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University study in Australia: Persistence, completion and beyond

Introduction

University study (or 'higher education') has traditionally been considered an important post-school pathway for many young Australians, providing entry to professional and other high-status occupations. Demand from young Australians for university places remains high, with a dramatic increase in the number of persons attending universities in Australia, from around 330 000 in 1980 to just over 957 000 in 2005 (DEST, 2006; DETYA, 2001). In 2005, 49 per cent of 24 year-olds in the Longitudinal Surveys of Australian Youth (LSAY) reported having been enrolled in university at some stage (Underwood, 2007). Given this growth in the higher education sector, it is important to consider how recent university entrants are faring.

An earlier *Briefing* has described entry to higher education: the proportion of young people who commence university study, their social background and their educational characteristics. This Briefing charts the progress of young people through university:

- What difficulties do they encounter in the transition from school to university study?
- How many persist in their studies and graduate?
- What are the benefits of university study?

It also examines the issue of demand for university places:

- How many young people who apply to go university do not receive an offer of a place, why, and what do they do instead?

The data for this *Briefing* were collected from two LSAY cohorts: the Year 9 class of 1995 and the Year 9 class of 1998. Information on the education and labour market activities of these groups has been collected annually. The findings reported here follow the experiences of university entrants from these groups up to age 23. The findings are discussed in further detail in three recent LSAY research reports on the first year experience (Hillman, 2005), university completion (Marks, 2007) and unmet demand (Marks, 2005). Earlier LSAY research, based upon previous groups of young people followed over longer periods of time, are also used.

LSAY Briefings is a series produced by the Australian Council for Educational Research (ACER), drawing on data from the Longitudinal Surveys of Australian Youth (LSAY), a research program managed jointly by ACER and the Australian Government Department of Education, Science and Training. The aims of the series are to bring summaries of findings from LSAY research to a wider audience and to examine particular topics in brief. Related references, are listed at the end of the paper.

Longitudinal Surveys of Australian Youth
BRIEFING

HIGHLIGHTS

- **Just over 80 per cent of university entrants are expected to complete a university qualification.**
- **Higher tertiary entrance scores are associated with higher levels of course completion.**
- **Indigenous Australians who enter university are considerably less likely than other students to complete a qualification.**
- **Family socioeconomic background does not impact on course completion, net of other factors.**
- **The most common difficulties reported by first year university students are ones of time pressure and achieving balance between study commitments and other aspects of life.**
- **University graduates are more likely than other young people to secure full-time employment and to have higher status jobs and higher earnings, but university study does not appear to protect against unemployment.**

What is the first year of university like?

The first year at university can have a major impact on later study options and participation, and institutions and governments have a clear interest in ensuring a successful transition from school to university study. The first year is when the greatest amounts of course change and attrition from study occur. For example, among university entrants from the Year 9 class of 1995 who were tracked for three years after commencing full-time study, nearly two-thirds of those who changed course and over 40 per cent of those who left before completing their course did so within their first year of study (McMillan, 2005). In the view of some, completion of the first year is 'more than half the battle' in persistence to degree completion (Tinto, 1988).

The successful integration of first year students must occur in both social and academic domains, as it is highly likely that difficulties in adjusting to one will affect the other domain. Data on a group of young people who were in Year 9 in 1998 and who first entered university during 2002 have been used to describe young people's experiences and perceptions of their first year of university education (Hillman, 2005). How did they feel about their experiences? Did they experience any problems during the transition?

University study was largely a positive experience for the vast majority of students who persisted in their studies to the end of their first year. Most agreed or strongly agreed that they liked being a student (94%), that student life suited them (89%), that they enjoyed the atmosphere on campus (89%) and that they had made close friends at their university (89%). Over 80 per cent indicated that the university experience had lived up to their expectations.

Table 1 shows the difficulties reported by these young people in their first year of university study. Only 17 per cent of students indicated that their first year had been relatively trouble-free. The most common difficulties related to time pressure and balance: 50 per cent of students reported difficulties juggling work and study, 44 per cent reported problems finding time for other commitments, and 31 per cent reported difficulties balancing personal relationships with study. Juggling work and study commitments was also reported as the area of greatest difficulty faced by students.

