



Australian Government  
Department of Education and Training

# **FINAL REPORT - Improving retention, completion and success in higher education**

**Higher Education Standards Panel**



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The document must be attributed as *Final Report - Improving retention, completion and success in higher education*.

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|--|----|
| Executive summary  | 4  |
| Recommendations  | 9  |
| Expectations of completion in the current context        | 11 |
| Supporting students to make the right choices            | 16 |
| Supporting students to complete their studies            | 21 |
| Sharing best practice                                    | 32 |
| Clarity of definitions and enhancing transparency        | 35 |
| Accountability and regulation                            | 41 |
| Appendix A – Regression analysis                         | 43 |
| Appendix B – Terms of reference                          | 51 |
| Appendix C – Higher Education Standards Panel membership | 52 |
| Appendix D – Consultation process                        | 53 |

## **Executive summary**

Higher education attrition is an issue that has concerned government and institutions for decades, and, indeed, is an issue that continues to cause concern.

Extensive research over the years has consistently shown the drivers of attrition to be both student and institution-based and many recommendations have focussed on institutions increasing support and services for students and holding institutions to account for student outcomes.

Australia's higher education attrition rates have been relatively stable for over a decade and it is clear many institutions already invest significantly to support their students. However, it is also apparent that some institutions are more successful than others at retaining students and their methods and strategies are of interest to the entire higher education community.

Innovation in higher education and the movement away from a traditional higher education experience to suit current and future labour market needs must be taken into account in current discussions on attrition.

This final report of the Higher Education Standards Panel (the Panel) explains how this examination of retention, completion and success in higher education has come about. It looks at what the higher education sector is saying about the factors that impact on these issues and makes recommendations about how Australia can further build on its success in supporting students to succeed in their higher education studies.

### **The story so far**

In September 2016, following the release of 2015 student data by the Department of Education and Training (the department), media reports suggested that high attrition rates are symptomatic of poor admission standards; the lower a student's Australian Tertiary Admission Rank (ATAR) the greater the risk of non-completion; and as a result of the demand driven system, higher student numbers are leading to greater numbers of student drop-outs.

The Panel argued in its November 2016 report, *Improving the Transparency of Higher Education Admissions*, that this media coverage was alarmist. Reports misrepresented the scale of the problem, using attrition rates that were unadjusted for the impact of students changing courses or institutions. However, the Panel also considered that it is not appropriate to be complacent about the issue and institutions should seek to reduce the levels of non-completion.

In response to the Panel's report, the Minister for Education and Training, Senator the Hon Simon Birmingham asked the Panel to examine Australian higher education completion and attrition to ensure that students have the best chance of successfully completing their enrolled units, courses and qualifications.

## FINAL REPORT - Improving retention, completion and success in higher education

In June 2017 the Panel released a discussion paper *Improving retention, completion and success in higher education*. This paper outlined the long history of concern about higher education student attrition and the factors driving it. Since the 1950s, when the Australian Government claimed a role in higher education funding, there have been numerous reviews and various recommendations by successive governments on how to support students to complete their studies. The reviews consistently reported drivers of attrition to be the learning environment, teaching ability of lecturers, lack of student engagement, high student/staff ratios, lack of student support and personal factors relating to the student, such as financial, emotional, health or other life events. Recommendations from these reviews to reduce attrition included better quality support services, more flexible entry requirements, improved teaching quality and ability, a more supportive institutional environment, monitoring student progress and providing study support where necessary and making institutions' completion rates transparent.

The Panel's discussion paper identified that while there have been fluctuations in retention - and variations by institution - the attrition rate for Australian universities in 2014 is fundamentally similar to what it was in 2005, despite some movement during that period<sup>1</sup>. The attrition rate was 15.04 per cent in 2005 and 15.18 per cent in 2014. The discussion paper also highlighted the wide variation between university attrition rates, including data that suggests some institutions are supporting higher-risk students to succeed more successfully than others.

An analysis using statistical regression techniques, published in the discussion paper, showed that student characteristics only explained a small part (22.5 per cent) of the overall variation in student attrition. The statistical evidence suggests that the institution is a more important factor in explaining attrition than the basis of admission, the student's ATAR, type of attendance, mode of attendance or age. This analysis is available at Appendix A.

Students at non-university higher education providers (NUHEPs) have higher attrition rates and lower completion rates compared to Table A and B universities. However, their record is improving. The attrition rate for NUHEPs in 2007 was 35.9 per cent and this has dropped to 26.2 per cent in 2014. The completion gap between universities and NUHEPs has slightly narrowed.

The discussion paper pointed out that while international higher education completion rates must be compared with caution, because of the wide variety of systems across the world, in Australia, 70 per cent of new entrants in 2009 who enrolled in a bachelor degree had completed by 2014. This is around the OECD average of 69 per cent. Earlier data suggested the completion rate of graduates in 2011 in Australia was 82 per cent, above the OECD average of 70 per cent. However, it should be noted the earlier OECD data used a different methodology.

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<sup>1</sup> The Department of Education and Training definition is: "Attrition rate for year(x) is the proportion of students who commenced a bachelor course in year(x) who neither complete nor return to study in year(x + 1)."

## **FINAL REPORT - Improving retention, completion and success in higher education**

The Panel posed 12 questions to guide discussion on issues relating to retention, completion and success in higher education. These questions looked at whether there should be expectations of completion, in terms of completion rates and the speed of completion, how data collection and the transparency of data could be improved and how students could be supported to make the right choices and then complete their studies once they are enrolled in higher education. The Panel asked about best practice and how this could be shared across the sector, as well as whether there needs to be any further powers provided to the Tertiary Education Quality and Standards Agency (TEQSA) to ensure that institutions comply with the Higher Education Standards Framework in supporting students to succeed.

### **Stakeholders' views**

Forty-three written submissions were made in response to the Panel's discussion paper from individual institutions and peak bodies (Appendix D). In addition, the Panel conducted face-to-face hearings over two days with stakeholders, including peak bodies in the university, NUHEP, careers and equity sectors, deputy vice-chancellors, student groups, academics and researchers.

There was general support for the Panel's view that there is not an immediate crisis in higher education attrition, with attrition rates remaining relatively stable over the past 12 years. There was also general agreement, including from Universities Australia, that there is 'no reason for complacency'. There was acceptance that attrition represented a financial loss to government and students themselves and there should be a sustained effort to improve completion rates.

Many submissions noted the changing economy and workforce and the increasing proportion of students studying part-time and taking time off from study. They highlighted that attrition is often a reflection of balancing work, personal commitments, financial circumstances and study. While course completion should remain a primary focus for institutions, there will never be zero attrition. If standards are to be maintained it is inevitable that some students would still fail their courses. Not all attrition should be viewed negatively - especially if higher education proved not to be the best fit for the student.

Some stakeholders warned against setting arbitrary expectations around rates and speed of completion; noting they are difficult to establish. However, measurement of completion is important.

Aspiration building, early intervention prior to admission through outreach and sound career advice before and after admission to higher education were highlighted as extremely important factors in assisting students making the right choices. The range of work already being undertaken by institutions in terms of student outreach, often funded by the Higher Education Participation and Partnerships Program (HEPPP), was noted and there were many calls for greater investment in career education for primary and high school students, as well as for mature-age people and people already studying within a higher education institution.

There was general acknowledgement that, as a result of the new economy, digitalisation and complex factors leading to attrition, institutions should be continually adjusting curriculum, pedagogy and academic policy design to meet student needs and expectations.

## **FINAL REPORT - Improving retention, completion and success in higher education**

A student-centric institutional culture and well-targeted and well-communicated support services have a positive impact on student retention, completion and success. Many institutions cited examples of their own work in developing a strong student culture and of their successful student support services, though there were only limited examples of attempts to integrate these measures through comprehensive retention strategies. There was broad consensus that more needed to be done across the board for external students and for students suffering mental illness or emotional stress.

