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Research Report Number 2

**SCHOOL STUDENTS AND
PART-TIME WORK**

Lyn Robinson

October 1996

ACER

Australian Council for Educational Research

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School students and part-time work

1. INTRODUCTION

This report is about student-workers. The youthful part-time workers encountered in supermarket delicatessens, hot bread shops and fast food stores throughout Australia in the 1990s are very likely to also be full-time secondary school students. Over the past two to three decades, the increasing number of students who combine study at school with part-time employment outside of school hours has been widely observed, although estimates of how many school students have jobs vary greatly. Furthermore, while the trend has been well recognised, its implications have frequently been overlooked. Consideration of the student-worker phenomenon gives rise to a number of questions about the incidence, nature and potential effects of part-time work among teenage school students - issues that should be of concern to students, their parents, educators (both policy makers and practitioners) and the wider community. The first of those issues - the incidence of students who have part-time jobs during the school year - is addressed in this report.

Most previous Australian studies of student-workers have been small-scale and localised, producing little indication of the overall extent of student labour force participation at a national level. While data from the Australian Bureau of Statistics (ABS) do not suffer from this limitation, those data cannot be used to tell us anything about the personal characteristics of school students who are also part-time workers. By contrast, *Youth in Transition* (YIT) provides a large-scale database which can be used to investigate such matters. In particular, the focus in this report will be on answering these questions:

- how many students have part-time jobs?
- how much time do they spend in those jobs? and
- which students are most likely to be involved in part-time employment?

2. THE EDUCATIONAL AND ECONOMIC CONTEXT

There have been major and interconnected changes that have occurred during the last thirty years which together have produced the phenomenon of the student-worker. A large increase in school participation rates coincided with very significant changes in the youth labour market, involving the disappearance of many thousands of full-time jobs and a parallel growth in part-time jobs. The nature of the relationship between these changes is not easily determined, and is the subject of some debate. Nevertheless, throughout the period, a consistent response in government policy as it pertained to these two areas was to emphasise the importance of schooling as a preparation for work.

2.1 Changes in school participation rates

In the 1990s more people than ever before in Australia are staying at school beyond the compulsory years. There is evidence for this in both the age participation rates and the year 12 retention rates. Comparisons across time of the proportion of 15-19 year olds in schools show this figure growing — from 35 per cent in 1980 to 44 per cent in 1990 (DEET, 1991), and in 1992, almost half (49 per cent) of all young people in this age group were attending school (AEC, 1993). The increase in year 12 retention had begun during the 1960s, and although there was some slowing of this growth in the second half of the 1970s, it increased significantly again throughout the 1980s, and by 1990, 64 per cent of students were staying on to do year 12 at school. The national year 12 retention rate reached a peak of 77 per cent in 1992 (MCEETYA,

1994). These very high levels of retention have had a major impact on educational policy and planning, as many more students who would previously have left at the end of year 10 remained at school for the postcompulsory years.

2.2 Changes in the youth labour market

The restructuring of the Australian economy over the preceding decades has effected both full-time and part-time employment opportunities. It has resulted in a long-term decline in the need for unqualified job entrants, especially those looking for full-time work. Most of the entry level jobs that young people once occupied now no longer exist. The collapse of the full-time youth labour market was accompanied by a large growth in part-time employment among 15-19 year olds, especially during the 1980s. Teenage women generally experienced much higher losses of full-time jobs than teenage males. On the other hand, the expansion of part-time employment was also greatest in female-dominated occupations, most notably in the retail industry (Sweet, 1980).

2.2.1 Reasons for the loss of full-time jobs

The reasons for the contraction in full-time employment for teenagers during the 1970s and 80s have been the subject of extensive discussion and debate. Sweet (1987, 1990) examined a variety of factors which he saw as operating together to cause a loss of full-time jobs for teenagers, and those factors have been further elaborated by other commentators. The effects of many of these factors were felt most severely in industries and occupations where female school leavers had traditionally begun their working lives, thereby resulting in greater job losses for females than for males.

During the 1970s, industrial restructuring exacerbated the decline in manufacturing employment already underway; for instance, machinist jobs were lost in the textile, clothing and footwear industries, where competition from Asian imports followed the reduction in tariff protection in 1973. Even more far-reaching effects resulted from technological changes, particularly in offices and the communications industry, which meant fewer jobs for workers such as typists, stenographers, business machine operators and telephonists; approximately 35 000 jobs were lost in these occupations by teenage women between 1971 and 1981, and the trend continued throughout the 1980s (Watson, 1994:387). In addition, higher entry qualifications, especially in nursing, and competition from more experienced and better-educated entrants to the labour force - that is, from adults - were two other factors which contributed to ongoing job losses, particularly among females.

2.2.2 The growth of part-time jobs

While the disappearance of full-time job opportunities was a consistent feature of the youth labour market in the 1970s and 80s, the massive expansion in part-time employment was another. The various factors which accounted for the changes in the youth labour market in the twenty years between the mid 1960s and the mid 1980s were summarised by Sweet, with a focus on the importance of structural factors in the organisation of work, especially the service sector, that encompassed 'better scheduling of labour in relation to demand, product standardisation, automation, and a more specialised division of labour' (1987:19).

The main growth industry for teenage workers throughout the period was retailing, but extensive changes in employment practices in that industry occurred from the 1970s onwards. The trends towards self-service, pre-packaging, product standardisation and the use of computerised cash registers reduced the skill levels required of sales workers - cost calculations were automated, and skill in selling and detailed product knowledge were no longer essential. At the same time employers were preferring to use larger numbers of workers for shorter time periods, in order to

match labour supply with variable demand at different times of the week and of the day, a preference that increased with the extension of retail trading hours. The casualisation of the retail industry was a major contributor to the growth in part-time jobs for teenagers, especially for females. Many other part-time jobs were also created in the hospitality and entertainment areas of the service sector. However the growing number of part-time jobs was largely taken up not by school leavers seeking a career, but by married women entering the workforce and by students still completing their education.

Recent studies (Dawkins and Norris, 1990; Lewis, 1990; Chapman, 1990) emphasise that the continuing growth of part-time employment during the 1980s was due not only to a shift to the services sector - that is, to rapid growth of industries that traditionally have high proportions of part-time labour - but also to a more general change in employment patterns within most if not all industries.

2.2.3 Student participation in the labour market

A major feature of the swing away from full-time and toward part-time employment among teenagers has been the increased participation of school students in the labour market. This has been documented by a number of researchers. Bentley and O'Neil (1984:146) noted that labour force participation by students had grown dramatically in the 1970s, from 3.6 per cent of school students aged 15-19 in 1971 to 23 per cent by 1980; this was characterised as 'one of the most radical changes in labour supply behaviour witnessed during the 1970s'. At the beginning of the 1970s, 28 per cent of all part-time jobs held by 15-19 year olds were held by school students, but by 1980 the figure had risen to 62 per cent. Sloan and Wooden (1984) analysed ABS data to show that part-time employment growth among teenagers between 1971 and 1983 was dominated by those attending school, and was strongest for females. Ross (1988) showed that between 1983 and 1988, employment rates for both males and females aged 15-19 who were attending school grew more rapidly than they did for those who were not at school.

2.2.4 Reasons for the growth in the incidence of student-workers

Why have more students become part-time workers over the preceding decades? An underlying contributory factor has been the increase in school participation. The large numbers of young people staying on at school, some of whom may previously have left and gone into employment, provided a ready pool of part-time workers. However, this is not to argue that those most likely to have been early school leavers were also those who were most inclined to be part-time workers. Drawing on insights gained from their South Australian research study of student participation in the labour market in the period 1980-81, Bentley and O'Neil (1984) claimed that the rapid movement of school students into the labour market occurred primarily because employers increasingly sought school students to fill part-time positions, and because students were increasingly active in seeking part-time jobs.

Considering the characteristics of the majority of teenage part-time jobs (generally low hours per week, starting and finishing times outside of school hours, low levels of weekly payment, and involving tasks that require little experience or training), Bentley and O'Neil argued that these were more likely to be consistent with the aspirations of school students rather than those who have left school and are seeking employment. In addition, they pointed to the evidence of an increasing desire on the part of students to undertake paid work, both for reasons of achieving independence, a view shared by Merrilees (1980), and to improve their postschool prospects by demonstrating their suitability to future employers. The advantage that students enjoy over non-students in terms of employer preference is also a potent factor in accounting for the growth in the numbers of student-workers. There is little information in the research literature which details the employer's perspective on recruiting students as workers, but Ashenden (1990:20) speculates that employers may prefer students 'because they come at the right price, the right

time and in the right condition` - this last a reference to perceptions by employers that students have a better attitude, and are keen and focused on the job. Earlier, Bentley and O'Neil (1984:148) surmised that `employers are attracted to school students because they are more reliable and uncritical employees`, while Sweet (1987:19) suggested employers preferred students because they were more likely to have a `cheerful, youthful image`.

3. THE EXTENT OF STUDENT PARTICIPATION IN PART-TIME WORK

The enormous growth in the labour force participation of Australian school students over the last twenty years or more is undisputed. What is not as certain is the actual extent of that participation. The proportion of students who are at school and who have part-time jobs is one dimension of participation. Various research studies have investigated the extent of job-holding among Australian school students, with differing findings about the numbers involved depending on the way in which participation in the work force was measured, the time period that was referenced, the geographical area covered, and the age and year level of the students.

Apart from the numbers of school students who are employed, there is also the issue of the amount of time that students spend in their job. This is an important consideration, particularly if the effects of part-time employment are being investigated. It could be argued that, while some hours spent in a job may be beneficial to students, beyond a certain level that involvement may interfere with school performance. Certainly many studies of the effects of participation in part-time work on students, particularly in the United States, have pointed to the importance of the number of hours worked in accounting for differences in outcomes. Greenberger and Steinberg (1986) found that part-time work of 15 hours or more had a negative effect on school achievement because students had less time available for homework, and, more generally, because those students were less engaged in school activities. Steinberg and Dornbusch (1991) reported deleterious effects of working long hours on a range of school attitudes and behaviours. D'Amica (1984) showed that, for some American students intensive involvement in work was related to a higher probability of dropping out of school. This association between working long hours and leaving school was also reported by Steel (1991), and by Gilbert *et al* (1993) in reference to Canadian students. An analysis of the extent of student participation in the part-time workforce in Australia should therefore include not only an investigation of the numbers of students who work part-time in a job, but also the length of time they spend in those jobs.

3.1 The numbers of workers

The nature of the data available from *Youth in Transition* makes it possible to investigate the extent of the encroachment by school students into the part-time work force, both nationally and over a lengthy period of time.

3.1.1 Variation in numbers employed over time

One approach to measuring the change in participation is to look at the proportion of each cohort which, at a comparable age, was involved in part-time work. Table 3.1 shows, for the four *Youth in Transition* age-based cohorts, the per cent of school students who had a part-time job when they were 17-years old, that is in 1978, 1982, 1987 and 1992. Data refer specifically to the month of October in each year, with the exception of 1978. The use of October as a reference month is important because it focuses on employment undertaken during term time, and excludes school holiday jobs. For 1978, however, data relate to the time that sample members were completing the questionnaire dealing with their activities in that year; survey respondents were asked 'Do you have a job now?' For most, this was at the end of 1978, but a small group of respondents completed the survey early in 1979, so that some care is required in making comparisons for 1978 with the October figures for the other years.

