



Longitudinal Surveys of Australian Youth annual report 2013



Australian Government
Department of Education



Longitudinal Surveys of Australian Youth annual report 2013

National Centre for Vocational Education Research Ltd

The views and opinions expressed in this document are those of the author/project team and do not necessarily reflect the views of the Australian Government or state and territory governments.



Australian Government
Department of Education

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This document should be attributed as NCVER 2014, *Longitudinal Surveys of Australian Youth annual report 2013*, NCVER, Adelaide.

This work has been produced by NCVER through the Longitudinal Surveys of Australian Youth (LSAY) program, on behalf of the Australian Government and state and territory governments, with funding provided through the Australian Department of Education.

ISBN 978 1 925173 04 8

TD/TNC 118.01

Published by NCVER, ABN 87 007 967 311

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Message from the Managing Director

I am pleased to introduce you to the first annual report of the Longitudinal Surveys of Australian Youth (LSAY). The report provides an overview of the LSAY program of work and what it tells us about young people; the findings from the research program, showcasing the suite of work on school effects; and an overview of the products available from the LSAY dataset.

The LSAY program is clearly important as an evidence base for youth policy, providing information on the educational and occupational outcomes of young people up to the age of 25 years. The longitudinal nature of LSAY allows for more nuanced and sophisticated analytical techniques and these assist in answering important policy or research questions. The multi-cohort nature of the survey makes LSAY particularly significant since it is one of the few longitudinal surveys in the world with multiple cohorts, thereby allowing comparisons to be made across different time periods. This feature substantially adds to the value of the LSAY program.

This report contains several chapters. It firstly sets the scene by discussing what LSAY is and how the program of work operates. The next chapter provides an exploration of the many types of data LSAY contains. Following this is a special chapter dedicated to the important topic of the effect that schools have on student outcomes. The remainder of the report lists recent published research in which LSAY data have been used. This research has been undertaken by both NCVER and the wider research community.

Of interest is the impact that LSAY research has had in terms of citations and media attention. Since 2010, there have been more than 300 citations of LSAY work in reports, papers, journal articles and the like. In addition, for reports published in 2013 through the Research and Analysis program there were 76 citations in the media, including 41 for the report *Starting out in low-skill jobs*.

The LSAY program has been vital in providing evidence for policy in the area of youth transitions and will continue to provide important evidence in the future in the context of the changing economic, educational and social environment.

This report was funded by the Department of Education under the analytical and reporting services for the LSAY program of work. Thanks go to David Redway and the Data Strategy Team at the Department of Education for their contribution to and support for this report.

Dr Craig Fowler
Managing Director, NCVER

List of acronyms

ABS	Australian Bureau of Statistics
ACER	Australian Council for Educational Research
ADA	Australian Data Archive
AIFS	Australian Institute of Family Studies
ALS	Australian Longitudinal Survey
ANU	Australian National University
AYS	Australian Youth Survey
AVETRA	Australian Vocational Education and Training Research Association
CATI	Computer-assisted telephone interview
COAG	Council of Australian Governments
DEET	Department of Education, Employment and Training
ESCS	Economic, social and cultural status
FYA	Foundation for Young Australians
GFC	Global Financial Crisis
LFS	Labour force status
LSAC	Longitudinal Study of Australian Children
LSAY	Longitudinal Surveys of Australian Youth
NAPLAN	National Assessment Program – Literacy and Numeracy
NCVER	National Centre for Vocational Education Research
NEET	Not in employment, education or training
NILF	Not in the labour force
NILS	National Institute for Labour Studies
NVETR	National vocational education and training research
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
RIEF	Research Innovation and Expansion Fund
SEIFA	Socio-Economic Indexes for Areas
SES	Socioeconomic status
TAFE	Technical and further education
TREE	Transitions from education to employment
TER	Tertiary entrance rank
YIT	Youth in Transition Surveys
VET	Vocational education and training

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An overview of the LSAY program

The first chapter of this annual report describes the Longitudinal Surveys of Australian Youth (LSAY), examining the purpose and history of the survey, the various products released through the LSAY program, and who's who in the program.

The following chapter investigates the many types of data LSAY contains. Data are compared across cohorts and also across waves within cohorts. The chapter also provides some subgroup comparisons, which are often of interest to policy-makers, for example, gender, geographical location, and socioeconomic status (SES). Following this there is a special chapter that focuses on three reports produced under the program on the effect that schools have on student outcomes. The final two chapters list other recent research published using LSAY data, although this research has not been directly funded by the LSAY program.

The purpose of LSAY

LSAY is designed to examine major transition points in young people's lives, including completing school and transitioning to work or further training and education, as well as other aspects of their lives.

LSAY follows nationally representative cohorts of young people over a ten-year period, with interviews taking place annually. Each cohort starts out with about 14 000 students. Survey participants enter the study when they turn 15 years or, for earlier studies, when they were in Year 9. To date, there have been five cohorts,¹ the first starting in 1995 (known as Y95), followed by further cohorts in 1998, 2003, 2006 and 2009 (known as the Y98, Y03, Y06 and Y09 cohorts respectively). The last three of these cohorts were still active in 2013 (although it was the last year for the Y03 cohort). Interviews are conducted by telephone, with online interviews also possible from 2012.

Since 2003, the sample for the initial wave has been coordinated with the Organisation for Economic Development (OECD) Programme for International Student Assessment (PISA). Only six other countries have surveys that use the PISA sample (Canada, the Czech Republic, Denmark, Germany, Switzerland and Uruguay), making LSAY a relatively unique survey.

LSAY provides a rich source of data relating to the transitions of students 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.

The benefits of longitudinal data

The longitudinal and multi-cohort design of LSAY confers several benefits in terms of the analysis that can be undertaken.

Firstly, each cohort follows the same young people over a ten-year period, so that changes to their circumstances can be observed. More particularly, multiple follow-ups (one every year for ten years) allow for the observation of changes in the same set of individuals on a year-to-year basis.

Observation of these changes is important in terms of providing evidence for policy development.

¹ A cohort is a group of individuals who share some similar characteristics. In the case of LSAY they share the same age or year level.

From a methodological standpoint, LSAY allows for 'quasi-experimental' designs for research. Because there is before-and-after information for interventions such as completing a qualification, the effect of the intervention can be analysed. This also provides some indications of causality (directionality), although causality is never really established in the social sciences.

There are also other benefits of this longitudinal design. The cohort design of LSAY controls for age, meaning that any analysis undertaken does not have to account for differences in ages of a particular sample. Another benefit of this type of design is that sophisticated statistical analysis (for example, fixed-effect models) can be used. Finally, the design allows for comparisons between population subgroups, comparisons over time, and comparisons between cohorts at the same age. This is particularly useful as evidence for policy, with governments interested in what is happening to particular groups of individuals, and how things have changed, or not changed over time.

In summary, longitudinal data are very important to governments in the development of policy as they provide robust evidence to inform policy and practice. Appendix A provides a list of comparable longitudinal studies conducted in Australia and overseas.

The history of LSAY

Longitudinal surveys of young people in Australia first began in the late 1970s in response to changing circumstances in the economy. Karmel (2013) argues that interest in youth transitions in Australia began in the 1970s when oil price shocks increased unemployment significantly. Downturns hit young people particularly adversely as new entrants to a labour market where jobs were in short supply. Having said this, however, young people were increasingly staying at school longer and entering tertiary education in greater numbers.

Gregory (1992) notes that a major reason for the introduction of the Australian Longitudinal Survey (ALS) in 1984 was to learn more about the labour market experiences of young people at a time of high youth unemployment and limited numbers of entry-level jobs. The ALS was particularly interested in young people's unemployment. It thereby had two samples within the survey. The first was a sample of 3000 long-term unemployed 15 to 24-year-olds registered with the Commonwealth Employment Service, and the second was a representative sample of 9000 16 to 25-year-olds from across Australia. The survey was managed by the Commonwealth Government Department of Employment, Education and Training (DEET).

The Australian Youth Survey (AYS) developed from the Australian Longitudinal Survey and was comparable in terms of the samples of young people and many of the topic areas investigated. The Australian Youth Survey had a broader coverage than the ALS in the areas of school experiences, school completion, post-school education and training, and labour market experiences. This survey was also managed by the Department of Employment, Education and Training, although it was managed initially by the Australian Bureau of Labour Market Research for a short time.

The two surveys described above are predated by the Youth in Transition Surveys (YITS). This survey was conducted by the Australian Council for Educational Research (ACER) and was comprised of four cohorts of young people born in 1961, 1965, 1970 and 1975. The survey began in 1978, following up students who had taken part in the Australian Studies in School Performance project, which was a national literacy and numeracy testing program. The chief objective of the Youth in Transition Surveys was to study the transitions of young people from school to further education and work. A main focus was to explain differences in outcomes by looking at the young person's school history and background.

The three surveys described above (ALS, AYS and YITS) were combined in 1995 as the Longitudinal Surveys of Australian Youth program. The initial sample was drawn from Australian Year 9 students. Students first of all completed a two-hour test at school, followed by a mailed survey in the following year. Subsequently, telephone interviews took place annually. From 2003 onwards, the sample for LSAY has been drawn from students who have undertaken PISA. The survey has been managed by Commonwealth departments with responsibility for education. Between 1995 and 2007 the LSAY analytical and reporting services were provided by the Australian Council for Educational Research jointly with the Department of Education.

Since 1 July 2007, the National Centre for Vocational Education Research (NCVER) has provided the LSAY analytical and reporting services for the Department of Education.

The following table summarises the various cohorts of longitudinal surveys of Australian youth.

Table 1 Cohorts of the longitudinal surveys of Australian youth

Survey	Cohort(s)	Survey period	Age when first surveyed	Age range during survey period	Sample size
Youth in Transition Survey (YITS)	Born in 1961 ¹	1978–94	17 years	17–33 years	6 246
	Born in 1965 ¹	1981–95	16 years	16–30 years	6 628
	Born in 1970 ¹	1985–94	15 years	15–24 years	5 472
	Born in 1975	1989–96	14 years	14–20 years	5 653
Australian Longitudinal Survey (ALS)	Long-term unemployed youth aged 15–24 years	1984–87	15–24 years	15–24 years	≈3 000
	Young people aged 16–25 years	1985–91	16–25 years	16–25 years	≈9 000
Australian Youth Survey (AYS)	Young people aged 16–19 years	1989–96	16–19 years	16–26 years	5 350
	Young people aged 16 ²	1990	16 years		1 501
		1991	16 years		1 146
		1992	16 years		1 198
		1993	16 years		1 088
1994	16 years		1 116		
Longitudinal Surveys of Australian Youth (LSAY)	Year 9 in 1995	1995–2006	14.5 years	14.5–25.5 years (average)	13 613
	Year 9 in 1998	1998–2009	14.5 years	14.5–25.5 years (average)	14 117
	Aged 15 and participated in PISA ³	2003–14	15 years	15–25 years	10 370
	Aged 15 and participated in PISA	2006–17	15 years	15–25 years	14 710
	Aged 15 and participated in PISA	2009–20	15 years	15–25 years	14 251

Notes: 1 Follow-up survey of Australian Studies in School Performance samples.

2 Added to original sample.

3 Only includes those who were successfully contacted using follow-up telephone interviews at wave 1.

Source: Karmel (2013).

LSAY products

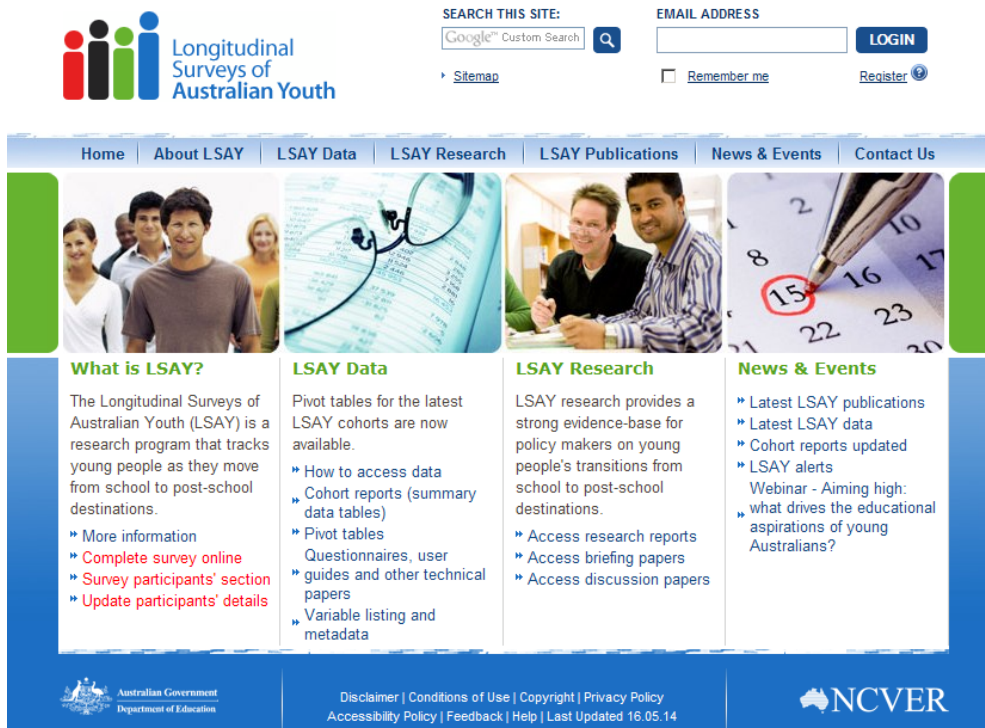
Website

A dedicated LSAY website was established in 2008 and can be accessed at: <<http://www.lsay.edu.au>>. Figure 1 provides an illustration of the LSAY website's homepage.

The website provides access to all research reports and briefing papers published through the LSAY analytical program, along with a series of user guides, questionnaires, technical papers and information for users of the LSAY data on how to access the data.

Summary data tables are also available in a range of formats. See the following sections, 'Cohort reports' and 'Pivot tables', for more information.

Figure 1 LSAY website homepage



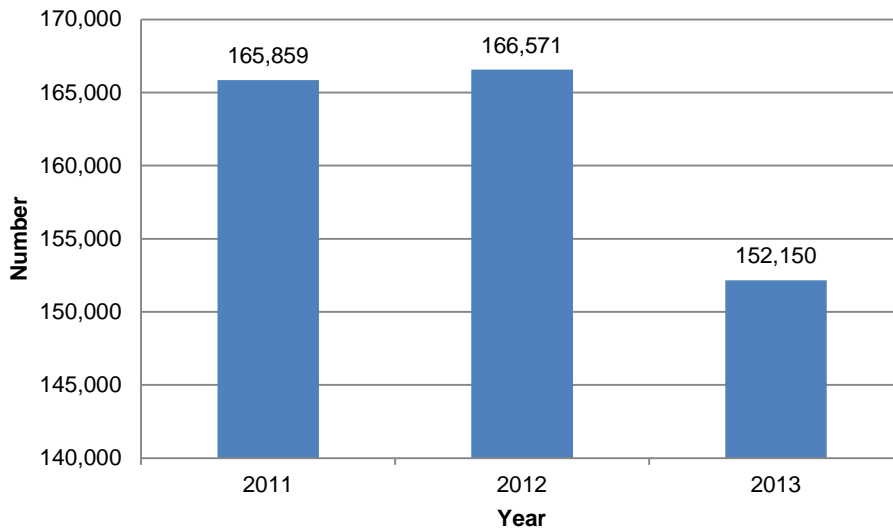
Those interested in keeping up to date with LSAY publications and releases can register at the website to receive email notices of new releases as they occur. All upcoming LSAY events and forums are listed on the website under the 'News and Events' section:

<<http://www.lsay.edu.au/newsevents/events.html>>.

There is also a section for LSAY respondents, which includes a frequently asked questions page, as well as an opportunity to update contact details.

Figure 2 provides the number of visits to the LSAY website over the last three years.

Figure 2 Unique page views to the LSAY website, 2011–13



Research reports and briefing papers

LSAY research reports examine policy-relevant issues and comprise original analyses using the LSAY datasets and other extant data (where appropriate). All published research reports are located at http://www.isay.edu.au/research/reports_search.html and presented in the order in which they were published.

LSAY briefing papers contain the synthesised findings from already completed research reports and can be accessed at: http://www.isay.edu.au/research/papers_search.html.

The full texts of all LSAY publications are downloadable free of charge. To perform a search on all LSAY publications, go to http://www.isay.edu.au/publications/pubs_search.html.

An LSAY reference guide is also available and summarises the findings of over 36 LSAY research reports and is available at: <http://www.isay.edu.au/publications/1913.html>. Findings are hyperlinked to each report for easy viewing. The summaries are presented thematically in three main parts:

- educational experiences
- transitions: between school and the labour market
- beyond education: experiences in the labour market and other aspects of life.


Cohort reports (summary data tables)

The LSAY cohort reports summarise the activity of young people up to a point in time. They are structured as a series of tables containing information on employment, education, study and work, and social indicators for each cohort from the first wave of collection up to the most recently collected data. The data presented can be filtered by demographic groups and downloaded into Excel.

The cohort reports are available from the LSAY website at: <http://www.isay.edu.au/cohort/introduction.html>.

To support the cohort reports, a glossary of terms and definitions is available and can be accessed at: <http://www.isay.edu.au/cohort/glossary.html>.

Figure 3 LSAY cohort report example, Y03 cohort, employment



Longitudinal Surveys of Australian Youth, Y03 cohort to 2012, updated September 2013

Table 3: Employment Indicators for Y03 LSAY cohort, 2003 - 2012.

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Wave	1	2	3	4	5	6	7	8	9	10
Average age of respondents at 30 June (years)	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7	24.7
Number of respondents	10370	9378	8691	7721	6658	6074	5475	4903	4429	3945
Labour force status (%)										
Employed	50.4	56.3	63.1	81.2	85.3	84.9	84.2	85.9	86.0	88.1
Unemployed	0.0	15.7	11.6	8.8	6.5	6.1	6.6	6.0	5.4	3.5
Not in the labour force	49.6	28.0	25.3	10.0	8.3	9.0	9.1	8.1	8.6	8.3
Unknown labour force status	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Full-time or part-time employment status (%)										
Full-time	2.1	7.5	14.7	34.5	42.2	43.9	46.0	54.4	60.0	65.4
Part-time	46.3	47.3	47.2	44.8	41.6	39.8	36.6	30.0	24.9	20.7
Not working (unemployed or NILF)	49.6	43.7	36.9	18.8	14.7	15.1	15.8	14.1	14.0	11.9
Working but working time unknown	2.0	1.4	1.2	1.8	1.4	1.2	1.7	1.5	1.2	2.1

Pivot tables

This new product was introduced in March 2014. The pivot tables complement the cohort reports by allowing users to create their own tables from a range of variables. They can investigate the data in detail and generate time series. Information on the activity of young people from the first wave up to the current wave of the cohort is provided for the latest LSAY cohorts. Data on key employment, education, study and work, and social indicators are included. For each of the pivot tables, selected demographics are included, including sex, state, geographic location, school sector, country of birth or socioeconomic status.

Data files

New data for the active LSAY cohorts are collected annually. The data are then added to the respective datasets and lodged with the Australian Data Archive (ADA). The ADA provides a national service for the collection and preservation of digital research data and makes these data available to researchers. Further information on gaining access to the LSAY data can be found at: <http://www.lsay.edu.au/data/access.html>.

User guides and supporting documentation

LSAY user guides aim to address all aspects of LSAY data including: how to access the data; variable naming conventions; the structure of the data; classifications and code frames; sample and survey design; weights; and derived variables. The guides are updated annually for each active cohort and are published as technical documents on the LSAY website:

- LSAY 2009 cohort user guide: www.lsay.edu.au/publications/2547.html
- LSAY 2006 cohort user guide: www.lsay.edu.au/publications/2258.html
- LSAY 2003 cohort user guide: www.lsay.edu.au/publications/2225.html
- LSAY 1998 cohort user guide: www.lsay.edu.au/publications/2199.html
- LSAY 1995 cohort user guide: www.lsay.edu.au/publications/2122.html.

A series of additional support documents (*Data elements A to D*) complement the user guides. Data elements summarise the 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) and base populations for each variable, and additional notes (where applicable). All data elements documents are accessible under the 'Supporting documents' tab of the user guide (see links listed above).

Variable listing and metadata workbook

The variable listing and metadata workbook is a single Excel document that lists all the LSAY variables (in the order they appear in the data files) for each cohort, as well as basic information about each variable. Data can be filtered and inspected by cohort, survey wave/year, questionnaire section, topic area(s) and/or data element. There is also information about the variable type, variable labels, values for each variable, question (wording) and base populations.

The metadata workbook can be accessed at: <<http://www.lsay.edu.au/publications/2621.html>>.

Frequency tables, questionnaires and other technical papers

Branded as 'Technical papers', these documents provide support for data users. They include questionnaires and frequency tables, as well as papers on specific topics such as weighting and attrition. Frequency tables and questionnaires are published for each survey wave/year.

Frequency tables, questionnaires and other technical papers are organised by cohort and can be found at: <<http://www.lsay.edu.au/data/21070.html>>.

Derived variable documentation

Derived variables are created to help simplify the use of the data by providing useful indicators for analyses. The supporting derived variable documents provide descriptions, formats and additional notes for each derived variable, as well as the syntax used to create them. These documents are organised by cohort and can be found at: <<http://www.lsay.edu.au/data/21070.html>>.

Discussion papers

Discussion papers also form part of the LSAY technical paper series and focus on methodological issues in research. They include, but are not limited to:

- exploration of the options for data linkage and statistical matching to broaden the information available for analyses
- investigation of the wellbeing questions in LSAY and identifying potential enhancements
- development of a rationale for the socioeconomic status measures used in LSAY.

Discussion papers can be accessed at: <<http://www.lsay.edu.au/data/21085.html>>.

Products for respondents

Each LSAY respondent receives an annual thank you letter or postcard for their participation in the survey and a mid-year communication (for example, newsletter), providing information on how their data are used, showing the results for their cohort and encouraging their continued participation in LSAY. The newsletter has evolved over time and recently took the form of a YouTube video (see figure 4).

Respondents are also notified of their eligibility for the annual prize draw. On completing their annual interview, sample members go into a draw to win a Coles Group and Myer gift card worth \$500. In 2013, 24 gift cards were available to be won across eight prize draws (one in each state and territory) for each cohort.

LSAY sample maintenance products are available at:
<<http://www.lsay.edu.au/newsevents/newsletters.html>>.

Figure 4 Title page of LSAY YouTube video



Who's who in LSAY

Governance

LSAY is managed and funded by the Australian Government Department of Education.

Australian Government Department of Education

GPO Box 9880, Canberra ACT 2601

Website: <<http://www.education.gov.au>>

The following groups are also involved in the management and oversight of LSAY.

The *LSAY Management Group* provides a forum for NCVER to report to the Department of Education on progress with the planning and implementation of the LSAY Research and Analysis program, and for the department to provide direction and guidance to NCVER. Discussion of issues related to the LSAY program includes:

- contractual arrangements
- the analytical work program
- questionnaire development
- dissemination activities
- survey design issues
- improvements to the program
- questions about and findings relating to research and analysis.

The *LSAY Strategic Advisory Committee* provides strategic advice to the department to ensure the program's relevance to current and emerging policy needs. This includes:

- the aim, objectives and future directions of the LSAY program
- advice on the best use of the LSAY data and analyses for the benefit of policy-making in Australia
- the identification of research topics and the proposed scope of research projects
- the promotion of LSAY and the dissemination of research outcomes
- directions for questionnaire development
- advice on improving the accessibility and encouraging greater use of the LSAY dataset.

Members are usually appointed for three-year terms. Members who attend as representatives of government and non-government organisations are nominated by the organisation(s) concerned and are selected by the Department of Education on the basis of their ability to provide strategic-level advice and technical input.

The *LSAY Questionnaire Development Reference Group* provides strategic advice to the department to ensure the questionnaire's relevance to current and emerging policy needs.

NCVER

NCVER has held the contract to provide analytical and reporting services for LSAY since 2007. NCVER is a not-for-profit company, owned by the Commonwealth and state and territory ministers with responsibility for vocational education and training (VET). Enquiries can be made to:

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Wallis Consulting Group

The Wallis Consulting Group conducts the interviews for LSAY, as they have since 2000. The key LSAY contact details at Wallis are:

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Developments this year

Active cohorts

During 2013, there were three active cohorts interviewed (the Y03, Y06 and Y09 cohorts). Respondents in the Y03 cohort have now reached 25 years of age (wave 11), while the age of the youngest cohort (Y09) was 19 years (on average).

Table 2 provides information on the age and sample size for each wave/year of the three active cohorts.

Survey conduct

Sample and survey design

LSAY uses large nationally representative samples of young people to collect information about their education and training, work, and social development. Since 2003, the initial survey wave has been integrated with OECD's PISA. About 14 000 students start out in each cohort.

Each of the PISA samples comprises more than 350 schools from all states and territories. These samples are designed to be representative of students across Australia, using state/territory, school sector and region (metropolitan or non-metropolitan) as strata. Students from small states are over-sampled to allow for the PISA results to be reported for each jurisdiction. Subsequent interviews are conducted by telephone. Since 2012, participants have had the option to complete their interviews online.

Further information about the sample and survey design can be found in the LSAY user guides available from the LSAY website: <<http://www.lsay.edu.au/data/21070.html>>.

Table 2 Sample sizes for the various waves of the Y03, Y06 and Y09 cohorts

Y03 cohort, 2003–13											
Wave	1	2	3	4	5	6	7	8	9	10	11
Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Age at June 30	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7	23.7	24.7	25.7
Sample size (n)	10 370	9 378	8 691	7 721	6 658	6 074	5 475	4 903	4 429	3 945	3 741
% of wave 1	100	90.4	83.8	74.5	64.2	58.6	52.8	47.3	42.7	38.0	36.1

Y06 cohort, 2006–13

Wave	1	2	3	4	5	6	7	8
Year	2006	2007	2008	2009	2010	2011	2012	2013
Age at June 30	15.7	16.7	17.7	18.7	19.7	20.7	21.7	22.7
Sample size (n)	14 170	9 353	8 380	7 299	6 316	5 420	4 670	4 223
% of wave 1	100	66.0	59.1	51.5	44.6	38.2	33.0	29.8

Y09 cohort, 2009–13

Wave	1	2	3	4	5
Year	2009	2010	2011	2012	2013
Age at June 30	15.7	16.7	17.7	18.7	19.7
Sample size (n)	14 251	8 759	7 626	6 541	5 787
% of wave 1	100	61.5	53.5	45.9	40.6

Attrition

Survey attrition occurs when not all participants answer the survey in subsequent waves of interviewing. The data collection contractor works hard at achieving high response rates, but there is still some drop-out between the waves of the interviews (see table 2 for response rates).

