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Student retention: current evidence and insights for improvement

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Introduction

The Australian Government has set the ambitious target that 40 per cent of all 25 to 34 year olds will hold a qualification at bachelor level or above by 2025. Funding to increase the participation of persons from low socioeconomic status (SES) backgrounds is proposed as a key initiative for achieving the broader attainment goal (Australian Government, 2009).

In order to meet the attainment goal, however, it will not only be essential to ensure that more students enter higher education, but that these students are able to successfully navigate through their courses, raising issues of retention and ultimately completion. As new enrolments are expected to come disproportionately from low SES backgrounds and other groups that are historically under-represented in the sector (Edwards, 2011, p. 3), the performance of these groups after entering university will be crucial for the meeting of the attainment target.

Previous Joining the Dots research briefings have focused on demand for higher education and enrolments. In this briefing, attention turns to how students who commence higher education studies progress through their courses. The briefing provides a synthesis of currently available information on student retention, attrition, and completions, as well as the reasons underlying course non-completion. The retention of students from low SES backgrounds, a group targeted in current Australian Government participation initiatives, will form the focus of the second half of the briefing.
Student retention

Highlights

- The retention rate for commencing bachelor degree students was 84 per cent in 2009. Completion rates are currently estimated to be around 80 per cent.

- Participation rates are expected to rise in coming years, with new students increasingly drawn from low SES backgrounds. The retention of these students will be important in meeting government attainment targets.

- At present, university students from low SES backgrounds persist in their studies at rates similar to, or slightly lower than, high SES students.

- As the participation of students from disadvantaged backgrounds increases, however, it will be necessary to continue to monitor their retention and completion rates.

- An understanding of the reasons underpinning course non-completion is vital for the design of strategies to increase retention and completions. The most common reasons students give for discontinuing study relate to interests, health factors, personal factors, and their course turning out to be not what they wanted. Financial and academic difficulties are less prominent considerations.

- Among those who discontinue their studies, low SES students are more likely than high SES students to cite academic and financial difficulties as a consideration.

Background

Each year a number of higher education students leave before completing the courses in which they have enrolled; some leave university altogether, others return at a later date to complete their course, and others change to different courses. Course non-completion is a complex issue encompassing processes such as academic failure, ‘drop-out’, deferral, and course or institution change.

A certain amount of attrition is inevitable and not all instances of course non-completion should be viewed negatively as academic failure or wastage of talent. From the perspective of the individual student, for example, they may have gained specific skills or employment in a desired field before completing their qualification.

Nevertheless, course non-completion does result in costs to both the individual and the institution, and has implications for the meeting of national attainment targets. Low levels of retention and completions and a high level of attrition are a cause for concern, with implications for institutional accountability and efficiency, resource allocation, and student support services.

The point at which retention and completion rates should be considered too low or the attrition rate too high is a matter for debate. The Bradley Review considered this question in relation to Australia’s 2005 completion rate of 72 per cent, arguing that ‘losing 28 per cent of those who have already indicated an interest in higher education appears wasteful of the talent of Australians’ (Bradley, et al., 2008, p. 21).
Student retention
A variety of indicators can be used to monitor higher education pathways, including retention, attrition and completion rates, as well as more detailed tracking of student pathways. This section presents evidence from DEEWR’s Higher Education Statistics Collection (HESC), supplemented by longitudinal survey data. Each of these sources of information has limitations, but taken together they can provide an understanding of students’ movement through and out of higher education, and provide pointers as to where interventions to improve retention would be most beneficial.

DEEWR’s Higher Education Statistics Collection

DEEWR publishes retention and attrition rates annually. These rates trace students’ enrolment from one year to the beginning of the following year (see Box 1 for definitions). Retention rates for commencing (first year) bachelor students have increased from 81 per cent in 2001 to 84 per cent in 2009 (Figure 1) while attrition rates have declined slightly over the past decade, from 18 per cent to 16 per cent (Figure 2). These overall rates mask substantial differences between domestic and overseas students, with overseas students consistently displaying higher retention rates and lower attrition rates throughout the last decade. Overseas students have also shown more improvement on these indicators than domestic students, with retention rates rising and attrition rates falling more rapidly among overseas students.