Table 3.1 Per cent of 17-year old school students employed part-time, by gender, October, 1978, 1982, 1987 and 1992

Year	YIT ¹						ABS ²
	Per cent employed			Total sample sizes			Per cent employed
	Males	Females	Persons	Males	Females	Persons	
1978	26.5	26.5	26.5	957	1009	1966	20.1
1982	27.5	32.0	30.5	677	817	1494	20.5
1987	21.7	29.2	25.7	658	773	1431	24.5
1992	30.5	40.3	35.4	1191	1706	2897	30.3

Notes

- 1 *Numbers in part-time work as per cent of total in sample attending school as full-time students. For each year except 1978, working was referenced to month of October. For 1978, question on job holding was referenced to the time at which survey completed: for most, this was the end of 1978.*
- 2 *Numbers employed as per cent of estimated numbers of school students in age cohort. Distinction between part-time and full-time employment was available for 1992 only, and the percentage for that year is for those employed part-time. However the overwhelming proportion of school students who were employed were employed part-time. Source: ABS Labour Force, October, selected years (6203.0)*

The data in Table 3.1 confirm the long-term growth in student-worker numbers, indicating a rise in the percentage of 17-year old school students who held part-time jobs, from 26.5 per cent in 1978 to 35.4 per cent by 1992. There was a deviation from this trend for the group aged 17 in 1987; the increase in participation that occurred between 1978 and 1982 was reversed somewhat between 1982 and 1987. However, very large growth took place between 1987 and 1992. In those five years, the proportion of 17-year old students having a part-time job increased from one quarter to more than one third. It can be noted, too, that while over 35 per cent of students responded that they had a job in October 1992, a much higher proportion - 55 per cent - indicated elsewhere in the data that they had worked at some time during 1992.

The growth in participation in part-time employment by school students between 1978 and 1992 was far more pronounced among females than males, reflecting more general trends in the part-time labour market. In 1978, there was no difference in the percentage of 17-year old male and female students who had part-time jobs, yet by 1992, while 30 per cent of males were employed, the figure for females was 40 per cent.

In addition to *YIT* data, Table 3.1 includes estimates of the proportion of 17-year olds who were attending school, and who were also employed, derived from the Australian Bureau of Statistics' (ABS) monthly labour force survey. For consistency with the *YIT* data, these ABS data are presented for the month of October in the relevant years. The percentages in the table are not labour force participation rates, as defined by the ABS, as they do not include those students who said they were looking for work at the time of the survey. Rather, the percentages are the numbers who were actually employed as a proportion of the estimates of the numbers who were attending school in the relevant age group. For this category of workers, there was no distinction made between part-time and full-time employment in ABS data collections prior to 1992, so that only for that year is the percentage specifically for those employed part-time. However the overwhelming proportion of school students who were employed were employed part-time, rather than full-time, so that the percentages for the other years are unlikely to be very different, even if the full-time workers could be separated out. These ABS figures differ from the *YIT*

data, in showing somewhat lower levels of job holding by students. One possible reason could be that the ABS surveys are completed by the householder, who may overlook employment by more junior household members, whereas the *YIT* data were obtained directly from the students. Nevertheless the ABS data also illustrate the growing incidence of student-workers over the period 1978 to 1992, with the proportion of school students who were employed rising from 20 to 30 per cent. (In the United States, similar discrepancies have been noted between official estimates of rates of student employment from the Bureau of Labour Statistics and those obtained from research based studies such as the *High School and Beyond* Survey and the National Assessment of Educational Progress. Greenberger and Steinberg, 1986; Barton, 1989.)

3.1.2 Variation in numbers employed with age and year level

More detailed examination of a single cohort of students who were born in 1975, covering the years 1989, when they were aged 14, to 1992, when they were aged 17, reveals changes in the proportion of students employed each year, as the cohort ages. Table 3.2 shows that from just over 24 per cent of 14-year old students working part-time, this percentage rose to more than 35 per cent of 17-year olds. At age 14, a higher percentage of males than females was employed. There was a marked gender difference in the rate of increase with age in the proportions of students who had jobs; the percentage of female students who worked part-time doubled, from 20 to 40 per cent between ages 14 and 17, compared with a fairly small increase among males.

Table 3.2 Per cent of students employed part-time, by age and gender, and by age and year level, 1989-1992

Year	Age	Males	Females	Persons	Year level				
					8	9	10	11	12
1989	14	27.5	20.7	24.2	20.4	25.5	26.2		
1990	15	25.5	30.1	27.8		20.8	30.3	30.9	
1991	16	29.8	35.2	32.5			28.4	34.2	34.9
1992	17	30.5	40.3	35.4				38.2	34.6
<i>Total sample sizes</i>									
1989		2715	2938	5653	1257	3897	489		
1990		2124	2520	4644		1008	3211	399	
1991		1734	2177	3911			943	2625	310
1992		1191	1706	2897				719	2130

Because this cohort is an age-based national sample of students, in any one calendar year the sample includes students from across more than one school year level, due to state differences in the age of school commencement. When examined by year level, the data show that, while more than a quarter of students who were in year 10 in any one year were employed part-time (ranging between 26 and 30 per cent), by year 11 that proportion jumped to around a third or more (from 31 to 38 per cent).

Data for the most recent calendar year, 1992, suggest that the proportion of students who have part-time jobs may peak when students are in year 11, when 38 per cent were employed. The percentage of year 12 students who had jobs was a little less than 35 per cent, supporting the notion that the greater pressure on students in their final year of secondary school may cause some to give up jobs they had held previously. Both Murphy (1986) and Latty (1989) had found that year 11 students were slightly more likely to be employed than those in year 12, although

there was some contrary evidence from the 1987 SCOPE data for the ACT, which indicated a consistent increase in part-time employment from year 10 through to year 12 (Munro, 1990).

3.1.3 Job holding among younger students

To complement the picture provided by data from the 1975 cohort, the survey of the most recent sample in this program of longitudinal surveys, consisting of more than 13000 students who were in year 9 in 1995, found that one quarter were in part-time employment during the school term. A slightly higher percentage of boys than girls (27.7 per cent compared with 23.8 per cent) reported that they had a job. This gender difference in participation is consistent with findings for the 1975 birth cohort when sample members were aged 14.

It can be concluded from these national data that in the mid 1990s in Australia approximately one in four students in years 9 and 10, and one in three students in years 11 and 12 are involved in regular part-time work throughout the school year. Findings from the *Youth in Transition* data about the effects of gender, age and year level on the incidence of student employment confirm some of the other studies that have been reported in the literature. Using another national dataset, the Australian Longitudinal Survey (ALS), McRae (1992) showed that 31 per cent of a sample of almost 1000 school students aged 16 or more in 1985 had a part-time job, with slightly higher percentages of females than males working (33 per cent compared with 29 per cent) and levels of job holding increasing with year level. Nolan and Hagen (1989), in a study of students in two Melbourne secondary schools, found that more boys than girls worked in the early years of high school, but that the reverse was the case from year 10 onward. Similarly, Latty's (1989) survey of students in metropolitan Sydney revealed a much higher percentage of males than females working at age 15 (43 per cent compared to 24 per cent) whereas at age 17 the proportion of females working was higher than that for males. More recent national data, from the Australian Youth Survey (Wooden, 1995) indicated that in 1991, among 16 year school students, employment rates were higher for females (39 per cent) than males (34 per cent).

3.1.4 International comparisons

Australia is among a small group of OECD countries - the others being the United States, Canada, the United Kingdom, and Denmark - with relatively high levels of student participation in the labour force. It was estimated that in 1988 labour force participation rates among teenage school students in these countries were over 35 per cent (36.7 per cent in Australia, 40.5 per cent in Canada, 43.8 per cent in the United States, 45.1 per cent in the United Kingdom, and 51.7 per cent in Denmark) while the other OECD member countries had very much lower levels - five, including France, with participation rates of less than 5 per cent, and another five countries, including Germany, with rates between 5 and 10 per cent (OECD Employment Outlook, cited in Ashenden, 1990). The measure used for this comparison - labour force participation - includes both the employed and those who were seeking jobs, hence the discrepancy between this figure for Australia and actual employment rates derived from ABS or *Youth in Transition* data.

A comparison of rates of employment derived from *Youth in Transition* with data available from studies within the United States and Canada supports the conclusion that job-holding among students in Australia, while high by international standards, is still rather lower than in North America. The 1980 *High School and Beyond* survey, based on a sample of 60 000 students showed 42 per cent of grade 10 students and 63 per cent of grade 12 students worked during the school year (Steel, 1991). The National Assessment of Educational Progress (NAEP) also collects information from students about their employment activities; 54 per cent of the 29,000 eleventh grade students in the 1986 assessment reported working (Barton, 1989). In 1987 the National Assessment of Economic Education Survey indicated that about one third of tenth grade students (36 per cent of males and 29 per cent of females) and two thirds of twelfth grade students (67 per cent of males, 68 per cent of females) were employed during the school year

(Lillydahl, 1990). In the 1992 school year, Barton (1996) reported that 68 per cent of twelfth grade students were working. High levels of part-time employment among students also occur in Canada. There, the increase in the proportion of high school students working throughout the 1980s was documented in local surveys; in some regions, it grew from about 50 per cent in the mid 1980s to about 60-70 per cent at the end of the decade (Ainsworth, 1990). In 1991 the Canadian *School Leavers Survey* of more than 9,000 18-20 year olds revealed that two thirds of males and over half of females worked in their last year of high school (de Broucker, 1996: 5). The incidence of student employment in North America is therefore considerably higher than that currently experienced in Australia.

3.1.5 *Patterns of participation*

Apart from information about the proportion of students employed at a point in time, further indicators of the extent of student involvement in the labour force are also available from the YIT data. From those students who were working part-time (in October of any given year), additional information was collected about the number of weeks they had worked in the month, and the length of time they had been in their job. The data show that a vast majority - more than 90 per cent of 17-year olds in 1982 and 1987 and 85 per cent in 1992 - worked for the whole of the reference month. Furthermore, over 80 per cent of students who were employed in October 1992 worked for eight or more months during that year.

Other evidence that most students who get jobs do so for an extended period of time is presented in Table 3.3, which displays the length of time that students in the 1975 birth cohort had been in their current (October) jobs in each year 1990-92. Note that this excludes time spent in any other previous jobs, so it may understate the number of years for which students had actually been employed. In 1990, at age 15, 30 per cent of students who were working part-time had been in their jobs for one year or more; this increased to over 56 per cent in 1991, and over 70 per cent by 1992, when more than one third (36.3 per cent) of all student-workers had been employed in the same job for over 2 years. The figures for males and females were similar by age 17, although when students were younger there were higher percentages of males than females who had been working for more than one year. This is consistent with the results noted above that showed males entering the labour market at a younger age than females.

