

# X, Y and Z: Three decades of education, employment and social outcomes of Australian youth

---



**Sheldon Rothman**

*Principal Research Fellow,  
ACER*

---

Sheldon Rothman is a Principal Research Fellow in the Assessment and Reporting research program at ACER. He has highly developed expertise in the statistical analysis of large-scale data sets, the interpretation of results of analyses and the analysis of data to inform policy. He currently manages the psychometrics and data analysis team, which supports much of ACER's assessment work. He also manages the On Track project, which surveys all school leavers from Victorian secondary schools, and was director of the Longitudinal Surveys of Australian Youth (LSAY) project from 2002 to 2007. Before joining ACER, Dr Rothman was a teacher in New South Wales government schools and worked in a variety of roles with state education departments in New South Wales, South Australia and Massachusetts.

---



**Kylie Hillman**

*Research Fellow,  
ACER*

---

Kylie Hillman is a Research Fellow at ACER. She holds a Masters in Educational Psychology from the University of Melbourne and came to ACER from a clinical and educational background, working in a multi-disciplinary clinic and special education in primary schools briefly before beginning her research career. She worked on the Longitudinal Surveys of Australian Youth (LSAY) program between 2001 and 2007, and has sole or co-authored a number of reports in that series, including those examining the emotional wellbeing of young people, relationship formation, rates of leaving home and home ownership, the experiences of students in their first year of tertiary education, and the movement of non-metropolitan youth towards the cities. She continues to work in the area of transitions from secondary school in the Victorian Government's On Track project while coordinating ACER's research in the areas of Early Childhood Education and Care.

---

## **Abstract**

This paper focuses on three decades of findings from Australian longitudinal studies of adolescents and their transitions from secondary school to further education and training and the labour force. The presenters examine trends in young people's participation in the post-compulsory years of school; completion of Year 12; participation in and completion of various forms of further education and training; employment rates and earnings; and leaving home and family formation.

The data for this presentation come from a number of longitudinal survey programs, which are part of the *Longitudinal Surveys of Australian Youth*. The oldest cohort comprises young people who were born in 1961. Over the years, cohorts of young people born in 1965, 1970, 1975, 1981, 1984, 1988 and 1991 have been added, creating a valuable source of information about young people's transitions from school to adult life.

After examining how these transitions have changed over three decades, this paper then focuses on what future generations of young people will need to know and be able to do as they embark on their own post-school journey.

The Longitudinal Surveys of Australian Youth (LSAY) is a series of surveys that focus on the progress of young Australians as they move from their mid-teens to their mid-20s, from the final years of compulsory schooling to independent working life. These surveys involve large nationally representative samples of young people from whom data have been collected annually about education and training, work and social development. The oldest cohort comprises young people who were born in 1961 and were originally surveyed in 1975. Over the years, cohorts of young people born in 1965, 1970, 1975, 1981, 1984, 1988 and 1991 have been added – originally as part of ACER's Youth in Transition (YIT) program – creating a valuable source of information about young people's transitions from school to adult life.

LSAY surveys provide information on what young Australians are doing as they negotiate the transition from school, document changes as the group gets older and enable comparisons with other groups when they were the same age. This paper summarises findings about:

- education and training outcomes, including achievement in literacy and numeracy while at school,

completion of Year 12 and participation in post-school study

- employment outcomes, including labour force participation, unemployment and career pathways
- social outcomes, including well-being, leaving home, relationships and marriage and housing.

More detailed investigations are available from 54 individual research reports that have been produced since 1996.

### Data sources

The data used in this paper come from eight cohorts included in the LSAY program: young people born in 1961, in 1965, in 1970 and in 1975 (the YIT cohorts), and those born in 1980–81, in 1983–84, in 1988–89 and in 1991–92 (the LSAY cohorts). Members of the last two LSAY cohorts also participated in the Programme for International Student Assessment of the Organisation for Economic Co-operation and Development (OECD PISA). Additional data that parallel the current surveys are available from other longitudinal survey programs, the Australian Longitudinal Survey (ALS) and the Australian Youth Survey (AYS), which focused on labour-market participation. A summary of these cohorts is shown

in Figure 1. Data are still being collected in the last three cohorts, with the 2008 surveys in September.

