		1	1	1	1	1	1	1	1	1	1
Job aspirations and expectations	Expect to have job at age 30					1			1			1
	Type of job expect at age 30 (ANZSCO)	1				1			1			1
	Career adaptability					1			1			1
	Career optimism					3			3			3
	Wages/salary/self-employed					1			1			1
	Main activity					1			1			1
Aspirations	Personal goal			1								1

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Personal highlight				1							
Volunteer	Canvassing/campaigning/fundraising				1			1			1	
	Unpaid member of board or committee				1			1			1	
	Provide information				1			1			1	
	Help organise activities				1			1			1	
	Coaching/teaching				1			1			1	
	Collect, serve or deliver food				1			1			1	
	Provide health care/support/counselling				1			1			1	
	Other volunteer activities				1			1			1	
	Outcomes: Job-related skills				1			1			1	
	Outcomes: Helped get a job				1			1			1	
Respondent engagement	Aware of materials					1	1	1	2			
	Engaged with materials					1	1	1	1			
	Find materials appealing					1	1		1			
	Find materials informative					1						
	Reason for not engaging with materials						1					
	Encouraged by materials to continue participation							1				

Minor topic area	Data element	Wave/year										
		1/2009	2/2010	3/2011	4/2012	5/2013	6/2014	7/2015	8/2016	9/2017	10/2018	11/2019
	Ideas to encourage continued participation							11			5	
	Survey participation											2
	Things you did/didn't like about the materials								1			
	Social media										2	

Appendix A:

Updates to the Y09 data file

The following table tracks updates made to the Y09 data file deposited with the Australian Data Archive. Users are encouraged to download the most recent version of the data file to ensure all updates are included.

Table 13 Summary of changes made to the Y09 data file

Wave/year	Version	Date published	Variable	Variable name	Description	Number of records affected
Waves 1 to 11 (2009 to 2019)	v9	June 2020			Wave 11 (2019) variables added to data file	
Waves 1 to 10 (2009 to 2018)	v8	Aug 2019			Wave 10 (2018) variables added to data file	
			Index of economic, social and cultural status (OECD standardisation)	ESCS_trend	PISA ESCS trend variable has been created for each PISA assessment cycle in order to enable a trend study.	All
			Average weekly pay	XWKP2017	Typographical error corrected	2
Waves 1 to 9 (2009 to 2017)	v7	Aug 2018			Wave 9 (2017) variables added to data file <i>Typos and truncated variable labels have been corrected on the data file.</i>	
Waves 1 to 8 (2009 to 2016)	v6	Aug 2017			Wave 8 (2016) variables added to data file	
			Study status in bachelor degree	XBAC2013	A small number of respondents who did not complete their 2013 interview were incorrectly assigned their study status in a bachelor degree from their previous interview. These respondents have now been recorded as having no study status in a bachelor degree in the year they did not undertake an interview (2013).	22
			Labour force status	XLFS2013	A small number of respondents who did not complete their 2013 interview were incorrectly assigned their labour force status from their previous interview. These respondents have now been recorded as having no labour force status in the year they did not undertake an interview (2013).	22
Waves 1 to 7 (2009 to 2015)	v5	Oct 2016			Wave 7 (2015) variables added to data file	
Waves 1 to 6 (2009 to 2014)	v4	Aug 2015			Wave 6 (2014) variables added to data file	
Waves 1 to 5 (2009 to 2013)	v3	Oct 2014			Wave 5 (2013) variables added to data file	
Waves 1 to 4 (2009 to 2012)	v2	Dec 2013			Wave 4 (2012) variables added to data file	

Wave/year	Version	Date published	Variable	Variable name	Description	Number of records affected	
					<i>Variables renamed to eight characters (so that files can be read in older versions of SPSS and SAS).</i>		
			LSAY Full Student ID	STUDENTID	STUDENTID renamed to STUDENID	All	
			Occupation (ANZSCO) (30 years old)	ANZSCOQ69	ANZSCOQ69 renamed to ANZSCO69	All	
			Occupation (ANZSCO) (Kind of work)	ANZSCOQ73	ANZSCOQ73 renamed to ANZSCO73	All	
			Weight variables	WT2009_P to WT2012_P	WTYYYY_P renamed to WTYYYYP	All	
				WT10GEN_P to WT12GEN_P	WTYYGEN_P renamed to WTYYGENP	All	
				ACH10WT_P to ACH12WT_P	ACHYYWT_P renamed to ACHYYWTP	All	
			Weight variables		<i>Rounded to ten decimal places.</i>		
					WT2009 to WT2011		All
					WT10GEN to WT11GEN		All
					ACH10WT to ACH11WT		All
					WT2009P to WT2011P		All
					WT10GENP to WT11GENP		All
				ACH10WTP to ACH11WTP		All	
			Highest school level completed	XHSL2011	A small number of respondents who had left school before the end of Year 12 and had been awarded a secondary school certificate are now derived as having completed Year 12. They were previously derived as having completed Year 10 or 11.	2	
			Current qualification level	XCEL2011	A small number of respondents who were undertaking an apprenticeship/traineeship and whose qualification type was a short course, a recreational course, a single module/subject only, unknown or some 'other' qualification are now derived as undertaking a qualification at an unknown certificate level. They were previously derived as not studying for a qualification.	2	
			Full-time or part-time study status	XFTS2011	Change results from the change to 'Current qualification level'.	2	
			Study status in VET	XVET2011	Change results from the change to 'Current qualification level'.	12	

Wave/year	Version	Date published	Variable	Variable name	Description	Number of records affected
					A small number of respondents who reported previously that they had commenced study/training in VET, but later denied doing so, are now derived as having never commenced VET study. They were previously derived as having commenced but not completed study in VET.	
					A small number of respondents who returned to school after reporting previously that they had commenced VET study/training are now derived as having never commenced VET study, which is consistent with the way study status in VET is reported for secondary school students. The outcome of the VET study/training is unknown. They were previously derived as having commenced but not completed study in VET.	
			Completed Year 12 or certificate II or higher	X1222011	Change results from the change to 'Highest school level completed'.	2
			Completed Year 12 or certificate III or higher	X1222011	Change results from the change to 'Highest school level completed'.	2
			Job mobility during last year	XMOB2011	A small number of respondents who reported previously that they had commenced an apprenticeship/traineeship, but later denied doing so, and then reported commencing a different apprenticeship/traineeship in the current interview, are now derived as having gained employment since their last interview. They were previously derived as being with the same employer/job as at their last interview.	2
			Average weekly pay	XWKP2010 to XWKP2011	Rounded to two decimal places.	
				XWKP2010		47
				XWKP2011		72
			Average hourly pay	XWKP2009 to XWKP2011	Rounded to two decimal places.	
				XWKP2009		1262
				XWKP2010		1325
				XWKP2011		1405
Waves 1 to 3 (2009 to 2011)	v1	Oct 2012			Data file created incorporating data from waves 1, 2 and 3 (2009, 2010 and 2011).	All



Longitudinal
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Australian Government
Department of Education, Skills and Employment



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