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## **EXECUTIVE SUMMARY**

This report investigates the character and consequences of part-time work by school students. Between one quarter and one third of 17 year-old students are employed during the school year and spend on average nine hours per week in their jobs. Over half of all these 17 year-old student-workers in 1992 were found to be employed in sales jobs, and a third were labourers, with a marked gender difference – twice as many females as males were sales workers, while many more males than females did labouring jobs. Data on which the report is based come from the 1975 birth cohort of the *Youth in Transition* project that forms part of the Longitudinal Surveys of Australian Youth program.

### **Students' Motivation for Working, and Perceptions of their Jobs**

- Most students indicated that they worked not simply for financial reasons; they liked the independence their job gave them, they generally enjoyed the work, and believed that the experience of part-time work would help them obtain employment in later life. These benefits were perceived to be true more often by females, and by middle and lower achieving students, the latter fact highlighting the importance of a part-time job for students whom may not be as well served by the school system as those who are higher achievers.
- For a small proportion of student-workers - perhaps as many as one in ten - there was some evidence of a financial imperative in their decision to work while at school; these were more often students from poorer families, especially those from such families who were receiving the means-tested Austudy allowance.
- Those who were employed were more likely to be happy with many aspects of their lives - especially the money they got, their social life, and their independence - than those who did not have a part-time job. There are gender differences in the relative importance of these positive effects, with part-time employment having a greater influence on the social life and personal relations of males, and on the sense of independence, including financial independence, of females.
- Students as a whole did not perceive their part-time jobs to have had a significant negative impact on their school performance. However there was some evidence that females were more likely than males to say that their schoolwork was effected in this way. For the students who could perhaps be considered most at risk in this respect - that is, those who had been the lowest achievers during their earlier years of secondary school - there was no strong indication that working part-time was seen by them to be any more of a problem than it was for other students. However those working more than 10 hours per week were relatively more concerned about juggling the competing demands on their time, and were more likely to feel that their schoolwork suffered as a result.

### **The Measured Effects of Part-time Work on Schooling**

The hypothesis that a part-time job could adversely affect school performance was tested by examining the associations between in-school employment and school completion and Year 12 results.

- In general, employment status did not have an adverse effect on the likelihood of students completing secondary school or on their academic performance in Year 12. However, Year 11 students who spent more than 10 hours per week in their

jobs were slightly less likely to finish Year 12 than were non-workers. This is consistent with the conclusions from some American studies that intense involvement in employment is associated with an increased probability of dropping out of school. However, it is not definitive evidence that longer hours of work *per se* cause students to leave school before completing Year 12 - other aspects of a student's school experiences could contribute to a process of disengagement from school that is also expressed in a greater involvement in part-time work.

- The end of school results obtained by Year 12 students were a little lower for those who had been intense workers during Year 11 and during Year 12 than they were for non-workers in those years.

### **Initial Labour Market Outcomes**

There is a belief that early experience gained through part-time employment provides an advantage for later participation in the labour market. For sample members who were not in full-time study, a number of indicators of post-school labour force experience were examined at age 19 in 1994.

### **Employment Status at Age 19**

- Part-time work during secondary school reduced the likelihood of post-school unemployment.
- Compared with non-workers in Year 11, students who worked longer hours (more than 10 per week) were advantaged more than those who worked fewer hours, although both groups were significantly less likely than non-workers to be unemployed at age 19.

### **Extent of Unemployment**

- Multiple regression analyses confirmed the significance of a part-time job during secondary school in reducing the amount of time spent unemployed in the early post-school years.

### **Job Type**

- There was little relationship between the highly gender-segregated jobs of in-school workers and their later occupations, although when the job types at age 19 of those who had been employed at school were compared with non-workers at school, there was some evidence that student-workers were slightly over-represented among sales and personal service workers.

### **Income**

The contention that early experience of employment contributes to greater productivity on the part of young workers, which is then rewarded in the form of higher earnings, was investigated.

- Multiple regression indicated that there was no relationship between a young person's hourly earnings at age 19 and their having had a part-time job while at school.

- The exception was for students who had been part-time workers when in Year 12, who reported higher hourly earnings in 1994 compared to non-workers, but only for those students who had committed a longer period of time to their Year 12 job.

Compared with students who had not had a part-time job while at school, student-workers did better in the post-school labour market. They were both significantly less likely to be unemployed when aged 19 and significantly less likely to experience lengthy periods of unemployment, and, in some instances, more likely to earn slightly higher hourly wages.

Australian school students who work part-time gain a knowledge of the labour market and develop skills and contacts which provide them with some advantage in that labour market, at least in the early years after leaving school. Having a part-time job while at school is one of the ways in which a young person can achieve a smoother transition into later full time employment.





# The Effects of Part-Time Work on School Students

## INTRODUCTION

The effects on students of working in a part-time job while at school constitute the subject of this report. Although it is widely recognised that many students are employed part-time out of school hours, little is known about the consequences of such employment. It has been shown that around one quarter to one third of Australian secondary school students regularly hold part-time jobs during the school year (Robinson, 1996). That proportion varies somewhat with age and year level at school, and by gender. Higher percentages of males work at earlier ages, but by the post compulsory years, this is reversed, with considerably greater percentages of females (40 per cent) than males (30 per cent) in part-time employment. The average time spent in those jobs is generally in the order of eight or nine hours per week – among Year 9 students (in 1989, 1990 and in 1995) it was eight hours, while among 17 year olds in 1992 it was nine hours per week (Robinson, 1996, 1997).

To provide a context when considering the influence of part-time employment on secondary school students, it is useful to examine the types of jobs in which those students are involved. In this report the investigation of the consequences of such employment encompasses both the subjective opinions of students who have part-time jobs, and the more readily demonstrable and objectively measured effects over a number of years. The latter include effects on school completion, on end of school achievement as indicated by final year results, and on labour market outcomes in the initial post-school years.

Findings reported here are based on data from the 1975 birth cohort of the *Youth in Transition* project (see Appendix). The discussion of students' views of their part-time jobs - both their motivation for working, and their perceptions of how their job has affected them - focus on full-time secondary school students who were aged 17 in 1992. The potential impact of part-time employment on academic progress is explored through analyses of those students' results gained in Year 12 in 1992 or 1993, and the likelihood of the completion of Year 12 by age 19 in 1994. The latter age is also taken as the reference point for an examination of the influence of employment while at school on a number of post-school outcomes. For young people who were labour market participants at age 19, these outcomes were the likelihood of being unemployed, as well as the extent of unemployment experienced since leaving school, and for those who were employed in 1994, the relationship between previous in-school work experience and job type and income at that later date.

## SCHOOL STUDENTS' EXPERIENCE OF PART-TIME WORK

The existing research literature provides some fairly limited evidence about how Australian school students feel about their part-time jobs - why they want to work in the first place, how they fare as workers, and the consequences that they perceive of having a job. Shedding some light on these questions, previous studies have clearly identified students' desire to earn money as their primary motivation for working (Bentley & O'Neil, 1984; Coventry *et al*, 1984; Hobbs & Grant, 1991; Nolan & Hagen, 1989). Those studies have also claimed, though based on less evidence, that a majority of students were satisfied with their part-time jobs (Murphy, 1986a, 1986b), and have shown that the effects of working were generally seen by students to be positive rather than negative, with personal development, especially enhanced confidence, independence and responsibility, being the greatest benefit (Coventry *et al*, 1984; Munro, 1989; Wilson *et al*, 1987).

But this picture is derived from mainly small-scale studies, there is a dearth of recent information, and in fact relatively little is known about the impact which involvement in part-time work has on students, particularly on their schooling. Data with which to address these questions are available from *Youth in Transition* sample members - in particular, the more than one thousand school students whom, as 17 year olds in October 1992, were also in part-time jobs. Before examining their views of what it was like being employed while a school student, however, it is pertinent to look at the types of jobs those students did, as it seems reasonable to assume that their experiences might vary, substantially or in part, according to the sort of job which they held.

**Table 1** Types of part-time jobs held by 17 year old school students, and mean hours worked per week by job type, 1992

Type of job	Per cent employed			Mean hours per week		
	Males	Females	Persons	Males	Females	Persons
Professionals & para-professionals	4	1	3	8.2	3.7	6.8
Clerks	4	3	3	9.2	6.0	7.8
<b>Sales and personal service workers:</b>						
Cashiers	6	21	14	10.8	9.2	9.5
Other sales	30	49	41	9.2	9.2	9.2
<i>Total sales</i>	<i>36</i>	<i>70</i>	<i>55</i>	<i>9.5</i>	<i>9.2</i>	<i>9.3</i>
Waiters	2	6	5	10.0	8.0	8.4
Other services	2	4	3	9.1	9.3	9.2
<b>Total 'white collar'</b>	<b>48</b>	<b>84</b>	<b>69</b>	<b>9.3</b>	<b>8.9</b>	<b>9.1</b>
Tradespersons, plant & machine operators	3	1	2	12.0	7.5	10.3
<b>Labourers:</b>						
Kitchenhands	16	9	12	11.4	10.7	11.1
Cleaners	7	2	4	6.4	6.9	6.5
Farmers and gardeners	5	-	2	6.5	2.0	6.3
Other labourers	21	4	11	8.8	8.5	8.7
<b>Total 'blue collar'</b>	<b>52</b>	<b>16</b>	<b>31</b>	<b>9.3</b>	<b>9.3</b>	<b>9.3</b>
Total per cent	100	100	100			
Mean hours worked per week				9.3	9.0	9.1
<i>Sample size</i>	<i>358</i>	<i>691</i>	<i>1049</i>	<i>346</i>	<i>664</i>	<i>1010</i>

## Types of Jobs

The school students who were employed in 1992, when they were aged 17, were asked details about the jobs that they did. These jobs were classified according to the Australian Standard Classification of Occupations (ASCO); the percentages that were employed in the various major occupational groups are shown in Table 1, with some groups combined due to the small numbers involved.

The majority of students were concentrated in a few occupations. Considering the figures for all persons, the largest single occupational category was sales, which accounted for over half (55 per cent) of all student-workers. Of these, 14 per cent specifically indicated they worked as cashiers and 41 per cent as other sales workers<sup>1</sup>. The sales category was further inflated by the inclusion of students who worked in jobs that involved both preparing and selling food, such workers being coded as sales assistants rather than as kitchenhands. Twice as many females as males were employed as salespersons - 70 per cent of females, compared with 36 per cent of males. This same gender imbalance was also found for the other categories of this broad ASCO occupational grouping - jobs as waiters and other service jobs (of which a large proportion were child care) were dominated by females.

Only small proportions of students were employed in the other types of jobs, apart from sales, which are considered to be 'white collar' occupations - that is, clerical work, and professional and para-professional jobs such as musicians, sports coaches and referees. Males tended to outnumber females in both these groups. Nevertheless, due to the preponderance of females in the sales and personal service category, the total proportion of employed females who were in white collar occupations was more than four fifths, while the figure for males was less than half. This was in marked contrast to the gender composition of 'blue collar' occupations.

Among the blue collar occupations, over 30 per cent of all students worked as labourers - 12 per cent as kitchenhands, 4 per cent as cleaners, 2 per cent as farmhands and gardeners, and 11 per cent did other labouring jobs, for instance, as packers and shelf stackers in supermarkets. But while almost one third of students were employed as labourers, males were far more likely than females to be in such work; around 50 per cent of males were in labouring jobs, while the figure for females was 15 per cent. For the purpose of this discussion, the small number of students who were coded as working in the separate ASCO groups of tradespersons and plant and machine operators were combined. The former included those with such jobs as mechanics and pastry cooks, although it is more likely that they would have been actually working as labourers in these areas, rather than as qualified tradespersons. Plant and machine operators included students with jobs in businesses such as photographic processing and dry cleaning. More males than females were also involved in this combined category.

Overall, then, female students were primarily employed in white collar jobs, predominantly as sales workers, while a majority of the males who worked were in blue collar labouring jobs. The second set of columns in Table 1 provides information about the average number of hours worked per week by students in the different job categories. The pattern which emerges from those data is one where salespersons and personal service workers, the largest single occupational group, worked close to the average number of hours for all workers - about nine hours - with not much difference

by gender, except for the above average hours worked by the small number of males who had jobs as cashiers and waiters. One other large group, kitchenhands, tended to work longer hours (about 2 hours more), while those in most other jobs worked less than the average number of hours for all student-workers - cleaners, for instance, worked between six and seven hours on average.

