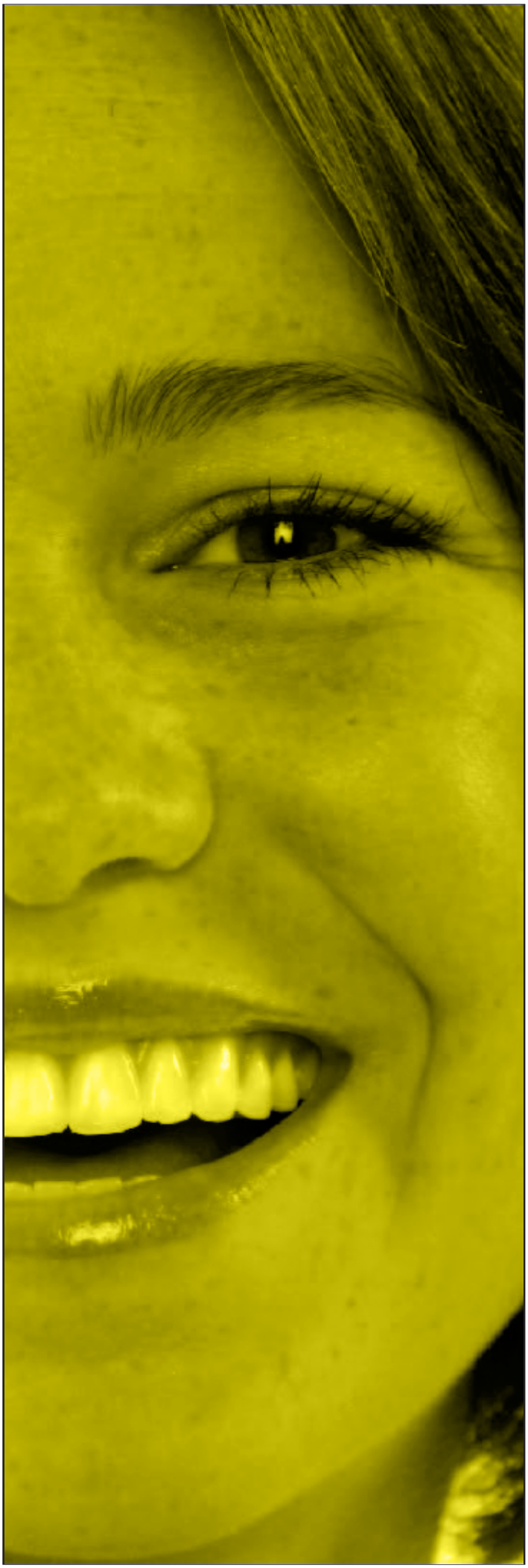


LONGITUDINAL SURVEYS OF AUSTRALIAN YOUTH

TECHNICAL REPORT 55

2006 Cohort: User guide

Longitudinal Surveys of Australian Youth

Longitudinal Surveys of Australian Youth

NCVER

TECHNICAL PAPER

Longitudinal Surveys of Australian Youth (LSAY)

2006 cohort: User guide

Technical report 55

NATIONAL CENTRE FOR VOCATIONAL EDUCATION RESEARCH

This user guide has been developed for users of the LSAY data. The guide aims to consolidate existing technical documentation and other relevant information.

Date created: June 2010
Version: Version 1.00

TD/TNC: 100.11

Contents

Tables and figures

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) and more recently in 2009 (Y09 cohort). Over 10 000 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, Employment and Workplace Relations (DEEWR), 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. NCVER is undertaking this service for the department in collaboration with the Australian National University's Social Policy Evaluation, Analysis and Research Centre (SPEAR).

Between 1995 and 2007 the LSAY analytical and reporting services were provided by the Australian Council for Educational Research (ACER) jointly with the Department of Education, Science and Training[1] (DEST).

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

Toll free: 1800 825 233 Email: <lsay@ncver.edu.au>
Ph: +61 8 8230 8400 Website: <www.lsay.edu.au>
Fax: +61 8 8212 3436

[1] Replaced in December 2007 by the Department of Education, Employment and Workplace Relations.

Using this guide

This *User guide* has been developed for users of the LSAY data. The guide endeavours to consolidate existing technical documentation and other relevant information into a single document, thereby improving data accessibility and promoting wider use of the LSAY data.

To promote effective use of the data, the guide aims to address all aspects of LSAY data, including information about: how to access the data, data restrictions, variable naming conventions, the structure of the data (using topic areas, topic maps and data elements), classifications and code frames used, weights and derived variables.

A series of additional documents (*Data elements A* to *D*) complement this *User guide*. Data elements represent variables that are common within and between waves. These documents contain information about the data elements, including the variables they cover, the valid values (or response options) for each variable and additional notes (where applicable). Information about the data elements documentation is contained in the section, 'The LSAY data', sub-section, 'Data elements'.

Users may also find the metadata workbook useful. The workbook provides a listing of all variables in the Y06 data set, as well as basic information about each variable. Data can be filtered and inspected by wave/year, questionnaire section, topic area(s) and/or data element. See the section, 'The LSAY data', sub-section 'Variable listing/metadata workbook', for further information. The metadata workbook can be accessed at: <www.lsay.edu.au/publications/2258.html> under the 'supporting documents' tab.

This is the first version of the Y06 *User guide* and feedback is welcome. If you have any trouble finding the information you need or you need help in understanding the information contained in this guide, please do not hesitate to contact the LSAY team at NCVER:

Toll free: 1800 825 233
Ph: +61 8 8230 8400
Fax: +61 8 8212 3436
Email: <lsay@ncver.edu.au>
Website: <www.lsay.edu.au>

The Y06 cohort

In 2006, a nationally representative sample of 14 170 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 fourth cohort of the LSAY program. This is referred to as the LSAY Y06 cohort.

The PISA sample was constructed by randomly selecting 50 students aged 15 years from a sample of schools designed to represent all states and sectors. In Australia, 356 schools and 14 170 students participated in PISA. Assessments in mathematical literacy, reading literacy and scientific literacy were administered in their schools to provide information on student achievement. Students also completed a background questionnaire about their families, their views on a range of science-related issues, the environment, educational and vocational plans, attitudes to school and learning, work experience, workplace learning, and part-time work.

In 2007, members of the Y06 cohort were contacted for their annual LSAY telephone interview (conducted by the Wallis Consulting Group) and have been contacted annually ever since. The questionnaire for their 2007 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 young person's circumstances.

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 Y06 wave 3 (2008) 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 the questionnaire, frequency tables and code books) contained information about the Y06 cohort. Information from the technical papers has been consolidated in this *User guide* to provide a single source for Y06 technical information. These documents are discussed below.

Technical documents: Questionnaires, frequency tables and code books

The following four questionnaire instruments were used in PISA 2006:

- the school questionnaire
- the student questionnaire
- the parent questionnaire
- the information communication technology questionnaire.

The parent and information communication technology questionnaires were offered as national options. The 2006 PISA questionnaires and code books are available from the OECD PISA website: <http://pisa2006.acer.edu.au/downloads.php>.

The LSAY technical documents include questionnaires, frequency tables and code books, and can be accessed at: <www.lsay.edu.au/data/31271.html>. The code books include the variable names, formats and base populations for the Y06 data set. From wave 4, the Y06 questionnaires and frequency tables will be available from the same location, but information usually contained in the code books will be updated in this *User guide* and its supporting documents. Table 1 provides a summary of the available technical documents for waves 1 to 3.

Table 1 Technical documents

Wave/year	Technical report/paper
Wave 1 / 2006	Technical report no. 42p Preliminary codebook
	Technical report no. 46, Part A (Questionnaire)[2]
	Technical report no. 46, Part B (Code book)
	Technical report no. 46, Part C (Frequency tables)
Wave 2 / 2007	Technical report no. 47, Part A (Questionnaire)
	Technical report no. 47, Part B (Code book)
	Technical report no. 47, Part C (Frequency tables)
Wave 3 / 2008	Technical report no. 52, Part A (Questionnaire)
	Technical report no. 52, Part B (Code book)
	Technical report no. 52, Part C (Frequency tables)

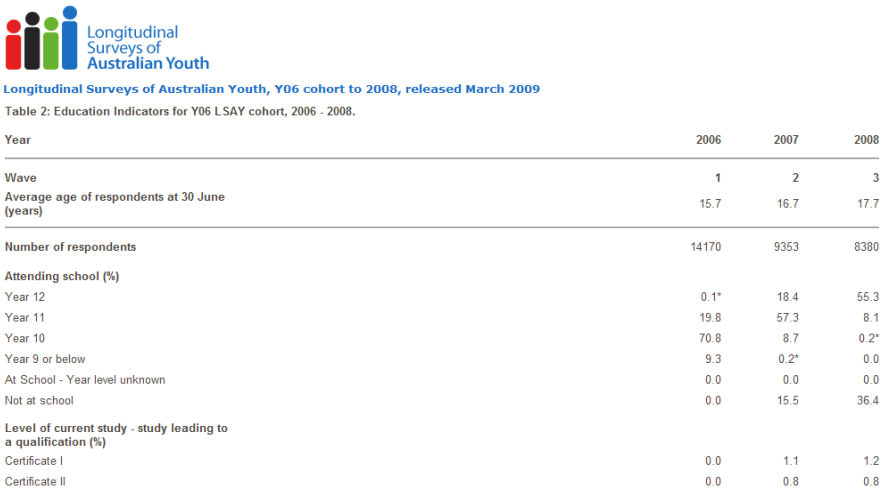
Cohort reports

The Y06 cohort reports provide a longitudinal snapshot of the activities of the Y06 cohort from 2006 to the current wave of interviewing. They are updated annually as new waves of data become available.

The content of the cohort reports focuses on the areas of educational attainment, employment, measures of engagement in study and work, and social outcomes. The cohort reports present a series of tables for each of the indicators. Each series of tables can be filtered by a range of demographic variables and be downloaded into Excel.

