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YOUNG PEOPLE FROM LOW-SES FAMILIES AND PARTICIPATION IN HIGHER EDUCATION: EVIDENCE FROM FIVE AUSTRALIAN COHORTS

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In 1975, during a period when about one-third of young people stayed at school to complete senior secondary education, samples of ten-year-olds and fourteen-year-olds participated in the Australian Studies in School Performance, a programme designed to examine the extent of learning problems in Australian schools (Keeves & Bourke, 1976). Three years later, the Australian Council for Educational Research (ACER) contacted some 6 000 members of the older group, and the first of the *Youth in Transition* cohorts, comprising young people born in 1961, was established. Members of the younger group were contacted in 1981, and the second cohort—young people born in 1965—was established. A third cohort, comprising young people born in 1970 and contacted in 1985, was based on the ten-year-olds who had participated in the Australian Studies in Student Performance in 1980. In 1989, fourteen-year-olds (born in 1975) were recruited to a fourth *Youth in Transition* cohort. All of the young people in the first three cohorts were contacted annually until the age of 30; for the fourth cohort, age 27 (in 2002) was the last contact.

As the name implies, the main focus of the *Youth in Transition* studies was the transition made by young people, particularly the transition from school to work. In 1995, recognising the value of longitudinal studies such as *Youth in Transition*, the Commonwealth government contracted ACER to undertake a new programme, the *Longitudinal Surveys of Australian Youth* (LSAY). The programme incorporated all of the *Youth in Transition* data, as well as data from the *Australian Longitudinal Survey* and the *Australian Youth Survey* programmes, which had been conducted by the Commonwealth. A second LSAY cohort began in 1998. Both of the LSAY cohorts were based on young people in Year 9 at school. A third LSAY cohort, based on young people born in 1988, is beginning this year.

The four completed *Youth in Transition* studies and the three current *Longitudinal Surveys of Australian Youth* provide valuable data for helping to understand how young people navigate through their late teens and their early-to-late twenties. The studies encompass three decades—the 1980s, the 1990s and the 2000s—covering a period that has to date seen many changes in education, including tremendous growth in the school apparent retention rate and the concomitant growth in university attendance, amalgamation of the former colleges of advanced education with the universities, and the introduction of the Higher Education Contribution Scheme. As part of the initial data collection for these studies, participants responded to a variety of questions about themselves and their families, and they sat tests in reading comprehension and mathematics. Their responses provide data items about family background, including parents' education and occupation, family wealth and ethnicity; school achievement; and their attitudes and aspirations.

LSAY research has concentrated on pathways taken by young people and on relationships between outcomes and various background factors. Socioeconomic status (SES) has been one factor of interest, although there has been no consistent identification of SES across all reports, especially in light of the multidimensional nature of SES and components of occupation, education and wealth (Ainley et al., 1995). Of course, because these studies began before these young people entered the labour force, student SES is based on parent occupation and educational attainment. Two reports have examined participation in higher education among the *Youth in Transition* and LSAY cohorts, and they have identified SES in different ways. These reports form the basis of the present paper.

LOW-SES STUDENTS AND PARTICIPATION IN HIGHER EDUCATION

Long, Carpenter and Hayden (1999) examined participation in education and training by members of the four *Youth in Transition* cohorts when they were 19 years of age. Marks, Fleming, Long and McMillan (2000) added the first LSAY cohort—the Year 9 class of 1995—to the series, but concentrated on participation in year 12 and higher education only.¹ A briefing paper from the *Longitudinal Surveys of Australian Youth* program (LSAY, 2003) enhanced the Marks et al. (2000) data by including an additional post-school year for the 1995 Year 9 cohort. Summary data from these sources are presented in Table 1; they show that between the early 1980s and the mid-1990s, the proportion of young people participating in higher education nearly doubled, from around 20 per cent of the early cohorts to 38 per cent of the 1975 birth cohort. In 1999, 31 per cent of the Year 9 1995 cohort had entered higher education in the first year after secondary school; by 2000, another 7 per cent of the cohort entered higher education.