Indeed, involvement in long hours of part-time work can limit the amount of time that a student has for study and integration into campus life, which can lead to course failure or withdrawal. Research based upon university entrants from the Year 9 class of 1995 has found that university students employed for more than 10 hours per week were more likely than other students to withdraw from their studies (McMillan, 2005).

How many persist? How many complete?

How many university students persist beyond their first year and go on to complete their courses? LSAY data on young people from the Year 9 class of 1995 who enrolled in their first university course by 2001 (within three years of completing Year 12) have been used to estimate university course completion rates (Marks, 2007).

The progress of these university entrants, up to 2004, is reported in Table 2. Two-thirds of the students had completed their first course within 4-6 years of commencement, and a further 8 per cent were continuing in their first course. Eleven per cent had changed course, and 16 per cent had withdrawn. From these figures, the estimated

Table 1 Difficulties experienced during the first year of university study, 2002

	All areas of difficulty	Main area of difficulty
Area of difficulty	%	%
Time pressure and balance		
Juggling work and study commitments	50	27
Finding time for other commitments	44	16
Balancing personal relationships with study	31	11
Conflict between family commitments and study	17	1
Caring for children or other family members	4	<1
Other difficulties		
Course was more difficult than expected	34	11
Paying fees or any other study costs	25	12
Fitting in with other students and making new friends	10	1
Other	4	3
No real difficulties	–	17

Source: 1998 Year 9 cohort. Hillman (2005)

Table 2 Completion of courses commenced between 1998 and 2001

	First course	Second course	Any course
Course progress by 2004	%	%	%
Completed	66	53	68
Continuing	8	18	17[a]
Changed course	11	6	
Withdrawn	16	23	16[b]
Estimated completion rate	71–74	63–71	81

[a] Had not completed any course but still studying, not necessarily in the first course commenced. [b] Had not completed any course and not a continuing student.

Source: 1995 Year 9 cohort. Marks (2007).

completion rate for the first course is in the range of 71 to 74 per cent.

Nearly three-quarters of university entrants from the Year 9 class of 1995 had enrolled in just one course by 2004 (32%). However, just under one-quarter had enrolled in two courses, and three per cent had enrolled in three or more courses. Compared with first courses, the proportion withdrawing from second courses was higher (23%) and the estimated completion rate was lower (63%-71%).

Overall, by late 2004, 68 per cent of the university students had completed a university course. For most, this was their first and only course commenced but for some it was their second or even third course commenced. A further 16 per cent had not completed a course and were not continuing students. Around 17 per cent had not completed a course but were still studying, not necessarily in the first course they commenced. Many of these continuing students would be expected to complete their university course in subsequent years. The expected completion rate is estimated to be around 81 per cent.

Course completion rates varied across fields of university study, as shown in Figure 1. High prestige courses, such as medicine and law, had the highest levels of expected completions, at around 97 per cent. Expected course completion was relatively low in information technology (70%).

Who graduates?

From an equity perspective, it is vital to monitor the completion rates of particular social groups, not just overall completions. Do groups with low university entry rates - such as males, Indigenous Australians, those from English-speaking backgrounds, and those from socioeconomically disadvantaged backgrounds - also face disadvantage while at university?

LSAY research based upon university entrants from the Year 9 class of 1995 has examined whether young people's social and educational backgrounds are related to university completion rates (Marks, 2007). Table 3 shows the expected completion and non-completion rates for any course commenced by selected groups.