The Y06 cohort reports can be accessed at <http://www.lsay.edu.au/cohort/2006/101.html>, and are particularly useful for cross-validation for data users. See Figure 1 for an illustration of the cohort reports.

Figure 1 Cohort reports


Longitudinal Surveys of Australian Youth

Longitudinal Surveys of Australian Youth, Y06 cohort to 2008, released March 2009

Table 2: Education Indicators for Y06 LSAY cohort, 2006 - 2008.

Year	2006	2007	2008
Wave	1	2	3
Average age of respondents at 30 June (years)	15.7	16.7	17.7
Number of respondents	14170	9353	8380
Attending school (%)			
Year 12	0.1*	18.4	55.3
Year 11	19.8	57.3	8.1
Year 10	70.8	8.7	0.2*
Year 9 or below	9.3	0.2*	0.0
At School - Year level unknown	0.0	0.0	0.0
Not at school	0.0	15.5	36.4
Level of current study - study leading to a qualification (%)			
Certificate I	0.0	1.1	1.2
Certificate II	0.0	0.8	0.8

[2] All 2006 PISA questionnaires are available from the OECD website: <http://pisa2006.acer.edu.au/ downloads.php >.

Other technical papers

Other technical papers that may be useful include the PISA data analysis manuals. The *PISA 2006 data analysis manual* (for both SAS and SPSS users) is available from: <http://www.oecd.org/document/38/0,3343,en_32252351_32236191_42609254_1_1_1_1,00.html>.

Other technical papers pertaining to the Y06 cohort will be added to the LSAY website where necessary. This may include, for example, technical papers on weighting for the Y06 cohort.

Accessing the data

LSAY data sets are deposited annually with the Australian Social Science Data Archives (ASSDA) at the Australian National University in Canberra. Permission to use the data and access requirements are managed by ASSDA. Data access requires authorisation from the Data Archive Manager.

The data can be accessed by undertaking all of the following:

- contacting the Australian Social Science Data Archives (details below) and requesting the LSAY 'Application to access restricted data' and 'User undertaking' forms
- completing both forms
- returning the completed forms via email to the Australian Social Science Data Archives.

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, you should contact either LSAY at NCVER or the Data Archive Manager at ASSDA:

NCVER
email: <lsayrequests@ncver.edu.au>
LSAY hotline: 1800 825 233

Australian Social Science Data Archives
email: <assda@anu.edu.au>
phone: 02 6125 4400
fax: 02 6125 0627

Specific data requests

A specific data request allows you to ask for particular tables and/or data analysis to be undertaken by NCVER without the need for you to obtain full sets of the data.

A specific data request can be made to <lsayrequests@ncver.edu.au>.

There are fees and charges applicable for all data requests that require more than one hour to complete. Please refer to NCVER's policy on charging, available under 'Policies and protocols' from the following web page: <http://www.ncver.edu.au/statistic/21075.html>.

LSAY data releases

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

You may also request to be notified of recent LSAY releases, which include publications and data releases. You can subscribe to NCVER's LSAY alert page at: <http://www.lsay.edu.au/newsevents/lsayupdates.html>.

Data restrictions

Data use is restricted to research: data are not to be used for commercial or financial gain. In addition, LSAY student achievement information cannot be reported by state and/or school sector. This reflects permission requirements agreed at the time the data were collected.

Further conditions of use are outlined in the LSAY 'User undertaking' form, which is available on request from ASSDA by email at: <assda@anu.edu.au>. The conditions of use are as follows:

1. Use of the material is restricted for statistical purposes. This means the user can only use the material to produce information of a statistical nature. Examples of such uses are:
   a. the manipulation of data to produce means, correlations or other descriptive summary measures
   b. the estimation of population characteristics from sample data
   c. the use of data as input to mathematical models and for other types of analyses (for example, factor analysis)
   d. the provision of graphical and pictorial representation of characteristics of the population or sub-sets of the population.

2. The material is not to be used for any non-statistical purposes, or for commercial or financial gain without the express written permission of the Data Archive Manager. Examples of non-statistical purposes are:
   a. transmitting or allowing access to the data in part or whole to any other person/department/organisation not a party to this undertaking
   b. attempting to match unit record data in whole or in part with any other information for the purposes of attempting to identify individuals.

3. Statistical tables, graphs etc. obtained from analysis of these data may be further disseminated provided that the user:
   a. acknowledges both the original depositors and the Australian Social Science Data Archive
   b. acknowledges another archive where the data file is made available through the Australian Social Science Data Archive by another archive
   c. declares that those who carried out the original analysis and collection of the data bear no responsibility for the further analysis or interpretation of it.

4. Use of the material is solely at the user's risk and the user must indemnify the Australian National University and the Australian Social Science Data Archive.

5. The Australian National University and the Australian Social Science Data Archive are not held responsible for the accuracy and completeness of the material supplied.

6. Where applicable:
   a. The user must draw the terms and conditions of the undertaking to the attention of persons within the department/organisation who shall make use of the material.
   b. The Australian National University and the Australian Social Science Data Archive are not to be held liable for any breach of this undertaking.

7. I agree not to report the LSAY Achievement information with the state/sector information.

8. Where research findings based on LSAY are published, or otherwise placed in the public arena, a copy of the report (etc.) will be provided to the National Centre for Vocational Education Research.

Overview of the questionnaires

Programme for International Student Assessment (PISA)

The first wave of the LSAY Y06 cohort was incorporated into the OECD's Programme for International Student Assessment, as was the case with the LSAY Y03 cohort. It is therefore important to understand the PISA 2006 dataset when using the LSAY Y06 cohort data. The following section briefly describes some of the nuances of the PISA dataset, but users are also encouraged to read the PISA technical documents as outlined in table 2.

As part of PISA 2006, students were assessed in mathematical literacy, reading literacy and scientific literacy to provide information on school achievement. Students also completed a background questionnaire about their families, their views on a range of science-related issues, the environment, educational and vocational plans, attitudes to school and learning, work experience, workplace learning, and part-time work. School principals were also asked to complete a questionnaire about their schools.

PISA 2006 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 2006 was scientific literacy.

The PISA 2006 assessments consisted of a self-completion written test. Examples of items from the PISA 2006 assessment are available in *Assessing scientific, reading and mathematical literacy: A framework for PISA 2006* available at: <http://www.oecd.org/document/33/0,3343,en_32252351_32236191_37462369_1_1_1_1,00.html>. This publication presents the guiding principles of the PISA 2006 assessment, which are described in terms of the content that 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 simple tasks.

Countries participating in PISA are able to introduce country-specific questions into PISA questionnaires, referred to as 'national options' questions. Examples of national options data items included in PISA 2006 administered in Australia include Indigenous status and participation in work experience. For this reason, in addition to the publicly available PISA international dataset, a separate national dataset is created for Australia that includes these national options questions. Some variables available from the international dataset are omitted from the national dataset (for example, country). In addition, some minor differences may exist between the two versions of the dataset, 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 international student and school datasets are available from the OECD PISA database: <http://pisa2006.acer.edu.au/downloads.php>. LSAY data can be matched to the PISA international datasets by filtering on 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 dataset available from the OECD 2006 PISA international database located at: <http://pisa2006.acer.edu.au/downloads.php>.

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

Plausible values

In PISA student assessment is undertaken using 13 different test booklets, and students are randomly assigned one of the 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 five science sub-domains (interest in science, support for scientific enquiry, explaining phenomena scientifically, identifying scientific issues and using scientific evidence).

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

Table 2 PISA technical documents

Technical report/paper	Web address
PISA 2006 Data analysis manual	<http://www.oecd.org/document/38/0,3343,en_32252351_32236191_42609254_1_1_1_1,00.html >
PISA 2006 Technical report	<http://www.oecd.org/document/41/0,3343,en_32252351_32236191_42025897_1_1_1_1,00.html>
The role of plausible values in large-scale surveys	<https://mypisa.acer.edu.au/index.php?option=com_content&task=view&id=96&Itemid=448>

How do I use plausible values?

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, but being aware that standard errors may be incorrect.

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

The LSAY questionnaires

From 2007 (wave 2), students have been contacted annually by telephone and 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 Y06 questionnaires are contained in the series of Y06 technical papers and can be accessed at: <www.lsay.edu.au/data/31271.html>. Table 1 provides a summary of the available technical papers.

The LSAY data

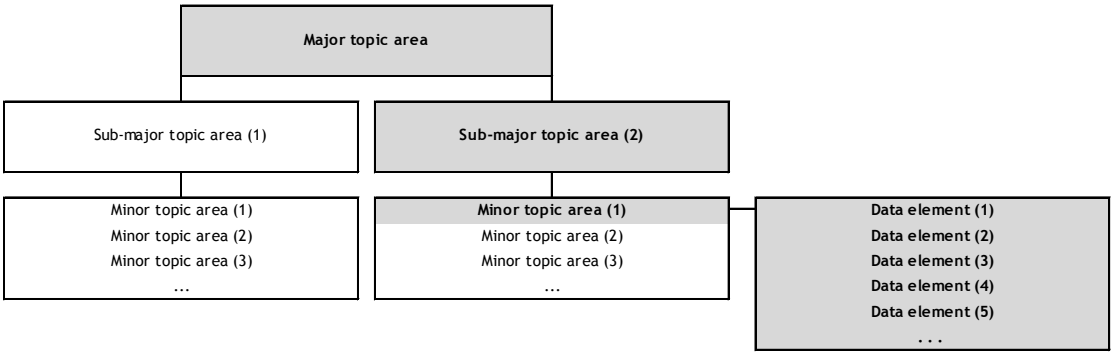
The LSAY data sets are large and particularly complex. About 700 variables are collected (on average) across each wave, culminating in almost 3000 variables across the entire dataset. To improve accessibility of the LSAY datasets, data have been grouped into common themes called 'topic areas'.