After examining how these transitions have changed over three decades, this presentation then focuses on what future generations of young people will need to know and be able to do as they embark on their own post-school journey.

## Education and training outcomes

### Achievement at age 14

One of the distinguishing characteristics of the LSAY program is the collection of data on student achievement at the commencement of each cohort. The first LSAY cohort (YIT 1961) comprised young people who had participated in the Australian Studies in School Performance in 1975, which was the first national assessment of student achievement in Australia (Keeves & Bourke, 1976). The tests of reading comprehension and mathematics used in that assessment had been developed by ACER, with items from those initial assessments available for use in tests with subsequent cohorts. The availability of a common test has allowed the tests used with all cohorts from 1961 to 1983–84 to be equated

Program	Birth year	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
Youth in Transition	1961	14			17 18	19	20 21 22 23	24 25 26 27 28	29 30 31 32 33																											
	1965	10						16 17 18 19	20 21 22 23 24	25 26 27 28 29	30																									
	1970					10			15 16 17 18 19	20 21 22 23 24	25																									
	1975											14	15 16 17 18 19																							
Longitudinal Surveys of Australian Youth	1980–81																					14 15 16 17 18	19 20 21 22 23	24 25												
	1983–84																						14 15	16 17 18 19 20	21 22 23											
	1988–89																								15 16	17 18 19										
	1991–92																															15 16				

Notes: Each bar shows the ages at the beginning and end of each cohort. For the first two Youth in Transition cohorts (1961 and 1965), school achievement data were collected in 1975 at ages 14 and 10, respectively. For the 1970 YIT cohort, school achievement data were collected in 1980 at age 10.

Figure 1: Longitudinal youth cohorts 1975–2007

---

and placed on a single scale, allowing comparisons over time. The last two LSAY cohorts – those born in 1988–89 and 1991–92 – were assessed with the OECD PISA instruments, so they cannot be included in this comparison.

Rothman (2002) reported that in both literacy (reading comprehension) and numeracy (mathematics) there was no statistically significant change in mean scores between 14-year-olds in 1975 and 14-year-olds in 1998, although there was some fluctuation from cohort to cohort. There were some differences for subgroups of the cohorts, however, with the mean literacy score for males declining between 1975 and 1998 and the mean literacy score for females increasing over the same period. During that same period – which was also a period of increased immigration from countries where English is not the main language spoken – 14-year-olds with language backgrounds other than English improved in both literacy and numeracy. Furthermore, the gap in achievement by socioeconomic status (SES) decreased, with the achievement of lower-SES students remaining constant while higher-SES students' achievement decreased.

### **Completion (and non-completion) of Year 12**

Over the past 30 years, the proportion cohort members who remain at school to complete Year 12 has increased dramatically. Among members of the 1961 cohort, 35% had participated in Year 12; that proportion grew to 79% for the 1983–84 cohort, with the greatest increase occurring between 1984 and 1994, representing the cohorts born in 1965 and 1975 (Fullarton et al., 2003). This trend is reflected in the change in the apparent retention rate, presented annually in Schools, Australia (ABS catalogue no. 4221.0). Most of this increase in Year 12 completion occurred among young people from lower-SES families, those

attending schools in non-metropolitan areas, those attending government schools and those with lower achievement scores in literacy and numeracy.

Curtis and McMillan (2008) reported that 16% of the 1988–89 LSAY cohort had left school before completing Year 12. They found that the gender difference in non-completion had diminished over the LSAY cohorts, as had the difference by SES. What had changed, however, was which SES groups had experienced lower non-completion rates: young people whose parents were in low-skill white-collar occupations had experienced a slightly increased rate of non-completion in the mid-2000s compared to the 1990s.