Some submissions noted the complexities around evaluating the success of targeted interventions and support services. A number of respondents pointed out that approaches that work for one cohort or institution may not necessarily work for another and what works for one faculty or field of study may not be scalable across the whole sector. However, stakeholders were generally enthusiastic about, and provided a range of suggestions for, new ways to share best practice.

Consistency in language around completions and attrition is important to stakeholders. There were many suggestions on how changes to the collection and reporting of data could better reflect the situation of retention, completion and success in higher education. Given how difficult it is to understand the increasingly complex pathways between school, vocational training, higher education and employment, there was almost unanimous support for a common student identifier across tertiary education. Indeed, many respondents called for a common student identifier across all levels of education, including school. Such a scheme has been implemented in New Zealand.

Some submissions noted the Government's proposed introduction of a 7.5 per cent performance-contingent element to the Commonwealth Grant Scheme and the metrics that may sit behind this. This policy and any criteria and metrics that might contribute to its implementation are beyond the scope of this review.

### **The Panel's view**

In this report, the Panel reaffirms there is no immediate crisis in higher education. Members are nevertheless concerned about the imbalance of attrition rates between a small number of institutions and between external and internal or mixed modes of educational delivery. These issues were highlighted in the discussion paper.

The Panel considers that significant improvements in provider approach are possible to maximise students' chances of successfully completing their studies. The Panel recommends as a first priority that institutions must ensure students who have the capacity to succeed in higher education are given the best chance to complete their studies through the appropriate provision of academic and other support as required by the Higher Education Standards Framework.

This report makes recommendations to improve the guidance available to school students and mature-age people prior to enrolment and the provision of careers advice to students by higher education institutions. It suggests a variety of ways in which institutions could further support students to complete their studies. The Panel makes recommendations specifically in relation to every institution developing its own retention strategy, support for external students and the need for an institutional strategy and implementation plan to assist students with mental illness.

## **FINAL REPORT - Improving retention, completion and success in higher education**

The Panel also encourages the greater development of nested courses – where appropriate and compliant with the Australian Qualifications Framework (AQF). This means that qualifications such as a diploma, advanced diploma or associate degrees can be incorporated within a bachelor degree, with appropriate exit points. This course design can maximise the opportunity for students who successfully complete part of a course but do not fully complete a bachelor degree to exit with a meaningful and economically useful qualification. It should not be anticipated that each entrant to higher education will leave with a bachelor degree.

The Panel is of the view that more streamlined and widespread sharing of best practice across the higher education sector would continue to build knowledge and capacity in all these areas.

The report suggests clarity of definitions and enhanced transparency in relation to attrition, completion, retention and student success would assist prospective students to improve their decision-making about study progression. It would also benefit institutions and policy-makers. The Panel's recommendations include publishing attrition data at more disaggregated levels and the introduction of a common student identifier across tertiary education; with a view to working with states and territories to establish a common identifier across all levels of education. For the first time, this would allow a holistic view of an individual's educational progress and a national picture of successful education pathways to be developed over time.

With this diversity of objectives in mind, the Panel offers 18 recommendations to help ensure students have the best chance of successfully completing their studies and transitioning into the workforce.



## **Recommendations**

### **Expectations of completion in the current context**

1. As a first priority, institutions should ensure students who have the capacity to succeed in higher education are given the best chance to complete their studies through the appropriate provision of academic and other support services as required of them by the Higher Education Standards Framework.

### **Supporting students to make the right choices**

2. School students and mature-age people need better access to effective career advice. The National Career Education Strategy, due to be released in 2018, should be closely monitored to identify improvements in the area of student career advice, including study options and pathways, and information about the post school learning environment. This strategy should also be expanded to include mature-age students or a separate strategy should be initiated for this cohort.
3. Career advice cannot be left to schools. Every higher education institution should ensure that their students are given the opportunity for career planning and course advice on entry to the institution and as they require it throughout their studies.
4. Where and how student success, completions, retention and attrition data is made accessible to students should form part of considerations by the Department of Education and Training in the establishment of a new online information platform.

### **Supporting students to complete their studies**

5. Every institution should have its own comprehensive student-centred retention strategy, which is regularly evaluated. These strategies could include institutional retention benchmarks and, as appropriate, processes for entry and exit interviews, the integration of data-based risk analytics and targeted support interventions, a suite of support services and a means to re-engage with students who have withdrawn.
6. Institutions should automatically review the enrolment of all students who have not engaged in their studies to an agreed level by the census date.
7. Institutions should pay particular attention to ensuring their support services are meeting the needs of external students who are not regularly attending campus because these students are identified as at risk of not completing their studies.
8. Every institution should have an institution-wide mental health strategy and implementation plan.
9. Institutions should increasingly offer nested courses, which are appropriate and compliant with the Australian Qualifications Framework, to provide students with a greater range of exit options with meaningful qualifications.

### **Sharing best practice**

10. There is already a wide variety of approaches to sharing best practice within the higher education sector. However, these approaches are not always scalable or frequently evaluated. Peak bodies should collaborate to develop streamlined processes to collect and disseminate best practice, with support from the Department of Education and Training. A dedicated website could be established for this purpose.

### **Clarity of definitions and enhancing transparency**

11. The higher education community should work together with the Department of Education and Training to ensure a greater understanding and clarity of definitions in attrition, retention, success and completions data. The Department should continue to measure and publish adjusted attrition, retention, student success and completions data.
12. At present some institutions have a trimester structure of teaching and this can lead to different timings for assessment, graduation and reporting. As a result, students who complete Semester 1 and 2 and enrol in Semester 3 but not Semester 4 are recorded as not completed. Consequently, the definition of attrition should be changed to reflect the trimester teaching structure.
13. The adjusted attrition rate should be the primary measure of attrition published for domestic commencing bachelor students.
14. The Department of Education and Training should further develop and publish the calculation of attrition rates that take into account key student characteristics so as to better reflect institutional differences.
15. The Department of Education and Training should report attrition among non-university higher education providers on a similar basis to its reporting of Table A and B universities.
16. The Department of Education and Training should publish attrition data at more disaggregated levels, for example, by institution, by study area and by student characteristics.
17. The Department of Education and Training should establish a common student identifier to better understand student pathways across tertiary education with a view to working with State and Territory Governments to establish a common student identifier across all levels of schooling.

### **Accountability and regulation**

18. TEQSA already has sufficient powers in relation to provider compliance with the Higher Education Standards Framework in terms of the identification and tracking of students at risk with support strategies in place, analysis of student performance and evidence on reasons for attrition. TEQSA should continue to take account of every institution's retention performance in assessing whether these standards are being met.

## Expectations of completion in the current context

While the higher education sector is in agreement on the importance of higher education, there are varying views on whether full course completion is necessary for a benefit to be achieved. For instance, The University of Sydney stated:

*We agree with the HESP that attrition of students from higher education represents a loss of the government's financial investment, as well as a financial and time-investment by the student, opportunities for social mobility and knowledge-based careers for students, and the further impact these losses might have on the overall economy. Striving for improved completion rates is therefore something we endorse, whether this is 'straight line' completions, completion with a nested qualification, or a student returning to complete study with credit from an earlier withdrawal.*

The Group of Eight acknowledged that students who receive some higher education are better off than those who receive none but this should not be accepted as an argument for higher levels of non-completion. It stated that complete higher education is necessary for entry to fields with professional accreditation, for example, and a completed higher education qualification is an essential element of accomplishing the benefits of the undergraduate experience.

Other stakeholders, such as the University of Canberra, noted that students enter university for a variety of reasons, such as employment, and once they achieve these goals they may choose to delay or cease their studies. The University stated that this should not be considered negatively, for some students may specifically wish to develop a certain set of skills that can be achieved through partial completion of a study program.

Western Sydney University agreed with this notion explaining that not all students will require a full degree to be successful in their careers. Its submission pointed out that there is a need to look beyond traditional concepts, such as degree completion, to better understand how qualifications provide value to students in a shifting economy.