Table 1 Participation in higher education among LSAY cohorts

Cohort	Born in	Born in	Born in	Born in	Year 9 in 1995	
	1961	1965	1970	1975	1999	2000
Year participation measured	1980	1984	1989	1994	1999	2000
Full cohort	20%	19%	28%	38%	31%	38%
Low-SES students						
Parent manual occupation	14%	12%	20%	24%	22%	28%
Parent low education	18%	14%	24%	32%	n/a	n/a
Poorest 25% family wealth	16%	11%	20%	27%	n/a	n/a

Source: Columns 2-5 from Long et al. (1999), Tables 1, 7, 8 & 9; Column 6 from Marks et al. (2000), Table 5; Column 7 from LSAY (2003), pp. 3-4.

Notes: For the 1961, 1965, 1970 and 1975 cohorts, parent education was classified into four categories: post-secondary, completed secondary, some secondary and primary. 'Low education' in this table includes 'some secondary' and 'primary'. For the Year 9 1995 cohort, parent education was classified as 'higher education' and 'no higher education', and is not included here. Data on family wealth were not analysed for the Year 9 1995 cohort.

In 1980, around 20 per cent of young people enrolled in higher education by the age of 19, and around 16 per cent of low-SES young people were enrolled. Two decades later, 38 per cent of cohort members were in higher education, and 28 per cent of low-SES students. Regardless of which measure of SES Long et al. (1999) used, the proportion of low-SES students enrolled in higher education was lower than the proportion of students from higher SES classifications. Marks et al. (2000) used a single indicator of SES—parent occupation—and they, too, found that a lower proportion of low-SES students were enrolled in higher education.

In order to understand why low-SES students were enrolling in higher education at rates lower than those for other students, both groups of researchers examined relationships between participation and a number of background variables. Long et al. (1999) used multiple classification analysis to control for the influence of other variables, such as school achievement, on university participation. They adjusted the participation rates for all SES groups so that the influence of SES was isolated and other influences were controlled. Their results for parent occupation showed little change in the influence of SES on participation in higher education between 1980 and 1994. They also limited their samples to only those students enrolling in higher education after participating in Year 12, and still found differences by parent occupation group.

¹ For the 1995 Year 9 cohort, participation in higher education was considered for 1999 only, when the modal age of cohort members was 18.

... Participation in higher education increased for all categories of parental occupation between the early 1980s and the mid 1990s. The relative size of the influence of parental occupation was similar in the early and late 1980s and the mid 1990s, although it was substantially greater in the mid 1980s. Young people from the professional category were 2.7 times as likely as young people from the blue-collar categories to participate in higher education in the early 1980s, 3.6 times in the mid 1980s, and 2.6 times in the late 1980s and mid 1990s.

The selection processes which underlie these differences have changed substantially across that period -- a decline in the effect of parental occupation on Year 12 completion coupled with an increase in the effect of parental occupation on entry to higher education from Year 12. The net result, though, has been almost no change in the relative rates of participation in higher education participation of young people with parents in blue-collar occupations.

... There is still a 10 percentage point gap between the higher education participation rates of young people from professional and white-collar homes and young people from blue-collar homes. Young people with parents in professional and white-collar occupations are about a third more likely than otherwise similar young people with parents in blue-collar occupations to attend university -- a difference in participation attributable solely to differences in parental occupation. (Long et al., 1999, p. 61)

Over the period studied, low-SES students improved in their Year 12 completion rates but not in their Year 12-to-university rates, resulting in no change in their overall rate of participation in higher education.

Marks et al. (2000) added the 1995 Year 9 cohort to the series and used logistic regression to determine influences on enrolment in higher education and odds ratios to compare changes over time. This analysis suggested that young people from low SES families—with parents working in skilled, semi-skilled and unskilled manual occupations—were increasing their participation in higher education at higher rates than young people from all other SES groups; in other words, that the gap between low-SES young people and all other young people was narrowing.