### **Reasons for Working**

The question of what prompts students to take on a part-time job while they are still at school has been investigated in a number of previous research studies, and these have revealed various overlapping reasons. The wish to earn money was the most widely cited reason (Bentley & O'Neil, 1984; Coventry *et al*, 1984; Hobbs & Grant, 1991; Latty, 1989; Munro, 1989; Nolan & Hagen, 1989). A second and related reason was the desire for independence - this could be seen as financial independence, although it could also mean, from a student's perspective, increased personal autonomy, gained as a result of spending time away from the normal constraints of family and school. A third reason for working that was endorsed by students was the longer-term one of acquiring experience that would help them in the future, particularly in getting a job (Nolan & Hagen, 1989). Such experience only rarely involved specific technical skills pertaining to the job, but more commonly it was used as a broad term which encompassed many aspects of working - things that in themselves were of benefit to the student, regardless of their efficacy in leading to future employment. That is, students believed that a part-time job provided them with the opportunity to develop a range of social and personal skills, such as communication skills and self-confidence through working and dealing with other people, and a sense of competence and responsibility that came from turning up to work on time and carrying out designated tasks (Coventry *et al*, 1984; Munro, 1989; Wilson *et al*, 1987). Other reasons for working that were canvassed by researchers, although not supported to any extent by students, were the notion of a job as an activity to avoid boredom, or as a useful contribution to the community, and the influence of peers on the decision to work (Bentley & O'Neil, 1984; Dalziel, 1989; Hobbs & Grant, 1991). The emphasis in these previous studies was on the perceived benefits of having a job - any job - and not on the job itself. Many researchers were fairly dismissive about what students' jobs might teach them, arguing that the generally low level of skill required, and the repetitive nature of the tasks, would not lead to greatly improved job proficiency among students.

In 1992, members of the *Youth in Transition* cohort who were aged 17 were asked to respond to a series of items which probed their experiences of being a part-time worker while they were at school in that year. Some of these items tapped their reasons for working, being prefaced by the statement '*I worked because...*'. Table 2 records the combined percentages of students who agreed or strongly agreed with the various reasons for working. It could be expected that the relative importance of these reasons might vary for different sorts of students, yet previous studies have not dealt with such complexity. The large sample size and the detailed nature of the *Youth in Transition* data enabled more fine-grained analyses to be undertaken. In Table 2 percentage responses are presented for different groups of students. Those groups were defined on the basis of personal background characteristics (gender, family wealth, earlier school achievement, and type of school attended) as well as two characteristics of students' jobs - the type of job in which they were employed (white collar or blue collar) and the number of hours (up to or more than ten hours) that they worked each week.

**Table 2 Percentages of student-workers who agreed with statements about reasons for working, by students' background characteristics, type of job, and hours worked per week, 1992**

Students' reasons for working part-time	Student Achievement			Family Wealth			School type			Job type		Hours worked per week		Gender		
	High	Mid	Low	High	Mid	Low	Govt	Cath	Ind	White collar	Blue collar	1-10	>10	M	F	P
	I liked the sense of independence the job provided.....	79	80	88	81	80	81	81	80	80	<b>85</b>	<b>70</b>	<b>78</b>	<b>86</b>	<b>72</b>	<b>86</b>
I enjoyed the work.....	<b>57</b>	<b>67</b>	<b>68</b>	<b>70</b>	<b>58</b>	<b>66</b>	<b>65</b>	<b>65</b>	<b>52</b>	<b>66</b>	<b>58</b>	65	60	<b>59</b>	<b>67</b>	63
It will help me get a job when I finish studying.....	<b>54</b>	<b>63</b>	<b>67</b>	61	61	59	62	58	54	<b>65</b>	<b>51</b>	60	62	<b>56</b>	<b>64</b>	61
It was the kind of work I want to do as a career.....	<b>9</b>	<b>14</b>	<b>14</b>	<b>18</b>	<b>9</b>	<b>10</b>	12	14	11	12	12	13	9	<b>15</b>	<b>10</b>	12
I needed money to support myself.....	76	77	76	75	78	74	<b>79</b>	<b>76</b>	<b>66</b>	76	78	<b>74</b>	<b>83</b>	77	76	77
The money I earned enabled me to remain a student.....	13	14	13	<b>9</b>	<b>14</b>	<b>19</b>	15	10	12	13	15	<b>12</b>	<b>18</b>	12	15	14
My family needs the money.....	15	13	9	<b>8</b>	<b>14</b>	<b>19</b>	14	12	11	14	11	<b>15</b>	<b>10</b>	<b>9</b>	<b>17</b>	13
It was the family business and I was expected to help.....	6	8	6	<b>9</b>	<b>7</b>	<b>3</b>	<b>6</b>	<b>10</b>	<b>10</b>	<b>5</b>	<b>10</b>	<b>7</b>	<b>4</b>	<b>8</b>	<b>6</b>	<b>7</b>
<i>Sample sizes</i>	<i>387</i>	<i>537</i>	<i>114</i>	<i>329</i>	<i>485</i>	<i>181</i>	<i>689</i>	<i>229</i>	<i>120</i>	<i>706</i>	<i>298</i>	<i>689</i>	<i>287</i>	<i>357</i>	<i>681</i>	<i>1038</i>
	<i>378</i>	<i>527</i>	<i>111</i>	<i>325</i>	<i>472</i>	<i>179</i>	<i>674</i>	<i>222</i>	<i>120</i>	<i>690</i>	<i>293</i>	<i>673</i>	<i>283</i>	<i>352</i>	<i>664</i>	<i>1016</i>
	<i>380</i>	<i>533</i>	<i>111</i>	<i>326</i>	<i>479</i>	<i>178</i>	<i>682</i>	<i>224</i>	<i>118</i>	<i>695</i>	<i>295</i>	<i>680</i>	<i>283</i>	<i>355</i>	<i>669</i>	<i>1024</i>
	<i>383</i>	<i>528</i>	<i>111</i>	<i>325</i>	<i>476</i>	<i>180</i>	<i>678</i>	<i>226</i>	<i>118</i>	<i>694</i>	<i>294</i>	<i>680</i>	<i>282</i>	<i>352</i>	<i>670</i>	<i>1022</i>
	<i>387</i>	<i>547</i>	<i>112</i>	<i>328</i>	<i>490</i>	<i>185</i>	<i>695</i>	<i>232</i>	<i>119</i>	<i>712</i>	<i>300</i>	<i>693</i>	<i>292</i>	<i>360</i>	<i>686</i>	<i>1046</i>
	<i>389</i>	<i>536</i>	<i>113</i>	<i>329</i>	<i>481</i>	<i>185</i>	<i>690</i>	<i>229</i>	<i>119</i>	<i>705</i>	<i>298</i>	<i>689</i>	<i>288</i>	<i>359</i>	<i>679</i>	<i>1038</i>
	<i>383</i>	<i>526</i>	<i>110</i>	<i>324</i>	<i>473</i>	<i>181</i>	<i>678</i>	<i>222</i>	<i>119</i>	<i>689</i>	<i>296</i>	<i>680</i>	<i>279</i>	<i>354</i>	<i>665</i>	<i>1019</i>
	<i>380</i>	<i>529</i>	<i>111</i>	<i>324</i>	<i>475</i>	<i>181</i>	<i>678</i>	<i>224</i>	<i>118</i>	<i>693</i>	<i>293</i>	<i>679</i>	<i>282</i>	<i>351</i>	<i>669</i>	<i>1020</i>

**Notes:**

*Student achievement is based on scores on achievement tests at age 14.*

*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.*

*Job type based on ASCO major groupings, as detailed in Table 1*

*Differences that are significant at the .05 level are shown in bold.*

### *Present Satisfaction with the Job*

Most students in the sample indicated that their reasons for working were related to positive aspects of their jobs - that they gained both independence and enjoyment from working. Four fifths of all student-workers agreed that they worked because they liked the sense of independence that their job provided; in this instance, the phrase 'sense of independence' might refer to either or both personal or financial independence, there being no way of differentiating. And, despite concerns expressed by some earlier researchers about the unchallenging, 'dead-end' nature of most student jobs, 63 per cent of students indicated that they enjoyed their work. This is similar to survey findings reported by Murphy (1986a) in which 67 per cent of students at three Melbourne high schools said that their job was enjoyable and satisfying. Such figures, however, do not necessarily contradict the view, expressed by Ashenden (1990), that students were satisfied with their jobs merely because they expected so little of them.

Females were much more likely than males to give those two reasons for working; for example, 86 per cent of females, compared to 72 per cent of males, agreed that they liked their job because it gave them independence. Earlier school achievement had some effect on these responses, with lower achieving students being about ten percentage points more likely than higher achieving students to endorse the statements relating to independence and enjoyment. For instance, among low achievers, 68 per cent agreed that they enjoyed the work, while the figure for the highest achievers was 57 per cent. Family wealth and school type did not influence responses to the item concerning independence, although there was an effect on enjoyment, with higher percentages of students from wealthier families and from government schools indicating that they enjoyed their work. There was a significant difference on these two items between those in white collar and blue collar jobs. Higher percentages of white collar workers agreed that they liked the independence that came with their job (85 per cent, compared with 70 per cent of blue collar workers) and they enjoyed their work (66 per cent compared to 58 per cent). This reflected, in large part, the gender difference noted above, as females, who tended to be more positive about their jobs than males, predominated in white collar jobs. The amount of time which was spent in a job had a somewhat contradictory, yet plausible, effect on responses to these two items; students who worked longer hours (more than ten hours per week) were significantly more inclined than those who worked shorter hours (up to ten hours) to like the independence which came with a job, but were slightly less inclined to enjoy the work.

### *Future Benefits*

Other reasons why students take on part-time jobs were also canvassed in 1992. As Table 2 shows, a majority (61 per cent) believed that their part-time work would help them get a job when they finished studying. Again, this overall figure masked a gender difference, with females (64 per cent) considerably more likely than males (56 per cent) to agree that they worked because it would help them to get a job later<sup>2</sup>. The view that their part-time work would help them get a job later was held more frequently by white collar workers (once more reflecting the gender difference) than blue collar workers. It was also significantly more likely to be held by lower and middle achieving students (two thirds of whom agreed with the statement) than by higher achievers (of whom just over a half agreed). There was also a variation, although not significant, in responses according to type of school attended - government school students were more likely

than those who went to independent schools to think that their part-time work would help them to get a job later on.

While very many students were working because they believed it would improve their future job prospects, most were not actually employed in jobs that they hoped to pursue as careers. Only 12 per cent of the student-workers indicated that their job was the kind of work they wanted to do as a career. This accords with earlier interview data reported by Munro (1989) and Coventry *et al* (1984:97) - in the words of one student quoted in the latter study, "McDonalds is just a phase in life". Such figures support the view that students perceive the main value of a part-time job to be in enhancing their employability by providing a more general experience of working, rather than in developing job-specific skills. Nevertheless, there were some groups of students who were more likely to be working in a job that was similar to that which they believed they might be employed in the future - boys rather than girls, lower achieving students rather than higher achievers, and also students from wealthier families. About 9 per cent of this last group also agreed that they were working because they were expected to help in the family business, while overall only 5 per cent of other students indicated such a response.

### *Economic Reasons*

Consistent with the findings of earlier studies about the largely financial motivation of students to work, more than three-quarters (77 per cent) of the 1992 sample agreed with the statement that they needed money to support themselves. The percentages were higher among students from government rather than independent schools (79 per cent compared with 66 per cent) and among those who worked longer rather than shorter hours (83 per cent compared to 74 per cent). While it is doubtful that such high proportions of students were literally dependent on the income from their jobs, as a narrow interpretation of the phrase "needed money to support myself" would imply, clearly the earnings derived from part-time work are important to most students.

Further evidence as to just how important earnings were was available from two additional statements about reasons for working. Approximately the same percentage of all student-workers indicated that their family needed the money from their job (13 per cent), and that the money they earned enabled them to remain a student (14 per cent); in both instances, these responses were a little more common among females than males. As family financial circumstances would not be expected to differ much by gender, this could indicate either a gender bias in the responses, or that females were more likely than males to use their earnings to contribute to family expenses. Not surprisingly, there was a strong and consistent relationship between family wealth and responses to these two items about needing money - students from the poorest families were significantly more likely to agree with the statements than students from the wealthiest families - in each case, 19 per cent compared with 8 and 9 per cent respectively.

It was possible to explore another aspect of this question of economic need as a motivation for employment by reference to additional information, also collected from students in 1992, relating to their receipt of an Austudy allowance in that year. As a means-tested payment, Austudy can be used as another partial indicator of family financial status.