The Australian Council for Private Education and Training (ACPET) wrote of the 4th Industrial Revolution as the cause for reform and change to career structures and ways of learning. In their submission, ACPET said:

*The economy and labour market, nationally and internationally, are undergoing fundamental reform and change. There has been a near decade of subdued economic growth following the Global Financial Crisis. The so called 4th Industrial Revolution is challenging whole industries, career structures and ways of learning. The rise of MOOCs and learners accessing 'bite-size' knowledge and skills are examples of the impact of this reform and change.*

The digitalisation of higher education was also an area of interest for many stakeholders. Blended face-to-face and online learning is becoming the norm. A number of submissions explained that many students are choosing online learning because it accommodates their circumstances, such as employment, family and geographical proximity to campuses.

Deakin University pointed out that even those students who go to a physical location to learn, access much of their learning online:

*We are amid the digital revolution where consumers, including students, have more choice than ever and can go in and out of platforms...In the digital world, it is as easy to enrol in an institution on your doorstep, or half a world away, and increasingly at a compelling price point and through an open, free taster course.*

YourTutor echoed this sentiment and stated that online students and campus-based students are taking on each other's traits and increasingly becoming digital students, spending more time online and less time on campus and expecting more services to be delivered digitally.

The Panel agrees that digitalisation of education will continue to grow and students will increasingly need and demand high quality online curricula.

### **Expectations and the speed of completion**

The Panel posed the question, what should be the sector's expectations of completion rates or speed of completion.

Many respondents highlighted the complexity of an individual's engagement with learning. It was pointed out that students withdraw from higher education for reasons such as physical and mental health, financial pressure, and their family or employment situation. Personal reasons, as well as institutional factors, contributed to decisions to withdraw (at least temporarily) from higher education.

ACPET stated in their submission that the sector should not expect some 'set in stone' attrition and completion rates against which all providers are judged. The Australian Technology Network described the idea of fixed completion rates as unrealistic with student cohorts across the university sector ranging in diversity from institution to institution.

Other submissions, such as from Victoria University, suggested that if there was to be a rate of expected completions it should be based on a formula that is sensitive and reflects the diversity of institutions, including institutions that enrol large numbers of mature-age students, part-time students and students from low socioeconomic or other equity backgrounds.

In response to what expectations there should be around the speed of completion, submissions identified substantial numbers of part-time and mature-age students who can take up to nine years to complete their degrees. Griffith University stated:

*The increasing proportion of students studying part-time, or taking time off from study, inevitably means that less than half of students complete a standard bachelor's degree within 4 years. At a minimum completion rates should be measured as the length of the standard degree plus 3 years.*

The University of Newcastle's Wollotuka Institute suggested that there should be wider promotion of the message that students can take several years to complete a degree. The Institute notes that some students are disheartened because they cannot study full-time and feel like they will never complete their studies.

Equity Practitioners in Higher Education Australasia, the organisation for university and TAFE equity practitioners, stated that for many reasons students from all walks of life do not complete. They wrote about lifelong learning and, as a consequence, completion as the only end game, or speed of completion, is a problematic concept.

Other submissions suggested that by offering accelerated models of delivery, institutions could increase the speed of completions and this would in fact suit many students. For instance, the University of Notre Dame Australia suggested offering trimesters, the use of intensive weeks in Winter or Summer term and additional credit-bearing online modules of study.

The Panel considers institutions should seek to set internal retention benchmarks which reflect the composition and aspirations of their students. These could be incorporated into institution specific retention strategies which are detailed later in the report.

### **A role for institutions**

The Panel stands by its view that higher education institutions should ensure that the students they admit have the capacity to succeed in higher education and are given the best chance to complete their studies through the appropriate provision of academic and other support services. It is for this reason that those services are required by the Higher Education Standards Framework.

While the Panel accepts the complexity of factors contributing to attrition, it reflects on the attrition data contained in its discussion paper. There are some institutions supporting higher-risk students to succeed to greater effect than others. An analysis using regression techniques (Appendix A) showed that student characteristics only explained a small part of the overall variation in student attrition. The institution is a more important factor than the basis of admission, the student's ATAR score, type of attendance, mode of attendance or age in explaining attrition - although, all measurable factors only explain 22.5 per cent of the overall variation in attrition.

## FINAL REPORT - Improving retention, completion and success in higher education

In 2014, a large number of institutions had lower adjusted attrition rates than they did in 2005. However, there are exceptions, with three institutions - Federation University, Swinburne University of Technology and University of Tasmania - specifically showing significant rises in attrition over the past few years. Remarkably, when these institutions are excluded from the calculation of adjusted attrition at Table A and B universities in 2014, the rate drops from 15.18 per cent to 13.63 per cent<sup>2</sup>, see Table 1.

| <b>Table 1:</b>                    | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> | <b>2009</b> | <b>2010</b> | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Adjusted Attrition Rate (%)</b> |             |             |             |             |             |             |             |             |             |             |
| <b>Adjusted Attrition Rate</b>     | 15.04       | 14.62       | 14.76       | 12.77       | 12.48       | 13.09       | 12.79       | 13.43       | 14.79       | 15.18       |
| <b>Minus FedU, SUT &amp; UTas</b>  | 14.97       | 14.51       | 14.64       | 12.54       | 12.39       | 12.94       | 12.64       | 12.96       | 13.54       | 13.63       |
| <b>Difference</b>                  | 0.07        | 0.11        | 0.12        | 0.23        | 0.09        | 0.15        | 0.15        | 0.47        | 1.25        | 1.55        |

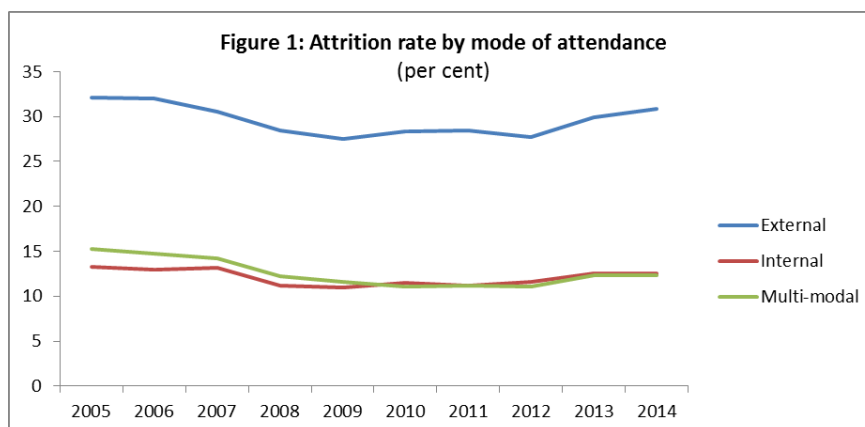
Attrition rates for NUHEPs, while complex to measure and difficult to compare to university attrition rates, are generally higher than Table A and B universities and, again, there are significant differences in attrition rates between various NUHEPs.

The Panel also reflects on the differences in attrition data between modes of delivery. For instance, external students are around 2½ times more likely to withdraw from higher education than internal students – see Figure 1. This is problematic, given that, in the age of increased digitalisation, the number of external students is rising faster than the number of internal students, increasing from a low of 8.3 per cent in 2006 to 14.5 per cent in 2015. The discussion paper notes that four universities - University of Tasmania, Swinburne University of Technology, the University of New England and Charles Sturt University - account for over half of all external students. Of these providers, Charles Sturt University and the University of New England have a long history of high numbers of external students. In contrast, Swinburne University of Technology and University of Tasmania have increased their external student numbers significantly, correlating strongly with these institutions' rising attrition rates over the same period<sup>3</sup>.