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 about 80 sub-major topic areas.
- *Data elements* are subdivisions of the minor topic areas. There are more than 900 data elements.

Figure 2 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 3 to 6.

Figure 3 Major topic area 1 – Demographics

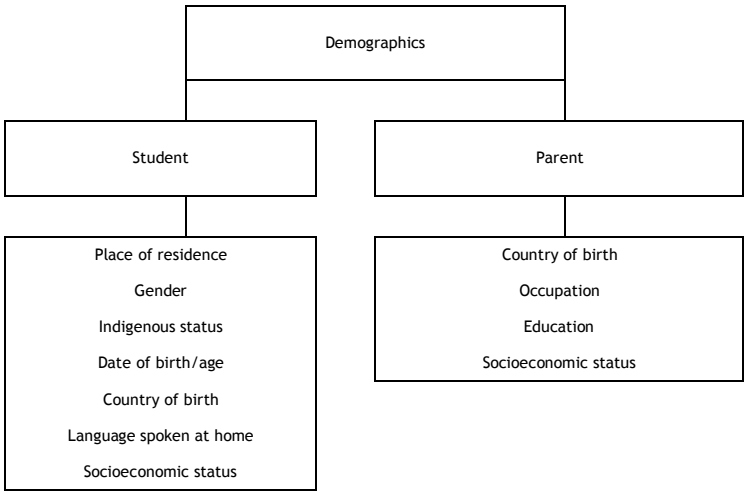


Figure 4 Major topic area 2 – Education

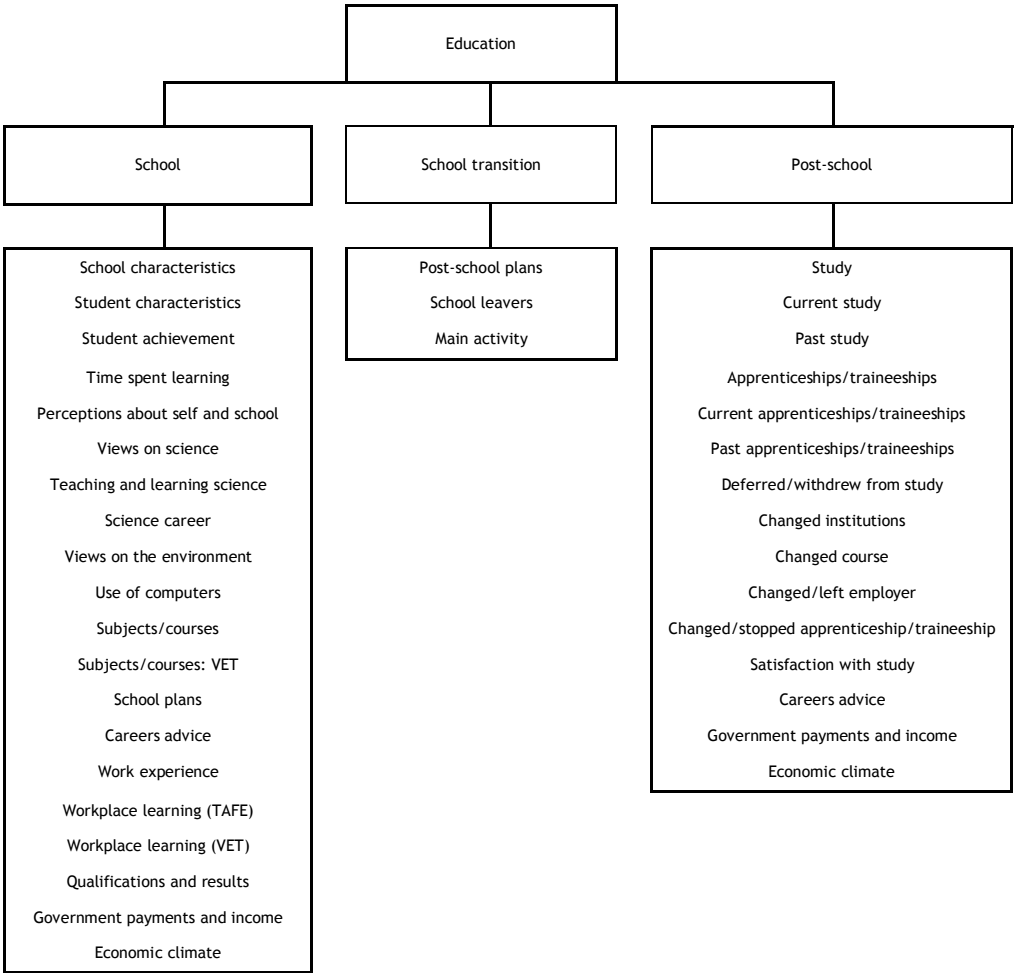


Figure 5 Major topic area 3 – Employment

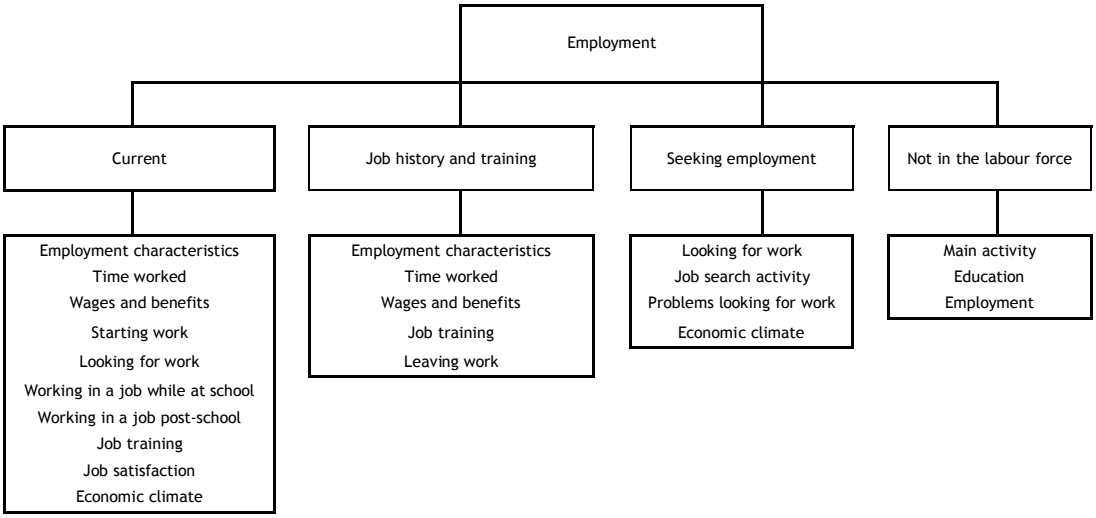
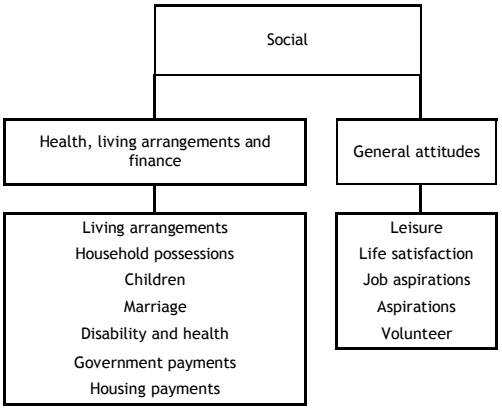


Figure 6 Major topic area 4 – Social



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/2258.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.

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 number of respondents required to answer the question
- *Notes*—other information.

Table 4 *User guide* data element documents

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

Variable listing/metadata workbook

To further assist in the use of the LSAY data, an Excel metadata workbook has been developed. It provides a complete listing of all the variables in the Y06 data set, 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 wave/year, questionnaire section, topic area(s) and/or data element.

The metadata workbook can be accessed at: <www.lsay.edu.au/publications/2258.html> under the 'supporting documents' tab.

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

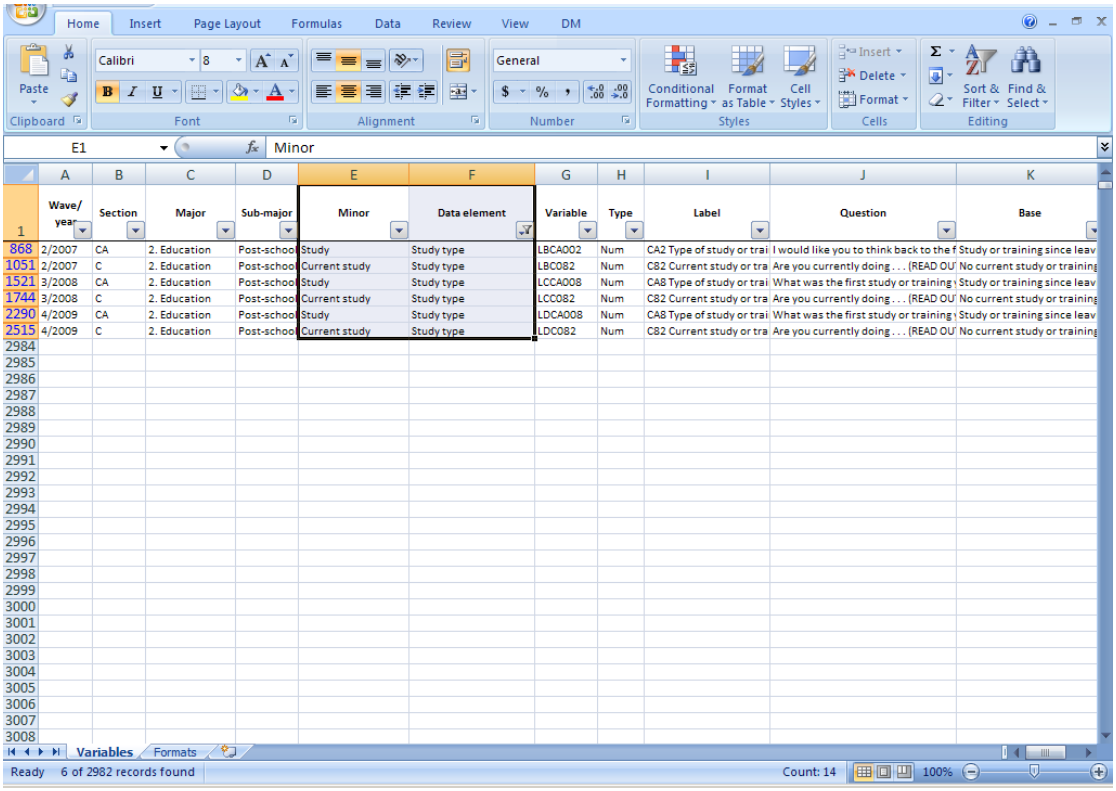
The first worksheet, *Variables*, includes the variable type, variable label, question (wording) and base population. The second worksheet, *Values*, lists each variable and the values that variable can take (where applicable).