Table 3.3 Length of time that students who were part-time workers in 1990, 1991 and 1992 had been in their current jobs

Year at age	1990			1991			1992		
	15 years			16 years			17 years		
Time in job	M	F	P	M	F	P	M	F	P
Less than 1 year	62.8	76.7	70.2	39.6	47.0	43.7	30.2	28.9	29.4
1 to 2 years	23.3	18.8	20.8	41.1	42.4	41.8	32.6	35.6	34.3
More than 2 yrs	14.0	4.6	8.9	19.3	10.6	14.5	37.3	35.6	36.3
Total per cent	100	100	100	100	100	100	100	100	100
<i>Sample size</i>	<i>480</i>	<i>707</i>	<i>1187</i>	<i>450</i>	<i>734</i>	<i>1184</i>	<i>347</i>	<i>667</i>	<i>1014</i>

The patterns of participation in part-time work for the years 1989-1992 of a sub-group of this 1975 birth cohort of students are shown in Fig 1, where the shading indicates participation in part-time work in October of the relevant year. The sub-group consisted of 2664 students who were at school over the whole of the four years. Fig 1 indicates that while close to 44 per cent of the students did not work at all, a total of over 56 per cent held a job at some time during the period 1989-1992. (This figure would be considerably higher if holiday jobs were included.) At age 17 in 1992, more than 8 per cent of those students had been in employment for three years (from 1990-92), another 8 per cent had worked for two years (1991-92), and almost 7 per cent had been working (in October) for all four years (1989-92) - these three groups accounted for 23 per cent of all students in the sub sample. Employment in a single year was characteristic of 20 per cent of students, with the largest percentage, just over 6 per cent, in 1992. The remaining 14 per cent of students who had been employed during the four years were engaged in part-time work in some years and not in others.

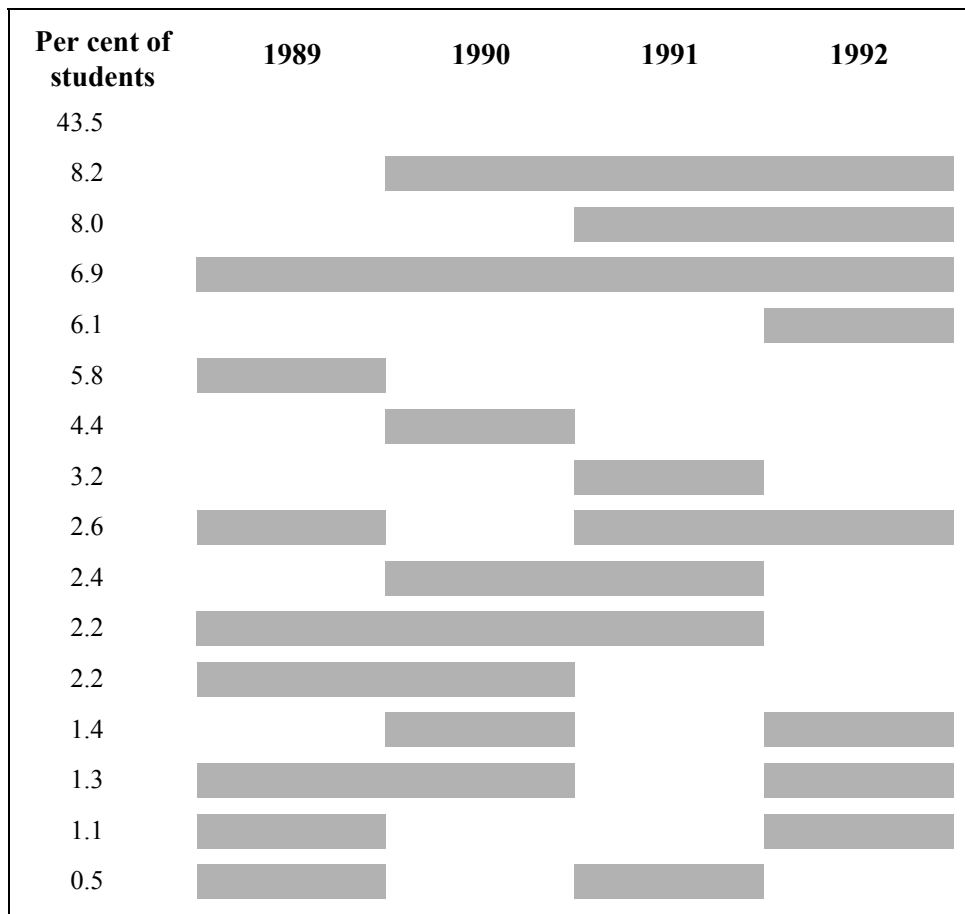
3.2 Hours employed

While the number of school students who have part-time jobs has grown substantially during the last two decades, and can be shown to differ according to students' age and year level at school, the time which students spend in their jobs is equally relevant when considering the question of the extent of student participation in the work force.

3.2.1 Variation in hours employed over time

The data presented in Table 3.4 provide information about the number of hours worked per week by school students who were aged 17 and employed part-time in the decade between 1982 and 1992. These figures suggest that, even though Table 1 showed that the percentage of students who had part-time jobs grew over the period, the amount of time students typically spent in their jobs did not change all that much. This can be seen by the fact that the median number of hours worked per week, for both males and for females, was consistently eight, with the single exception of males in 1987, when it was ten hours per week.

Figure 1 The work history of a sample of school students, 1989-1992



n=2664

Participating in part-time work in October of the relevant year

However the average hours that students worked did increase over the decade 1982-92, rising from 7.6 to 9.1 hours per week for all persons. There was a steady growth for females - from 7.1 hours in 1982, to 8.4 in 1987, and to 9.0 hours per week by 1992. In earlier years, males worked a higher number of hours on average than females. Between 1982 and 1987 there was a relatively large increase, from 8.3 to 10.2, in the average number of hours worked by males, but this decreased to 9.3 hours in 1992. So for the latter year there was almost no gender difference in mean hours worked per week.

The percentage distribution of the numbers of hours that students worked per week illustrates the trend towards a higher mean number of hours worked. Between 1982 and 1992, the percentage of 17-year old students who were working for more than 15 hours rose (from 3.8 to 10.3 per cent) while the percentage working for up to five hours per week fell (from 30.6 to 25.6 per cent). The gender difference that existed in the earlier years - in 1982 the percentage of males who were working the highest number of hours was more than three times the percentage of females - had disappeared by 1992, when just over 10 per cent of both males and females were working for more than 15 hours per week.

Table 3.4 Hours worked per week by 17-year old school students with part-time jobs, 1982, 1987 and 1992

Hours per week	1982			1987			1992		
	M	F	P	M	F	P	M	F	P
Mean	8.3	7.1	7.6	10.2	8.4	9.1	9.3	9.0	9.1
Median	8	8	8	10	8	8	8	8	8
Number of hours	%	%	%	%	%	%	%	%	%
0 - 5	26.7	33.1	30.6	13.3	23.4	19.7	25.8	25.5	25.6
6 - 10	51.3	57.8	55.3	46.8	55.2	52.1	40.8	45.9	43.5
11 - 15	15.2	7.2	10.3	27.3	16.0	20.2	22.9	18.8	20.6
Over 15	6.8	1.9	3.8	12.6	5.4	8.1	10.4	10.2	10.3
Total per cent	100	100	100	100	100	100	100	100	100
<i>Sample size</i>	183	258	441	121	213	334	347	668	1015

3.2.2 Variation in hours employed with age and year level

The group of students who were at school between 1989 and 1992 and who held part-time jobs in October of each of those years provided information about the number of hours that they worked in their jobs each week. Those data revealed that the average time which students spent in their jobs increased with age and with year level at school. Table 3.5 shows that the mean hours worked per week rose from 8.0 hours at age 14 to 9.1 hours at age 17. Among younger students, males tended to work longer hours than females; however this gender difference dissipated by age 17, when both males and females averaged almost the same number of working hours per week. As a corollary of the increase that occurred with age, year level at school also influenced the number of hours worked, with year 9 students employed an average of eight hours per week in each of 1989 and 1990, and year 12 students averaging 9.4 hours per week in both 1991 and 1992.

Table 3.5 Mean hours worked per week by students with part-time jobs, by age and gender, and by age and year level, 1989-1992

Year	Age	Males	Females	Persons	Year level				
					8	9	10	11	12
1989	14	8.4	7.4	8.0	7.7	8.0	8.7		
1990	15	8.7	8.5	8.6		8.1	8.6	9.1	
1991	16	9.0	8.2	8.5			8.1	8.6	9.4
1992	17	9.3	9.0	9.1				8.7	9.4
<i>Sample sizes</i>									
1989		628	531	1159	212	824	120		
1990		482	712	1194		187	879	126	
1991		453	721	1174			237	829	101
1992		347	668	1015				267	739

3.2.3 *International comparisons*

One of the most striking aspects of these figures concerning the hours which Australian students typically spend in their jobs is that, when compared with their North American counterparts, the former work far fewer hours. About 10 per cent of Australian 17-year old students who were employed worked for more than fifteen hours per week in 1992 (see Table 3.4). More than a decade before, in 1980, that figure in the US was over 33 per cent among tenth grade students, and even higher among twelfth graders. Average weekly working hours were also consequently much higher in the US. In 1980, among twelfth grade students, they were over 21 hours for males, and 18 hours for females (Lewin-Epstein, 1981). In 1987 the National Assessment of Economic Education survey showed twelfth grade male students working an average of 21.5 hours, and females 19.6 hours (Lillydahl, 1990). Canadian students also work longer hours than Australians. King *et al* (1988), in a sample of 13 Ontario high schools, found two thirds of boys worked more than 15 hours per week, while the proportion of girls in this category was a little less, but still over 60 per cent. Among employed secondary school students aged 17-19, 26 per cent worked for more than 20 hours per week (Sunter, 1992). Bernier (1995), using Canadian Labour Force Survey data for the 1993-4 school year, noted that 40 per cent of full time 17-year old students were working more than 15 hours. In the context of such data, most Australian students can be viewed as moderately rather than highly involved part-time workers.

3.3 **Summary of the extent of part-time employment**

There are two major elements to the picture which emerges from these data of the extent of student participation in the part-time labour force. From 1978, when about one quarter of 17-year old secondary school students were working part-time, the proportion of such students has grown, with a very considerable jump between 1987 and 1992; by that year, more than one third of 17-year old school students had a part-time job. There was particularly strong growth in part-time employment among females, mirroring a trend that occurred in the youth labour market beyond the school gate. The percentage of students who worked part-time increased with both age and year level at school, possibly reaching a peak in year 11, with a slight decline in the proportion of year 12 students who have jobs. Hence, it is likely that at present in Australia approximately one quarter of the students in years 9 and 10, and one third of those in years 11 and 12 are involved in regular part-time work throughout the school year. Furthermore, there is evidence that students who take up part-time jobs do so for sustained periods; it is not uncommon for students to work for two, three or four years during their secondary schooling. These levels of work force participation by school students are relatively high by comparison with many other industrialised countries, particularly in Europe, but not as high as those in North America.

However the intensity of participation in part-time jobs by the majority of Australian school students, when measured in terms of numbers of hours worked per week - eight or nine hours being a typical figure- is not high by US standards, where 15 or 20 hours is more the norm. Gender differences in mean hours worked by 17-year olds that existed in 1982, when males worked over one hour per week more than females on average, had disappeared by 1992. The mean number of hours worked increased with increasing age and year level of students, ranging from eight hours in year 9 to nine and a half hours in year 12. Although data for 1992 indicated that year 12 students may be a little less inclined to work compared with year 11 students, those in year 12 who did have jobs tended to work slightly longer hours than those in year 11.