Survey attrition is an issue if there are different groups of people dropping out at differing rates. This can lead to biased population estimates. In LSAY, survey attrition is addressed by attempting to maximise the year-on-year response rate and by applying attrition weights.

Further information regarding the current weighting methodology is available from technical paper number 61, *Weighting the LSAY PISA cohorts*: <www.lsay.edu.au/publications/2429.html>.

To encourage LSAY sample members' ongoing participation in the survey, a number of products and strategies are developed. See the section 'Products for respondents' for more information.

Fieldwork

The LSAY interviews are conducted by the Wallis Consulting Group using computer-assisted telephone interviewing (CATI). Respondents are contacted annually, and since 2012, respondents have had the option to complete their interviews online. The average length of the telephone interviews is between 15 and 20 minutes. The interview length tends to become shorter in the later waves as the scope of the questions change from a focus on school and study to employment.

Respondents can miss an interview and remain in the program in the following year. Respondents can also miss more than one interview, as long as these interviews are not in consecutive years.

All interviewers and supervisors participate in a three-and-a-half-hour briefing conducted immediately prior to the start of fieldwork. The Wallis Consulting Group maintains accreditation to the ISO 20252 standard, which requires that at least 5% of all interviews are monitored by listening to at least 75% of the interview. The Wallis Group exceeds the standard by aiming to monitor every interviewer during every shift.

Figure 5 LSAY interviewers



Research conduct

NCVER has been contracted to provide analytical and reporting services for LSAY since 2007. LSAY findings are used to produce a number of reports, including research reports, briefing papers and technical papers.

Research reports examine policy-relevant issues and comprise original analyses using the LSAY datasets and other data where relevant. Briefing papers synthesise findings from already completed LSAY research reports on important themes; they may also contain some more basic analyses of LSAY data.

There have been more than 100 research reports and briefing papers produced since the first LSAY cohort commenced in 1995. Topics explored in these research reports include:

- schools (including attitudes, engagement, subject choices)
- post-school study and transitions (including early leaving, pathways, tertiary education)
- work (including unemployment, earnings, job seeking)
- equity and social aspects (including specific equity groups [rural, Indigenous], wellbeing, life satisfaction).

A total of nine research reports were published on the LSAY website in 2013–14. A discussion paper, conference paper and briefing paper were also produced. The topics of the research reports included, but were not limited to:

- starting out in low-skill jobs
- the impact of school academic quality on low socioeconomic status students
- aspirations
- the impact of increasing university participation on the pool of apprentices.

For more information about LSAY research published in 2013, see the section 'What the 2013 LSAY research tells us about youth transitions'.

National Research Forum

The LSAY national research forum, *Are we there yet? Youth transitions in Australia* was held on Thursday 11 April 2013 at the Australian National Maritime Museum in Sydney. While continuing to raise the profile of LSAY, the forum also showcased the suite of LSAY and LSAY-related work to researchers, policy-makers, practitioners and the youth and education sectors. The event attracted more than 200 registrants and 14 speakers.

The forum focused on four key areas of LSAY research:

- the impact of schools on youth transitions
- aspirations and engagement
- gap years
- financial stress.

There was considerable media interest on the day of the forum, with a number of outlets seeking specific data and interviews with the forum's presenters. The event was covered by ABC Radio National, *The Australian*, *Education Review* and over a dozen other press and online media sources.

The forum's opening presentation 'Are we there yet: Overview of the Longitudinal Surveys of Australian Youth' received more than 1000 unique webpage views (see figure 46). The closing panel

discussion, moderated by Paul Barclay, was recorded and broadcast on ABC Radio National's *Big Ideas* program.

Professor Ross Williams, Managing Editor of the *Australian Economic Review*, invited NCVER to contribute to the journal's March edition. The article 'Are we there yet? Youth transitions in Australia', subsequently published in the *Australian Economic Review*, provides an overview of youth longitudinal surveys in Australia and introduces five papers from the LSAY forum.

What LSAY tells us about young people

This chapter looks in more detail at data from the LSAY cohorts. It considers education and employment and social data across both cohorts and waves within a given cohort. The data presented in this chapter are descriptive in nature, with the aim of showing the breadth of data available in LSAY.

Before presenting the LSAY data, the economic and social context in which LSAY operates is presented using snapshot data from the Australian Bureau of Statistics (ABS) and OECD. One might expect trends from the ABS data to be reflected in the LSAY statistics presented in the next chapter; however, the LSAY data are more detailed in terms of the range of information available compared with the ABS surveys and, in addition, data are longitudinal rather than snapshot.

The economic and social context

Youth transitions take place within a complex and ever-changing social and economic context. The critical influences on youth transitions are educational achievement and the state of the labour market, with young people in Australia being particularly vulnerable to changes because they are essentially new entrants to the labour market.

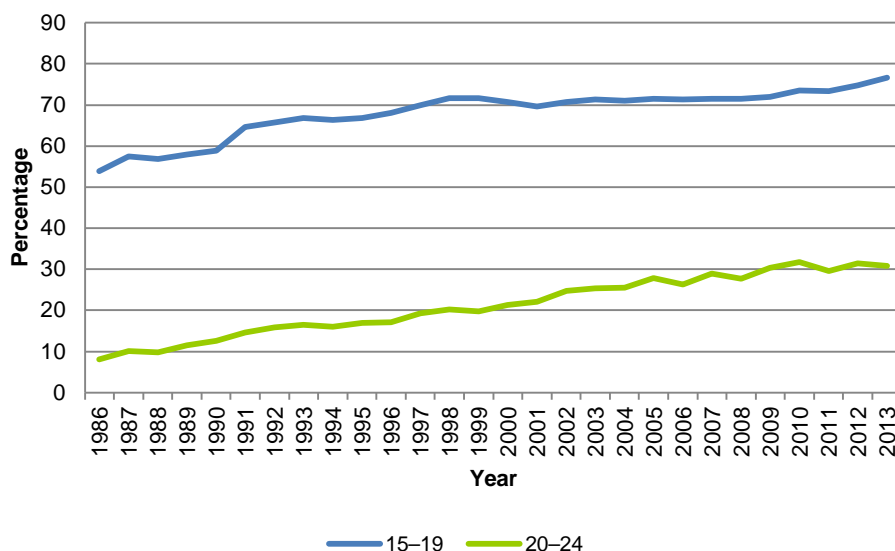
Recent major changes to the Australian labour market were caused by factors such as the Global Financial Crisis (GFC) of 2008, which had a significant impact on full-time employment rates, particularly for young people. Concomitant with the changes to the labour market, there have been increased efforts to raise the educational profile of young Australians. The Council of Australian Governments (COAG) has set targets for educational achievement. In addition, the Commonwealth Governments' National Partnership on Youth Attainment has also established various initiatives to increase educational achievement. For example, the Compact with Young Australians' component of the partnership requires young people to complete Year 10 schooling and then engage in full-time² education, training or employment (or combination thereof until age 17 years).

The changes that have taken place in young people's circumstances do not occur in isolation of the labour market and education; for example, increased educational participation and more precarious labour markets may force more young people to remain in the parental home longer (which is the case, as will be seen).

Returning to education, figure 6 shows that full-time education rates have increased since 1986. For both 15 to 19 and 20 to 24-year-olds, there has been an increase of over 20 percentage points in the proportions of these age groups participating in full-time education. For 15 to 19-year-olds, there has been an even more significant upturn since 2008.

² At least 25 hours per week.

Figure 6 Full-time education-to-population ratios, 15 to 19 and 20 to 24-year-olds, 1986–2013 (August figures)

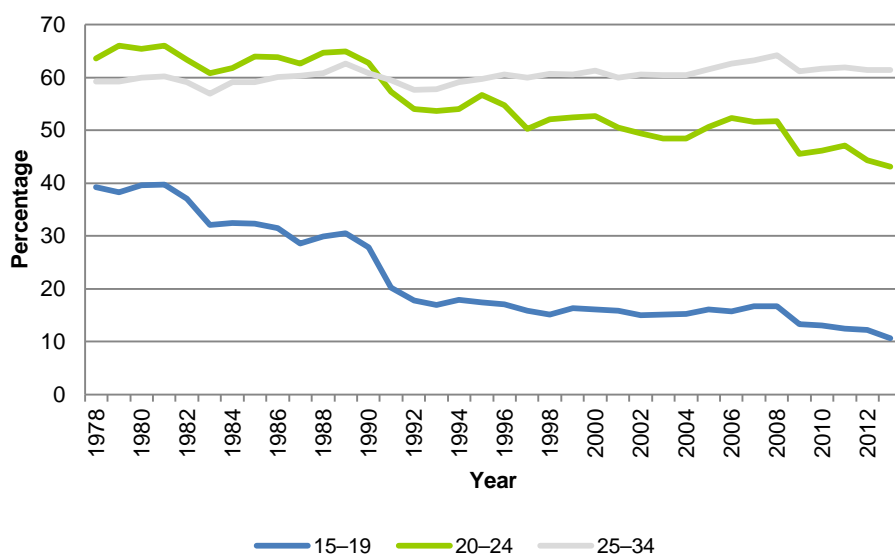


Source: ABS Labour force, Australia, detailed, cat.no.6291.0.55.01, LM3.

Coinciding with the increase in full-time education rates among young people have been substantial decreases in the rates of full-time employment and increases in part-time employment. The charts show that the younger age groups (15 to 19 and 20 to 24-year-olds) have been particularly vulnerable to changes in employment rates compared with the comparator group of 25 to 34-year-olds, which are post the new entrant stage.

For example, full-time employment-to-population rates (figure 7) have declined over the period 1978–2013 from 39.3% to 10.7% for 15 to 19-year-olds and from 63.6% to 43.2% for 20 to 24-year-olds. By comparison, the rate has increased slightly for 25 to 34-year-olds from 59.3% in 1978 to 61.4% in 2013. Of course, all three age groups suffered a dip in full-time employment after the 2008 financial crisis; however, while for 25 to 34-year-olds the full-time employment rate has flattened somewhat since then, for the two younger age groups there is still some decline.

Figure 7 Full-time employment-to-population ratios, 1978–2013 (August figures)

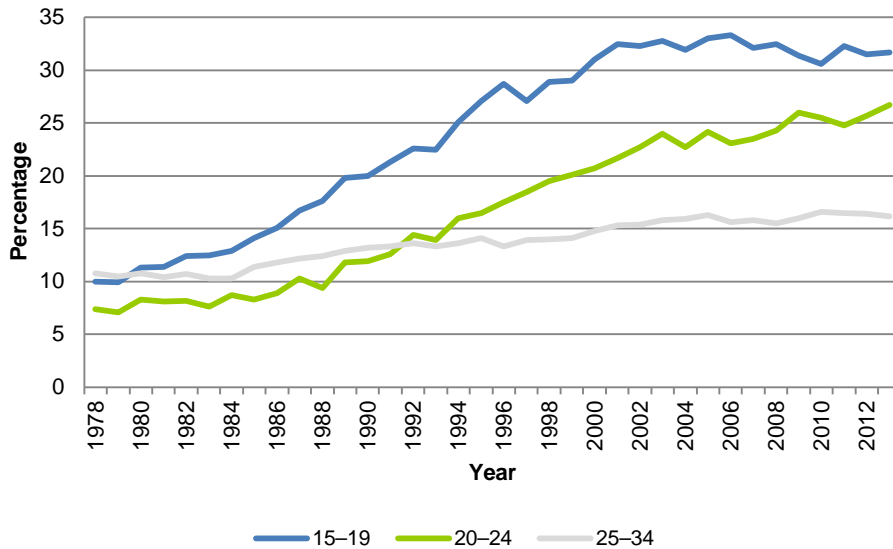


Source: ABS Labour force, Australia, detailed, cat.no.6291.0.55.001, data cube LM2.

In contrast to decreasing rates of full-time employment, part-time employment has increased substantially for young people over time, as can be seen from figure 8. While part-time employment rates have increased for the 25 to 34-year-olds as well, they have not increased to the same extent as for 15 to 24-year-olds.

For 15 to 19-year-olds, the rate of part-time to full-time employment has increased from 0.26% in 1978 to 1.92% in 2008, and then up to 2.97% in 2013. Since then, there has been a large increase in part-time employment compared with full-time employment for 15 to 19-year-olds.

Figure 8 Part-time employment-to-population ratios, 1978–2013 (August figures)



Source: ABS Labour force, Australia, detailed, cat.no.6291.0.55.001, data cube LM2.

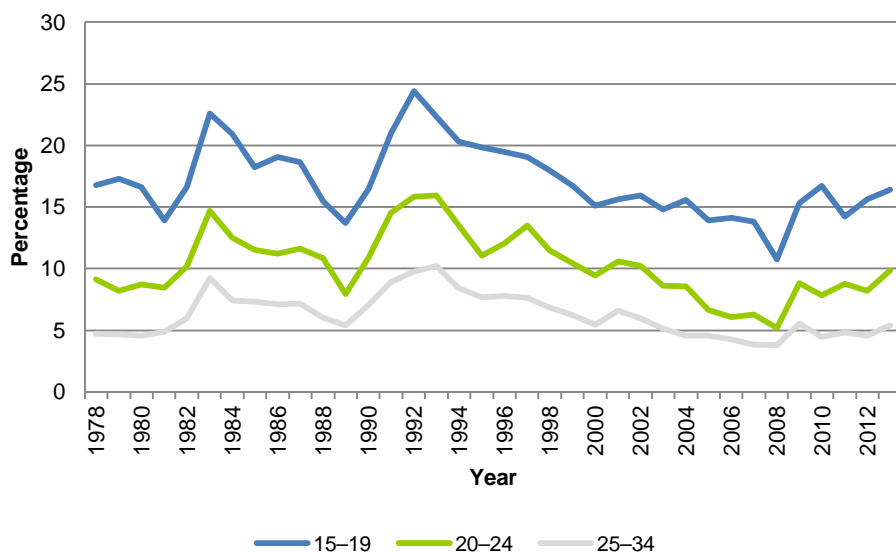
Finally, in terms of the labour force, the unemployment rate provides an indication of the stableness of the economy for young people. Figure 9 shows that the worst period for unemployment was actually 1992–93, but after a slow decline in unemployment from that time until the Global Financial Crisis in 2008, it has increased again. The change in economic conditions hit the group aged 15–19 years the hardest, with the unemployment rate increasing 5.7 percentage points between 2008 and 2013. This compares with an increase of 4.7 percentage points for 20 to 24-year-olds and 1.6 percentage points for 25 to 34-year-olds over the same period.

Australia does fare better than the OECD average however in terms of youth unemployment. According to the OECD (2014), in 2013 the unemployment rate for 15 to 24-year-olds in Australia was 12.2%, whereas for the OECD average it was 16.2%. The OECD average is however pushed up somewhat by the fact that some countries are facing particularly difficult economic times. In addition, as has been pointed out by the Brotherhood of St Laurence (2014), youth unemployment is not uniform across Australia, with some regions experiencing much higher rates of unemployment than others.

Of interest, in addition to direct education and employment participation, are the proportions of young people who are not fully engaged in employment, education and training, as these people are at risk of suffering long-term disadvantage. By this we mean young people who are unemployed, in

part-time study only, in part-time employment only, or not in the labour force. From the ABS we can derive the proportions who are unemployed or not in the labour force and not in full-time education.³

Figure 9 Unemployment rates, 1978–2013 (August figures)



Source: ABS Labour force, Australia, detailed, cat.no.6291.0.55.001, data cube LM2.

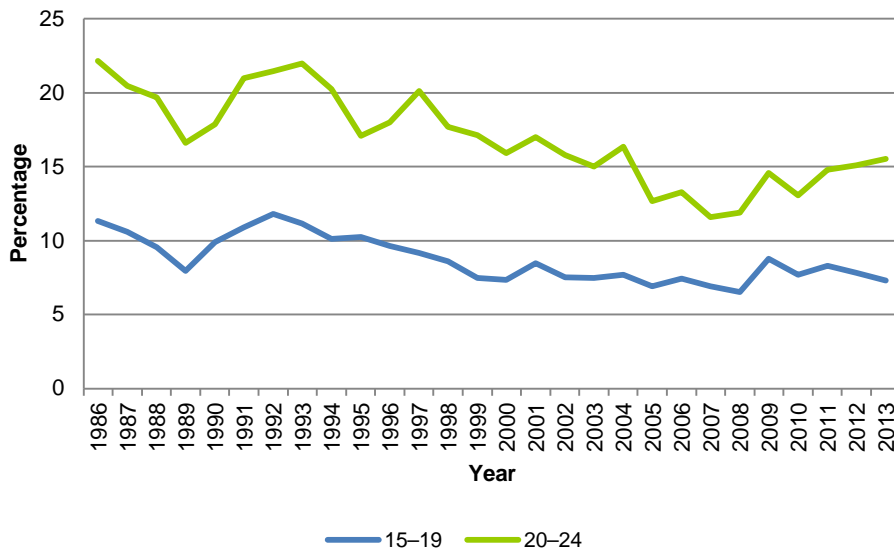
Figure 10 shows the peaks and troughs in young people not fully engaged over the period 1986–2013. The first peak was around in 1986, when the data series began, followed by a second peak in 1993. Both of these periods mark times of recession in Australia’s economy. After 1993 there was a steady decline in the proportion not fully engaged, until 2008. However, following the Global Financial Crisis, there was another smaller peak, followed by a period of increase for 20 to 24-year-olds. For 15 to 19-year-olds the proportion not fully engaged has fallen, but it is worth keeping in mind that since 2009 higher proportions of 15 to 19-year-olds have been staying in full-time education. The proportions of 15 to 19-year-olds in full-time education remained steady at around 71–72% from 2003 until 2009, but as of 2013 this has risen to close to 77%.

The OECD also provides information on the even more restricted ‘not in employment, education or training’ (NEET) group of young people. For 15 to 19-year-olds, the size of this group in 2011 for Australia was 7.8%, compared with the OECD average of 8.2%. For 20 to 24-year-olds, the size of this group in Australia was 11.7% compared with the OECD average of 18.4% (OECD 2013).

In addition to changes in education and employment, young people’s life circumstances have also been changing. Transitions are getting longer. People in the group aged 15–24 years are less likely to be married and have children than in the past, less likely to own their own home, and are more likely to still be living in the parental home. This picture is consistent with increasing rates of full-time education and decreased rates of full-time employment amongst young people.

³ We cannot derive those in part-time employment only or part-time education only from the ABS data.

Figure 10 Not in the labour force or unemployed and not in full-time education as a proportion of all 15 to 19 and 20 to 24-year-olds, 1986–2013 (August figures)

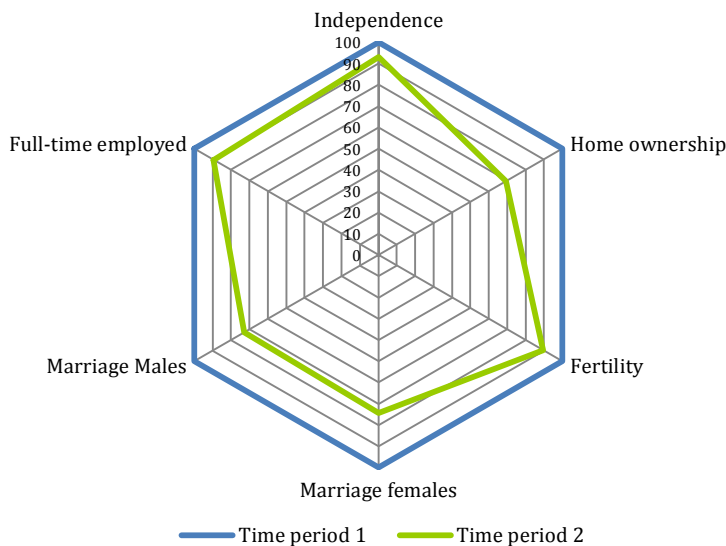


Source: ABS Labour force, Australia, detailed, cat.no.6291.0.55.001, data cube LM3.

Figure 11 demonstrates how this picture has been changing for 20 to 24-year-olds. The chart, which is based on certain life transition events over two periods of time (with the later time periods being scaled relative to the first time periods), clearly shows that all the life transition measures decreased across the two time periods. The indicators as a whole point to life transitions becoming longer.

The next section looks in more detail at education, employment and transition indicators using data from the LSAY surveys.

Figure 11 Summary of life transitions measures for 20 to 24-year-olds



Notes: 1 For independence and home ownership the two time points are 2007 and 2011; for fertility rates and marriage rates (male and female) the two time points are 2001 and 2011, and for full-time employment the two time points are 2002 and 2012.

2 Time period 2 points are a proportion of time period 1 points, which have all been set to 100.

Source: Foundation for Young Australians (figure 26, 2013).

What the LSAY data say

Young people's aspirations

LSAY collects data on young people's aspirations at age 15 years. In particular there are questions relating to completing Year 12, post-school plans, and further study aspirations. Aspirations are of importance and of policy interest because there is plenty of evidence linking aspirations and educational outcomes. Nguyen and Blomberg (2014) found consistently in research in this area that educational intentions are a strong predictor of Year 12 completion and further study at university and in vocational education and training. However, there are various factors that drive these aspirations, including students' background, academic performance, immigration background, attitudes towards school and parental and peer expectations. Gemici et al. (2014) found parental expectations to be a particularly important driver. In particular, students whose parents want them to go to university are four times more likely to complete Year 12 and 11 times more likely to plan to go to university than their counterparts whose parents do not have higher education aspirations for their children.

The data presented below look at the aspirations of 15-year-olds for the latest LSAY cohorts; namely, Y03 in 2003, Y06 in 2006 and Y09 in 2009. Table 3 looks at aspirations to complete Year 12. The table shows that over time intentions to complete Year 12 are increasing, also indicating that, of those who intended to complete Year 12, the vast majority did so.

Table 3 Plans to complete Year 12 at age 15 years by cohort (%)

	2003 cohort	2006 cohort	2009 cohort
Plan to complete Year 12	81.9	83.6	86.5
Do not plan to complete Year 12	18.2	5.7	5.2
Not sure ¹		10.7	8.3
Completed Year 12 for those who planned to	90.3	93.0	84.6 ²
Completed Year 12 for those who did not plan to	57.8	25.0	23.8

Notes: 1 For the 2003 cohort the 'not sure' category was not available, and the question was constructed differently from that given to the 2006 and 2009 cohorts. This seems to have pushed up the percentage who did not plan to complete Year 12 for the 2003 cohort.

2 As these people were only aged 18 years in 2012, there were some (8.3%) still in Year 12.

Table 4 looks more closely at post-school plans. Fewer young people at school at age 15 years in the 2009 cohort intend to undertake post-school study in the year immediately after they leave school compared with the earlier cohorts. Instead, young people are planning to undertake other activities such as time off, travel or a gap year (note caveats to the table). At least half of the students across the cohorts intend to go to university. A substantial proportion also plan to go on to VET study, although far fewer than to university.

Table 4 Post-school plans at age 15 years by cohort (%)

	2003 cohort	2006 cohort	2009 cohort ¹
University	58.7	52.5	50.6
VET study (incl. apprentice and traineeships)	26.6	28.3	18.0
Other study or training	3.2	3.7	3.9
Look for work or get a job	9.6	8.0	5.4
Other post-school activity	2.0	7.6	22.2 ²

Notes: 1 There was a large proportion of missing values for the 2009 cohort (about 37%), which means the proportions for that cohort need to be treated with caution.

2 The categories for post-school plans changed in PISA 2009 with a gap year (taking a break before study) added as an additional response option. This has been reported at 'other post-school activity'.

Table 5 considers specifically post-school study plans. University is the preferred post-school study destination over VET study by a considerable margin. Roughly two-thirds of those in the 2003 and 2006 cohorts who had intended to go on to university or VET study had completed a qualification in that sector (by the time they were aged 24 years for the 2003 cohort and by the time they were aged 21 years for the 2006 cohort). Over time, that proportion would be expected to rise as the cohort aged.

While other research has established the link between aspirations and educational (and occupational outcomes), these tables provide some 'flavour' in terms of proportions and also trends over time.

Table 5 Post-school study plans at age 15 years by cohort (%)

	2003 cohort	2006 cohort	2009 cohort ¹
University	61.1	59.7	66.5
VET study (incl. apprentice and traineeships)	30.3	31.8	25.7
Other study or training	5.3	3.8	4.3
Look for work or get a job	3.2	3.3	2.0
Other post-school activity	0.1	1.4	1.7
Completed or undertaking university for those who planned to	66.1	67.1	- ²
Completed or undertaking VET for those who planned to	69.9	63.2	- ²

Notes: 1 There was a large proportion of missing values for the 2009 cohort (about 20%), which means the proportions for that cohort need to be treated with caution.

2 It is still too early to consider whether this cohort achieved their post-school plans.

The circumstances of young people in 2012

In this section we draw specifically on information on young people in 2012 contained in LSAY's three active cohorts; that is, Y09 (18-year-olds), Y06 (21-year-olds) and Y03 (24-year-olds). In particular, information on schooling, post-school education and training, work, and broader life circumstances are considered.

Education

Figure 12 shows the Year 12 completion percentages in 2012. Noting that 8.3% of 18-year-olds are still undertaking Year 12 in 2012, the more valid comparison is between 21- and 24-year-olds, with slightly higher proportions of 21-year-olds having completed Year 12 (86.3%) than 24-year-olds (84.8%), although these differences are not statistically significant.