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, thereby simplifying variable selection. They are unique within a minor topic area but may not be unique across 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 7 using an excerpt from the metadata workbook.

Figure 7 Identifying related topic areas



To identify variables for analysis and to promote accurate variable selection, refer to the topic maps contained in the 'Topic maps' section. 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 number of times that data element appears within a wave is shown 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 (for longitudinal analysis)
- 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.

Variable naming conventions

PISA variables

PISA variables only exist in wave 1 of the Y06 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 are comprised of the following two components:

- the student questionnaire (ST)
- the information communication technology questionnaire (IC).

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 8 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, ST44N01), rather than the character 'Q'.

Plausible values are used to report student achievement in PISA. There are five plausible values for each of the domains and sub-domains[3] 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
- PV1INTR points to the first plausible value in the first sub-domain: Interest in science
- PV3SUPP points to the third plausible value in the second sub-domain: Support for scientific inquiry.

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.

[3] The Australian PISA 2006 major assessment domains are reading, mathematics and science. The PISA 2006 science sub-domains are interest in science, support for scientific inquiry, explaining phenomena scientifically, identifying scientific issues, and using scientific evidence.

Detailed information about plausible values and replicate weights is available from the OECD PISA 2006 data analysis manuals located at: <http://www.oecd.org/document/38/0,3343,en_32252351_32236191_42609254_1_1_1_1,00.html>

Two types of indices are provided in the PISA dataset: simple indices and scale indices. Simple indices are constructed by arithmetical 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 and books of poetry.

Simple and scale indices appear towards the end of the PISA 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	ST46N01	The fifth character 'N' (rather than 'Q') indicates that the question is a national options question (i.e. a national, not international question).
Student achievement/ plausible values	PV1SCIE PV1INTR PV4SUPP	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. PV1SCIE indicates that the variable is a science domain, while PV1INTR indicates that the variable is from the 'interest in science' science sub-domain. *For further information on plausible values, see section,* 'Overview of the questionnaires: Plausible values'.
PISA weights	W_FSTR1 W_FSTR80 W_FSTUWT CNTFAC_E CNTFAC_N	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 (CNTFAC_E) and normalised weights (CNTFAC_N). *For further information on PISA weights, see the* PISA 2003 Data analysis manual.
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

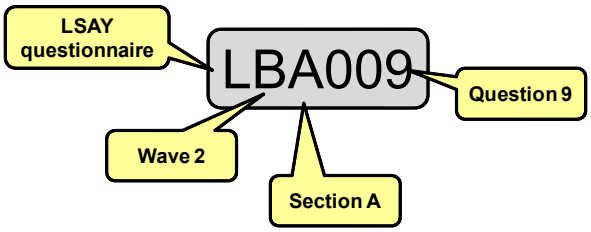
Most variable names are constructed using four pieces of information: the questionnaire instrument, the survey wave, the questionnaire section and the question number.

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 8 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 table below.

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 carrying a naming convention.
School characteristics	STATE SECTOR	School characteristics, such as state of the school and school sector, tend to be descriptive rather than carrying a naming convention.
Derived variables	XLFS2007 XCEL2008	Derived variables have been constructed across all waves to summarise key information such as labour force status and current education level. *For further information about derived variables see the section,* 'Derived variables'.
IN flag	IN2006 IN2008	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 the survey for that year. IN flag variables are denoted by the two characters 'IN' followed by four digits for the survey year.
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 'WI', 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.

Non-standard variable	Examples of non-standard variable names	Description
Sample and derived items	LBWSAM01 LDWSAM07 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 LDWSAM07 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: • 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	WT09GEN ACH09WT WT2009 WT09GEN_P ACH09WT_P WT2009_P	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') reproduces the population size at each wave. *For further information about weights see section,* 'Sample and survey design – Weights'.

Derived variables

A series of derived variables has been developed to simplify use of the LSAY data and provide useful measures/indicators 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 Y06 data set.

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 forthcoming and will be linked to this document when it becomes available. In the meantime, data users can request further information about the derived variables from NCVER via email: <lsay@ncver.edu.au>.

Table 7 Derived variables

Indicators	Derived variable	Variable name
Education	Current school year level	XCSL*YYYY*
	Highest school year level completed	XHSL*YYYY*
	Current education level (leading to a qualification)	XCEL*YYYY*
	VET study status (incl. apprenticeships and traineeships)	XVET*YYYY*
	Bachelor degree or higher study status	XBAC*YYYY*
	Highest (non-school) education level attained	XHEL*YYYY*
	Full-time study status	XFTS*YYYY*
	Completed Year 12 or certificate level II or higher	X122*YYYY*
	Completed Year 12 or certificate level III or higher	X123*YYYY*
Employment	Labour force status	XLFS*YYYY*
	Full- or part-time employment status (of main job)	XFTP*YYYY*
	Employment status (permanent or casual employment)	XEMP*YYYY*
	Apprenticeship/traineeship status	XATR*YYYY*
	ANZSCO 1-digit occupation	XOCC*YYYY*
	Average weekly pay (for those in full-time employment)	XWKP*YYYY*
	Average hourly pay (all respondents)	XHRP*YYYY*
	Average weekly hours worked	XHRS*YYYY*
	Any spell of unemployment during the year	XUNE*YYYY*
	Job mobility during last year	XMOB*YYYY*
Study and work	Full-time study or full-time work	XFTE*YYYY*
Social indicators	Marital status	XMAR*YYYY*
	Living with parent(s)	XATH*YYYY*
	Living in own home	XOWN*YYYY*
	Number of dependent children	XCHI*YYYY*

Sample and survey design

In 2006, a nationally representative sample of 15-year-old students was selected to participate in PISA conducted by OECD; 14 170 students were selected. The initial LSAY survey wave (wave 1) for 2006 was integrated with PISA, and this group of young people became the fourth LSAY cohort.

The 2006 PISA sample comprised 356 schools from all states and territories. This sample was designed to be representative of students across Australia, using state/territory, school sector and region (metropolitan or non-metropolitan) as strata. Within each school, 50 students aged 15 years were selected at random. In schools with fewer than 50 students, all 15-year-olds were selected. Smaller jurisdictions and Indigenous students were oversampled to ensure that reliable results could be produced by state and Indigenous status.

These students were contacted in 2007 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 2007, respondents have been contacted annually using computer-assisted telephone interviews (CATI).

Response rates

Table 8 shows the sample sizes and response rates for each wave of the LSAY Y06 cohort from 2006.

Table 8 Sample sizes and response rates: LSAY Y06

	Wave/year			
	1/2006	*2/2007*	*3/2008*	*4/2009*
Age at 30 June (years)	15.7	16.7	17.7	18.7
Sample size (n)	14 170	9 353	8 380	7 299
% of wave 1	100	66.0	59.1	51.5
% of previous wave	na	66.0	89.6	87.1

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, 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 (MI), 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 2006, 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.

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 Y06 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 14 170 in wave 1, 9353 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 (234 490). 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 (234 490) 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, data in the cohort report demographic tables are presented both weighted and unweighted. The Y06 cohort reports can be accessed at: <http://www.lsay.edu.au/cohort/2006/101.html>. 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	WT*YY*GEN	Sample size in *YY*
Sample weight (N)	WT*YY*GEN_P	Population size (234 490)
Attrition weight	ACH*YY*WT	Sample size in *YY*
Attrition weight (N)	ACH*YY*WT_P	Population size (234 490)
Final weight	WT*YYYY*	Sample size in *YYYY*
Final weight (N)	WT*YYYY_P*	Population size (234 490)

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 RSE enables a comparison of the accuracy between two different estimates. An estimate with a high RSE 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 an RSE of 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.[4] This technique has been applied to obtain estimates of standard errors for the LSAY cohort reports. 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 (RSE) is a standardised measure that enables the comparison between different estimates in terms of their reliability. The RSE is derived by dividing the standard error of the estimate by the estimate itself, expressed as a percentage:

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

Examples

Consider the following estimates of highest school level completed (XHSL2008) to 2008 taken from the Y06 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, Y06 cohort in 2008 for a large sample (all respondents)

Year level	Frequency	%	Standard error of %	RSE (%)	95% confidence interval	
					Lower limit	Upper limit
Year 12	1660	19.8	0.52	2.63	18.78	20.82
Year 11	5266	62.8	0.65	1.04	61.53	64.07
Year 10	1411	16.8	0.54	3.21	15.74	17.86
Year 9 or below	43	0.51	0.11	21.44	0.29	0.73
Total	8380	100				

[4] 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.

Table 11 Estimates, standard errors, RSEs and confidence limits for highest school level completed, Y06 cohort in 2008 for a small sample (remote respondents)

Year level	Frequency	%	Standard error of %	RSE (%)	95% confidence interval	
					Lower limit	Upper limit
Year 12	72	42.1	5.96	14.16	30.42	53.78
Year 11	76	44.6	6.02	13.49	32.80	56.40
Year 10	23	13.2*	3.68	27.88	5.99	20.41
Year 9 or below	1	0.12**	0.12	100.56	-0.12	0.35
Total	172	100				

*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 12 is 19.8%, with an RSE of 2.63%. The estimate for remote respondents who finished Year 12 is 42.1%, with an RSE of 14.16%. Both estimates have an RSE 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 RSE for remote respondents (14.16%) is considerably higher than the RSE of all respondents (2.63%).