There is also considerable variation among institutions, with retention rates for commencing bachelor students in 2009 ranging from 60 per cent to 94 per cent (DEEWR, 2011, Appendix 4.9). This variation is likely to reflect the intake characteristics of the student body at different institutions as well as institutional policy and practices – an issue that merits further investigation.

The most recent estimate for completions in Australia, reported by the OECD (2010, p. 79), is 80 per cent for 2008. This is considerably higher than the 2005 figure of 72 per cent used in the Bradley Review. While it is also higher than the OECD average of 70 per cent, it remains substantially lower than that of Japan, the highest performing country of those reported by the OECD, which has a completion rate of 93 per cent. This suggests that there remains considerable scope for improvement in Australia.

While the HESC provides a valuable tool for monitoring levels of retention, attrition, and completions, it is necessary to turn to survey data in order to understand the processes underpinning course completion or non-completion. Much attrition from higher education occurs within the early years (McMillan, 2005, p.18) and this has led to a focus on the experiences of students during their first year or so of study.

Box 1: Defining attrition and retention

Attrition
The attrition rate for year \(x\) is the proportion of students who commenced a bachelor course in year \(x\) who neither complete nor return in year \(x + 1\).

Retention
While students who complete a course in year \(x\) are included in the calculation of the attrition rate for year \(x\), they are excluded from the calculation of the retention rate for year \(x\). The retention rate is a measure of the proportion of the students who did not complete a course in a given year who continue studying in the following year. That is, the retention rate for year \(x\) is the number of students who commenced a bachelor course in year \(x\) and continue in year \(x + 1\) as a proportion of students who commenced a bachelor course in year \(x\) and did not complete the course in year \(x\).

(DEEWR, 2011, Appendix 4).
Figure 1: Retention rates for commencing bachelor students, 2001–2009

Figure 2: Attrition rates for commencing bachelor students, 2001–2009
Longitudinal survey evidence

The Longitudinal Surveys of Australian Youth (LSAY) follow cohorts of young people from secondary school to age 25, providing a rich and detailed source of information on the higher education experiences of recent school leavers. These cohorts are of particular policy interest, given that the government attainment rate targets relate to the 25 to 34 year age group and future initiatives to enrol new students are likely to focus on the traditional (young) age groups (Edwards 2011: 8). LSAY is restricted to domestic students but does have a number of advantages over institutional data such as that included in the HESC. Of particular relevance when measuring student pathways through higher education, LSAY is able to track students over a number of years and account for movement between institutions. This section presents new analysis of LSAY data on the pathways of higher education entrants during the first two years following school completion.

Figure 3 shows student flows for members of the LSAY cohort who completed Year 12 in 2001 and commenced a bachelor level course in 2002 or 2003. Three-quarters of the young people in this group were still studying in their initial course in late 2003. Thirteen per cent of higher education commencers deferred or withdrew from their initial course and had not undertaken further higher education study by late 2003. Twelve per cent underwent at least one course change and the majority of these were still studying in their most recent course. Overall, within the first two years following school completion, 86 per cent of higher education entrants continued in their studies, although not necessarily in their original course, while 14 per cent left university without completing a qualification (the attrition group). These results are almost identical to those obtained for an earlier cohort of school leavers who had completed Year 12 in 1998 (McMillan, 2005, p. 12).

Within the attrition group, just over one-half had withdrawn from their courses, while just under one-half had deferred. This underscores an important point, that students may resume their studies at a later date, something that should be remembered when examining attrition and retention rates such as those published by DEEWR.

Marks (2007), using data from the earlier LSAY cohort, estimated that among those who completed school in 1998 and commenced university study by 2001, 81 per cent would complete a qualification, although not necessarily the first one commenced. This result was about 10 percentage points higher than estimates based upon administrative data at the time (e.g. Martin, et al., 2001), which was not entirely unexpected given that the LSAY estimate was able to take into account movement between institutions and excluded mature age students, a group which tended to have lower completion rates.

Overall, available evidence suggests that around 80 per cent of higher education entrants in Australia go on to complete a qualification. However, there is considerable variation in student flows between overseas and domestic students, with the performance of overseas students boosting overall retention figures. There is also considerable variation among institutions within Australia, and while performing above the OECD average for completions, Australia is not the highest performer internationally, suggesting that there is room for improvement.

