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# The initial work and education experiences of early school leavers: a comparative study of Australia and the United States

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# Longitudinal Surveys of Australian Youth

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**Research Report Number 14**

**THE INITIAL WORK AND EDUCATION EXPERIENCES  
OF EARLY SCHOOL LEAVERS:  
A COMPARATIVE STUDY OF AUSTRALIA AND THE  
UNITED STATES**

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a research program that is financially supported by the  
Commonwealth Department of Education, Training and Youth Affairs.

The views expressed in this report are those of the authors and not necessarily of the  
Commonwealth Department of Education, Training and Youth Affairs.

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## EXECUTIVE SUMMARY

It is widely recognised that early school leavers experience difficulty in making the transition from school to productive activities in adulthood, particularly post-school education, training and employment. This study examines the experiences of early leavers from the United States and Australia in the first two years beyond high school.

Unlike most studies of early school leavers, an early leaver is defined in the current report as any student who ever dropped out of school. By defining early leavers in this way, it is possible to examine not only which students leave school early, but which ones ultimately return and complete school through various alternative means. In the United States, at least, a high proportion of early leavers ultimately complete secondary school.

The analysis is based on comparable longitudinal surveys. The United States data were drawn from the *National Education Longitudinal Study* (NELS) of 1988, a longitudinal survey of 25,000 Year 8 students in the United States. Australian data used in the study were from the 1975 cohort of the *Youth in Transition* (YIT) surveys, with over 70 per cent of the sample of 6,500 students in Year 8 in 1988.

The results show that similar percentages of students left school early in the United States and Australia — 21 per cent in the United States and 22 per cent in Australia. And in both countries, early school leaving rates were substantially higher for students from lower socioeconomic backgrounds, for students attending public or government schools, and for students with low achievement levels. It would seem that the social and school-based factors influencing the rates of early leaving are similar in both the United States and Australia.

But there were substantial differences between the two countries in when early leavers left school and, more importantly, whether they eventually finished school. In Australia, about half of all early leavers left school at Year 10 and most of the rest left at Year 11. In the United States, the majority of leavers left in Years 11 and 12, with only about one-third leaving in Year 10 or earlier.

There are major differences in later completion of school. Almost half of early leavers in the United States had completed high school within two years of normal high school graduation, most by acquiring a General Educational Development credential, which is recognised by most employers and post-secondary institutions as equivalent to a high school diploma. In contrast, fewer than 10 per cent of early leavers in Australia complete secondary school.

A reason for differences in rates of completion is the difference in post-school education and training opportunities. Australian early leavers had more opportunities to pursue post-school education and training than their United States counterparts. In the United States, nine out of ten early leavers who never completed high school had not participated in any post-school education or training during the first two years after high school. In Australia, about two in three male early leavers had participated in post-school education or training. For most, this was in apprenticeships or other vocational education and training programs. The situation for females was slightly different, with only about one in three female early leavers in Australia participating in

any formal post-school education or training program. The rate was still more than five times that of females in the United States.

In terms of getting jobs, in both countries early leavers had more difficulty in securing productive employment than those who completed Year 12. But the disparities were greater in the United States than in Australia. Two years after high school graduation, 45 per cent of all early school leavers in the United States who did not complete high school were not working at any job or enrolled in post-school education and training, compared to only 8 per cent for students who had graduated from high school. In Australia, only 17 per cent of early leavers who did not complete secondary school were not working or enrolled in post-school education or training, compared to 5 per cent for those who had completed Year 12.

In relation to employment, there was an examination of the quality of jobs held by young workers in full-time jobs. Here the results show some similarities between the United States and Australia. Differences between early leavers and graduates were relatively small, but differences between males and females remained large. In both countries, young workers who completed school were more likely to be employed in white collar occupations whereas early leavers were more likely to be employed in skilled trades and labouring jobs. But the differences were not substantial. Therefore, it is not surprising that earnings were fairly even among groups, given that wages at ages 19 and 20 are subject to training and youth-wage awards.

# **The Initial Work and Education Experiences of Early School Leavers: A Comparative Study of Australia and the United States**

## **1**

### **Introduction**

There is widespread interest among all industrialised countries in improving the transition from school to working life for young people (OECD, 1996). Because the majority of young people in most industrialised countries now complete secondary school, this interest has focused particularly on the transition from secondary school to post-school work and education. And as the rate of completion has grown, so too has concern over that group of young people who fail to complete school. It is widely recognised that early school leavers, or high school dropouts as they are termed in the United States, experience the most difficulty in making the transition from school to productive activities in adulthood – post-school education, training and employment.

This report examines the experiences of early school leavers from the United States and Australia in the first two years beyond high school. It begins by examining who leaves school before Year 12. Unlike most studies of early leavers, for this report an early leaver is defined as any student who ever dropped out of school. By defining early leavers in this way, it is possible to examine not only which students leave school early, but which ones ultimately return and complete school through various alternative means. In the United States, at least, a high proportion of early leavers ultimately complete secondary school. The report goes on to compare the post-school education, training and employment experiences of early leavers who later complete high school with those who do not complete, as well as with Year 12 graduates. The analysis reveals substantial differences in the post-school education and employment experiences of these three groups, with early leavers who do not complete Year 12 experiencing much longer periods in which they are neither employed nor in post-school education or training.

### **Data and Methods**

The analysis is based on comparable longitudinal surveys. The United States data were drawn from the *National Education Longitudinal Study* (NELS), a longitudinal survey of 25,000 Year 8 students in the United States begun in 1988 that was designed to provide policy-relevant information on young people's education, training and transition to adulthood (Carroll, 1996). NELS base-year data were collected in 1988 and follow-up data were collected on a subset of base-year respondents in 1990, 1992 and 1994, two years after normal high school completion. Follow-up students were tracked whether they remained in school or left school early, as long as they continued to reside in the United States. A total of 13,120 students were interviewed in all four survey years. Sample weights were imputed for members of this panel in order to provide an accurate population estimate of the population of the approximately 3 million Year 8 students in 1988.

Australian data used in the study were from the 1975 cohort of the *Youth in Transition* (YIT) surveys, which are national longitudinal surveys of 10- and 14-year-olds conducted by the Australian Council for Educational Research. *Youth in Transition*

includes four nationally representative cohorts of young people. Each cohort had an initial sample size of over 5,500 respondents. The cohorts were born in 1961, 1965, 1970 and 1975. The YIT project studies the transitions between school, post-school education and training, and work. Information on the 1975 cohort was collected in annual surveys commencing in 1989. The original sample was selected using a stratified cluster sample design. Sample weights have been calculated to adjust for sampling design and for sample attrition.

The longitudinal surveys are comparable in terms of respondents' level of schooling and their major points of transition from school. While the sample for the Australian data is an age-based cohort rather than a year level-based cohort, as in the United States case, approximately 70 per cent of the Australian students were in the same year-level as their United States counterparts at commencement of NELS — Year 8 in 1988. The modal year of graduation from Year 12 for both samples was 1992.

Two major types of variables were used in this study. First, both surveys identified students who had ever left school before Year 12. In NELS, students were identified as early leavers both from survey responses (1990 and 1992) and from school records during the non-survey years (1989 and 1991) as students were tracked by survey administrators. Because this tracking was done only at certain intervals, however, it probably understates the number of students who actually left school sometime between Year 8 and Year 12. In YIT, early leavers were identified from annual survey responses (1989 – 1994).

The second type of variables used in this study is related to education and labour market experiences between the end of Year 12 and the 1994 survey interview. In the case of NELS, the final interview took place between February and August. Because most students completed secondary school in June 1992, this represents about a two year interval since school completion. And because most students in the United States complete school when they are 18 years old, the average age of respondents at the time of the interview was 20.3 years. In the case of YIT, the 1994 survey took place in December, but the information collected on current activities was referenced to October of that year. Most students in the YIT sample completed secondary school in November 1992, representing roughly a two year period to the survey period in 1994.

