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Returns to Education for those Returning to Education: Evidence from Australia (0089)

The higher education sector in Australia is now expected to educate an increasing proportion of the population to satisfy the demands of the labour market for highly skilled workers. The government also expects universities to increase the participation rate of students from lower socio-economic backgrounds who remain under-represented among the student population (Australian Government 2009). During the past three decades, the number of domestic students enrolled in Australian universities has more than doubled and by 2009, 577,391 students were studying for a bachelor's degree. Of these, 24 per cent were aged 25 years or older (DEEWR 2010).

In spite of the increasing diversity in higher education student populations, inequality in educational attainment persists. Students from the lowest socio-economic quartile (ie. 25 per cent of the population) account for 16 per cent of the university student population in Australia. The university retention rate of low-SES students beyond their first year of study is also lower than for all students. In addition, low-SES students are more likely to be older, and to have entered higher education through a non-traditional pathway, such as a lower-level qualification rather than the completion of secondary school (Bradley *et al.* 2008; Chapman & Ryan 2003; James *et al.* 2008; Marks 2009).

This paper examines the effect of graduation on the employment status and earnings of mature-aged graduates. Younger graduates are included as a comparison group to determine whether there is any difference between the returns to education for these two groups.

Data

The data come from the first nine waves of the Household, Income and Labour Dynamics in Australia (HILDA) survey collected between 2001 and 2009. Three time points are considered: Time 1 refers to the year before graduation; Time 2 refers to the year of graduation; and Time 3 refers to the year after graduation, therefore the analytical sample is restricted to respondents who graduated with their first bachelor degree between 2002 and 2008 (n=374).

Variables:

The analysis includes two dependent variables: employment status and earnings; and five independent variables: sex; age at graduation; father's education; mother's education; and socio-economic status in the year before graduation. Table 1 lists the descriptive statistics for the sample. The majority (72 per cent) of students were less than 25 years of age when they graduated. Thirty-eight percent had a university-educated father and 33 percent had a university-educated mother.

[Table 1 about here]

Results

Table 2 lists the descriptive statistics for each of the two groups of students. Although only seven percent of those who graduated before they turned 25 were employed on a full-time basis in the year before they graduated, 73 percent were employed on a part-time basis. The remaining 20 percent were not employed. In contrast, 27 percent of those aged at least 25 when they graduated were employed on a full-time basis, 39 percent were employed part-time and 34 percent were not employed. Mature-aged students were less likely to have a university-educated parent than younger students and were more likely to be residing in areas of lower socioeconomic status than their younger counterparts. On the other hand, mature-aged students earned more, on average, than younger students in the year before graduation.

[Table 2 about here]

Table 3 shows the differences in the employment rates of those aged 24 years or less and those aged 25 years or more in the year of graduation and the year after graduation. Although, mature-aged graduates were less likely to be employed in the year they graduated than their younger counterparts, in the year after graduation, employment rates are similar. Just nine percent of younger graduates and eight percent of mature-aged graduates were not employed in the year after they graduated. Those aged 25 years or more when they graduated were more likely to be employed on a full-time basis.

[Table 3 about here]

The final phase of the analyses examines levels of earnings at Time 2 and Time 3 and the differences in earnings between Time 1 and Time 2 and Time 1 and Time 3. T-tests are conducted to determine whether the differences are statistically significant and the results are presented in Table 4. At Time 2 and Time 3, mature-aged graduates had higher, on average, incomes than younger graduates. The p-values indicate that these differences are statistically significant. On the other hand, the average difference between earnings at Time 1 and earnings at Time 2 for mature-aged graduates is no different from the average difference between earnings at Time 1 and earnings at Time 2 for younger graduates indicating that the effect of graduation on earnings is similar for both groups. For younger graduates, earnings increased, on average, by around \$169 between the year before graduation and the year of graduation. For mature aged graduates the difference was \$171. For younger graduates, earnings increased, on average, by around \$429 between the year before graduation and the year after graduation. For mature aged graduates the difference was \$465.

[Table 4 about here]

Discussion

The results presented here indicate that the returns to education for those returning to education (ie. those who graduate after their 25th birthday) do not differ significantly from those of younger people who graduate from university before they turn 25 years of age. Although mature-aged students are more likely to reside in less-advantaged areas; be the first person in their family to attend university; and less likely to be employed in the year before graduation, their employment outcomes one year after graduation are similar to younger students. While mature-aged students face other difficulties in terms of higher rates of attrition from university studies, this study suggests that perseverance pays off – for the student and for society – in terms of equality of outcomes upon graduation. Further research would examine the extent to which the attainment of a university degree continues to pay off over an individual's lifetime and if these findings are similar in other countries and for other under-represented sub-groups of the population. [999 words]

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Tables

Table 1 descriptive statistics

	n=374	Percent
Sex		
Male	148	40
Female	226	60
Age at graduation		
<25 years	269	72
25+years	105	28
Parent's education		
University-educated father	142	38
University-educated mother	125	33

Table 2. Characteristics of graduates at Time 1 by age at graduation

	<25 years	25+years
	Percent	Percent
Male	40	40
Female	60	60
Employed f/t	7	27
Employed p/t	73	39
not employed	20	34
University-educated father	43	24
University-educated mother	40	16
	Mean	Mean
Socio-Economic Status	7.23	5.95
Earnings	238.95	380.83

Table 3 Employment status at Time 2 and Time 3

	Time 2: year of graduation		Time 3: year after graduation	
	<25 years Percent	25+years Percent	<25 years Percent	25+years Percent
Employed f/t	32	47	58	69
Employed p/t	45	30	21	18
Not employed	15	21	9	8
Missing	7	2	13	6

Table 4 Earnings at Time 2 and Time 3

	Earnings Time 2	Earnings Time 3	Diff in earnings T1-T2	Diff in earnings T1-T3
	Mean	Mean	Mean	Mean
<25 years	398.24	656.93	169.17	428.87
25+years	585.57	862.74	171.34	464.99
Difference	187.33**	205.81**	2.17	36.12
P-value	0.0039	0.0015	0.9601	0.5274