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<sup>2</sup> Higher Education Standards Panel 2017, *Improving retention, completion and success in higher education* discussion paper

<sup>3</sup> Higher Education Standards Panel 2017, *Improving retention, completion and success in higher education* discussion paper



Institutions need to take greater responsibility to ensure they retain the students they enrol. Curricula for external courses must be designed with the external student in mind and must utilise the benefits of contemporary technology in course design. The Panel makes recommendations in relation to the retention of external students in this report.

Overall, the Panel believes that in the current changing context of higher education, institutions should consider increasing their performance by making significant improvements to their academic and non-academic support mechanisms and the quality of their intervention strategies. This will maximise their students' chances of successfully completing their courses. Some stakeholders agreed. The Equity Practitioners in Higher Education Australasia stated:

*Of course higher education practitioners can always do better to retain students – strategies and interventions such as widening participation activities in both outreach and retention spaces; enabling programs which support increased preparedness; innovative activity in the teaching and learning space as well as in transition out initiatives are all necessary and currently exist.*

#### Recommendations

1. As a first priority, institutions should ensure students who have the capacity to succeed in higher education are given the best chance to complete their studies through the appropriate provision of academic and other support services as required of them by the Higher Education Standards Framework.

## Supporting students to make the right choices

In response to how students can better be supported to make the right choices, the Australian Technology Network stated:

*The ATN believes that strategies that encourage students to gain confidence and skills to succeed post-high school, prior to higher education are critical. Further, raising aspirations of prospective students through outreach and early intervention and providing informed career advice as early as possible, particularly for students of disadvantage, will yield benefits. The advice to students should be high quality and unbiased, tailored to the skills, interests and abilities of the prospective student. This advice should improve their chances of course completion.*

### Raising aspirations and outreach programs

Feedback emphasised how important parents, teachers and career advisers are in terms of building aspiration and influencing students, especially low socioeconomic and Indigenous students. The Australian Secondary Principals Association stated:

*Prior to entry. Raise the aspirations of prospective students through outreach and early intervention - It needs to go further than this for students in low SEI areas and those with families with welfare dependency. We must raise the aspirations of parents, families and carers – and dare we say it, educators as well – so that students feel it is OK to perform well and aim high. It is never too early to work on aspiration and inspiration – it adds relevance to learning and engagement and buy in from students.*

There was a strong focus on providing these influencers with up to date, relevant information to guide students' choices.

Many institutions cited their successful outreach programs, such as partnerships with schools, regional road shows and expos. They also noted the large amount of time and resources required to operate outreach programs effectively and the lack of clear evidence on what works. Griffith University stated:

*Griffith has recently conducted an evaluation of its outreach activities in the light of evidence of successful engagement strategies outlined in the literature. Very few rigorous studies of the impact of outreach and careers advice have been carried out that could inform good practice. Early and frequent engagement seems to be a predictor of later higher education engagement, but the most effective types of engagement are unclear. The tertiary sector faces capacity constraints in servicing a large number of schools, particularly if engagement is extended to primary school.*



Stakeholders mentioned the importance of the partnership component of the HEPPP which provides funding to universities to raise the aspirations and build the capacity of people from low socioeconomic backgrounds to participate in higher education, by developing activities in partnership with primary and secondary schools, VET providers, other universities, state and territory governments, community groups and other stakeholders.

Between 2010 and 2015 at least 2,913 partner organisations participated in HEPPP outreach activities<sup>4</sup>. The evaluation of the HEPPP, published in March 2017, confirms HEPPP outreach activities are meeting the HEPPP objective to increase the total number of people from low socioeconomic backgrounds who access and participate in higher education through outreach and related activities.

As detailed in the discussion paper, the Government's proposed higher education reforms aim to strengthen the HEPPP access and participation component by implementing two types of incentives that will provide a stimulus for eligible universities to recruit, support and retain students from low socioeconomic status backgrounds and enable eligible universities to allocate funding to outreach activities as required by their particular demographic and strategic circumstances. This includes early years outreach to build a pipeline of potential students from low socioeconomic status backgrounds.

### **Career advice**

Career education plays an important role in assisting students to choose the courses most appropriate to their skills, abilities and interests, subsequently increasing their chances of course completion.

#### **Career advice in schools**

Stakeholders highlighted the need for a renewed focus on career education in schools, especially disadvantaged schools. There was discussion around the lack of leadership at the national level and within individual schools, the lack of career advisers and the lack of connection and communication between teachers and career advisers.

There were calls for more user friendly, career information to be made available throughout a student's education, which would assist with more informed subject selection. The Australian Secondary Principals Association stated:

*Provide informed career advice from as early as primary school – this is critical, to inform not just about career possibilities but pathways to get there....Year 12 is too late when students are making choices in years 9 and 10. Information must be in accessible language so parents, students and school staff can unpick it easily.*

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<sup>4</sup> Higher Education Participation and Partnerships Program (HEPPP), Department of Education and Training, <https://www.education.gov.au/higher-education-participation-and-partnerships-programme-heppp>, viewed 24 July 2017

The discussion paper observed the large amount of work going on to further develop career services, such as the Government's digital information kit and the Government's online career education self-assessment tool.

The paper also noted with approval the development of the \$3 million government and stakeholder National Career Education Strategy. The Strategy aims to ensure students receive effective career education to help them make a successful transition from school to further education, training and work.

This Strategy, which is due to be released in 2018, identifies areas where national consistency and leadership can improve the quality and consistency of career education in schools. It identifies the role of supporting students' career education and preparation for work as a joint responsibility for individuals, their families and communities, the education system, business and government.

Submissions, including from Victoria University, acknowledged the development of the National Career Education Strategy, anticipating the strategy will improve career education for students.

The Panel recommends the National Career Education Strategy should be closely monitored to identify improvements in the area of student career advice, including study options and pathways, and information about the post school learning environment.

### **Career advice for mature-age people**

A number of respondents commented on the particular gap in career advice faced by mature-age people. Mature-age people find it extremely difficult to access the advice necessary to make informed decisions about which higher education path best suits their aspirations. Stakeholders pointed out the importance of career advice throughout a person's life as they transition in and out of work and education. The Australian Technology Network suggested the lack of university outreach programs for the non-school cohort, which results in less informed initial study and career advice, could be a reason for the higher attrition rates for mature-age students. Universities Australia, also noted their concerns:

*Mature-age students also have a need for accurate career advice, and of course they do not have access to school careers services. As mature-age students are one of the more at-risk cohorts for attrition, good careers advice for this group is particularly important.*

Universities Australia recommended that the National Career Education Strategy, which is currently only focussed on school-leavers, be expanded to include mature-age students so they too have access to appropriate and effective career and education advice. The Panel agrees with this and, if this is not the case, a separate strategy should be initiated for this cohort.

### Career advice in higher education institutions

Some stakeholders commented that career advice within institutions, if available at all, is usually not well resourced or promoted, although the Panel notes there are examples of good practice in this area. For example, James Cook University Career Development, Employability and Entrepreneurship initiative assists teaching staff with integration of online career development learning materials into curriculum, develops authentic assessment tasks, and provides course-specific career activities to support graduate success and lifelong learning. The University of Wollongong Australia provides a dedicated careers hub for their students, *Careers Central*, which includes resources, programs, events and services to help students to establish appropriate career goals, and to identify pathways and strategies to achieve those goals.

Overall, the Panel considers higher education institutions need to do more to enhance the provision of career education services within their institutions. Every higher education institution should ensure that their students are given the opportunity of career planning and course advice on entry to the institution and as they require it throughout their studies.

### Publishing relevant information

The Panel sought advice from the sector on how Government websites could be improved to provide students with useful student completion, retention and success information.

There were suggestions, including from the Council of Private Higher Education, about how the Quality Indicators for Learning and Teaching website (QILT) could be used to publish this information and be further promoted as the primary website to students to assist making choices about institutions and courses.

Some submissions indicated that a single central resource for students and their families to access and compare relevant user-friendly information as part of their decision-making processes would be the preferred approach for the publication of higher education data.

