LEARNING CURVE **ISSUE 3**

Turning aspirations into reality: How teachers can support students' transition to university and vocational education and training

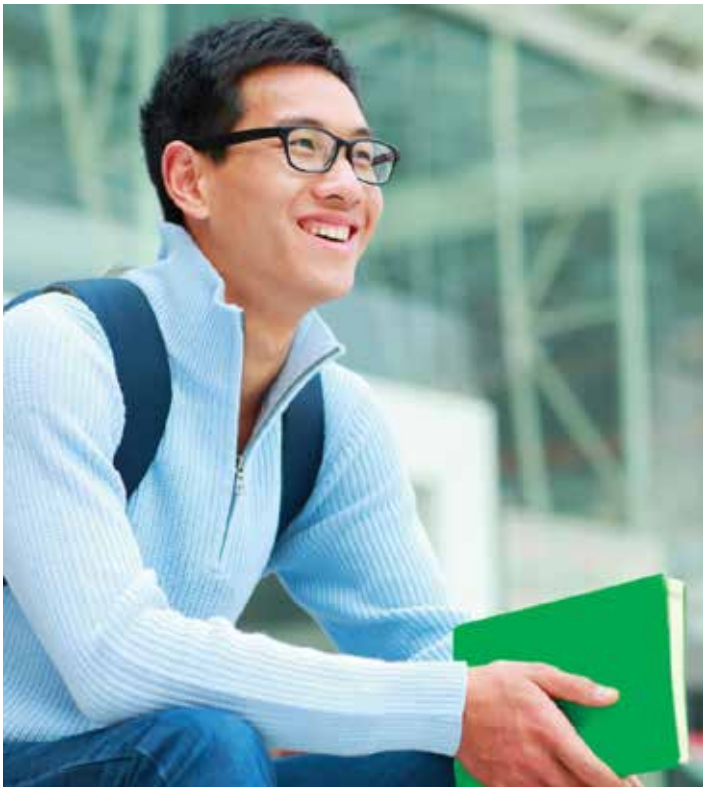
Centre for Education Statistics and Evaluation

The transition from school to career is one of the most significant transitions people experience in life. It is an important foundation of a happy and productive adult life, and is the point when young people can start to fulfil their potential in a way that affects their future.

Schools play an important role in helping students make a positive transition to further education, training and employment.

Not all young people however, are equally likely to enjoy a strong transition from school to career. This Learning Curve looks at the post-school expectations and destinations of young people in New South Wales, especially those who aspire to go to university.

We need to understand better what influences students' post-school pathways so that we can provide students with the support they need to realise their potential.



Key findings

- Students hold high aspirations for attending university when they leave school - much higher than their teachers' expectations for them.
- Teachers have more influence than careers advisors on students as they make choices about their post-school pathways.
- Students' post-school aspirations and destinations are affected by their gender, socio-economic status and where they live.
- Although students from higher socio-economic backgrounds are more likely to go to university, high-achieving students from less advantaged backgrounds go on to university at an even higher rate.
- Fewer students are choosing to study subjects at school that will increase their university chances.
- Students in non-metropolitan areas are less likely to expect to go to university, regardless of socio-economic background or ability levels.

About this report

This report is based on data from a representative survey of New South Wales students from government, Catholic and independent schools commissioned by the Board of Vocational Education and Training (BVET). More than 6,000 students in Years 10-12 responded to questions about their expectations and choices. The survey also collected information from a sample of their parents, teachers and principals.

Education is essential for effective participation in 21st-century life and work

In the 21st century's knowledge-based economy, completing Year 12 is now considered the minimum level of educational attainment required for effective participation in work and life. While there is much discussion about '21st century skills', the term refers to analytical and problem-solving skills, information technology skills, communication skills and a range of personal and interpersonal skills that will enable people to adapt to constant change.

There is a strong association between a person's level of education and their earnings, with the benefits for people with a university education being greater. University qualified individuals command higher wages and are less likely to be unemployed.

Education is particularly important for students from disadvantaged backgrounds, as it provides the opportunity for them to develop their individual skills and abilities and improve their social and economic circumstances over time. Figure 1 shows the increase in income over time for people with different levels of education.

People who do not complete secondary school receive almost no increase in wages over time. Those who complete Year 12 experience some improvement in wages over time, while the greatest wage increases are experienced by those with degrees.

How accurately do teachers predict their students' future destinations?