Secondary school completion status and post-school enrolment status were taken as of the 1994 interview date for NELS and as of October 1994 for YIT. But in order to examine the same period of post-school activity, post-secondary education and employment activities were measured as of February 1994 (18 months after the modal high school completion) for the United States data, and as of October 1994 (20 months after the modal high school completion) for the Australian data. In addition, durations of activity were measured by examining post-school education and employment activities for the entire 18 month period from July 1992 to February 1994 in NELS and for the entire 20 month period from January 1993 to October 1994 in YIT.

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## 2

### **Pathways to High School Completion**

Focus on the transition from high school to work and further education in some studies takes as the starting point the time when students leave secondary school either as graduates or early leavers. This focus assumes that once a student leaves school early, they remain a non-completer or early leaver. Alternatively, studies of labour market outcomes of early school leavers often differentiate between students who have completed Year 12 and those who have not at the time labour market outcomes are measured. Both of these approaches fail to differentiate between early school leavers who may eventually complete a Year 12 certificate and those who do not.

The reason for making this distinction is that, in the United States at least, there is a growing body of research evidence that shows (1) a much larger percentage of students leave school early than is revealed by measures of educational status reported in official government statistics, and (2) a substantial proportion of early school leavers eventually complete secondary school, either by earning a regular high school diploma or by earning a high school equivalency certificate that is recognised as the equivalent to a regular diploma by employers and further education and training institutions. For example, a study of a national cohort of young men who were 14 to 21 years of age, in 1979, found that 37 per cent had left high school for at least a 3 month period although by 1990, when the young men were 25 to 32 years old, only 14 per cent were classified as early school leavers (Klerman & Karoly, 1994). In other words, more than 60 per cent of the early leavers eventually completed high school. Other studies, too, have shown that a substantial proportion of early leavers eventually complete high school (Kolstad & Kaufman, 1989).

Data from the present study support these earlier studies. In the United States, 21 per cent of young adults left school early, some time after Year 8 (Table 1). This rate is twice as large as the government-reported early leaving rate of 11.5 per cent among 16 to 24 year olds in the United States in 1994 (McMillen & Kaufman, 1997), although it is smaller than the rate reported above for an earlier cohort of young men.

The 21 per cent rate for the United States is remarkably similar to the rate of 22 per cent for Australia (Table 2), though this has not always been so. While early school leaving rates in the United States have fluctuated over time, they have been relatively stable over the last two decades (McMillen & Kaufman, 1997). In Australia, however, the rates have fallen sharply since the early 1980s (Lamb, 1994). In 1982, over 60 per cent of young people left school before Year 12. The rates fell sharply during the 1980s and reached a low of 22 per cent in 1992.

**Table 1 Percentage of early school leavers, by gender and selected background characteristics, 1994: US 1988 Year 8 students**

Characteristic	Males	Females	Total	Maximum Margin of Error*
Overall	22	20	21	± 2
<i>Family Socioeconomic quartile</i>				
Highest	8	6	7	± 2
Upper middle	17	15	16	± 3
Lower middle	23	21	22	± 4
Lowest	40	38	39	± 4
<i>Parents' education</i>				
Four years of college or more	9	6	8	± 2
Some postsecondary	21	21	21	± 4
High school or less	34	31	32	± 4
<i>Ethnicity</i>				
Asian	10	11	10	± 4
Black	29	30	32	± 6
Hispanic	34	29	30	± 5
Non-Hispanic White	18	17	18	± 2
Native American	50	36	43	± 19
<i>School location in Year 8</i>				
Urban	28	21	25	± 4
Suburban	18	19	19	± 3
Rural	21	21	21	± 3
<i>School type in Year 8</i>				
Government	23	22	23	± 2
Catholic	7	11	9	± 3
Non-Catholic private	11	4	8	± 3
<i>School achievement quartiles in Year 8</i>				
Highest	7	4	5	± 2
Upper middle	15	13	14	± 3
Lower middle	22	24	23	± 3
Lowest	40	45	42	± 4

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 2 Percentage of early school leavers, by gender and selected background characteristics, 1994: Australia**

Characteristic	Males	Females	Total	Margin of error*
Overall	27	18	22	±2
<i>Family socioeconomic status</i>				
Highest	15	10	12	±4
Upper middle	22	12	16	±3
Lower middle	32	20	25	±5
Lowest	39	28	32	±5
<i>Parents' education</i>				
Postsecondary	9	6	8	±4
Secondary or below	31	20	25	±3
<i>Ethnicity</i>				
Australian-born	27	19	22	±2
Other-English-speaking	32	12	21	±8
Non-English-speaking	11	9	10	±5
<i>Residential location</i>				
Urban	22	14	17	±3
Rural	37	24	29	±4
<i>School type</i>				
Government	34	23	28	±3
Catholic	13	11	12	±4
Non-Catholic private	7	5	6	±4
<i>Early school achievement</i>				
Highest	10	5	8	±4
Upper middle	19	14	16	±5
Average	33	19	24	±5
Lower middle	39	28	32	±5
Lowest	59	31	44	±6

\* The range above and below the reported figure representing the 90 per cent confidence interval adjusting for design effects of the *Youth in Transition* data due to cluster sampling.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).



## **BACKGROUND DIFFERENCES**

### **Gender**

Rates of early school leaving in both countries vary widely among social groups. In Australia, males had substantially higher rates than females, while in the United States rates were very similar between males and females. In Australia, the gap between males and females reflects, in part, differences in labour market opportunities available to teenage males and females (Lamb, 1994). Teenage girls have been more severely affected by the long term changes in Australian industry structure which have reduced full-time work opportunities in areas traditionally pursued by early school leavers (such as in finance, property and business service industries and in manufacturing). Largely excluded from the main single source of full-time employment for young people — apprenticeships — and more at risk of unemployment, girls have been completing Year 12 in greater numbers.

### **Socioeconomic Status**

Social class has a strong influence on the rates of early school leaving in the United States and Australia. In both countries the rates were lowest for students from higher status families (as measured by family SES and parental education) and highest for students from lower status families.

### **Ethnicity**

Early leaver rates also varied widely by ethnicity. In the United States, the rates were lowest for Asian and non-Hispanic Whites and highest for Black, Hispanics, and Native Americans. In Australia the rates were lowest for young people from non-English speaking backgrounds and highest for those whose parents were born in Australia. Similarly, having parents born in Canada, USA, England or another English-speaking nation was associated with a higher rate of early leaving than if parents were born in a non-English speaking country. These findings for Australia are in line with research which has shown that even though the average educational attainment of parents in non-English speaking families is lower than for parents from English-speaking backgrounds, they have higher educational aspirations for their children and place a premium on completing secondary school as a form of enhancing their children's future education and work prospects (Miller & Volker, 1987).

### **Rural or Urban Place of Residence**

The rates of early school leaving also varied according to where young people live — urban, suburban or rural areas — but more so in Australia than in the United States. In the United States, female rates did not vary greatly by these areas, but male rates were notably higher in urban areas than in suburban or rural areas. In Australia, males and females living in rural areas had much higher early leaving rates than their counterparts in urban areas. Other work shows that some of this gap is due to SES differences in the populations living in rural and urban areas, so, when other background characteristics are held constant, the gap in early leaving rates between rural and urban areas narrows (Lamb, 1994; Miller & Volker, 1987). However, rural place of residence is still associated with higher rates of early leaving.

### **Type of School Attended**

In both the United States and Australia, rates of early school leaving were higher for students attending government schools than for students attending Catholic or other private schools. But it should be pointed out that the social class composition of private schools is substantially different to that of government schools, so differences among schools partly reflect differences in the characteristics of students (Witte, 1992; Anderson, 1992). It should also be noted in comparing the rates that the proportions of young people in private and government schools vary considerably between the two countries. In the Australian sample, 67 per cent of students attended government schools, 21 per cent attended Catholic schools and 12 per cent attended non-Catholic private schools. In total in the United States, private schools account for only about 10 per cent of students. The gaps in early leaving rates between government and private schools are larger in Australia than in the United States, at least for males.