**Table 3 Percentages of students who agreed with these reasons for working, by receipt of Austudy, 1992**

Reasons for working	Austudy recipients	Did not receive Austudy	All student-workers
I needed money to support myself.....	82	75	77
The money I earned enabled me to remain a student.....	23	10	14
My family needs the money.....	23	10	13
<i>Sample size</i>	<i>289</i>	<i>802</i>	<i>1091</i>

Table 3 shows that considerably higher percentages of the students who were getting Austudy payments, compared with those who were not, indicated that the money they earned from their part-time job was an important reason for working. Within the group of students who received the Austudy allowance, there was variation in some of these responses according to family wealth, the latter being measured by the possession of certain consumer durables. Some 23 per cent of all Austudy recipients said that their earnings enabled them to remain students, but analyses (not recorded in the table) showed that among the Austudy recipients from the wealthiest families it was 17 per cent, and among the poorest, 33 per cent. While, among Austudy recipients, family wealth did not have the same effect on responses to the item concerning the family need for money, among those who did not get Austudy, a higher percentage (14 per cent) of students from the poorest background said that their families needed the money from their jobs compared with students from the wealthiest families (5 per cent).

Some other information was available from the data about the extent to which students relied on the income from their jobs. They were asked to indicate the approximate proportions (ranging from *none* to *all*) of their money, while they were a student during 1992, that came from various sources - including their parents, their part-time job, and Austudy payments. Table 4 presents their responses relating only to their earnings from part-time jobs, separately for those who did and did not receive Austudy, and disaggregated according to family wealth. About one quarter (26 per cent) of all student-workers said that *all* of their money came from their part-time job; and a total of 61 per cent said that *most* or *all* of their money came from their job. For student-workers who were Austudy recipients these percentages were lower (16 and 44 per cent respectively) and for non-recipients of Austudy they were higher (29 and 67 per cent), illustrating the importance of the Austudy allowance as a supplementary source of income for students. Among non-recipients of Austudy, family wealth did not have a marked effect on the percentages who said that most or all of their money came from their part-time job; for Austudy recipients, however, those from poorer families were less likely than those from wealthier families to indicate that all of their money came from their job (5 per cent compared with 29 per cent), further underlining the value of Austudy for the former group.



**Table 4 Earnings from a part-time job as a proportion of students' total money in 1992 by receipt of Austudy in 1992, and family wealth**

Proportion of money in 1992 which came from a part-time job	Per cent of student-workers											
	Austudy recipients				Did not receive Austudy				All student-workers			
	Family wealth				Family wealth				Family wealth			
	High	Mid	Low	All	High	Mid	Low	All	High	Mid	Low	All
None	5	1	9	4	4	1	5	3	4	1	7	3
Some	18	34	35	31	17	18	18	17	18	23	25	21
Half	19	25	20	22	15	13	8	13	15	16	13	15
Most	29	25	31	28	43	36	34	38	41	33	33	35
All	29	15	5	16	21	32	35	29	22	27	23	26
Total per cent	100	100	100	100	100	100	100	100	100	100	100	100
Sample size	49	133	72	267	277	336	109	753	326	469	181	1020

### The Motivation for Working: a Summary

These data about students' reasons for working, and the extent to which they relied on their earnings, support the view that for the majority of students it was not economic necessity which prompted them to take a part-time job. Although they said that they depended on the spending money their job provided, most students indicated that they worked not only for this extrinsic reason. They liked the independence that resulted from having a job (assuming such independence to be broader than mere financial autonomy), they generally enjoyed the work, and believed that the experience of part-time work would help them obtain employment in later life. These benefits of part-time work were perceived to be true more often by middle and lower achieving students, highlighting the importance of a job for students who may not be as well served by the school system as those who are higher achievers. Despite the fact that most students worked because they wanted to, not because they had to, for a small proportion of students with jobs - perhaps as many as one in ten - there was some evidence of a financial imperative in their decision to work while at school; these were more often students from poorer families, especially those from such families who were receiving the means-tested Austudy allowance.

### Perceived Effects on Schoolwork

The effect of having a part-time job on a student's school performance could perhaps be the issue of most concern to educators and to parents, if not to students themselves. Leaving aside the extensive North American literature on this subject, there have been only a few attempts by Australian researchers to examine the question (Coventry *et al*, 1984; Dalziel, 1989; Murphy, 1986b; Hobbs & Grant, 1991). It could be concluded from those studies that most students did not believe their schoolwork was harmed by their part-time jobs, while the views of teachers, though even less frequently canvassed than those of students, were more mixed.

In investigating the effects of working on schooling, it is appropriate to make a distinction between the perceptions of those involved, and outcomes that may be more objectively demonstrated or measured. This section focuses on the former - the perceived effects - while the next section examines the measured effects.

**Table 5 Percentages of student-workers who agreed with statements about the effects of having a job on schoolwork, by students' background characteristics, type of job, and hours worked per week, 1992**

Effects of part-time work	Student Achievement			Family Wealth			School type			Job type		Hours worked per week		Gender		
	High	Mid	Low	High	Mid	Low	Govt	Cath	Ind	White collar	Blue collar	1-10	>10	M	F	P
	If I hadn't been working I would have spent more time studying.....	42	42	34	41	43	33	<b>42</b>	<b>44</b>	<b>29</b>	43	37	<b>37</b>	<b>53</b>	<b>37</b>	<b>44</b>
I think I would have got better results if I hadn't been working.....	31	33	28	31	32	27	32	30	26	<b>34</b>	<b>27</b>	<b>26</b>	<b>46</b>	30	32	31
It found it difficult to balance the demands of work and study.....	23	25	25	22	24	27	26	25	15	<b>28</b>	<b>18</b>	<b>19</b>	<b>38</b>	<b>21</b>	<b>28</b>	25
I got behind in my studies because of my job.....	17	20	24	<b>22</b>	<b>16</b>	<b>24</b>	21	16	16	<b>22</b>	<b>16</b>	15	<b>32</b>	17	22	20
Teachers encouraged students to give up their part-time jobs.....	18	20	15	<b>22</b>	<b>19</b>	<b>13</b>	17	<b>26</b>	<b>16</b>	20	16	15	<b>28</b>	14	<b>22</b>	19
Teachers made allowances for students with jobs.....	7	7	7	7	6	11	7	10	6	8	5	7	8	4	9	7
<i>Sample sizes</i>	<i>388</i>	<i>535</i>	<i>113</i>	<i>329</i>	<i>480</i>	<i>185</i>	<i>688</i>	<i>228</i>	<i>120</i>	<i>704</i>	<i>297</i>	<i>687</i>	<i>289</i>	<i>356</i>	<i>680</i>	<i>1036</i>
	<i>389</i>	<i>532</i>	<i>112</i>	<i>330</i>	<i>475</i>	<i>185</i>	<i>686</i>	<i>227</i>	<i>120</i>	<i>698</i>	<i>300</i>	<i>685</i>	<i>288</i>	<i>356</i>	<i>677</i>	<i>1033</i>
	<i>389</i>	<i>535</i>	<i>113</i>	<i>331</i>	<i>478</i>	<i>185</i>	<i>690</i>	<i>228</i>	<i>119</i>	<i>705</i>	<i>297</i>	<i>686</i>	<i>290</i>	<i>358</i>	<i>679</i>	<i>1037</i>
	<i>384</i>	<i>530</i>	<i>113</i>	<i>326</i>	<i>478</i>	<i>180</i>	<i>682</i>	<i>225</i>	<i>120</i>	<i>697</i>	<i>296</i>	<i>684</i>	<i>282</i>	<i>354</i>	<i>673</i>	<i>1027</i>
	<i>382</i>	<i>532</i>	<i>112</i>	<i>328</i>	<i>473</i>	<i>182</i>	<i>685</i>	<i>224</i>	<i>117</i>	<i>695</i>	<i>296</i>	<i>679</i>	<i>286</i>	<i>351</i>	<i>675</i>	<i>1026</i>
	<i>383</i>	<i>535</i>	<i>112</i>	<i>330</i>	<i>476</i>	<i>181</i>	<i>687</i>	<i>225</i>	<i>118</i>	<i>698</i>	<i>297</i>	<i>682</i>	<i>287</i>	<i>355</i>	<i>675</i>	<i>1030</i>

**Notes:**

*Student achievement is based on scores on achievement tests at age 14.*

*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.*

*Job type based on ASCO major groupings, as detailed in Table 1.*

*Differences that are significant at the .05 level are shown in bold.*

### *Students' Views*

In 1992, among those students who were employed, opinions were sought on how their job affected their school work, and Table 5 summarises the extent of their agreement with various responses to the question "*What was it like having a job while studying?*" It should be noted again that these students were aged 17, and most were in Year 12 at school although about one quarter were Year 11 students. In fact, there was little or no variation found in responses based on students' year level, except for the instance noted below in relation to their perceptions of their teachers' views. Some 41 per cent of student-workers agreed or strongly agreed with the statement that if they hadn't been working they would have spent more time studying, while 31 per cent believed that their results would have been better. At the same time, 25 per cent agreed that they found it difficult to balance the demands of work and study, and 20 per cent said that they got behind in their studies because of their job.

In all instances, females were more likely than males to say that their schoolwork suffered in these ways - on two items, the differences were statistically significant. Type of job, which was markedly differentiated by gender, therefore had a similar and significant effect on responses - white collar workers, predominantly female, more frequently indicated that they had difficulties combining work and study than did blue collar workers. While the reasons for such a gender difference in opinions are not clear, it was not because females worked longer hours - the mean hours worked per week for males and females was 9.3 and 9.0 hours respectively, and the distribution of the number of hours worked, not reported in Table 1, showed slightly more females than males working between 6-10 hours per week, and fewer females than males working 11-15 hours. It may be in part because females are generally more concerned about their schoolwork. From their survey of Queensland Year 11 and 12 students, Hobbs & Grant (1991) found that, compared with males, females reported spending more time outside school hours on study and assignments, yet the researchers did not detect a consistent gender difference in scores on what they termed the time availability scale - a set of items concerned with students' perceptions of the time available for study and school assignments.

Hobbs and Grant (1991) considered a number of indicators, and concluded that while there was no evidence for a strong relationship between involvement in paid work and students' perceptions of school or their progress in school, they did find some small differences between non-workers, moderately involved workers (defined as those working up to nine hours per week), and highly involved workers. Students in this last category allocated slightly less time to study and assignments, and their responses to items on the time availability scale indicated lower levels of agreement that they were finding enough time for schoolwork. It is not surprising, therefore, that the *Youth in Transition* data show that in 1992 students who worked for longer hours (in this instance defined as working more than ten hours on average per week) were significantly more likely than those who worked for shorter hours (up to ten hours) to agree with the statements about some of the difficulties caused by having a job. For two of the four items related to schoolwork, highly involved workers were twice as likely to agree that the effects of working could be considered detrimental - for example, 32 per cent said they got behind in their studies because of their job, compared with 15 per cent of moderate workers.

School type also had a consistent influence on the pattern of responses, reflecting the strong correlation between hours worked and type of school attended. Students from independent schools (who worked fewer hours on average) were less likely to indicate that their schoolwork suffered as a result of their participation in a job.

There was some variation in the influence of school achievement on students' opinions about how their school work was affected, but the differences in responses between achievement groups were not statistically significant. Students from the lowest achievement group were less likely (34 per cent) than higher achieving students (42 per cent) to indicate that participation in their job was at the expense of time that would have otherwise been devoted to schoolwork. It may be that such figures simply represent a realistic self-assessment on the part of lower achieving students - that they would have been less inclined to allocate more time to school study, regardless of their employment status. However, these lower achievers were somewhat more likely to agree that they got behind in their studies because of their job (24 per cent compared to 17 per cent). Differences on the other two items were very small - lower achievers were only slightly less likely to say that they would have got better results at school if they hadn't been working, and they were a little more likely than others to agree that they found it difficult to balance the demands of work and study.

Students' opinions varied a little according to family wealth, following a similar pattern to that for achievement. Compared with students from wealthier backgrounds, those from the poorest families were somewhat less likely to say that they would have spent more time studying, but were a little more likely to agree that they had difficulty in balancing their work and study. In fact students from the wealthiest and from the poorest families were more likely than those from the middle group to indicate that they got behind in their studies because of their job.

In summary, while about one quarter of the students who were employed expressed a view that working had some kind of adverse effect on their schooling, taken together, these data suggest that students in general did not perceive their part-time jobs to have had a significant negative impact on their school performance. And for the students who could perhaps be considered most at risk in this respect, those who were the lowest achievers during their earlier years of secondary school, there was no strong evidence that working part-time was seen by them to be any more of a problem than it was for other students. However, there was evidence that intensively involved workers were more concerned than moderately involved ones about juggling the competing demands on their time, and were more likely to feel that their schoolwork suffered as a result.