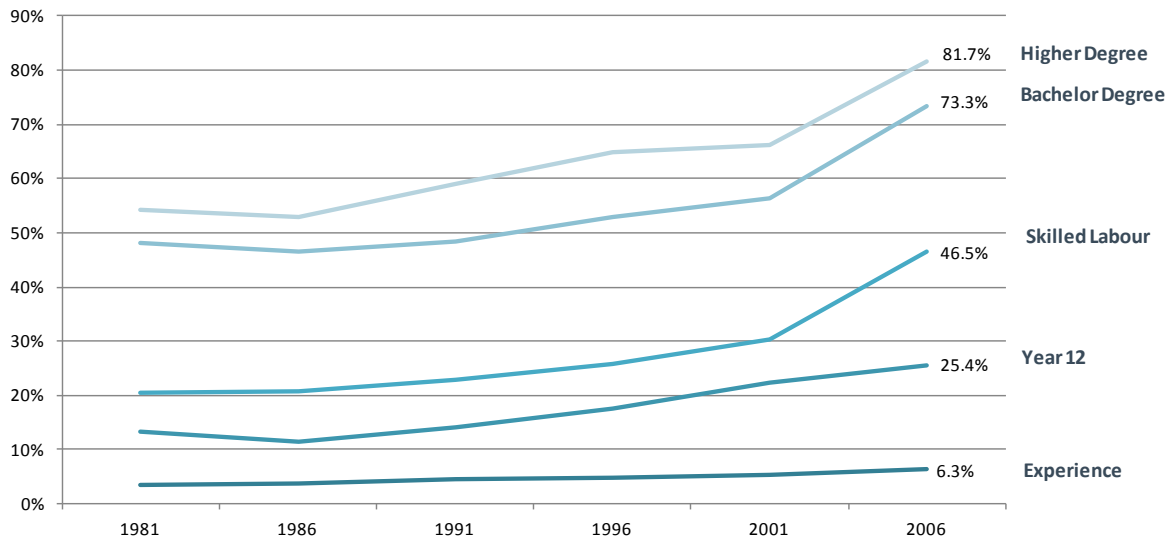
The survey asked students, parents and teachers about the expected study destination of the students after school, and compared their expectations with the actual study destination of students in the survey who were at school in 2009 but not in 2010.

The report revealed a striking disparity between students' and parents' high expectations and teachers' much lower expectations (Figure 2). The responses showed that students (and their parents) had high expectations of going on to attend university. On the other hand, teachers held much lower expectations, and actually under-estimated the rate at which their students went on to study at university[1]. The rate of *actual* student enrolment at university fell somewhere between the two.

A much smaller group of students expected to go on to vocational education and training (VET). Again, teachers under-estimated the proportion of their students who went on to attend VET, as did parents. Students had the highest expectations and their expectations were closest to the actual proportions who went on to take a VET pathway.

Figure 1

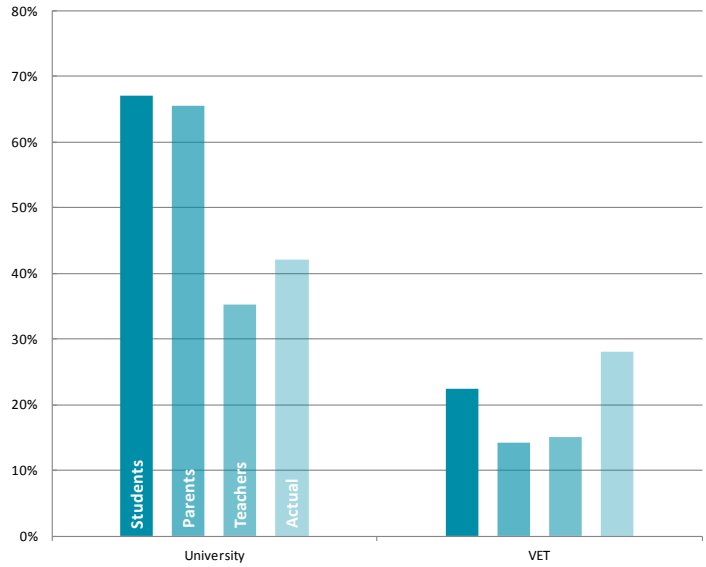
Year 12 completion is the starting point for higher wage premiums



Source: Australian Bureau of Statistics 2010, *Measuring economic returns to post-school education in Australia*, cat no. 1351.0.55.032.

Figure 2

Teachers underestimate the proportion of their students who go on to university and vocational education and training



Source: NSW Board of Vocational Education and Training (BVET) 2011, *Career Moves and Destinations of New South Wales Senior Secondary Students*, NSW Board of Vocational Education and Training, Sydney

What do teachers see as important?

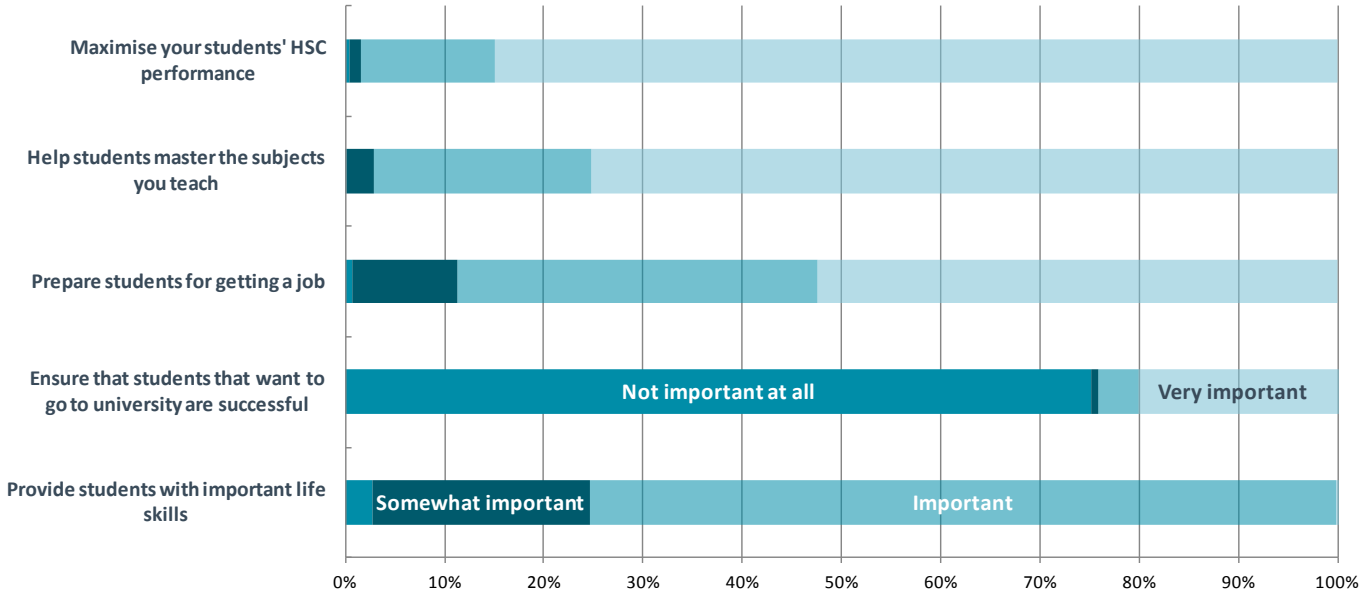
Teachers see their primary role as ensuring students successfully learn the subject they are teaching. About 85 per cent of teachers responded that helping students master course work and maximise their HSC performance were very important parts of their role. Half of teachers (53 per cent) rated preparing students for getting a job as very important.