There is strong empirical evidence that a proportion ranging between one quarter and one third of students in Australian secondary schools are involved in part-time employment during the school year, generally for about the equivalent of one full working day per week. The question which then arises concerns the types of young people who are most likely to be these student-

workers, and whether there are any differences in employment rates according to students' social and educational background.

4. THE CHARACTERISTICS OF STUDENTS WHO ARE PART-TIME WORKERS

The issue of which students are most likely to have jobs while at school is of interest in itself, and is also important to any assessment of the effects on students of that participation in part-time work. While it is probable that students with personal attributes such as initiative and enterprise have a greater likelihood of being employed, there is a range of other characteristics which can be examined when attempting to describe the sorts of students who take on part-time jobs while they are still at school. Personal and family background factors, including gender, ethnic origin, socioeconomic status, and home location, constitute one group of characteristics which might have an influence on whether students participate in the work force. A second group of possible influences are those which relate to the educational attributes of students, encompassing the type of school they attend, their level of achievement, and other aspects of their school experience.

The relationship between these various aspects of students' family and educational background and rates of participation in part-time employment can be investigated using the *Youth in Transition* data. The measurement of each of these background variables is described below, and is followed by a discussion of the patterns which emerge from analyses of such data.

4.1 The variables

The family background variables are students' ethnic origin, various measures of parental socioeconomic status, and their home location. Educational characteristics include year level, school type, achievement, self-concept of ability, postschool intentions and vocational aspirations.

Ethnic background This refers to father's country of birth, with three broad categories - Australian born, born overseas in an English speaking country, and born overseas in a non-English speaking country.

Parent's occupation The measure is based on father's occupation, but if information on father's occupation was missing, then mother's occupation was used. The six categories, ranging from professional to unskilled, are a condensation of the ANU-2 occupational prestige scale

Parent's education This is based on mother's highest level of education. If information for mother's education was missing, father's education was used.

Family wealth This is based on a factor scale derived from respondents' reports on the nature of their accommodation and on the possession of certain consumer durables (referenced to the time that sample members were at school.) For one of the measures reported in Table 4.1, the scale was divided into quartiles and the middle two quartiles combined; the other measure contrasts students who were in the top and bottom 10 per cent on the scale.

Location The home location of both the 1961 cohort in 1978, and the 1965 cohort in 1982 was measured retrospectively in 1986. Some imprecision might be expected in responses requiring recall over such a lengthy period of time, particularly for the 1961 cohort, although the information on home location, when asked in 1986, was sought for a succession of years, providing a context for that recall. For the 1970 cohort, there was no comparable measure of home location available for 1987, the year in which participation in part-time work was examined, but the question about where students lived was asked prior to that, in 1985 - when students were aged 15, and most likely to be still at home. No such information was available for the 1975 birth cohort.

Year level For the 1961, 1965 and 1975 cohorts, this information was as reported in the relevant year (that is, when sample members were aged 17 in 1978, 1982 and 1992 respectively); for the 1970 cohort, it was estimated for 1987 from the student's year level in 1986.

School type in post compulsory years For the 1961 and 1975 cohorts, this was based on responses referring to the last year of secondary school, and for the 1965 and 1970 cohorts, it was based on school attended at age 16.

Achievement This represents early school achievement, measured by standardised tests in literacy and numeracy administered either at age 14 (for the 1961 and 1975 cohorts) or at age 10 (for the 1965 and 1970 cohorts). At the time of testing, all students in the samples were divided into quartiles according to their level of achievement on the tests. School retention rates into the post compulsory years are not the same for all ability groups however, so that by age 17, the student population in each sample contained a larger proportion of higher early school achievers, and a smaller proportion of lower achievers. Hence the numbers of students in each ability group were no longer approximately equal, as the figures in Table 4.3 show.

Self-concept of ability This was based on a question about how good students perceived themselves to be at their school work in relation to the other students in their class. For most cohorts, the question referred to the year in which it was asked, which was at age 16 for the 1965 cohort, and at age 15 for the 1970 and 1975 cohorts - that is, prior to the year in which employment rates were examined. The exception was the 1961 cohort, of whom the question was asked in 1980, with reference to the respondent's final year of secondary school (for which the modal year was 1978, when students were aged 17).

Postschool intentions Student's postschool plans were measured at age 15 for the 1970 cohort, and age 16 for the 1975 cohort; multiple responses involving various combinations of full-time and part-time work and study were allowed. For purposes of analysis, however, four mutually exclusive categories were used: study only, work only, a combination of work and study, and undecided. Another dimension of study intentions was examined for the 1975 cohort in 1992: that was their type of intended study in the following year, focusing on the distinction between higher education and other tertiary study (mainly TAFE).

Job aspirations Members of the 1975 cohort were asked, at age 14, about their intended job at age 30. Responses were initially recorded in 18 categories, and have been recoded to three major categories - professional, white collar (managerial and clerical) and blue collar (including skilled, semi-skilled and unskilled).

4.2 The relationship between part-time work and family background

Table 4.1 presents information on the percentages of 17-year old students who were employed in 1978, 1982, 1987 and 1992 according to their personal background characteristics.

Table 4.1 Percentages of 17-year old school students who worked part-time, by personal background characteristics, 1978, 1982, 1987 and 1992

	1978			1982			1987			1992		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
All students	26.5	26.6	26.5	27.5	32.0	30.0	21.7	29.2	25.7	30.5	40.3	35.4
Ethnic Background												
Australian-born	26.2	29.8	28.0	28.7	32.5	30.9	21.1	29.3	25.4	32.9	40.7	36.7
English-born	38.8	24.1	31.6	29.6	40.6	35.7	24.0	42.7	34.1	37.3	44.4	40.9
Non-English-born	21.5	15.3	18.8	23.0	25.0	24.1	24.0	23.6	23.8	18.0	36.6	28.0
Parental Occupation												
Professional	32.9	25.5	29.2	15.9	27.7	26.8	8.1	25.1	16.0	35.5	36.6	36.0
Managerial	30.9	28.5	29.7	30.3	28.5	27.7	18.0	28.8	24.7	31.8	42.1	37.2
White-collar	26.7	34.3	30.6	35.3	38.3	37.3	43.7	42.0	43.0	30.8	44.9	37.7
Skilled	17.5	23.5	20.4	36.0	33.4	28.1	22.2	31.3	26.7	26.9	42.9	35.5
Semi-skilled	30.8	27.6	29.0	21.4	33.2	25.6	27.9	24.0	25.7	28.3	41.7	35.1
Unskilled	18.7	22.8	20.8	30.4	39.8	34.3	28.0	29.7	29.0	30.9	36.2	33.6
Parental Education												
Postsecondary	33.4	36.1	34.9	23.4	32.4	28.8	9.5	31.1	21.8	28.2	34.9	31.2
Completed secondary	30.4	24.4	27.5	28.4	30.2	29.4	24.5	30.0	27.2	31.3	40.6	35.4
Some secondary	24.2	27.9	26.2	30.4	32.3	31.5	21.4	30.1	26.2	35.0	43.6	39.8
Primary	23.6	20.5	22.1	25.2	38.6	32.9	26.3	16.0	20.3	10.9	29.2	21.5
Family Wealth												
Wealthiest 25%	30.7	29.8	30.3	28.7	32.4	30.8	20.2	35.7	28.4	38.5	42.3	40.3
Middle 50%	31.1	26.0	28.5	30.9	31.3	31.1	24.4	28.5	26.7	30.1	41.6	36.0
Poorest 25%	13.1	23.5	18.7	12.7	35.5	26.8	20.2	21.3	20.8	22.8	34.7	28.7
Wealthiest 10%	32.4	26.4	29.7	35.4	39.7	37.8	20.1	33.9	28.6	33.6	36.3	34.9
Poorest 10%	15.9	22.8	19.1	9.7	33.2	25.3	15.9	17.8	17.0	24.1	38.6	32.3
Location												
Capital city	30.1	25.2	27.7	30.8	32.8	31.9	26.8	30.7	29.0	<i>na</i>	<i>na</i>	<i>na</i>
Provincial city or town	24.4	32.0	28.5	24.6	36.0	31.5	27.2	39.4	33.1			
Country town or area	15.9	21.2	18.3	30.4	32.3	31.7	4.0	12.4	8.5			

Notes:

Percentages are weighted to take account of state of residence, school system.

Ethnic background is based on father's country of birth.

Parent's occupation is based on father's occupation. If information on father's occupation was missing, then mother's occupation was used. The six categories are a condensation of the ANU-2 occupational prestige scale.

Parent's education is based on mother's highest level of education. If information for mother's education was missing, father's education was used.

Table 4.1 contd. Total sample sizes

	1978			1982			1987			1992		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
All students	957	1009	1966	677	817	1494	658	773	1431	1191	1706	2897
Ethnic Background												
Australian-born	646	715	1361	439	523	962	438	490	928	799	1088	1887
English-born	120	119	239	79	95	174	81	93	174	145	209	354
Non-English-born	188	174	362	149	174	323	132	181	313	189	319	508
Parental Occupation												
Professional	217	226	443	153	191	344	166	149	315	300	349	649
Managerial	232	235	467	175	182	357	112	159	271	254	398	652
White-collar	133	139	272	77	87	164	78	71	149	134	196	330
Skilled	171	176	347	102	134	236	111	119	230	170	259	429
Semi-skilled	92	107	199	69	92	161	73	94	167	117	185	302
Unskilled	93	105	198	63	80	143	57	90	147	125	202	327
Parental Education												
Postsecondary	106	147	253	95	124	219	63	85	148	230	299	529
Completed secondary	240	251	491	269	285	554	244	258	502	405	469	874
Some secondary	388	428	816	215	279	494	245	293	538	439	744	1183
Primary	129	129	258	81	111	192	58	80	138	56	113	169
Family Wealth												
Wealthiest 25%	246	269	515	206	248	454	190	237	427	335	444	779
Middle 50%	350	389	739	300	356	656	303	356	659	549	801	1350
Poorest 25%	136	142	278	74	103	177	137	150	287	261	382	643
Wealthiest 10%	117	127	244	85	108	193	96	155	251	123	174	297
Poorest 10%	93	86	179	55	83	138	42	48	90	96	155	251
Location												
Capital city	300	321	621	298	320	618	373	442	815	na	na	na
Provincial city or town	94	95	189	67	95	162	128	128	256			
Country town or area	60	68	128	40	82	122	105	133	238			

Notes cont:
Family wealth is based on a factor scale derived from respondents' reports on the nature of their accommodation and on the possession of certain consumer durables. The scale was then divided into quartiles and the middle two quartiles combined.
Location is based on responses to question about where respondent was living in the relevant year, except for the 1970 birth cohort, where it refers to 1985.

Gender is one factor that has been shown to be an influence on labour force participation. As the discussion in Chapter 3 indicated, by the 1990s, among students in the postcompulsory years of secondary school, females had considerably higher rates of part-time employment than males. This reflected the situation in the broader labour market, where teenage participation in part-time employment was greater among females than among males. Although in the 1980s males had a higher intensity of involvement in work, when measured by average hours worked per week, by 1992 there was no such gender difference. This does not appear to be the case among younger school students, for whom gender differences in hours worked have persisted - among 14-year olds in 1989, and year 9 students in 1995, males tended to be more likely to have a part-time job, and also to work for slightly longer hours per week.