### *The Views of Teachers*

One further aspect of this question of the interaction between school and work that has been little researched in this country is the attitude of teachers to their students who have part-time jobs. Ashenden (1990) noted only three studies which referred to the matter (Dalziel, 1989; Munro, 1983; Wilson *et al*, 1987). All were small scale and are now rather dated; they indicated that while some teachers were concerned that school work would suffer, others saw employment as beneficial to students. Table 5 shows that, from the *Youth in Transition* data, in 1992, almost one fifth (19 per cent) of students who were working felt that teachers encouraged students to give up their jobs, and only a very small proportion (7 per cent) believed that teachers made allowances for those students who did have jobs. It must be remembered, however, that these figures relate

specifically to students who were aged 17, of whom a majority were in their final year of secondary schooling. In fact the item concerning teachers discouraging their students from working part-time was the only one for which responses varied by students' year level - analyses not displayed in Table 5 revealed higher percentages of Year 12 students (21 per cent) in agreement than among those in Year 11 (15 per cent). Females and students who worked longer hours were also more likely to agree that teachers encouraged them to give up their jobs.

Such attitudes held by teachers, as perceived by their students, may not accurately reflect the views of teachers in general toward student-workers in general. It is possible that teachers have a more positive attitude to part-time workers in the middle years of school than in the later years, when they may expect students to give greater priority to academic work.

Furthermore, the growing emphasis in recent years on vocational preparation within schools and the rapid expansion of structured workplace learning and other such programs into senior secondary curricula undoubtedly mean that these figures for 1992 reflect a situation that is much less likely to be true in the later 1990s. The recognition by schools that large proportions of their students are now part-time workers out of school hours has been slow in coming, but that reality must now be both accommodated and built upon. Indeed there is reason to believe that current opinion in Australian schools is very favourable towards students combining their studies with some paid work. The widespread view is that part-time work enhances students' longer-term job prospects because it is seen by prospective employers as an indicator of motivation and initiative. As a sign of the acceptance of this attitude, some schools in the Independent sector have begun to employ consultants to run programs to teach their students strategies for finding and getting part-time work (Rance, 1997, 1998).

### **Effects on Other Aspects of Life**

The research literature, especially that from North America, contains numerous references to various other effects, not necessarily directly related to educational outcomes, which part-time employment is claimed to have on students. From an Australian perspective, the perceived positive effects of employment on a range of aspects of personal and social development have already been mentioned in the discussion of students' reasons for working. In the American context, Greenberger and Steinberg (1986) have been the most vocal on the negative side; they argued the case that teenage work had detrimental consequences - among others, that it resulted in anti-social behaviour (increased use of alcohol and tobacco, and criminal activity such as theft from employers), undermined family relationships, and promoted poor attitudes among young people, including excessive materialism and cynicism about work. While potential effects on other aspects of life, either good or bad, cannot be investigated using the existing *Youth in Transition* data, a more general assessment of the association between part-time employment and students' quality of life can be undertaken.

**Table 6 Percentages of students who were very happy or happy with various aspects of their lives, by employment status and gender, and, for those employed, type of job and hours worked per week, 1992**

	Non-working students			Student-workers						
	M	F	P	Gender			Job type		Hours employed	
				M	F	P	White C	Blue C	Up to 10	Over 10
The work you did (on the job, at school, at home).....	50	46	48	52	50	51	52	48	50	51
The money you got each week.....	34	35	<b>34</b>	55	59	<b>57</b>	<b>61</b>	<b>51</b>	<b>52</b>	<b>69</b>
Your social life.....	<b>63</b>	<b>70</b>	<b>66</b>	73	74	<b>73</b>	74	73	71	76
Your independence.....	<b>62</b>	<b>57</b>	<b>59</b>	66	68	<b>67</b>	67	67	65	70
What you did in your spare time.....	<b>78</b>	<b>69</b>	74	<b>81</b>	<b>65</b>	72	69	75	72	68
How you got on with people in general.....	<b>76</b>	<b>81</b>	78	80	81	81	81	78	80	79
The people you work with.....	-	-	-	68	71	70	71	67	68	70
Your prospects for promotion.....	-	-	-	<b>28</b>	<b>21</b>	24	<b>26</b>	<b>18</b>	<b>20</b>	<b>30</b>
Your standard of living....	<b>77</b>	<b>81</b>	<b>79</b>	86	82	<b>84</b>	85	81	<b>85</b>	<b>80</b>
Life as a whole.....	62	60	61	<b>67</b>	<b>59</b>	63	<b>65</b>	<b>57</b>	64	60

*Differences that are significant at the .05 level are shown in bold.*

The 17 year-old students who were surveyed in 1992 were asked to indicate how happy they felt about different aspects of their lives. In order to obtain a measure of their subjective well-being, or quality of life, students were asked to rate a number of dimensions of their life in response to a question "In 1992, all in all, how did you feel about...", with the categories on the five point response scale being 'very happy', 'happy', 'fairly happy', 'unhappy' and 'not applicable'. Reported influences on quality of life come from a number of areas, including status attainment, both occupational and educational (Williams, 1988). Hence, one of the many possible influences on responses to this general measure of satisfaction with life could be involvement in part-time work. The pattern of responses was analysed, to ascertain whether there was any evidence for this being the case. Table 6 displays the combined percentages of students who indicated that they were either very happy or happy with particular elements of their lives, disaggregated for workers and non-workers by gender, and by type of job and hours worked per week for those who were employed.

A comparison of all students who were working with those who were not revealed that employment was positively associated with higher levels of satisfaction with all aspects of life listed in the table, with the exception of a small negative effect on the item concerning spare time. In particular, students who were employed were more likely than non-working students to be happy with their social life (73 per cent of workers were happy compared with 66 per cent of non-workers), and their independence (67 per cent compared with 59 per cent), and, as expected, very much more likely to be happy with the money they got each week (57 per cent compared with 34 per cent). The association between students' employment status and satisfaction with many aspects of

life could indicate a causal link between the two. It is reasonable to assume that the higher proportion of working students who were satisfied with the money they received each week was a direct result of their having a paid job, and it is also plausible that students who went to work would, as a consequence, develop a greater sense of independence, and wider social contacts and hence an enhanced social life, than those who were not employed. Nevertheless, caution is needed before attributing the apparent differences in levels of satisfaction between workers and non-workers directly to their employment status. It is possible that students who are more independent in spirit and more socially confident also have a greater propensity to involve themselves in a job. Either view - that certain kinds of students are more inclined to select into employment, or that employment has certain positive consequences - could be supported by these data. However, whichever view is adopted, it seems clear that, in 1992, student-workers were happier with their lives than non-workers. Although not directly comparable with the 1992 data (because of differences in the number and wording of the response categories) a similar set of items about satisfaction with their lives was asked of an earlier cohort of students, who were 17 years old in 1982. Compared with those who were not working, students who were working in 1982 had also been happier with the money they got each week, their social life, and their independence. The pattern of their responses showed that employment status then had a very similar though not quite as strong an impact on the likelihood of being happy as it had among those who were aged 17 in 1992.

Table 6 also shows, for both non-working and working students in 1992, percentages for males and females separately. Focusing on the gender gap in responses for workers compared with that for non-workers, it was possible to discern some differences, and hence to make some observations about the relative importance of part-time work for males and females. Among non-workers, while females were somewhat more likely than males to be happy with their social life (70 per cent compared with 63 per cent) and how they got on with other people (81 per cent compared with 76 per cent), among working students there were minimal gender differences on these items, implying that having a job may be more significant, at least in these respects, in the lives of males than in the lives of females. By contrast, with regard to levels of satisfaction with their independence, and the money they got each week, employment appeared to play a greater role for females than for males. Among non-working students, males were happier about their independence than females (62 per cent compared with 57 per cent), yet among workers this was reversed, with females slightly happier than males (68 per cent compared with 66 per cent). Employed females were slightly more likely (59 per cent) than employed males (55 per cent) to be happy with the money they got each week, whereas among non-working students there was no gender difference for this item.

For students who were employed, Table 6 also displays the variation in responses according to both their types of job, classified into two broad categories, and the hours that they worked. There was no difference between white collar and blue collar workers in how they felt about their social life and their independence, and only small differences in their feelings about the work they did, and how they got on with people in general. However, considerably higher percentages of white collar workers were satisfied with certain aspects of their jobs - they were more likely than blue collar workers to be happy with the money they received and their promotion prospects. The explanation for such a pattern may include intrinsic differences in the nature of the jobs in each category, and the rewards that they brought, as well as differences in the gender balance of the workers in each category. For instance, a higher proportion of white

collar workers (61 per cent) than blue collar workers (51 per cent) was happy with the money they got each week. Yet there was not a large difference between the average weekly earnings of each occupational group - further analysis, not recorded in the table, showed a margin of just under \$2 per week in favour of white collar workers. Rather, as indicated above, females were more likely than males to be happy with the money they got, and they comprised the majority of white collar workers.

A higher percentage of males than females were happy with their prospects for promotion in their job - 28 per cent of males compared with 21 per cent of females. On this basis, it might be expected that students in blue collar jobs - mainly males - would be more likely than those in white collar jobs to agree that they were happy about that aspect of their job. However, this was not the case. While 18 per cent of students who had blue collar jobs were happy about their chances of promotion, the figure for white collar workers was larger - 26 per cent. Other analyses, not displayed in the table, showed that among blue collar workers, there was minimal difference by gender in the percentages who were happy about their promotion prospects, yet among white collar workers much higher proportions of males (36 per cent) than females (22 per cent) indicated that they were happy. The same pattern, although not as marked, was found in responses to the item concerning happiness about the work that students did. It seems that, in respect to the nature of the job that is being done and the prospects for improvement that are offered, the experience of part-time work is more favourable for white collar workers, especially for males. This reinforces and explains the differences noted previously in the percentages of white collar and blue collar workers who indicated enjoyment as one of their reasons for working.

Overall, then, while type of job (when based on this broad two category measure) did not greatly influence students' responses about a large number of general aspects of their lives, it did have an impact on those items that most closely reflected their experience of the workplace. The number of hours per week which students worked also influenced some aspects of how they felt about their lives. Most notably, those who worked for more than ten hours each week were much more likely to be happy with the money they got (69 per cent were happy about this, compared with 52 per cent of those who worked for shorter hours - and 34 per cent for those who were not employed), and a little happier with their independence (70 per cent compared to 65 per cent and 59 per cent). Perhaps less predictable, students who worked these longer hours were also somewhat more likely to be happy with their social life. Seventy-six per cent indicated they were happy in this regard, compared with 71 per cent of those who worked shorter hours, and 66 per cent of non-workers, suggesting that time spent in the workplace might be considered by many students as contributing to, rather than impeding, social activities. However there was a slight tendency for longer working hours to be negatively associated with the likelihood of students being happy about what they did in their spare time, and about their life in general.

### **Perceived Effects: a Summary**

These data reporting the subjective views of 17 year old students who were involved in part-time work in October 1992 do not point to any significant problems experienced by those who took on a job while they were still at school. Most worked because they wanted to, and they enjoyed the work, and the independence, particularly the financial independence, which a job gave them. Those who were employed were more likely to be happy with many aspects of their lives - especially the money they got, their social life, and their independence - than non-workers. Measured in these ways, the outcomes



of part-time employment for students, at least in the short-term, appear to be generally positive. However, about one quarter of the students indicated that they thought that their job had some detrimental effects on their schoolwork at the time. The possible impact of employment on more objectively measured outcomes will be examined in the following section.

## THE MEASURED EFFECTS OF PART-TIME WORK ON SCHOOLING

Most Australian teenagers do not believe their schoolwork is seriously harmed by the hours they spend working in a part-time job, if the evidence presented in the previous section is accepted. There may be a difference, however, between the perceptions of those involved, and outcomes that can be demonstrated in a more impartial way. This section uses longitudinal data from the same cohort of young people whose views about their jobs formed the basis of the preceding discussion. Those data are analysed to investigate the association between part-time work while at school and students' progress through school, that progress being measured by completion of Year 12, and also end of school achievement.

### Existing Evidence

Other Australian research provides almost no guidance as to the results that might be expected from such analyses. Although some studies have dealt with perceived effects, very few have explicitly examined the impact of part-time work on school performance. The exceptions are a couple of small-scale studies, carried out more than a decade and a half ago, which made only fleeting reference to the issue. As a postscript to the research by Coventry *et al* (1984) the Victorian Higher School Certificate results of a relatively small sample of working and non-working students were compared, and although the 'pass rate' was found to be slightly higher among workers than non-workers (79 per cent and 74 per cent respectively), this was not a statistically significant difference. Murphy (1986b) also analysed data from three Victorian schools and reported no significant correlation between poor school performance (measured on a five point scale and derived from school records) and part-time work.