In addition, we would not recommend using estimates obtained from respondents who have only completed Year 10 or Year 9 or below (for rural respondents), as the RSEs 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 12 completion lies between 18.78 and 20.82%.

Classifications and code frames

There are a number of variables contained in the LSAY datasets 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 data elements documents 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 and references the relevant classifications and code frames.

Table 12 Summary of classifications and code frames used in the LSAY Y06 dataset

Wave/year	Education	Occupation	Industry	Institution
1/2006	ISCED 97	ISCO 88 ANZSCO 1st edition	Not applicable	Not applicable
2/2007	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
3/2008	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame
4/2009	ASCED	ANZSCO 1st edition	ANZSIC 2006	Institution code frame

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 2006 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://www.uis.unesco.org/ev.php?ID=3813_201&ID2=DO_TOPIC>.

The Australian Standard Classification of Education[5] (ASCED) is used to code the area of study from wave 2 (2007).

Occupation

The International Standard Classification of Occupations (ISCO) 88 is used to code parental occupation and expected student occupation in the first wave of the 2006 cohort as part of PISA.

Further information about ISCO is available at:
<http://www.ilo.org/public/english/bureau/stat/isco/isco88/index.htm>

The Australian and New Zealand Standard Classification of Occupations[6] (ANZSCO) first edition is used to code (the remaining) occupational data from waves 1 to 4 (2006–09). This includes the 'national options' questions asked at wave 1 as part of PISA.

Industry

The Australian and New Zealand Standard Industrial Classification[7] (ANZSIC) 2006 is used to code industries for all waves of the 2006 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 (2007).

The institution code frames can be accessed at: <www.lsay.edu.au/publications/2258.html>.

[5] ABS (Australian Bureau of Statistics), *Australian Standard Classification of Education (ASCED)*, cat.no.1272.0, Canberra, 2001.
[6] ABS, *Australian and New Zealand Standard Classification of Occupations*, 1st edn, cat.no.1220.0, ABS, 2006.
[7] 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:
- survey waves in which this data element exists
- number of times the data element appears within a wave. This is equivalent to the number of variables that correspond 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, reasons for attending their school, extracurricular activities, student achievement, perceptions about self and school, views on science, use of computers, time spent learning, study plans, careers advice, work experience, workplace learning, subjects and courses undertaken, qualifications and results, and receipt of government payments.

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 apprentice or traineeship), satisfaction with study, careers advice, perceptions about post-school study, 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 the 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, and job satisfaction.

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, reasons for leaving work, and perceptions about 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 (including associated funding), government payments, housing payments and financial circumstances.

Topic map 11: Social – General attitudes contains information about what respondents do in their leisure time, their life satisfaction, job and life aspirations, and any volunteer work undertaken.

Topic map 1: Demographics – Student

Table 13 Demographics – Student

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Place of residence	State			1	1
	Postcode		1	1	1
Gender	Gender	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	1			
Language spoken at home	Language spoken at home	2			
	Language spoken at home: Other	1			
	Language spoken at home: All	1			
Socioeconomic status	Respondent's ISEI score	1			
	Cultural possessions (index)	1			
	Educational resources (index)	1			
	Household possessions (index)	1			
	Wealth (index)	1			
	Economic social and cultural status (index)	1			

Topic map 2: Demographics – Parent

Table 14 Demographics – Parent

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
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 occupation: Science-related	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 occupation: Science-related	1			
	Father works in job/business		1		
	Father works full/part-time		1		
	Father's occupation (ANZSCO)		1		
	Father's main activity: Other		1		
	Parents' occupation: White/blue collar classification	1			
	Parents' occupation: Science-related	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 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 highest education level (ISCED)	1			
	Father's qualifications: Post-secondary qualification		1		
	Father's qualifications: Post-secondary qualification (type)		1		
	Parent's highest education level (ISCED)	1			
	Parent's highest education level (years)	1			
Socioeconomic status	Mother's ISEI score	1			
	Father's ISEI score	1			
	Parent's ISEI score	1			

Topic map 3: Education – School

Table 15 Education – School

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
School characteristics	Geographic location	1			
	School state	1	1	2	2
	School sector	1	1	1	1
	School identifier	1			
	School offers IB			1	1
Student characteristics	At school		1	2	2
	At school (at last interview)			1	1
	Year level	1	1	1	1
	Study program	1			
	Student identifier	2			
	ISCED level	1			
	ISCED program	1			
	ISCED orientation	1			
	Studying for IB	1	1	2	1
	Changed schools		1	1	1
	Changed schools: Month		1	1	1
	Changed schools: Year		1	1	1
	Year level (derived variable)	1	1	1	1
Student achievement	Plausible value in maths	5			
	Plausible value in reading	5			
	Plausible value in science	5			
	Plausible value in interest in science	5			
	Plausible value in support for scientific inquiry	5			
	Plausible value in explaining phenomena scientifically	5			
	Plausible value in identifying scientific issues	5			
	Plausible value in using scientific evidence	5			
Time spent learning	Science	3			
	Maths	3			
	Language	3			
	Other	3			
	Out-of-school	6			
Perceptions about self and school	Importance: Science	1			
	Importance: Maths	1			
	Importance: English	1			
	Subject: English	1			
	Subject: Maths	1			
	Subjects: Overall	1			
	Life at school	30			
	Coping		6		
Views on science	Science enjoyment	5			
	Science self-efficacy	8			
	Science value	10			
	Science activities	6			
	Science information source: Photosynthesis	6			
	Science information source: Continents	6			
	Science information source: Genes	6			
	Science information source: Soundproofing	6			

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
	Science information source: Climate change	6			
	Science information source: Evolution	6			
	Science information source: Nuclear energy	6			
	Science information source: Health	6			
	Science interest	8			
	Science enjoyment (index)	1			
	Science self-efficacy (index)	1			
	Science value (index)	1			
	Science activities (index)	1			
	Science interest (index)	1			
	Science personal value (index)	1			
Teaching and learning science	Course: Science	4			
	Course: Biology	4			
	Course: Physics	4			
	Course: Chemistry	4			
	Teaching and learning	17			
	Motivation	5			
	Self-concept	6			
	Teaching and learning: Applications (index)	1			
	Teaching and learning: Hands-on (index)	1			
	Teaching and learning: Interaction (index)	1			
	Teaching and learning: Investigations (index)	1			
	Motivation (index)	1			
	Self-concept (index)	1			
Science career	Usefulness	4			
	Knowledge	4			
	Future	4			
	Knowledge (index)	1			
	Usefulness (index)	1			
	Future (index)				
Views on the environment	Informed	5			
	Information source: Air pollution	6			
	Information source: Energy shortages	6			
	Information source: Extinction	6			
	Information source: Forest clearing	6			
	Information source: Water shortages	6			
	Information source: Nuclear waste	6			
	Concern	6			
	Future	6			
	Responsibility	6			
	Informed (index)	1			
	Concern (index)	1			
	Future (index)	1			
	Responsibility (index)	1			
Use of computers	Used computer	1			
	How long used computers	1			
	Use computer at home	1			
	Use computer at school	1			
	Use computer other places	1			
	Frequency	11			

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
	How well	17			
	Frequency: Internet/entertainment use (index)	1			
	Frequency: Programs/software use (index)	1			
	How well: High-level tasks (index)	1			
	How well: Internet tasks (index)	1			
Subjects/courses	English		1	1	1
	English subject		4	4	4
	LOTE		1	1	1
	LOTE subject		4	4	4
	Maths		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
	Arts		1	1	1
	Arts subject		4	4	4
	Health/PE		1	1	1
	Health/PE subject		4	4	4
	Computing		1	1	1
	Computing subject		4	4	4
	Home Economics		1	1	1
	Home Economics subject		4	4	4
	Technology		1	1	1
	Technology subject		4	4	4
	Other		1	1	1
	Other subject		4	4	4
Subjects/courses: VET	VET subjects	1	1	1	1
	Number of VET subjects		1	1	1
	Awarded VET certificate			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 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
	Humanities/SOSE subject is VET		4	4	4
	Arts subject is VET		4	4	4
	Health/PE 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

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
School plans	Plan to complete Year 12	1	1	1	1
Careers advice	Talked to careers guidance officer		1	1	1
	Talked with person in desired job		1	1	1
	Questionnaire		1	1	1
	Read information		1	1	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
	Group discussion		1	1	1
	Other careers advice		1		
	Most useful careers advice		1	1	1
	Talked with family			1	1
	Talked with friends			1	1
	Usefulness: Talked to careers guidance officer		1	1	1
	Usefulness: Talked with person in desired job		1	1	1
	Usefulness: Questionnaire		1	1	1
	Usefulness: Read information		1	1	1
	Usefulness: Visited workplace		1	1	1
	Usefulness: University information session		1	1	1
	Usefulness: TAFE information session		1	1	1
	Usefulness: Attended careers expo/fair		1	1	1
	Usefulness: Used internet site/computer program		1	1	1
	Usefulness: Group discussion		1	1	1
	Usefulness: Other careers advice		1		
	Usefulness: Talked with family			1	1
	Usefulness: Talked with friends			1	1
	Taught to develop formal study plan		1	1	1
	Taught to develop formal study plan (at school)		1	1	1
	Taught to develop formal study plan (by family)		1		
	Taught to develop formal study plan (by myself)		1		
	Taught to develop formal study plan (by career expos/advisors)		1		
	Taught to develop formal study plan (by other source)		1		
	Taught to develop formal study plan (by social/community workers)		1		
	Taught to develop formal study plan (by the Job Guide)		1		
	Taught to develop formal study plan (by the media)		1		
	Taught to develop formal study plan (through education)		1		
	Taught to develop formal study plan (by friend/acquaintances)		1		
	Taught to develop formal study plan (by recruitment/ employment agencies)		1		
	Taught to write resume		1	1	1
	Taught to write resume (at school)		1	1	1
	Taught to write resume (by family)		1		
	Taught to write resume (by myself)		1		
	Taught to write resume (by career expos/advisors)		1		
	Taught to write resume (by other source)		1		
	Taught to write resume (by social/community workers)		1		
	Taught to write resume (by the Job Guide)		1		
	Taught to write resume (by the media)		1		