The odds of students from professional backgrounds participating in higher education (relative to not participating) are substantially greater than the corresponding odds for students from manual backgrounds. This effect appears to be declining since the mid-1980s. For the 1965 cohort the professional/manual background odds ratio was 3.5, 3.2 for the 1970 cohort, and 2.8 for the 1975 cohort. In the youngest cohort the odds ratio had declined to 2.1, an odds ratio almost comparable with that for gender.

The effects of a managerial or clerical occupational background (relative to a manual background) on participation in higher education are significant but weaker than the effects for professional background, and show no clear trends in their relative impact. (Marks et al., 2000)

Young people with parents in the professional occupation group had the highest participation rates in all years, albeit with a decrease between 1994 and 2000. Young people with parents in the managerial group had rates similar to those for clerical/sales/personal service groups. Young people from the three manual occupation groups (skilled, semi-skilled and unskilled) also increased their participation over the years (see Figure 1). Between 1980 and 2000, the gap increased slightly between the participation rates for the professional group and the combined manual groups, from 23 percentage points to 25 percentage points.

Regardless of whether the effect of SES on participation in higher education is diminishing, gaps remain according to SES. The LSAY research has shown that low-SES students have lower scores on tests of school achievement, they are less likely to remain at school until Year 12 (and they are more likely to leave school early—before Year 11), they are more likely to undertake vocational education and training subjects while at school, they are less likely to study science and mathematics subjects in Year 12 (Fullarton, Walker, Ainley & Hillman, 2003), and they are less likely to attend university, even after having completed Year 12. A

low-SES family background is associated with lower participation in higher education, even after these other factors are considered.

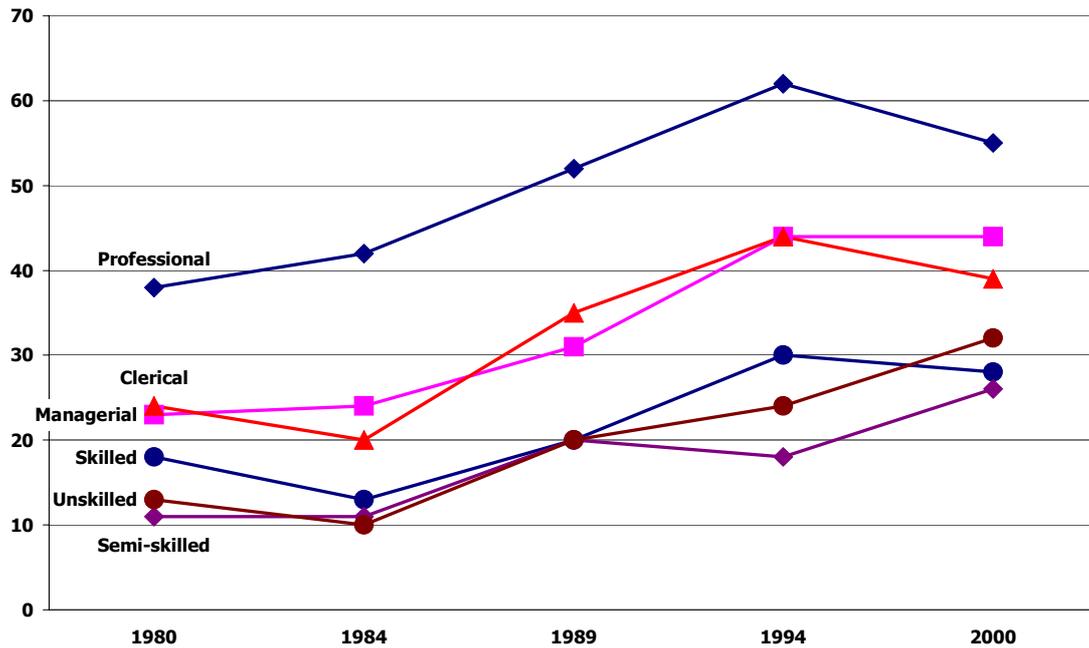


Figure 1 Participation in higher education by parent occupation group, 1980-2000

WHICH LOW-SES STUDENTS ENTER HIGHER EDUCATION?