Teachers noticeably downplay their role in assisting students to seek and secure university entrance, with only 27 per cent agreed that it was very important to ensure that students who want to go to university are successful in that goal (Figure 3).

This perception becomes more significant when considered alongside student views of who influences their subject choices. Students say they choose subjects primarily based on personal interest, followed by where they see their careers and what will maximise ATAR scores. But more than half of students (55 per cent) reported that teachers had a strong influence on subject choice, and more influence than career advisors (Figure 4).

Figure 3

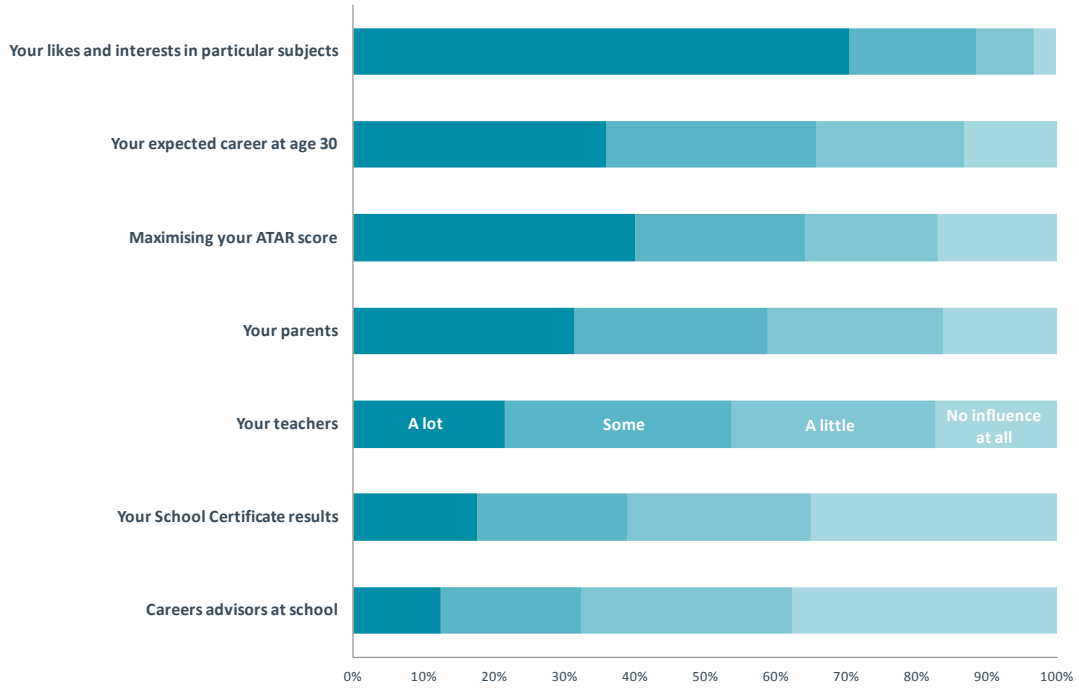
Teachers downplay their role in assisting students to attend university



Source: BVET 2011 (above), Figure 13-1.

Figure 4

More than half of students reported that their teachers have a considerable influence on their course choices, and more than careers advisors



Source: BVET 2011 (above), Figure 6-1.

The effect of background on aspiration

Students' and parents' expectations for university are substantially higher than teachers' expectations, regardless of student socio-economic status. More than 50 per cent of low-SES students aspire to go to university.