### **Early School Achievement**

Finally, rates of early leaving vary by school achievement. In both countries, low-achieving students leave school early at much higher rates than high-achieving students. The patterns are very similar with rates of early leaving increasing as we descend the achievement scale.

Overall, these findings on the background characteristics of early leavers are consistent with a variety of research on causes or predictors of early leaving (Rumberger, 1987; Lamb, 1994; Anderson, 1992).

### *Years of schooling*

There are other features of early leaving which are worth examining. One is how much schooling early leavers completed before they left school. In the United States, 10 per cent of early leavers left during Year 9, 24 per cent left during Year 10, 26 per cent left during Year 11, and 35 per cent left during Year 12 (Table 3). There were not substantial differences between males and females.

By comparison, Australian early leavers are more likely to leave school in Year 10 (Table 4). Over half of Australian early leavers exited school at or before this year-level. Roughly 40 per cent left in Year 11 and relatively few left during Year 12. Therefore, even though the broad rate is roughly the same in the United States and Australia, early leavers in Australia are likely to complete less schooling.

**Table 3 Last year-level attended of students who ever left school early, by gender, 1994: US 1988 Year 8 students (%)**

Year level	Males	Females	Total
Year 9	10	10	10
Year 10	23	24	24
Year 11	26	26	26
Year 12	35	36	35
No grading system in school	6	4	5
Total	100	100	100
Maximum margin of error*	± 5	± 5	± 3
Unweighted sample size	1,076	1,089	2,165

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 4 Highest year-level attended of 19 year-olds who ever left school early, by gender, 1994: Australia (%)**

Year level	Males	Females	Total
Year 8	1	0	1
Year 9	5	7	6
Year 10	46	51	48
Year 11	45	37	41
Year 12	3	6	4
Total	100	100	100
Maximum margin of error*	±8	±8	±5
Unweighted sample size	362	337	699

\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

*Later completion of school among early leavers*

Another important issue is how many early leavers eventually complete high school. In the United States, 44 per cent of all early leavers had completed high school by 1994, two years after normal high school graduation (Table 5). The majority of those had obtained a high school equivalency certificate rather than a regular high school diploma. The most common form of high school equivalency is obtained by obtaining a passing score on the Test of General Educational Development (GED), which is a national examination developed and administered by the GED Testing Service, a program of the American Council on Education's Center for Adult Learning and Educational Credentials (GED Testing Service, 1997). Another 24 per cent said they were enrolled in school or an alternative program that would prepare them to obtain a diploma or equivalent certificate. For the overall cohort, 88 per cent had completed high school by 1994. Thus by 1994, only 12 per cent of the cohort had not completed high school even though 21 per cent of the cohort had dropped out of school at some point in their secondary school career. The difference in these two figures reveals how measures of educational status are unable to identify students who have ever left or dropped out of high school. The analysis below illustrates why this distinction is important.

**Table 5 High school completion status, by early school leaving status and gender: US 1988 Year 8 students in 1994 (%)**

	Ever left school early			Overall		
	Males	Females	Total	Males	Females	Total
<b>Completed high school</b>	<b>45</b>	<b>43</b>	<b>44</b>	<b>88</b>	<b>88</b>	<b>88</b>
Received high school diploma	13	18	16	81	83	82
Received GED or certificate	32	25	28	7	5	6
<b>Currently enrolled in school</b>	<b>23</b>	<b>25</b>	<b>24</b>	<b>5</b>	<b>5</b>	<b>5</b>
Enrolled in high school	1	1	1	0	0	0
Enrolled in alternative program	22	24	23	5	5	5
<b>Did not complete, not currently enrolled</b>	<b>33</b>	<b>32</b>	<b>32</b>	<b>7</b>	<b>7</b>	<b>7</b>
Total	100	100	100	100	100	100
Maximum margin of error*	± 7	± 7	± 5	± 2	± 2	± 1
Unweighted sample size	479	481	960	6,365	6,755	13,120

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 6 High school completion status, by early school leaving status and gender: Australia (%)**

	Ever left school early			All		
	Males	Females	Total	Males	Females	Total
<b>Completed high school</b>	<b>7</b>	<b>10</b>	<b>8</b>	<b>75</b>	<b>84</b>	<b>80</b>
<b>Did not complete high school</b>	<b>93</b>	<b>90</b>	<b>92</b>	<b>25</b>	<b>16</b>	<b>20</b>
Total	100	100	100	100	100	100
Maximum margin of error*	±8	±8	±5	±4	±4	±3
Unweighted sample size	362	337	699	1,324	1,889	3,213

\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

By United States standards, the rate of high school completion among early leavers in Australia is very small (Table 6). Only 8 per cent of early leavers (2 per cent of the total sample) in Australia later completed Year 12. For those who do complete a Year 12 certificate, about 40 per cent did so by returning to school, while the remaining group completed their Year 12 schooling at a Technical and Further Education (TAFE) college. However, the low rate of high school completion for early leavers in Australia in part reflects a different range of post-school opportunities, which will be examined in the next section. Many early leavers in Australia enter TAFE courses (including apprenticeships, traineeships, and other certificate courses) which do not require a Year 12 certificate for entry. These forms of training and further education could well be viewed as providing a senior school certificate equivalent. Therefore, the difference between the United States and Australia in the rate of high school completion among early leavers may not represent as large a gap as it at first appears.

### 3

## Opportunities for Post-school Education and Training

Year 12 completion is required for entrance to some colleges and most universities, therefore, early school leavers have more limited opportunities to further their education and training beyond high school. That puts them at a competitive disadvantage in the labour market, especially as the skill and educational requirements of many jobs increase over time.

In the United States, young people in the 1994 NELS survey were asked whether they were currently working on any post-school certificates or degrees or, if they were not, whether they had already completed any degrees or certificates. The extent of participation in post-school education and training varied widely between high school graduates and early school leavers. More than three-quarters of students who graduated from high school were either working toward or had already completed some form of post-secondary education and training by 1994 (Table 7). In contrast, less than 10 per cent of early school leavers who never completed high school had participated in post-secondary education and training. Early school leavers who did complete high school were more likely than non-completers to participate in post-secondary education and training, although they were much less likely to do so than those who never dropped out. These patterns did not vary widely between males and females, although female early leavers who never completed high school were less likely than male early leavers who never completed high school to participate in post-secondary education.

The Australian data also reveal differences in patterns of transition to post-school education and training. Young people in the YIT survey were asked about their current education and training activities and about qualifications they had completed (Table 8). The figures cover participation in education and training at any time to age 19. This means that the figures can add to greater than 100 as young people may have participated in more than one program. The results in Table 8 show that roughly one-half of the males who never dropped out had participated in university by the age of 19. The rate was even higher for girls who never dropped out - 54 per cent - a rate which in view of higher completion rates among females reveals a substantial gender gap in rates of entry to higher education. None of the early leavers who did not complete high school had entered university by age 19.

However, while early school leavers do not enter university they do gain access to other forms of post-school education and training. A relatively large proportion of male early leavers (43 per cent) obtained an apprenticeship. In Australia, entry to apprenticeships has increasingly shifted from Year 10 and Year 11 to Year 12 as early school leaving rates have fallen. Despite this, apprenticeships remain a very important source of employment and training for the smaller pool of male early leavers. As a source of training they have remained male dominated, with relatively few female early leavers obtaining an apprenticeship (13 per cent).