Even with a lower likelihood than other young people of entering higher education, young people from low-SES families do participate in higher education. LSAY research has allowed the examination of factors relating to prior achievement, attitudes and aspirations and their relationship with entering university. These factors include achievement on tests of reading comprehension and mathematics; students' self-concept; young people's perceptions of the quality of their lives in school (Williams & Batten, 1981); homework completion; participation in the labour force while at school; and ethnic background.

All *Youth in Transition* and LSAY cohorts were given tests in reading comprehension and mathematics as part of the first point of contact. Among all members of these five cohorts, achievement in school, as measured during Year 9, was positively associated with participation in higher education (Marks et al., 2000). Similarly for young people from low-SES families in the 1995 Year 9 cohort, those who were participating in higher education in 1999 or 2000 had higher achievement scores. In reading comprehension, the difference was about one-half of a standard deviation; in mathematics, the difference was about three-quarters of a standard deviation. Among university students, lower-SES students had lower achievement scores than students from all other SES groups (see Table 2). Higher education participants also had higher self-concepts about their achievement than those who did not participate in higher education.

The *Quality of School Life* (QSL) scales comprise six separate subscales (Williams & Batten, 1981). Other LSAY research has shown relationships between academic achievement and some subscales of this inventory (Rothman & McMillan, in press). The low-SES university students in the 1995 Year 9 cohort had slightly lower scores than other university students on each QSL subscale except the Opportunity subscale, which contains questions such as 'My school is a place where the things I learn are important to me', 'My school is a place where I

have acquired skills that will be of use to me when I leave school' and 'My school is a place where I am given the chance to do work that really interests me'. For both low-SES and all other SES groups, young people participating in higher education scored higher on all subscales than those young people who did not participate.

Table 2 Year 9 achievement by SES group and participation in higher education, LSAY 1995 Year 9 cohort

SES group	Education participation	Reading comprehension	Mathematics
Low-SES	Higher education	52.4	52.3
	No higher education	47.0	46.3
Other SES groups	Higher education	54.6	55.2
	No higher education	48.4	48.4

Source: Unpublished LSAY data.

Notes: Test scores were scaled to have a mean of 50 and a standard deviation of 10.

Not only were young people from low-SES families bound for higher education more positive than non-participants about their schools and the opportunities they provided, they were also more likely to complete their homework when it was set and more likely to do extra work, and they spent more time each week on their homework. Low-SES university participants were also more likely than university participants from other SES groups to complete their homework, and they spent more time on their homework each week.

Young people from low-SES families in the 1995 Year 9 cohort who were participating in higher education in 1999 or 2000 also reported watching less television during the week and on weekends while at school, compared to those who did not participate in higher education. They also were more likely to visit art galleries or museums, participate in sport (rather than watch it), go to the library and read books, magazines and newspapers. Those who enrolled in university were also less likely than others to be in the labour force while in Year 9 or Year 12.

Low-SES young people were more likely to participate in higher education if they were from non-English-speaking backgrounds. If they were born overseas or if their parents were born overseas, they were more likely to attend university than their Australian-born counterparts. Those who spoke only English at home were less likely to attend university, and those who spoke an Asian language or a non-European language were more likely to attend university than those who spoke English or a European language. The 1995 Year 9 cohort had very few Indigenous Australians who attended university, so it is not possible to include them in the present analysis.

FURTHER RESEARCH

For twenty years, the *Youth in Transition* and *Longitudinal Surveys of Australian Youth* programmes have provided data on young people making the transition from school to work, further education and training, and adulthood. There have been two main directions for the analysis of data: the pathways taken by some groups of young people and comparisons with pathways taken by others, and modelling to determine relationships between background characteristics and various outcomes. One project currently underway is examining pathways through higher education for the 1995 Year 9 cohort, concentrating on course transfer and attrition. Preliminary results from this research show that young people whose parents did not participate in higher education are more likely than others to remain in the course in which they first enrol, when they do enrol. Young people whose parents did participate are more likely to change—perhaps because they do not first enrol in their preferred course and their parents are able to help them navigate into and through the system. In addition, young people

who had attended non-government, non-Catholic schools are also more likely to change course (McMillan, 2002).