By contrast, in the United States, much interest and debate, and a plethora of research studies, have focused on the in-school effects of working during high school. While those investigations yield insights into the possible role of part-time employment as one of a whole range of variables which might influence a student's academic progress, the conclusions drawn from them cannot be automatically assumed to apply in the Australian context. One clear limitation of the overseas studies is that their findings have lacked consistency; the American literature on the subject of the effects of working on school performance and on school completion contains mixed results. Some studies indicate reduced academic performance by students who work (Greenberger & Steinberg, 1986; Marsh, 1991), while others find no negative effect (D'Amico, 1984; Hotchkiss, 1986). Many, however, found that the effects varied, depending on hours worked - that modest involvement in employment did not interfere with academic performance, and was sometimes associated with a positive impact on grades, but intense involvement had negative effects (Barton, 1989; Lillydahl, 1990; Schill *et al*, 1985; Steinberg & Dornbusch, 1991; Steinberg *et al*, 1993).

Less attention has been paid to the impact of employment on school completion, but the results have been similarly inconclusive. Carr, Wright and Brody (1996), for instance, found that working did not significantly influence the probability of completing high

school, yet D'Amico (1984) concluded that while extensive work involvement was associated with an increased rate of dropping out of school for some groups of students, moderate work involvement generally appeared to lead to increased rates of high school completion. Nevertheless, other researchers (Marsh, 1991; McNeal, 1995) also found that working longer hours led to a greater likelihood of dropping out. More recently, McNeal (1997) focused attention on yet another aspect of the issue, arguing that student's employment had a variable effect on dropping out of high school, depending not only on the hours worked but just as importantly on the type of job in which the student was working, and that such effects differed by gender. This is in contrast to an earlier view (Steinberg *et al*, 1982) that there was relatively little evidence to indicate that the effects of employment on adolescents were substantially influenced by the type of work they performed.

### *Reasons for Variations in Findings*

There are methodological differences among the numerous American studies that go some way towards accounting for this variation in findings. Different types of samples have been used, ranging from local to national, and both cross-sectional and longitudinal datasets have been analysed. The cross-sectional nature of many of the studies (Barton, 1989; Lillydahl, 1990; Schill *et al*, 1985) leaves unresolved the question of causal direction. There are also differences both in the range of explanatory and outcome variables used in the analyses, and in the timing of their measurement. Most importantly, the dependent variable school achievement and the independent variable participation in part-time work have been defined and operationalised in different ways. At the outset, there is the question of whether vacation work is included; some studies have done so (Carr *et al*, 1996), while others focused only on employment during school term time. A distinction can also be made between studies that have used work status (whether students were employed or not, at a particular point in time, or at any time throughout a specified period) and others that used work intensity (the extent of involvement in part-time work, generally measured as hours worked per week). In a few instances work was operationalised in a manner which took account of both the intensity and the period of employment - for example, the percentage of weeks during the year that the student worked for more or less than 20 hours (D'Amico, 1984). In general, particularly when attention is focused on examining school outcomes, work intensity rather than work status has increasingly been recognised as the salient influence.

This complexity involved in defining part-time employment for the purpose of investigating outcomes highlights another disparity when considering the relevance for Australia of conclusions drawn from American studies. That is the significant international difference between the intensity of involvement in part-time work by high school students, with American students typically working much longer hours per week than their Australian counterparts - conclusions from many studies would seem to indicate an average of twice as long. Given the American findings which point to the greater importance of work intensity rather than work status, it might be expected that if there were negative effects of part-time work on school performance, for Australian students these effects could be ameliorated by the fewer hours that they worked per week.

Hence the need for an assessment, using Australian data, of the impact on students of having a job while at school - and the data from *Youth in Transition* enable this to be done. The influence of various factors on school performance can be examined,

including the effect of students' labour force participation over a number of years. Secondary school completion can be considered as one indicator of success at school, while a student's end of school achievement measured by final year results also constitutes another means of judging outcomes. Although these two outcomes are investigated separately in the following analyses, they represent different aspects of what is basically the same hypothesis. The most powerful argument against students' working part-time has been that a job could adversely affect school performance. It would seem to be self-evident that students who have a job have less time to study, and hence their schoolwork would suffer. According to this view, student-workers would therefore be less likely to complete all years of secondary school, and those who did reach Year 12 would have poorer end of school results than non-workers. The next section tests this hypothesis.

### **School Completion**

The analytic technique adopted to examine the association between part-time work while at school and the likelihood of school completion was logistic regression. To create the dependent variable - secondary school completion - for the analyses, sample members were categorised according to whether or not, by the age of 19 in 1994, they had completed Year 12.

A range of student background variables was included in the regression analyses, in order to control for the effects of those variables when seeking to determine the impact of part-time work on the likelihood of students completing secondary school. (Refer to for the details of the variables.) There were many ways in which the independent variable, participation in part-time work, could be defined, as the above discussion of the American studies shows. It was possible to consider the effect on school completion of whether or not a student worked in any one particular school year. Students could also be categorised as having been a student-worker at any time throughout any of their school years. Total number of years worked while at school could also be considered. Hours worked per week in any one year was another measure of the extent of involvement in employment, with non-workers being compared with students classified as moderately or highly involved workers - those working from one to ten hours or more than ten hours per week respectively.

The results of two of a series of regression analyses are presented in Table 7, with models that include two different part-time work measures pertaining to Year 11 and sample sizes of approximately 2500. This table reveals, in the first instance, the relative importance of various background factors in predicting the likelihood of school completion for young people who had done Year 11. Among these, there is the significant impact, both statistically and substantively, of earlier school achievement. Students who, at age 14, were in the middle and top quartiles of achievement were more likely to finish school - respectively, twice as likely, and seven times more likely - than those from the lowest achievement quartile. As could be expected, students' intentions about when they would leave school, measured at the same age, were also strong predictors of school completion. Gender was also a significant variable, with girls being more likely than boys were to complete Year 12. Other factors that were associated with school completion were a non-English speaking background, high levels of parental education and attendance at an independent school, all of which had a positive impact, while rural location had a small but negative effect.

**Table 7** Logistic regression analyses of influences on school completion, *Youth in Transition* 1975 birth cohort, by age 19 in 1994

Independent variables		Model 1		Model 2	
		Coefficient	Odds ratio	Coefficient	Odds ratio
<b>Gender</b>					
(cf Females)	Males	-0.53 ***	.59	-0.51 ***	.60
<b>Ethnic background</b>					
(cf English-speaking)	Non-English speaking	0.45 *	1.57	0.35 **	1.43
<b>Location</b>					
(cf Non-rural)	Rural	-0.36 *	.70	-0.44 *	.65
<b>Parental occupation</b>					
(cf Semi-skilled & unskilled)	White collar and skilled	0.00 ns	1.00	0.02 ns	1.02
	Professional & managerial	0.23 ns	1.25	0.22 ns	1.25
<b>Parental education</b>					
(cf Primary & some secondary)	Completed secondary	0.06 ns	1.06	0.02 ns	.98
	Post secondary	0.75 *	2.11	0.70 *	2.01
<b>Family wealth</b>					
(cf Poorest 25%)	Middle 50%	0.23 ns	1.26	0.21 ns	1.24
	Wealthiest 25%	0.40 +	1.49	0.34 ns	1.41
<b>School type</b>					
(cf Government)	Catholic	-0.17 ns	.85	0.02 ns	.98
	Independent	0.70 *	2.02	0.72 +	2.00
<b>Early school achievement</b>					
(cf Lowest quartile)	Middle 50%	0.64 ***	1.90	0.69 ****	1.98
	Highest quartile	1.96 ****	7.10	2.12 ****	8.30
<b>Educational aspirations</b>					
(cf Complete school)	Intention to leave early	-0.98 ****	.37	-0.98 ****	.38
<b>Employment status in Year 11</b>					
(cf Non-workers)	Part-time worker	-0.26 ns	.78	-	-
<b>Employment intensity in Year 11</b>					
(cf Non-workers)	1-10 hours	-	-	-0.21 ns	.81
	More than 10 hours	-	-	-0.54 *	.58
<b>N</b>		<b>2531</b>		<b>2473</b>	

+  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , \*\*\*\*  $p < .0001$

**Notes:** See Appendix for descriptions of the variables.

Differences in sample sizes reflect differences in the numbers for whom labour force data were available - more students provided information about employment status than number of hours worked.

Goodness of fit statistics:

Model 1: Somers' D = 0.543, Gamma = 0.547, Tau-c = 0.771, Log likelihood chi-square = 193.796 with 15DF

Model 2: Somers' D = 0.560, Gamma = 0.565, Tau-c = 0.780, Log likelihood chi-square = 198.852 with 16DF

### Effects of Employment Status

Part-time employment during Year 11 (as measured in October) was not shown to have a significant influence on the likelihood of school completion. As Model 1 indicates, controlling for the effect of other background variables, there was no significant difference between the rates of school completion of students who had been workers

when in Year 11 and those who were non-workers. This analysis, by using employment status in Year 11 as the independent variable, necessarily excludes any students who left school prior to that. It was considered, however, that this would be a more critical year level in terms of making relatively greater demands on students academically, compared with Years 9 and 10. Furthermore, the same result was found in separate analyses (not reported in the table), using employment status (in October) in Years 9 and 10 rather than in Year 11 - students who worked in either of those years were not less likely to complete Year 12 than their non-working peers. Nor was there any negative cumulative effect of employment over successive years - the total number of years worked by students up to and including Year 11 did not have a significant effect on the likelihood of school completion.

#### *Effects of Employment Intensity*

Other studies, based on American data, have demonstrated the importance of considering the intensity of involvement in a job, rather than simply employment status, when examining school outcomes. Therefore Model 2 as shown in Table 7 included separate dummy variables for students who worked from one to ten and more than ten hours per week when in Year 11, compared with non-workers in that Year. This indicates that, at a low level of significance, Year 11 students who worked longer hours in their part-time job were slightly less likely to complete Year 12 than those who were not employed, but there was not a significant difference in school completion between moderate and non-workers. Further analyses, in which dummy variables for moderate and longer hours worked in each of Years 9 and 10 were substituted in the regression, did not produce any evidence that students who worked longer hours were less likely to complete their schooling than moderate or non-workers in those earlier year levels.

#### *Alternative Model Specifications*

In each of the analyses above, the comparison was between non-workers (hours coded as zero) and two categories of workers, based on the number of hours per week they spent in their jobs. Also of interest is the effect of hours worked on outcomes - that is, school completion - only for those who were actually employed. Although the results are not displayed here, a direct comparison of moderate and higher intensity workers, by deleting non-workers and re-estimating the regression equation with moderate workers coded zero, did not show the negative effect on school completion of intense involvement in employment during Year 11 to be statistically significant<sup>3</sup>. A further analysis, however, using hours measured as a continuous rather than a dummy variable, confirmed that weekly hours worked in that year level were associated negatively with school completion.<sup>4</sup>

#### *Discussion*

There is agreement, therefore, between these findings which indicate that Australian students who worked longer hours during their senior schooling were slightly less likely than non-workers to complete Year 12, and the conclusions from some American studies that intense involvement in employment is associated with an increased probability of dropping out of school, despite the disparity between average hours worked by Australian and American students. But the process through which this relationship between school non-completion and intense involvement in part-time work might occur remains a matter for speculation.

It is probable that students who work longer hours in their jobs do so because they are less attached to school, and hence are less inclined to want to continue their schooling. There may be many reasons for this lack of attachment to school, previous academic performance being one. However, as reported elsewhere (Robinson, 1996), students who at age 14 were the lowest achievers were significantly less likely to be employed than other students when aged 17 - therefore the students who were working during Year 11 were not more likely than non-workers in that year to be lower achievers and for this reason to be less attached to school. Furthermore, the regression analyses described here include controls for both levels of achievement and educational aspirations, based on students' intentions concerning when they planned to leave school, each of these variables measured at age 14. The results imply a small negative effect on the likelihood of school completion, over and above the effects of earlier achievement and educational intentions, for students working long hours in Year 11 when compared with those who were non-workers. However, this is not definitive evidence that it is longer hours of work *per se* that cause students to leave school before completing Year 12 - it is equally possible that other aspects of a student's school experiences could contribute to a process of disengagement from school that is also expressed in a greater involvement in part-time work in later years.