**Table 7 Participation in post-school education and training, by early school leaving and completion status and gender, 1994: US 1988 Year 8 students (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed	Left early, did not complete	
<i>Both sexes</i>				
<b>No post-school education or training</b>	<b>24</b>	<b>65</b>	<b>91</b>	<b>36</b>
<b>Currently working toward:</b>	<b>61</b>	<b>21</b>	<b>5</b>	<b>51</b>
License or certificate	3	4	3	3
Associate's degree	18	13	1	16
Bachelor's degree	40	4	1	32
<b>Completed:</b>	<b>15</b>	<b>14</b>	<b>4</b>	<b>13</b>
License or certificate	6	7	1	5
Associate's degree	0	0	0	0
Some post-school education	9	7	3	8
<i>Males</i>				
<b>No post-school education or training</b>	<b>27</b>	<b>66</b>	<b>88</b>	<b>38</b>
<b>Currently working toward:</b>	<b>56</b>	<b>21</b>	<b>7</b>	<b>47</b>
License or certificate	2	3	5	3
Associate's degree	17	13	1	14
Bachelor's degree	37	5	1	30
<b>Completed:</b>	<b>16</b>	<b>13</b>	<b>5</b>	<b>15</b>
License or certificate	9	6	3	8
Associate's degree	6	7	2	6
Some post-school education	1	0	0	1
<i>Females</i>				
<b>No post-school education or training</b>	<b>21</b>	<b>63</b>	<b>94</b>	<b>33</b>
<b>Currently working toward:</b>	<b>65</b>	<b>22</b>	<b>2</b>	<b>54</b>
License or certificate	3	5	2	3
Associate's degree	19	12	0	16
Bachelor's degree	43	5	0	35
<b>Completed:</b>	<b>15</b>	<b>15</b>	<b>4</b>	<b>13</b>
License or certificate	9	7	2	8
Associate's degree	5	8	2	5
Some post-school education	1	0	0	0
Total	100	100	100	100
Maximum margin of error*	± 2	± 7	± 6	± 2
Unweighted sample size	10,955	960	1,205	13,120

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 8 Participation in post-school education and training to October 1994, by early school leaving and completion status and gender: Australia (%)\***

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed**	Left early, did not complete	
<i>All persons</i>				
<b>No further education or training</b>	28		53	29
<b>Further education and training</b>				
University	51		0	41
TAFE	26		48	30
Apprenticeship	5		28	10
Traineeship	3		4	3
Other TAFE course	19		20	19
<i>Males</i>				
<b>No further education or training</b>	27		36	29
<b>Further education and training</b>				
University	47		0	35
TAFE	29		66	36
Apprenticeship	11		43	19
Traineeship	2		4	3
Other TAFE course	17		20	18
<i>Females</i>				
<b>No further education or training</b>	28		64	30
<b>Further education and training</b>				
University	54		0	45
TAFE	23		36	25
Apprenticeship	2		13	3
Traineeship	3		4	3
Other TAFE course	19		19	19
Maximum margin of error***	±3		±6	±3
Unweighted sample size	2,514	59	640	3,213

\* Activities are not mutually exclusive, therefore, figures may add to greater than 100.

\*\* Sample too small to derive meaningful estimates.

\*\*\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).



Male early leavers also entered other forms of vocational education and training. One in five had participated in a TAFE course other than apprenticeship training. Taken together, this meant that about two-thirds of male early leavers had undertaken some form of post-school education and training by the age of 19. As a result, the percentage of male early leavers who had relied on making a direct entry to the workforce without participating in any post-school education and training was only 9 percentage points more than that of teenage males who completed Year 12. This suggests that while university plays an important role for males who complete Year 12, vocational education and training in Australia is playing a major role in the transitions from school into work of teenage males who do not complete high school.

The role of further education and training is less prominent for female early leavers. Only about one-third (36 per cent) of female early leavers participated in some form of vocational education and training by age 19. For most this was in a vocational certificate or diploma course in TAFE (19 per cent). The lower rate of participation in further education meant that the majority of female early leavers (64 per cent) had not participated in any post-school education and training by age 19. This left most exposed to making a direct entry to the workforce without a senior school certificate or post-school certificate. For females who never left school early, less than 30 per cent had not undertaken some form of further education and training by the age of 19.

The rates of participation in post-school education and training among early leavers in Australia display some sharp contrasts with the United States. In the NELS data, only about 12 per cent of male early leavers who never completed high school, and 6 per cent of female early leavers, had entered some form of post-school education and training by 1994. In Australia, however, with a comparable sample covering roughly the same period, two-thirds of the male early leavers and over one-third of the female early leavers participated in vocational education and training. It supports the view that while more early leavers in the United States complete high school or an equivalent certificate, more early leavers in Australia take advantage of post-school vocational education and training opportunities which serve a similar function.

## 4

### **The Transition to Employment**

One of the main concerns about early school leavers is related to their ability to settle into productive employment. In general, early school leavers have more difficulty finding stable, productive employment. This can be due to their lack of skills and training, which puts them at a relative disadvantage compared to high school graduates. It can also be due to other attributes and characteristics that may have caused them to drop out of school in the first place and hinder their employment prospects, attributes that may be formed through their experiences of school itself. These other attributes may include such things as punctuality, perseverance and the ability to get along with others, all qualities that employers may look for in their employees (Secretary's Commission on Achieving Necessary Skills, 1991). Longitudinal studies in the United States have also noted that while high school graduates also have some difficulty in securing stable jobs initially after completing school, by their early and mid twenties most are working in stable jobs (Klerman & Karoly, 1994). In contrast, early school leavers continue to experience long spells of non-employment.

In the current study it was possible only to examine initial work status for early school leavers, about two years after normal high school graduation, when most respondents were 19 or 20 years of age. This early transitional period may not be indicative of the long-term prospects for productive employment among youth. Research suggests that the youth labour market is characterised by considerable instability and change as young workers try to find suitable jobs (Rosenbaum, et al., 1990; Nolfi, et al., 1978; Osterman, 1980; Johnson, 1978; McCall, 1990). Yet the extent to which young people begin to engage in productive activities at an early age, especially early school leavers, may be indicative of their long-term prospects for meaningful employment.

In this study, young people were classified into four groups based on the primary activity they were engaged in 18 months (United States) or 20 months (Australia) after the date of modal high school graduation: (1) those who were working full-time, whether or not they were doing further study; (2) those who were engaged in further education and training, whether or not they were working part-time; (3) those who were working part-time and not engaged in further education and training; and (4) those who were not employed, and were either looking for work or were out of the labour force. Both of the first two groups can be considered as engaged in productive activities, either working full-time or going to school. Those in the third category are working, but they either cannot find or are not interested in working full-time. Those in the final category are clearly not engaged in employment-related productive activity.

Our data reveal major differences between the United States and Australia in the initial work status of early school leavers. In the United States, 43 per cent of early leavers who never completed were working full-time two years after high school, 1 per cent were enrolled in further education and training, 11 per cent were working part-time, and almost 45 per cent were not employed (Table 9).