Previous research has indicated that females take less time to complete a course (Martin, Maclachlan & Karmel, 2001), but has been

Figure 1 Expected completion of any course commenced between 1998 and 2001, by field of education (1995 Year 9 cohort)

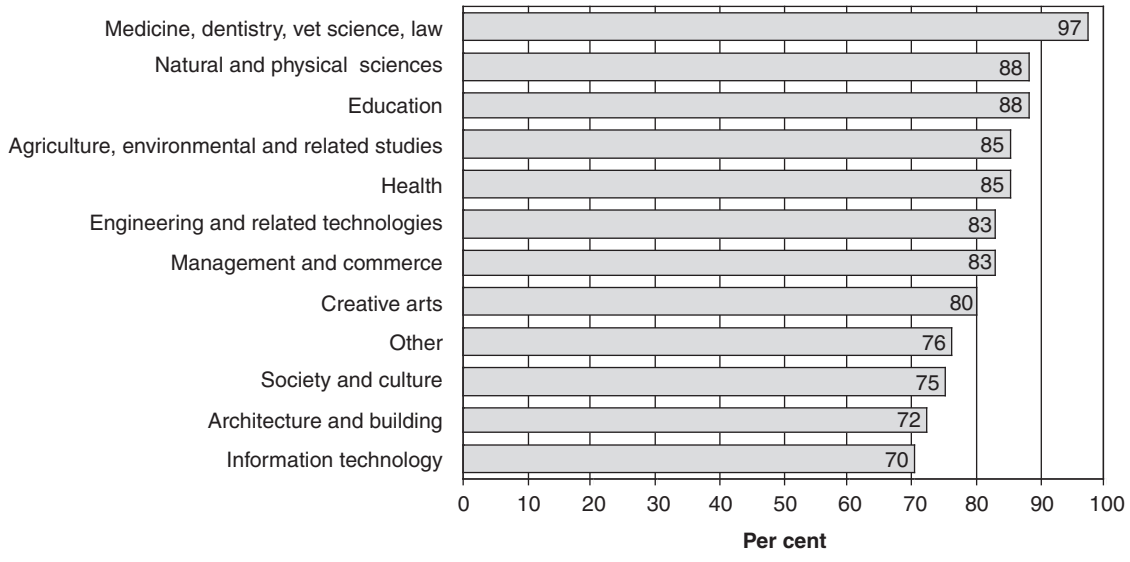


Table 3 Expected completion and non-completion of any university course commenced between 1998 and 2001, by selected groups (row percentages)

	Completion (expected)	Non-completion (expected)	Total
Gender			
Male	79	21	100
Female	83	17	100
Indigenous status			
Indigenous	30	70	100
Non-Indigenous	82	18	100
Parental occupation			
Managerial	83	17	100
Professional	86	14	100
Para-professional	83	17	100
Clerical sales	81	19	100
Skilled manual	70	30	100
Semi-skilled/unskilled manual	80	20	100
Parental education			
Degree/diploma	85	15	100
Trade/vocational certificate	79	21	100
Completed school (Year 12)	87	13	100
Did not complete school (Year 12)	72	28	100

Source: 1995 Year 9 cohort. Marks (2007)

equivocal as to whether females ultimately have higher completion rates (eg Long, Carpenter & Hayden, 1995; Wooden, Robertson & Dawkins, 1992). Among university entrants from the Year 9 class of 1995, female students were slightly more likely than males to complete their first university course within 4-6 years of commencement, but males were more likely than females to be still enrolled in their first course. Projecting forward, females also had a slightly higher expected completion rate for any course. Gender differences were more pronounced after taking into account tertiary entrance scores.

Indigenous Australians are far less likely than other young Australians to complete Year 12 and enter university (see ACER, 2003 and ACER, 2005). Those who do enter university face continuing disadvantage. Only 30 per cent of Indigenous students were expected to complete a course compared with 82 per cent of non-Indigenous students. These figures should be treated with caution, however, because of the small number of Indigenous students in the LSAY Year 9 class of 1995 who went to university.

Family socioeconomic background (measured by parental occupation and parental education) had a small effect on expected course completions. Expected course completions tended to be highest among students from professional backgrounds and lowest among those whose parents had not completed Year 12 at school. The relationship between parental occupation and expected completions was still evident after taking into account other background characteristics and tertiary entrance scores, but did not remain after also controlling for university field of study.

