Exploring data from the Longitudinal Surveys of Australian Youth (LSAY)

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Overview

- Introduction to LSAY
- Survey methodology and sample design
- Survey content
- Research outputs
- Using the LSAY data
- LSAY QuickStats and pivot tables
- Exercises
Introduction to LSAY
Cross-sectional study vs Longitudinal study
Purpose of LSAY
Understanding youth transitions

Unemployment rates by age group, 1978 – 2012
The LSAY cohorts

Year 9 students surveyed for the first LSAY cohort (Y95)

1995

1998

A second set of Year 9 student are surveyed (Y98)

2003

The third cohort (Y03) is surveyed; integrated with OECD’s PISA. LSAY moves to an age-based cohort.

2006

The fourth cohort (Y06) completes their first survey Y95 completes their 12th and final survey

2009

The fifth cohort (Y09) completes their first survey Y98 completes their 12th and final survey

2015

The sixth cohort (Y15) completes their first survey
Survey methodology and sample design
Survey methodology

• Background questionnaire and school-based assessment
• Follow-up interviews conducted annually using CATI (telephone)
• CAWI (online) introduced in 2012
• Fieldwork from July to January
Sample design

• Two-stage stratified sample
  – stage 1 – schools (PPS)
  – stage 2 – students (SRS)

• Sampling unit
  – Year 9 students (Y95 and Y98)
  – 15 year-olds (PISA-based cohorts)

• Small states, non-metro regions and Indigenous students are oversampled
Attrition

• Issue for all longitudinal surveys
• Differential attrition may introduce bias
• Around 85% of respondents are retained year-on-year
## Sample sizes

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Schools</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Wave 1</td>
</tr>
<tr>
<td>Y95</td>
<td>301</td>
<td>13,613</td>
</tr>
<tr>
<td>Y98</td>
<td>296</td>
<td>14,117</td>
</tr>
<tr>
<td>Y03</td>
<td>314</td>
<td>10,370*</td>
</tr>
<tr>
<td>Y06</td>
<td>356</td>
<td>14,170</td>
</tr>
<tr>
<td>Y09</td>
<td>353</td>
<td>14,251</td>
</tr>
<tr>
<td>Y15</td>
<td>758</td>
<td>14,530</td>
</tr>
</tbody>
</table>

*For the Y03 cohort, a follow-up telephone interview was conducted in the same year/wave as PISA; the number of respondents reported here reflect the number of LSAY rather than PISA respondents.*
Weighting

• More accurately represent the Australian population
• Under-represented groups are allocated larger weights and vice versa
• Help deal with biases that arise due to attrition
• 3 types of weights:
  – sample weights (sample design)
  – attrition weights (non-response)
  – final weights: combine sample and attrition weights
Survey content
School has done little to prepare me for adult life when I leave school. I would like to work in a career involving science.
LSAY questionnaires

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

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

Now I would like to ask about the subjects you (are currently doing at school/were doing at the time you left school).
LSAY questionnaires

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

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

Do you currently have more than one job?

Is the job you have now the type of job you would like as a career?

Have you had trouble finding a job:
Because you don't have enough or the right kind of education or training

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

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

What government payments, if any, do you (or your partner) currently receive?

What is your marital status?

How many other people usually live in your household?

In general would you say your health is . . .

Do you have any disability or health problem, that has lasted six months or more, which limits the amount or type of work or study you can do?
LSAY questionnaires

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

How happy are you with your career prospects?

How happy are you with the money you get each week?

In the last 12 months, did you do any of the following... Canvassing, campaigning, or fundraising as a volunteer?

Now some questions about what you do in your spare time...
Research outputs
LSAY research

- More than 200 ‘LSAY publications’ (4000+ citations)
- Close to 100 per-reviewed journal articles, conference papers and theses (~1000 citations)
Research themes

• Educational experiences: teacher and school quality; tertiary education; access to education for equity groups
• Transitions between school, further education and the labour market: post-school study and transitions; gap year; NEET
• Beyond education: unemployment; career aspirations and occupational outcomes; living arrangements; well-being; life-satisfaction.
Lower-level qualifications

• Do certificates I and II help young people transition to further study or work (Oliver 2014)?
• Study compares certificate I and II graduates to others with similar characteristics who have not completed further study.
• Oliver finds males benefit from undertaking lower level qualifications.
• Benefits are enduring for males, but not so for females.
SNAPSHOT
This report followed 14,000 young people’s journey over a decade (15 to 25 years old) and found...

Full-time education
Young people are better educated than in the past with almost 60% of 25 year-olds holding a post-school qualification.

At 25 years-old
50% are not working full-time*

57% 59% 60%
2009 2011 2015

*Note: Working full-time is defined by the Australian Bureau of Statistics as working 35+ hours per week.

Barriers young people identified to full-time work
- Not enough work experience
- Lack of appropriate education
- Lack of career management skills
- Not enough jobs

The New Work Reality
Full-time work
Full-time work is increasingly precarious and difficult to attain.