### **Post-school education and training**

Between 1975 and the present, opportunities for post-school study have changed, and such change is reflected in participation in post-school study by members of the LSAY cohorts. Marks et al. (2000) noted that participation in higher education by age 19 had increased over the period, with 20% of the 1961 cohort at university and 38% of the 1975 cohort. The 1980–81 cohort was the first LSAY cohort to be based on year level at school, with all cohort members in Year 9 in 1995. Marks et al. (2000) found that only 31% of the cohort had enrolled at university in 1999, the first year after the completion of Year 12. McMillan (2005) analysed university attendance for the 1980–81 cohort and found that 37% had entered university by the end of 2000 – the second year after most had completed Year 12 – with an additional 3% entering during 2001, bringing the total to 40% of the cohort.

The more recent LSAY cohorts are too young to describe all of those who are participating in higher education. By

2005, 7% of the 1988–89 cohort were enrolled at university (Underwood, Hillman & Rothman, 2007); these cohort members had been in Year 11 when first contacted in 2003, while the majority of that cohort had been in Year 10.

The period has also seen many changes in the vocational education and training (VET) sector, with associated changes in participation by young people. The earlier years – those covered by the YIT cohorts – saw many changes in the VET sector, expanding it from a focused vocational skilling sector to one open to a wider range of students interested in education and training, expansion of apprenticeships and the introduction of traineeships. Long, Carpenter and Hayden (1999) documented the participation of the 1961, 1965, 1970 and 1975 YIT cohorts in post-school study. Non-apprenticeship TAFE participation by Year 12 completers was steady among the first three cohorts at around 15%; 19% of Year 12 completers in the 1975 cohort, however, entered non-apprenticeship TAFE by the age of 19. TAFE participation was more important for non-completers. In 1980, when the 1961 cohort was age 19, only 11% of school non-completers participated in TAFE. Participation doubled to 22% by 1994 among members of the 1975 cohort.

Participation in apprenticeships (including the newer traineeships) was steady over the period, with around 7% of Year 12 completers undertaking these contracts of training. Among non-completers, however, participation had increased from 24% among the 1961 cohort to 35% among the 1975 cohort.

Curtis (2008) noted that 42% of the 1980–81 LSAY cohort had undertaken a VET program by age 20, with 12% in an apprenticeship, 10% in a traineeship and 24% in non-apprenticeship TAFE. There was some overlap as some

---

young people had participated in more than one type of program. Apprenticeships and traineeships were extremely important for school non-completers, with around 40% undertaking this form of study.

## Social outcomes

### Satisfaction over the years

In the LSAY program, young people's life satisfaction or their happiness is measured using a set of items about different aspects of their lives. In some studies, these items are divided into two scales: satisfaction with their careers and satisfaction with their lives in general. The measure of career satisfaction includes happiness with their career prospects, their future, the money they receive and the work they do. The measure of general satisfaction includes respondents' ratings of their happiness with their lives at home, social lives, spare-time activities, standards of living, where they live, how they get along with others, their independence and their lives as a whole. In other studies, all items are considered together as an overall measure of satisfaction.

Young people's satisfaction or happiness has been found to relate to their education and training activities and their participation in the labour force. As students still at secondary school, those who were working in part-time or casual jobs reported higher levels of satisfaction with their lives than other students, particularly with regard to their social lives, their independence and the money they had each week (Robinson, 1999). Later on, among young adults, those who are fully occupied, either in study, work or some combination of the two activities, reported higher levels of satisfaction than those whose time was only partially taken up by education or labour force activities, and those who had no time allocated to these activities

(those who were unemployed or not in the labour force or education and training). These differences remained even after the results were adjusted for respondents' levels of satisfaction in previous years (Hillman & McMillan, 2005).