The Panel's final report on *Improving the transparency of higher education admissions*, recommended a national higher education admissions information platform be established to provide a single point of entry for information about higher education admissions policies and processes across all registered providers. This recommendation is being taken forward by the June 2017, *Improving the transparency of higher education admissions: Joint higher education sector and Australian Government implementation plan*. The plan states:

*The national admissions information platform will respond to the needs of students seeking information about institutions, courses, admission criteria and application pathways. It will be based on user research which examines how students use current services and identify what they think needs improvement<sup>5</sup>.*

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<sup>5</sup> *Improving the transparency of higher education admissions: Joint higher education sector and Australian Government implementation plan*, June 2017  
[https://docs.education.gov.au/system/files/doc/other/admissions\\_transparency\\_implementation\\_plan\\_june\\_2017.pdf](https://docs.education.gov.au/system/files/doc/other/admissions_transparency_implementation_plan_june_2017.pdf)

## **FINAL REPORT - Improving retention, completion and success in higher education**

The department is currently undertaking a research discovery project to inform the development of the platform in line with the Digital Transformation Agency's Digital Service Standard.

It is anticipated the research discovery project will also provide insights about other departmental websites including QILT and Study Assist.

The Panel considers that where and how student success, completion, retention and attrition data is made accessible to students should form part of considerations by the department in the establishment of a new online information platform.

### **Recommendations**

2. School students and mature-age people need better access to effective career advice. The National Career Education Strategy, due to be released in 2018, should be closely monitored to identify improvements in the area of student career advice, including study options and pathways, and information about the post school learning environment. This strategy should also be expanded to include mature-age students or a separate strategy should be initiated for this cohort.
3. Career advice cannot be left to schools. Every higher education institution should ensure that their students are given the opportunity for career planning and course advice on entry to the institution and as they require it throughout their studies.
4. Where and how student success, completions, retention and attrition data is made accessible to students should form part of considerations by the Department of Education and Training in the establishment of a new online information platform.

## **Supporting students to complete their studies**

Students enter higher education with widely different expectations of what they will gain from it and how it will contribute to their future careers and lives. Sometimes these expectations change. Sometimes they are dissatisfied with their educational experience. Often personal and family matters create unexpected challenges. In entering a higher education institution, and throughout their studies, students need to be given the support necessary to overcome challenges and complete their courses of study.

Feedback from respondents confirmed the Panel's assessment of the wide variety of innovative strategies and interventions that have a positive impact on student retention, completions and success, in the areas of institutional culture, teaching and learning and student support services.

It was broadly accepted that a healthy institutional culture that embraces diversity and flexibility and puts the student first is a key factor in whether a student feels like they are supported and a valued member of the institutional community. In hearings with the Panel, Dr Jessica Vanderlelie, Griffith University and Innovative Research Universities Vice Chancellors' Fellow, emphasised her work on the importance of institutions establishing a life-long connection with students from enrolment as a way of working towards graduate success. The University of South Australia expressed the importance of setting students up to succeed through its orientation experience which introduces students to the academic and non-academic elements of studying at the university, through presentations and social activities, as well as through online induction resources.

Promoting and rewarding high teacher quality and teacher ability and implementing effective learning and teaching strategies were repeatedly highlighted as important contributors to student success. Universities Australia cited several initiatives which have recently emerged in Australia. These include the United Kingdom's Higher Education Academy, which has set up an Australasian branch with over 1000 fellows in Australia and New Zealand, and the Australian University Teaching Criteria and Standards, a project funded through the Australian Government Office for Learning and Teaching, which are being used by a number of universities. Universities Australia noted that institutions are ultimately responsible for identifying the practices that will work best for them and their particular student demographic and community, communicating these to their staff and encouraging their use.

A number of submissions highlighted how institutions should be continually adjusting curriculum, academic and administrative policy design and pedagogy, and focussing on improving teaching skills for lecturers and teachers. Griffith University stated:

*Attrition is not always a problem to be remediated; it is a reflection of the complexity and tensions in balancing work/personal/study commitments which require flexibility in curriculum, pedagogy, and academic and administrative policy design.*

Institutions reinforced that foundation/transitional, academic and personal support services are provided by them to all students and they shared a plethora of examples of their work in this area. Institutions also pointed out that it is not necessarily the case that a student will accept such support.

Submissions, including from the NSW Department of Education, acknowledged that low socioeconomic status does not necessarily mean low achieving, however many students who are low socioeconomic also share other characteristics associated with poor retention and lower completion rates, such as being mature-age and part-time. Institutions provided examples of their support programs for equity students and recognised the Government's support programs for disadvantaged students. For instance, through the Higher Education Participation and Partnerships Program (HEPPP) and the National Centre for Student Equity in Higher Education, including for low socioeconomic students, those from regional and remote areas, Indigenous students and students with a disability.

Given the increase in the number and variability in students who have entered higher education since the introduction of the demand driven system, the Panel considers that institutions have done a good job in addressing attrition. However, the Panel believes it would be useful for every institution to have a retention strategy, ensure appropriate support for external students, address student mental health and, where appropriate, increase their offerings of nested courses.

### **Institution retention strategies**

Increasingly, institutions are including retention targets in their strategic plans. Curtin University noted that its strategic plan includes retention and completion targets and monitors them in comparison with others at the state and national level. The Australian Catholic University cited its strategic plan, which includes retention targets and cultivates a culture reinforcing the importance of student success.

Some institutions referenced specific retention strategies, initiatives or taskforces. These institutions include La Trobe University, Federation University of Australia, Curtin University, Victoria University, Swinburne University of Technology, Western Sydney University and the University of the Sunshine Coast.

The University of the Sunshine Coast's submission outlines its identification, implementation, support and monitoring strategies:

- *Inclusion of measures and targets in our Strategic Plan and Academic Plan relating to student retention and success*
- *Implementation of a whole-of-institution Student Retention and Engagement Blueprint which has four interrelated strategies:*
  1. *Strengthen the first year experience*
  2. *Design and enact high quality curricula*
  3. *Promote access, equity and diversity*
  4. *Enable support for learning*
- *Early identification of at-risk students and targeted intervention strategies.*

## **FINAL REPORT - Improving retention, completion and success in higher education**

The Panel sees great value in every institution developing a student-centred retention strategy, which is evaluated regularly, as a way of focussing management, staff and students towards a coordinated, integrated process for achieving student retention and success.

Strategic plans generally cover curriculum, learning, leadership and culture. Taking this into consideration the Panel recommends every institution's retention strategy could contain all or some of the following elements:

- institutional retention benchmarks
- student entry interviews
- learning analytics and interventions
- strategies to review student enrolment
- support strategies
- exit interviews
- processes for the re-engagement of students who have withdrawn.

These elements are detailed below.

### **Retention benchmarks**

The Panel considers all higher education institutions should have retention benchmarks which could be incorporated into institution specific retention strategies. These benchmarks would take into account the institution's student cohorts and student aspirations.

As mentioned above, many institutions have already set themselves targets or benchmarks and note them in their current strategic plans or, if they already have one, retention strategies.

### **Student entry interviews**

Student entry interviews are of particular interest to the Panel. They were suggested by a number of stakeholders as a way of growing a strong student focussed institutional culture and working with students on an individualised basis. The interviews would be a way to gauge a sense of the students' learning expectations.

For instance, Deakin University proposed that when a student accepts a Commonwealth Supported Place, they should be asked to indicate whether they plan to complete their studies on a full-time or part-time basis and over what time frame, and whether they plan to complete all or part of a degree. The University said this would enable tracking of degree completion or progress according to the student's stated ambition at the point of commencement, and it would be helpful for institutions to know the student's life or career goal so that guidance could be provided from the point of admission.