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
	Taught to write resume (through education)		1		
	Taught to write resume (by friend/acquaintances)		1		
	Taught to write resume (by recruitment/employment agencies)		1		
	Taught to prepare for job interview		1	1	1
	Taught to prepare for job interview (at school)		1	1	1
	Taught to prepare for job interview (by family)		1		
	Taught to prepare for job interview (by myself)		1		
	Taught to prepare for job interview (by career expos/advisors)		1		
	Taught to prepare for job interview (by other source)		1		
	Taught to prepare for job interview (by social/community workers)		1		
	Taught to prepare for job interview (by the Job Guide)		1		
	Taught to prepare for job interview (by the media)		1		
	Taught to prepare for job interview (through education)		1		
	Taught to prepare for job interview (by friend/acquaintances)		1		
	Taught to prepare for job interview (by recruitment/employment agencies)		1		
	Taught to find age-suitable jobs		1		
	Taught to find age-suitable jobs (at school)		1		
	Taught to find age-suitable jobs (by family)		1		
	Taught to find age-suitable jobs (by myself)		1		
	Taught to find age-suitable jobs (by career expos/advisors)		1		
	Taught to find age-suitable jobs (by other source)		1		
	Taught to find age-suitable jobs (by social/community workers)		1		
	Taught to find age-suitable jobs (by the Job Guide)		1		
	Taught to find age-suitable jobs (by the media)		1		
	Taught to find age-suitable jobs (through education)		1		
	Taught to find age-suitable jobs (by friend/acquaintances)		1		
	Taught to find age-suitable jobs (by recruitment/employment agencies)		1		
	Taught to find information about post-study jobs		1		
	Taught to find information about post-study jobs (at school)		1		
	Taught to find information about post-study jobs (by family)		1		
	Taught to find information about post-study jobs (by myself)		1		
	Taught to find information about post-study jobs (by career expos/advisors)		1		
	Taught to find information about post-study jobs (by other source)		1		
	Taught to find information about post-study jobs (by social/ community workers)		1		
	Taught to find information about post-study jobs (by the Job Guide)		1		
	Taught to find information about post-study jobs (by the media)		1		
	Taught to find information about post-study jobs (through education)		1		
	Taught to find information about post-study jobs (by friend/ acquaintances)		1		
	Taught to find information about post-study jobs (by recruitment/employment agencies)		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			
		1/2006	2/2007	3/2008	4/2009
	Teaches about people	1	1		
	Teaches about instructions	1	1		
	Teaches about thinking for self	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	1			
	Number of days (planned)	1			
	Number of days (actual)	1			
	Teaches what work is really like	1			
	Teaches about people	1			
	Teaches about instructions	1			
	Teaches about thinking for self	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	1	1	1	1
	Workplace learning (undertaken)		1	1	1
	Number of days (planned)	1			
	Number of days (actual)	1			
	Number of days		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 self	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
Qualifications and results	Awarded certificate			1	1
	Received any other certificate			1	1
	Certificate name			1	1
	Received (state specific) score			1	1
	Result known			1	1
	Result given			1	1
	Result			1	1
	Year level completed (derived variable)	1	1	1	1
	Completed Year 12 or Certificate 2 and above (derived variable)	1	1	1	1
	Completed Year 12 or Certificate 3 and above (derived variable)	1	1	1	1
Government payments and income	Receive Youth Allowance/ABSTUDY		1	1	1
	Fortnightly Youth Allowance/ABSTUDY payment		1	1	1
	Stay on at school without Youth Allowance/ABSTUDY		1	1	1
Economic climate	Stay on at school				1
	Study plans				1
	Subjects/courses				1

Topic map 4: Education – School transition

Table 16 Education – School transition

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Post-school plans	Student plans	1	1		
	Student plans (immediate)			1	1
	Student plans (eventual)			1	1
	Parents' plans	1			
	Friends' plans	1			
	Study plans	1	1	1	1
	Study plans (type)		1	1	1
	Study plans (timeframe)			1	1
	Influence: Family			1	1
	Influence: Friends			1	1
	Influence: School teachers			1	1
	Influence: Media			1	1
	Influence: Career advisors			1	1
	Influence: Information from employers			1	1
	Influence: Jobs/school work experience			1	1
School leavers	Left school before completing Year 12		1	1	1
	Month left school		1	1	1
	Year left school		1	2	2
	Year level left school		1	2	2
	Feelings about having left school		1	1	1
	Main activity		1	1	1
	Prepared to make decisions about future career		1	1	1
	Reason: Had job/apprenticeship		1	1	1
	Reason: To get job/apprenticeship		1	1	1
	Reason: Not good at school		1	1	1
	Reason: Study/training not available		1	1	1
	Reason: Didn't like school		1	1	1
	Reason: Financially difficult		1	1	1
	Reason: Teachers		1	1	1
	Reason: Earn own money		1	1	1
	Reason: Parents		1	1	1
	Reason: Subjects/courses not available at school		1	1	1
	Reason: Year 12 wouldn't help get a job		1	1	1
	Reason: Year 12 wouldn't help with further study/training		1	1	1
	Reason: Main reason		1	1	1
	Received study/training advice: University				1
	Received study/training advice: TAFE				1
	Received study/training advice: Other educational organisation				1
	Study/training advice: On-campus (university)				1
	Study/training advice: On-campus (TAFE)				1
	Study/training advice: On-campus (other)				1
	Study/training advice: Mentoring				1
	Study/training advice: Summer school/short course				1
	Study/training advice: Staff/ student visit				1
	Study/training advice: Youth Allowance				1
	Main reason returned to school			1	1
Main activity	Main activity				1

Topic map 5: Education – Post-school

Table 17 Education – Post-school

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Study	Study status (at last interview)			1	1
	Still studying		4	6	6
	Confirmation of study			1	1
	Confirmation of deferred study			1	1
	Resumption of deferred study			1	1
	Commenced study		1	1	1
	Study type		1	1	1
	Qualification		2	2	2
	Qualification (at last interview)			1	1
	Main area of study		1	2	2
	Institution		2	2	2
	Month started study		1	1	1
	Year started study		1	1	1
	Applied for university place		1	1	1
	Intend to apply for university place		1	1	1
	Intend to reapply for university place		1	2	2
	First preference: Offered place		1	1	1
	First preference: Institution		1	1	1
	First preference: Accepted place			1	1
	First preference: Reason did not take up place (taking break/holiday/travel)		1	1	1
	First preference: Reason did not take up place (required leaving home)		1	1	1
	First preference: Reason did not take up place (need Youth Allowance)		1	1	1
	First preference: Reason did not take up place (considering options)		1	1	1
	First preference: Reason did not take up place (course costs)		1	1	1
	First preference: Reason did not take up place (financial)		1	1	1
	First preference: Reason did not take up place (prefer to work)		1	1	1
	First preference: Reason did not take up place (prefer to study at TAFE)		1	1	1
	First preference: Reason did not take up place (other)		1	1	1
	First preference: Reason did not take up place (main reason)		1	1	1
	University: Offered place		1	1	1
	University: Institution		1	1	1
	University: Accepted place		1	1	1
	University: Reason did not take up place (taking break/holiday/travel)		1	1	1
	University: Reason did not take up place (required leaving home)		1	1	1
	University: Reason did not take up place (need Youth Allowance)		1	1	1
	University: Reason did not take up place (considering options)		1	1	1
	University: Reason did not take up place (course costs)		1	1	1
	University: Reason did not take up place (financial)		1	1	1
	University: Reason did not take up place (prefer to work)		1	1	1
	University: Reason did not take up place (prefer to study at TAFE)		1	1	1
	University: Reason did not take up place (other)		1	1	1
	University: Reason did not take up place (main reason)		1	1	1
	Status in bachelor degree or higher (derived variable)	1	1	1	1
	Status in VET (derived variable)	1	1	1	1
	Full-time study or full-time work (derived variable)	1	1	1	1

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Current study	Study type		1	1	1
	Qualification		1	1	1
	Main area of study		1	1	1
	Institution		3	5	5
	Full-time or part-time study		3	4	4
	Month started study		1	2	2
	Year started study		1	2	2
	Month expect to complete study		1	1	1
	Year expect to complete study		1	1	1
	Current education level (derived variable)	1	1	1	1
	Full-time or part-time study (derived variable)	1	1	1	1
Past study	Study completed/withdrawn/deferred/changed		2	2	2
	Main area of study		1	1	3
	Institution		2	2	2
	Full-time or part-time study		3	3	3
	First preference		1	1	1
	Month stopped study		3	3	3
	Year stopped study		3	3	3
	Highest education level completed (derived variable)	1	1	1	1
Apprenticeships/ traineeships	Still studying		1	1	1
	Confirmation of apprenticeship/traineeship			1	1
	Qualification		1	1	1
	Main area of study		1	1	1
	Employer type		1	1	1
	Classes off-the-job training at TAFE		1	1	1
	Provider of off-the-job training		1	1	1
	Month started study		1	1	1
	Year started study		1	1	1
	Status in apprenticeship/traineeship (derived variable)	1	1	1	1
Current apprenticeships/ traineeships	Employer type		2	2	2
	Classes off-the-job training at TAFE		1	1	1
	Provider of off-the-job training		1	1	1
	Full-time or part-time study		2	2	2
	Month expect to complete study		1	1	1
	Year expect to complete study		1	1	1
Past apprenticeships/ traineeships	Study completed/withdrawn/time out/other		1	1	1
	Employer type		1	1	1
	Reason apprenticeship/traineeship ended		1	1	1
	Month stopped study		1	1	1
	Year stopped study		1	1	1
Deferred/withdrew from study	Reason: Problems juggling study and work commitments		1	1	1
	Reason: Wanted job/apprenticeship/traineeship		1	1	1
	Reason: Financially difficult		1	1	1
	Reason: Lost interest		1	1	1
	Reason: Never wanted to study		1	1	1
	Reason: Course was not what you wanted		1	1	1
	Reason: Wouldn't have led to good job/career		1	1	1
	Reason: Poor results		1	1	1
	Reason: Study load		1	1	1
	Reason: Never intended to complete the course		1	1	1