**Table 9 Work and Enrollment Status, by early school leaving and completion status and gender, February 1994: US 1988 Year 8 students (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed	Left early, did not complete	
<i>Both sexes</i>				
<b>Working full-time</b>	<b>33</b>	<b>45</b>	<b>43</b>	<b>35</b>
Enrolled in post-school education	9	4	1	7
Not enrolled in school	24	41	42	28
<b>Enrolled in further study or training</b>	<b>51</b>	<b>12</b>	<b>1</b>	<b>41</b>
Working part-time	27	6	0	22
Not working	24	6	1	19
<b>Working part-time, not enrolled</b>	<b>8</b>	<b>11</b>	<b>11</b>	<b>9</b>
<b>Not working, not enrolled</b>	<b>8</b>	<b>32</b>	<b>45</b>	<b>15</b>
Unemployed	3	14	19	6
Out of the labour force	5	18	26	9
<i>Males</i>				
<b>Working full-time</b>	<b>39</b>	<b>51</b>	<b>57</b>	<b>42</b>
Enrolled in post-school education	9	4	1	7
Not enrolled in school	30	47	56	35
<b>Enrolled in further study or training</b>	<b>48</b>	<b>11</b>	<b>1</b>	<b>39</b>
Working part-time	23	6	1	19
Not working	25	5	0	20
<b>Working part-time, not enrolled</b>	<b>6</b>	<b>11</b>	<b>9</b>	<b>7</b>
<b>Not working, not enrolled</b>	<b>7</b>	<b>27</b>	<b>33</b>	<b>12</b>
Unemployed	3	14	17	6
Out of the labour force	4	13	16	6
<i>Females</i>				
<b>Working full-time</b>	<b>28</b>	<b>37</b>	<b>29</b>	<b>29</b>
Enrolled in post-school education	9	3	1	8
Not enrolled in school	19	34	28	21
<b>Enrolled in further study or training</b>	<b>53</b>	<b>12</b>	<b>1</b>	<b>44</b>
Working part-time	30	6	0	25
Not working	23	6	1	19
<b>Working part-time, not enrolled</b>	<b>9</b>	<b>11</b>	<b>13</b>	<b>10</b>
<b>Not working, not enrolled</b>	<b>10</b>	<b>40</b>	<b>57</b>	<b>17</b>
Unemployed	3	16	21	6
Out of the labour force	7	24	36	11
Total	100	100	100	100
Maximum margin of error*	± 1	± 5	± 4	± 1
Unweighted sample size	10,955	960	1,205	13,120

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 10 Work and education status of 19 year-olds, by early school leaving and completion status and gender, October 1994: Australia (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed**	Left early, did not complete	
<i>All persons</i>				
<b>Working full-time</b>	<b>31</b>		<b>64</b>	<b>38</b>
Enrolled in post-school education or training	10		25	13
Not enrolled in school	21		39	25
<b>Enrolled in further study or training</b>	<b>57</b>		<b>9</b>	<b>48</b>
Working part-time	31		5	25
Not working	26		4	23
<b>Working part-time, not enrolled</b>	<b>7</b>		<b>10</b>	<b>7</b>
<b>Not working, not enrolled</b>	<b>5</b>		<b>17</b>	<b>7</b>
Unemployed	4		11	5
Out of the labour force	1		6	2
<i>Males</i>				
<b>Working full-time</b>	<b>37</b>		<b>72</b>	<b>46</b>
Enrolled in post-school education or training	16		34	21
Not enrolled in school	21		38	25
<b>Enrolled in further study or training</b>	<b>52</b>		<b>7</b>	<b>40</b>
Working part-time	23		2	18
Not working	29		5	22
<b>Working part-time, not enrolled</b>	<b>6</b>		<b>7</b>	<b>7</b>
<b>Not working, not enrolled</b>	<b>5</b>		<b>12</b>	<b>7</b>
Unemployed	4		11	6
Out of the labour force	1		1	1
<i>Females</i>				
<b>Working full-time</b>	<b>27</b>		<b>56</b>	<b>32</b>
Enrolled in post-school education	7		14	8
Not enrolled in school	20		42	24
<b>Enrolled in further study or training</b>	<b>61</b>		<b>8</b>	<b>52</b>
Working part-time	35		4	30
Not working	26		4	22
<b>Working part-time, not enrolled</b>	<b>7</b>		<b>13</b>	<b>8</b>
<b>Not working, not enrolled</b>	<b>5</b>		<b>23</b>	<b>8</b>
Unemployed	3		11	4
Out of the labour force	2		12	4
Total	100		100	100
Maximum margin of error*	±3		±6	±3
Unweighted sample size	2,514	59	640	3,213

\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

\*\* Sample too small to derive meaningful estimates.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

In Australia, early leavers were more successful in obtaining full-time jobs (Table 10). Nearly two-thirds of those who never completed high school had full-time jobs at age 19. Males were more successful in gaining full-time jobs than were females (72 per cent as against 56 per cent). At this point in time, 7 per cent of males were enrolled in post-school education and training and working either part-time or not at all. The rate was almost double for females. About one-quarter of the female early leavers and 12 per cent of the male early leavers were not employed and not enrolled in post-school education and training. For males most of this group were looking for work (11 per cent unemployed), while for females more than half (12 per cent) were not in the labour force at all. The rates suggest that, in this initial post-school period, early leavers in Australia are faring better in the pursuit of employment than their counterparts in the United States. This applies to both males and females. The contrasting experiences of males and females in Australia highlight some of the reasons why female rates of school completion are higher.

The difficulty of early school leavers securing productive employment is further revealed by examining their activities over time. As mentioned above, both the United States and Australian data provided information on employment and enrolment status each month following the typical month for high school graduation, which was June 1992 for United States students and December 1992 for Australian students. In the case of the United States, this information was used to examine employment and enrolment status for each of the 18 months between July 1992 and February 1994. In the Australian case, the information was used to examine employment and enrolment status for each of the 20 months between January 1993 and October 1994. The main interest is with the amount of time young people spend in a marginal work and education status, i.e. in marginalised or “unproductive” activities. Months of “unproductive activities” were counted in two ways.

In the first case, the total number of months that respondents were not employed and not enrolled in post-school education or training were counted. This provides a very conservative definition of unproductive or marginalised activities because respondents who were working part-time were still considered engaged in productive activities. Based on this definition, 61 per cent of United States students who completed Year 12 without ever dropping out were engaged in productive activities for the entire 18 month period, compared to 39 per cent for early leavers who completed high school and 34 per cent for early leavers who did not complete high school (Table 11). The data also reveal that, 33 per cent of the early leavers who completed and 43 per cent of the early leavers who did not complete high school spent 10 months or more — more than half of this period — in marginalised or “non-productive” activities, compared to only 8 per cent for students who never dropped out of school. These patterns are similar for males and females, although the disparities between early leavers and high school graduates are much greater for females than for males.

**Table 11 Number of months not employed and not enrolled in post-school education and training, by early school leaving and completion status and gender, July 1992-February 1994: US 1988 Year 8 students (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed	Left early, did not complete	
<i>Both sexes</i>				
0 months	61	39	34	56
1-3 months	22	11	7	19
4-6 months	6	10	7	6
7-9 months	3	7	9	4
10 or more months	8	33	43	15
<i>Males</i>				
0 months	64	45	46	60
1-3 months	21	13	8	19
4-6 months	5	10	9	6
7-9 months	3	6	10	4
10 or more months	7	26	27	11
<i>Females</i>				
0 months	59	33	21	52
1-3 months	23	8	5	20
4-6 months	6	10	6	6
7-9 months	3	8	9	5
10 or more months	9	41	59	17
Total	100	100	100	100
Maximum margin of error*	± 1	± 5	± 4	± 1
Unweighted sample size	10,955	960	1,205	13,120

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 12 Number of months not employed and not enrolled in post-school education and training, by early school leaving and completion status and gender, January 1993-October 1994: 19 year-olds, Australia (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed**	Left early, did not complete	
<i>All persons</i>				
0 months	76		64	73
1-3 months	13		11	13
4-6 months	6		6	6
7-9 months	2		6	3
10 or more months	3		13	5
<i>Males</i>				
0 months	76		71	74
1-3 months	13		9	12
4-6 months	6		6	6
7-9 months	2		5	3
10 or more months	3		10	5
<i>Females</i>				
0 months	74		57	72
1-3 months	14		12	13
4-6 months	8		7	7
7-9 months	2		7	3
10 or more months	2		17	5
Total	100		100	100
Maximum margin of error*	±3		±6	±3
Unweighted sample size	2,514	59	640	3,213

\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

\*\* Sample too small to derive meaningful estimates.