In terms of qualifications currently being undertaken (table 6), participation declines with age as expected, except at the postgraduate level, where participation increases with age.

The converse of course is true for qualification completion rates. Indeed, for the 24-year-olds from the Y03 cohort, only 22.9% have not completed a post-school qualification (table 7).

Figure 12 Year 12 completion by age and cohort, 2012 (%)

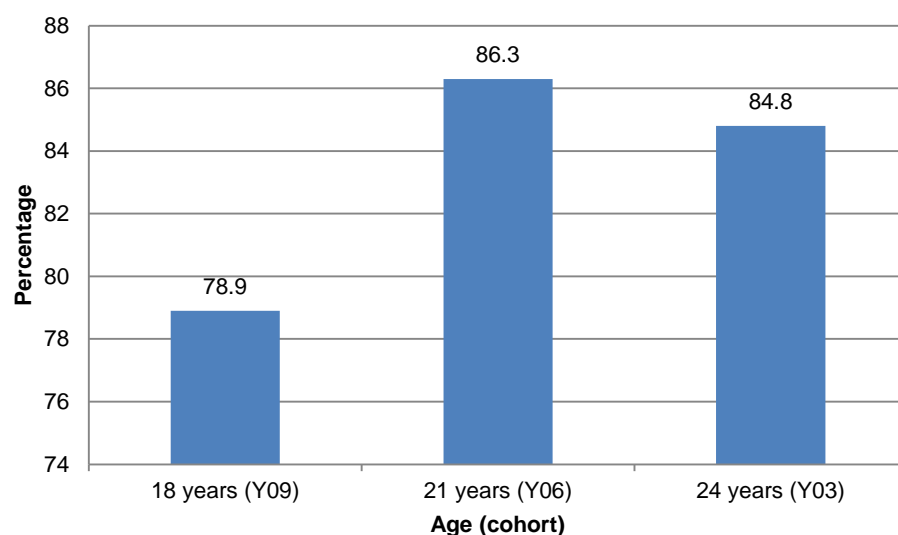


Table 6 Current post-school qualification level by age and cohort, 2012 (%)

Qualification level	18-year-olds (Y09)	21-year-olds (Y06)	24-year-olds (Y03)
Studying for a qualification	59.0	48.1	23.4
Certificate level	17.4	9.8	5.9
Advanced diploma/diploma (incl. associate degree)	4.9	3.3	2.5
Bachelor degree	35.8	32.8	9.8
Postgraduate level	1.0	2.4	5.3
Not studying for a qualification	41.0	51.9	76.6

Table 7 Highest post-school qualification level completed by age and cohort, 2012 (%)

Qualification level	18-year-olds (Y09)	21-year-olds (Y06)	24-year-olds (Y03)
Completed a qualification	7.4	44.8	77.1
Certificate level	6.1	23.3	29.3
Advanced diploma/diploma (incl. associate degree)	1.3	6.6	9.9
Bachelor degree	0.0**	14.7	33.8
Postgraduate level	0.0	0.3*	4.1
Did not complete a qualification	92.6	55.2	22.9

Notes: * indicates the estimate has a relative standard error greater than 25% and therefore should be used with caution.

** indicates the estimate has been obtained from a sample of fewer than five respondents and therefore should be used with caution.

Employment

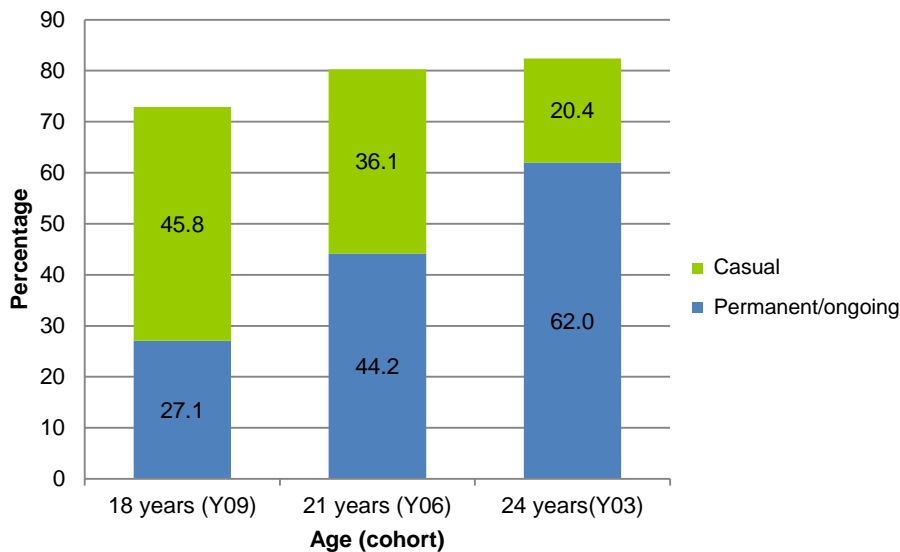
Table 8 provides information on the employment status of young people in 2012 across the three active cohorts. Quite clearly, the prospects of employment, particularly full-time employment, increase with age. Part-time employment is a much more likely option for the 18-year-olds. The rate of unemployment and not being in the labour force also decreases with age.

Table 8 Employment status by age and cohort, 2012 (%)

Employment status	18-year-olds (Y09)	21-year-olds (Y06)	24-year-olds (Y03)
Employed	75.8	84.0	88.1
Employed full-time	23.7	41.1	65.4
Employed part-time	48.6	40.2	20.7
Employed, but working time unknown	3.5	2.7	2.1
Unemployed	10.8	6.5	3.5
Not in the labour force	13.4	9.5	8.3

The proportions working full-time or part-time are also reflected in permanent/casual arrangements (figure 13). Eighteen-year-olds are much more likely to be in casual employment (45.8%) and less likely to be in permanent employment (27.1%) compared with 24-year-olds, who are much more likely to be in permanent employment (62.0%) and less likely to be in casual employment (20.4%).

Table 9 examines the employment status of young people not in education. It can be seen that a considerable proportion of 18-year-olds not in education are not working or not in the labour force (about one in five). Some of this non-participation may well be related to activities such as travel and family responsibilities (see, for example, Foundation for Young Australians 2013). For 21- and 24-year-olds, the proportion in full-time work increases substantially, with concomitant decreases in part-time work and not working.

Figure 13 Casual and permanent/ongoing employment by age and cohort, 2012 (%)**Table 9 Employment status for those not in education by age and cohort, 2012 (%)**

Employment status	18-year-olds (Y09)	21-year-olds (Y06)	24-year-olds (Y03)
Employed full-time	33.7	58.1	73.1
Employed part-time	39.6	27.2	15.8
Not working (unemployed or NILF)	21.1	11.9	8.9
Employed, but working time unknown	5.6	2.8	2.2

Another important indication of the development of young people in the labour force is increases in their wages. Figure 14 shows full-time weekly wages for 18-, 21- and 24-year-olds in 2012. It shows

that wages increase considerably with age. Indeed, the 24-year-old age group receives on average about \$500 more per week in full-time wages than the 18-year-old age group, reflecting the increased level of experience and qualification profile of the group.

For young people who are employed, table 10 provides information on the occupational group of employment. The most common occupational groups for 18- and 21-year-olds in 2012 were sales workers, followed by community and personal service workers, although for 21-year-olds there were now more in the highest three occupational categories. For the 24-year-olds, the most popular occupational group was professionals, followed by technicians and trades workers, indicating a distinct 'rise' up the occupational ladder as post-school qualifications and experience become more pronounced.

Figure 14 Average weekly pay for those in full-time employment by age and cohort, 2012 (\$)

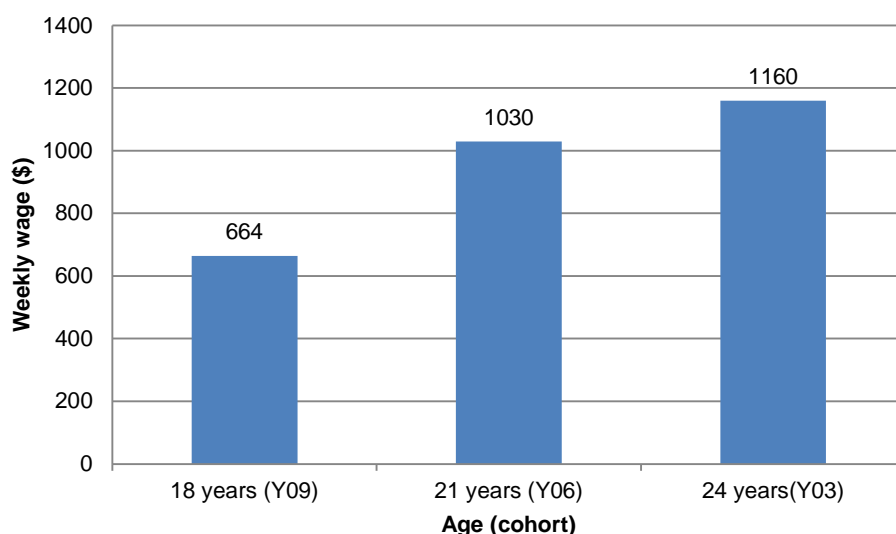


Table 10 Occupational group of employment by age and cohort, 2012 (%)

Occupation	18-year-olds (Y09)	21-year-olds (Y06)	24-year-olds (Y03)
Managers	2.6	5.6	9.2
Professionals	4.4	11.3	27.8
Technicians and trades workers	14.7	17.7	18.1
Community and personal service workers	23.3	19.0	12.4
Clerical and administrative workers	9.3	13.3	15.3
Sales workers	27.6	20.2	7.8
Machinery operators and drivers	2.2	3.3	3.5
Labourers	16.1	9.5	5.9

Note: The largest two proportions for each cohort are highlighted.

As mentioned in the context to this section, young people who are not engaged and not fully engaged in employment, education or training⁴ are of perennial interest to policy-makers. From LSAY we can derive the size of these groups for particular age groups as well as look at some of their activities. Figure 15 shows that 6.2% of 21-year-olds overall in 2012 were not engaged in employment, education

⁴ Not engaged includes those who are unemployed (and not studying), not in the labour force (and not studying), or not studying. The larger group of not fully engaged includes those who are unemployed (and not studying), not in the labour force (and not studying), working part-time (and not studying) or studying part-time (and not working).

or training, while 21.2% were not fully engaged, with females more likely to be so than males. However, other data from LSAY indicate that over 70% of the females who are not engaged in employment, education or training and who are not looking for work are engaged in home duties or looking after children. Thus, while there are elements of this group who are at risk, it needs to be noted that there are others in the group by choice.

Figure 16 provides information on the job-search activity for 21-year-olds who were unemployed. The main feature is that males were considerably more likely to have been seeking full-time work than females.

Figure 15 Not engaged and not fully engaged in employment, education or training, Y06 cohort, 21-year-olds, 2012 (%)

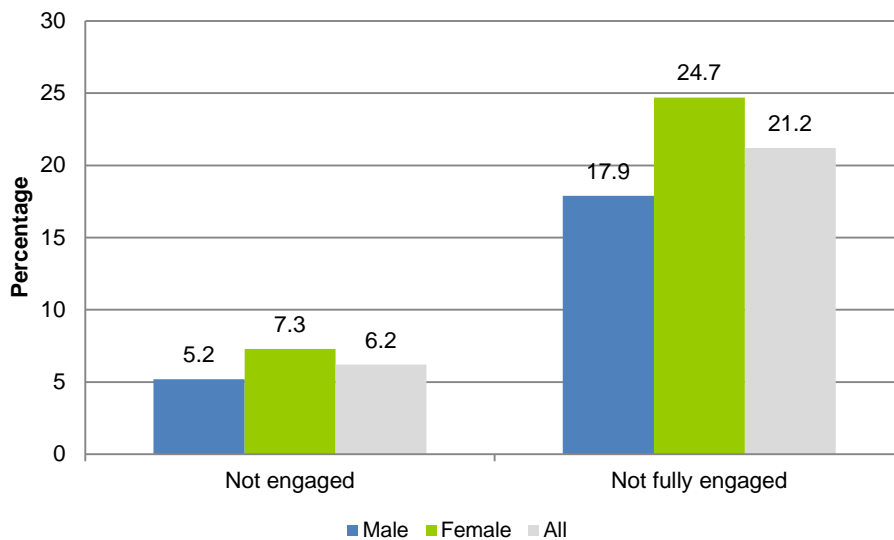
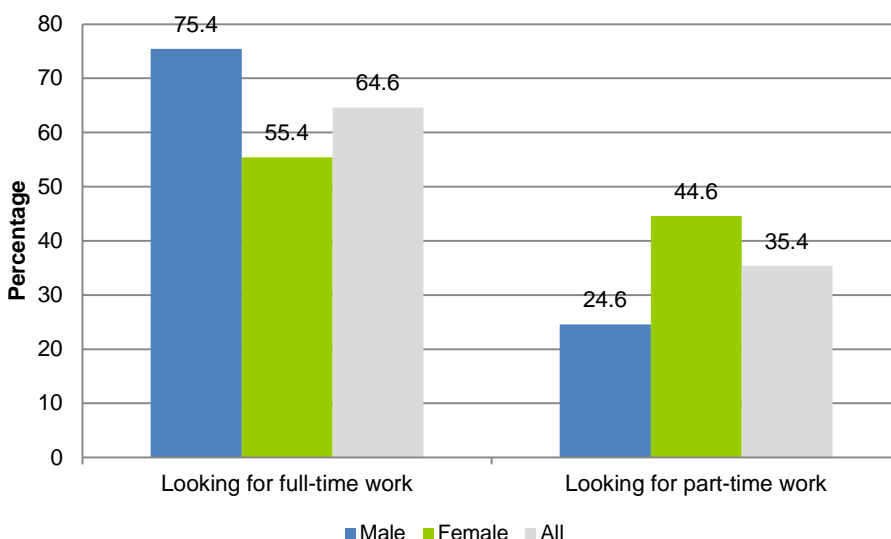
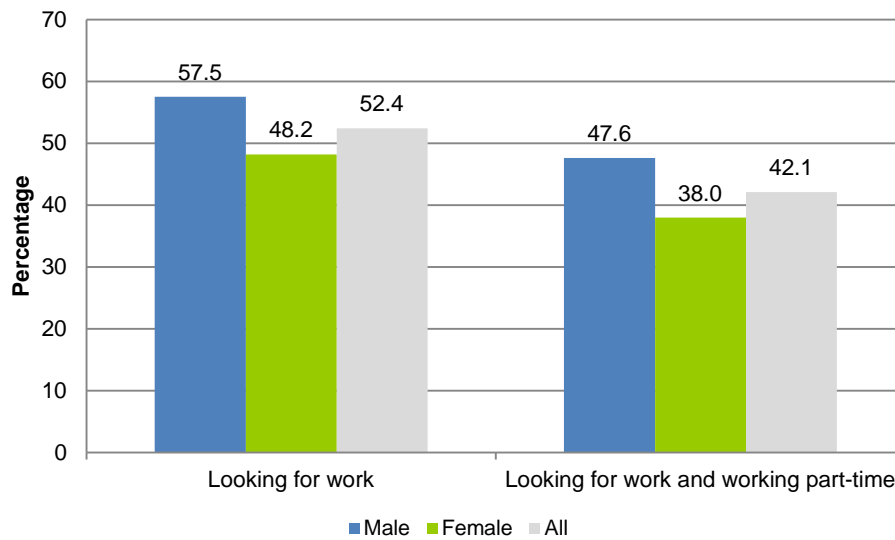


Figure 16 Job-search activity for those who are unemployed, Y06 cohort, 21-year-olds, 2012 (%)



LSAY also contains information on the job-search activity of the not fully engaged group (excluding those not in the labour force) and also the more constrained group of those who are working part-time only. Figure 17 shows that over half of the not fully engaged group overall were looking for work, males more so than females. The working part-time only group were less likely to be seeking employment, indicating that many of these young people are undertaking part-time work for lifestyle reasons.

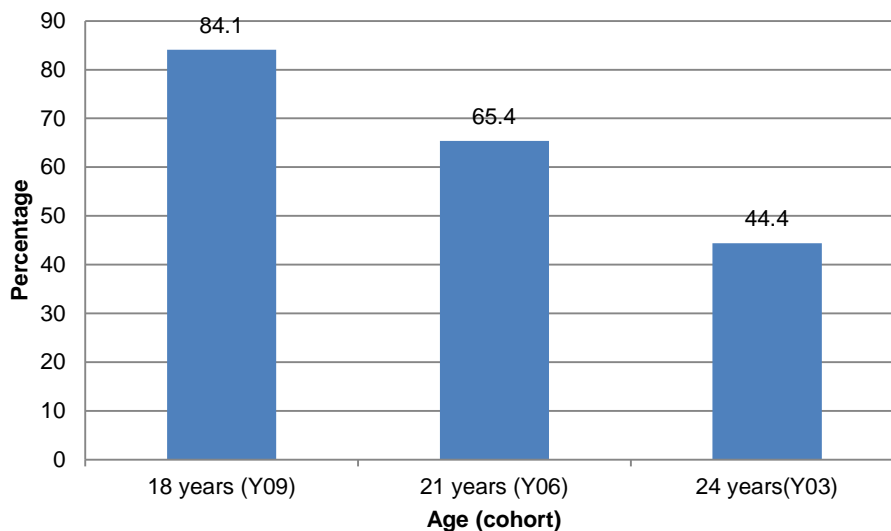
Figure 17 Looking for work for the not fully engaged group and working part-time only subgroup, Y06 cohort, 21-year-olds, 2012 (%)



Social circumstances

This section considers the social circumstances of young people in terms of the proportions who are still living in the parental home, their marital status, and their satisfaction with life as a whole. In 2012, more than 80% of 18-year-olds were still in the parental home (figure 18). While this drops off for the older age groups, it can be seen that in 2012 over 40% of 24-year-olds were still living in the parental home.

Figure 18 Living in parental home by age and cohort, 2012 (%)



Turning to marital status (figure 19), the data show that the vast majority of 18-year-olds are not married or not in de facto relationships, grading to about two-thirds of 24-year-olds in 2012. The other important feature here is that young people were considerably more likely to be in de facto relationships than to be married. For example, while 9.3% of the group aged 24 years were married, a further 24.9% were in a de facto relationship.

Finally, figure 20 shows overall life satisfaction across the three active cohorts in 2012. For each age group, overall life satisfaction is well over 90%.

Figure 19 Marital status by age and cohort, 2012 (%)

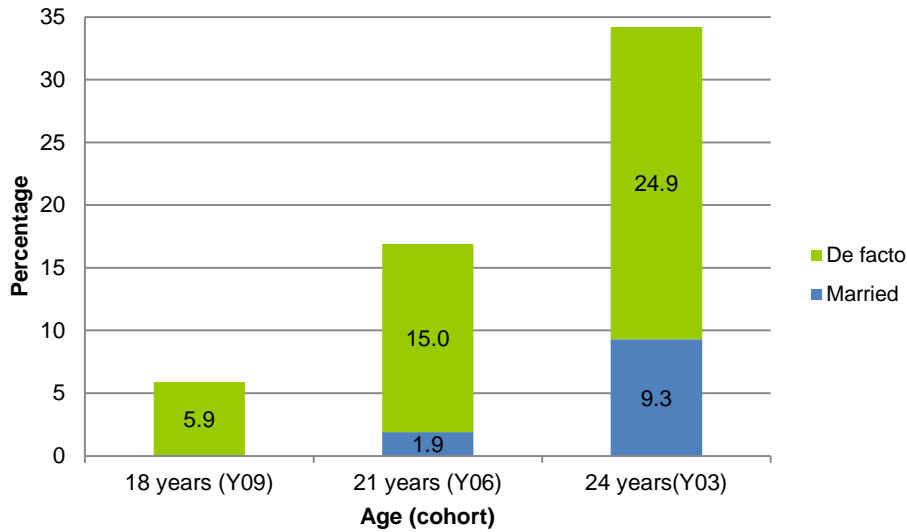
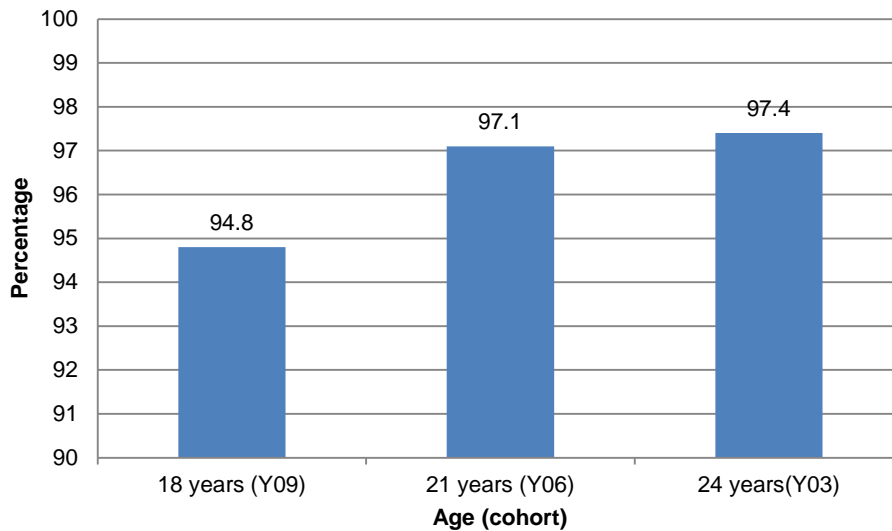


Figure 20 Satisfaction with life as a whole by age and cohort, 2012 (%)



Notes: The Y03 and Y06 cohorts are asked to rate their happiness with their life as a whole using a 5-point scale, with 1 representing 'Very unhappy' and 5 representing 'Very happy'. The proportion of respondents who are satisfied with their life as a whole is calculated by dividing the number of respondents who are 'happy' or 'very happy' by the total number of respondents.

The Y09 cohort are asked to rate their happiness with their life as a whole using an 11-point scale, with 0 representing 'Very unhappy' and 10 representing 'Very happy'. The proportion of respondents who are satisfied with their life as a whole is calculated by dividing the number of respondents who rated their overall happiness from 6 to 10 (inclusive) by the total number of respondents.

The main transition points for young people

This section looks at particular transition points for young people, using a pathways approach. The main points of interest are associated with school completion, post-school educational participation and attainment, and labour market activity. The social circumstances of young people are also considered. Within this we look at how various cohorts have evolved and some subgroup comparisons, where they might be of interest. For example, it is known that there are different patterns of educational and labour force participation for males and females, but because of the richness of LSAY, other subgroups can also be examined according to factors such as regionality, socioeconomic status, academic achievement at age 15 years, and Year 12 completion.

When examining data for particular ages, we mainly focus on 21- and 24-year-olds as these ages accord with the latest available data for the Y03 and Y06 cohorts. Twenty-one-year-olds are of interest as they are still quite 'vulnerable' in terms of engagement with the labour market, are possibly still undertaking post-school education and training, and are in changing life circumstances. Twenty-four-year-olds are of interest as they are becoming more 'settled' in terms of labour market engagement.

Schooling

School attendance

Table 11 shows the pattern of school level and school leaving for the Y09 cohort (the latest cohort available) between the ages of 15 and 18 years. It can be seen from the table that most are leaving school and completing Year 12 between the ages of 17 and 18 years. Information from previous cohorts also indicates that by the age of 19 years, virtually all young people have left school.

Table 11 Progression through secondary school by age, Y09 cohort, 2009–12 (%)

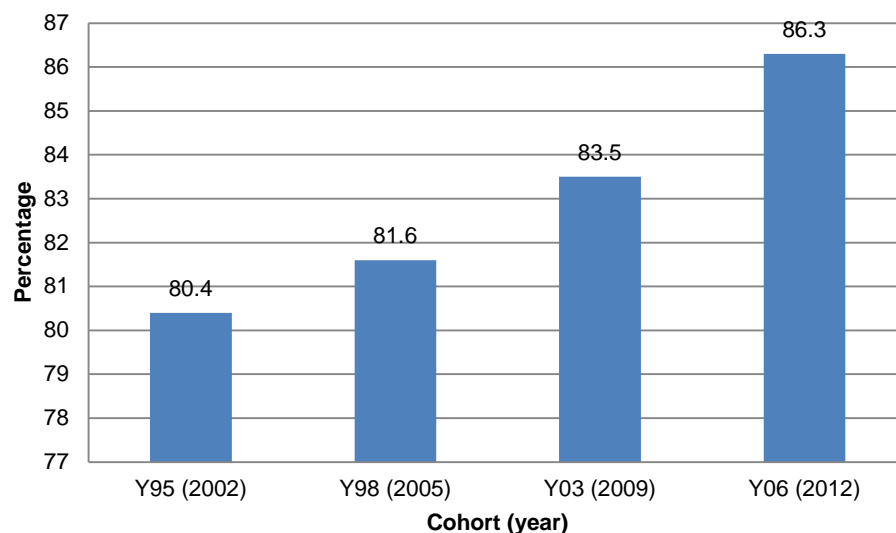
	15-year-olds (2009)	16-year-olds (2010)	17-year-olds (2011)	18-year-olds (2012)
Year 12	0.1*	20.0	58.9	8.3
Year 11	18.6	61.0	9.1	0.1*
Year 10	70.8	10.1	0.2*	0
Year 9 or below	10.5	0.1*	0	0
At school – year level unknown	0	0	0	0
Not at school	0	8.9	31.8	91.6
	100.0	100.0	100.0	100.0

Notes: * indicates the estimate has a relative standard error greater than 25% and therefore should be used with caution.
The progression through secondary school is highlighted.

School completion

Given the multi-cohort nature of LSAY, school completion can be examined over time with reference to particular cohorts. Figure 21 then provides information on school completion for 21-year-olds at four points in time, according to four different cohorts of LSAY. It can be seen that over time, 21-year-olds are more likely to have completed Year 12, with 86.3% of 21-year-olds having completed Year 12 in 2012 compared with 80.4% in 2002. This pattern is consistent with ABS data on Year 12 completion.