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
	Reason: Access/transport		1	1	1
	Reason: Health/personal reasons		1	1	1
	Reason: Main reason		1	1	1
Changed institutions	Same institution		5	7	7
	Reason: Not first choice		5	7	7
	Reason: Better quality education		5	7	7
	Reason: Poor results		5	7	7
	Reason: Course was not what you wanted		5	7	7
	Reason: Course not available at first institution		5	7	7
	Reason: Access/transport		5	7	7
	Reason: Health/personal reasons		5	7	7
	Reason: Main reason		5	7	7
Changed course	Same course			2	2
	Reason: Course costs		1	2	2
	Reason: Pre-requisite		1	2	2
	Reason: Didn't like course		1	2	2
	Reason: Course was not what you wanted		1	2	2
	Reason: Better career prospects		1	2	2
	Reason: Poor results		1	2	2
	Reason: Study load		1	2	2
	Reason: Preferred to do second course		1	2	2
	Reason: Health/personal reasons		1	2	2
	Reason: Main reason		1	2	2
Changed/left employer	Same employer		2	2	2
	Circumstances of changing employer		2	2	2
	Reason: Offered better job		2	2	2
	Reason: Boss/other people at work		2	2	2
	Reason: On-the-job training		2	2	2
	Reason: Travelling/transport		2	2	2
	Reason: Health/personal reasons		2	2	2
	Reason: Main reason		2	2	2
	Way in which next job was better			2	2
	Month changed employer		2	2	2
	Year changed employer		2	2	2
Changed/stopped apprenticeship/ traineeship	Reason: Offered better job		1	1	1
	Reason: Pay		1	1	1
	Reason: Job prospects		1	1	1
	Reason: Type of work		1	1	1
	Reason: Boss/other people at work		1	1	1
	Reason: On-the-job training		1	1	1
	Reason: Off-the-job training		1	1	1
	Reason: Study/training too difficult		1	1	1
	Reason: Travelling/transport		1	1	1
	Reason: Health/personal reasons		1	1	1
	Reason: Main reason		1	1	1
Satisfaction with study	Problem-solving skills		1	1	1
	Analytic skills		1	1	1
	Ability to work as a team member		1	1	1
	Confidence in tackling unfamiliar problems		1	1	1
	Communication skills		1	1	1

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
	Work planning		1	1	1
	Overall satisfaction		1	1	1
	Improved career prospects		1	1	1
	Helped make contacts		1	1	1
	Impressions: Like being tertiary student		1	1	1
	Impressions: Student life suits you		1	1	1
	Impressions: Like campus atmosphere		1	1	1
	Impressions: Student life meets expectations		1	1	1
	Impressions: Made close friends		1	1	1
	Problems: Paying fees		1	1	1
	Problems: Juggling study and work commitments		1	1	1
	Problems: Course more difficult than expected		1	1	1
	Problems: Conflict between family and study		1	1	1
	Problems: Caring for children or other family members		1	1	1
	Problems: Balancing personal relationships		1	1	1
	Problems: Fitting in with other students and making friends		1	1	1
	Problems: Finding time for other commitments		1	1	1
	Problems: Other		1	1	1
	Problems: None		1	1	1
	Problems: Main problem		1	1	1
Careers advice	Careers guidance officer			1	1
	Questionnaire			1	1
	Job application assistance			1	1
	Information about further study			1	1
	Online tool				1
	Source: Educational institution			1	1
	Source: Government agency			1	1
	Source: Employer program			1	1
	Source: Private provider (you paid)			1	1
	Source: Internet			1	1
	Source: Family/friends			1	1
	Source: Current employer			1	
	Source: Other			1	1
	Source: Unknown			1	1
	Usefulness			1	1
	Reason for not accessing careers advice			1	1
Government payments and income	Sources of income: Youth Allowance/ABSTUDY		1	1	1
	Amount of Youth Allowance/ABSTUDY		1	1	1
	Youth Allowance/ABSTUDY (independent/dependent)				1
	Sources of income: Paid work		1	1	1
	Sources of income: Parents or family		1	1	1
	Sources of income: Scholarship or cadetship		1		
	Sources of income: Scholarship			1	1
	Sources of income: Cadetship			1	1
	Sources of income: Other government allowance		1	1	1
	Sources of income: Other		1	1	1
	Sources of income: None		1	1	1
	Course fees: None		1	1	1
	Course fees: Respondent		1	1	1
	Course fees: Parents/family		1	1	1

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
	Course fees: Employer		1	1	1
	Course fees: Government		1	1	1
	Course fees: Other		1	1	1
	Commonwealth supported (HECS)		1	1	1
	Commonwealth supported (HECS)/full-fee paying		1	1	1
	Full-fee paying		1	1	1
Economic climate	Study undertaken				1
	Subjects/courses				1
	Study plans				1

Topic map 6: Employment – Current

Table 18 Employment – Current

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Employment characteristics	Work in job/business/farm		1	1	1
	Still have job (reported at last interview)			1	1
	Away from job		1	1	1
	School holiday job		1	1	1
	More than one job		1	1	1
	Number of other jobs had		1	1	1
	Wages/salary/self employed		1	1	1
	Kind of work (ANZSCO)	1	1	1	1
	Employers main kind of business (ANZSIC)		1	1	1
	Change of work conditions: Pay			1	1
	Change of work conditions: Skills			1	1
	Change of work conditions: Responsibility			1	1
	Change of work conditions: Promotion			1	1
	Part-time/casual	1			
	Labour force status (derived variable)	1	1	1	1
	Permanent/casual (derived variable)	1	1	1	1
	Kind of work: ANZSCO 1 digit (derived variable)	1	1	1	1
	Job mobility (derived variable)	1	1	1	1
	Unemployment during the year (derived variable)	1	1	1	1
Time worked	Hours worked per week (present job)	1	1	1	1
	Hours worked per week (main job if more than one)		1	1	1
	Hours worked per week (all jobs if more than one)		1	1	1
	Hours worked per week (job reported at last interview)		1	1	1
	Hours worked per week (weekdays)	1			
	Hours worked per week (weekend)	1			
	Months worked		14		
	Months worked (full-time)			19	19
	Months worked (part-time)			19	19
	No full-time work since last interview			1	1
	No part-time work since last interview			1	1
	Full-time or part-time (derived variable)	1	1	1	1
	Hours worked per week: main job (derived variable)	1	1	1	1
Wages and benefits	Frequency of pay	1	1	1	1
	Gross pay		1	1	1
	Annual salary		1	1	1
	Hourly rate		1	1	1
	Average weekly earnings		1	1	1
	Take-home pay (dollars)	1			
	Take-home pay (cents)	1			
	Take-home pay		1	1	1
	Pay type				1
	Annual/sick leave		1	1	1
	Weekly pay (derived variable)	1	1	1	1
	Hourly rate (derived variable)	1	1	1	1
Starting work	Month began job		1	1	1
	Year began job		1	1	1
	How found job		1	1	1

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Looking for work	Prefer full-time or part-time work		1	1	1
	Looking for full-time work		1	1	1
	Looking for work		1	1	1
	Looking for work (additional or to change jobs)		1	1	1
Working in a job while at school	Kind of work want as career	1			
	Learnt about careers			1	1
	Enjoy work	1			
	Family needs money	1			
	Independence	1			
	Help get job	1			
	Family business	1			
	Support myself	1			
	Spending money	1			
Working in a job post-school	Full-time job since leaving school		1	1	1
	Full-time job since leaving full-time study		1	1	1
	Time taken to find full-time job		1	1	1
	Still have job		1	1	1
Job training	Classroom-based training		1	1	1
	Hours of classroom-based training		1	1	1
	Training outside workplace		1	1	1
	Hours of training outside workplace		1	1	1
	On-the-job training		1	1	1
	Training helped get promotion or pay rise		1	1	1
	Training could help get promotion or pay rise		1	1	1
	Training could help to get more responsibility		1	1	1
	Training could help to get a different type of job		1	1	1
	Use of training		1	1	1
	Suitable amount of training received		1	1	1
Job satisfaction	Like job as career		1	1	1
	Kind of work		1	1	1
	Utilise skills/experience		1	1	1
	Immediate boss/supervisor		1	1	1
	Other people		1	1	1
	Pay		1	1	1
	Opportunities for training		1	1	1
	Tasks assigned		1	1	1
	Recognition		1	1	1
	Opportunities for promotion		1	1	1
Economic climate	Hours worked				1
	Type of work				1
	Changing of jobs				1
	Study undertaken				1
	Study plans				1