Figure 3: Higher education student flows, 2002–2003 (students who completed Year 12 in 2001, n=3153)
Source: Longitudinal Surveys of Australian Youth Y98 cohort (ACER & NCVER, 2011).
Reasons behind course non-completion

It is important to understand why students leave or contemplate leaving before the completion of their studies in order to develop appropriate retention strategies. In the Bradley Review it was noted that limited evidence exists about the reasons behind student non-completion (Bradley, et al., 2008, p. 21). The national-level evidence that there is comes from LSAY and surveys of current students.

Longitudinal survey evidence

In LSAY, higher education students who had withdrawn or deferred from their course and not resumed studies within two years of completing Year 12 were asked about their reasons for stopping. Results for those who completed school in 2001 are presented in Figure 4. Although based upon a small sample, these results are broadly similar to those for an earlier cohort who completed Year 12 in 1998 (McMillan, 2005), lending support to the broad patterns they portray.

The reason most commonly nominated by past students for stopping was that their course turned out to be not what they wanted. Nearly one-quarter of the attrition group said that this was their main reason for stopping and 60 per cent of the attrition group indicated that this had been a consideration in their decision. Given that the 11 per cent of higher education entrants who changed courses and continued in their most recent course were not asked this question, these figures are likely to underestimate the number of commencing students facing this issue.

Other prominent reasons for withdrawing or deferring relate to interests. For example, 20 per cent reported that losing interest or never really wanting to study was their main reason for stopping, and a further 11 per cent reported that wanting to secure employment was their main reason for stopping.

Health and personal factors were also commonly reported, with 17 per cent nominating health or personal reasons as their main reason for stopping and over one-quarter indicating that these were a consideration.

![Figure 4: Reasons deferred or withdrew, 2002–2003 (LSAY attrition group, n=420)](source: Longitudinal Surveys of Australian Youth Y98 cohort (ACER & NCVER, 2011).)

Course turned out to be not what you wanted
Lost interest, never really wanted to study
Because of health or personal reasons
Wanted to get a job or apprenticeship
Financially you couldn’t afford to continue
Problems juggling study and work commitments
It wouldn’t have led to a good job or career
The study load was too heavy
You had been getting poor results
Because of problems with access or transport
Never really intended to complete the course
Other

Per cent
0 10 20 30 40 50 60 70
A consideration Main reason
Financial difficulties were less prominent, although they did represent the main reason for stopping for 8 per cent of the attrition group, and they were a factor considered by over one-fifth of the attrition group. Five per cent said that problems juggling study and work were their main reason for discontinuing and over one-quarter said this was one of the factors in their decision.

Academic difficulties such as getting poor results or study load being too heavy were nominated as the main reason for stopping by only 5 per cent of the attrition group. However, a sizeable proportion of the attrition group did indicate that these were among the factors that played a role in their decision.

**Surveys of current students**

Surveys of current students, such as the Australasian Survey of Student Engagement (AUSSE) and the First Year Experience Survey are based upon larger samples of higher education students than the LSAY results discussed above. While these surveys did not sample students who had already withdrawn or deferred, they were able to ask first year students whether they had considered leaving before course completion and, if so, to indicate their reasons.

Consistent with the LSAY results relating to actual withdrawals and deferrals, data from AUSSE suggest that interests, personal factors, and social factors are more prominent than financial and academic difficulties as reasons for considering early departure. The four most commonly reported reasons in the 2010 AUSSE were boredom, change of direction, study–life balance, and personal reasons (Figure 5).

Similarly, in the 2009 First Year Experience Survey, a high proportion of those who considered deferring said that reasons relating to interests and expectations were important, such as disliking study (40 per cent), wanting to change course (37 per cent), and university not being what they expected (34%) (James, et al., 2010, p. 24).

Comparisons between the 2004 and 2009 First Year Experience Survey results suggest that reasons relating to interests and expectations are becoming more prominent among first year students considering early departure. In particular, the proportion indicating that disliking study was an important reason for considering deferring rose from 27 per cent in 2004 to 40 per cent in 2009, while the proportion indicating that university was not what they expected rose from 28 per cent to 34 per cent (James, et al., p. 24).
Figure 5: Reasons for considering leaving during first year (AUSSE current students considering departure, n=3051)
Source: AUSSE (Coates & Ransom, 2011, p. 7).
Students from low SES backgrounds

Increasing the participation of students from low SES backgrounds is one of the ways in which the Australian Government proposes to raise attainment rates. However, in order to meet the attainment goal it will also be necessary to maximise the number of new students, including those from low SES groups, that are able to successfully complete a qualification. Continuing to monitor the retention, attrition and completion rates of low SES groups, and understanding the reasons behind course non-completion for this group, is therefore important. The second half of this briefing presents available evidence on these issues.