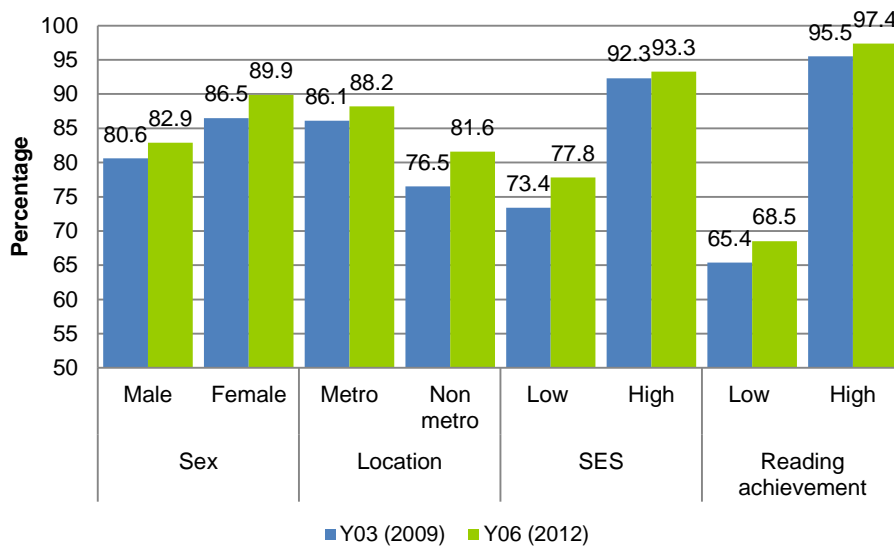
Figure 21 Year 12 completion by cohort, 21-year-olds, 2002–12 (%)



The rate at which Year 12 and post-school educational participation and attainment occur is known to vary by certain characteristics. Figure 22 compares Year 12 completion across a range of characteristics. While there are differences according to all the characteristics shown, the largest differences are by reading achievement quartile and socioeconomic status.

Figure 22 also compares Year 12 completion for 21-year-olds between 2009 and 2012.⁵ For each characteristic, Year 12 completion has increased between the two cohorts. However, for some characteristics the increase has been larger than for their counterparts. For example, the Year 12 completions of non-metropolitan students increased 5.1 percentage points between 2009 and 2012 compared with a non-significant increase for their metropolitan counterparts.

Figure 22 Year 12 completion by cohort and selected characteristics, 21-year-olds, 2009 and 2012 (%)



- Notes: 1 Location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
 2 SES quartiles are calculated using the PISA Economic, Social and Cultural Status (ESCS) index.
 3 Reading achievement quartiles are calculated using PISA plausible values for reading (scores).

Post-school education

In addition to increased proportions completing Year 12, more 21-year-olds are undertaking post-school education in 2012 than for the previous cohorts, as table 12 shows, once again consistent with ABS trends. In particular, there has been a marked increase in the proportion of 21-year-olds undertaking bachelor degree level qualifications (23.5% in 2002 to 32.8% in 2012).

Looking at qualification completions, figure 23 shows that 21-year-olds are considerably more likely to have completed a VET-level qualification than a higher education qualification across all the cohorts.

⁵ Only 2009 and 2012 are used for comparison. The demographic breakdowns were not available and/or not comparable across every cohort.

Table 12 Current post-school qualification level by cohort, 21-year-olds, 2002–12 (%)

Qualification level	Y95 (2002)	Y98 (2005)	Y03 (2009)	Y06 (2012)
Studying for a qualification	34.7	40.6	46.0	48.1
Certificate level	6.5	9.8	11.3	9.8
Advanced diploma/diploma (incl. associate degree)	2.7	2.5	3.4	3.3
Bachelor degree	23.5	27.0	29.3	32.8
Postgraduate level	1.8	1.3	1.9	2.4
Not studying for a qualification	65.3	59.4	54.0	51.9

Figure 23 Completed a VET or university qualification by cohort, 21-year-olds, 2002–12 (%)

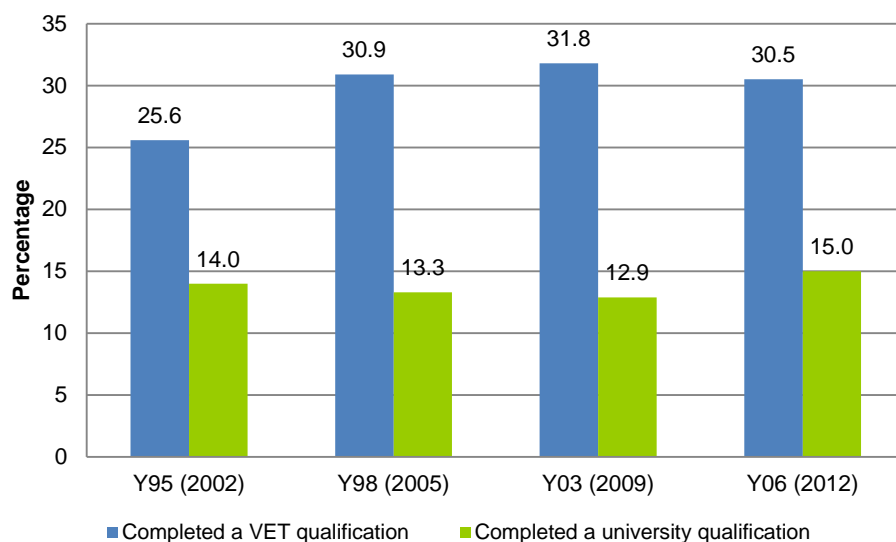
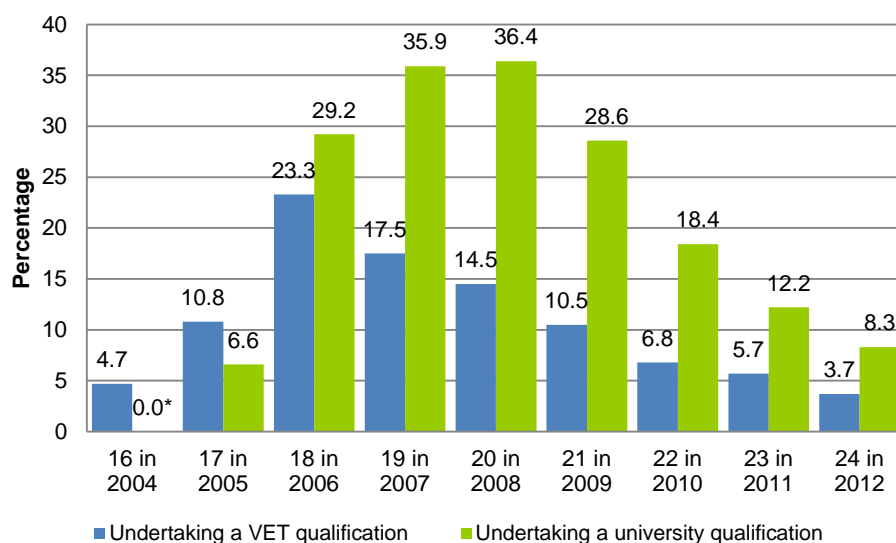


Figure 24 looks more closely at the pattern of post-school educational participation for the Y03 cohort from 2004 to 2012. The figure shows that, while maximum participation in VET courses occurs quite early, at age 18 years, for university qualifications the maximal rate of participation occurs later on, at ages 19 and 20 years, as would be expected.

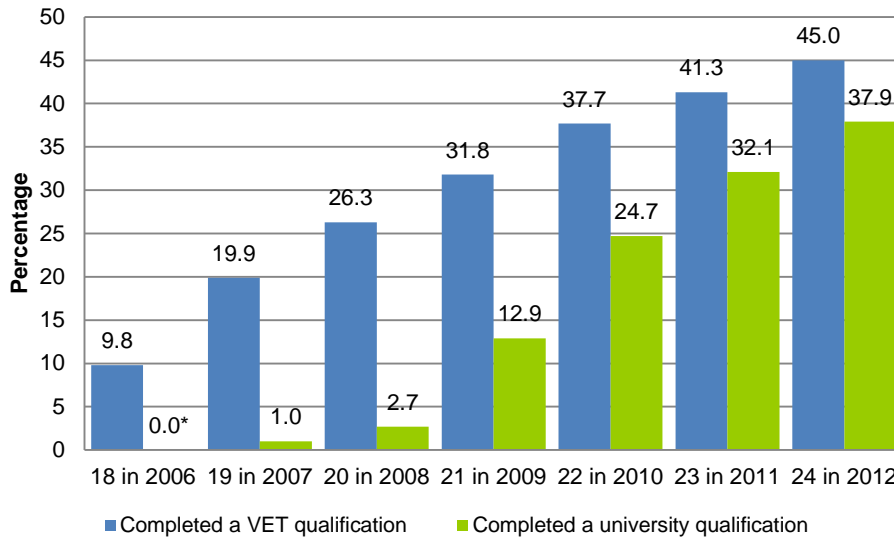
Figure 24 Undertaking a VET or university qualification by age, Y03 cohort, 2004–12 (%)



Note: Undertaking a university qualification excludes those who have completed a bachelor degree and are undertaking an additional bachelor degree or higher-level qualification.

Figure 25 then shows the pattern of qualification completion for the Y03 cohort from 2004 to 2012. By age 24 years, considerably higher proportions of the cohort have completed a VET qualification compared with a university qualification. While the largest increase in VET qualification completions occurs between the ages of 18 and 19 years, the largest increase in university qualifications occurs between the ages of 21 and 22 years (about ten percentage points in each case).

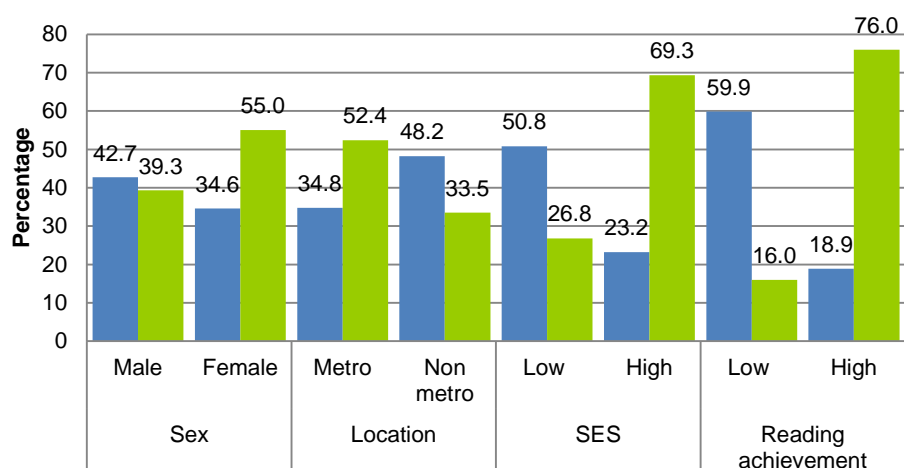
Figure 25 Completed a VET or university qualification by age, Y03 cohort, 2006–12 (%)



Note: Completed a university qualification includes those who have completed a bachelor degree and are undertaking an additional bachelor degree or higher-level qualification.

Figure 26 shows considerable variation in post-school participation and attainment by certain characteristics. The starkest contrast is once again in reading achievement, where those in the highest reading achievement quartile are nearly five times more likely than those in the lowest quartile to be undertaking or have completed a university qualification, while those in the lowest reading achievement quartile are about three times more likely than those in the highest quartile to be undertaking or have completed a VET qualification.

Figure 26 Undertaking or completed a VET or university qualification by selected characteristics, 21-year-olds, Y06 cohort, 2012 (%)



■ Undertaking or completed a VET qualification ■ Undertaking or completed a university qualification

Notes: 1 Geographic location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
 2 SES quartiles are calculated using the PISA ESCS index.
 3 Reading achievement quartiles are calculated using PISA plausible values for reading (scores).

Shifting patterns of employment

From the ABS data it was seen that patterns of employment have clearly changed over time. In this section, the changing employment patterns are examined with reference to LSAY.

To start with, table 13 provides information on the employment status of 21-year-olds across four cohorts of LSAY. Twenty-one-year-olds are considered here because, although they have had an opportunity to enter the labour market, they are still vulnerable to labour market shifts, for example, those caused by the Global Financial Crisis.

The table shows that the rates of full-time employment have decreased over the cohorts, being largely supplanted by part-time employment, with overall employment remaining reasonably stable. The proportion not in the labour force has increased slightly since 2002, but this can be partially attributed to the increased rates of educational participation.

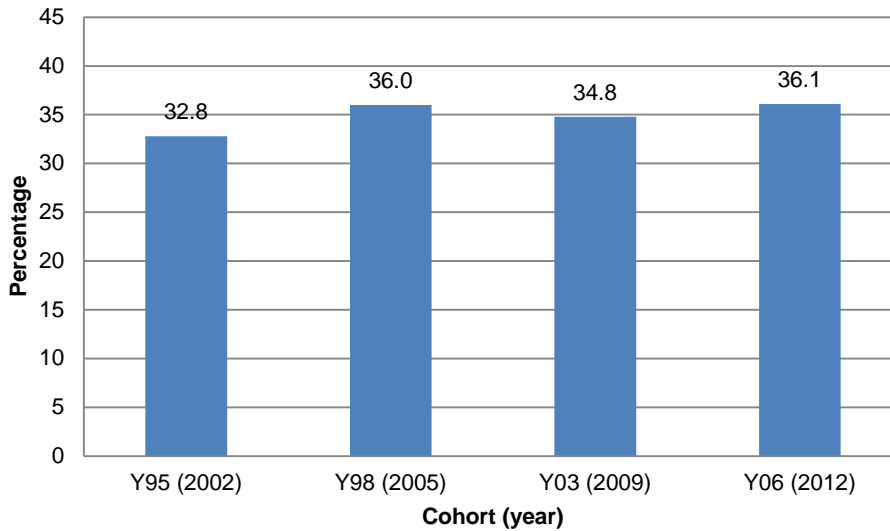
Table 13 Employment status by cohort, 21-year-olds, 2002–12 (%)

Employment status	Y95 (2002)	Y98 (2005)	Y03 (2009)	Y06 (2012)
Employed	84.1	85.7	84.2	84.0
Employed full-time	49.7	47.7	46.0	41.1
Employed part-time	32.7	36.5	36.6	40.2
Employed, but working time unknown	1.7	1.5	1.7	2.7
Unemployed	7.2	6.1	6.6	6.5
Not in the labour force	8.2	8.1	9.1	9.5
Unknown	0.5	0.0**	0.0	0.0

Note: ** indicates the estimate has been obtained from a sample of fewer than five respondents and therefore should be used with caution.

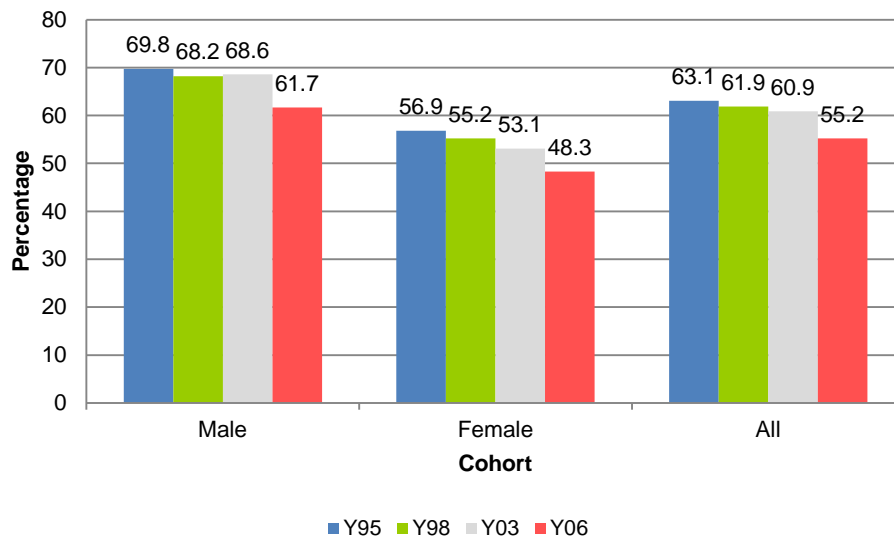
By contrast, figure 27 shows that the rates of casual employment for 21-year-olds have been relatively constant over the cohorts.

Figure 27 Casual employment by cohort, 21-year-olds, 2002–12 (%)



The rate at which the cohorts have gained their first full-time job by age 21 years has declined across the cohorts for both males and females. Figure 28 shows that this decline was reasonably large when comparing the Y03 and Y06 cohorts (6.9 percentage points for males and 4.8 percentage points for females). This is also consistent with other data (see, for example, figure 15, Foundation for Young Australians 2013).

Figure 28 First full-time job by age 21 years by cohort and sex (%)



Note: These figures have been calculated using information from the final survey waves for the Y95 and Y98 cohorts and the 2012 surveys for the Y03 and Y06 cohorts.

Looking more closely at the employment status for 21-year-olds not in education (table 14), it can be seen that there has been a slight decline in full-time employment for 21-year-olds since 2002 and a concomitant increase in part-time employment. The proportions not working have actually declined slightly for 21-year-olds over time.

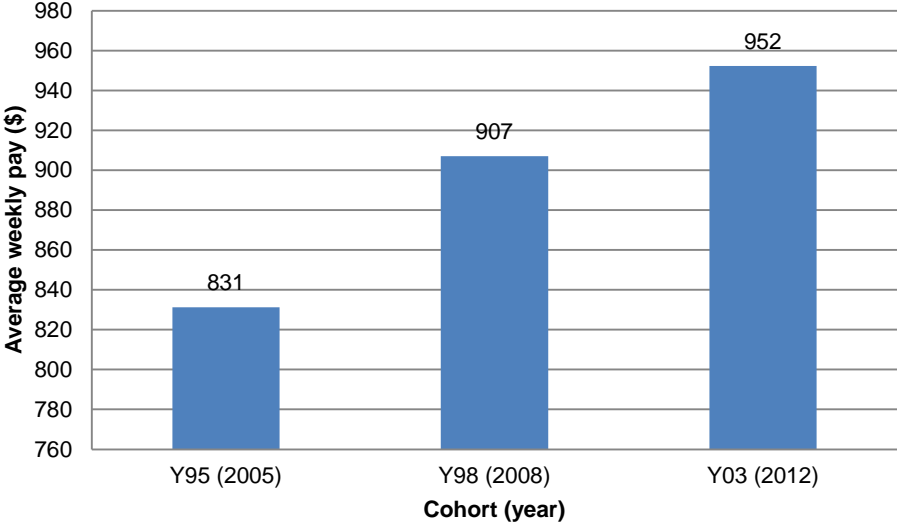
LSAY also contains wages data for young people. To illustrate changes in wages over the LSAY cohorts, 24-year-olds are used, as they have had a greater opportunity to settle into the labour market than the younger age groups. Figure 29 shows that real full-time wages have increased, from \$831 per

week in 2005 to \$952 per week 2012, an increase of 14.6%. A recent paper by Karmel (2014) indicates that increased levels of qualifications are contributing to increased productivity, but with the proviso that higher-level qualifications still attract a higher wage premium than the qualifications below them (for example, postgraduate degrees have a higher wage premium than bachelor degrees, which have a higher premium than diplomas etc.). Hence the increased level of qualifications in the labour market leads to increased real wages. However, Karmel also points out that this had led to an increase in the number of hours worked. Data from LSAY indicate only a very slight increase in working hours for full-time employees (42.7 hours per week in 2005, 42.8 hours per week in 2008 and 42.9 hours per week in 2012).

Table 14 Employment status for those not in education by cohort, 21-year-olds, 2002–12 (%)

Employment status	Y95 (2002)	Y98 (2005)	Y03 (2009)	Y06 (2012)
Employed full-time	61.8	60.2	61.5	58.1
Employed part-time	22.2	25.3	24.0	27.2
Employed, but working time unknown	1.8	1.6	1.8	2.8
Not working (unemployed or NILF)	14.3	12.8	12.8	11.9

Figure 29 Average weekly pay for those in full-time employment by cohort, 24-year-olds, 2002–12 (\$) (adjusted for CPI, 2005 base year)



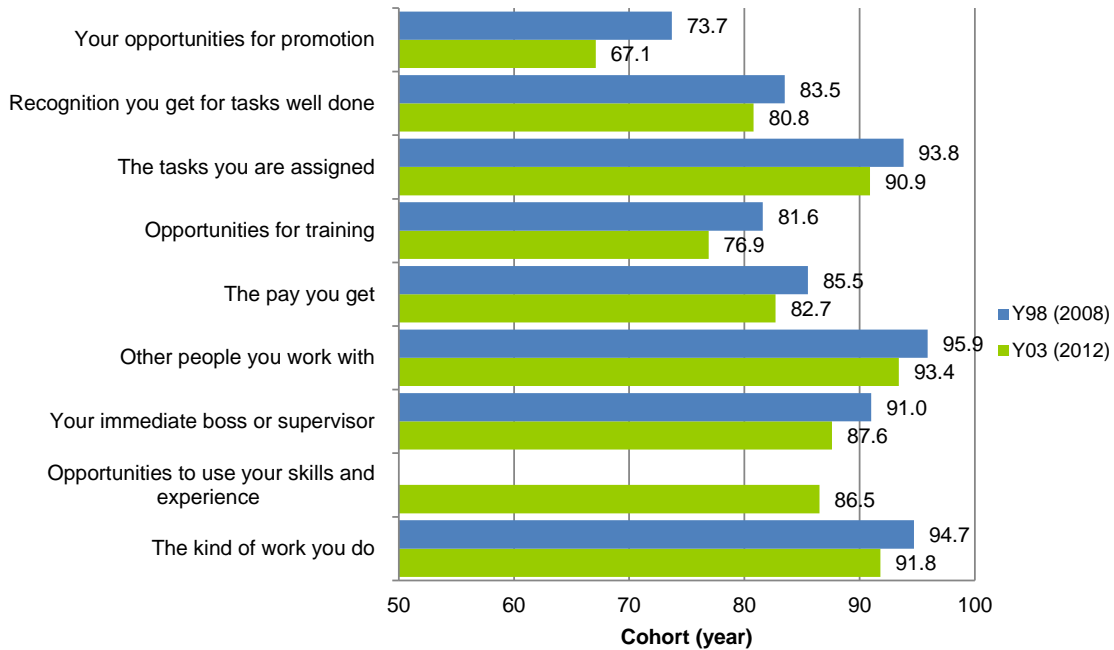
In addition to wages data, LSAY also asks young people about their level of satisfaction with various aspects of their work. Figure 30 compares satisfaction in 2008 (just prior to the GFC) with 2012 for each item.

The items that attracted the highest percentage of satisfaction were ‘the other people you work with’, ‘the kind of work you do’ and ‘the tasks you are assigned’. At the other end of the scale, the least amount of satisfaction was with ‘your opportunities for promotion’, followed by ‘opportunities for training’. Interestingly, these are the two items with the biggest decrease in satisfaction ratings between 2008 and 2012, possibly due to tighter financial conditions (although there was some decrease for all the items).

Figure 31 looks at how employment patterns have changed over the various waves of the Y03 cohort, that is, from age 15 years in 2003 through to 24 years in 2012. The chart shows two main transition points. The first is ages 17 to 18 years, when most young people are leaving school. At this time there is a large increase (19.8 percentage points) in the proportion who are employed full-time, and

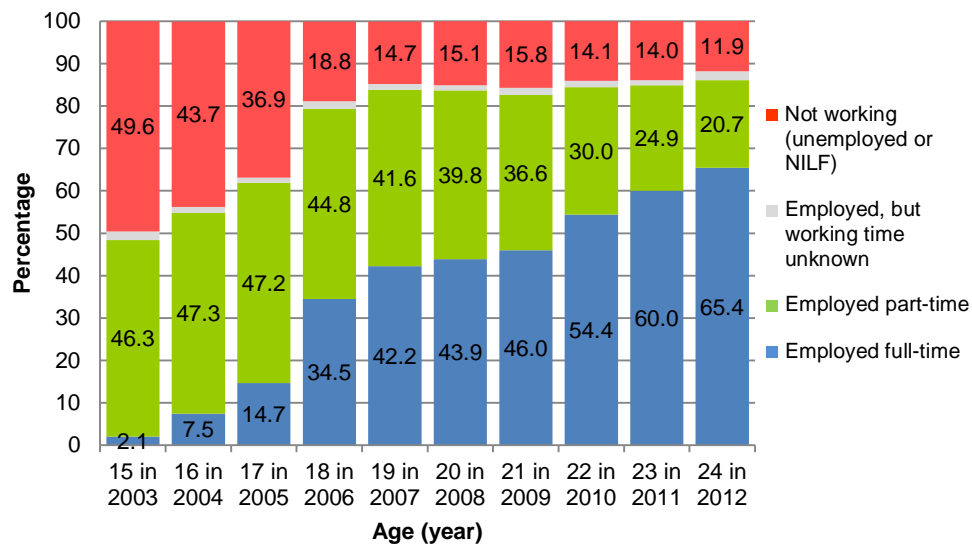
associated with this, a large drop in the proportion not working (18.1 percentage points). The second main transition point occurs at ages 21 to 22 years (assumedly around the time many complete tertiary education). The displacement here however occurs from part-time employment to full-time employment. For example, from the ages 21 to 22 years there is an increase of 8.4 percentage points in full-time employment and a decrease of 6.6 percentage points in part-time employment.

Figure 30 Employment satisfaction by cohort, 24-year-olds, 2008 and 2012 (%)



Note: The question on opportunities to use your skills and experience was not asked for the Y98 cohort in 2008.

Figure 31 Employment status by age, Y03 cohort, 2003–12 (%)



When we look at employment arrangements (figure 32), it can be seen that they follow a similar pattern, that is, the proportions in casual employment are similar to the proportions in part-time employment and similarly for permanent compared with full-time employment.

For young people who are employed, occupational changes can be observed as they progress through life. Table 15 clearly shows different patterns of occupational groupings as the cohort ages. It can be seen that at age 15 years the two most common occupational groupings are sales workers and labourers, with few in the other groupings. This is because sales workers and labourers generally do not require any qualifications for work in these areas. It can be seen that by age 18 years the distribution of occupations is already changing towards areas that may require some kind of qualification (for example, community and personal service workers, and technicians and trades workers). This change is further strengthened by age 21 years. At age 24 years, when many have completed post-secondary education (either VET or university), the occupational pattern changes once again, with professionals, followed by technicians and trades workers, becoming the most common occupational groupings. At age 24 years only small proportions are employed as sales workers and labourers.