Topic map 7: Employment – Job history and training

Table 19 Employment – Job history and training

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Employment characteristics	Work in job/business/farm (at last interview)			1	1
	Re-definition of second job as main job			1	1
	Kind of work (ANZSCO)		1	1	1
	Kind of work: Other/second job (ANZSCO)		1	1	1
	Kind of work: Other/third job (ANZSCO)		1	1	1
	Employer's main kind of business (ANZSIC)		1	1	1
	Employer's main kind of business: Other/second job (ANZSIC)		1	1	1
	Employer's main kind of business: Other/third job (ANZSIC)		1	1	1
	Wages/salary/self-employed: Other/second job		1	1	1
	Wages/salary/self-employed: Other/third job		1	1	1
	Pay type: Other/second job				1
	Pay type: Other/third job				1
Time worked	Hours worked per week: Other/second job		1	1	1
	Hours worked per week: Other/third job		1	1	1
Wages and benefits	Gross weekly pay: other/second job		1	1	1
	Gross weekly pay: other/third job		1	1	1
	Average weekly earnings: other/second job		1	1	1
	Average weekly earnings: other/third job		1	1	1
	Hourly rate: other/second job		1	1	1
	Hourly rate: other/third job		1	1	1
	Annual salary: other/second job		1	1	1
	Annual salary: other/third job		1	1	1
Job training	Classroom based training		1	1	1
	Hours of classroom based training		1	1	1
	Training outside workplace		1	1	1
	Hours of training outside workplace		1	1	1
	On-the-job training		1	1	1
	Training helped get promotion or pay rise		1	1	1
	Training could help to get more responsibility		1	1	1
	Training could help to get a different type of job		1	1	1
	Suitable amount of training received		1	1	1
Leaving work	Main reason left job		1	3	3
	Month left job			2	2
	Year left job			2	2
	Way in which next job was better			1	1

Topic map 8: Employment – Seeking employment

Table 20 Employment – Seeking employment

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Looking for work	Looking for work (in the last 4 weeks)		1	1	1
	Looking for full-time or part-time work		1	1	1
	Prefer full-time work		1	1	1
	Available for work last week		1	1	1
Job search activity	Looked for work		1	1	1
	Number of weeks looking for work		1	1	1
	Months looking for work		14	19	19
	Registered with Centrelink		1	1	1
	Checked Centrelink touch screens		1	1	1
	Checked/registered with Job Network/Job Services member		1	1	1
	Checked/registered with any other employment agency		1	1	1
	Looked at advertisements in newspaper/on the internet		1	1	1
	Answered advertisements in newspapers/on the internet		1	1	1
	Contacted friends or relatives		1	1	1
	Written/phoned/approached employer about a job		1	1	1
	Checked workplace noticeboards		1	1	1
	Asked school or another organisation for advice		1	1	1
	Posted resume on the internet/checked for replies		1		
	Advertised/tendered for work			1	1
	Any other job search activity		1	1	1
Problems looking for work	Health problems or some disability		1	1	1
	Employers think you are too young		1	1	1
	Problems with childcare		1	1	1
	Don't have suitable transport		1	1	1
	Not enough of the right kind of education		1	1	1
	Don't have enough work experience		1	1	1
	Not enough jobs available		1	1	1
	Gender		1	1	1
	Racial/ethnic background		1	1	1
	Need better reading and writing skills		1	1	1
	Don't have good interview skills		1	1	1
	Lack of skills in writing job applications		1	1	1
	Lack confidence		1	1	1
	Not good with numbers		1	1	1
Economic climate	Job prospects				1
	Study plans				1

Topic map 9: Employment – Not in the labour force

Table 21 Employment – Not in the labour force

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Main activity	Main activity		1	1	1
Education	Likelihood of beginning full-time study		1	1	1
	Timeframe for beginning study		1	1	1
Employment	Likelihood of seeking employment		1	1	1
	Timeframe for seeking employment		1	1	1

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

Table 22 Social – Health, living arrangements and finance

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Living arrangements	Type of accommodation		1	1	1
	Live with parents		1	1	1
	Number of (other) people in household		1	1	1
	Father/Step-father		1	1	1
	Mother/Step-mother		1	1	1
	Brother/Step-brother		1	1	1
	Sister/Step-sister		1	1	1
	Husband/wife/de facto		1	1	1
	Partner		1	1	1
	Boyfriend/girlfriend		1	1	1
	Own children		1	1	1
	Non-relatives		1	1	1
	Father-in-law/partner's father				1
	Mother-in-law/partner's mother				1
	Husband/wife/partner currently working				1
	Husband/wife/partner other activity				1
	Husband/wife/partner works full-time or part-time				1
	Husband/wife/partner current occupation (ANZSCO)				1
	Live with parents (derived variable)	1	1	1	1
	Living in own home (derived variable)	1	1	1	1
	Own children (derived variable)	1	1	1	1
Household possessions	Desk	1			
	Own room	1			
	Quiet study place	1			
	Computer	1			
	Software	1			
	Internet	1			
	Calculator	1			
	Literature	1			
	Poetry	1			
	Art	1			
	Textbooks	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			
	Number of computers	1			
	Number of cars	1			
	Number of books	1			
Children	Number of children				1
	Age of child 1				1
	Age of child 2				1
	Child(ren) are step-child(ren)/fostered				1

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
Marriage	Marital status				1
	Month married				1
	Year married				1
	Lived together before marriage				1
	Month started to live together				1
	Year started to live together				1
	Marital status (derived variable)	1	1	1	1
Disability and health	General health			1	1
	Disability/health problem limits amount or type of work			1	
	Disability/health problems (Arms, legs, hands)			1	
	Disability/health problems (Sight)			1	
	Disability/health problems (Hearing)			1	
	Disability/health problems (Skin/allergies)			1	
	Disability/health problems (Breathing/asthma/bronchitis)			1	
	Disability/health problems (Heart/blood pressure)			1	
	Disability/health problems (Stomach/liver/kidney/digestive problems)			1	
	Disability/health problems (Diabetes)			1	
	Disability/health problems (Depression/bad nerves)			1	
	Disability/health problems (Epilepsy)			1	
	Disability/health problems (Dyslexia/other learning problems)			1	
	Disability/health problems (Chronic fatigue/post-viral syndromes)			1	
	Disability/health problems (Other problems or disabilities)			1	
Government payments	Youth Allowance/Newstart Allowance		1	1	1
	Parenting Payment		1	1	1
	Sickness Allowance		1	1	1
	Disability Support Pension		1	1	1
	Family Tax Benefit		1	1	1
	Other		1	1	1
	None of these		1	1	1
	Amount per fortnight received in government payments		1	1	1
Housing payments	Frequency of housing payments				1
	Amount of housing payments				1

Topic map 11: Social – General attitudes

Table 23 Social – General attitudes

Minor topic area	Data element	Wave/year			
		1/2006	2/2007	3/2008	4/2009
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			
	Go to the library		1	1	1
	Read books		1	1	1
	Read newspapers or magazines		1	1	1
	Use the internet		1	1	1
	Play computer/video games		1	1	1
	Play sport or do exercise		1	1	1
	Community activities		1	1	1
	Go to church/place of worship		1	1	1
	Volunteer		1	1	
Life satisfaction	The work you do		1	1	1
	What you do in your spare time		1	1	1
	How you get on with people		1	1	1
	The money you get each week		1	1	1
	Your social life		1	1	1
	Your independence		1	1	1
	Your career prospects		1	1	1
	Your future		1	1	1
	Your life at home		1	1	1
	Your standard of living		1	1	1
	Where you live		1	1	1
	Your life as a whole		1	1	1
Job aspirations	Type of job expect at age 30 (ISCO)	1			
	Type of job expect at age 30 (verbatim)	1			
	Type of job expect at age 30: Science-related	1			
Aspirations	Influence of family		1		
	Influence of friends		1		
	Influence of teachers		1		
	Influence of media		1		
	Influence of career advisor		1		
	Influence of information from employers		1		
	Influence of jobs/work experience		1		
Volunteer	Canvassing/campaigning/fundraising				1
	Unpaid member of board or committee				1
	Provide information				1
	Help organise activities				1
	Coaching/teaching				1
	Collect, serve or deliver food				1
	Provide health care/support/counselling				1
	Other				1
	Outcomes: Job-related skills				1
	Outcomes: Helped get a job				1

Appendix A: Changes to the dataset

The following table tracks any changes made to the Y06 datasets deposited with ASSDA. Users are encouraged to download the most recent version of the dataset to ensure all recent updates are included.

Table 24 Summary of changes made to the Y06 datasets

Wave/year	Version	Description	Variables and number of observations affected
4/2009	Version 1	PISA variables added	SCHOOLID (All)
			STIDSTD (All)
			STUDENTID (All)
			SRC_M (All)
			SRC_F (All)
			SRC_E (All)
			SRC_S (All)
			COBN_M (All)
			COBN_F (All)
			COBN_S (All)
			LANGN (All)
			CNTFAC_N (All)
			CNTFAC_E (All)
		PISA variable removed (replaced with CNTFAC_E)	CNTFAC
		PISA weights added to data set	WTYYGEN_P (All)
			ACHYYWT_P (All)
			WTYYYY_P (All)
		Minor amendments made to methodology used to calculate 2007 and 2008 weights	WT07GEN (9353)
			ACH07WT (9353)
			WT2007 (9353)
			WT08GEN (8380)
			ACH08WT (8380)
			WT2008 (8380)
		Minor amendments made to calculation of some derived variables	XCEL2007 (5)
			XCEL2008 (29)
			XHEL2008 (4)
			XFTS2008 (10)
			XBAC2007 (5)
			XBAC2008 (23)
			XVET2007 (7)
			XVET2008 (229)
			XEMP2008 (312)
			XEMP2008 (163)
		Corrected 'Don't know' formats for postcode variables	PC2007(165)
			PC2008 (2)
3/2008	Version 2	Variable LBH003B corrected as was duplicate of LBH003C	LBH003B (3093)
3/2008	Version 1	Derived variables added to data set	See section on 'Derived variables'
		2007 and 2008 weights added to dataset	WT07GEN (9353)
			ACH07WT (9353)
			WT2007 (9353)

Wave/year	Version	Description	Variables and number of observations affected
			WT08GEN (8380) ACH08WT (8380) WT2008 (8380)
2/2007	Version 1	New data set deposited containing waves 1 (2006) and 2 (2007) data	All

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