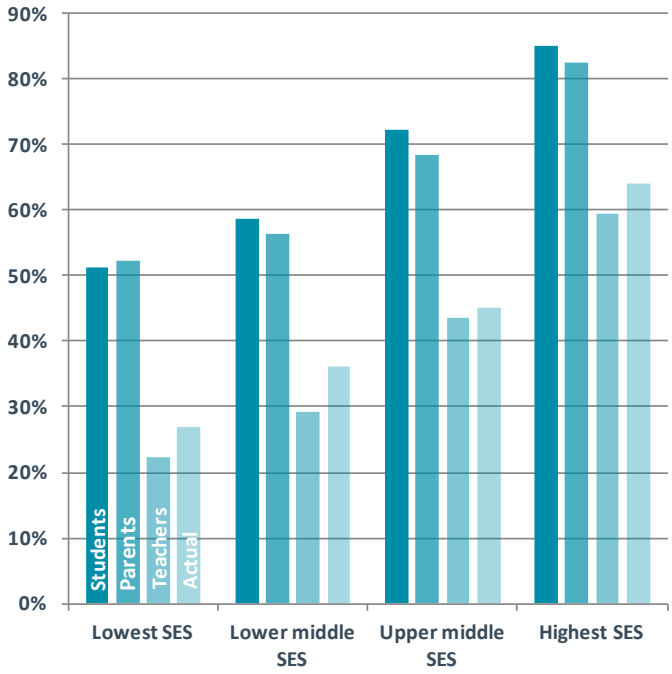
Teachers' aspirations are lowest for low-SES students and highest for high-SES students. The gap between students' and teachers' expectations is widest for low-SES students, and smallest for the high-SES quartile (Figure 5).

There is more than a 30 percentage point gap between the university aspirations of students and parents in the lowest and highest socio-economic quartiles, and their university aspirations increase steadily in line with socio-economic status.

While low-SES students have lower aspirations for post-school study than their high-SES peers, one of the most encouraging findings of the BVET survey is that high-achieving students from the bottom half of the socio-economic groups are more likely to go to university than high achievers from the top half of the socio-economic groups (Figure 6). Importantly, once at university, students from low socio-economic backgrounds are just as likely to complete their studies as their more privileged peers[2].

Figure 5

Students from low-SES backgrounds have lower university aspirations than high-SES students. Their parents and teachers also have lower aspirations



Source: BVET 2011 (above), Figure 3-4.

Figure 6

High-achieving, low-SES students go on to university at the highest rates of all

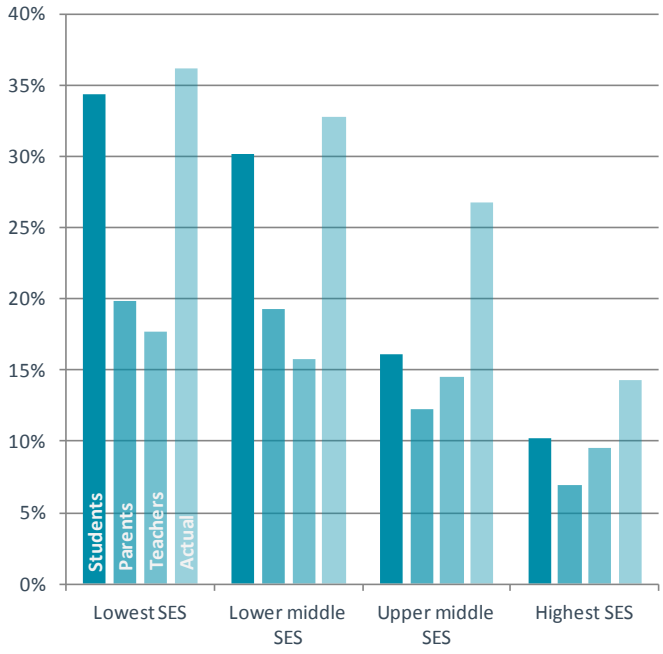
	Percentage of students who went on to university	
SES Quartile	**ATAR 91-99.95**	**ATAR 81-90**
Lowest SES Quartile	88.5	86.8
Lower Middle SES Quartile	88.6	84.7
Upper Middle SES Quartile	86.4	81.2
Highest SES Quartile	86.8	80.0

Source: BVET 2011 (above), Table 5.8.

Low-SES students are much more likely to expect to take a vocational education and training pathway compared with high-SES students (Figure 7). Students in the two lowest SES quartiles predict their future VET pathway fairly accurately, while students in the two higher SES quartiles tend to underestimate the likelihood of taking a VET path. As with university, teachers' expectations that students will go on to vocational education and training are much lower than their students' expectations, and their expectations are linked to their students' socio-economic status. More teachers expect their low-SES students will take a VET pathway than their high-SES students.

Figure 7

Students from low-SES backgrounds are more likely to expect to go on to vocational education and training



Source: BVET 2011 (above), Figure 3-4.

What teachers and schools can do to help students achieve their university aspirations

These findings suggest that a culture of high expectations for all students is not evenly embedded across New South Wales' teaching profession. Yet research has found that having high expectations for all students is important to realising each student's potential[3]. Having high expectations for all students is also a cornerstone of the Department of Education and Communities' current Strategic Plan.

In the past, it may have been the case that low-SES students simply held low aspirations for university, but the BVET survey now provides a more nuanced picture. While their expectations are lower than their high-SES peers, more than 50 per cent of low-SES students in the survey aspired to go to university. The problem is not so much a lack of aspiration, rather that these students may not know how to achieve their goal, or may struggle to stay on track to attain it. Their parents and extended families, too, may not have the knowledge or experience to help their children.

Teachers can play a critical role in helping some of these students get to university.

1.Encourage high expectations and higher achievement

While not all students who aspire to university will realistically be able to achieve their goal, there are students who are relatively high in ability but who lack the confidence or knowledge about how to make this pathway a reality. The survey shows that students from low-SES backgrounds, students in rural and regional areas and boys, in particular, may benefit from teachers' sustained encouragement to consider university as a viable option.