Figure 32 Employment arrangements by age, Y03 cohort, 2004–12 (%)

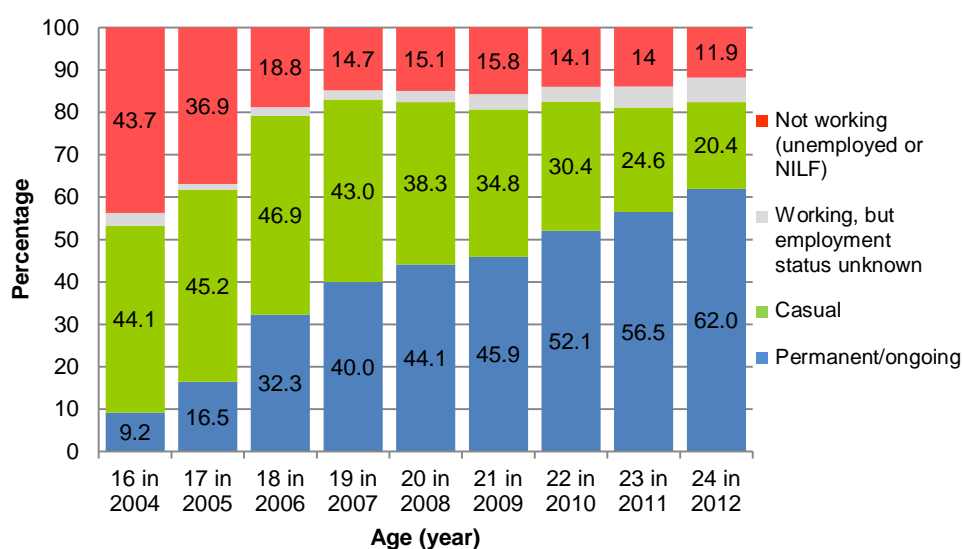


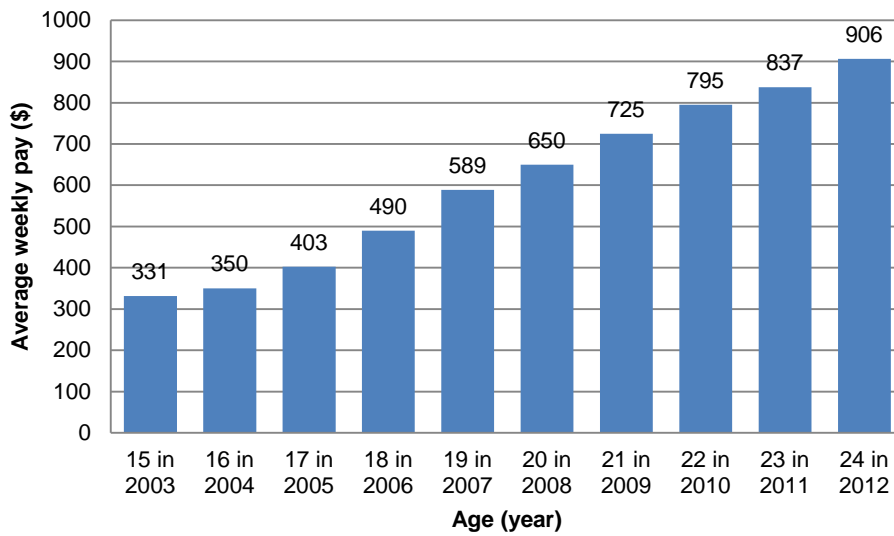
Table 15 Major occupational group for those employed by age, Y03 cohort, 2003–12 (%)

	Age 15 (2003)	Age 18 (2006)	Age 21 (2009)	Age 24 (2012)
Managers	1.2	3.1	6.4	9.2
Professionals	1.0	4.0	10.8	27.8
Technicians and trades workers	6.2	17.9	20.2	18.1
Community and personal service workers	8.9	20.2	18.7	12.4
Clerical and administrative workers	2.3	9.6	15.3	15.3
Sales workers	43.5	27.7	16.9	7.8
Machinery operators and drivers	6.6	3.1	3.3	3.5
Labourers	30.3	14.5	8.4	5.9

Note: The largest two proportions for each age group are highlighted.

In addition, figure 33 shows how wages (adjusted for CPI) increased for young people employed full-time. This is in line with the changing occupational distribution of employment. At age 15 years, when young people are predominantly employed as sales workers and labourers, the average full-time weekly wage was \$331. However, by age 24 years, when the occupational distribution changes towards the higher-level occupations and increased levels of qualifications, the average full-time weekly wage rises to \$906.

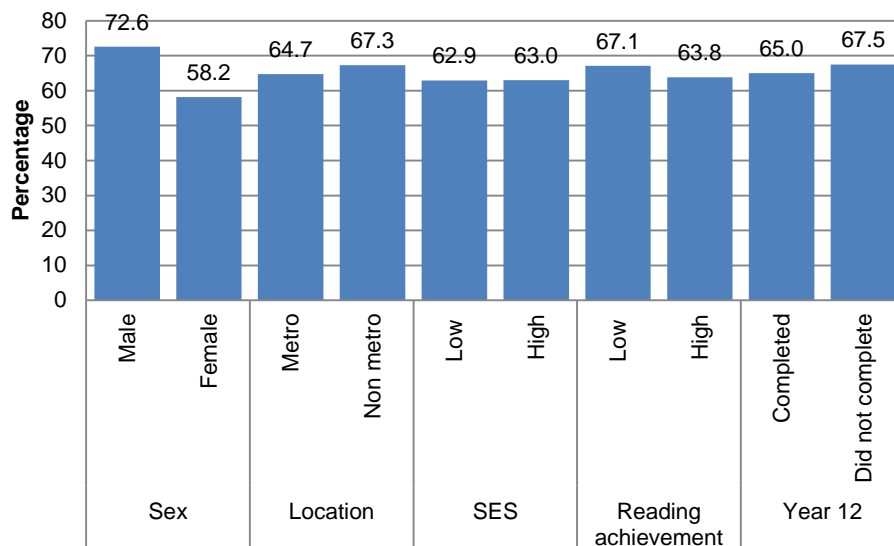
Figure 33 Average weekly pay for those in full-time employment by age, 2003–12 (\$) (adjusted for CPI, base year 2003)



As was the case with education, it is expected that the labour market activity of young people would vary according to certain characteristics of the individual. The following charts consider these differences from the perspective of rates of full-time employment, occupation, wages and satisfaction with work.

Figure 34 compares full-time employment proportions by various characteristics for young people who were 24 years old in 2012. The largest variation was in the male–female split, with full-time employment for males being 14.4 percentage points higher than for females. For some of the other characteristics, for example, socioeconomic status, there is little variation in full-time employment rates between low and high socioeconomic status.

Figure 34 Employed full-time by selected characteristics, Y03 cohort, 24-year-olds, 2012 (%)



- Notes:
- 1 Location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
 - 2 SES quartiles are calculated using the PISA ESCS index.
 - 3 Reading achievement quartiles are calculated using PISA plausible values for reading (scores).

Table 16 shows how occupational groupings vary by selected characteristics for 24-year-olds in 2012. In terms of gender splits, the main differences are that males are much more likely to be working in technician and trades occupations, whereas females are much more likely to be working in professional, or clerical and administrative occupations.

The other interesting differences are in the reading achievement and socioeconomic status quartiles, and the Year 12 completion groupings. The differences are quite similar for the three groups. The low reading achievement, low SES, and did not complete Year 12 groups are more likely to work in technician and trades workers occupations than in any other occupational group, and much more likely to do so than their counterpart groups. They are also more likely than their counterparts to be working as labourers or machinery operators. The other major difference is that the high reading achievement and high-SES quartiles and completed Year 12 groups are far more likely to be employed as professionals than their counterparts.

Table 16 Major occupational group by selected characteristics, Y03 cohort, 24-year-olds, 2012 (%)

Occupational grouping	Sex		Location		Reading achievement		SES		Completed Year 12	
	Male	Female	Metro	Non-metro	Low reading	High reading	Low SES	High SES	Yes	No
Managers	9.3	8.9	9.0	9.4	9.5	9.6	7.8	7.6	8.8	11.2
Professionals	21.6	34.6	28.6	25.6	11.1	45.0	16.7	38.4	31.4	6.9
Technicians and trades workers	30.0	5.4	16.8	21.7	26.7	8.3	23.1	11.3	15.4	34.3
Community and personal service workers	10.0	15.0	12.7	11.5	13.0	10.8	11.7	14.5	12.9	9.1
Clerical and administrative workers	8.7	22.4	16.0	13.3	13.6	15.3	14.8	15.7	16.0	11.5
Sales workers	6.0	9.6	8.2	6.6	7.6	7.5	9.6	7.4	7.9	6.8*
Machinery operators and drivers	6.2	0.6*	3.1	4.8	7.7	1.3*	6.1	2.4*	2.9	7.3
Labourers	8.2	3.5	5.5	7.1	10.8	2.2	10.2	2.7	4.7	12.8

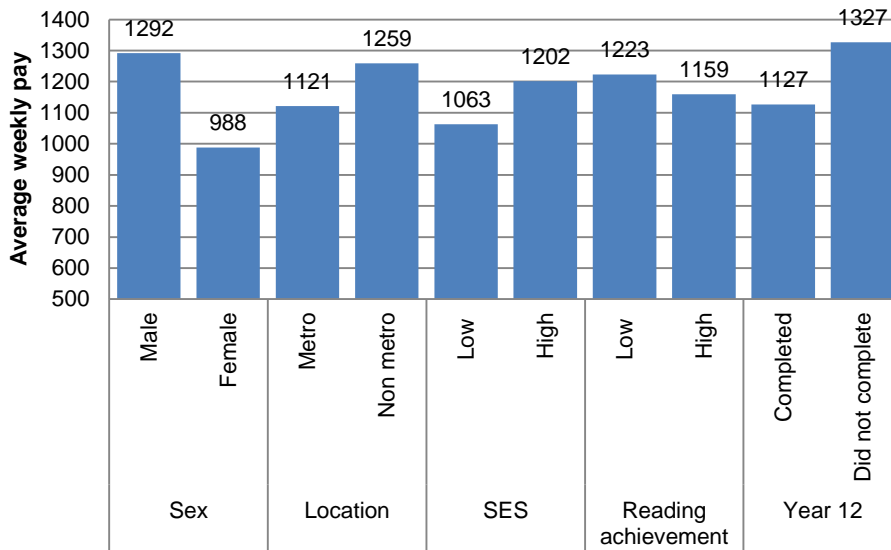
Notes: * indicates the estimate has a relative standard error greater than 25% and therefore should be used with caution.

- 1 Location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
- 2 SES quartiles are calculated using the PISA ESCS index.
- 3 Reading achievement quartiles are calculated using PISA plausible values for reading (scores).
- 4 The largest two proportions for each sub-group are highlighted.

Wages also vary quite considerably across characteristics (figure 35). The largest differences occur between males and females: the average weekly wage for 24-year-old males in full-time employment is more than 30% greater than that of their female counterparts. This can partially be explained by males working longer hours on average (44.2 hours per week) compared with females (41.2 hours per week).

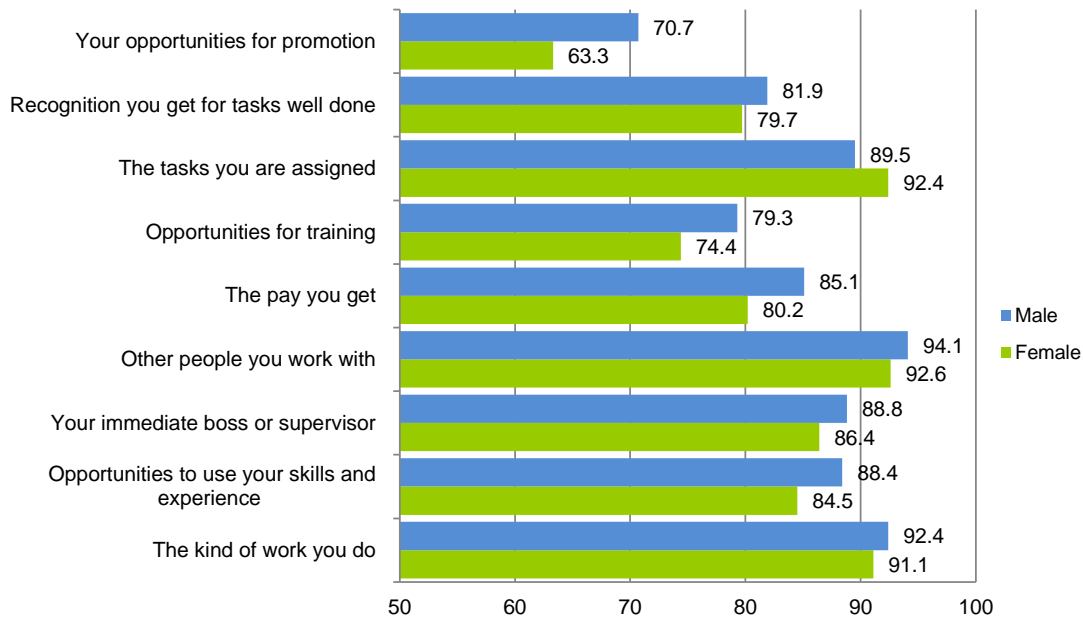
Finally, figure 36 shows satisfaction with various aspects of employment, split by gender. The largest difference between males and females relates to the question on opportunities for promotion, with males being 7.4 percentage points more likely than females to be satisfied with this aspect of work. Males were 4.9 percentage points more likely than females to be satisfied with the pay they get and opportunities for training, and 3.9 percentage points more likely to be satisfied with opportunities to use their skills and experience. The only aspect of employment that females were more satisfied with than males related to the tasks they are assigned (2.9 percentage points).

Figure 35 Average weekly pay for those in full-time employment by selected characteristics, Y03 cohort, 24-year-olds, 2012 (\$)



Notes: 1 Location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
 2 SES quartiles are calculated using the PISA ESCS index.
 3 Reading achievement quartiles are calculated using PISA plausible values for reading (scores).

Figure 36 Employment satisfaction by sex, Y03 cohort, 24-year-olds, 2012 (%)



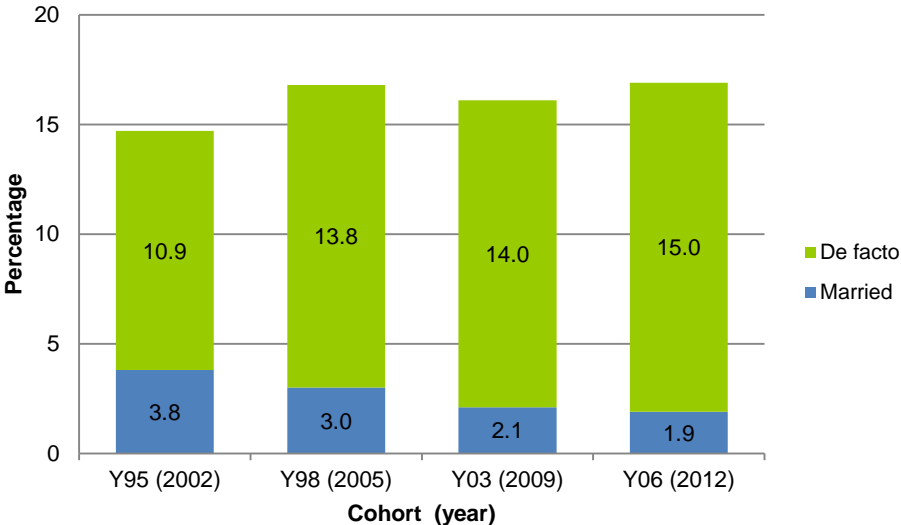
Changes in the social circumstances of young people

The previous sections have clearly demonstrated how there have been changes in young people’s patterns of educational participation and attainment and also in their engagement with the labour market. This section considers changes in their social circumstances, particularly with regard to living arrangements, marital status and life satisfaction.

The proportion of 21-year-olds in some kind of formal relationship has increased slightly since 2002 (figure 37). The most interesting feature of this is that, while the proportion of 21-year-olds who are

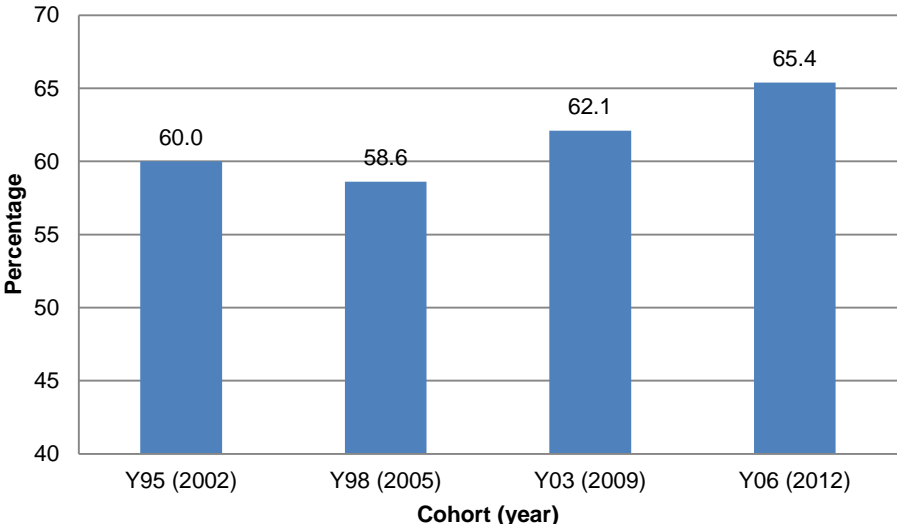
married has decreased, the proportion who are in a de facto relationship has increased considerably, from 10.9% in 2002 to 15.0% in 2012.

Figure 37 Marital status by cohort, 21-year-olds, 2002–12 (%)



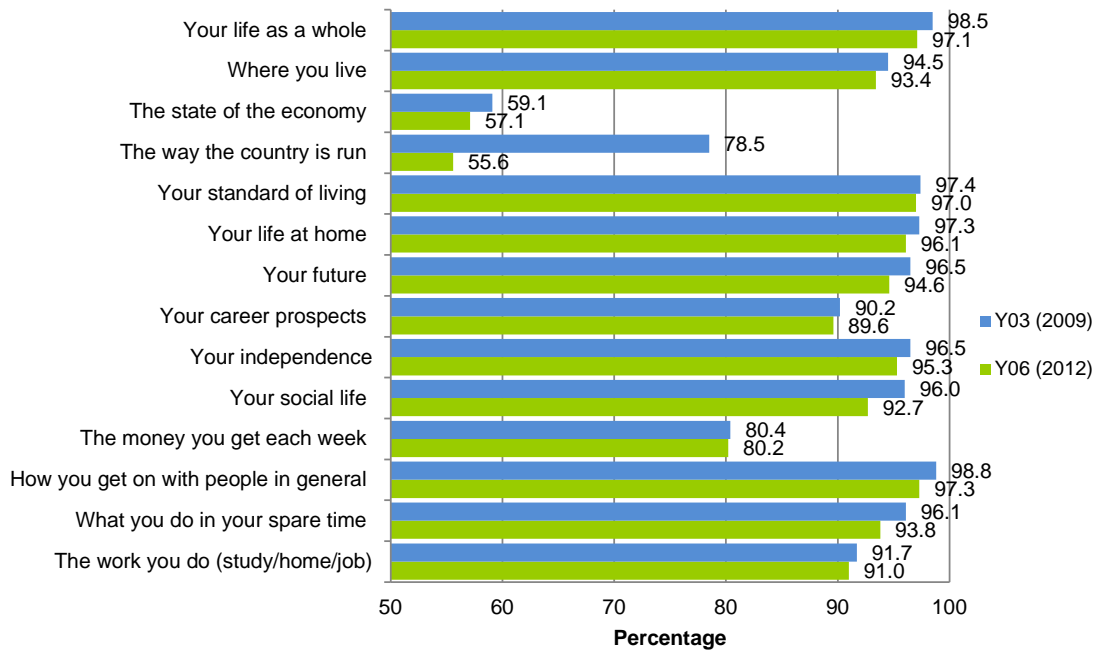
Even though the proportion of 21-year-olds in a relationship has increased slightly, the proportions of 21-year-olds still living in the parental home has also slightly increased, particularly for the two most recent cohorts (from 62.1% in 2009 to 65.4% in 2012, figure 38).

Figure 38 Living in parental home by cohort, 21-year-olds, 2002–12 (%)



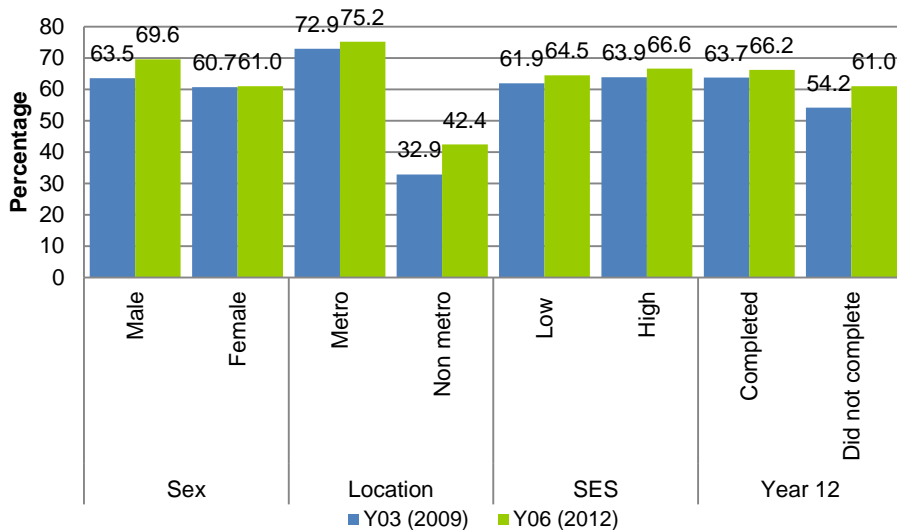
Looking at selected life satisfaction measures it can be seen that the vast majority of 21-year-olds are satisfied with their life as a whole, both in 2009 and 2012 (figure 39). The one life satisfaction measure where there has been a large decrease from 2009 and 2012 relates to the way the country is run, which decreased from 78.5% in 2009 to 55.6% in 2012.

Figure 39 Life satisfaction by cohort, 21-year-olds, 2009 and 2012 (%)



There are also variations across a range of characteristics in the extent to which young people live in the parental home and also the extent to which they are in a relationship. In terms of living in the parental home, figure 40 compares changes between 2009 and 2012 for 21-year-olds by gender, geographical location, and whether Year 12 was completed.

Figure 40 Living in parental home by cohort and selected characteristics, 21-year-olds, 2009 and 2012 (%)

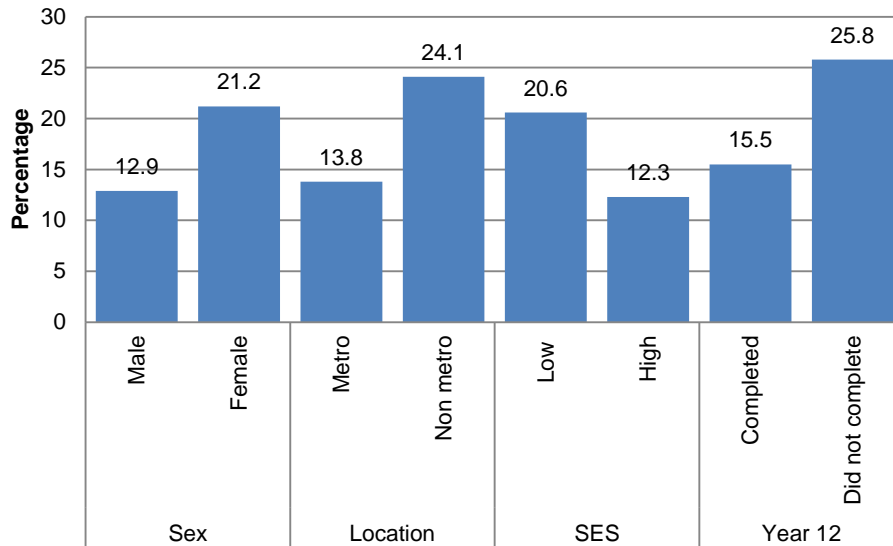


- Notes: 1 Location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
- 2 SES quartiles are calculated using the PISA ESCS index.

Figure 41 shows some variations in the formal relationship status for 21-year-olds in 2012. (2009 data are not shown because they are largely similar to those of 2012.) The figure shows quite clearly that at age 21 years females are more likely to be in a formal relationship than males, those from a non-metropolitan area are more likely than those from a metropolitan area, those with a low SES are more

likely than those from a high SES, and those who did not complete Year 12 are more likely than those who did complete Year 12.