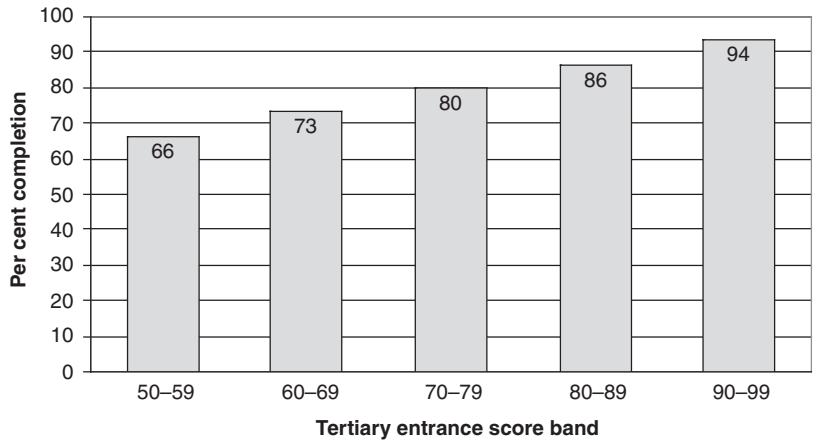
There was little or no difference in expected completion rates by language background. Region and school sector were unrelated to expected course completions, after taking into account students' background characteristics and tertiary entrance scores.

In contrast, the educational profiles of young people were strongly associated with their progress through university courses. For example, higher tertiary entrance scores were associated with higher levels of course completions. About 94 per cent of students with scores above 90 were expected to complete a course compared to 66 per cent of students with scores between 50 and 59 (Figure 2). The relationship between tertiary entrance scores and expected course completions remained significant after taking into account students' background characteristics and fields of study.

What happens after university?

Are there benefits to completing a university course today? Evidence from LSAY regarding university qualifications and unemployment is equivocal. When members of the Year 9 class of 1995 were 23 years old, the level of unemployment among university graduates in the sample was roughly similar to that of university non-completers and other Year 12 completers who had not undertaken university study (Table

Figure 2 **Per cent of university entrants expected to complete any course commenced between 1998 and 2001, by tertiary entrance score (1995 Year 9 cohort)**



4). This is much the same as results based on earlier cohorts of young people, such as those in ACER's Youth in Transition (YIT) program, who were followed over longer periods of time. Among the YIT cohorts, having a degree offered little protection against unemployment after taking into account school achievement and Year 12 completion (Marks & Fleming, 1998a; Marks, Hillman & Beavis, 2003).

On a range of other outcomes, however, university graduates experienced strong labour market outcomes relative to university non-completers and Year 12 completers who had not attended university. Early in their careers, graduates are more likely to be working full-time, have higher status jobs, and receive higher earnings than other young people. For example, within the Year 9 class of 1995, university graduates had substantially higher weekly earnings and occupational status than other groups at age 23 (Table 4). Earlier research focusing on the earnings of young people in the YIT cohorts found that the returns to a university degree increased with age (Marks & Fleming, 1998b). Having a university degree also increased the time spent in full-time employment, on average, by 13 percentage points (Marks, Hillman and Beavis, 2003).

LSAY is one of the few studies to examine what university non-completers do after leaving their course. Table 4 shows that similar proportions of Year 12 completers who had not attended university, university non-completers, and university graduates were engaged in full-time study or work (80%-81%) or were unemployed (2%-4%) at age 23. Employed university non-completers also had jobs with a similar occupational status as Year 12 completers who had not attended university. However, university non-completers reported lower incomes and work satisfaction than the latter group, possibly due to less time spent in the labour market. As already noted, employed university non-completers also did not do as well as university graduates in terms of income, occupational status and work satisfaction.

What about those who miss out on university places?

Given the continuing benefits for young people of completing a university qualification, it is also important to look at who misses out on entry to university. The proportion of Year 12 students who apply to attend university but are not offered a place is considered an indicator of 'unmet demand' for university study. The size and nature of this group are potentially important considerations in planning higher education.