SOURCE: Tabulations from Youth in Transition based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

For Australia, the data show that early leavers who did not complete school were more likely to be marginalised in the pursuit of work than high school graduates. For example, 64 per cent of early leavers spent all of the 20 month period to 1994 in work or in education and training, compared to 76 per cent of graduates (Table 12). Early leavers were four times more likely to have spent 10 months or more of the time without work and not in further education or training (13 per cent as against 3 per cent). The gaps, however, varied greatly depending on gender. For males, the gaps between early leavers and graduates were relatively small. Around 90 per cent of graduates spent less than three months unemployed or not in post-school education compared to 80 per cent of early leavers. Male early leavers were more likely to spend long periods

without work or training (10 per cent against 3 per cent for graduates). In comparison, investigation of the situation for females revealed that three-quarters of graduates avoided any period of unemployment, compared to only 57 per cent of early leavers. More strikingly, 17 per cent of female early leavers spent 10 or more months unemployed and out of education and training compared to only 2 per cent of female school graduates. Again, it underlines the disadvantage female early leavers in Australia have in making the transition from school to work, and possibly why more females than males continue at school.

**Table 13** Number of months not employed full-time and not enrolled in post-school education and training, by early school leaving and completion status and gender, July 1992-February 1994: US 1988 Year 8 students (%)

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed	Left early, did not complete	
<i>Both sexes</i>				
0 months	29	28	24	28
1-3 months	40	10	6	34
4-6 months	9	9	8	9
7-9 months	5	7	9	5
10 or more months	17	46	53	24
<i>Males</i>				
0 months	35	34	36	35
1-3 months	37	11	9	31
4-6 months	9	9	8	9
7-9 months	4	8	11	5
10 or more months	15	38	36	20
<i>Females</i>				
0 months	23	21	11	21
1-3 months	44	8	4	36
4-6 months	9	10	7	9
7-9 months	5	6	8	6
10 or more months	19	55	70	28
Total	100	100	100	100
Maximum margin of error*	± 1	± 5	± 4	± 1
Unweighted sample size	10,955	960	1,205	13,120

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).



**Table 14 Number of months not in full-time work and not enrolled in post-school education and training, by early school leaving and completion status and gender, January 1993-October 1994: 19 year-olds, Australia (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed**	Left early, did not complete	
<i>All persons</i>				
0 months	55		49	53
1-3 months	18		11	17
4-6 months	13		8	12
7-9 months	5		8	6
10 or more months	9		24	12
<i>Males</i>				
0 months	57		60	57
1-3 months	18		11	16
4-6 months	12		6	11
7-9 months	5		7	5
10 or more months	8		16	11
<i>Females</i>				
0 months	53		37	50
1-3 months	19		12	18
4-6 months	13		9	12
7-9 months	5		10	6
10 or more months	10		33	14
Total	100		100	100
Maximum margin of error*	±3		±6	±3
Unweighted sample size	2,514	59	640	3,213

\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

\*\* Sample too small to derive meaningful estimates.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

In the second case, the total number of months that respondents were not employed full-time and not enrolled in school were counted. This provides a less conservative definition of productive activities, because it considers working part-time as not productive (at least for those who were not enrolled in further education or training). While it is a less conservative definition, it reflects concern, at least in Australia, about the numbers of young people who are not able to secure stable full-time jobs, and move in and out of periods of part-time work and unemployment without participation in further education or training (Dusseldorp Skills Forum, 1998). Based on this definition, there are even greater differences in the United States in the amount of time that school completers are in productive activities. Although in the United States a similar

proportion of early leavers as graduates spent every month working full-time or enrolled in school, another 40 per cent of graduates spent only 1 to 3 months in marginalised activities (Table 13). This probably reflects the pattern of high school graduates who spend one or two months in the summer before college either not working or not working full-time. Based on this less restrictive definition, fully half of all early school leavers, both those who completed and those who did not, spent more than half of this 18 month period not working full-time or enrolled in post-secondary education and training.<sup>1</sup> As with the previous case, these disparities were more pronounced among females than among males.

The data for Australia show that while the gaps between early leavers and graduates have not increased from the previous table, indeed in some instances even fallen, early leavers spend longer periods without full-time work or without participating in further education and training. Almost one-quarter of the early leavers spent 10 or more months this way compared to about one-tenth of the graduates (Table 14). The gaps are much more pronounced among females than males.

In summary, the transition from school to productive activities varied greatly by high school completion status in the United States and Australia. In the United States, a high percentage of both early leavers who completed high school and early leavers who did not complete high school had difficulty engaging in productive activities. The fact that early leavers who completed high school had almost as much difficulty as early leavers who never completed raises questions about the utility of returning to complete high school. In Australia, the figures suggest that in this early transition period some young people spend considerable amounts of their time as marginalised workers, unable to find secure full-time work and this is more true of early school leavers than of secondary school graduates.

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<sup>1</sup> About one-third of the students who left school early and eventually completed, finished their high school education after August of 1992. These students could be considered as “productive” at least during those months they may have been working toward high school completion.



## 5

### The Quality of Jobs

It is important not only to consider the amount of time that young people spend in productive activities, but the quality of those activities. The quality of employment can be gauged in a number of ways. Distinguishing between part-time and full-time work is important, as was shown in the previous chapter. Other studies of the transition from school to work have also considered the number of jobs held over time (Veum & Weiss, 1993) and the duration of jobs held (Klerman & Karoly, 1994). In this study, there is an examination of the types of occupations and the wages for those working full-time. Of course, the comparisons of wages are presented here tentatively. At this age, earnings are affected by youth-wage awards and, in Australia at least, by the effects of youth training allowances. These may work to suppress or distort differences.

The types of occupations held by full-time workers not only varied by high school completion status, but also by gender. In the United States, male early leavers held similar jobs to those who graduated. About one-third of each group — graduates, early leavers who later complete, and early leavers who do not complete — held jobs in the skilled trades and another 17 per cent of each group held sales and service jobs (Table 15). But early leavers who never completed were more likely than those from the other two groups to hold jobs as labourers (which generally pay lower wages) and less likely to hold jobs in the managerial, professional, and technical areas (which generally pay higher wages) or in the military. Among females in the United States, differences by school completion status were somewhat more pronounced, although two-thirds of all females were employed in only two occupational groups — clerical and sales/service. Female graduates were more likely to be employed in clerical jobs, while female early leavers who never completed were most likely to be employed in sales and service jobs. Female early leavers who never completed were more likely to secure jobs in the skilled trades and less likely to be employed in managerial, professional, and technical jobs than their female counterparts who never dropped out of school, although the proportions were quite small.

At this early stage in their careers, with many high school graduates still in university the types of full-time jobs on offer to teenagers is likely not to vary greatly among high school graduates and early leavers. Yet, even at this stage there are some differences in the Australian data that are important to note. Table 16 shows that the majority of male early leavers in full-time work were in skilled trades at age 19, involving almost 60 per cent of this group. Skilled trades were also important to male high school graduates, but nowhere near to the same extent, accounting for about one third of the male full-time workers who had completed Year 12. Male high school graduates were more often employed in white collar occupations such as clerical work (13 per cent as against 3 per cent), sales and related jobs (15 per cent compared to 7 per cent), and managerial and para-professional occupations (11 per cent compared to 4 per cent). Female high school graduates were also more often than female early leavers employed in white collar occupations, with female early leavers more often in skilled trades or working as labourers. As in the United States, there are large differences between males and females in the sorts of jobs teenagers are able to secure. At this stage females are heavily concentrated in clerical and sales and related occupations, whereas males more often enter skilled trades and labouring work.