4.2.1 *Ethnic origin*

The data in Table 4.1 show that students from non-English speaking backgrounds had consistently lower levels of participation in part-time jobs than students from Australian backgrounds in each of the years examined, while students whose fathers were born overseas in English-speaking countries had the highest levels of job holding - the employment rates in 1992 for these three groups were 28 per cent, 37 per cent and 41 per cent respectively. This pattern was true for both males and females (with the exception of females in 1978, when Australian born students had a slightly higher participation rate). These differences in participation rates between students according to their ethnic origin generally remained constant over the years, despite the overall increase in participation in part-time employment. In both 1982 and 1992 the percentage of students from non-English speaking backgrounds who were working part-time was between seven and eight points lower than that for Australian students, and about twelve or thirteen points below students from English-born backgrounds.

Previous Australian studies have indicated that students from non-English speaking backgrounds are less likely to have part-time jobs than other students (Coventry *et al.*, 1984; Latty, 1989; Nolan and Hagen, 1989; Prior and Beggs, 1989). Prior and Beggs analysed national data from the Australian Longitudinal Survey and found that, among students who completed year 12 in 1985, a much smaller percentage (35 per cent) of students with non-English speaking mothers had been employed over the preceding four years than students with English-speaking mothers (61 per cent). Nolan and Hagen examined the incidence of part-time work among students in two secondary schools in Melbourne during 1988 and early 1989, and noted differences of a similar magnitude - employment rates of 35-40 per cent among students of Southern European and South East Asian background compared with 60 per cent among Australian born students. (The figures cited here from both of these studies were based on labour force participation measured over a lengthy period, not at a single point in time, and hence are not directly comparable with the present study.)

What these earlier studies have not revealed, however, is the considerable variation within the non-English speaking group, nor have they made reference to the gender dimension of that variation. From Table 4.1 it can be seen that, in 1992, among 17-year old students from non-English speaking backgrounds, twice as many females had jobs as did males from the same background, whereas the data for previous years - 1982 and 1987 - showed no such gender difference. To examine differences in rates of part-time employment within the non-English speaking background group, *Youth in Transition* data for parents' country of birth can be further disaggregated; this information for the 1975 birth cohort is presented in Table 4.2.

Table 4.2 Participation in part-time employment among 17-year old students whose parents were born in non-English speaking countries, 1992 (percentages)

Country of birth	Father's country of birth			Mother's country of birth		
	Males	Females	Persons	Males	Females	Persons
European	26.5	41.1	34.8	24.7	37.2	32.1
Asian	6.3	29.0	15.6	7.8	31.9	18.0
Other	3.2	24.4	15.8	11.4	25.1	18.4
Total	18.0	36.6	28.0	16.9	34.1	26.2
Non-English speaking						
<i>Sample sizes</i>						
<i>European</i>	<i>118</i>	<i>214</i>	<i>332</i>	<i>97</i>	<i>186</i>	<i>283</i>
<i>Asian</i>	<i>51</i>	<i>66</i>	<i>117</i>	<i>51</i>	<i>70</i>	<i>121</i>
<i>Other</i>	<i>20</i>	<i>39</i>	<i>59</i>	<i>29</i>	<i>36</i>	<i>65</i>

Two features emerge from these data. Compared with students whose fathers had been born in Europe, students from Asian and other backgrounds had very low rates of employment; while about 35 per cent of students with European-born fathers were employed, the figure for the other two groups was less than half that - around 16 per cent in each case. Furthermore, employment rates among these two groups were also much more sharply differentiated by gender than among European born. Females from Asian backgrounds were about five times more likely to have a part-time job than were males from the same background - 29 per cent compared with 6 per cent - and among students from other, non-European backgrounds the difference was even greater. This pattern was repeated, although less marked, when mother's country of birth was taken as the measure of ethnicity.

The lower incidence of part-time work among students from non-English speaking backgrounds in general, and among particular groups of such students, may be explained, on the one hand, by disadvantages which they may suffer in the job market, or, on the other hand, by cultural differences in attitudes resulting in a deliberate decision not to participate in employment while at school. If the former explanation is advanced - for instance, language difficulties could deter or prevent some students from seeking part-time work, or they may lack access to employment opportunities - then it would seem that these barriers to employment are not as great for students whose parents were born in Europe, or for females whose parents were Asian born. A greater commitment to the long-term benefits of education, which therefore accords higher priority to schooling than to a part-time job in the short-term, could be a more probable explanation. Latty (1989:46) had noted from his study of labour force participation among several hundred students in Sydney in 1987 that students from non-English speaking backgrounds were not only less likely to be working, but also less likely to be seeking work, a high proportion citing their studies as a reason for not doing so. If low rates of participation in part-time work reflect a cultural preference for education, this attitude seems to be stronger among students from Asian rather than European backgrounds. It is also conceivable that the difference found between these two groups of students may be partly linked to their parents' length of residence in Australia. Although information on year of arrival is not available from the *Youth in Transition* data, patterns of immigration make it likely that European-born parents have generally been in Australia for a longer period of time than Asian parents. If it is assumed that more recently arrived migrants place an even greater emphasis on the value of education, this may be translated into lower rates of part-time employment among students from those backgrounds. However, if this should be the case, it is perceived to be far more important for males than for females, as evidenced by the discrepancy by gender in rates of part-time employment among students from Asian backgrounds.

4.2.2 Parental occupation

An analysis of the variation in level of job-holding among students according to the occupational background of their parents across each of the four cohorts of 17-year olds does not provide any clear evidence of an association between the two. In 1978, as Table 4.1 shows, the lowest incidence of part-time work was among students whose fathers were in skilled and unskilled occupations (around 20 per cent), while the incidence among students whose fathers were in the other four occupational groups was considerably higher (29-30 per cent). By contrast, in 1982, the groups with the lowest incidence of part-time work were students from semi-skilled backgrounds (26 per cent), and the highest incidence was among students whose parents were in unskilled and white-collar occupations (34 and 37 per cent respectively). This latter group also had the highest percentage of part-time workers in 1987 (43 per cent), but in that year, unlike in 1982, the lowest percentage (16 per cent) was found among students from professional backgrounds - this was true for both males and females, but particularly males. The pattern, then, for the three years 1978, 1982 and 1987, was inconsistent, and in some ways contradictory.

In 1992 there was little variation between students whose parents were from different occupational groups, with percentages employed in each group ranging between 34 and 38 per cent, but with slightly lower rates found among students whose parents were from the lowest occupational category. However, this relative uniformity in 1992 masked a contrasting gender pattern. Among males, students from professional backgrounds had the highest incidence of part-time work (36 per cent) and those from skilled and semi-skilled the lowest (28 and 27 per cent). For females, the two groups which had the lowest levels of employment were students whose parents were from professional (37 per cent) and from unskilled occupations (36 per cent) - that is, the two extremes of the occupational categories - providing some suggestion of a curvilinear relationship.

Overall, these data do not show any clear association between parental occupation and student part-time employment, although a focus on the most recent data, for 1992, suggests that there may be an effect of this background factor, which operates somewhat differently for males and females.

4.2.3 Parental education

Nor is there a consistent relationship over time between educational background of parents and student participation in part-time work in the data shown in Table 4.1. The pattern for 1978 suggested that the likelihood of students - both males and females - having a job increased with level of parental education; 22 per cent of students from the lowest category were in part-time work, while the figure for students whose parents were from the highest category was 35 per cent. The reverse was true for 1982, although the discrepancy between the two extremes was very small - only 3 percentage points. In 1987, the lowest proportions of students who were employed came from these two extreme categories - that is, students whose parents were the most and the least educated - whereas somewhat higher proportions of students from the two middle categories of parental education were employed.

This curvilinear relationship was also found in 1992; higher rates of employment among the middle groups, with slightly lower rates among the most highly educated and much lower rates among the least educated; this was true for both males and females, but markedly so for males. In general, across most years, this lowest level of parental education was associated with a lower likelihood of students being employed.

4.2.4 Family wealth

The strength of the relationship between family wealth and job-holding by students varied over the years shown in Table 4.1, but it was a consistent and positive one. Students from the wealthiest family backgrounds had a higher rate of participation in part-time work than did those from the poorest. In 1978, 30 per cent of students in the wealthiest quartile had jobs, compared with almost 19 per cent of students from the poorest group, and the figures for 1992 were 40 per cent compared with just over 29 per cent.

This contrast in employment rates between students from the most and least wealthy quartiles was not as great in the intervening years, 1982 and 1987. However, in both these years there was a larger difference in rates of job participation when those in the most wealthy 10 per cent and those in the least wealthy 10 per cent of the samples were compared. In 1987, for instance, the difference in employment rates between students in the wealthiest and poorest quartiles was less than eight percentage points (28.4 per cent compared with 20.4 per cent) while it was almost 12 points between the wealthiest and poorest 10 per cent of students (28.6 compared with 17.0 per cent). This gap in employment rates between the top and bottom 10 per cent had narrowed by 1992, to less than three percentage points. In the 1990s, students from the very wealthiest backgrounds were less likely to be employed than others who comprised the wealthy group, and students from the very poorest backgrounds were more likely to be employed than others from poor backgrounds.

4.2.5 Socioeconomic status and part-time work

These data concerning parental occupation, parental educational background and family wealth, when combined, can be used to make some generalisations about the effect of socioeconomic status on a student's likelihood of participating in part-time work. Before doing so, it is useful to review what is known on this issue from other Australian studies, although the evidence is somewhat sparse.

Two earlier analyses drew attention to the possible relationship between socioeconomic status and students who work, without actually attempting to measure the socioeconomic status of student-workers. Bentley and O'Neil (1984) suggested that differences in labour market behaviour of students from independent schools compared with government schools may have been related to socioeconomic variables, while Dalziel (1989) attributed differences between government schools in levels of student participation in part-time work to socioeconomic factors in the areas in which the schools were located. Both these studies implied that high socioeconomic status was positively associated with part-time work.

However, Coventry *et al* (1984) provided some more direct evidence for this view. Their study focused on young people who participated in part-time work, and was based on longitudinal data collected from a sample of 2378 Victorian students who were in year 9 in 1980, and who were surveyed again in 1981 and 1983, when 1833 respondents remained in the sample. Of these, 1050 were still at school in that year, of whom 25 per cent were also working part-time. To examine the relationship between participation in part-time work and socioeconomic status, a composite measure of the latter, consisting of father's occupational status and both parents' level of education, was used. It was found that "a greater percentage of young people from a 'high' SES background (23 per cent) were engaged in part-time work compared with people from low (15 per cent) and 'medium' (17 per cent) SES backgrounds" (Coventry *et al*, 1984:53). These data were for all people who were working part-time when aged 17-18 in 1983, regardless of their educational status - both students and non-students were included. However, for the purposes of the present study, it was desirable to know if there were any differences between non-students and students in this respect. It was possible to use the information provided about the employment and educational status of those in the study in 1983 to separate out those who

were full-time students and part-time workers (n=276) from those part-time workers who were not in education (n=62) and to calculate, for the former group, the relative representation of each socioeconomic group. These derived figures indicate that, among the 276 full-time students who were in part-time work (of whom 259 were at school and 17 in other education), 21 per cent came from the lowest socioeconomic group, 31 per cent were from the medium group, and 47 per cent were from the highest group. The same figures, calculated for the whole sample of part-time workers (students and non-students), were about 25 per cent, 32 per cent and 43 per cent respectively, indicating little difference between student and non-student part-time workers in terms of socioeconomic background, and confirming the positive relationship between socioeconomic status and part-time work.