Pathways through higher education

The main tool for monitoring the pathways of low SES and other equity groups is the HESC. Within the HESC, low SES groups are defined by the socioeconomic characteristics of the postcode area or census collection district in which they live. While low SES groups as defined by these area-based methodologies remain under-represented in terms of access to university (Australian Government, 2009, p. 12), those who do enter higher education experience similar retention rates as the general student body (78 per cent compared with 80 per cent in 2008) (DEEWR, 2010, Appendix 5). The use of area-based measures such as these has been criticised for a number of years (e.g. Western, et al., 1998) and the Australian Government (2009, p. 14) recognises the need to develop more precise measures of SES based upon the circumstances of the individual and their family. A range of surveys incorporates such data, facilitating more fine-tuned measurement of socioeconomic background and its relationship to pathways through higher education. Evidence from these sources is presented below.

Among current students, low SES groups do not differ markedly from other students in relation to whether they have considered departing before course completion (Coates & Ransom, 2011, p. 5; James, et al., 2010, p. 23). However, a small relationship is evident when the focus moves from departure intentions to actual student flows. For example, analysis of the LSAY school leavers who completed Year 12 in 1998 found that family socioeconomic background, measured by parental education level, was negatively related to attrition in the first two post-school years (McMillan, 2005, p. 27). A small relationship between parental socioeconomic characteristics and expected completions has also been noted in this cohort (Marks, 2007, p. 18).

New analysis of a more recent LSAY cohort of school leavers who completed Year 12 in 2001, reported in Table 1, also reveals a relationship between socioeconomic background and student flows during the first two post-school years. In this sample, students whose parents had not attended university were slightly more likely than those with at least one university-

<table>
<thead>
<tr>
<th>Table 1: Higher education student flows during the two years after completing school, by socioeconomic background (row per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parental education</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>At least one parent attended university</td>
</tr>
<tr>
<td>No parent had attended university</td>
</tr>
<tr>
<td><strong>Parental occupational status</strong></td>
</tr>
<tr>
<td>Highest SES quartile</td>
</tr>
<tr>
<td>Upper middle SES quartile</td>
</tr>
<tr>
<td>Lower middle SES quartile</td>
</tr>
<tr>
<td>Lowest SES quartile</td>
</tr>
<tr>
<td>Missing</td>
</tr>
</tbody>
</table>

Note: 1. Parental occupational status is measured by the ANU4 scale (Jones & McMillan, 2001). * P<.01
Source: Longitudinal Surveys of Australian Youth Y98 cohort (ACER & NCVER, 2011).
Educated parent to discontinue their studies within two years of commencing. This relationship, while statistically significant, is small. When students were classified according to the occupational status of their parents a curvilinear relationship was evident, with those from the highest SES quartile being most likely to continue in their studies and those from the lower middle SES quartile being least likely to continue. The student flows of those in the lowest SES quartile were similar to those in the upper middle SES quartile.

Taken together, the available evidence suggests that, given current levels of institutional support, students from low SES backgrounds persist in their studies at rates similar to or slightly lower than their higher SES counterparts. Statistics such as this led the Bradley Review to conclude that more low SES students ‘could participate in higher education without any detrimental impact on overall academic quality’ (Bradley, et al., 2008, p. 30).

It must be noted, however, that low SES groups are under-represented in university enrolments and the low SES students who currently participate in higher education may not be representative of the low SES group as a whole. Consequently, as participation rates of people from low SES backgrounds increase, it will be necessary to monitor their retention, attrition, and completion rates. Ideally, this will be done using the characteristics of the individual rather than the characteristics of their home location.