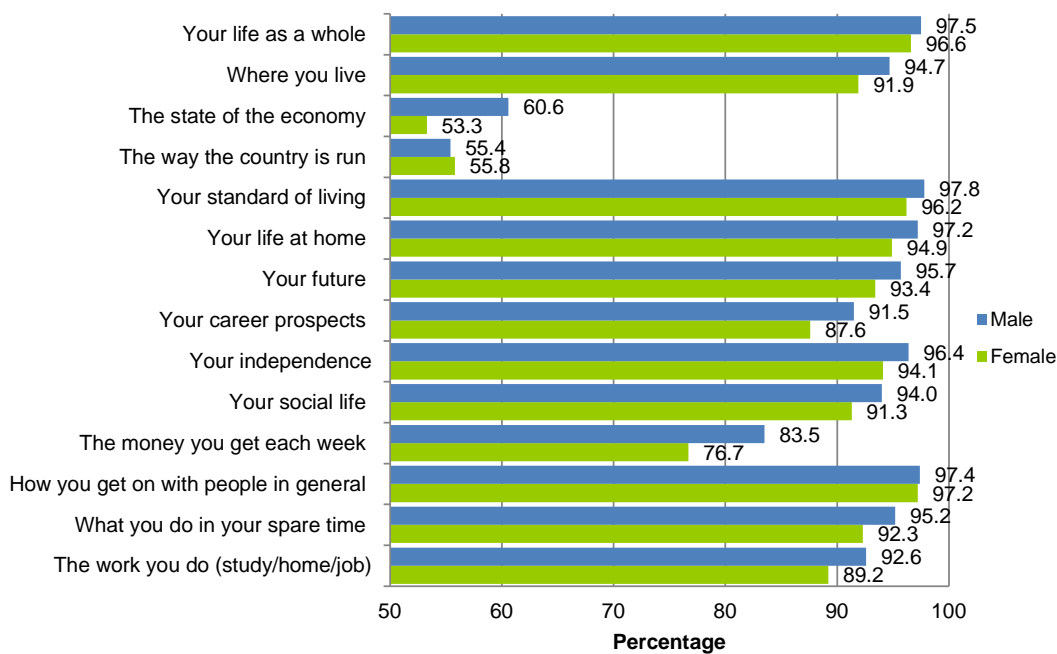
Figure 41 Married or in a de facto relationship by selected characteristics, Y06 cohort, 21-year-olds, 2012 (%)



Notes: 1 Location (metropolitan/non-metropolitan) is the geographic location of the school the respondent attended at the time of the first survey wave.
2 SES quartiles are calculated using the PISA ESCS index.

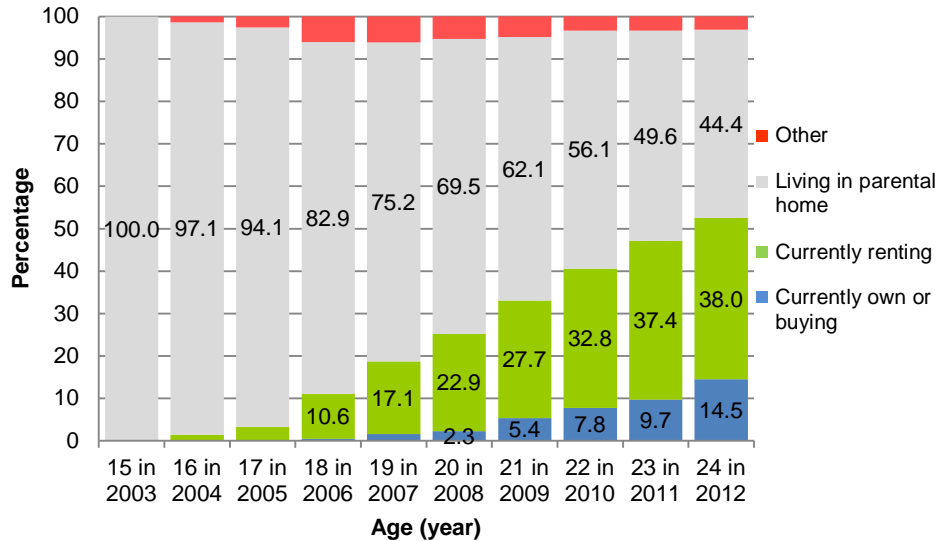
Figure 42 shows the differences in life satisfaction measures for 21-year-olds in 2012, split by gender. It shows that males had slightly higher satisfaction scores than females, with the biggest differences being for the questions about 'the money you get each week' and 'the state of the economy'.

Figure 42 Life satisfaction by gender, Y06 cohort, 21-year-olds, 2012 (%)



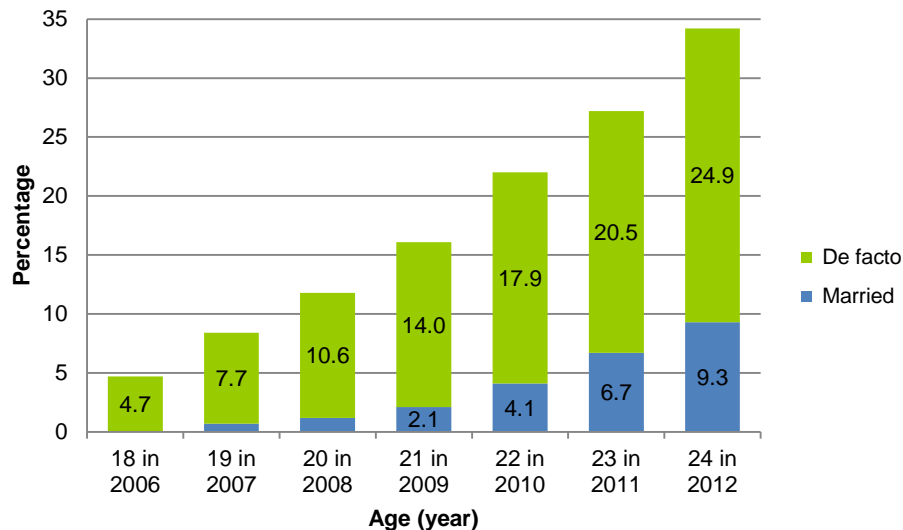
The final two figures in this section examine changes in place of residence and also marital status across the waves of the Y03 cohort. Figure 43 shows that the largest initial change in terms of living arrangements occurs between the ages of 17 and 18 years. The proportions owning or buying a home by age 24 years are still quite low, at 14.5%.

Figure 43 Place of residence by age, Y03 cohort, 2003–12 (%)



While only 4.7% of the cohort was in some kind of formal relationship (mainly de facto) at age 18 years, by age 24 years more than a third of the cohort was in a formal relationship, with a quarter in a de facto relationship (figure 44). Even at age 24 years, less than 10% of the cohort was married.

Figure 44 Marital status by age, Y03 cohort, 2006–12 (%)



School effects

This is a special chapter that focuses on three reports that consider the effects that schools have on students' outcomes, in particular, the effect that schools have over and above the characteristics of the individual student. This is of obvious interest to policy-makers, as huge amounts of resources are invested in schools, with the aim of preparing young people for the world of work, further study and citizenship.

LSAY is uniquely placed to undertake research on school effects. There is no other survey instrument in Australia that collects data on both the characteristics of the individual student and the characteristics of schools. This means that the effects of the school can be examined relative to those of the individual student.

There has been previous research in Australia and overseas on the effect schools have on various student outcomes, including measures such as mathematics and reading achievement, Year 12 completion, tertiary entrance rank (TER) and student engagement (for example, Rothman & McMillan 2003; Le & Miller 2002; Curtis & McMillan 2008; Fullarton 2002). There have also been studies that have established a link between the socioeconomic profile of a school and academic outcomes (for example, Perry & McConney 2010). While these studies find school-level effects to one degree or another, Marks (2007, 2010), for example, found only modest school and school socioeconomic status effects on Year 12 completion and tertiary entrance rank respectively. There are also some inconsistencies in previous studies, in terms of the cohorts examined and the statistical models used, and differences in the definitions and measurement of variables of interest (particularly those related to student engagement).

The new research summarised here expands this previous work by considering broader sets of school characteristics and more refined measures of socioeconomic status. As will be seen, schools do matter to one degree or other, in terms of measures of academic success – they also matter for the most vulnerable, that is, those from low socioeconomic backgrounds and low academic achievement. However at age 15 years, schools have little effect on student engagement.

Introduction to the three studies

The three reports that are the subject of this chapter are listed and their subject matter briefly discussed below.

The impact of schools on young people's transition to university by Sinan Gemici, Patrick Lim, and Tom Karmel

This first report considers the impact the school has on a student's tertiary entrance rank and their probability of going to university in the first year after leaving school. To do this it uses the Y06 cohort of LSAY. While there have been a number of previous studies on school characteristics, there has been no consistent picture for young people heading to university. This particular study considers an expanded set of school-level indicators and a refined measure of socioeconomic status to add to the overall picture. The study uses a two-level regression model to sift out the impact of school-level variables over and above that of the individual student.

The impact of school academic quality on low socioeconomic status students by Patrick Lim, Sinan Gemici and Tom Karmel

This report looks more closely at low-SES students (and their academic achievement at age 15 years) and whether the academic quality of the school has any impact on their outcomes, primarily in terms of school completion.⁶ Increasing the educational outcomes of students from low socioeconomic backgrounds is an important component of Australian educational and, more broadly, social policy.

The paper uses 'academic quality' scores to determine the extent to which the quality of schools has a positive impact on Year 12 completion for students from low socioeconomic backgrounds. While quality scores for schools can be a contentious issue, given the multiple goals of schooling, the authors contend that academic achievement is one of major goals of schooling. In this report the authors use quality scores derived from the earlier report to determine whether students from lower socioeconomic backgrounds benefit more (or less) from attending a higher-quality school than their counterparts from higher socioeconomic backgrounds. This report uses a two-level regression model to account for school effects over and above those of the student.

Do schools influence student engagement in the high school years? by Sinan Gemici and Tham Lu

This final report takes a completely different approach by considering the influence of school factors on a student's emotional and cognitive engagement with the school. This report uses data from the LSAY 2009 cohort, which contains numerous school-level variables as well as proxies for students' cognitive and emotional engagement. Student engagement with school is of policy interest as there is plenty of evidence that a student's engagement with school is linked to educational attainment. In terms of definitions, there are three components to engagement. The first is emotional engagement, which refers to emotional reactions in the classroom, that is, happiness, sadness, boredom and excitement. The next is behavioural engagement and refers to behaviours both within the classroom and at the broader school level, such as following rules and procedures, extracurricular activities and attendance. The final component, cognitive engagement, refers to students' psychological investment in their learning, discipline and the learning strategies employed.

Previous research on engagement in Australia and overseas has suggested that engagement has an effect on various outcomes such as early school leaving. The authors of the report state however that in Australia there has been insufficient attention given to which school-level factors influence student engagement. In addition, previous Australian research has examined behavioural engagement. This research tries to address a gap by examining the other two definitional components of engagement — emotional and cognitive engagement with school. For the LSAY 2009 cohort, emotional engagement was operationalised by converting a series of 12 relevant questions into one latent factor score. Cognitive engagement on the other hand was operationalised as a score on a measure of reading literacy referred to as 'understanding and remembering'. As with the other two reports, multi-level modelling was employed to separate out the effects due to student characteristics and those due to school-level variables (over and above the student characteristics).

Table 17 summarises the individual and school-level characteristics and outcome measures used for each of the three studies.

⁶ The report also looked at the impact on TER and university participation but this was not the primary concern of the paper so will not be discussed further in this summary.

Table 17 Summary of individual and school-level variables considered for various outcome measures

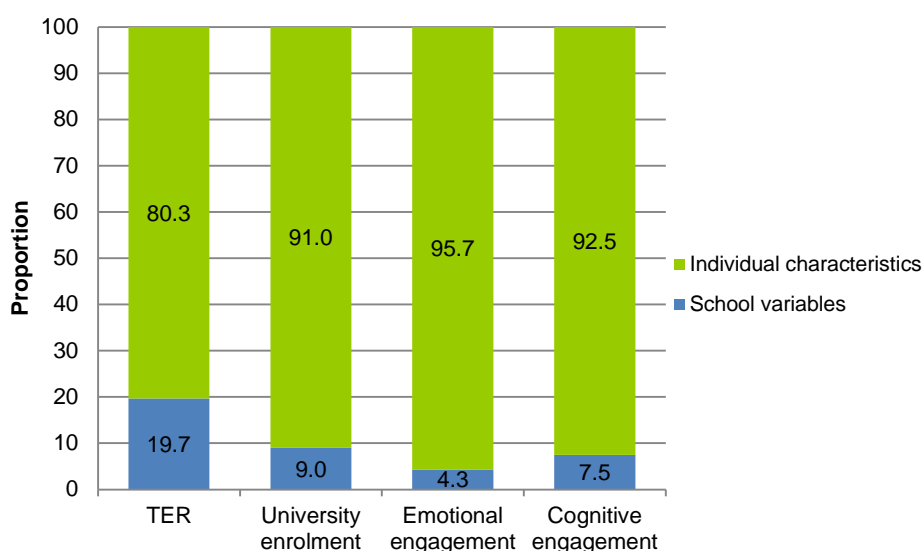
Research report	Individual characteristics	School-level variables	Outcome measures
The impact of schools on young people's transition to university	Gender	School sector	Tertiary education rank
	Indigenous status	Location	University enrolment
	Length of in-country residence	Demographics, including school size; average SES of the student body; average academic achievement level of the student body; gender orientation (co-ed or single sex); and proportion of students from language backgrounds other than English	
	Language spoken at home	Resource and capacity measures, including class size; student–teacher ratio; teacher shortages; proportion of highly qualified teachers, primary funding base, and the quality of educational materials	
	Socioeconomic status	Academic orientation, including parental pressure to set high academic standards, student selection criteria, streaming, offering school-organised VET programs	
	Academic achievement at age 15 years	School autonomy, including level of responsibility school has for controlling resources and shaping curriculum, and degree to which businesses in the community influence curriculum	
	Aspirations for tertiary experience	Providing for student needs, including provision of extracurricular activities, where responsibility for career guidance rests and a perception of schooling variable	
	Perceptions of school experience	Competition with other schools	
The impact of school academic quality on low socioeconomic status students	Individual SES	Academic school quality	Year 12 completion
	Individual academic achievement		Tertiary education rank
	Gender		University enrolment
	Indigenous status		
	Parental education		
	Regionality		
	Achievement scores in mathematics, reading and science		
	Immigration status		
Language spoken at home			
Do schools influence student engagement in the high school years?	Demographics, including gender, Indigenous status, immigration background, home language, family structure and SES;	Sector and demographics, including sector, location, size, SES, academic achievement, gender mix, proportion LBOTE students	Emotional engagement
	Academic, including academic achievement and self-concept of ability	Resourcing, including student–teacher ratio, responsibility for resources, responsibility for curriculum, degree of teacher shortage, and quality of educational resources	Cognitive engagement

Research report	Individual characteristics	School-level variables	Outcome measures
	Hours worked while at school	Competition and academic orientation, including schooling options available to students, academic school selectivity, and academic pressure parents on school	
	Aspirations, including Year 12 plans and peers' higher education aspirations	School leadership and teacher quality, including school leadership, perceived teacher quality, and teacher participation in school decisions School climate, including disciplinary climate, negative impact of teacher behaviour and student behaviour on climate, and level of extracurricular activities offered.	

Key findings from the studies

Overall, schools do matter when it comes to academic achievement. Having said this, individual students' characteristics are dominant, as shown in figure 45.

Figure 45 Proportion of variance attributable to individual characteristics and school variables for various outcomes



Note: For the more restricted group of students at risk of being disengaged, the variance explained by school-level variables was virtually negligible.

The findings are expanded below.

The first report found that schools do matter in terms of students' tertiary education rank, with school attributes accounting for 20% of the variation in TER, and the remaining 80% being accounted for by student characteristics. However, only a third of the school attributes (or 7% of the total variation in the data) is captured by the data in LSAY. The remainder not captured by the data is probably related to school ethos issues such as teacher quality and educational leadership.

Of the one-third captured by the data, the three most important attributes are:

- school sector: Catholic and independent schools have higher predicted tertiary entrance rank scores than government schools

- the gender mix of the school, with single sex schools having higher predicted TERs than coeducational schools
- the extent to which the school can be considered 'academic'; that is, higher levels of academic performance by the student body is associated with higher TERs.

Interestingly, the school's overall socioeconomic status does not influence tertiary entrance rank, which is seemingly contradictory to other studies that have found that the school's SES affects students' outcomes in the National Assessment Program – Literacy and Numeracy (NAPLAN) and PISA (for example, NOUS et al. 2011; OECD 2010; Perry & McConney 2010). However, the contradiction can be explained: the previous studies looked at the effect of schools' SES on the entire student population at the end of secondary education, while the present study limits its focus to the effect on TER conditioned for academic achievement at age 15 years. Selecting tertiary entrance rank as an outcome indicator leads to an analysis on a narrower group of students, who may be different from the general student population.

School characteristics also matter in terms of the probability of going to university (after controlling for TER), and account for 9% of the overall variation in the probability of university enrolment. The most important school characteristics are:

- the proportion of students from non-English speaking background: a high proportion of students from non-English speaking backgrounds is associated with an increased probability of students going on to university
- school sector: students in independent and Catholic schools are more likely to transition to university
- the socioeconomic make-up of the student body of the school: students attending higher-SES schools are more likely to attend university
- competitive position: students in schools that were not competing against other schools are more likely to go on to university. This result needs to be treated with caution however due to the lack of statistical variation in the measure.

As part of the analysis for this study schools were clustered into high-, average- and low-performing, based on the school attributes that contribute to students' TER and probability of going on to university (after controlling for TER). High-performing schools therefore are those whose attributes contribute to high TER scores and a high probability of going to university and vice versa for low-performing schools. This analysis found that, while the high-performance cluster consisted of schools from all three school sectors, the low-performance cluster consisted mainly of schools from the government sector. Other aspects of schools that contribute to their being assigned to the high-performance cluster compared with the low-performance cluster include a greater proportion of students from high socioeconomic backgrounds and from non-English speaking backgrounds. Single-sex schools are much more likely to fall into the high-performance cluster. In addition, schools in which parental pressure for academic success is higher and students' exposure to work is low are also more likely to fall into the high-performing cluster of schools.

While the first report set the scene for what contributes to tertiary entrance rank and university enrolment, the next report on the effects of schools focused specifically on students from low socioeconomic backgrounds (compared with high socioeconomic backgrounds) and Year 12 completion. More particularly, the report examined the interactions between the students' SES, their academic achievement at age 15 years (as measured by PISA) and the academic quality of the school, using a measure of school quality developed in the first report. This measure of school quality was a

single continuous measure that combined predicted TERs and the probability of university enrolment for each student (net of background characteristics) and then aggregated these scores up to the school average.

For students with low academic achievement the report found that school quality makes a substantial difference. The report further found for students with low academic achievement and from low socioeconomic backgrounds that school quality makes an even greater difference. For example, the report shows that the probability of completing Year 12 for students with low academic ability from low socioeconomic backgrounds increases from about 0.4 for a low-quality school to more than 0.6 for a medium-quality school to more than 0.8 for a high-quality school. However, the effect of socioeconomic background largely disappears for high-quality schools. That is, students from high-quality schools have a high probability of completing Year 12 regardless of their socioeconomic background.

For average-achieving students the effects seen for low-achieving students diminish considerably and for high-achieving students those effects become negligible, that is, school quality and socioeconomic background are not significant factors in the probability of completing Year 12.

The first two reports looked at the effect of schools on measures of academic success. The third report on school effects considered the effect of schools on what could be termed an intermediary variable – school engagement. In contrast to the other two reports, overall schools were found to contribute very little to measures of school engagement and even less for the subgroup of students at risk of being disengaged.⁷ For the total group of students, school-level variables accounted for 4.3% of the overall variance in the data for emotional engagement and 7.5% of cognitive engagement. For those who are at risk of leaving school early, school-level variables accounted for 1.4% of the overall variance in the data for emotional engagement and 4.4% of cognitive engagement.

Having said this, the analysis found some significant school-level variables, albeit with small effect sizes (that is, the level of impact these variables actually have is small). For example, for the whole student group, school-level variables with a positive impact on engagement were non-metropolitan school location, higher perceived teacher quality, and higher academic performance of the student body. For the smaller group of disengaged students, variables with an impact on engagement were a school's academic orientation (higher academic performance of the student body is associated with lower emotional engagement), and teacher quality, with higher teacher quality being associated with higher levels of cognitive engagement.

Given the very small contribution that schools make to student engagement at age 15 years, the authors argue that school engagement is probably determined by the age of 15 years, that is, it's too late to take any remedial action.

What are the implications?

The findings from the research indicate that schools do matter to one degree or another in relation to tertiary entrance rank and university enrolment. In addition, schools matter for students from low socioeconomic backgrounds. However, at age 15 years it appears that school does not influence engagement as measured here. While the effects of school are relatively small generally, there are

⁷ This is operationalised as students who at age 15 years indicated that they had no intention of or were unsure of completing Year 12.

still some significant findings that warrant attention. Overall, however, individual student characteristics are dominant in relation to measures of student success.

First and foremost, there is not a one size fits all approach to policy in the area of school effects. The circumstances of the individual school vary according to various factors such as location, the make-up of the student body, and the 'school ethos'. Any policy interventions need to take this into account.

The research has found that the importance of the school sector is overwhelming, with government schools falling behind independent and Catholic schools, on average. Does this mean that the current set-up of the school system in Australia needs to be re-examined in order to reduce the differences to ensure that every child has a fair shot at success? At the moment it is far from being equal. The challenge is how to close the gap and, clearly, there is a need to close the gap between school sectors (which comes back to socioeconomic status and personal characteristics).

The research also indicates that the differences in SES play out through school choice, an issue that requires investigation to ensure that there is no de facto segregation based on SES. The research report that specifically considered socioeconomic status showed that the 'action' occurs at the lower end of the SES spectrum. That is, school quality matters for the most vulnerable. Having rich parents insulates you from having bad outcomes. This means that economic resources are very important, which indicates a need to provide support for the most vulnerable.

There were findings in the first report relating to the importance of what could be termed the 'school ethos'. This was the label given in the research to unmeasured variance (that is, information that is not captured by the LSAY survey), but the authors state that this would include school culture, leadership and the quality of teaching. Given its importance, the implication is that 'school ethos' should be maximised for all schools in order to provide the best outcomes for students.

The one area where school factors were found to be insubstantial was in that of school engagement. This is even more relevant when looking at the subgroup of those at highest risk of not completing Year 12. It could be interpreted that those who say they are not going to complete Year 12 are firm in their decision because of previous experiences at school. However, both of these findings come with the caveat that this refers to school engagement at the age of 15 years. The authors of this report argue that at age 15 years, it is probably too late; a decision has been made. The implication of this is that engagement is an area on which schools need to focus much earlier in students' schooling.

What the 2013 LSAY research tells us about youth transitions

The LSAY Research and Analysis program is funded by the Australian Government Department of Education, with state and territory contributions. As mentioned, NCVER has had the contract to provide research and analytical services for the LSAY research program since 2007. Previously, this role was held by ACER.

Over the years, the LSAY Research and Analysis program has been instrumental in the publication of over 60 research reports⁸ and almost 30 briefing papers covering a diverse range of topic areas related to youth transitions. Example topics include school subject choices in Years 11 and 12, pathways to the labour force, disadvantaged youth, and outcomes from education and training. More recently, new topic areas have emerged, such as the incidence of taking gap years and student aspirations. A list of all the research reports funded under the LSAY research program is available at http://www.lsay.edu.au/publications/reports_search.html.

This section begins with a summary of the most recent key findings from research published in 2013 and funded under the LSAY Research and Analysis program and ends with a brief analysis of the impact of the research published on the LSAY website in 2013.

Findings from LSAY research published in 2013

Four research reports, one discussion paper and a conference paper were published in 2013 on the LSAY website under the LSAY Research and Analysis program. An additional five research reports and one briefing paper were either published in the first half of 2014 or were expected to be published later in 2014.

The findings from the 2013 suite of research contribute to knowledge on the longer-term effects of starting out in a low-skill job, the impact of aspirations on young people's outcomes, and the impact of schools on youth transitions (detailed in the preceding section). The impact of government policies and programs was also examined in the areas of student income support and the expansion of university participation. Finally, the discussion paper explored a new opportunity to improve the LSAY dataset by linking LSAY with other administrative datasets. This technical work has led to more work on the feasibility of implementing data linkage.

Research report no.61: The impact of schools on young people's transition to university
Sinan Gemici, Patrick Lim and Tom Karmel, NCVER

This report uses data from the LSAY 2006 cohort to investigate how schools influence tertiary entrance rank and university enrolment over and above young people's individual background characteristics. A particular focus is on prominent school-level factors such as sector, school demographic make-up, resources and autonomy, academic orientation, and competition with other schools.

⁸ Research reports examine in-depth policy issues and involve original analyses using LSAY datasets and other data sources where relevant. Briefing papers are summaries of previous LSAY research topics, with some primary data analyses included where appropriate. Discussion papers focus on methodological issues and other aspects that relate to the overall LSAY program.

Individual background characteristics, such as academic ability, educational aspirations or parental background, can have a tremendous impact on the probability of a young person going to university. However, a successful transition to higher education is not determined by individual circumstances. Schools themselves play an important role in the way in which they allocate resources, select students and support a positive learning environment. Organisational and demographic factors such as school sector, size, geographic location and the socioeconomic profile of the student body further affect key education and transitional outcomes.

The analysis finds that, while the impact of the individual student characteristics is dominant with respect to tertiary entrance rank and transition to university, the way in which schools are organised and operated also matters. And it matters for the probability of going to university, even after controlling for individual TER and other relevant background factors. Of the 25 school characteristics included in the analysis, ten attributes for TER significantly influence either TER or university enrolment, or both.

Key messages

The attributes of schools do matter. Although young people's individual characteristics are the main drivers of success, school attributes are responsible for almost 20% of the variation in TER.

- Of the variation in TER attributed to schools, the measured characteristics account for a little over a third. The remainder captures 'idiosyncratic' school factors that cannot be explained by the data and that can be thought of as a school's overall 'ethos'; no doubt teacher quality and educational leadership are also important here.
- The three most important school attributes for TER are sector (that is, Catholic and independent vs government), gender mix (that is, single sex vs coeducational), and the extent to which a school is 'academic'. For TER, the average SES of students at a school does not emerge as a significant factor, after controlling for individual characteristics, including academic achievement from PISA.
- However, the characteristics of schools do matter for the probability of going to university, even after controlling for TER. Here, the three most important school attributes are the proportion of students from non-English speaking backgrounds, the sector and the school's socioeconomic make-up.

The report is available at <<http://www.isay.edu.au/publications/2541.html>>.

Are we there yet? Overview of the Longitudinal Surveys of Australian Youth (conference paper)

Tom Karmel, NCVER

This presentation opened the LSAY research forum entitled Are We There Yet? Youth Transitions in Australia, held at the Australian National Maritime Museum, Sydney, on 11 April 2013. It begins with the observation that youth longitudinal surveys have a long history in Australia, dating back to the Youth in Transition study, which commenced with a cohort of young people born in 1961. The latest incarnation is LSAY, which has tracked cohorts of Year 9 students selected in 1995, 1998, 2003, 2006 and 2009. These young people are interviewed over a period of ten years, between the ages of 15 and 25 years.