Data from the Year 9 class of 1998 have been used to analyse unmet demand among young Australians (Marks, 2005). Among this LSAY cohort, most were in Year 12 in 2001 and 41 per cent had enrolled in university in 2002 or 2003. However, 10 per cent of those who completed Year 12 and applied for a university place did not receive an offer. On average, the courses that unsuccessful applicants chose as their first preference had a cut-off entry score 22 points above the score they had achieved. Such results suggest that unsuccessful applicants had somewhat unrealistic expectations in terms of securing a

Table 4 **Labour market outcomes of the 1995 Year 9 cohort in 2004, by university and school completion status**

	Unemployed	Weekly pay	Occupational status[a]
Level of attainment	**%**	**$**	
University completers	3	987	48.2
University non-completers	2	757	31.7
Year 12 completers , no university	4	844	30.4
Year 12 non-completers	6	830	26.0

[a] The occupational status of job held was measured on a scale from 0 (low) to 100 (high).

Source: 1995 Year 9 cohort. Marks (2007)

place at university, at least for their first preference course.

The educational characteristics of applicants who were not offered a place differed substantially from those of university entrants. The average tertiary entrance score of unsuccessful applicants was 54 compared to 80 for those who commenced university within two years of completing Year 12. The group of unsuccessful applicants also had substantially lower scores on literacy and numeracy tests conducted when they were in Year 9.

In general, those who applied for a university place and did not receive an offer came from lower socioeconomic backgrounds than the other university students who applied for a university place. However, this relationship was not large and disappeared after taking into account students' tertiary entrance scores.

Other socio-demographic characteristics of the unsuccessful applicants - such as gender, Indigenous status, ethnicity, home location and school sector - were broadly similar to those of other students enrolled in Year 12 in 2001.

Although they missed out on going to university, about 45 per cent of the unsuccessful applicants were engaged in some other form of education or training two years after completing Year 12, indicating their continuing interest in learning. A substantial proportion - 24 per cent-were enrolled in a vocational education diploma course. A further 6 per cent were enrolled in a vocational education certificate course, 11 per cent were in a traineeship, and 5 per cent were in an apprenticeship. This relatively high level of participation in vocational and education and training (VET) suggests that credit transfer arrangements may enable a number of the unsuccessful applicants to enter university at a later stage of their lives, if their interests are still in that direction.

Summary

The number of young people studying at university has increased nearly three-fold in the past 25 years. Recent research in the LSAY program shows that the majority of young people enjoy studying at university, yet for some the transition to higher education was not so easy. The majority of course change occurs during the first year of university study and the majority of attrition occurs within the first two years, but movement can happen even several years after study commencement. While just over 80 per cent of university entrants will complete a qualification, around 20 per cent will not complete any course. Many of those who leave university, however, engage in study at other institutions, gaining a VET diploma or certificate. Around 10 per cent of young people miss out on a place at university, mainly because their entrance scores are lower than required for their preferred courses. Around half of these young people also engage in other types of study. Policy makers and university administrators can use these findings to develop programs that assist young people enter and remain at university.

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The Longitudinal Surveys of Australian Youth

The Longitudinal Surveys of The Longitudinal Surveys of Australian Youth (LSAY) is a research program jointly managed by ACER and the Australian Government Department of Education, Science and Training (DEST). Funding for LSAY is also provided by the Australian Education Systems Officials Committee (AESOC) through the National Fund for Educational Research.

The program includes more than 20 years of data on young Australians as they move through school and into tertiary education, the labour market and adult life. LSAY commenced in its present form in 1995 with a national sample of Year 9 students. Another sample of Year 9 students was drawn in 1998, and a further sample of 15 year olds was drawn in 2003. Data are first collected in schools, then by mail and telephone interviews.

Advice and guidance are provided by a Steering Committee, with representatives from DEST, other Australian Government departments, AESOC, the Chief Executive Officers of State and Territory training authorities, non-government schools, academics and ACER.

The data collected through LSAY are deposited with the Australian Social Science Data Archive for access by other analysts.

Further information on the LSAY program is available from ACER's Website: www.acer.edu.au

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