Where schools are able to build a culture of high expectations and higher achievement, benefits will flow through to students. For example, quite small increases in a student's ATAR will significantly broaden his or her post-school horizons. Figure 8, which compares the number of courses available by ATAR score, illustrates this point. A student with an ATAR of 60 is only eligible for 53 university courses. With an ATAR of 65, however, the same student could apply for almost four times as many university courses.

Figure 8

Small improvements in a student's ATAR lead to large improvements in university course options

ATAR	Total number of university courses at or below this ATAR
60	53
65	196
70	417
75	579
80	738
85	862
90	1,000
95	1,136
100	1,269

Source: Universities Admissions Centre website, March 2013

Note: Does not include 389 courses that do not have explicit ATAR cut-offs on the UAC website

2. Provide information about university

Schools have an important role in informing students' decisions about post-school options. Providing information about post-school opportunities is a particularly significant task for students from low-SES backgrounds. Students whose parents did not go to university do not have an easily available source of information about the benefits and opportunities of tertiary education. These parents may be less able to assist their children with the logistical requirements of applying for university.

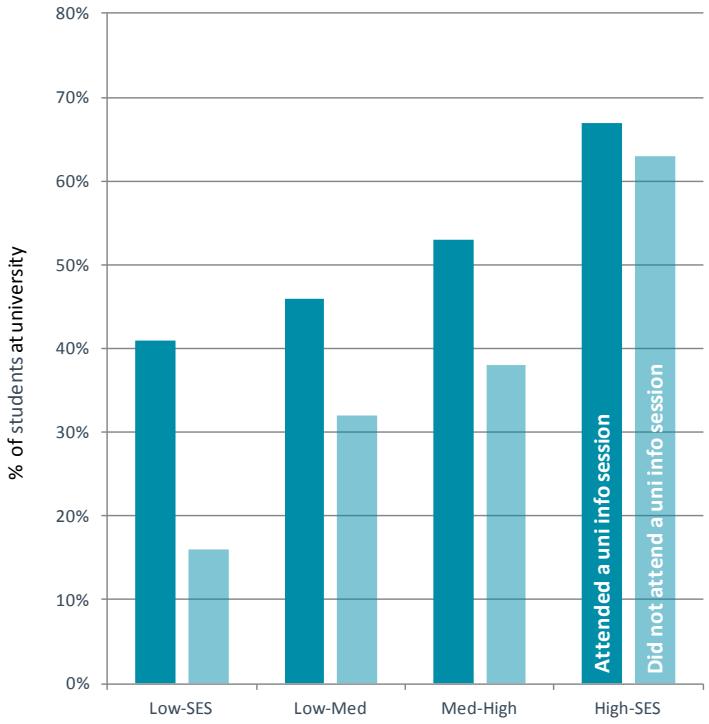
For these students, teachers and schools can help fill an information gap in very practical ways. For example, simply by organising to take students to university information sessions, schools can increase the probability of low-SES students going on to university (Figure 9).

41 per cent of students in the lowest SES quartile who attended an information session went on to university, compared with only 17 per cent of those who did not.

Attending a school-organised university information session also had a sizeable positive impact for students from the second and third SES quartiles. It is only students in the highest SES quartile for whom this practical assistance made little difference.

Figure 9

More students go on to attend university when their school takes them to a university information session



Source: Unpublished data for BVET 2011.

3. Guide student choices

Students in the BVET survey reported that the strongest influence on their course choice was their individual interest in particular subjects (89 per cent), followed by their expected career at age 30, and maximising their ATAR score. Teachers (55 per cent) also have a strong influence on course choices. Perhaps surprisingly, the survey found that careers advisors do not have much influence over course choices, with 38 per cent of students reporting that careers advisers had 'no influence at all.'

Course selection for the senior years is a critical step in preparing post-school pathways.

For students who aspire to university, but also need help to navigate the practical requirements of taking this pathway, teachers are a key source of advice in ensuring they choose subjects that are ATAR eligible. This assistance is particularly important for students whose parents did not attend university.

There is also some evidence in New South Wales that students' course choices are moving away from subjects that allow for a wider selection of university courses.

The proportion of students choosing not to study mathematics for the HSC has more than doubled over the last decade.

In 2001, 9.5 per cent of students did not study any mathematics as part of their HSC. By 2011, the figure had risen to 21.8 per cent. There has also been a decline in the proportion of girls undertaking at least one maths and one science subject in the HSC. In 2001, the figure was 16.8 per cent; in 2011, the corresponding figure was 13.8 per cent[4].