In other work, using data from the 1961, 1965, 1970 and 1975 cohorts, young women were found to be more satisfied with their lives than young men, particularly in terms of their relationships with other people, whereas young men were happier than young women with how the country was run and the state of the economy. Young people who were married were more satisfied than those who were in de facto relationships and those who were single, particularly in relation to their lives at home and their future. Interestingly, among the older cohorts, living with your parents at age 20 was associated with lower levels of satisfaction, while among those born in 1970 there was no relationship and for those born in 1975, living with your parents was associated with higher levels of satisfaction (Fleming & Marks, 1998).

### Social transitions – leaving home, getting married and buying a home

Using data from four of the older cohorts (those born in 1961, 1965, 1970 and 1975) the rates at which young people are leaving home were found to have been decreasing over the past decades. This trend was particularly apparent among young women, who were making the move to independent (or at least non-parental) living at much older ages than in previous cohorts. Young people from non-metropolitan areas were more likely to leave home at earlier ages than young people from metropolitan areas and this difference has increased over recent times. Young people from non-English speaking

backgrounds, in contrast, are less likely to leave home early.

Marriage among young adults (ages 20–25) has declined significantly over the past few decades, while the proportion of young people entering de facto relationships has increased over the same time. Coming from a non-metropolitan area increased the likelihood that a young person would marry by the age of 25, especially for young men, as did being employed. Young women who were studying were less likely to get married by age 25, and this relationship grew stronger across the cohorts, with the effect being greatest among young women born in 1975.

Like marriage, home ownership among young adults has decreased over time, with greater proportions of young people renting rather than buying their own home in their early 20s. Being married increased the likelihood of buying your own home by age 25, although there are signs that this relationship may be decreasing (possibly due to the decrease in marriage at this age). Not surprisingly, being employed also increased the likelihood of purchasing a house by age 25, although this influence also appears to be weakening.

## References

- Australian Bureau of Statistics (various years). *Schools, Australia*. Canberra: ABS. Catalogue no. 4221.0.
- Curtis, D. (2008). *VET pathways taken by school leavers*. LSAY Research Report no. 52. Camberwell: ACER.
- Curtis, D., & McMillan, J. (2008). *School non-completers: Profiles and initial destinations*. LSAY Research Report no. 54. Camberwell: ACER.
- Fleming, N., & Marks, G. (1998). *Well-being among young Australians: Effects of work and home life for four Australian Youth in Transition cohorts*. LSAY

- 
- Research Report no. 6. Camberwell: ACER.
- Fullarton, S., Walker, M., Ainley, J., & Hillman, K. (2003). *Patterns of participation in Year 12*. LSAY Research Report no. 33. Camberwell: ACER.
- Hillman, K. & McMillan, J. (2005). *Life satisfaction of young Australians: Relationships between further education, training and employment and general and career satisfaction*. LSAY Research Report no. 43. Camberwell: ACER.
- Keeves, J., & Bourke, S. (1976). *Australian studies in school performance. Volume 1. Literacy and numeracy in Australian schools: A first report*. ERDC Report No. 8. Canberra: AGPS.
- Long, M., Carpenter, P. & Hayden, M. (1999). *Participation in education and training 1980–1984*. LSAY Research Report no. 13. Camberwell: ACER.
- Marks, G., Fleming, N., Long, M. & McMillan, J. (2000). *Patterns of participation in Year 12 and higher education in Australia*. LSAY Research Report no. 17. Camberwell: ACER.
- McMillan, J. (2005). *Course change and attrition from higher education*. LSAY Research Report no. 39. Camberwell: ACER.
- Robinson, L. (1999). *The effects of part-time work on school students*. LSAY Research Report no. 9. Camberwell: ACER.
- Rothman, S. (2002). *Achievement in literacy and numeracy by Australian 14 year-olds, 1975–1998*. LSAY Research Report no. 29. Camberwell: ACER.
- Underwood, C., Hillman, K. & Rothman, S. (2007). *The 2003 LSAY cohort of 15 year-olds: 17 year-olds in 2005*. LSAY Cohort Report. Camberwell: ACER.