## FINAL REPORT - Improving retention, completion and success in higher education

ACPET indicated that several of its members highlighted the value of interviewing each student as part of the admissions process which provides an opportunity to identify and tease out potential academic and non-academic barriers. The Panel notes that for many NUHEPs this would be more feasible given small numbers of students than for universities with hundreds of students enrolled in one first year unit. The Council for Private Higher Education stated in its submission:

*The annual enrolment of first year students at most COPHE members is such that many institutions have the capacity to interview prospective students prior to enrolment and first year class sizes are much smaller and offer a more personal learning community that at the public universities.*

The University of New England discussed the idea of a student readiness questionnaire, which the Panel considers could be done online and would remove the issues related to numbers of students. It could provide diagnostic information to institutions about students' individual needs, while also providing baseline data. The University suggested this could include:

- prior educational experience
- prior work experience and transferable skills
- career and learning aspirations
- reasons and motivation for choice of course and institution
- reasons for choice of attendance mode
- self-identification of learning needs and weaknesses
- expectations of support.

The Panel sees benefits in institutions incorporating these processes into their retention strategies and suggests sharing of best practice across the sector to determine successful methods of engaging with students to obtain this information.

### **Learning analytics**

There is widespread acceptance that learning analytics, if implemented effectively, is a valuable tool for addressing student retention. Many institutions are increasingly developing and implementing learning analytics programs to identify students who require intervention and contact these students to offer assistance and services to help them get back on track. Teaching staff are using analytics to identify trends across classes and adapting their course design and support structures to improve their engagement and performance.

Supporters of learning analytics believe, if used to its potential, it can personalise a student's time in higher education in ways that were not previously possible.

The Panel notes the use of learning analytics at Arizona State University in the United States of America which maintains a department of data analysts who monitor student behaviour in real time. Since the University began using predictive-analytics programs nearly a decade ago, it has seen its graduation rate climb by 20 per cent.



## **FINAL REPORT - Improving retention, completion and success in higher education**

The Panel acknowledges Australian institutions are still in early stages of engaging about and implementing learning analytics and notes the resources and expense of creating a workable system. However, the Panel encourages institutions to persevere and share best practice in this area.

### **Reviewing student enrolment**

The Panel considers that institutions should automatically review the enrolment of all students who have not engaged in their studies to an agreed level by the census date. For instance, for on-campus students this would include whether the student is attending tutorials or has handed in their first assessment, and for external students this could be whether a student has viewed their online content, submitted their first assessment or engaged in online discussions or tutorials.

Reviewing enrolment before the census date, when students appear at risk of not completing their studies, would protect students from accumulating unnecessary debt and provide an additional incentive to institutions to support their students.

Strategies to review student enrolment could also be included as an element of an institution's retention strategy.

### **Support services**

The provision of support services is a requirement of the higher education standards framework and some institutions, in their submissions to the Panel, explained the vast range of foundation or transitional, academic and personal support services they provided to their students. The support programs included support for students at critical points and in critical cohorts, for example support for first year students, first in family students, Aboriginal and Torres Strait Islander students, students with disability and students from rural and remote locations.

Victoria University noted its development of a first year undergraduate curriculum which takes a more deliberate approach to supporting transition to university, recognising that many new students need additional academic support, more regular and detailed feedback and increased small group interaction.

Peer mentoring was considered as one of the most successful programs for providing academic, personal and transitional support services. The Queensland University of Technology, Curtin University, the University of South Australia, the University of Newcastle Wollotuka Institute and the Australian Catholic University, were among the stakeholders who cited successful programs in this area. During face-to-face hearings with the Panel, student groups provided anecdotal evidence of the benefits of peer mentoring, including personal examples.

Submissions also noted the importance of employability skills within the context of discipline, building links with industry, professional mentoring and work integrated learning. All these initiatives appear to add to an individual's sense of achievement and desire to complete their course.

There was feedback that despite widespread and targeted promotion of support services within institutions, it was often difficult to ensure students who most needed the support would take it up.

Through the consultation process, the issue of higher student retention for students who live on campus was highlighted. This was not covered in the discussion paper. Stakeholders noted the benefits of having in-built pastoral care services, a deeper feeling of engagement with the institutions and more peer engagement – although the National Union of Students noted that often residential accommodation is comparatively expensive and many of the students who could benefit most from the in-house support services and the social aspects of living on campus, for example students from rural and regional areas and students from low socioeconomic families, often cannot afford the residential accommodation.

Overall, the Panel considers that institutions are indeed offering targeted and successful support services to assist students complete their studies. However, it notes that there seems to be little integration across individual institution's initiatives. The Panel hopes that institution-specific retention strategies would enable institutions to provide a more holistic approach to the support services provided.

### Support for external students

Increasingly, students are choosing to study online because it accommodates circumstances such as family, employment and living arrangements. Some stakeholders contend that external study can be as successful as more traditional delivery methods. Yet it is clear from the poor attrition data detailed in the discussion paper and mentioned earlier in this report, this is not the case. Students studying online take longer to complete their degrees and have lower completion rates than other students.

Some stakeholders, such as the University of New England, cited examples of supporting external students but other feedback suggested support for external students generally appears to be an extension of support for on-campus students, and little additional effort is put in to ensure the services are suitable for those online.

According to one research report:

*...online students may not be receiving the flexible and accessible learning that online education is purported to provide. This situation highlights a broader issue, in that many online educators are using policies and protocols that are designed for traditional on-campus students without adequate adaptation for the online learner. Considerable scope therefore exists for improving online learner satisfaction and retention by more effectively accommodating online student characteristics and needs<sup>6</sup>.*

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<sup>6</sup> Moore C and Greenland S 2017, *Employment-driven online student attrition and the assessment policy divide: An Australian open-access higher education perspective*, *Journal of Open, Flexible and Distance Learning*, 21(1), [52–62.].

There needs to be recognition that there is a growing cohort of students who engage with higher education mainly online. These students need to feel a sense of belonging, part of student life and require specific online support services (perhaps through online peer mentors), extended hours or 24/7 support services and support embedded into their curriculum. YourTutor stated in its submission the Panel:

*Forward-looking universities are modifying the way courses are delivered and support is provided to optimise the student experience and ensure student attrition rates are kept to a minimum. This has involved adopting cost and organisational efficiencies to ensure resources are available to and accessible by diverse cohorts, and that these resources are scalable to meet increasing demands...As a first line of action, intervention and support strategies must be online, to ensure scale and equitable reach to students from regional and remote locations, international offshore students, and those that do not attend campus, or for other reasons have minimised their time on campus.*

The Panel considers institutions should be paying particular attention to ensuring their support services are meeting the needs of external students who are not regularly attending campus.

Without significant improvement and targeted investment in support for external students, the further expansion of external delivery risks both the quality and reputation of Australian higher education.

### **Exit interviews/survey**

The Panel agrees with stakeholders who pointed out that while the department's Student Experience Survey provides a valuable insight in to the reasons why students are considering leaving their courses, it does not provide follow up data on which students left. This data would be valuable for individual institutions to inform their retention practices.

Many stakeholders across the higher education community endorsed exit surveys for students who discontinue their studies, with various suggestions around how such surveys are administered, for example at a national level or within every institution.

Some institutions noted their current exit interview arrangements and explained that low response rates from exited students limit the collection and use of data.

The University of Newcastle: Wollotuka Institute agreed that a survey of exiting students would be useful to understand where changes and different approaches need to be taken by institutions and mentioned that the Institute will shortly be undertaking a pre-emptive survey of current Indigenous students to ascertain their satisfaction with the Institute's services. The survey is designed to gain an understanding of what 'is' as opposed to what 'should be' with the intent to capture dissatisfaction before it leads to a student withdrawing or dropping out.

The Panel recognises the value in this proactive approach. Not only could institutions who engage in such a pre-emptive survey review their practices, they could use the opportunity to offer additional support services or discuss options such as reducing a study load, transferring to an alternative course or taking formal leave -students' being aware of their enrolment options was an issue raised by the Panel in the discussion paper. Students are often unsure of what options they have, such as taking formal leave or deferring and the Panel considers institutions need to do more to communicate these to students.