Accelerating factors to gaining full-time work
- Building enterprise skills in education 17 months faster
- Relevant paid employment 12 months faster
- Paid employment in future focused clusters 5 months faster
- An optimistic mindset** 2 months faster

Cross-cohort analysis
• Multiple LSAY cohorts; pooling data
• Test for age, cohort and period effects

Multi-level analysis
• Using school-level data

Methodological development
• Testing survey instruments, weighting methodologies and scale validation

International comparative research
• Other studies drawn from the PISA sample (Switzerland; Canada; Russia)
• Other longitudinal youth studies (England; US; UK)
Using the LSAY data
Hierarchical topic structure

Major topics
The broadest topic area

Sub-major topics

Minor topics

Data elements
**Topic map**

Please select a topic area, data element and/or any contents from the table to display the variables for your selection. The selected variables will appear at the bottom of your screen. Please be patient — the data dictionary contains a substantial amount of information so can take some time to load.

<table>
<thead>
<tr>
<th>Wave 1</th>
<th>Wave 2</th>
</tr>
</thead>
</table>

**Variables**

Selecting any of the variables in the table below will display the values for that variable. (Hint: If there are no variables in the table, you’ll need to make a selection from the table above.)

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Variable label</th>
<th>Question</th>
<th>Base</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST021Q01TA</td>
<td>Age</td>
<td>How old were you when you arrived in &lt;country of test&gt;?</td>
<td>ST019A001T NOT</td>
<td>2015</td>
</tr>
</tbody>
</table>
Derived variables

**Education**
- Current school level
- Current qualification level
- Highest school level completed
- Highest qualification level completed
- Study status in VET
- Study status in bachelor degree or higher
- Full-time or part-time study status
- Completed Year 12 or certificate II or higher
- Completed Year 12 or certificate III or higher

**Employment**
- Labour force status
- Full-time or part-time employment status
- Permanent or casual employment
- Status in apprenticeship/traineeship
- Job mobility during last year
- Occupation (1 digit ANZSCO)
- Average weekly pay
- Average hourly pay
- Average weekly hours worked
- Any spell of unemployment during the year
- In full-time employment or full-time education

**Social**
- Marital status
- Living with parent(s)
- Living in own home
- Number of dependent children
User support and documentation

- User guides
- Questionnaires and frequency tables
- Online data dictionary and metadata
- Derived variables
- Technical and discussion papers
- Reference sources

Data products

- LSAY QuickStats and pivot tables
- Infographics
Accessing the LSAY data

- Managed by the Australian Data Archive (ADA)
- Sign up to the [ADA Dataverse](https://da样板数据集)
- Go to the [LSAY Dataverse](https://dataverse样板数据集)
- ‘Request access’ for the selected cohort
- Complete the online form
- Understand and undertake to abide by the [terms and conditions](https://sample_terms)
DATA FROM THE NEW LSAY 2015 COHORT RELEASED

Data from the sixth LSAY cohort, which commenced the program in 2015, is now available from the Australian Data Archive.
Exercises
Using QuickStats
Life at 23: then & now

• Using QuickStats to find the % of 23-year-olds are doing full-time study in 2017

• % in 2007?
Life at 23: then & now

• ?% of 23-year-olds are doing full-time study in 2017?
• ?% in 2007?

Which cohort?
Which year?
Which section?
Which variable?
Life at 23: then and now

• % of 23-year-olds are doing full-time study in 2017?

Which cohort? Which year? Which section? Which variable?
Life at 23: then & now

% of 23-year-olds are doing full-time study in 2017?

Which cohort? Y09
Which year? 2017
Which section? Education
Which variable?
Life at 23: then & now

• % of 23-year-olds are doing full-time study in 2017?

Which cohort? Y09
Which year? 2017
Which section? Education
Which variable?
Life at 23: then & now

23-year-olds are doing full-time study

% in 2017

Cohort: Y09
Year: 2017
Section: Education
Variable: Study mode
Life at 23: then & now

23-year-olds are doing full-time study

21% in 2017  ? % in 2007

Cohort: Y09
Year: 2017
Section: Education
Variable: Study mode
Life at 23: then & now

23-year-olds are doing full-time study

21% in 2017  \( \text{?} \) % in 2007

Cohort: Y09 Y98
Year: 2017 2007
Section: Education
Variable: Study mode
### Life at 23: then & now

23-year-olds are doing full-time study

<table>
<thead>
<tr>
<th>Year</th>
<th>Study mode</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Y98</td>
<td>?%</td>
</tr>
<tr>
<td>2017</td>
<td>Y09</td>
<td>21%</td>
</tr>
</tbody>
</table>

**Cohort:** Y09, Y98  
**Year:** 2017, 2007  
**Section:** Education  
**Variable:** Study mode
Life at 23: then & now

23-year-olds are doing full-time study

- 21% in 2017
- Question mark in 2007

Cohort: Y09
Year: 2017
Section: Education
Variable: Study mode
Life at 23: then & now