### Reasons for course non-completion

It will also be necessary to understand the reasons underlying the decisions of those low SES students who leave before course completion. In LSAY, the reasons low SES students give for withdrawing or deferring are broadly similar to those given by higher SES students. For both groups, interests, their course turning out to be not what they wanted, and wanting to get a job, are more commonly cited reasons than financial or academic difficulties (Table 2). However, those who are the first generation to attend university are less likely than those with a university-educated parent to say that health or personal reasons are a consideration (22 per cent compared with 33 per cent), and more likely than those with university-educated parents to say that getting poor results had been a consideration (28 per cent compared with 17 per cent).

Similarly, in recent studies of current students, while similar proportions of students from high and low SES backgrounds indicated they had considered deferring or withdrawing, their reasons for doing so differed. In the 2009 First Year Experience Survey, a higher proportion of the low SES students in the group who had considered discontinuing indicated that financial reasons and a fear of failure were factors (James, et al., 2010, p. 64), while in AUSSE a higher proportion of the low SES group cited reasons such as study–life balance, difficulty with workload, financial difficulties, and family responsibilities (Coates & Ransom, 2011, p. 9).

### Table 2: Reasons deferred or withdrew within two years of completing school by parental education (per cent of LSAY attrition group agreeing with statement)

<table>
<thead>
<tr>
<th>Reason</th>
<th>No parent attended university (n=253)</th>
<th>At least one parent attended university (n=167)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The course turned out to be not what you wanted</td>
<td>62</td>
<td>59</td>
</tr>
<tr>
<td>You just lost interest, you never really wanted to study</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>You wanted to get a job, apprenticeship or traineeship</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>You had been getting poor results*</td>
<td>28</td>
<td>17</td>
</tr>
<tr>
<td>You had problems juggling study and work commitments</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>It wouldn’t have led to a good job or career</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Because of health or personal reasons*</td>
<td>22</td>
<td>33</td>
</tr>
<tr>
<td>Financially you couldn’t afford to continue</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>The study load was too heavy</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Because of problems with access or transport</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>You never really intended to complete the course</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: * p<.05
Source: Longitudinal Surveys of Australian Youth Y98 cohort (ACER & NCVER, 2011).
Conclusions and insights for improvement

Based on DEEWR’s HESC, the overall retention rate for commencing bachelor students is currently around 84 per cent. The rate for domestic commencing bachelor students is 82 per cent while the rate for overseas commencing bachelor students is 91 per cent. These rates measure students’ enrolment from one year to the beginning of the following year and do not take into account student movement between institutions. Evidence from LSA Y, tracking domestic students over a longer time span and taking into account movement between institutions, suggests that within the first two years following school completion 86 per cent of recent school leavers who enter higher education continue in their studies. Completion rates are estimated to be around 80 per cent. There is considerable variation among institutions and an examination of institutional arrangements may reveal successful (and less successful) strategies for boosting retention.

Given current levels of government and institutional support, low SES students persist in their studies at rates similar to or only slightly lower than those of higher SES students. Looking to the future, however, it must be recognised that past and current students from low SES backgrounds may not be representative of the low SES group in the broader population. As universities become more socially inclusive, socioeconomic differences in student retention may emerge unless adequate support mechanisms are in place and adapted to address the emerging needs of new entrants.

An understanding of the reasons underpinning non-completion is vital for the design of strategies to increase retention. A student’s course turning out to be not what they anticipated is among the leading reasons for course non-completion and there are indications that this factor has become more prominent in recent years. This suggests a need to improve the match of students to courses by ensuring students have better access to course and career information when selecting courses and applying for entry to university.

Interests, health, and personal issues are also among the most common reasons given for discontinuing study. These issues are not simple to address, requiring multifaceted responses by institutions.

Financial and academic difficulties, while less commonly cited by discontinuing students, are potentially more straightforward to address and a number of strategies have been outlined in the Australian Government’s response to the Bradley Review.

While different socioeconomic groups provide broadly similar reasons for course non-completion, some differences are evident. In particular, low SES students are more likely than higher SES students to cite academic difficulties as a consideration. As the composition of the student body changes, it will be necessary to ensure that all students enter university with the skills needed for success in the university environment or that they are provided with early opportunities to acquire these skills.

Overall, a wide variety of factors can interact to influence student retention and this is reflected in the reasons students give for deferring or withdrawing. An understanding of these reasons can provide a useful starting point for the design of strategies to improve student retention.

Acknowledgements

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References


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