Karmel argues that the interest in youth transitions dates back to the 1970s when the oil price shocks increased the unemployment rate significantly. Young people leaving education are new entrants to the labour market and therefore were inevitably hit hard by the downturn in the labour market. While

the overall unemployment rate has fluctuated, it has never returned to the levels of the 1960s, and youth unemployment remains an issue. Hence, the interest in youth transitions.

It might be assumed that, with over 35 years of research, we would know everything there is to know about youth transitions. But over the past 35 years the labour market has changed fundamentally, with educational participation increasing dramatically and a paucity of 'good' jobs for those without Year 12 and, increasingly, post-school qualifications. The world facing 20-year-olds today is not the same as the world of the 1970s. Thus, understanding youth transitions is an ongoing issue and will continue to be so unless the world we live in stagnates. Researchers will not run out of topics.

In the presentation Karmel also attempts to map the breadth of topics being researched and how they have changed over the past 25 years. A bonus is a long list of research papers that look at the longitudinal youth data.

This paper is available at: <<http://www.lsay.edu.au/publications/2619.html>>.

Research report no.62: Student income support and education and training participation in Australia

Chris Ryan, Melbourne Institute of Applied Economic and Social Research, University of Melbourne

Youth Allowance provides financial assistance to young Australians who are studying full-time, undertaking a full-time apprenticeship or traineeship, or looking for work. This paper set out to examine the role and impact of Youth Allowance on participation in post-school education and training, course completion, 'gap' taking and the financial position of a sample of young Australians over the period 1999–2007.

This research employs a range of econometric techniques to address the fact that the targeted nature of Youth Allowance means that those eligible have different characteristics from those who are not, and makes particular use of the tertiary entrance rank collected in the survey.

Full-time students in receipt of Youth Allowance tend to be the least satisfied about their financial position, even among other students, and experience more incidents related to 'financial stress' than other young people. They are substantially more likely to have had to borrow money from family or from others to live on than other individuals. They are less likely to view themselves as managing well financially.

Key messages

- Based on carefully matched student characteristics (other than family income), full-time tertiary enrolment rates following Year 12 are similar regardless of whether or not students are eligible for Youth Allowance.
- Youth Allowance substantially improves course completion rates.
- The eligibility rules in operation at the time of the research did lead to more students undertaking a 'gap' year.
- Youth Allowance does not alleviate financial hardship totally – those on Youth Allowance are the least satisfied with their financial situation.

This report is available at <<http://www.lsay.edu.au/publications/2611.html>>. An overview of this research report is available at <<http://www.lsay.edu.au/publications/2618.html>>.

Technical paper no.77: Data linkage and statistical matching: options for the Longitudinal Surveys of Australian Youth

Sinan Gemici and Nhi Nguyen, NCVER

Recent evaluations of LSAY have recommended investigating the potential for combining LSAY data with external data sources as a way to improve the breadth of information in the survey, but without adding respondent burden. Against this backdrop, the purpose of this discussion paper is to investigate the potential for linking data from existing administrative collections to LSAY and to explore the viability of combining data from LSAY with those of the Longitudinal Study of Australian Children (LSAC).

Key messages

- Linking administrative data from the education, training and health sectors would greatly enhance the ability to explore key drivers of young people's transition outcomes in LSAY without increasing respondent burden.
- The potential benefits are particularly appealing in topic areas that are currently quite limited in LSAY, such as health information, childhood development and early education outcomes. This makes linking the NAPLAN and Medicare data to LSAY the most valuable option.
- In a further stage, linking data from the Department of Human Services (Centrelink), the Australian Census and the national education and training statistics to LSAY could provide an evidence base for generating insights into the intergenerational impacts of disadvantage.
- Although the statistical match between the Longitudinal Study of Australian Children and LSAY is at first sight appealing, given the complementary nature of these two flagship surveys, a closer look reveals a number of methodological obstacles. The research findings from such an amalgamated dataset of 'synthetic' individuals would lack the necessary robustness to inform evidence-based policy.

Overall, strong consideration should be given to concrete plans for linking administrative collections to LSAY, beginning with NAPLAN and Medicare data.

This report is available at <<http://www.lsay.edu.au/publications/2637.html>>.

Research report no.63: The impact of school academic quality on low socioeconomic status students

Patrick Lim, Sinan Gemici and Tom Karmel, NCVER

This paper uses LSAY data to investigate the impact of academic school quality on student outcomes. A companion paper by Gemici, Lim and Karmel (2013) describes the measures of school quality used in this paper.

In particular, this paper examines the interactions between students' individual socioeconomic status, their academic achievement at age 15 years and the academic quality of the school they attend, and school completion, tertiary entrance rank and university participation. This paper explores whether students from low socioeconomic backgrounds benefit to a greater or lesser extent from attending high-quality schools when compared with their more advantaged peers.

The findings show that academic school quality has a differential impact on school completion for those from a low socioeconomic background in that they benefit more from academic school quality than those who have higher socioeconomic backgrounds. The effect is more pronounced for those from a low socioeconomic background who also had a low achievement score at age 15 years.

Key messages

- Academic school quality has a considerable differential effect on school completion for those who come from the lowest socioeconomic band. It also has a differential effect for those with low academic achievement at age 15 years.
- A differential effect is also seen in relation to the impact of academic school quality on tertiary entrance rank and the probability of going to university.
- Coming from a high socioeconomic background insulates students from early school leaving, even if they are weak performers and attend a non-academic school.

This report is available at <<http://www.lsay.edu.au/publications/2640.html>>.

Research report no.64: Starting out in low-skill jobs

Tom Karmel, Tham Lu and Damian Oliver, NCVET

Many young people start their working lives in low-skill jobs. This report examines whether, for those who have left full-time education, a low-skill job provides them with a good start to their working lives, or whether starting out in a low-skill job can have a 'scarring' effect on the individual. In this report, low-skill jobs are defined using levels 4 and 5 of the skill levels allocated by the ABS to each occupation.

The research underlines the importance of good career guidance, through the recognition of labour market opportunities, for young people as they make their way through senior schooling and post-school education and training.

It was found that males in general have a higher probability of leaving a low-skill job for a high-skill job than females. Young people who have high human capital such as high qualifications, high ability, more experience, or work in low-skill jobs with a high occupational status are more likely to move to high-skill jobs. Young people who are part-time workers are likely to remain in low-skill jobs. No evidence was found to suggest that young people stay in low-skill jobs because of the positive features of those jobs such as high job satisfaction or high wages.

Key messages

- Starting out in low-skill jobs yields lower wages than starting out in a higher-skilled job. Five years after leaving full-time education, the wage penalty (conditioning on education and other characteristics) still exists, but this scarring diminishes over time. However, any job is better than no job, given that the wage penalty after five years of having no job a year after leaving full-time education is worse than taking a low-skill job.
- Young people who possess high human capital (education, ability and experience) have more opportunities to move to a high-skill job. Males are more likely to make the transition to high-skill jobs than females. Young people who are part-time workers are likely to remain in low-skill jobs, although part-time or casual low-skill jobs can be a positive pathway for young people to progress into full-time or permanent positions.
- There is no evidence to suggest that young people choose to stay in low-skill jobs for positive reasons such as job satisfaction or relatively high wages.

This report is available at <<http://www.lsay.edu.au/publications/2649.html>>.

Findings from LSAY research forthcoming or published in 2014

Research report no.65: Educational outcomes: the impact of aspirations and the role of student background characteristics

Jacqueline Homel, Department of Psychology, University of Victoria, British Columbia, and Chris Ryan, Melbourne Institute of Applied Economic and Social Research, University of Melbourne

Current educational reforms and targets, such as increasing higher-level qualifications amongst the working-age population, are reliant on improving the educational outcomes of those from disadvantaged backgrounds. This paper follows on from previous research, which has shown that educational aspirations are strong predictors of educational outcomes, including Year 12 and tertiary participation. The focus of the paper is to understand the relationships between student background characteristics, educational aspirations and educational outcomes.

The researchers set out to determine whether student background factors, such as socioeconomic status and Indigenous status, only affect educational outcomes via their indirect effect on educational aspirations. They also examine whether aspirations have the same effect on educational outcomes for young people from disadvantaged backgrounds compared with those who are not from disadvantaged backgrounds. The analysis is based on LSAY data, which collects information on aspirations at age 15 years via questions on intentions to complete Year 12 and post-school study plans.

Key messages

- Educational aspirations have a substantial effect on educational outcomes.
 - Individuals who plan to complete Year 12 are 20–25% more likely to do so, compared with those who do not intend to complete Year 12.
 - Individuals who intend to go on to university are 15–20% more likely to do so, compared with those who do not have post-school university plans.
- Interactions between educational aspirations and student background characteristics do not seem particularly important, suggesting that aspirations have a similar impact on educational outcomes, regardless of SES or Indigenous status.
- There were some significant interactions between aspirations and academic performance. For example, those who consider their academic performance to be average or below average, relative to their peers, were less likely to achieve their aspirations compared with those who considered their performance to be above average.

The authors conclude that interventions to lift the aspirations of young people should have a similar impact for all young people, including those most at risk of poor educational outcomes.

This report is available at: <<http://www.lsay.edu.au/publications/2669.html>>.

Research report no.66: The factors affecting the educational and occupational aspirations of young Australians

Sinan Gemici, Alice Bednarz, Tom Karmel and Patrick Lim, NCVER

Given the strong link between young people's goals and their longer-term education and labour market outcomes, this report set out to determine which factors drive the educational and occupational aspirations of young people. The authors shed light on important influences that drive young people's aspirations to complete Year 12, their plans to commence university study in the first year after leaving school, and their occupational aspirations at age 15 years in relation to the kind of

job they expect to have at age 30 years. Identifying the factors with the potential to be influenced by policy is among the study's key objectives.

Key messages

- The most influential factors for students' aspirations for completing Year 12 include their academic performance and immigration background and whether their parents expect them to go to university.
- Students whose parents want them to attend university are four times more likely to complete Year 12 and 11 times more likely to plan to attend university compared with those whose parents expect them to choose a non-university pathway.
- The higher education plans of peers also have a strong influence: students whose friends plan to attend university are nearly four times more likely to plan to attend university.
- Two of the strongest predictors of occupational aspirations are parental influences and academic performance. Students whose parents want them to attend university have expected occupational status scores that are approximately 12 points higher, on a 0 to 100 scale, than those students whose parents have no university expectations for them.
- The job aspirations of 15-year-olds are somewhat unrealistic. By age 25 years, the age until which data are available for analyses, a significant portion of young people fall short of what they set out to achieve in terms of occupation. However, this does not mean that they cannot achieve their desired occupations at a later stage in life.

Overall, this report illustrates just how important parents and peers are to young people's aspirations. Developing policies and interventions that successfully leverage the influence of parents may yield a substantial pay-off with respect to raising aspirations.

This report is available at <<http://www.lsay.edu.au/publications/2711.html>>.

Briefing paper 29: The role of aspirations in the educational and occupational choices of young people

Nhi Nguyen and Davinia Blomberg, NCVET

Research consistently finds that having aspirations to complete Year 12 and having post-school study plans formed during high school are strong predictors of Year 12 completion and participation in further education and training. LSAY provides a rich source of information for exploring the impact of aspirations, including parent and peer aspirations, on actual destinations. This briefing paper analyses LSAY data and synthesises the research to examine the impact of aspirations on the educational and occupational choices of young people.

Key messages

- Research based on LSAY data indicates that students' educational intentions are one of the strongest predictors of Year 12 completion. Educational aspirations also impact strongly on participation in tertiary education and training, although the impact is not as great as that on Year 12 completion.
- Multiple factors interact to drive young people's educational aspirations. These factors include attitudes towards school, academic performance, parental expectations, peer plans and student background. Parental expectations and peer plans appear to be particularly influential factors in young people's educational choices.

- For a significant proportion of young people, there is a mismatch between their occupational aspiration formed at 15 years of age and the actual job obtained ten years later. Even if their occupational aspirations are not realised, career planning can help to provide a positive employment outcome.
- The interactions between educational outcomes, aspirations and other influencing factors are complex. Strategies to raise educational aspirations might focus on influencing students' and parents' attitudes towards school and study, and promoting the importance of a career plan. Career planning is particularly important for low academic achievers and those at risk of a poor transition from school.
- If it is possible to raise students' aspirations through policy or programs, then these heightened aspirations should exert a similar impact on all young people, regardless of their social background.

This paper is available at <<http://www.lsay.edu.au/publications/2710.html>>.

Research report no.67: The impact of increasing university participation on the pool of apprentices

Tom Karmel, David Roberts and Patrick Lim, NCVET

In recent years, Australian governments have placed considerable emphasis on both the importance of university participation and undertaking an apprenticeship. This paper looks at whether there is a relationship between the two and, in particular, whether the expansion of university participation (for example, the uncapping of university undergraduate places following the Bradley Report), is likely to have an impact on the pool of those undertaking trade apprenticeships. The authors consider three aspects of an apprentice's background: reading and mathematics achievement at age 15 years, and socioeconomic status. The potential impact of an expansion in university participation on the pool of apprentices is examined by comparing two cohorts from LSAY: the Y95 cohort who were in Year 9 in 1995 and the Y06 cohort who were aged 15 years in 2006.

Key messages

- The statistical evidence is that the probability of undertaking an apprenticeship is affected by the propensity to go to university. Therefore, an increase in the proportion of a cohort going to university will affect the pool of apprentices.
- The probability of undertaking an apprenticeship decreases quite substantially with an increased level of academic achievement in mathematics and reading, and decreases a little with increasing socioeconomic status.
- Participation in both university and apprenticeships grew between 1995 and 2006; young men who were less academically inclined and from low-SES backgrounds contributed to this growth in apprenticeships, and the growth in university participation has come from academically lower-performing young men with a higher SES background.
- If university participation were to increase without a change in the number of apprenticeships, then there would be a small change in the distribution of apprentices: more from the lowest academic achievement quintile, and fewer from the highest quintile; more from the lowest SES quintile and fewer from the highest SES quintile. However, the observed differences across the two cohorts examined were not large.

The authors note that any educational expansion (whether through apprenticeships or going to university) will also have an impact on that part of the population who previously were neither

undertaking an apprenticeship nor going to university. They also observe that those who are in the best position to take advantage of opportunities in both apprenticeships and university places do so, whether position is measured by mathematics and reading achievement or SES.

This paper is available at <<http://www.lsay.edu.au/publications/2720.html>>.

Research report no.68: Does financial stress impact on young people in tertiary study?

Sian Halliday Wynes and Nhi Nguyen, NCVER

Abstract

The focus of this paper is a consideration of the role that financial stress plays in a student's study outcomes, in particular, whether individual circumstances influence this relationship; for example, the extent to which the combination of work and study or living status (living independently compared with living with parents) contributes to financial stress. Financial stress has other obvious effects on overall wellbeing, but the focus of this research is the effect on education outcomes.

This paper explores the financial wellbeing of tertiary students participating in LSAY. The finance topic in LSAY includes questions on government payments, income, credit card activity, shortage of money, saving, and how respondents are generally managing financially. Also of interest is the effect that financial stress has had on students' learning, a theme not specifically explored in LSAY but which is explored in an additional survey of LSAY participants described in the paper.

This report is available at <<http://www.lsay.edu.au/publications/2732.html>>.

Research report no.69: Do schools influence student engagement in the high school years?

Sinan Gemici and Tham Lu, NCVER

Abstract

There is a well-established link between young people's engagement with school and their longer-term education and labour market outcomes. The key policy question explored in this research is the extent to which student engagement can be influenced by the manner in which schools are organised and run. This report uses LSAY data to examine a wide range of school characteristics and their impact on students' emotional and cognitive engagement with school at age 15 years.

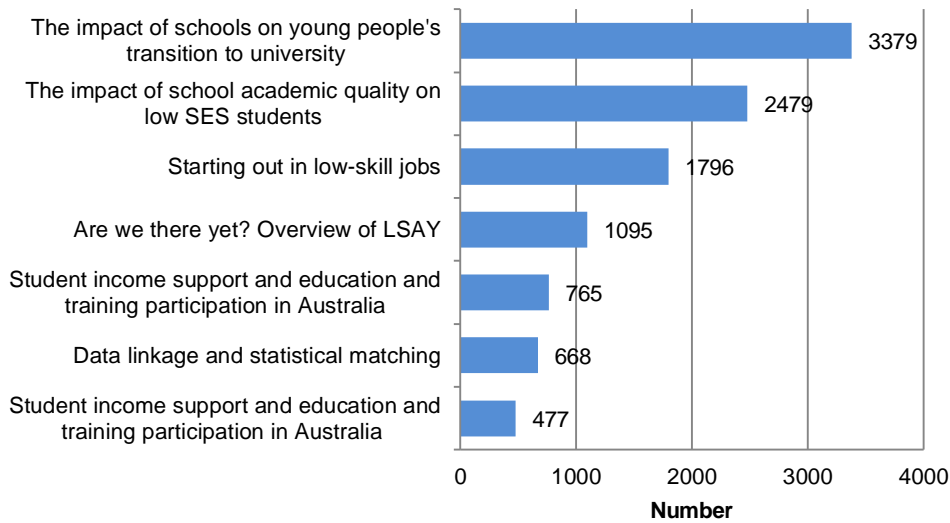
This report is available at <<http://www.lsay.edu.au/publications/2745.html>>.

Impact of the 2013 LSAY research

This section presents a summary of the media interest (measured in terms of media citations) and report usage (measured in terms of the number of unique page views) of each report published on the LSAY website in 2013 to gauge the level of research impact. The use of website downloads and media citations as proxy measures of impact follows a similar approach to that set by Hargraves (2012) in the impact assessment of research arising from the LSAY Research Innovation and Expansion Fund (RIEF).

Figure 46 shows the most popular 2013 LSAY reports based on Google Analytics data on website hits. As can be seen, the school effects suite of research was the most frequently viewed 2013 research. Refer to the chapter on school effects for more information on the findings from this research.

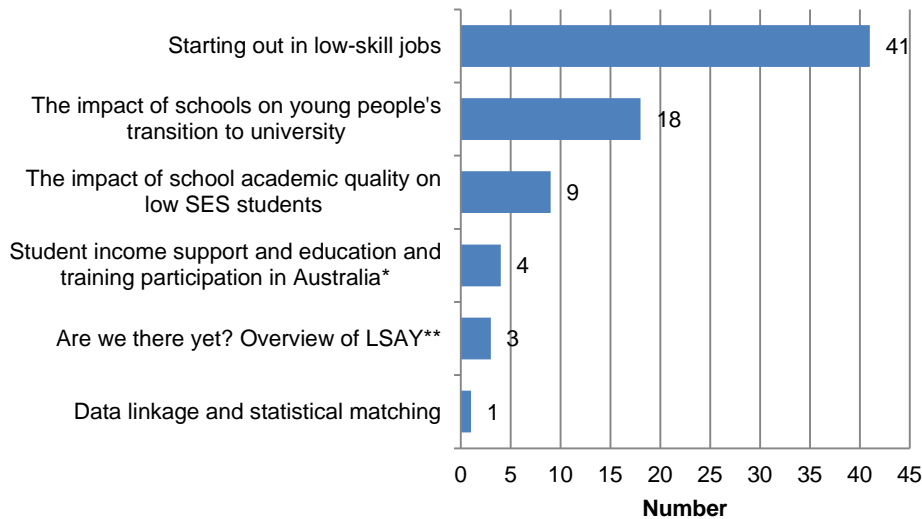
Figure 46 Unique page views of LSAY research publication summary pages, 2013



Source: Derived from the number of unique page views of the LSAY and NCVER websites between the date of release of each report and 31 January 2014, based on Google Analytics data.

The report attracting the most media attention was *Starting out in low-skill jobs* (figure 47). Appendix B provides more detailed data on media impact and unique page views for each report published in 2013 under the LSAY Research and Analysis program.

Figure 47 Media citations, LSAY research publications, 2013



Notes: * This includes media citations of the accompanying research overview.

** There were an additional 14 media citations of the LSAY National Research Forum *Are we there yet? Youth transitions in Australia*.

Source: Derived from media records held by NCVER from 1 January 2013 and 31 January 2014.

The number of academic citations can be used as a proxy measure of research impact. Hargreaves notes that the ideal reference period for a citations analysis is three to five years following publication, which suggests that it is too early to measure the research impact of the 2013 reports based on academic citations. Table 18 instead provides the number of citations for all research reports published on the LSAY website since 2010. In total, there have been over 300 citations of

these LSAY reports. The most frequently cited report was *Education and happiness in the school-to-work transition* by Dockery (2010). This high number of citations is also a consequence of the report having been available for approximately four years.

Table 18 Citations by source type

Document title	Report ¹	Paper ²	Journal article – self-cited	Journal article – not self-cited	Conference paper	Book chapter	Thesis	Submission	Presentation	Guide	Social media ³	Hansard	Total
Starting out in low-skill jobs				1									1
The impact of school academic quality on low socioeconomic status students													0
Data linkage and statistical matching: options for the Longitudinal Surveys of Australian Youth													0
Student income support and education and training participation in Australia	3		1										4
Student income support and education and training participation in Australia: research overview													0
Are we there yet? Overview of the Longitudinal Surveys of Australian Youth					1								1
The impact of schools on young people's transition to university	3		2										5
Assessing the impact of research: a case study of the LSAY Research Innovation and Expansion Fund													0
An investigation of wellbeing questions in the Longitudinal Surveys of Australian Youth					1								1
How did young people fare in the 1990s economic downturn?	1				1			1					3
School completion: what we learn from different measures of family background	3	4	1	3	3								14
Who takes a gap year and why?	4			1	1								6
Bridging the gap: who takes a gap year and why?	4	1	1	2	1		1						10
Doing well: helping young people achieve their potential		1			1								2
Weighting the LSAY Programme of International Student Assessment cohorts	4		1										5
Trends in young people's wellbeing and the effects of the school-to-work transition	1	2											3
Are we there yet? Making the successful transition to adulthood	1				1								2

Document title	Report¹	Paper²	Journal article – self-cited	Journal article – not self-cited	Conference paper	Book chapter	Thesis	Submission	Presentation	Guide	Social media³	Hansard	Total
Social capital and young people	3	4		1	1								9
Successful youth transitions	2	2		1	2			1	1	1			10
The vocational equivalent to Year 12	4	2		2	2	1		2					13
Does combining school and work affect school and post-school outcomes?	8	1		3	2						1		15
Which paths work for which young people?	8			6	4				1				19
From education to employment: how long does it take?	3	2		1	1		1				2	1	11
Year 12 completion and youth transitions	6	2		3	1	2							14
Year 12 completion and youth transitions: research overview					1								1
Young people in an economic downturn	7	1		1	1			1					11
At risk youth: a transitory state?	8	3		1	1	1	1						15
Outcomes of stakeholder consultations to identify the LSAY analytical program for 2011–13													0
Lost talent? The occupational ambitions and attainments of young Australians	7	3		5	4	1							20
Returns from education: an occupational status approach	4			1	3								8
Early post-school outcomes of Indigenous youth: the role of literacy and numeracy	5	5		2	1								13
The impact of VET in Schools on the intentions and achievements of young people	6	2		2	2			1					13
A stocktake of the Longitudinal Surveys of Australian Youth	2	1		1	1								5
Attitudes, intentions and participation in education: Year 12 and beyond	3	2		1	2	1	1	1					11
Apprenticeships and traineeships: participation, progress and completion	3				1			1					5
Post-school education and labour force participation in Canada and Australia	4	1	1	1	1								8

Document title	Report ¹	Paper ²	Journal article – self-cited	Journal article – not self-cited	Conference paper	Book chapter	Thesis	Submission	Presentation	Guide	Social media ³	Hansard	Total
Against the odds: influences on the post-school success of 'low performers'	5	2		7	2	4							20
Education and happiness in the school-to-work transition	15	1		1	5	1	2				4		29
Total	127	42	7	47	48	11	6	8	2	1	7	1	307

Notes: 1 'Report' includes literature reviews.

2 'Paper' includes working paper, discussion paper, and project proposal.

3 'Social media' includes media release, webinar and blog post. News articles were captured in the search but were not included in the table as news articles were analysed in the preceding figure on media citations.

Source: The number of citations was based on a bibliometric analysis undertaken by specialist information services staff using Google, Google Scholar, Publish or Perish, VOCEDplus, and parliamentary databases. This citation analysis was provided on 28 March 2014

Detailed listings of the citations are provided in appendix C. There is some evidence of policy impact in these citations; however, Hargreaves (2012) notes that without the addition of qualitative methods some impacts will never be captured via citations analyses. They require researchers tracking the impacts of their own research, which is beyond the scope of this brief analysis.

The use of LSAY in the wider research community in 2013

This section provides a summary of the research that was published in 2013 beyond the government-funded LSAY Research and Analysis program. The summary includes research published by NCVER on the NCVER website as well as that published by other organisations.

Other NCVER research

In addition to undertaking research through the LSAY Research and Analysis program, NCVER conducts and commissions research on the VET sector through an in-house research program and the National Vocational Education and Training Research (NVETR) program. In 2013, four research reports based on LSAY data were published by NCVER through in-house or NVETR funding. A further four reports based on LSAY data were published early in 2014 or are forthcoming and expected to be published by NCVER in 2014. This research ranges from an examination of the factors affecting VET course completions amongst those with a disability, to gender effects in science engagement at school and post-school.

Findings from other NCVER research published in 2013

Barriers and facilitators affecting course completions by apprentices and trainees with disabilities

Errol Cocks and Stian H Thoresen, Centre for Research into Disability and Society, Curtin Health Innovation Research Institute, and School of Occupational Therapy and Social Work, Curtin University

Recent policies to address equity issues have encouraged people with disabilities to participate in vocational education and training. While participation is worthwhile, it is completion that typically brings the greatest benefits.