When considering outcomes only for students who were employed during Year 11, more intense involvement in work at that time did not have the same negative association with school completion; there was not a statistically significant difference in Year 12 completion between students who worked high compared with moderate hours. This is consistent with previous analyses (Robinson, 1996) which found no significant association between school achievement at age 14 and hours worked per week among 17 year old students. That is, the amount of time which students of the latter age invested in their jobs was not related to a lack of prior academic success at school - among those who were working in their senior years, students who performed poorly earlier in their secondary schooling were not shown to be more likely to 'select' themselves into longer hours of part-time employment.

### **Year 12 Achievement**

The evidence from overseas about the effects of part-time work on school performance, measured by students' level of achievement, is more extensive than that on school completion. The consensus from the North American literature is that employment in itself does not seem to depress school grades; working a moderate number of hours does not have a detrimental effect, but working long hours - in the American context, this means more than 15-20 hours - is associated with lower school grades (Mortimer & Finch, 1986; Schill *et al*, 1985). However this generalisation has been challenged by other research, based on more recent longitudinal data, which found that higher hours of work was not associated with lower academic achievement in the later years of high school (Finch *et al*, 1997; Mortimer *et al*, 1996).

It was possible to test the hypothesis about the effect of working on the level of students' performance in their final year of school using the *Youth in Transition* data for the 1975 cohort. Information was available from respondents about how well they did in their end of school assessment - whether they received a Year 12 certificate, the name of the certificate they received, and, most importantly for this investigation, their tertiary entrance score. The percentile rankings of tertiary entrance scores obtained by

**Table 8 Multiple regression analyses of influences on Year 12 students' tertiary entrance rank, 1992-93, *Youth in Transition* 1975 birth cohort**

Independent variables		Model 1	Model 2
		Employment in Year 11	Employment in Year 12
<b>Gender</b>			
( <i>cf</i> Females)	Males	-3.95 **	-3.40 **
<b>Ethnic background</b>			
( <i>cf</i> English-speaking)	Non-English speaking	6.91 ****	6.83 ****
<b>Location</b>			
( <i>cf</i> Non-rural)	Rural	-0.85 ns	-0.97 *
<b>Parental occupation</b>			
( <i>cf</i> Semi-skilled & unskilled)	White collar and skilled	-0.31 ns	-1.67 ns
	Professional & managerial	7.14 ****	5.60 ***
<b>Parental education</b>			
( <i>cf</i> Primary & some secondary)	Completed secondary	2.31 ns	3.38 *
	Post secondary	3.18 +	4.24 *
<b>Family wealth</b>			
( <i>cf</i> Poorest 25%)	Middle 50%	-0.24 ns	-0.75 ns
	Wealthiest 25%	2.59 ns	2.31 ns
<b>School type</b>			
( <i>cf</i> Government)	Catholic	4.42 **	4.91 **
	Independent	5.50 **	4.14 *
<b>Early school achievement</b>			
( <i>cf</i> Lowest quartile)	Middle 50%	18.42 ****	19.26 ****
	Highest 25%	38.12 ****	37.38 ****
<b>Employment intensity in senior schooling</b>			
( <i>cf</i> Non-workers)	1-10 hours	0.03 ns	2.11 ns
	More than 10 hours	-5.62 *	-3.92 +
<i>N</i>		1041	1031
<i>R</i> <sup>2</sup>		.3038	.3034

+  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , \*\*\*\*  $p < .0001$

students who were in Year 12 in 1992 and in 1993 was used as the dependent variable (see Appendix) in a series of multiple regression analyses, to investigate the effect of part-time employment on end of school achievement, while controlling for the effects of other background variables. There was a sample of over 1000 students for whom percentile rankings of Year 12 achievement were known, and for whom the data for all the relevant background variables were available.

Factors known to influence school achievement were included in the models, and these are listed in Table 8, which records the regression coefficients obtained from two of the analyses. In each case, the overwhelming influence of earlier school achievement on Year 12 results was starkly evident; students who had been in the top achievement quartile at age 14 obtained percentile rankings when in Year 12 far above students who, at the same age, had been in the lowest quartile of achievement. Students from a non-English speaking background were more likely to have higher results, as were students

whose parents were in professional and managerial occupations. Gender and school type were also shown to have an influence on Year 12 results, with females and students from non-government schools being slightly more likely to do better than males and those who attended government schools.

### *Effects of Employment*

Other analyses (not displayed in the table) revealed that Year 12 results were not significantly related to whether students worked in a part-time job in any year at school, from Year 9 to Year 12. However, there remained the more plausible question of whether the intensity of part-time employment, especially during the senior years of schooling, would have any impact on Year 12 attainment. As the figures in Table 8 show, the direction of influence was the same for employment intensity in Years 11 and 12 - intense workers tending to report lower Year 12 results than non-workers, with the significance level of the relationship greater for intense employment in Year 11 than in Year 12.

### *Alternative Model Specification*

When non-workers were excluded from the analyses, and the comparison of Year 12 results was confined to one between moderate and intense workers (with moderate workers coded as zero in the regression analyses), the findings were essentially similar to those described above. Students who worked more than ten hours per week in either of Year 11 or Year 12, but particularly in Year 11, scored slightly lower Year 12 results than those who worked for fewer than ten hours.

These findings, which point to a larger negative impact of intense Year 11 employment on Year 12 outcomes, are consistent with results reported by Marsh (1991). He analysed American *High School and Beyond* longitudinal data relating to the 1980s and concluded that working in Year 12 contributed only marginally to the negative effects of working in Years 10 and 11, and that the effect of working during Year 11 was greater than during Year 10.

### **Part-time Employment and Educational Outcomes: a Summary**

These analyses indicate that, for Australian students in the first half of the 1990s, their status as a part-time worker during the school year did not have an adverse effect on the likelihood of their completing secondary school or on their level of academic performance in Year 12. There was evidence, however, that Year 11 students who were intense workers (spending more than ten hours per week in their jobs) were slightly less likely to finish Year 12 than were non-workers. Furthermore, the end of school results obtained by Year 12 students were a little lower for those who had been intense workers during Year 11 and during Year 12 than they were for non-workers in those years.

These apparent outcomes - for students who worked longer hours in Year 11, a slightly lower likelihood of completing school, and slightly lower Year 12 results - rather than being the consequences of intense employment, could be attributed to a reduced attachment to school. That is, disengagement from school may prompt students to choose to work longer hours in their jobs. For some of these students, the advantages that they perceive in their part-time jobs may outweigh the benefits of staying on at school. In this way, part-time employment may be operating as pull factor that encourages them into leaving school earlier. It is therefore instructive to investigate the



experiences of students in the post-school labour market - a comparison of the experiences of working and non-working students providing some further evidence about the relative efficacy of part-time employment for secondary school students.

### THE INITIAL LABOUR MARKET OUTCOMES OF EMPLOYMENT DURING SECONDARY SCHOOL

There is a widely held belief that early experience gained through part-time employment provides an advantage for later participation in the labour market. Such a perception was shared by a majority of Australian secondary school students who were part-time workers at age 17 in 1992 - as indicated in a previous section, more than 60 per cent of them believed that working while they were at school would improve their post-school job prospects. Parents also have positive views about the effects of youth employment, in that they see it as encouraging better work habits and personal traits such as greater independence and higher self-esteem in adolescents (Phillips & Sandstrom, 1990; Wilson *et al*, 1987).

It is generally assumed that employers favour job applicants with a previous history of part-time work, and there is some empirical support for this commonly held view. A recent survey of employers - based on qualitative data gathered through focus group interviews - included time management and interpersonal skills high among the list of desired skills that employers seek in new graduates. The report of the survey noted that time management is difficult to assess formally in a recruitment situation, so employers look at achievement across a number of areas - including the ability to hold down a part-time job - because a combination of activities is seen as evidence of time management skills. Similarly, employers regard previous work experience, especially in customer service jobs such as supermarkets or fast food outlets, as an indicator of an applicant's inter-personal skills (ACNeilsen, 1998). As one employer quoted in the report remarked:

*....we say we're looking for a good degree with a serving of chips and fries, because if they've stuck at McDonalds for a few years and become a manager or whatever, or Myers or a factory, or working at Woollies or Coles for say 5 or 6 years, and they stick to it, they have to put up with a whole lot of things, so we do look at that.*

(ACNeilsen, 1998: 13)

The question of whether those who acquire experience of employment while they are still at school actually benefit when they leave school and enter the job market has been addressed in a number of American studies. These studies sought to compare the post-school labour market experiences of young people on the basis of their in-school employment, and found that in the first few years after leaving high school those who had worked at school had generally fared more successfully - they had lower rates of unemployment, longer periods of employment, and higher earnings compared with students who had not worked (Meyer & Wise, 1982; Mortimer & Finch, 1986; Steel, 1991; Stephenson, 1981; Stern & Nakata, 1989; Stern *et al*, 1990).

**Table 9 Major activities of sample members in October, 1994, by previous employment status during secondary school**

Activity at age 19 in 1994	Employment status during secondary school	
	Non-workers	Workers
<i>Full-time student</i>		
Employed	17	28
Not employed	26	15
<i>Non full-time student</i>		
Employed full-time	36	42
Employed part-time	10	9
Unemployed	8	4
Not in labour force	4	2
<i>Total per cent</i>	<i>100</i>	<i>100</i>
<i>Sample size</i>	<i>1486</i>	<i>1712</i>

**Note:** The number who had worked during secondary school is greater than that shown in Table 1 as the latter refers only to those who were full-time secondary students as 17 year olds in 1992, whereas this table includes young people who may have been employed in earlier years at school.

To ascertain the extent to which the hypothesised advantages of part-time work while at school that have been shown in the U.S. have also occurred among young Australians, data concerning the initial post-school labour market experiences of members of the *Youth in Transition* cohort born in 1975 were analysed, and the experiences of those who had been employed while in secondary school compared with those who had not. A number of indicators of post-school labour force experience were considered, when sample members were aged 19 in 1994. For those who were labour force participants at that time, two of the outcomes that were examined, by means of multivariate analyses, were employment status in October 1994, and the proportion of time since leaving school that had been spent unemployed. Sample members who were full-time students in October 1994 were excluded from these analyses, even if they were in the labour force, on the grounds that their employment patterns would be likely to reflect different priorities to those of young people who were not engaged in any study. In addition, for non-student labour force participants who were employed full-time at age 19, type of job held and average hourly earnings were also investigated, to test the hypotheses that early experience of employment during secondary school could be translated into higher status jobs and higher earnings after leaving school.

### Employment Status at Age 19

The percentages in Table 9 indicate the main activities of sample members in October 1994, at age 19. These activities are disaggregated by secondary school employment - that is, by whether or not the respondent had been employed during any of the middle or later years of secondary school. In 1994, more than two fifths of the sample were engaged in full-time study, with the same percentage (43 per cent) of students coming from those who had been workers and non-workers in secondary school. This preliminary analysis therefore does not provide any support for the contention that part-time employment while at school harms school results and thereby jeopardises the likelihood of continuing with post-school study. Among those who had previously

worked during secondary school, the percentage who, at age 19, were full-time students as well as part-time workers was much higher (28 per cent) than the comparable percentage for those who had been non-workers at school (17 per cent). Such figures indicate that young people who combined study with a job while they were at secondary school were more likely to continue this pattern into their early post-school years.

Table 9 also shows that, among those who were not full-time students, a higher percentage (42 per cent) of in-school workers than non-workers (36 per cent) was employed full-time at age 19. There was no difference in the percentage who were employed part-time, but the percentage unemployed was lower for those who had been part-time workers at school than for non-workers (4 per cent and 8 per cent respectively). On the basis of these bivariate analyses, working while at school seems to provide a clear advantage later in terms of lower rates of unemployment. However, additional multivariate analyses were also undertaken, in order to examine the effects of being a part-time worker when at school, while also controlling for other factors which could be assumed to influence a young person's job prospects after leaving school. Because the dependent variable for these analyses was dichotomous - either employed or unemployed at age 19 - logistic regression was the statistical technique used<sup>5</sup>.

The background variables used in the model have been described elsewhere (see Appendix). Two additional variables were included, to control for completion of Year 12, and for participation in any study since leaving school, both of which might be expected to (negatively) effect the likelihood of being unemployed in the early years after leaving school. The independent variable of most interest to this investigation was part-time work while at school; this was operationalised as having a part-time job (at the reference point of October) in any year level at secondary school, from Year 9 to Year 12.

As can be seen from Table 10, most of the background variables had no significant effect on the likelihood of being unemployed at age 19. However, when all other things were held constant, those who came from families in the highest wealth quartile were significantly less likely to be unemployed - half as likely as those who were from the lowest quartile of family wealth. In addition, educational factors were significant predictors of unemployment at age 19. Compared to those who had been lower achievers in their early years of secondary school, young people who had been middle and higher achievers were significantly less likely to be unemployed five years later. This is consistent with findings reported by Lamb (1997), whose analyses of similar longitudinal data from the *Australian Youth Survey* showed that students who had poor numeracy and literacy skills at age 14 were significantly more likely to be unemployed when they were aged 19 in 1994 or 1995. Table 10 also reveals that while completion of Year 12 was not significant in predicting unemployment, participation in some form of post-school education, at any time up to age 19, reduced the likelihood of unemployment at the latter age.