This research has also noted that young people in more generalist courses—Arts and Science—are more likely than those in specialist courses to transfer or leave. To date, the role of socio-demographic factors in this process has not been considered; however, it may be possible to determine how young people from low-SES families are affected by these findings. If, for example, low-SES university students are more likely to enrol in generalist courses, then they also have a somewhat lower likelihood of completing their degrees. Vickers, Lamb and Hinkley (2003) examined the influence of part-time work on a student's likelihood of dropping out of university. They found that the course studied, language background and more than 20 hours of part-time work per week were related to dropping out of university. Young people receiving youth allowance were also more likely to drop out. Only young people in the highest SES quartile group were 'protected' from dropping out.

The positive aspect of the patterns of participation is that these more young people from low-SES families are participating in higher education, and they remain in their courses, at least up to the third year. Other research currently in progress in the LSAY programme is tracing pathways through other forms of post-secondary school study: participation in non-apprenticeship TAFE, apprenticeships and traineeships, and other forms of study. Once completed, a full picture will be available for the 1995 Year 9 cohort's participation in all tertiary education, and it will offer an opportunity to compare post-secondary-school pathways for young people from low-SES families.

The research already completed on these cohorts shows changes over time. Since 1980, when the first of the *Youth in Transition* cohorts turned 19 years old, the higher education sector has seen many changes in funding and programmes to increase participation. Participation in higher education has increased dramatically among young people from low-SES families, but it is not yet on a par with the participation by young people from other SES groups. During this time, however, there have also been changes in the studies undertaken by all higher education participants. LSAY will continue to trace the types of study undertaken and the outcomes of those studies. The value of longitudinal research is the opportunity to follow young people over time, to understand the effects of background, pathways, choices, earlier outcomes and policy changes on 'final' outcomes. LSAY will be able to offer evidence on the value of higher education participation and completion for young people from low-SES families and the relative value of each pathway, by examining the types of employment they gain after completing their studies and the length of time it takes to obtain stable employment. The multivariate techniques used in the analysis of LSAY data allow understanding of how different factors work separately and together to influence outcomes, providing valuable information on the relative strength of each factor.

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REFERENCES

- Ainley, J., Graetz, B., Long, M., and Batten, M. (1995) *Socioeconomic status and school education*. Canberra: AGPS.
- Fullarton, S., Walker, M., Ainley, J., and Hillman, K. (2003) *Patterns of participation in year 12*. LSAY research report no. 33. Melbourne: ACER.
- Keeves, J.P., and Bourke, S.F. (1976) *Australian studies in school performance. Volume I: Literacy and numeracy in Australian schools: a first report*. ERDC report no. 8. Canberra: AGPS.
- Long, M., Carpenter, P., and Hayden, M. (1999) *Participation in education and training 1980-1994*. LSAY research report no. 13. Melbourne: ACER.
- Longitudinal Surveys of Australian Youth (2003) *Entering higher education in Australia*. LSAY briefing no. 6. Melbourne: ACER.
- Marks, G.N., Fleming, N., Long, M., and McMillan, J. (2000). *Patterns of participation in year 12 and higher education in Australia: trends and issues*. LSAY research report no. 17. Melbourne: ACER.
- McMillan, J. (2002) *Higher education pathways: entry, course change and attrition*. Paper presented at the annual meeting of the Australian Association for Research in Education, Brisbane.
- Rothman, S., and McMillan, J. (in press) *Influences on achievement in literacy and numeracy*. LSAY research report. Melbourne: ACER.
- Vickers, M., Lamb, S., and Hinkley, J. (2003) *Student workers in high school and beyond: the effects of part-time employment on participation in education, training and work*. LSAY research report no. 30. Melbourne: ACER.
- Williams, T., and Batten, M. (1981) *The quality of school life*. ACER research monograph no. 12. Melbourne: ACER.