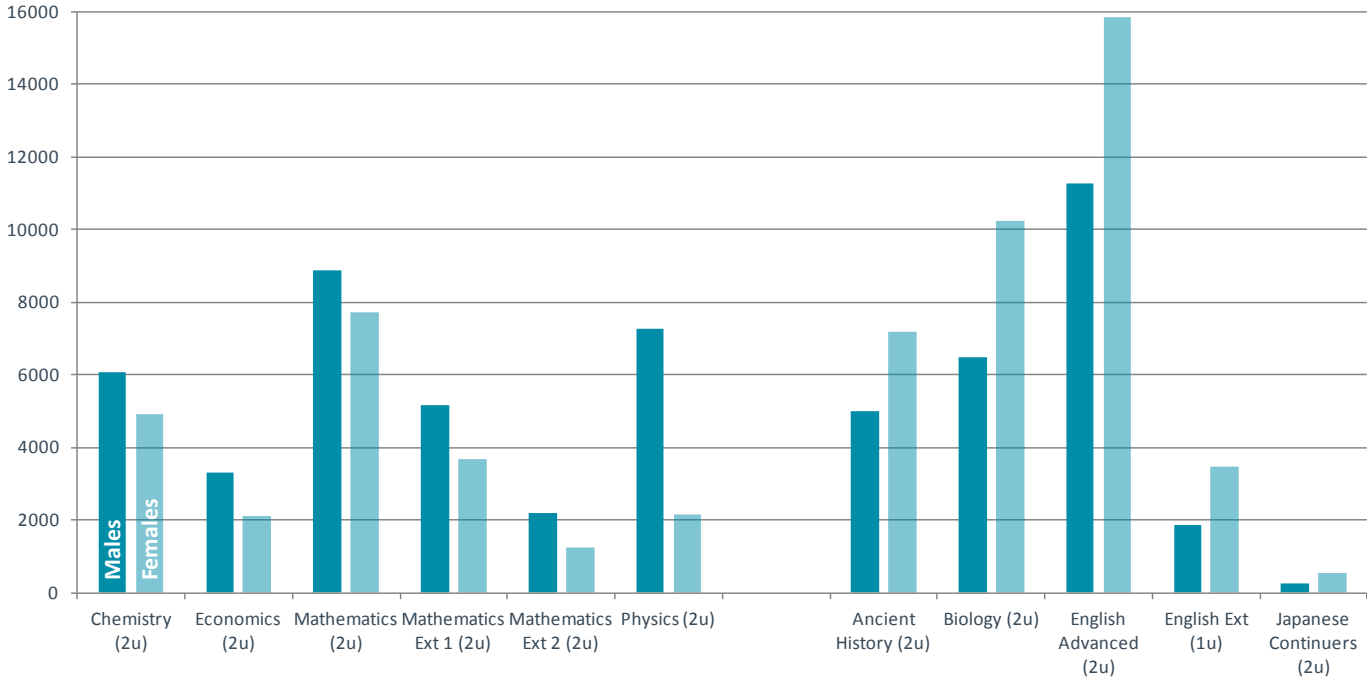
Board of Studies data also show there is considerable gender disparity across many HSC student courses. Figure 10 shows a sample of subjects where a gender difference is apparent.

The wide variety of HSC courses currently available presents students with increased opportunities to pursue the subjects that most interest and engage them. At the same time, there are risks in students abandoning key subjects that enable a wider choice of tertiary study and career paths.

Teachers can play an important role in encouraging students to choose subjects that balance their likes and dislikes with subjects that do not unnecessarily narrow their future options. In particular, it may be the case that girls in New South Wales would benefit from encouragement to continue studying mathematics at HSC level to maintain a wide choice of university study options.

Figure 10

The 'gender divide' in many HSC courses may narrow students' future university course choices



Source: HSC student entries by sex, 2011, selected courses, Board of Studies NSW 2011.

4. Engage students early about their post-school aspirations

Career choice is a developmental process beginning in childhood. Research shows that student aspirations regarding school completion and post-school destinations are developed early. Ninety per cent of young people's future actions are in line with the plans they have made by age 15[5].

Perhaps surprisingly, students show differences in their post-school aspirations as early as Year 2, and are adjusting their expectations downwards by the late primary and early secondary years[6]. Students who drop out of school at 16 years may have psychologically disengaged as early as Year 3[7].

Based on this information, both primary and secondary teachers can have an important impact on student aspirations and career choice.

Other findings from the BVET report

The BVET report contains much detailed information about students' aspirations and intended career paths. The report found evidence that students' post-school study destinations as well as their paths into employment are influenced by their gender and where they live.

Girls/boys

The BVET survey shows that girls appear to be educationally advantaged overall, being considerably more likely to go to university than boys. Girls who took part in the survey were also more likely to go on to vocational education and training, whether or not they had completed school. Many more boys than girls went on to apprenticeships (Figure 11).