But the focus of this investigation was the possible effect on unemployment of being a part-time worker while at school, and it is clear from Table 10 that, even when other factors - including the important ones of early school achievement and involvement in post-school education - are controlled, in-school workers were less likely than non-workers to be unemployed after leaving school, when aged 19<sup>6</sup>. Thus experience of a job while at school appears to confer a benefit in terms of a lower expectation of being unemployed once having left school, at least in the short-term.

**Table 10** Logistic regression analysis of effects of working during secondary school on likelihood of unemployment at age 19 in 1994

Independent variables		Coefficient	Odds ratio
<b>Gender</b>			
(cf Females)	Males	-0.05 ns	.95
<b>Ethnic background</b>			
(cf English-speaking)	Non-English speaking	0.26 ns	1.30
<b>Location</b>			
(cf Non-rural)	Rural	-0.29 ns	.75
<b>Parental occupation</b>			
(cf Semi-skilled & unskilled)	White collar and skilled	-0.16 ns	.86
	Professional & managerial	-0.21 ns	.81
<b>Parental education</b>			
(cf Primary & some secondary)	Completed secondary	0.05 ns	1.05
	Post secondary	0.58 *	1.79
<b>Family wealth</b>			
(cf Poorest 25%)	Middle 50%	-0.25 ns	.78
	Wealthiest 25%	-0.70 **	.50
<b>School type</b>			
(cf Government)	Catholic	0.17 ns	1.19
	Independent	-0.24 ns	.79
<b>Early school achievement</b>			
(cf Lowest quartile)	Middle 50%	-0.59 **	.55
	Highest quartile	-0.65 *	.52
<b>School completion</b>			
(cf Didn't complete Year 12)	Completed Year 12	-0.28 ns	.76
<b>Post -school education</b>			
(cf No post-school education)	Post-school education	-0.97 ****	.38
<b>Employment in secondary school</b>			
(cf Non-workers)	Part-time worker	-0.61 ***	.55
<b>N</b>		1577	

+  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , \*\*\*\*  $p < .0001$

Goodness of fit statistics:

Somers'  $D = 0.404$ , Gamma = 0.407, Tau-c = 0.702, Log likelihood chi-square = 90.737 with 16 DF.

### Extent of Unemployment

Rather than simply relying on a snapshot view of employment status at a single point in time (October, 1994) as the previous section has done, it was also possible to investigate the extent to which sample members had experienced unemployment over the period since they had left school, up to the end of 1994, when they were aged 19. Table 11 provides, for the 1363 young people who were not full-time students and who were in the labour force at age 19 in 1994, an indication of the percentage of time they had spent unemployed since leaving school, separately for those who had been part-time workers while at school and those who had not.

**Table 11** Percentage of time spent unemployed since leaving school, by previous employment status during secondary school, labour force participants at age 19 in 1994

Per cent of time unemployed since leaving school	Employment status during secondary school	
	Non-workers	Workers
No time unemployed	52	69
Less than 10 per cent	16	15
11-20 per cent	7	7
21-30 per cent	8	4
31-40 per cent	5	1
41-50 per cent	5	2
More than 50 per cent	7	2
<i>Total per cent</i>	<i>100</i>	<i>100</i>
<i>Sample size</i>	<i>611</i>	<i>752</i>

After they left school, in-school workers spent a higher percentage of their time employed - 69 per cent of them indicated no months of unemployment, whereas 52 per cent of non-workers in secondary school reported no months of unemployment from the time of leaving school up to the end of 1994. The proportions of workers and non-workers who were unemployed for relatively low percentages of time (up to 10 and 11-20 per cent of the time since leaving school) were about the same, but the figures for the two groups for all categories above 20 per cent of time spent unemployed consistently favoured in-school workers over non-workers - for instance, non-workers were three times more likely to have been unemployed more than 50 per cent of their time since leaving school.

Multiple regression analyses confirmed the significance of a part-time job during secondary school in reducing the amount of time spent unemployed after leaving. The results from one such analysis are displayed in Table 12. The factors which had been shown in Table 10 as significant in explaining the likelihood of being unemployed at one point in time were also important here, where the outcome is the extent of unemployment over a period of years. Family wealth was influential; both middle and higher categories of family wealth had a significant effect on lowering the duration of unemployment. Higher levels of early school achievement, and participation in post-school education by sample members were both significantly associated with less unemployment after leaving school. But of all the variables included in the model, having a part-time job when at school was the most significant predictor of the amount of post-school time that was spent unemployed; in-school workers tended to experience less unemployment after leaving school than did non-workers<sup>7</sup>.

The results of more fine-grained analyses (not reported here) which examined the effect of secondary school employment at different year levels and in different intensities confirmed the significant advantage experienced by part-time workers in their first few years after leaving school, while showing the relatively greater benefit gained from working in the senior years, and from working longer hours in those years.

**Table 12 Regression analysis of effects of working during secondary school on percent of time spent unemployed since leaving school, labour force participants at age 19 in 1994**

Independent variables	Coefficient
<b>Gender</b>	
( <i>cf</i> Females) Males	-1.11 ns
<b>Ethnic background</b>	
( <i>cf</i> English-speaking) Non-English speaking	1.53 ns
<b>Location</b>	
( <i>cf</i> Non-rural) Rural	-0.44 ns
<b>Parental occupation</b>	
( <i>cf</i> Semi-skilled & unskilled) White collar and skilled	-0.67 ns
Professional & managerial	-2.53 *
<b>Parental education</b>	
( <i>cf</i> Primary & some secondary) Completed secondary	-0.87 ns
Post secondary	-1.02 ns
<b>Family wealth</b>	
( <i>cf</i> Poorest 25%) Middle 50%	-3.19 **
Wealthiest 25%	-4.51 **
<b>School type</b>	
( <i>cf</i> Government) Catholic	-0.10 ns
Independent	0.89 ns
<b>Early school achievement</b>	
( <i>cf</i> Lowest quartile) Middle 50%	-4.43 ***
Highest quartile	-5.20 ***
<b>School completion</b>	
( <i>cf</i> Didn't complete Year 12) Completed Year 12	0.44 ns
<b>Post -school education</b>	
( <i>cf</i> No post-school education) Post-school education	-2.97 **
<b>Employment in secondary school</b>	
( <i>cf</i> Non-workers) Part-time worker	-5.48 ****
$R^2$	.0820
$N$	1283

+  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , \*\*\*\*  $p < .0001$

These findings, based on Australian data, parallel those of Meyer and Wise (1982) who showed that for young people in the U.S. the amount of time in employment during the first four years after high school graduation was positively associated with hours worked during the final year at high school. Marsh (1991) also reported a similar relationship between hours worked by students across grades 10 to 12 and unemployment among young people during their first two years after high school.

**Table 13** Type of full-time job at age 19, by gender and previous employment status during secondary school

Type of job at age 19	Males			Females		
	Employment status at school			Employment status at school		
	Non-worker	Worker	All Males	Non-worker	Worker	All Females
Managerial & professional	10	7	9	7	8	7
Trades	45	49	47	12	8	10
Clerical	7	5	6	42	40	41
Sales & personal service	11	15	13	32	36	34
Plant & machine operators	6	6	6	-	2	1
Labourers & related workers	22	19	20	7	6	7
Total per cent	100	100	100	100	100	100
<i>N</i>	288	320	608	228	366	594

### Job Type after Leaving School

Another question about the effect of working while at secondary school concerns the type of jobs in which students are employed once they leave school. Both in and out of school, teenage workers participate in a narrow range of occupations, and this participation is strongly differentiated by gender, as the following discussion illustrates.

For the more than 1200 *Youth in Transition* sample members who were not full-time students, and were in full-time employment in October, 1994, information about the kind of work they did was used to categorise their jobs according to the Australian Standard Classification of Occupations (ASCO). Part-time workers were excluded from this discussion - the main focus of the investigation was the experiences of those who were in the primary labour market at age 19. The distribution of job types for males and females is shown separately in Table 13, with a further breakdown according to whether they had previously been part-time workers while at school.

Table 13 reveals there were substantial differences between the patterns of full-time employment of teenage males and females, with a very large proportion (three-quarters) of females working in the two categories *clerical* and *sales and personal service* jobs, and a similarly high concentration of males in trades and labouring jobs. When the job types of those who had been employed at school were compared with non-workers at school, there was some evidence that student-workers were slightly over-represented among sales and personal service workers at age 19 - for males 15 per cent of in-school workers were in this type of job, compared with 11 per cent of non-workers, and for females, the figures were 36 per cent and 32 per cent respectively

It is not surprising that student-workers have a higher likelihood of being in a sales job after leaving school. Although the data are not shown here, at each year level during school (except at Year 9) sales was the occupational category which employed the largest percentage of students - growing from 58 per cent of all student jobs in Year 10, to 63 per cent in Year 11 and 66 per cent in Year 12. Further analyses of the relationship between in-school and post-school job types revealed that, among those who were both working part-time when in Year 11 at school and in a full-time job in 1994, 75 per cent of

19 year olds who worked in sales and personal service occupations in 1994 had been similarly employed as Year 11 students. By comparison, among those who were in trades and in labouring jobs in 1994, the percentages who had been sales workers in Year 11 were considerably lower - 32 per cent and 45 per cent respectively. It was unlikely that the job at age 19 was the same one as that held when respondents were in Year 11 at school, as information about the length of time in the 1994 job indicated that, for this subgroup who had also been student-workers in Year 11, about 60 per cent had been in their 1994 job for less than a year, and only 9 per cent had been in their 1994 job for more than 2 years. These figures, taken together, suggest that the experience and competencies gained in a sales job while at school may be of continuing benefit for some students, at least in providing access to similar kind of post-school employment.

Overall, the connections between other types of in-school and post-school employment were not strong, and there were also differences between males and females when the post-school job destinations of in-school workers and non-workers were compared. For instance, among males, a higher percentage of in-school workers than non-workers (49 per cent compared with 45 per cent) went into trades occupations, while fewer were labourers (19 per cent compared with 22 per cent) and in managerial and professional jobs (7 per cent compared with almost 10 per cent). Among females, that pattern was the same for labourers, but reversed for trades and professional and managerial occupations. It is clear that other factors, apart from the nature of their in-school employment, influence the types of jobs in which young people are working at age 19.

### **Income**

Another hypothesis concerning the benefits of a part-time job while at school can be tested using the *Youth in Transition* data. This is the contention that early experience of employment contributes to greater productivity on the part of young workers, which, within the constraints of wage regulation, is then rewarded in the form of higher earnings. As well as the type of job in which respondents worked at age 19, information was available concerning the number of hours they worked per week and their take-home pay, which enabled the calculation of average hourly earnings. Multiple regression was used to analyse the influences on this dependent variable of a range of factors, among them participation in employment while still at school. Once again, only those who were in full-time jobs at age 19 in 1994 were included in this analysis, on the assumption that there could be differences between the pay scales of part-time and full-time workers.

The results that are presented in Table 14 show that a number of factors have an effect on hourly earnings at age 19. Family wealth was positively associated with earnings, consistent with the finding reported by Meyer and Wise (1982) about the relationship between wage rates and parent's income. Early school achievement as well as attendance at a Catholic school rather than a government school was also positively related to higher earnings. The significant negative influence on earnings of participation in post-school education can be explained by the generally low wage rates of apprentices, who are included here as they are full-time workers. The variable of most interest, however, was found not to be a significant predictor of earnings - based on these data, there was no relationship between a person's hourly earnings at age 19 and their having had a part-time job while at school.