The Panel recognises the valuable data that would be generated by an exit survey or a pre-emptive survey of current students and promotes the inclusion of either or both surveys in institution retention strategies.

### **Re-engagement of students who have withdrawn from higher education**

The Panel was disappointed that submissions confirmed there are few formal processes for the re-engagement of students who have withdrawn from higher education in place across the sector.

The 2017 La Trobe University study, *The re-recruitment of students who have withdrawn from Australian higher education*, also cited in the discussion paper, stated:

*Any students who withdraw from higher education have the potential to be re-recruited in subsequent years, including students who are initially adamant that they will never return to higher education. Our research has found that, with little institutional effort, around one half of 'non-completers' already return to higher education within eight years of their initial withdrawal. It is difficult to prevent many students from withdrawing, but relatively easy to support their re-enrolment.*

The Panel re-emphasises that this is a missed opportunity. Institutions have the capacity to increase enrolments through engagement with students who have withdrawn from higher education. This re-engagement practice should be part of an institution's retention strategy.

### **Student mental health**

Students face many personal challenges during their years in higher education. Stress often has an adverse impact on their emotional well-being.

Some respondents highlighted that mental health is a serious problem impacting some students and a major cause of attrition. They claim extra support is needed for students suffering mental health issues. La Trobe University stated:

*..a recent La Trobe research survey indicated that student mental health is a bigger driver of attrition than academic difficulties. It is important that institutions develop strategies that deal with both of these issues.*

## FINAL REPORT - Improving retention, completion and success in higher education

Orygen, the National Centre of Excellence in Youth Mental Health, released a report on student mental health in May 2017<sup>7</sup>. The report states that of Australia's 1.4 million university students approximately three in five are aged between 15 and 24 years and at least one in four of these young people will experience mental ill-health in any one year. These students are more likely to consider exiting or exit their course early.

A study by the National Union of Students in 2016 found seven out of ten university students surveyed rated their mental health as only 'poor or fair'. The survey of more than 2600 Australian university and TAFE students found about a third had considered self-harm or suicide in the last 12 months. It also found two-thirds of students reported high or very high psychological distress in the past 12 months, almost 80 per cent had felt anxious and more than half had experienced panic.

The National Union of Students also pointed out that the 2014 *First Year Experience Survey* found almost three-quarters of first year students who were considering deferring cited emotional health as an important reason.

In hearings with the Panel, the National Union of Students described how counseling services are overloaded, especially during exam time, and simply cannot assist all the students who require their services. Suggestions include embedding skills such as resilience into the curriculum and providing mandatory mental health training to teachers and lecturers.

The Panel notes that universities have the ability under the HEPPP to assist low socioeconomic students whose mental health may form a barrier to their ability to participate and succeed in higher education. In addition, the 2016 evaluation of the Government's Disability Support Program (DSP) considered the appropriateness of the support provided by the DSP. Since the program started, there has been a shift in the disability profile of students to include a greater number of students with mental health issues and learning disorders. Lower levels of awareness from provider staff in supporting students with these types of disability was identified as an issue not addressed by the DSP's current program design, which does not include training of provider staff. The Government's 2016 consultation paper proposed expanding the use of existing funding to include staff training to better support students with mental health issues.

In considering the issue of student mental health, the Panel also reflected on the good will and work already being undertaken in this space. For instance, the Inaugural Australasian Mental Health and Higher Education Conference was hosted by James Cook University in July 2017. The conference looked at prevention and intervention programs and strategies and services to improve mental health. Dr Margaret Carter Senior Lecturer Education, Associate Professor Abraham Francis and Associate Professor Paul Pagliano, James Cook University, noted in their conference address the troubling data on student mental health in the context of students failing to complete their studies.

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<sup>7</sup> Orygen 2017, *Under the Radar: The mental health of Australian university students*, <https://www.orygen.org.au/Contact/Media-Releases/2017/flying-under-the-radar>

The address cited Benjamin Veness who stated in his 2016 report to the Winston Churchill Memorial Trust:

*There is no good reason why every Australian university should not have a mental health policy and strategy and yet few do<sup>8</sup>.*

Institutions such as The Australian National University, The University of Melbourne and the University of Canberra already have such mental health strategies. These strategies include institutional approaches to mental health and wellbeing, assistance for students and staff and specific interventions for students and staff with mental health issues.

The Panel considers this good practice and, with such high rates of mental illness affecting higher education students, as a first step, every higher education institution should have a mental health strategy and implementation plan.

### **Nested courses**

As mentioned earlier, nested qualifications refer to when qualifications, such as a diploma or associate degree, are set within a bachelor degree, with appropriate exit points. The course needs to be designed to ensure the integrity of each potential qualification. For example, if after one year, the student decided to retire from university with a one-year diploma, that diploma course would need to meet the requirements of the AQF and the Higher Education Standards Framework.

Many respondents were strongly supportive of institutions increasingly offering nested courses to meet demands of learners who seek more flexible arrangements. Western Sydney University stated in its submission:

*There is nothing that prevents higher education provides from offering intermediate or nested qualifications and this should remain an option for higher education institutions.*

Griffith University noted the three-year undergraduate degree model is under pressure from the growing array of digital learning products, offered by an ever expanding range of national and international providers (and employers). Nested qualifications enhance the flexibility and accessibility of tertiary education.

Some stakeholders noted the Government's move to increase Commonwealth Supported Places in associate degree, advanced diploma and diploma courses which will improve the availability and diversity of pathways into bachelor degrees. The Panel agrees and welcomes the Government's approach to this issue.

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<sup>8</sup> Veness B 2016, *The wicked problem of university student mental health*, Report to the Winston Churchill Memorial Trust, Sydney, Australia.

In its submission, Edith Cowan University noted student demand for opt-in nested courses (for example, sub-bachelor courses that articulate to bachelor degrees) has been limited due to the up-front costs. The University stated that the expansion of Commonwealth Supported Places to sub-bachelor courses may increase demand, and therefore supply, for both opt-in and opt-out (alternative exit with a lower qualification) nested courses.

The University of Adelaide reflected on a working group which has been established at the University to explore matters relevant to its award program architecture and to consider the range of issues that are likely to arise in the context of the requirements of a 21<sup>st</sup> century education. Nested courses are a consideration of this working group.

There were some concerns about the limitations of nested courses across the qualifications spectrum. For instance, Universities Australia argued that many of the more technical, vocationally oriented courses, in particular, would have difficulty in nesting lower level qualifications within degree structures.

The Panel strongly supports the value of nested courses and it notes, however, the risks of the proliferation of meaningless qualifications if the courses are not designed with the AQF in mind.

### Recommendations

5. Every institution should have its own comprehensive student-centred retention strategy, which is regularly evaluated. These strategies could include institutional retention benchmarks and, as appropriate, processes for entry and exit interviews, the integration of data-based risk analytics and targeted support interventions, a suite of support services and a means to re-engage with students who have withdrawn.
6. Institutions should automatically review the enrolment of all students who have not engaged in their studies to an agreed level by the census date.
7. Institutions should pay particular attention to ensuring their support services are meeting the needs of external students who are not regularly attending campus because these students are identified as at risk of not completing their studies.
8. Every institution should have an institution-wide mental health strategy and implementation plan.
9. Institutions should increasingly offer nested courses, which are appropriate and compliant with the Australian Qualifications Framework, to provide students with a greater range of exit options with meaningful qualifications.

## Sharing best practice

The Panel's discussion paper and the ensuing consultation process highlighted the enormous amount of research and work being undertaken in the areas of student success, retention and completion. The Panel noted the various ways the sector appears to be sharing best practice such as STARS (Students Transitions Achievement Retention and Success) Network, teaching and learning conferences and forums and workshops, but sought ideas on other initiatives to share best practice.