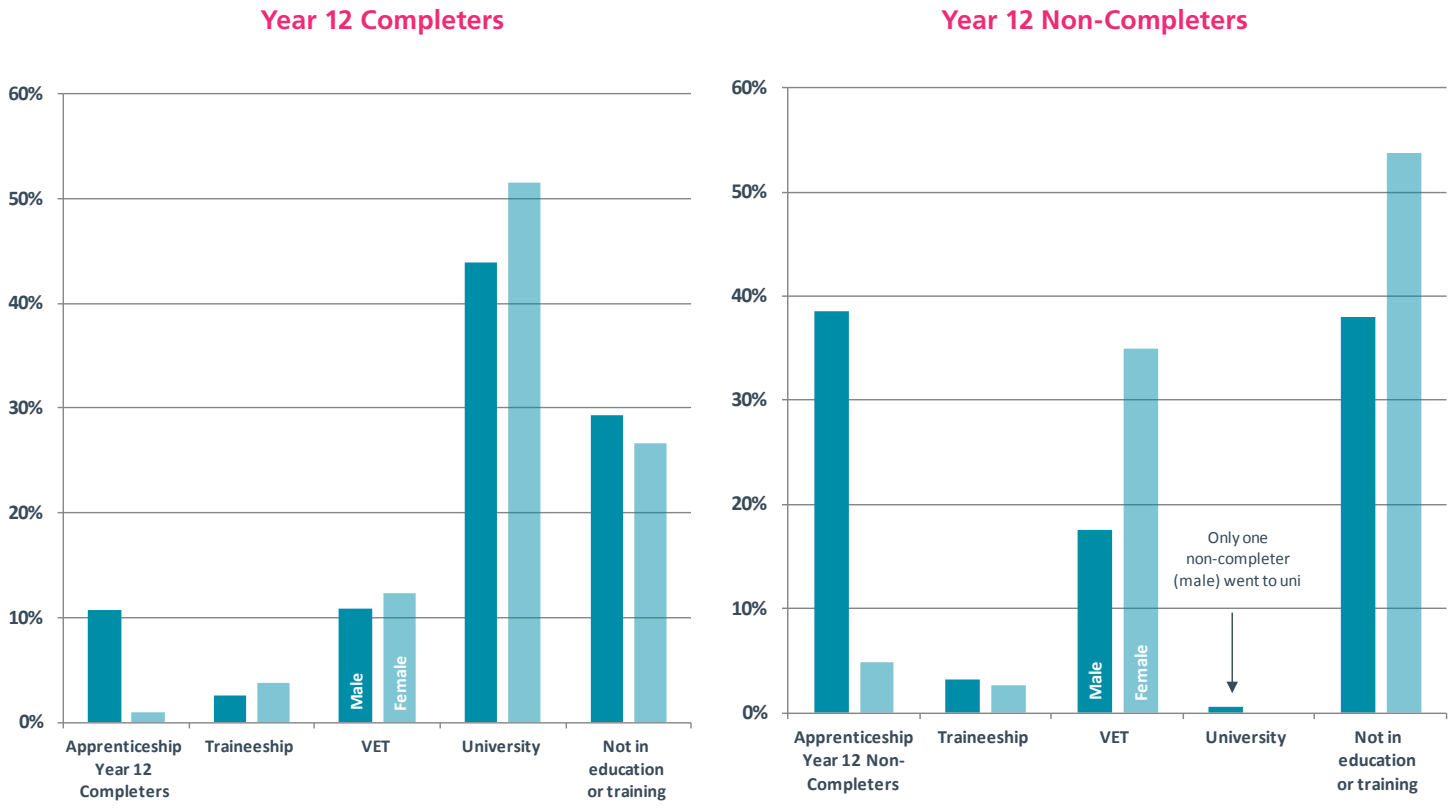
While girls attend university and VET at higher rates than boys, girls who did not complete Year 12 were much more vulnerable than their male peers. They were only half as likely as male non-completers to be in full-time work, and much more likely to be looking for work or not in the labour force at all (Figure 12).

These results reflect another of the survey's findings: girls are more likely to have left school because they do not like it (37 per cent), while boys are more likely to have left school for employment (50 per cent). Taken together, the results suggest that girls who disengage from school are more likely to stay disengaged and not establish a meaningful path into the workforce.

This pattern is consistent with international data on girls' and boys' post-school education paths[8].

Figure 11

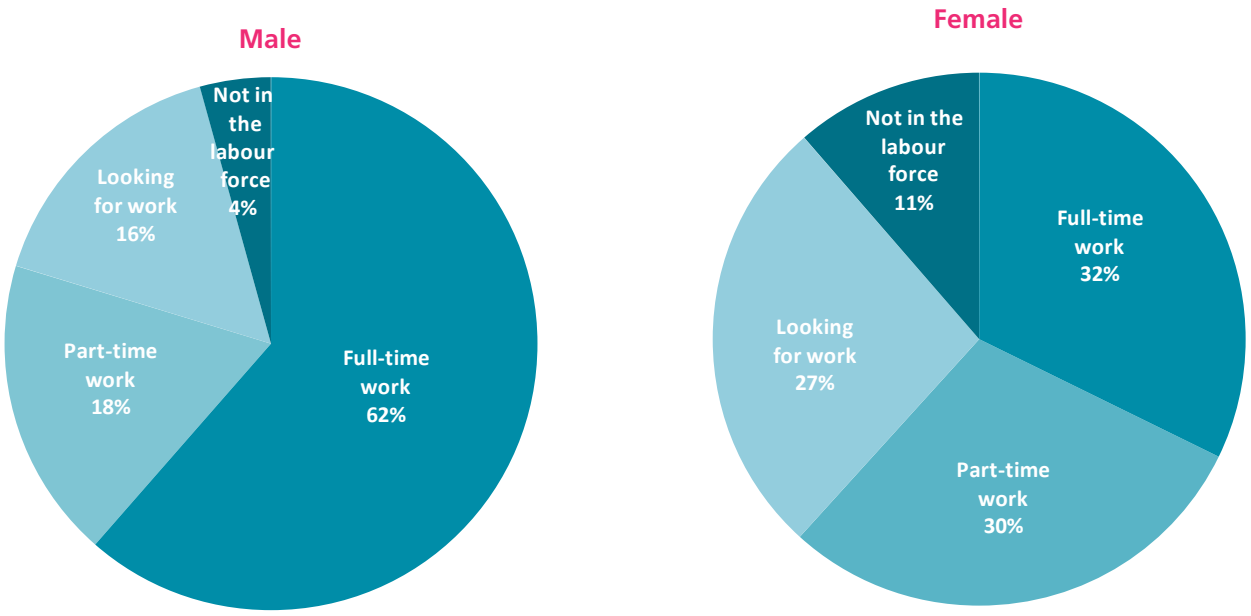
Girls are more likely to go to university and VET than boys, but boys pursue employment pathways



Source: BVET 2011 (above), Figure 2.2.