**Table 14 Regression analysis of effects of working during secondary school on hourly wage rates for full-time workers at age 19 in 1994**

Independent variables		Coefficient
<b>Gender</b>		
(cf Females)	Males	0.13 ns
<b>Ethnic background</b>		
(cf English-speaking)	Non-English speaking	-0.37 ns
<b>Location</b>		
(cf Non-rural)	Rural	-0.29 +
<b>Parental occupation</b>		
(cf Semi-skilled & unskilled)	White collar and skilled	-0.32 ns
	Professional & managerial	-0.46 *
<b>Parental education</b>		
(cf Primary & some secondary)	Completed secondary	-0.32 ns
	Post secondary	-0.46 ns
<b>Family wealth</b>		
(cf Poorest 25%)	Middle 50%	0.44 *
	Wealthiest 25%	0.55 *
<b>School type</b>		
(cf Government)	Catholic	0.43 *
	Independent	0.21 ns
<b>Early school achievement</b>		
(cf Lowest quartile)	Middle 50%	0.14 ns
	Highest quartile	0.57 *
<b>School completion</b>		
(cf Didn't complete Year 12)	Completed Year 12	-0.28 +
<b>Post -school education</b>		
(cf No post-school education)	Post-school education	-0.70 ****
<b>Employment in secondary school</b>		
(cf Non-workers)	Part-time worker	0.04 ns
$R^2$		.0437
$N$		987

+  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , \*\*\*\*  $p < .0001$

Although U.S. research has suggested that there is a positive relationship between high school employment and wage rates in the years immediately after graduation (Stephenson, 1981; Meyer & Wise, 1982; Mortimer & Finch, 1986), this result from the *Youth in Transition* data, which indicates no association between secondary school employment and early post-school wage rates, is in accord with a previous Australian study. McRae (1992) used *Australian Longitudinal Survey* data to model wage rates in 1988 for a sample of young people who had been at school in 1985, and found no relationship with in-school employment status.

However the nature of the *Youth in Transition* data enabled a more detailed investigation; varying measures of participation in part-time work could be used to

identify possible associations that might not be revealed by the broad comparison of outcomes for working and non-working students. Those extra analyses were generally consistent in showing no association between secondary school employment in any one year level and hourly income at age 19, with the exception of students who had been part-time workers when in Year 12. Such students reported higher hourly earnings in 1994 compared with non-workers. When time spent per week in the Year 12 job was taken into account, so that the comparison was between non-workers and moderate workers, and between non-workers and intense workers, it was only the latter who were significantly advantaged in terms of income. For those who were employed at age 19, then, there was some additional benefit that was attributable to earlier part-time employment - but only for those students who had committed a longer period of time to their Year 12 job.

### **Part-time Employment and Labour Market Outcomes: a Summary**

The results of these analyses show that, compared with students who had not had a part-time job while at school, student-workers did better in the post-school labour market. They were both significantly less likely to be unemployed when aged 19 and significantly more likely to experience shorter periods of unemployment in their early years after leaving school, and, in some instances, more likely to earn slightly higher hourly wages. As Steel (1991) postulated, the association between work experience gained while at school and these apparent advantages in the labour market might be explained in a number of ways. A part-time job may enhance post-school employment prospects by providing job-related knowledge and skills which students can draw upon when seeking employment. Alternatively, or additionally, students may, through their part-time jobs, develop work habits and attitudes that are valued by employers. The fact that a job applicant has a history of part-time work may act as a signal to potential employers, who may take it as an indicator of personal qualities such as motivation and initiative that they want in their workers; this assumption has been confirmed by surveys of employers' attitudes (ACNeilsen, 1998).

### **CONCLUSION**

This examination of the effects of part-time work on school students has shown that the majority perceive their jobs very positively - they believe that the experience will help them to get a job later on, and are largely unconcerned about any detrimental impact on their schoolwork. These findings confirm previous results derived from smaller scale cross-sectional studies.

But the added value of longitudinal data is that they allow outcomes to be investigated. Such is the case with *Youth in Transition* data. The implications of in-school employment for both educational progress and success in the post-school labour market were explored. Part-time employment during any year at school was not shown to have an adverse effect on the likelihood of students completing Year 12 or on their academic performance in that year. There was evidence, however, that Year 11 students who worked longer hours (more than ten hours per week) were slightly less likely to complete school than those who did not work. Furthermore, academic performance at the end of Year 12 was a little lower for those who had been intense workers during Year 11 and Year 12 than it was among non-workers in those years. Taken together, these findings indicate that students who have part-time jobs do not put at risk their likelihood of success at school, providing they do not work long hours.

Labour market outcomes were also positive for student-workers, with a clear relationship between part-time employment while at school and a lower incidence of unemployment in the post-school years. It seems undeniable that Australian school students who have part-time jobs gain a knowledge of the labour market and develop skills and contacts which provide them with some advantage in that labour market, at least in the early years after leaving school. It can be concluded that having a part-time job while at school is one of the ways in which a young person can achieve a smoother transition into later full-time employment.



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**APPENDIX: DATA AND ANALYSES**

*Youth in Transition* refers to ACER’s longitudinal research project in which data were collected from four separate cohorts of young people - groups born in 1961, 1965, 1970 and 1975. The 1975 birth cohort was first contacted at secondary school, at age 14 in 1989, when 5653 students completed a questionnaire, and achievement tests in mathematics and reading. Annual data collections, by means of mail surveys, span the period to 1997, when sample members were aged 22.

**Student background variables:**

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<b><i>Ethnic background</i></b> .....	refers to father’s country of birth, reported in two categories - born either in Australia or overseas in an English speaking country (coded 0), compared with born overseas in a non-English speaking country (coded 1).
<b><i>Location</i></b> .....	of school attended at age 14. The population density of the local government area in which the school was located was used to divide schools into quartiles, with the quartile having the lowest population density considered to be ‘rural’. Non-rural was coded 0, rural as 1
<b><i>Parental occupation</i></b> .....	is based on father’s occupation, but if information on father’s occupation was missing, then mother’s occupation was used. The occupational status of the respondent’s parents was coded using the ANU2 occupational prestige scale, and condensed to three categories - professional and managerial; white collar and skilled; and semi-skilled and unskilled. The lowest status category (semi-skilled and unskilled) was the excluded category.
<b><i>Parental education</i></b> .....	is based on respondent’s report of mother’s highest level of education. If information for mother’s education was missing, father’s education was used. This is reported in three categories, with the lowest category (primary or some secondary education) the excluded category.
<b><i>Family wealth</i></b> .....	is based on a factor scale derived from respondents’ reports on aspects of the family home - the nature of their accommodation and on the possession of certain consumer durables - referenced to the time that sample members were at secondary school. Scores on this index were divided into quartiles, and the middle two quartiles combined. Lowest wealth quartile the excluded category
<b><i>School type</i></b> .....	refers to the last year of secondary school. Students who attended a Government school were the excluded category.
<b><i>Early school achievement</i></b> .....	was measured by standardised tests in literacy and numeracy administered in school at age 14, and reported in quartiles, with the middle two achievement quartiles combined. Lowest quartile the excluded category.
<b><i>Educational aspirations</i></b> .....	is based on the year level at school which sample members intended to complete, when asked at age 14. Students intending to complete Year 12 were the excluded category.

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**Independent variable: part-time work at school**

*Youth in Transition* data were available from 1989 about students' employment status in each calendar year at a single point in that year (October), as well as details of hours worked per week for those who were employed. Combined with information about students' year level at school, a number of variables were constructed from those data to examine the effects of part-time employment:

- Students who were employed in a part-time job in any one particular school year – in Year 9, Year 10, Year 11 or Year 12 – compared with non-workers in those Years.
- Students who had a part-time job in October throughout any of their school years, compared with students who did not have such a job in any school year.
- Total number of years that a student had a part-time job in October while at school.
- Hours worked per week in any one year level, with students classified as non-workers, moderately involved (working 1-10 hours per week) or highly involved workers (working more than ten hours per week).

**Dependent variables: educational outcomes**

- ***School completion***

When students who comprised the 1975 birth cohort of *Youth in Transition* were first surveyed in their schools at age 14 in 1989, the majority were in Year 9, although, because of state differences in the age of school commencement, a substantial number was also doing Year 8 and a few were in Year 10. The modal year of school completion was therefore 1992, with a smaller number of students doing so in 1993, while a few had been in Year 12 in 1991. Sample members were categorised according to whether or not, by the age of 19 in 1994, they had completed Year 12.

- ***Year 12 achievement***

Data about end of school achievement of sample members were collected in 1994. End of school accreditation procedures vary from state to state within Australia, with each state authority awarding its own version of a certificate of senior secondary school completion. In addition, students who complete Year 12 receive a numerical assessment of their level of achievement, which indicates their within-state ranking for entry to tertiary educational institutions. The method of calculation of these tertiary entry scores, and the scales on which they are reported, differ between states. However, in order to facilitate inter-state tertiary enrolments, the university admissions centres in the various states collaborate to produce conversion tables which, with some caution, allow tertiary entry scores for any one year to be compared between states. Hence, using these tables, individual tertiary entrance scores of the *Youth in Transition* sample of students from different states who completed Year 12 in the same year were able to be allocated a percentile ranking, providing an approximate overall measure of their Year 12 results.

There are three main caveats associated with this method of creating this outcome variable. One is that it relied on self-reported data, so there was an inherent risk that some students may have been tempted to inflate (or perhaps even lower) their scores. An informal check on the reliability of these data was to examine the relationship between scores that were provided by students and their post school activities - the ranges of scores given by students who proceeded to study at university compared with

those who went on to TAFE were found to be as expected. A second problem related to difficulties in interpreting the scores of a particular group of students. Depending on the combination and differing statuses of subjects that they studied, three different tertiary entrance scores could be obtained by students in South Australia and the Northern Territory (students in the latter may undertake Year 12 courses that are accredited in the former). Because it was unclear which type of tertiary entrance score was reported by students from that state and territory, it was not possible to allocate percentile rankings to them, and they were therefore excluded from the analyses, reducing the sample size somewhat. Thirdly, it must be remembered that the accuracy of the percentile rankings when comparing different state scores cannot be considered to be absolute - they represent at best an approximation of overall achievement.

### **Dependent variables: labour market outcomes**

- ***Unemployment***

Respondents' labour force status was based on direct questions referenced to October of 1994. Full-time students were excluded as labour force participants, even if they indicated they were looking for work.

- ***Extent of unemployment***

The *Youth in Transition* questionnaire, mailed out at the end of the year, contains a calendar in which respondents indicate what they were doing for each month of that year; the response categories, which are not mutually exclusive, are *working full-time*, *working part-time*, *home duties*, *not working but looking for work*, *not working*, *a full-time student*, *a part-time student*, *other*.

These data on the activities of respondents on a month by month basis over a number of years was used to calculate the amount of time they had been unemployed, from the time of leaving school up to the end of 1994 - the total number of months that had been spent *not working but looking for work* was expressed as a proportion of the time since finishing school.

This was done for a subset of sample members only - those who were both labour force participants in October 1994, and for whom these activity data were available for the three years 1992, 1993 and 1994. Full-time students were not counted as labour force participants in October 1994. Sample members who were at school in October of any year were considered to be full-time school students for the whole of the year, and so were not counted as unemployed for any part of that year. Nor were other, post-school full time students considered as unemployed in any month that they indicated their full-time student status.

- ***Job type***

For sample members who were in full-time employment in October, 1994, responses to questions about their type of job were used to code jobs according to the Australian Standard Classification of Occupations (ASCO).

- ***Income***

Information concerning the number of hours respondents worked per week and their take-home pay enabled the calculation of average hourly earnings. Only those who were in full-time jobs at age 19 in 1994 were included, on the assumption that there could be differences between the pay scales of part-time and full-time workers.

**NOTES**

- 1 The distinction between the two job categories – cashiers and other sales work - was not made by all students - responses that simply referred to working in a supermarket being coded to sales, and hence possibly underestimating the numbers who were actually cashiers.
- 2 Despite this gender difference, evidence from elsewhere in the data, but not recorded in the table, showed that females who were working were less likely than males to say that they were confident of getting a job when they had finished studying - 64 per cent of working males indicated such confidence, while the percentage of females was 55 per cent. Employed students were, overall, slightly but not significantly more likely than non-working students to be confident of getting a job after completing their studies - 59 per cent compared to 55 per cent.
- 3 In this revised model, estimated for student-workers only, two other factors which Model 2 had shown to be predictors of school completion, namely gender and ethnicity, were also no longer statistically significant, while the two strongest predictors - educational expectations and early school achievement - maintained their significance.
- 4 Logit = -0.05, p=.04.
- 5 Sample members who were full-time students in October 1994 were excluded from the regression analyses, regardless of their employment status, as were those who were non-students but indicated they were not looking for a job - that is, they were not in the labour force. Due to these exclusions, and also because of missing data for some of the independent variables, the sample size for these analyses was reduced to 1577, from a total sample in 1994 of 3198 persons.
- 6 Further analyses, not reported here, showed part-time workers at each year level were less likely to be unemployed at age 19 than non-workers in the same year level, with the exception of Year 9 when the difference was not significant.
- 7 It should be noted however, as the R-square of .08 indicates, that the model does not explain a very high proportion of the variation in the percentage of time unemployed. Local labour market conditions, which could not be factored in to the equation, could be expected to play a major role.