More recently, McRae (1992) used family income as an indicator of socioeconomic status when examining data from the Australian Longitudinal Survey, and, although the analysis was based on only a small sample (just over 400 students), he showed that, apart from a very high income group (who were much less likely to work), increasing family income was associated with a higher probability of working. McRae concluded that this was evidence for the view that those who have part-time jobs tend to be 'middle class students working for pocket money' (1992:207).

Viewed against these earlier findings, what do the *Youth in Transition* data presented in Table 4.1 tell us? While it is known that parental occupation, parental education and family wealth are not independent variables, from the bivariate analyses discussed above, a number of conclusions can be drawn. First, there is consistent evidence that family wealth is positively associated with part-time employment, although it may be that students from the very wealthiest backgrounds are less likely to be employed. Secondly, while the effect of parental occupation has been mixed, for the most recent data, when both male and female students were considered together, lower rates of employment were found among students whose parents were from the lowest occupational category, although this must be qualified by reference to differences by gender. Thirdly, over most years, low rates of employment occurred among students whose parents had the lowest level of education. Hence these results, in combination, can be seen to support the hypothesis that part-time workers are more likely to come from middle and higher rather than from lower socioeconomic backgrounds. By implication, then, the majority of Australian school students who work are not driven to do so by financial need.

The evidence available from American research indicates a similar situation there. A curvilinear relationship between employment rates and family income was reported in two studies. Young (1979) found that labour market participation of adolescents was highest among middle income rather than lower and higher income families. *High School and Beyond* data for 1980, cited in Greenberger and Steinberg (1986) reinforced this finding - employment rates among grade 10 and grade 12 students increased as family income levels rose, but then declined again for the highest income groups (although not to the levels of the poorest). Furthermore, using parental occupation (both fathers and mothers) as an indicator, Schill *et al* (1985) found, for a sample of almost 4600 high school students in Washington, that employed students came from families with higher socioeconomic status than did unemployed students. Such studies reinforce the notion that school students who have part-time jobs are more likely to be from middle class families and are working by choice rather than young people from less affluent backgrounds who are motivated to work by economic necessity.

4.2.6 Location

Data on home location were available for three groups of students - those living in capital cities, in provincial cities and towns, and in country towns or country areas - as indicated in Table 4.1. There is not a clear and consistent association for all three years between levels of participation in part-time work and where students were living. In 1982, in fact, the same percentage of students - about 32 per cent - were employed in each of the three categories of home location.

However in both 1978 and 1987 the lowest participation rates were among students living in country towns or country areas, while there was little difference between the rates for students from capital cities and those living in provincial cities or towns. A similar pattern was reported by Coventry *et al.* (1984:46). The lower levels of part-time employment among students in rural areas perhaps reflect a dearth of part-time and casual jobs in such locations, or else difficulties of access associated with greater distances. The low participation rates were found among both male and female students, but were lower for males than females (4 per cent compared to 12 per cent in 1987) suggesting that the fewer jobs that may have been available, probably in the service sector, were more likely to have been filled by young females.

4.3 The relationship between part-time work and students' educational characteristics

The percentages of 17-year old students who were in part-time employment, disaggregated by various educational characteristics, are shown in Table 4.3.

4.3.1 Year level

The difference in employment rates between year 11 and year 12 students in any year has not been great (two to three percentage points). In 1992, 35 per cent of year 12 students had jobs compared with 38 per cent in year 11. A similar discrepancy occurred in 1982, although the pattern was the reverse in 1978 and 1987. If the most recent data, for 1992, is taken as evidence that students may now be less inclined to work in a part-time job in their final year of school, then such a tendency is stronger among males than females; the difference in employment rates between years 11 and 12 was larger (six percentage points) for males than for females (one point).

Table 4.3 Percentages of 17-year old school students who worked part-time, by educational characteristics, 1978, 1982, 1987 and 1992

	1978			1982			1987			1992		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Year level												
Year 11	26.2	23.5	25.0	31.2	32.4	31.8	20.5	27.5	24.1	35.4	41.1	38.2
Year 12	27.6	28.7	28.2	24.3	32.5	29.2	22.2	29.0	25.9	28.9	40.1	34.6
School type in post comp years												
Government	25.1	26.5	25.8	33.4	35.7	34.7	23.5	27.6	25.8	32.1	42.2	37.2
Catholic	34.1	30.4	32.4	28.8	32.0	30.8	22.8	32.3	27.6	27.9	39.5	33.6
Independent	21.6	21.4	21.5	10.1	17.4	13.5	14.1	27.4	21.1	26.4	31.8	29.2
Achievement												
Highest 25%	29.4	32.7	30.9	23.8	32.0	27.9	25.0	39.0	32.8	31.1	44.1	36.5
Third quartile	29.2	29.5	29.4	36.4	33.9	34.8	18.6	27.3	23.0	35.4	41.0	38.4
Second quartile	20.9	19.7	20.2	22.4	31.8	28.2	23.2	24.1	23.8	31.9	40.8	36.9
Lowest 25%	18.4	8.5	14.3	30.3	25.6	27.7	17.8	10.2	14.3	19.5	32.6	26.6
Highest 10%	35.9	30.6	33.6	26.9	26.7	26.8	26.9	37.0	32.5	28.6	42.4	33.9
Lowest 10%	12.2	18.4	14.0	25.2	21.6	23.5	17.9	1.5	9.4	22.9	17.1	20.0
Self-concept of ability												
A lot above average	25.9	31.3	28.7	31.4	30.1	30.7	23.2	26.5	25.0	35.7	43.2	39.3
A little above average	26.0	29.8	27.9	30.5	34.9	33.2	20.9	32.0	26.9	31.9	43.2	37.7
About average	24.7	22.6	23.5	22.8	29.9	26.9	24.3	24.9	24.6	28.6	36.9	33.1
Below average	41.6	12.9	32.4	27.7	26.8	27.4	9.1	40.0	20.2	21.0	23.9	21.7

Notes:

Year level: For the 1961, 1965 and 1975 cohorts, as reported in relevant year, while for the 1970 cohort, is an estimate for 1987, based on year level in 1986.

School type in post compulsory years: For the 1961 cohort, based on responses for 1979 and for last year of secondary school. For the 1965 and 1970 cohorts, refers to school attended at age 16. For the 1975 cohort, based on 1993 responses for last year of secondary school.

Achievement: Based on achievement tests at age 14 (the 1961 and 1975 cohorts) or at age 10 (the 1965 and 1970 cohorts).

Self-concept of ability: For the 1961 cohort this was asked in 1980, with reference to respondent's last year of secondary school. For other cohorts, refers to the year in which the question was asked, this being at age 16 for the 1965 cohort, and age 15 for the 1970 and 1975 cohorts.

Table 4.3 contd. Total sample sizes

	1978			1982			1987			1992		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Year level												
Year 11	306	278	584	222	220	442	139	120	259	314	405	719
Year 12	616	710	1326	437	584	1021	475	600	1075	852	1278	2130
School type in post comp years												
Government	656	678	1334	422	514	936	342	420	762	811	1073	1884
Catholic	179	176	355	137	211	348	163	175	338	228	382	610
Independent	122	155	277	114	85	199	114	127	241	152	251	403
Achievement												
Highest 25%	430	393	823	290	288	578	228	283	511	459	519	978
Third quartile	263	309	572	158	220	378	198	235	433	323	503	826
Second quartile	149	215	364	131	175	306	137	188	325	231	411	642
Lowest 25%	112	90	202	87	106	193	95	66	161	177	273	450
Highest 10%	218	180	398	115	112	227	119	143	262	202	206	408
Lowest 10%	40	25	65	39	37	76	32	26	58	64	76	140
Self-concept of ability												
A lot above average	146	152	298	120	122	242	121	134	255	207	268	475
A little above average	284	311	595	277	396	673	281	349	630	493	772	1265
About average	278	345	623	232	273	505	189	215	404	359	549	908
Below average	55	26	81	42	19	61	22	13	35	70	47	117

4.3.2 School type

Students who attended government schools were more likely to be part-time workers than those who were at Catholic or non-government, non-Catholic Independent schools. This was true for each year except 1978, when the percentage of students who were employed was higher in Catholic schools than government schools (for that year, some respondents may have been reporting vacation jobs: see page 5). In 1992, while 37 per cent of government school students had part-time jobs, the figure for independent school students was 29 per cent, a discrepancy that was a little less for males and a little more for females.

This finding is consistent with earlier research. Bentley and O'Neil (1984) surveyed South Australian students in October 1980, and from their data concluded that 'labour force participation rates of students attending government schools are higher than those of students attending independent schools'. The study pointed to differences in labour market participation by students from independent schools compared with students in government schools, noting that the former tended to confine themselves to holiday jobs, rather than working during school term. This disinclination by students at independent schools to combine school with part-time work was also reflected in the reasons that those who were not involved in the labour market gave for not working; almost 65 per cent of students in independent schools cited interference with their studies or exams as a reason, while the figure for students in government schools was 56 per cent.

4.3.3 Achievement

A unique feature of the *Youth in Transition* data is that they contain a measure of early school achievement of sample members, based on standardised tests in literacy and numeracy. Hence it is possible to examine the patterns of students' later part-time employment according to their earlier school performance, at either age 14 or at age 10. For the 1961 birth cohort, for both males and females, there was a positive relationship between school achievement when aged 14 and part-time employment at age 17. While 14 per cent of students who had been in the lowest achievement quartile in 1975 were employed in 1978, the figure for those from the highest achievement quartile was 31 per cent, a contrast that was found for both males and females. The same relationship occurred among students in the 1970 cohort, with higher rates of employment at age 17 in 1987 among those who had been in the top achievement quartile when they had been tested at age 10, and lower employment among the lowest achieving quartile. However for this 1970 birth cohort there was a difference between males and females, with the highest employment rates for males in the highest and second quartile, and lower rates in the lowest (first) and third quartiles.

By contrast, it was not students in the highest but in the second highest achievement quartiles who were more likely to be employed at age 17 for both the cohort tested at age 10 in 1975 and the cohort tested at age 14 in 1989. In the case of the former cohort, the employment rates in 1982 for females were similar for the three highest quartiles, and markedly lower among the lowest achieving group, but for males the second and highest quartiles had lower rates. For 1992, the clearest difference was the lower employment rates among the lowest achieving students, both males and females, so that overall, while the percentage of students from the top three achievement groups ranged between 36 and 38 per cent, just 27 per cent of the lowest achieving quartile was employed.

These data indicate that students who are lower achievers in their early years at school appear to be consistently less likely than higher achieving students to have part-time jobs when they are aged 17. Such a finding is important to any assessment of the effects of part-time work on students' academic performance. American studies by Schill *et al* (1985), Barton (1989) and Lillydahl (1990) which addressed this issue found a similar positive relationship between rates of

employment and student achievement. However, in each of those studies, although there was an association between achievement and part-time employment, the two variables were measured at the same time. Hence no conclusions could be drawn about the causal nature of the relationship. The *Youth in Transition* data highlight the greater propensity of more able students to hold a job, and the need to control for prior achievement levels when investigating the effects of part-time employment on students.