Figure 12

Girls who do not complete Year 12 are much less likely to be employed than boys



Source: BVET 2011 (above), Table 2-8.

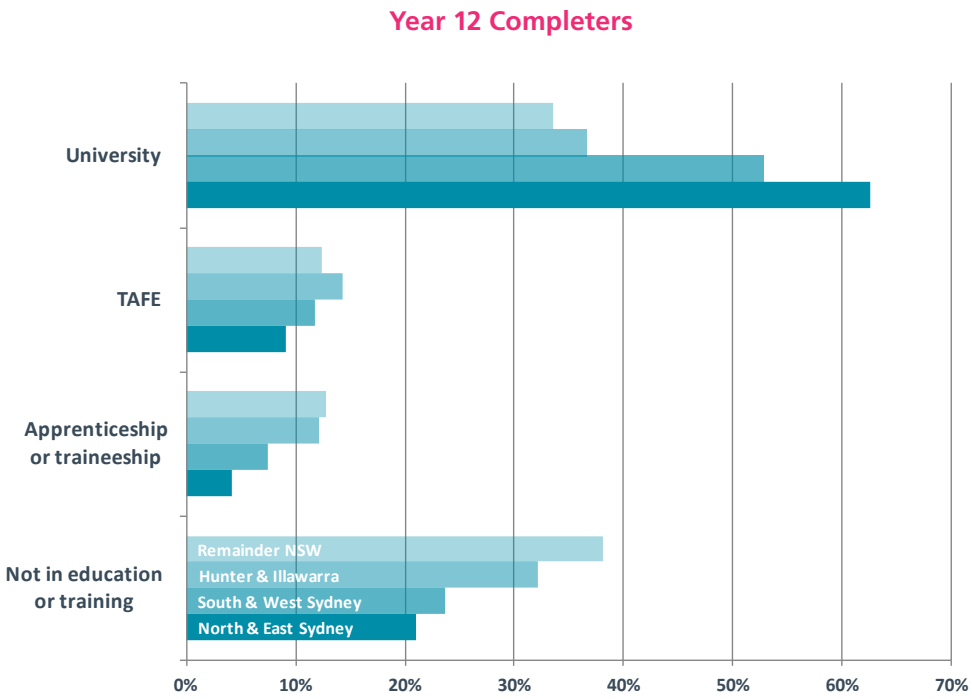
Geographic location

Where a student lives makes a significant difference to their post-school pathways. Most notably, surveyed students from non-metropolitan regions who completed Year 12 were much less likely to go to university than metropolitan students (Figure 13).

Students from non-metropolitan regions who did not complete Year 12 were more likely to be at TAFE or to have begun an apprenticeship or traineeship or to be in full-time employment than their metropolitan peers.

Figure 13

Students from non-metropolitan regions are less likely to go to university



Source: BVET 2011 (above), Table 2-9.

Turning aspirations into reality

Schools need to provide equitable opportunities for students. It is important for schools and teachers to understand the influences on students making the transition from school to post-school destinations and to provide students with the support they need to realise their potential.

The best results for students will be gained when teachers see themselves as part of a whole-school effort to work towards achieving students' aspirations.

A whole school approach would involve teachers:

- Advising students about their subject selections
- Monitoring progress of their students across the whole course of their study, not just in one subject
- Engaging with students and parents early about their aspirations. This involves all teachers, not just secondary teachers.

Notes

Career Moves: Expectations and Destinations of NSW Senior Secondary Students is based on data obtained from a representative survey conducted in late 2010 of 6,135 NSW students who were in Years 10, 11 and 12 in 2009. The data also include information from parents (from one in three families) and just over 3,000 teachers and principals at the sampled schools. The survey was conducted for the NSW Board of Vocational Education and Training by the Australian Council for Educational Research.

Importantly, the report provides a more detailed picture of young people's experiences and expectations at the end of their school years than has previously been available in New South Wales. The survey will be repeated in 2013, further adding to the Department of Education and Communities' knowledge in this area.

References and footnotes

1. The researchers have attached some caveats. The report acknowledged that the data was at the aggregate level that the questions asked of the three different groups were not exactly the same, and that not all school staff who were asked this question were classroom teachers. In addition, teachers at independent schools did not participate in the survey.

2. G Marks 2007, *Completing University: Characteristics and outcomes of completing and non-completing students*, Longitudinal Surveys of Australian Youth research report: 51.

3. J Hattie 2009, *Visible Learning: A synthesis of over 800 meta-analysis relating to achievement, Routledge:* 126.

4. J Mack and B Walsh 2013, *Mathematics and Science combinations NSW HSC 2001 – 2011 by gender*, University of Sydney.

5. D D Curtis, J McMillan 2008, *School Non-completers: Profiles and initial destinations*, Longitudinal Surveys of Australian Youth Research Report, 54:13.

6. A E Blackhurst, R W Auger, K H Wahl, April 2005, 'The development of elementary-aged children's career aspirations and expectations', *Professional School Counselling*, 8(4).

7. D E Palladino Schultheiss, March 2005, 'Elementary career intervention programs: Social action initiatives, *Journal of Career Development*, 31(3).

8. OECD 2012, *Grade Expectations: How marks and education policies shape students' ambitions,* PISA, OECD Publishing.

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