**Table 15 Occupation of persons working full-time, by early school leaving and completion status and gender, February 1994: US 1988 Year 8 students (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed	Left early, did not complete	
<i>Both sexes</i>				
Managerial/professional/technical	16	15	7	14
Skilled trades	20	22	28	22
Clerical	23	20	12	21
Sales/service	22	21	24	22
Labourers	14	18	29	17
Military	5	4	0	4
<i>Males</i>				
Managerial/professional/technical	14	13	7	13
Skilled trades	29	30	33	30
Clerical	12	8	5	10
Sales/service	17	17	17	17
Labourers	21	26	38	25
Military	7	6	0	6
<i>Females</i>				
Managerial/professional/technical	18	18	7	17
Skilled trades	7	10	15	8
Clerical	41	38	27	39
Sales/service	29	26	41	30
Labourers	4	8	10	5
Military	1	0	0	1
Total	100	100	100	100
Maximum margin of error*	± 5	± 12	± 12	± 4
Unweighted sample size	2,794	412	489	3,695

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval for percentage equal to 50 and adjusts for design effects of the NELS data due to nonrandom sampling. The margin of error is smaller for percentages less than 50.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

**Table 16 Occupations of 19 year-olds in full-time work, by early school leaving and completion status and gender, October 1994: Australia (%)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed**	Left early, did not complete	
<i>All persons</i>				
Managerial/professional/technical	10		4	9
Skilled trades	21		43	28
Clerical	29		16	25
Sales/service	24		16	21
Process workers and operators	3		5	4
Labourers	13		16	13
<i>Males</i>				
Managerial/professional/technical	11		4	8
Skilled trades	35		59	45
Clerical	13		3	9
Sales/service	15		7	12
Process workers and operators	6		7	6
Labourers	20		20	20
<i>Females</i>				
Managerial/professional/technical	10		5	8
Skilled trades	8		21	11
Clerical	44		33	41
Sales/service	32		30	31
Process workers and operators	1		2	1
Labourers	5		9	7
Total	100		100	100
Maximum margin of error*	±6		±8	±5
Unweighted sample size	726		392	1,118

\* The range above and below the reported figure representing the 90 per cent confidence interval for percentage equal to 50 and adjusting for design effects of the *Youth in Transition* data due to cluster sampling. The margin of error is smaller for percentages less than 50.

\*\* Sample too small to derive meaningful estimates.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

**Table 17 Mean monthly earnings of persons working full-time, by early school leaving and completion status and gender, February 1994: US 1988 Year 8 students (\$)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed	Left early, did not complete	
<i>Both sexes</i>				
Mean monthly earnings	1094	1238	1114	1115
(margin of error*)	± 56	± 160	± 140	± 50
<i>Males</i>				
Mean monthly earnings	1186	1421	1137	1206
(margin of error*)	± 75	± 247	± 147	± 66
<i>Females</i>				
Mean monthly earnings	962	964	1067	975
(margin of error*)	± 84	± 127	± 302	± 75
Unweighted sample size	2794	412	489	3695

\* The range above and below the reported figure that may contain the actual figure in the population. It represents the 90 per cent confidence interval and adjusts for design effects of the NELS data due to nonrandom sampling.

SOURCE: Tabulations from the *National Education Longitudinal Study* of 1988 based on Year 8 panel from the 1994 third follow-up survey (unweighted N=13,120; weighted N=2,968,426).

Earnings varied more by gender than by high school completion status, at least in the United States. In the United States, male early leavers who completed high school had higher monthly wages than either male graduates or male early leavers who did not complete, although the differences were not statistically significant (Table 17). They may have had higher wages than graduates because most had been out of school longer, while they may have had higher wages than early leavers who did not complete because by completing high school, they may have had more access to better paying jobs. Overall, females had lower earnings than males, which probably reflected difference in the types of occupations that they held. There were few differences in earnings among females by high school completion status. Female early leavers who never completed actually had higher average earnings than both graduates and early leavers who completed, although again the differences were not statistically significant.

In Australia, at age 19 male early leavers in full-time work received higher monthly earnings, on average, than male Year 12 graduates (Table 18). The gap was not statistically significant. The advantage for early leavers may well be because of their longer exposure to the workforce and longer periods in employment. Other work, using longitudinal data, suggests that the advantage in favour of early leavers does not endure as high school graduates gain more work experience, for by their mid-twenties earnings are higher and earnings growth steeper for graduates, particularly for those moving from higher education into professional careers (Miller and Volker, 1987; Long, McKenzie and Sturman, 1996).

**Table 18 Mean monthly earnings of 19 year-olds in full-time work, by early school leaving and completion status and gender, October 1994: Australia (\$)**

	Early school leaving and completion status			Total
	Graduates, never left early	Left early, later completed**	Left early, did not complete	
	Income			
<i>All persons</i>				
Working full-time	1274		1313	1287
(margin of error*)	±48		±76	±40
<i>Males</i>				
Working full-time	1287		1369	1322
(margin of error*)	±78		±118	±68
<i>Females</i>				
Working full-time	1256		1226	1248
(margin of error*)	±59		±83	±48
Unweighted sample size	726		392	1118

\* The range above and below the reported figure representing the 90 per cent confidence interval adjusting for design effects of the *Youth in Transition* data due to cluster sampling.

\*\* Sample too small to derive meaningful estimates.

SOURCE: Tabulations from *Youth in Transition* based on the 1994 follow-up survey (unweighted N=3,213; weighted N=251,407).

The gap is reversed for females, with female graduates earning more at age 19 than their counterparts who left school early, even though they have been exposed to the labour market for a shorter period. It reveals the disadvantage female early leavers experience in obtaining secure, well-paid work. Reinforcing this point, there is a small gap in earnings between male and female graduates (\$31 per month on average), but a much larger gap favouring male over female early leavers (\$143 on average). The gender gap in earnings is consistent with the United States figures, although in the United States female early leavers earn more on average at this stage than female graduates.

In summary, the quality of jobs held by United States and Australian early leavers and graduates did not vary greatly. This could be due, in part, to the fact that at least some of the early leavers probably had more labour market experience than graduates. Although the earlier figures showed that early leavers were more likely to have difficulty in securing full-time work or enrolling in post-secondary education and training, those who were able to secure full-time work appeared to hold jobs of similar quality to those of graduates, even if they were not in the same types of occupations. The exception to these general patterns is the situation for female early leavers in Australia who are in lower paid jobs than male early leavers and all those who completed Year 12. Combined with higher rates of unemployment as a group it suggests that they more often experience disadvantage in the transition to work.





## 6

### Conclusion

This study examined the early education and employment experiences of early school leavers in the United States and Australia. Unlike most studies of early school leaving, this study identified all students who ever left school early in two similar cohorts of youth in the United States and Australia. By doing so, it was not only possible to determine how many students ever left school early, but also to examine differences in the subsequent education and labour market experiences between early leavers and persons who completed without ever dropping out. The analysis not only revealed substantial differences between both groups, but also substantial differences between the United States and Australia in the experiences of early leavers and school completers.

Almost identical percentages of students left school early in the United States and Australia — 21 per cent in the United States and 22 per cent in Australia. And in both countries, rates of early school leaving were substantially higher for students from lower social class backgrounds, for students attending public or government schools, and for students with low achievement levels. It would seem that the social and school-based factors influencing the rates of early leaving are similar in both the United States and Australia.

But there were substantial differences between the two countries in when early leavers dropped out of school and, more importantly, whether they eventually finished school. In Australia, about half of all early leavers left school at Year 10 and most of the rest left at Year 11. In the United States, the majority of early leavers left in Years 11 and 12, with only about one-third leaving in Year 10 or earlier. One reason for these contrasts is a difference in access to post-school education and training opportunities and a difference in the role of credentials. In Australia, early leavers still successfully enter apprenticeships and other forms of vocational education and training (such as certificate courses offered by TAFE colleges) from Year 10, even though over the last decade Year 12 has increasingly become the main entry point. In the United States, students do not receive a regular school credential until they complete a specified number of course credits, which are usually acquired at the completion of four years of high school. Students may leave school at anytime, but most appear to complete at least some of their high school credits before leaving school, usually after completing Year 10 or two years of high school.