4.3.4 *Self-concept of ability*

It is known from other studies that when students are asked to rate their level of school performance, the distribution of their responses is highly skewed, with relatively small numbers indicating that they believe themselves to be achieving below average in their school work, and large numbers who indicate that they are achieving above average. This is evident in the figures shown in Table 4.3. So some care is required when interpreting the data on students' self concept of their ability. In addition, for three of the *Youth in Transition* cohorts, there was a gap of one or two years between the time when sample members were asked about their perceptions of their school performance - at age 15 or 16 - and the reference year for participation in employment, when students were aged 17. Lower school retention rates might be expected among students who believe that they are not performing as well as their peers, further exacerbating the initially skewed distribution of the responses. A different timing factor may have influenced responses for the other cohort, that born in 1961; those sample members were asked about their level of school performance later, at age 19, referring back to their last year of secondary school. Despite these caveats, however, there is evidence of a pattern in the data, particularly for 1992, which is also consistent with the pattern found for early school achievement.

The rate of part-time employment for 1992 shows a positive relationship with students' perceptions of their ability. Students who believed (when they were aged 15) that the standard of their school work was a little or a lot above average had higher rates of employment when they were aged 17 than students who believed themselves to be performing below average (38-39 per cent compared with 22 per cent), while the rate of job-holding among those who thought they were about average was between these extremes (33 per cent). This association between self-concept of ability and employment was found for both males and females.

For the earlier years, there was some evidence of the same pattern, but there were also gender differences that were contradictory. Lower self-concept was associated with low employment rates, but only for females in 1978, and less so in 1982, and only for males in 1987. There were some instances of the reverse - high employment among those who considered themselves below average at school - among males in 1978, and among females in 1987, although in the latter case very small cell sizes could account for such a divergent finding.

Table 4.4 Percentages of 17-year old school students who worked part-time, by post-school intentions, 1987 and 1992

Postschool intentions	1987			1992		
	Males	Females	Persons	Males	Females	Persons
Study only	19.0	25.9	23.2	28.3	35.7	32.1
Study and work	28.7	38.3	33.4	34.0	49.4	43.1
Job only	25.4	29.9	27.3	32.9	40.0	35.2
Undecided	12.6	25.5	20.1	31.6	38.2	35.0
<i>Total sample sizes</i>						
<i>Study only</i>	<i>241</i>	<i>346</i>	<i>587</i>	<i>475</i>	<i>719</i>	<i>1194</i>
<i>Study and work</i>	<i>121</i>	<i>126</i>	<i>247</i>	<i>191</i>	<i>437</i>	<i>628</i>
<i>Job only</i>	<i>172</i>	<i>133</i>	<i>305</i>	<i>255</i>	<i>173</i>	<i>428</i>
<i>Undecided</i>	<i>78</i>	<i>106</i>	<i>184</i>	<i>177</i>	<i>258</i>	<i>435</i>

Note: Student's postschool plans were measured at age 15 for the 1970 cohort, and age 16 for the 1975 cohort; multiple responses involving combinations of full-time and part-time work and study were allowed, although categories in the table are mutually exclusive.

4.3.5 Postschool intentions

While other factors, particularly school achievement and self-concept of ability, could be expected to have a strong influence on students' postschool study and work intentions, part-time employment while at school may be indirectly associated with students' intentions. The nature of that association is not clear, however. It could be argued that a student with high educational aspirations may be more highly motivated, and therefore also more likely to have a part-time job, as a means of improving future employment prospects. An alternative argument is that a student who has high educational aspirations may be more likely to shun a part-time job, regarding it as an unwelcome diversion from study.

Table 4.4 presents data on the intentions of students, after leaving school, to study, work, or do both. These intentions were measured at age 15 for the 1970 cohort, and at age 16 for the 1975 cohort, and hence can be seen more as predictors of part-time employment at age 17 rather than as outcomes of that employment - although experience of part-time employment in those earlier years may also have had an influence on postschool intentions. For each cohort, employment rates at age 17 were highest among those students who had previously indicated that, after leaving school, they intended to combine work and study, and lowest among those who had said that they intended to study but made no reference to getting a job while doing so. In 1992 the rates of employment for these groups of students were 43 per cent and 32 per cent respectively. Among those who had responded, when asked at age 16, that they would get a job, but not study, when they left school, the employment rate was between these two extremes - 35 per cent. For both males and females, these data show that school students whose postschool plans focused on study alone were slightly less inclined to be part-time workers while at school than those who planned to be in employment when they left school, while the students who planned to combine work and study after leaving school were also the ones most likely to be doing so while attending school.

Table 4.5 Percentages of 17-year old school students who worked part-time, by educational intentions and vocational aspirations, 1992

Intentions and aspirations	Per cent employed		
	Males	Females	Persons
Intentions next year			
Study			
Continue at school	39.3	41.8	40.5
Postschool			
Higher education	25.9	41.4	34.3
Other study	30.8	35.6	33.4
Total postschool study	27.3	39.8	34.0
Total study	31.4	40.5	36.2
No study	27.2	40.0	32.6
Job aspirations at age 30			
Professional	31.6	41.3	36.6
Managerial and clerical	30.4	43.0	35.6
Blue collar	23.9	36.8	30.1
<i>Total sample sizes</i>			
Study			
Continue at school	335	445	780
Postschool			
Higher education	383	727	1110
Other	163	231	394
Total postschool study	546	958	1504
Total study	921	1444	2365
No study	253	253	506
Job aspirations at age 30			
Professional	641	995	1636
Managerial and clerical	188	191	379
Blue collar	143	162	305

Notes

- 1 Some respondents did not indicate type of intended study, so totals for all study are higher than the sum of school and postschool study.
- 2 Job aspirations were asked in 1989, and referenced to age 30; responses were initially recorded in 18 categories.

An additional perspective on this issue of the relationship between students' postschool plans and their involvement in part-time work was provided by examining the differences in rates of employment according to students' study intentions for the following year. These data, for the 1975 cohort at age 17 in 1992, are displayed in Table 4.5.

The table shows that those who were intending students in the following year, 1993, were slightly more likely to be working part-time while at school than those who did not intend to be students, providing some evidence for the view that it is students with higher educational aspirations who are more inclined to be employed when at school. Of those who indicated that they planned to study (either at school or postschool) in the next year, 36 per cent were part-time workers, compared with 33 per cent of those who stated that they were not intending to study. Among the intending students, employment rates were highest for those who were planning to be at school in 1993, (by implication, among year 11 students in 1992), with little difference between males and females - 39 per cent of the former were employed, and 42 per cent of the latter. For those who were intending to undertake postschool study in 1993, however, there was a considerable gender difference in employment rates, and a further

difference according to whether or not the intended study was in higher education. While 26 per cent of males who planned to study at university had part-time jobs, the figure for females was much greater - 42 per cent. The contrast was not nearly as great for those who planned to do other study, primarily TAFE - among males, 33 per cent were employed, among females, 36 per cent. These data imply that males with high academic aspirations were somewhat less inclined to be part-time workers than females with similar goals.

A second aspect of Table 4.5, which addresses the question of whether the aspirations of student-workers differ from non-workers, is the data concerning the kind of job which students thought they would have when older (at age 30). It is known that students' occupational aspirations are highly skewed, in that a far greater proportion hope to occupy higher status occupations than can actually do so. This can be seen in Table 4.5 in the numbers of students in each of the three categories of jobs, with 70 per cent of all students aspiring to professional occupations. These data also provide some further evidence that students with lower aspirations may be a little less inclined to be in part-time work. Employment rates among students who intended to work in professional and managerial and clerical jobs were 36 per cent, while 30 per of those who had said they planned to be in blue collar jobs (skilled, semi-skilled and unskilled) at age 30 had a part-time job when aged 17.

4.4 The relationship between part-time employment rates and demographic and educational characteristics of students : a multivariate analysis

The bivariate relationships between rates of part-time employment among school students and certain aspects of their social and educational background have been described above, drawing on data from four different groups of 17-year olds at different points in time. For one group, those who were aged 17 in 1992, a multivariate analysis technique was used in order to examine the influence of individual variables on the incidence of part-time work among students, while controlling for the effects of other variables. The results of this logistic regression analysis are reported in Table 4.6, which provides parameter estimates, levels of significance, and odds ratios for each variable considered in the model.

The explanatory variables included in the model were discussed in the preceding section; the only variable to be excluded from the model related to students' intentions regarding type of study in the following year, as this was highly dependent on current year level in school. Table 4.6 reveals that most variables were statistically significant above the .05 level (these are shown in bold) but that the most highly significant variables associated with being a student-worker for 17-year olds in 1992 were gender, family wealth, school type and early school achievement.

Table 4.6 Social background and educational characteristics of students in part-time work, 17-year olds in 1992 (N=1981)

	Regression coefficient	Probability	Odds ratio
Gender (compared with Females)			
Males	-0.5421	.0001	.58
Ethnic background (<i>cf</i> English-speaking)			
Non-English speaking	-0.3218	.0219	.73
Parental occupation (<i>cf</i> Prof and Managerial)			
White collar and skilled	0.0104	.9315	1.01
Semi-skilled and unskilled	-0.0255	.8444	.98
Parental education (<i>cf</i> Completed Secondary)			
Primary schooling	-0.3129	.1996	.73
Some secondary	0.1588	.1636	1.17
Postsecondary	-0.3913	.0099	.68
Family wealth (<i>cf</i> Poorest 25%)			
Middle 50%	.3873	.0031	1.47
Wealthiest 25%	.6041	.0001	1.83
Year level (<i>cf</i> Year 12)			
Year 11	.3879	.0004	1.47
School type (<i>cf</i> Government)			
Catholic	-0.1851	.1403	.83
Independent	-0.5507	.0006	.58
Early school achievement (<i>cf</i> Lowest quartile)			
Middle 50%	0.4466	.0080	1.56
Highest quartile	0.4584	.0158	1.58
Self-concept of ability (<i>cf</i> Below average)			
About average	0.2371	.4269	1.27
Above average	0.7090	.0156	2.03
Postschool plans (<i>cf</i> Study only)			
Study and work	0.4482	.0003	1.57
Work only	0.2849	.0639	1.33
Don't know	0.0026	.9857	1.00
Job aspirations at age 30 (<i>cf</i> Other)			
Blue collar	-0.2527	.1042	.78

Males were much less likely than females to be part-time workers; other things equal, females were 1.7 times more likely than males to have a job. An effect of approximately the same size and at the same high level of significance was found when family wealth was considered. Compared with the poorest students, those from the wealthiest quartile were about 1.8 times more likely to be employed, while those from the middle category of family wealth were almost 1.5 times more likely than the poorest students to be workers. Some categories of parental education - the most and the least educated groups - were less likely to be employed than students whose parents had completed secondary school, indicating a curvilinear effect of parental education on student employment. However the effect was statistically significant only for the students whose parents had a postsecondary education. When other factors were held constant the negative influence of a non-English speaking background on participation in employment can be seen, although somewhat smaller in effect than other family characteristics, while parental occupation was not at all a useful predictor of student employment.

Apart from these demographic and socioeconomic factors, the likelihood of whether a student was a part-time worker was also influenced by certain educational characteristics. When all

other factors were held constant, students from government schools were 1.7 times more likely than those who attended independent schools to be part-time workers. Compared with those who were lower achievers, middle and higher achieving students were 1.6 times more likely to be employed. And students who believed that they were above average in ability were twice as likely to be workers as those who thought they were below average. The other variable shown to be significant in Table 4.6 is that which summarises students' postschool plans. Not surprisingly, those students who had previously indicated that they intended to combine study with a job after leaving school were over 1.5 times more likely to be part-time workers while at school than those who intended to proceed solely to further study.