This is the first report from a program of research investigating the financial and social outcomes for people with disabilities who have completed an apprenticeship or traineeship. The research is based on a three-year longitudinal survey of graduates with disabilities. In this first report, the emphasis is on the students' perspectives on the barriers to and the facilitators of course completion. Not surprisingly, graduates with a disability were more likely to report barriers to completion of their apprenticeship or traineeship compared with those without.

Key messages

- The most commonly reported barriers, across both the graduates with disabilities and those without, were related to lack of resources. Common challenges cited were poor training wages; the cost of equipment or tools required for training; and lack of time, often due to family commitments. For some in the disability group, these barriers were compounded by their health conditions.
- Support was the most important factor facilitating course completion among the research participants with disabilities. This support was often provided by individuals from disability employment service providers, group training organisations, technical and further education (TAFE) institutes, and the employer. Informal support – from friends, family and co-workers – was also important, particularly when formal supports were inadequate.

Only a small proportion of the research participants report that they have been supported jointly by both a disability employment service provider and a training organisation. Given the previous research showing the benefits of joint support, the authors advocate the formation of such partnerships.

This report is available at <<http://www.ncver.edu.au/publications/2597.html>>.

21st National Vocational Education and Training Research Conference 'No Frills': refereed papers

Edited by Tabatha Griffin, NCVET

The 21st National Vocational Education and Training Research Conference, colloquially known as 'No Frills', was held in July 2012. To celebrate this special anniversary, speakers were offered the opportunity to have their papers peer-reviewed, and these 14 refereed papers have been compiled in a single volume.

The papers span a broad range of topics, including: Indigenous students and their intentions; educational pathways; skills recognition; leadership in VET providers; workplace mentoring; and the experiences of apprentices.

This report is available at <<http://www.ncver.edu.au/publications/2595.html>>.

Socioeconomic disadvantage and participation in tertiary education: preliminary thoughts

Tom Karmel and Patrick Lim, NCVET

This paper was written in early 2010 to encourage policy-makers to think about how to measure socioeconomic status. It also provides some data on socioeconomic status and tertiary education participation. Finally, it speculates about the likely impact of an expansion in higher education on those from a low socioeconomic background.

Key messages

- Measurement of SES is a complex issue. While the concept relates to the characteristics of individuals and their families, for practical reasons measures based on the ABS Socio-Economic Indexes for Areas (SEIFA) are usually adopted.
- SEIFA measures are very poor in classifying individuals by socioeconomic status. Nevertheless, the SEIFA measures perform quite well in measuring the aggregate relationship between SES and educational participation.
- An implication of SEIFA's poor classification ability is that any policy that targets funding on the basis of SEIFA will result in the funds being badly misdirected.
- Some simple tabular analyses indicate that VET does a good job for low-SES individuals, and is not overly biased toward lower-level qualifications in this group.
- The group most likely to be affected by an expansion in the higher education sector will be those not currently undertaking post-school study rather than those currently undertaking vocational education and training.

This paper also notes that SEIFA would be a very poor measure to implement any expansion in higher education aimed at low-SES individuals.

This paper is available at <<http://www.ncver.edu.au/publications/2612.html>>.

Single-sex schools and science engagement

Joanna Sikora, Australian National University

This paper considers whether single-sex schooling affects gendered patterns in the uptake of science courses in Year 11 and the development of science-related career paths. In particular, the author is interested in exploring gender differences relating to the take-up of the life and physical sciences. To investigate these issues, the author analyses data from the 2009 cohort of LSAY.

Key messages

- Across all schools, male and female students systematically select different science subjects and prefer careers in different fields of science, as did their counterparts ten years ago.
- With respect to science subjects, students' gender, science performance and science self-confidence levels have a consistent positive influence on both life and physical science engagement. The latter two are more prominent in the take-up of physical science subjects.
- Single-sex schooling does not affect the likelihood of boys taking up physical or life science subjects while at school. However, boys from boys-only schools are more likely to plan a life science career, such as physiotherapy and medicine, than their male counterparts in coeducational schools.
- Girls in girls-only schools are more likely to take up physical science subjects than their female counterparts in coeducational schools. However, single-sex schooling does not affect the likelihood of girls planning a physical science career.

After controlling for a number of student and school characteristics, the author concludes that, although some benefits of sex-segregated schooling exist, the overall effects are small. Moreover, it is unlikely that these effects have a lasting impact on young people's educational and career pathways later in life, which questions whether programs designed to extend single-sex schooling into the government sector should be introduced.

This report is available at <<http://www.ncver.edu.au/publications/2668.html>>.

Other NCVER research forthcoming or published in 2014

Are neighbourhood characteristics important in predicting the post-school destinations of young Australians?

David W Johnston, Monash University; Wang-Sheng Lee, Deakin University;
Chandra Shah, Michael A Shields and Jean Spinks, Monash University

Abstract

While much research has been conducted on the influence of individual and family characteristics on social exclusion, very little has examined the role of community and neighbourhood factors. Using data from LSAY, the effects of neighbourhood characteristics on young people's educational outcomes at the ages of 15, 17 and 19 years in Australia are investigated. The results indicate that the outcomes are likely to be much the same for two students with similar individual and parental characteristics attending the same school but living in neighbourhoods with different levels of socioeconomic status. Mentoring efforts that help shape the aspirations of young people at an early age could have a high pay-off in terms of post-school outcomes.

Key messages

- The socioeconomic status of a neighbourhood is an important characteristic in explaining variations in student outcomes, but residential turnover, the composition of households and the multicultural nature of the neighbourhood also play a role.
- The characteristics of schools make an important difference, but in reality data for many of these (for example, school leadership and teacher quality) are either not readily available or the characteristics are not easily measurable. The effects of a neighbourhood are sometimes difficult to separate from the impacts of schooling because of the correlation between the two.

This report is available at <<http://www.ncver.edu.au/publications/2676.html>>.

Intergenerational mobility: new evidence from the Longitudinal Surveys of Australian Youth

Gerry Redmond, Flinders University, and Melissa Wong, Bruce Bradbury and Ilan Katz, University of New South Wales

Abstract

This report examines the extent of changes in intergenerational mobility in Australia since the 1970s using data from the Youth in Transition study and LSAY. In the context of their parents' socioeconomic status students' educational achievement in literacy and numeracy tests at age 14–15 years and their tertiary entrance rank at age 18–19 years are also examined. The analysis takes into account, in broad terms, of developments in educational, social and economic policies over that time and previous studies. The analysis suggests that, in general, intergenerational mobility has not changed. While overall educational achievements have improved, the connection between parents' relative socioeconomic status and their children's relative academic performance has not weakened since the 1970s, although the strength of the relationship between school socioeconomic status and student outcomes appears to have increased significantly since 1975.

Key messages

- In terms of absolute educational outcomes alone, the research suggests there have been some improvements to intergenerational mobility; for example, by 2009 the vast majority of students from all socioeconomic backgrounds are completing Year 12 compared with those in the 1970s.
- In relative terms, there is little evidence of an increase in intergenerational mobility. Children of high socioeconomic status parents are as likely to have higher tertiary entrance rank scores and better test results in the 2000s as in the 1970s. In other words there is little evidence of a change in intergenerational mobility in Australia since the 1970s.
- School socioeconomic status has grown in importance and over time is gradually replacing the effects of parental socioeconomic status and school sector (government, independent, Catholic).

This report is available at <<http://www.ncver.edu.au/publications/2712.html>>.

Gendered pathways into post-secondary study of science

Joanna Sikora, Australian National University

Abstract

Using LSAY data, this paper investigates gender segregation in science engagement by looking at gendered pathways into post-secondary science study and the career preferences of Australian youth. In particular, the author explores gender differences relating to the take-up of the life and physical sciences.

Key messages

- On the whole, females are less likely to study a science qualification after leaving school than males.
- When looking at the physical sciences, the gap between male and female participation widens at the tertiary level compared with secondary school, with males five times more likely than females to study a physical science qualification.
- Regarding the life sciences, females are more likely than males to study a life science qualification at the tertiary level, but this gap is similar to that seen at secondary school.
- These differences remain after controlling for a number of factors, such as academic performance in science, having a parent employed in science, and the economic and cultural status of the family, suggesting that gender segregation in science is driven more broadly by a culture that links particular occupations to a specific gender.

This report is available at <<http://www.ncver.edu.au/publications/2714.html>>.

Does scored VET in Schools help or hinder access to higher education in Victoria?

Cain Polidano, Domenico Tabasso and Rong Zhang, Melbourne Institute of Applied Economic and Social Research, University of Melbourne

Abstract

Despite comprising only a small fraction of all VET in Schools enrolments, programs that count towards both national VET qualifications and university potentially fill an important role in the upper-secondary school curriculum. They serve the dual purposes of providing vocational options for those who do not intend to go to university and providing fall-back options for those in the middle of the academic distribution who do intend to go to university. For the latter group, taking VET subjects that also count towards university entry enables them to try vocational options and learn work-relevant skills that may be useful in the event that they miss out on university but without potentially compromising their chances of gaining access to university.

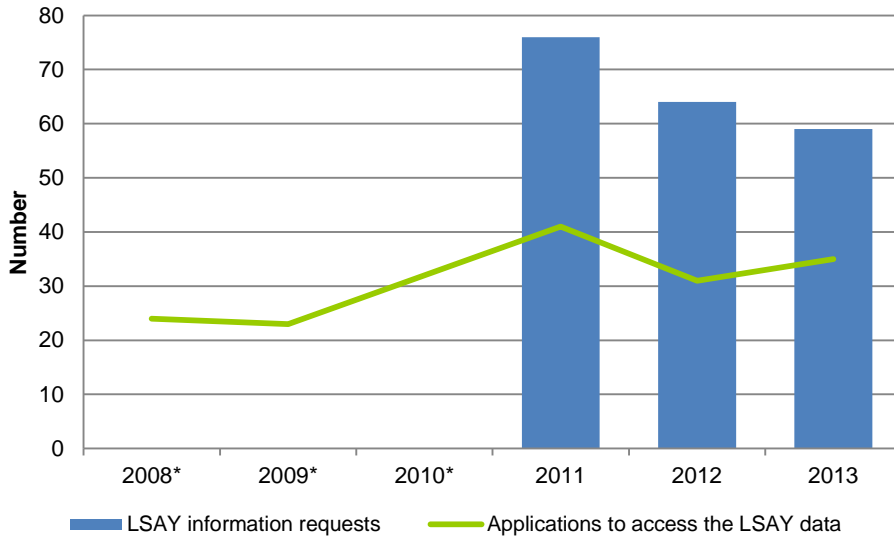
The aim of this study was to take a first step in gaining an understanding of the efficacy of these types of courses by estimating the relationship between enrolment in Victorian Certificate of Education (VCE) VET subjects and subsequent university access. The outcomes from VCE VET courses were examined because they represent a model of assessment, known as 'scored VET', that closely resembles that in general courses. In particular, assessment involves both written exams and numerical assessment of performance in job-specific tasks associated with units of competency. In this study, the analysis is carried out on a sample of school completers in 2011 in Victoria who lodge a first preference for enrolment in a university course prior to sitting for their final-year exams.

This report is available at <<http://www.ncver.edu.au/publications/2770.html>>.

Research beyond NCVET

LSAY datasets are available for access and use through an application process managed by the Australian Data Archive. For more information, please see the section on 'LSAY products' in this annual. This service facilitates usage of the LSAY dataset amongst education and training and youth researchers beyond NCVET. Figure 48 shows that there were 35 applications to access the LSAY dataset for research purposes and almost 60 separate enquiries about the data or research in 2013. There was a similar level of applications and enquiries in 2012.

Figure 48 Applications to access the LSAY data and LSAY information requests, 2008–13



Note: *Number of LSAY information requests not available.

Findings from 2013 research beyond NCVET

This section presents a list of the papers that were published during 2013 by organisations beyond NCVET. The list of research papers was based on a search for publications that have used LSAY data. Specialist information services staff used VOCEDplus and Google Scholar and applied search strings such as ‘LSAY’ and ‘Longitudinal Surveys of Australian Youth’ to locate these items. The resulting list was refined according to whether LSAY was a main data source. The five resulting reports are listed.

Explaining the socioeconomic status school completion gap

Cain Polidano, Barbara Hanel and Hielke Buddelmeyer, Melbourne Institute of Applied Economic and Social Research, University of Melbourne

Abstract

Relatively low rates of school completion among students from low socioeconomic backgrounds are a key driver of intergenerational inequality. Linking data from PISA with data from LSAY, a decomposition framework is used to explain the gap in school completion rates by socioeconomic status. The two most important contributing factors are found to be the lower educational aspirations of low-SES students and their parents and lower numeracy and reading test scores at age 15 years. Differences in school characteristics by SES are estimated to be relatively unimportant.

This journal article is available at

<http://www.tandfonline.com/doi/abs/10.1080/09645292.2013.789482#.Up6J2qxOI8F>.

Making it real: The benefits of workplace learning in upper-secondary VET courses, Melbourne Institute working paper series, Working paper no. 31/13

Cain Polidano and Domenico Tabasso, Melbourne Institute of Applied Economic and Social Research, University of Melbourne

Abstract

In OECD countries, ‘real world’ upper-secondary VET programs are used to engage less academically oriented youth in learning, at the same time helping to prepare them for post-school work and/or further training. In general terms, VET programs with high employer involvement, such as

apprenticeship schemes, are considered to be superior to the classroom-based VET programs typically found in many English-speaking countries. In this study, the outcomes from a potential 'third way' are examined: classroom-based VET with a short-term structured workplace learning component. Using propensity score matching and PISA data linked to information from LSAY, the authors find that time allocated to workplace learning is associated with higher school completion rates and better employment transitions.

This working paper is available at:

http://www.melbourneinstitute.com/downloads/working_paper_series/wp2013n31.pdf

An analysis of the impact of socioeconomic disadvantage and school quality on the probability of school dropout

Stephane Mahuteau and Kostas Mavromaras, National Institute for Labour Studies, Flinders University

Abstract

PISA scores are an internationally established indicator of student and school performance. This paper builds on the evidence that better PISA scores are known to be associated with better later life outcomes. It uses the micro-level data associated with Australian PISA scores in combination with its longitudinal continuation in the LSAY data to measure the degree to which individual PISA scores are associated with individual early school drop-outs. It distinguishes between student and school factors and estimates a model of the propensity to drop out from school between the ages of 15 and 18 years. The paper finds that PISA scores are a good predictor of early drop-out, and that individual and social disadvantage plays a crucial role in this relationship, both directly and indirectly.

This report is available at <http://ftp.iza.org/dp7566.pdf>.

Catholic school effectiveness in Australia: a reassessment using selection on observed and unobserved variables

Buly Cardac and Joe Vecchi, School of Economics, La Trobe University

Abstract

This paper provides new estimates of the effect of Catholic school attendance on high school completion and university commencement and completion for Australian students. First, an instrumental variables approach is adopted, where the probability of Catholic affiliation is used as an instrument. Consistent with the recent US literature, results based on this instrument are mixed. Instead, bounds are placed on the Catholic school effect using the assumption of equality between selection on observables and unobservables. The effect of Catholic school attendance is found to be smaller than previous results and negative treatment effects cannot be ruled out. Recent improvements in public school outcomes may have contributed to the smaller Catholic school effects.

This journal article can be accessed via an NCVET request service.

Destinations survey for the services industry

Skills Services Australia

Abstract

This report provides an overview of the key findings from the project, *Destinations Survey for the Service Industries*. It presents an outline of the employment destinations and other outcomes of people who have obtained a qualification in the service industries.

This report is available at:

<http://education.unimelb.edu.au/_data/assets/pdf_file/0009/860805/Destinations_Overview.pdf>.

Highlights of forthcoming research beyond NCVER

The following list presents a selection of recent LSAY data access requests to provide a snapshot of research based on LSAY data that is expected to be published by external organisations beyond 2013. The titles of the forthcoming research are not captured in the data requests records held by NCVER; instead, the research is labelled using the research abstract that was provided by the data applicants.

To what extent can PISA scores be used as early warning signs of students' later outcomes?

Dr Stephane Mahuteau and Xiaobo He, National Institute of Labour Studies, Flinders University

The aim of the study is to look at the relationship between medium-term outcomes in terms of school drop-out and choice of post-secondary education and students' PISA scores. To what extent can PISA scores be used as early warning signs of students' later outcomes? The study also looks at the effect of social disadvantage on these outcomes and decomposes the effect between a direct effect and an indirect effect (through the PISA scores).

How do different vocational training trajectories impact on entry into the labour market?

Sandra Buchler, University of Bamberg, Germany

The data will be used for the Australian country study for phase II of the eduLIFE project. In this phase eduLIFE will examine how different vocational training trajectories impact on entry into the labour market, with a particular focus on gender. Overall, the aim of the eduLIFE project is to study how individuals' educational careers and competence trajectories unfold over the life course in relation to family background, educational institutions, workplaces, and private life events. The completed research will be published in a book, and possibly also in journal articles.

What are the differences in outcomes and expectations between Indigenous and non-indigenous students?

Dr Nicholas Biddle, Centre for Aboriginal Economic Policy Research, Australian National University

The aim of this research project is to analyse the differences in outcomes and expectations between Indigenous and non-indigenous students. The methodology will consist of descriptive analyses, as well as the estimation of more detailed econometric modelling. Comparisons will be made with previous research undertaken on the 2006 LSAY cohort, with results updated using the latest wave of data from that cohort. Results will be published in the first instance as a working paper and then submitted to relevant peer review academic journals.

Why is capitalising public school quality through higher house prices preferred by a significant proportion of parents over private school tuition fees?

Sean Leaver, School of Economics and Finance, RMIT University

The objective of the proposed research is to understand the behavioural decision rules used by parents to make their investment decisions in choosing government-funded public schools over alternative comparable private schools. Specifically, this research will seek to understand why capitalising public school quality through higher house prices is preferred by a significant proportion of parents over private school tuition fees.

Testing the predictive power of the PISA test items using outcomes data from the LSAY

Maciej Jakubowski, OECD

The PISA team at the OECD is interested in conducting analyses to explore how responses to different types of PISA test items are related to future student outcomes. This research is crucial for further development of the PISA study. The researchers would like to see which test items have better predictive power and thus provide evidence on the types of items that are best in assessing the skills needed in adult life. The researchers are aiming to relate student-level responses to test items on the PISA 2003 and PISA 2006 tests to future outcomes as measured by LSAY.

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Appendix A: Other longitudinal surveys and data sources on youth and transitions

The tables in this appendix list Australian data sources on youth and transitions (table A1) and international longitudinal youth surveys (table A2).

Table A1 Australian data sources on youth and transitions

Survey	Organisation	Period
Large-scale longitudinal surveys		
Longitudinal Study of Australian Children	Australian Institute of Family Studies	2004–current
Longitudinal Study of Indigenous Children	Australian Government Department of Social Services	2008–current
Household, Income and Labour Dynamics in Australia	Melbourne Institute of Applied Economic and Social Research, University of Melbourne	2001–current
Smaller-scale longitudinal surveys		
Life patterns	Youth Research Centre, University of Melbourne	1996–current
Negotiating the Life Course Project	Australian Demographic and Social Research Institute, Australian National University and the School of Social Science, University of Queensland	1997–2009
Life Chances Study	Brotherhood of St Laurence	1990–2012
Youth in Focus	Joint research project between a team of academic researchers and the former Australian Government Department of Families, Housing, Community Services and Indigenous Affairs	2006 and 2008
Student destination surveys		
Student Outcomes Survey	NCVER	1997–current
Apprentice and Trainee Destination Survey	NCVER	2008 and 2010
Graduate Destination Survey	Graduate Careers Council of Australia	1971–current
Graduate Pathway Survey	ACER	2008–current
ABS surveys		
Survey of Education and Work	ABS	1964–current
Survey of Education and Training	ABS	1989–current

Table A2 International longitudinal youth surveys

Survey	Organisation	Period
Canada		
National Longitudinal Survey of Children and Youth	Statistics Canada	1994–2009
Youth in Transition Survey	Statistics Canada	2004–09
Germany		
German National Educational Panel Study	Leibniz Institute for Educational Trajectories	2007–current
Switzerland		
Transitions from Education to Employment	Swiss National Science Foundation and the University of Basel	2001–current
Swiss Survey of Children and Youth	Youth University of Zurich	2006–current
United Kingdom		
British Cohort Study	Centre for Longitudinal Studies, University of London	1970–current
Inventing Adulthoods	Economic and Social Research Centre	1996–2010
Longitudinal Study of Young People in England	Department for Children, Schools and Families	2004–current
Youth Cohort Study	Department for Education	1985–current
USA		
Education Longitudinal Study	National Centre for Education Statistics	2002–current
National Longitudinal Survey of Youth	Bureau of Labor Statistics	1979–2010, 1997–2011
National Longitudinal Survey of Youth – Children and Young Adults	Bureau of Labor Statistics	1986–2010, 2012
National Longitudinal Surveys of Mature Young Women	Bureau of Labor Statistics	1967–2003
National Longitudinal Surveys of Older and Young Men	Bureau of Labor Statistics	1966–90
National Longitudinal Transition Study	United States Department of Education	2000–09

The seven countries which attach a longitudinal youth survey to PISA include Australia (LSAY), Canada (YITs), Czech Republic (PISA-L), Denmark (PISA Longitudinal), Germany (NEPs), Switzerland (TREE) and Uruguay.

Appendix B: 2013 LSAY research usage and media impact

The table in this appendix (table B1) provides statistics on usage for all LSAY research reports funded under the LSAY Research and Analysis program and published in 2013 on the LSAY website. Report usage is measured by:

- the number of media citations between 1 January 2013 and 31 January 2014, based on records held by NCVER
- the number of unique page views of the LSAY and NCVER websites between the date of release of each report and 31 January 2014, based on Google Analytics data.

Table B1 Usage of LSAY reports published in 2013 through the LSAY Research and Analysis program, funded by the Australian Government Department of Education

	The impact of schools on young people's transition to university	Are we there yet? Overview of LSAY	Student income support and education and training participation in Australia	Student income support and education and training participation in Australia: research overview	Data linkage and statistical matching: options for LSAY	The impact of school academic quality on low-SES students	Starting out in low-skill jobs
Authors	Gemici, Sinan; Lim, Patrick; Karmel, Tom	Karmel, Tom	Ryan, Chris	Karmel, Tom	Gemici, Sinan; Nguyen, Nhi	Lim, Patrick; Gemici, Sinan; Karmel, Tom	Karmel, Tom; Lu, Tham; Oliver, Damian
Release date	4 April 2013	30 April 2013	5 June 2013	5 June 2013	31 July 2013	20 August 2013	2 October 2013
Usage (unique page views)							
Publication summary page	3 379	1 095	7 65	477	668	2 479	1 796
Report downloads (includes Word and pdf versions)	3 230	910	433	427	314	2 079	1 474
Top 3 user groups (excluding the guest group ¹)	Research organisation, government, other	Government, research organisation, other	Research organisation, government, other	Research organisation, government, other	Government, research organisation and private ²	Research organisation, government, other	Government, research organisation, other
Top 3 countries (excluding Australia)	New Zealand, United Kingdom, South Africa	New Zealand, United Kingdom, South Africa	Canada, South Africa, United Kingdom	United Kingdom, Canada, China	Canada, United Kingdom, China	New Zealand, United Kingdom, Canada	New Zealand, Canada, United Kingdom
Media citations	18	3 ³	3	1	1	9	41

Note: 1 Guests are defined as users who have come to the LSAY/NCVER website for the first time or whose previous visit has not been remembered by the website or who have not yet logged into the website. The 'guest' user group is the most popular group for all of the 2013 LSAY publications in table B1.¹

2 The 'private' user group includes private or other non-TAFE training providers.

3 There were an additional 14 media citations of the LSAY National Research Forum *Are we there yet? Youth transitions in Australia*.

Appendix C: Citations analysis

This appendix provides statistics on the number of academic citations for all LSAY research reports funded under the LSAY Research and Analysis program and published on the LSAY website from 2010 to 2013. The number of citations was based on a bibliometric analysis undertaken by specialist information services staff using Google, Google Scholar, Publish or Perish, VOCEDplus and parliamentary databases. This citation analysis was provided in March 2014. News articles were captured in the search but were not included in the list; news articles were analysed in a separate section.

2013 research

Starting out in low-skill jobs

Tom Karmel, Tham Lu, Damian Oliver, 2 October 2013

Cited by 1

- 'Low-skill jobs: a stepping stone or a trap?' *Basic Skills Bulletin*, 10 July 2013, issue 135, p.6.

The impact of school academic quality on low socioeconomic status students

Patrick Lim, Sinan Gemici, Tom Karmel, 20 August 2013

Cited by 0

The report was also offered as a reference for further reading in 2013 'Some economic effects of inequality', Parliamentary Library briefing book: key issues for the 44th Parliament.

Data linkage and statistical matching: options for the Longitudinal Surveys of Australian Youth

Sinan Gemici, Nhi Nguyen, 31 July 2013

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Student income support and education and training participation in Australia

Chris Ryan, 5 June 2013

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Student income support and education and training participation in Australia: research overview

Tom Karmel, 5 June 2013

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Are we there yet? Overview of the Longitudinal Surveys of Australian Youth

Tom Karmel, 30 April 2013

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The impact of schools on young people's transition to university

Sinan Gemici, Patrick Lim, Tom Karmel, 4 April 2013

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2012 research

Assessing the impact of research: a case study of the LSAY Research Innovation and Expansion Fund

Jo Hargreaves, 17 September 2012

Cited by 0

An investigation of wellbeing questions in the Longitudinal Surveys of Australian Youth

John Stanwick, Shu-Hui Liu, 4 September 2012

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How did young people fare in the 1990s economic downturn?

Ha Vu, Tu Gorgens, J Rob Bray, 29 August 2012

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School completion: what we learn from different measures of family background

Jacqueline Homel, Astghik Mavisakalyan, Ha Trong Nguyen, Chris Ryan, 5 July 2012

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Who takes a gap year and why?

Marilyn Lumsden, John Stanwick, 7 June 2012

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Bridging the gap: who takes a gap year and why?

David D Curtis, Peter Mlotkowski, Marilyn Lumsden, 6 June 2012

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