There were even greater differences in the extent to which early leavers eventually finished high school. Almost half of early leavers in the United States had completed high school within two years of normal high school graduation, most by acquiring a General Educational Development credential, which is recognised by most employers and tertiary education institutions as equivalent to a high school diploma. In contrast, fewer than 10 per cent of early leavers in Australia complete school. Yet, Australian early leavers had more opportunities to pursue post-school education and training than United States early leavers. In the United States, nine out of ten early school leavers who never completed high school had not participated in any post-school education or training during the first two years after high school, while three-quarters of students who completed without ever dropping out participated in various forms of further education and training. In Australia, about two in three male early leavers had

participated in post-school education or training compared to about three in four graduates. For most early leavers this was in apprenticeships or other vocational education and training programs, whereas for graduates it was mainly in higher education. Among female early leavers, only about one in three participated in any formal post-school education or training program, compared to about three in four female graduates.

In both countries, early leavers had more difficulty in securing productive employment than those who completed Year 12. But the disparities were greater in the United States than in Australia. Two years after high school graduation, 45 per cent of all early leavers in the United States who did not complete high school were not working at any job or enrolled in post-school education and training, compared to only 8 per cent for students who had never dropped out of high school. In Australia, only 17 per cent of early leavers who did not complete high school were not working or enrolled in further study or training, compared to 5 per cent for those who had completed Year 12. Therefore, relative to those who had completed Year 12, early school leavers who had not completed high school were much more disadvantaged in the United States than in Australia. This same relative disadvantage was observed by looking at the total number of months not working or enrolled since high school — United States early school leavers were more likely than Australian early leavers to have spent the majority of their time not employed or enrolled in school or training programs. In both countries, female early leavers were relatively more disadvantaged than male early leavers compared to their counterparts who completed Year 12.

Finally, there was an examination of the quality of jobs held by young workers in full-time employment. Here the differences between early leavers and graduates were less pronounced, but differences between males and females remained large. In both countries, young workers who had completed Year 12 were more likely to be employed in white collar occupations whereas early school leavers were more likely to be employed in skilled trades and labouring jobs. But the differences were not substantial and reflect the effects of age-segmented, relatively narrow and structured youth labour markets in both countries. Most entry-level jobs available to teenagers are provided within a limited range of occupations and this is particularly true for females where available full-time jobs are heavily concentrated in two main fields: clerical and sales and related work. Therefore, it is not surprising that wages were fairly even among groups, particularly given that wages at ages 19 and 20 are subject to relatively low youth-wage awards and training wages.

Because almost half of all early school leavers in the United States eventually completed school, it was possible to compare education and employment experiences of early leavers who completed high school with those of early leavers who never completed high school. The results presented a mixed picture of the benefits to completing high school. Early leavers who completed school were more likely to have enrolled in some form of post-secondary education or training within the first two years after high school than early leavers who had never completed. This finding confirms one of the benefits of receiving a high school credential — it provides access to post-school education and training that would not be there otherwise. However, the percentage participating in post-school education and training was still quite small — 35 per cent — and much smaller than the participation rate among students who graduated without ever dropping out. Early leavers who later completed Year 12 also had difficulty securing productive employment in the first two years beyond high school. Almost a third of all

early leavers who had completed high school were not working two years after high school, compared to 45 per cent for early leavers who had never completed and only 8 per cent for those who had completed without ever dropping out. And almost as many early leaver-completers had high spells of non-employment as early leaver-non-completers. These results raise questions about the economic benefits of completing high school in the United States, which is the subject of some debate (e.g., Cameron & Heckman, 1993; Murnane, Willett, & Boudett, 1995, 1997).

This study found that similar proportions of young people left school early in the United States and Australia. But the educational and economic consequences were quite different. In the United States, many early leavers eventually completed high school, although most did so by completing a national examination instead of earning a traditional high school diploma. This alternative credential grants access to some tertiary education institutions, but the majority of early leavers who eventually completed high school had not entered any form of post-school education and training two years after high school. In Australia, in contrast, few early school leavers eventually complete high school. But about half of all early leavers enrol in some form of post-school education and training. In other words, although a higher proportion of Australians than Americans fail to complete high school, Australian early leavers are more likely than their American counterparts to enrol in post-school education and training.

Moreover, early school leavers in the United States were much less likely than high school graduates to settle into productive employment within the first two years of high school compared to early leavers in Australia. This suggests that early leavers are at a relatively larger disadvantage compared to high school graduates in the United States than in Australia.

The findings from this study underscore the importance of examining in greater detail the education and employment experiences of youth as they complete school. There may be a multitude of pathways from secondary school completion to post-school education, training, and employment. By using longitudinal data sources, it is possible to identify those alternative pathways in education, training and work experience which lead to productive employment.

**REFERENCES**

- Anderson, D. (1992) The interaction of public and private school systems. *Australian Journal of Education* 36 (3):213-236.
- Cameron, S.V. & Heckman, J.J. (1993). The nonequivalence of high school equivalents. *Journal of Labor Economics*, 11, 1-47.
- Carroll, D. (1996). *National Education Longitudinal Study (NELS:88/94): Methodology Report*. Washington, D.C.: U.S. Government Printing Office.
- Dusseldorp Skills Forum (1998) *Australia's Youth: Reality and Risk*. Sydney: Dusseldorp Skills Forum.
- GED Testing Service. (1997). *Who Took the GED? GED 1996 Statistical Report*. Washington, D.C.: American Council on Education.
- Johnson, W.R. (1978). A theory of job shopping. *Quarterly Journal of Economics*, 261-278.
- Klerman, J.A. & Karoly, L.A. (1994). Young men and the transition to stable employment. *Monthly Labor Review*, 117, 31-48.
- Kolstad, A. & Kaufman, P. (1989). Dropouts who complete high school with a diploma or GED. Paper presented at the *annual meeting of the American Educational Research Association*, San Francisco, March 24-27.
- Lamb, S.P. (1994). Dropping out of school in Australia: changes in participation and outcomes, *Youth and Society*, 26 (2), 194-222.
- Long, M., McKenzie, P. & Sturman, A. (1996). *Labour Market and Income Consequences of Participation in TAFE*. Melbourne: Australian Council for Educational Research.
- McCall, B.P. (1990). Occupational matching: A test of sorts. *Journal of Political Economy*, 98, 45-69.
- McMillen, M. M. & Kaufman, P. (1997). *Dropout Rates in the United States: 1996*. Washington, D.C.: U.S. Government Printing Office.
- Miller, P & Volker, P. (1987). The youth labour market in Australia, *The Economic Record*, 63, pp. 203-219.
- Murnane, R.J., Willett, J.B., & Boudett, K.P. (1995). Do high school dropouts benefit from obtaining a GED? *Educational Evaluation and Policy Analysis*, 17, 133-147.
- Murnane, R.J., Willett, J.B., & Boudett, K.P. (1997). Does acquisition of a GED lead to more training, post-secondary education, and military service for school dropouts? *Industrial and Labor Relations Review*, 51, 100-116.
- Nolfi, G. J., Fuller, W. C., Corazzini, A. J., Epstein, W. H., Freeman, R. B., Manski, C. F., Nelson, V. I. & Wise, D. A. (1978). *Experiences of Recent High School Graduates*. Lexington, MA: Lexington Books.
- OECD (1996). *Lifelong Learning for All*. Paris: OECD.
- Osterman, P. (1980). *Getting Started: The Youth Labor Market*. Cambridge, MA: MIT Press.

- Rosenbaum, J.E., Takehiko, K., Settersten, R., & Maier, T. (1990). Market and network theories of the transition from high school to work: Their application in industrial societies. *Annual Review of Sociology*, 17, 263-299.
- Rumberger, R.W. (1987). High school dropouts: A review of issues and evidence. *Review of Educational Research*, 57, 101-121.
- Secretary's Commission on Achieving Necessary Skills. (1991). *What Work Requires of Schools*. Washington, D.C.: U.S. Government Printing Office.
- Veum, J.R. & Weiss, A.B. (1993). Education and the work histories of young adults. *Monthly Labor Review*. 116, 11-20.
- Witte, J.F. (1992). Private school versus public school achievement: Are there findings that should affect the educational choice debate? *Economics of Education Review*, 11, 371-394.