4.5 The relationship between hours worked per week and students' background characteristics

Seventeen year old students in 1992 spent an average of just over nine hours per week in their part-time jobs. However this average varied according to personal and family background characteristics, as the data presented in Table 4.7 reveal. Another indicator of the extent of students' involvement in their jobs is the distribution of working hours provided in the table, namely the percentage of students from each group who worked more than ten hours per week (noting that the mean was 9 hours weekly).

Among students overall, gender had a negligible effect on the average hours worked per week, but for students from a non-English speaking background there was a difference by gender. Although a non-English speaking background was negatively associated with part-time employment, especially for males, those males who were employed tended to work longer hours - over two hours more on average than others. Further analyses, not reported in the table, showed that it was males from European backgrounds, and Asian students, both males and females, who contributed most to the higher than average working hours of this group.

Social background, measured by parental education and family wealth, also had some influence on hours worked. Family wealth was positively associated with an increased likelihood of employment, but students from the wealthiest families tended to work fewer hours per week on average. While 29 per cent of the wealthiest students worked for more than ten hours per week, among students from the poorest quartile the figure was 37 per cent. The latter students worked around ten hours per week, over an hour more on average than students from wealthier families (the contrast was one and a half hours for females). The highest and lowest levels of parental education were linked with lower employment rates than the middle groups (much lower for the least educated). But students whose parents had postsecondary education worked about 2 hours less on average than other students, while those with the least educated parents worked similar hours to the majority of students.

Employment rates were highest among students from government schools, and those students also spent on average over two hours more per week in their jobs than students from independent schools - nine and a half hours per week compared with just over seven hours. The percentage of students in government schools who worked for more than ten hours per week was more than double that figure in independent schools - 34 per cent compared with 15 per cent, and among males the contrast was much starker - 38 per cent compared with 10 per cent.

Table 4.7 Mean hours worked per week, and percentages who work more than 10 hours per week, by students' personal and educational characteristics, 17-year olds in 1992

	Mean number of hours worked per week			Per cent working more than 10 hours per week			Sample size	
	Males	Females	Persons	Males	Females	Persons	Males	Females
All students	9.3	9.0	9.1	33	29	31	347	668
Ethnic background								
Australian-born	9.1	9.0	9.0	32	29	31	239	445
English-born	8.6	9.5	9.1	29	35	32	49	89
Non-English-born	11.2	8.5	9.3	44	21	27	43	104
Parental education								
Postsecondary	8.1	7.4	7.8	22	12	18	66	115
Completed secondary	10.0	9.4	9.7	42	35	39	111	184
Some secondary	9.2	9.2	9.2	31	29	30	144	309
Primary	12.3	8.7	9.5	46	28	32	9	33
Family wealth								
Wealthiest 25%	8.9	8.9	8.9	32	26	29	132	193
Middle 50%	9.5	8.6	8.9	34	27	29	146	326
Poorest 25%	9.7	10.4	10.2	36	37	37	56	122
Wealthiest 10%	8.4	8.9	8.6	34	29	31	45	70
Poorest 10%	10.1	10.0	10.0	31	37	35	22	45
School type								
Government	9.8	9.3	9.5	38	31	34	240	436
Catholic	9.0	8.8	8.9	29	26	27	69	156
Independent	7.1	7.3	7.2	10	20	15	38	76
Achievement								
Highest quartile	8.4	8.8	8.6	25	26	26	151	227
Third quartile	9.6	9.1	9.3	28	30	29	100	200
Second quartile	10.5	8.7	9.3	54	26	37	66	161
Lowest quartile	10.2	9.8	9.9	44	37	39	30	80
Highest 10 %	7.9	8.2	8.0	22	25	24	62	88
Lowest 10 %	11.5	8.1	10.2	70	27	54	10	11
Self-concept of ability								
A lot above average	8.8	8.7	8.7	21	25	23	70	108
A little above average	9.3	8.6	8.8	34	27	30	152	338
About average	9.7	9.8	9.8	36	36	36	96	185
Below average	9.2	9.0	9.1	45	30	40	15	14
Postschool intentions								
Study only	8.3	8.6	8.5	25	25	25	125	252
Study and work	9.6	9.1	9.2	39	30	33	68	220
Work only	10.3	10.2	10.2	44	41	43	74	62
Undecided	9.8	8.8	9.2	32	25	28	59	97
Study intentions next year								
Continue at school	9.2	8.6	8.9	33	28	30	106	185
Higher education	8.6	8.3	8.4	28	22	24	114	285
Other post sec study	11.2	9.8	10.4	39	40	40	45	84
No study	9.9	11.0	10.5	43	40	41	69	99
Job aspirations at age 30								
Professional	9.1	8.6	8.8	31	28	29	205	402
Managerial/white collar	10.5	11.0	10.7	38	43	40	55	76
Blue collar	9.4	9.9	9.7	38	32	34	29	59

Note: See Tables 4.1, 4.3 4.4 and 4.5 for definitions of variables

Student achievement was positively associated with part-time employment, but negatively associated with the number of hours worked. Thirty nine per cent of the lowest achieving students worked for more than ten hours per week, while 26 per cent of the highest achievers did so. The highest achieving quartile of students worked an average of 8.6 hours per week, and the lowest achieving quartile 9.9 hours. This pattern was similar for males and females, although the difference between the top and bottom quartiles was one hour for females, but closer to two hours for males. The effects of students' perceptions of their own achievement on average hours worked were somewhat similar to the effects of their measured achievement. Students who believed that they were performing below average had markedly lower employment rates than others who thought that their standard of school work was about average or above average. The mean number of hours worked per week, however, was approximately one hour less for both those who considered themselves performing below average and those who thought they were above average, compared with students who thought of themselves as average.

There was a marked difference in hours worked according to students' postschool intentions. Those who had indicated some years previously that, after leaving school, they intended to go on to further study only worked almost 2 hours less per week than those who were intending to be in a job only (8.5 compared to 10.2 hours). Those who hoped to be in professional jobs when aged 30 tended to work for at least an hour less per week than other students. Employment rates were fairly weakly related to students intentions in the following year, but there was a stronger association between their intentions for 1993 and the average hours that they spent in their part-time jobs in 1992. Students who planned to go on to higher education worked an average of 8.4 hours per week, two hours less than those who were intending to do other postsecondary study. Twenty eight per cent of the former group worked for over ten hours per week, while the figure was 39 per cent for the latter. Compared with intending students, those who were not intending to be students were less likely to be employed, yet they worked for longer hours on average - 10.5 hours per week.

4.6 Regression analysis of student background influences on hours worked per week

For those students who were in a part-time job, multiple regression analysis was utilised to investigate the influence of particular variables on the number of hours they worked each week, while holding constant the effects of other variables. Table 4.8 contains the results of this analysis, showing the size of the effect on hours worked of each independent variable, and the probability that such an effect occurred by chance. The probability values indicate that most of the relationships were not statistically significant. However, one exception was the strong and statistically significant association between school type and hours worked. All other factors aside, students from independent schools were found to work on average almost two hours per week less than students at government schools. Other significant influences were parental education, family wealth, and students' year level at school. Students whose parents were more highly educated (with postsecondary qualifications) worked about two and one quarter hours less on average than students whose parents had completed secondary school. Compared with students who came from the poorest families, those students who were from the middle quartiles of family wealth worked on average about an hour and twenty minutes less per week. And year 11 students worked about 50 minutes less per week than year 12 students.

Table 4.8 Effects of social and educational background on hours worked per week, 17-year old students in 1992

	Regression coefficient	Probability
Gender (compared with Females)		
Males	0.4344	.2957
Ethnic background (<i>cf</i> English-speaking)		
Non-English speaking	0.0942	.8754
Parental occupation (<i>cf</i> Prof and Managerial)		
White collar and skilled	- 0.8032	.0923
Semi-skilled and unskilled	0.2956	.5772
Parental education (<i>cf</i> Completed Secondary)		
Primary schooling	0.1650	.8773
Some secondary	- 0.7692	.0888
Postsecondary	- 2.2754	.0003
Family wealth (<i>cf</i> Poorest 25%)		
Middle 50%	- 1.3986	.0112
Wealthiest 25%	- 0.5817	.3565
Year level (<i>cf</i> Year 12)		
Year 11	- 0.8437	.0473
School type (<i>cf</i> Government)		
Catholic	- 0.2177	.6568
Independent	- 1.9286	.0033
Early school achievement (<i>cf</i> Lowest quartile)		
Middle 50%	- 0.1361	.8482
Highest quartile	- 0.6383	.4151
Self-concept of ability (<i>cf</i> Below average)		
About average	0.3776	.7660
Above average	- 0.1513	.9033
Postschool plans (<i>cf</i> Study only)		
Study and work	0.7157	.1316
Work only	1.2020	.0525
Don't know	0.4263	.4751
Job aspirations at age 30 (<i>cf</i> Other)		
Blue collar	-0.5287	.4166
	<i>R</i> ²	.07
	<i>N</i>	734

4.7 Summary of the background characteristics of student workers

These analyses have shown that, while a high proportion of school students (more than a third of 17-year olds) were involved in part-time work, both the likelihood of such involvement and its intensity varied considerably according to demographic and educational characteristics of the students. The following table provides a summary of the way in which students' background characteristics effected levels of participation in employment while at school.

Participation in employment	Average weekly hours in employment		
	Higher hours	No significant effect on hours	Lower hours
Higher participation	<ul style="list-style-type: none"> • Government school 	<ul style="list-style-type: none"> • Female • High family wealth • High and moderate school achievement • High self-concept • Postschool intention to combine study and work 	<ul style="list-style-type: none"> • Middle family wealth
Lower participation		<ul style="list-style-type: none"> • Male • Non-English speaking background • Low school achievement 	<ul style="list-style-type: none"> • Independent school • High parental education

The characteristic that was associated with both a higher likelihood of having a job, as well as a tendency to work longer hours, was attendance at a government school. Another group of characteristics had a strong positive association with participation in part-time work, but not a significant effect on the amount of time that students devoted to their jobs each week. Being female, coming from a wealthier family, being among those in the upper three achievement quartiles (especially the highest quartile) at school, and having a high self-concept of academic ability were in this category, as was the intention to combine work and study after leaving school. A moderately wealthy family background was more likely to be associated with higher employment rates but shorter hours of work per week than found among poorer families.

Conversely, lower employment rates were linked to a number of other aspects of students' background, some of which were also associated with lower hours in the job. Students who attended independent schools and had highly educated parents were less likely to be in part-time work, and if they did have a job, worked fewer hours per week. Some other characteristics were related to lower employment levels, but had no significant influence on the average hours worked; these comprised non-English speaking background, and low school achievement.

This report has examined the questions of how many students have part-time jobs during the school term, and for how long each week, and has also investigated which students are most likely to be employed. The information gained from these analyses can be used to improve our understanding of what is happening in the out-of-school lives of a large and growing number of Australian secondary school students, as they combine full-time study with part-time work. It also serves as the basis for further investigation, particularly into the question of the effects on students of having a job while studying at school.

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