**EDUCATION**

**Highest Post-School Qualification Completed**
- **2007**
  - Certificate I and II: 12%
  - Certificate III and IV: 16%
  - Diploma: 9%
  - Bachelor degree, postgraduate study: 31%
  - Did not complete a qualification: 33%

- **2017**
  - Certificate I and II: 5%
  - Certificate III and IV: 18%
  - Diploma: 8%
  - Bachelor degree, postgraduate study: 38%
  - Did not complete a qualification: 30%

**Education Status**
- **2007**
  - Full-time: 15%
  - Part-time: 9%
  - Not studying: 76%

- **2017**
  - Full-time: 21%
  - Part-time: 9%
  - Not studying: 70%

Young people are remaining in education for longer. In 2017, about 30% of 23-year-olds were still studying compared with 24% in 2007. Coupled with longer periods of study, today’s young people are also becoming more qualified with higher proportions having obtained a bachelor degree or higher level qualification.
Using the pivot tables
Generation Z: life at 17

- In 2017, ?% of 17-year-olds had a job while at school?

- Try to find ?
• In 2017, \(?\)% of 17-year-olds had a job while at school?

Which cohort?
Which year?
Which section?
Which variable?
Generation Z: life at 17

• In 2017, \( \_ \_ \_ \_ \_ \_ \_ \% \) of 17-year-olds had a job while at school?

Which cohort? Which year? Which section? Which variable?
In 2017, $\%$ of 17-year-olds had a job while at school?

Which cohort? Which year? Which section? Which variable?
Generation Z: life at 17

• In 2017, ?% of 17-year-olds had a job while at school?

Cohort: Y15
Year: 2017
Section: Education
Variable1: Current school level
Section: Employment
Variable2: Labour force
Generation Z: life at 17

• In 2017, \( ? \% \) of 17-year-olds had a job while at school?

\[ \text{% Employed & At school} = \frac{?}{\text{In 2017, age 17 at school}} \]
Generation Z: life at 17

• In 2017, what % of 17-year-olds had a job while at school?

\[
\text{Employed & At school} = \frac{\text{In 2017, age 17 at school}}{100}
\]
Generation Z: life at 17

• In 2017, what % of 17-year-olds had a job while at school?

\[
\text{\%} = \frac{\text{Employed & At school}}{\text{In 2017, age 17 at school}}
\]
Generation Z: life at 17

Does combining school and work affect school and post-school outcomes?

ALISON AN LE ZARK
PATRICK LIM

WORKING WHILE AT SCHOOL

HAD A JOB

? % had a job while at school

Working around five hours per week has a positive impact on post-school full-time employment, compared with not working at all.¹

SALES WORKERS
Including sales assistants (general), checkout operators and office cashiers, and pharmacy sales assistants.

LABOURERS
Including fast food cooks, kitchenhands, shelf fillers, farm workers and cleaners.

COMMUNITY & PERSONAL SERVICE WORKERS
Including waiters, sports coaches, instructors, officials, cafe workers, bar attendants, bartenders and child carers.

GIG WORK

'Gig work' is a type of job where workers don't have set hours, and they get paid per task or assignment rather than receiving an hourly or weekly wage.

8% of 17-year-olds had gig work while at school

THE TOP GIGS WERE:

Performing online tasks, Babysitting, Cleaning, Gardening/landscaping, Being a musician, Umpiring/coaching
Generation Z: life at 17

Does combining school and work affect school and post-school outcomes?

ALISON ANLEZARK
PATRICK LIM

LONGITUDINAL SURVEYS OF AUSTRALIAN YOUTH

WORKING WHILE AT SCHOOL

HAD A JOB

60% had a job while at school

- Working around five hours per week has a positive impact on post-school full-time employment, compared with not working at all.¹

SALES WORKERS
Including sales assistants (general), checkout operators and office cashiers, and pharmacy sales assistants.

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- Performing online tasks
- Babysitting
- Cleaning
- Gardening/landscaping
- Being a musician
- Umpiring/coaching
Generation Z: life at 17

WORKING WHILE AT SCHOOL

HAD A JOB

60% had a job while at school

- 31% Sales Workers: Including sales assistants (general), checkout operators and office cashiers, and pharmacy sales assistants.
- 28% Labourers: Including fast food cooks, kitchenhands, shelf-fillers, farm workers and cleaners.
- 25% Community & Personal Service Workers: Including waiters, sports coaches, instructors, officials, cafe workers, bar attendants, babysitters and child carers.

Working around five hours per week has a positive impact on post-school full-time employment, compared with not working at all. (1)

GIG WORK

'Gig work' is a type of job where workers don't have set hours, and they get paid per task or assignment rather than receiving an hourly or weekly wage.

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THE TOP GIGS WERE:
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