Respondents from both the university and NUHEP sectors referred to privately run conferences that are a forum for sharing best practice, however, noted that because of the high cost of attending these conferences, staff attendance is becoming less frequent and less plausible.

Some stakeholders explained how they were already sharing best practice. For instance, the Innovative Research Universities has developed the National Innovation Case Study Collection<sup>9</sup>, which profiles over 100 exemplars of innovative practices supporting student and graduate success. This public collection profiles work from within the Innovative Research Universities' members but welcomes contributions from all institutions. The Australian Learning and Teaching Fellows' Network established in 2011 comprises over 100 scholars across Australia who share best practice on effective ways to promote and sustain effective learning and teaching in Australian higher education.

Many stakeholders drew attention to Universities Australia's new role as the curator of the digital library of learning and teaching resources developed by the Office for Learning and Teaching and its predecessors, and suggested its role could be expanded to become a wider clearinghouse of relevant, easily accessible best practice information for higher education researchers and practitioners. The Regional Universities Network stated:

*It would be a very positive move if UA (via HES) continued to grow opportunities for professional and collegial sharing in an effort to reduce the impact of very expensive corporate conferences that regularly use the intellectual work of sector leaders to attract participants. Government-funded work is a regular feature of these conferences, the cost of which is prohibitive to many universities.*

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<sup>9</sup> The National Innovation Case Study Collection can be accessed here: <http://app.iru.edu.au/national-innovation-case-study-collection/>



Queensland University of Technology stated:

*A single centralised repository for sharing data and outcomes of projects could be useful, possibly hosted by Universities Australia as part of their data responsibilities. Such centralised warehousing of practice has a mixed history of success, and lessons would need to be learned from past efforts. We note that the HEA in the UK is a good example of a centralised institution leading community collaboration across the sector. It leads best practice development, identifying key priorities each year in consultation with the sector and widely disseminating outcomes. It has broad support because stakeholders have a voice through their engagement in awards, grants and fellowship activities.*

Griffith University suggested the proposed reporting requirements for the HEPPP projects should ensure that evaluations of HEPPP funded student success projects are publically available and the National Centre for Student Equity in Higher Education proposed there be a project to undertake the compilation and presentation of a register for student completion programs.

In response to the recent evaluation of the HEPPP, Minister Birmingham approved some projects under the 2017 HEPPP National Priorities Pool component that address these issues. They include:

- publishing existing HEPPP National Priorities Pool research reports, extracting key findings and recommendations and placing them in a searchable format on the department's website
- developing a national HEPPP evaluation framework to structure and guide overall evaluation of the HEPPP, as well as quality improvement and impact evaluations of HEPPP funded activities. The evaluation framework will support the development of an evidence base to establish the impact of HEPPP-funded equity interventions, and ensure that these outcomes are disseminated to the sector
- establishing an Equity Research and Innovation Panel to support the development of a strategic program of integrated equity research and trials that addresses gaps in knowledge necessary to identify best practice and assess its efficacy into the future.

Despite the enthusiasm displayed by stakeholders about ways to share best practice, some respondents did note the complexities of assessing best practice and what works at one institution or for one cohort, even within a single institution, might not work for another.

The University of Adelaide pointed out that institutions need to work to ensure rigorous evaluation is undertaken and to share these results across the sector to establish a common understanding of best practice and to generate new ideas and approaches in the development and execution of student support strategies.

The Panel believes sharing best practice across the higher education sector to be an important element in improving student success and retention. The Panel recommends that peak bodies from across the sector should collaborate to develop innovative streamlined processes to share best practice. The Panel envisages support from the department for this exercise and proposes a dedicated website be established to consolidate and share the best practice information.

**Recommendations**

10. There is already a wide variety of approaches to sharing best practice within the higher education sector. However, these approaches are not always scalable or frequently evaluated. Peak bodies should collaborate to develop streamlined processes to collect and disseminate best practice, with support from the Department of Education and Training. A dedicated website could be established for this purpose.

## **Clarity of definitions and enhancing transparency**

One of the specific terms of reference the Government set for the Panel to ensure students have the best chance of successfully completing their enrolled units, courses and qualifications was to determine the adequacy of existing data on completions and attritions and improvements that can enhance transparency and institutional accountability.

The Panel's discussion paper details how the department measures completion, attrition, retention and success data to capture various behaviours and give a timely, overarching picture of Australian students' academic progress through higher education. However, the Panel notes that this data is unlikely to influence a student's decision because students are unlikely to be aware of it.

The Panel referenced the potential for the quality of data on the academic preparation of students to decline over time as the sector continues to shift away from ATAR based admissions. Data on the ATAR of new students is not collected if they are not enrolled on the basis of that ATAR. In response to this, Innovative Research Universities supports the consistent recording of ATAR for all students that hold a current ATAR, irrespective of the offer made. Its submission stated that attrition may not be strongly correlated with ATAR, however, limitations of the data set are significantly skewing the data and capacity for interpretation.

The Panel also noted the lack of ability to track students across the tertiary sector and asked stakeholders for their views on how the tracking of students (including between higher and vocational education) could be enhanced.

The Panel considers that feedback received in relation to these issues falls into two main categories: the need for clarity of definitions around attrition, completion, retention and student success and increased transparency.

### **Clarity of definitions**

#### **Definitions**

Feedback suggested there is scope to improve the consistency in terminology around attrition, retention, success and completions. For instance, La Trobe University highlights the varied terms universities use to describe students who temporarily suspend their studies. Universities use terms such as 'leave of absence', 'discontinuation of enrolment', 'deferral' and 'absence without leave'. La Trobe's submission states that these terms have different meanings in different universities and refer to different time spans.

Victoria University points out differences in definitions of attrition between the Panel's discussion paper and HEIMS data and the University of Canberra explain that TEQSA's definition of attrition does not allow for students who take a leave of absence in their second year of study.

There is also confusion about the terms 'normal attrition', 'raw attrition', 'adjusted attrition', 'crude attrition' and 'modified attrition rates'. Innovative Research Universities say that current terms 'attrition' and 'adjusted attrition' are not accurate representations of the data and the definitions imply that the adjusted rates have undergone regression analysis. This is despite definitions often being clearly stated.

The Panel considers that greater consistency in the use of the terminology would eliminate confusion among institutions and students and recommends that the higher education community work together with the department to establish agreed terminology to ensure greater understanding and clarity of definitions in relation to attrition, retention, success and completions.

### **Recognising the trimester structure**

During hearings between stakeholders and the Panel, there was feedback in relation to the department's measurement of attrition not reflecting the trimester structure of teaching - some institutions have a trimester structure of teaching and this can lead to different timings for assessment, graduation or reporting. As a result, students who complete Semester 1 and 2 and enrol in Semester 3 but not Semester 4 are recorded as not completed.

Changing the measurement of attrition to reflect the trimester structure of teaching by excluding students reported as continuing in the following year would lower the calculated attrition rate slightly for a small number of institutions. For example, the largest impact would be a reduction of 0.8 percentage points in the calculated attrition rate for Central Queensland University with the impact for other institutions being a reduction of less than half a percentage point.

The Panel does agree given the increasing number of institutions offering trimesters, it is important that attrition measurements incorporate the trimester structure of teaching.

### **Adjusted vs normal attrition**

There are two attrition rates published by the department, a normal attrition rate and an adjusted attrition rate. The normal attrition rate is calculated from a count of students commencing in courses and institutions in one year then comparing the number who enrol in the same course at the same institution for their second year of study. The adjusted attrition rate is able to track individuals through their CHESSN and accounts for persons changing their institution. The difference between the measures is that the normal attrition rate is higher as it includes students who change institution; whereas the adjusted attrition rate only counts students as withdrawing if they leave higher education.

Some stakeholders were concerned about the use of normal attrition because it includes students who change institution, so, in fact, they are not leaving the higher education sector.

Griffith University stated in its submission:

*It is important that retention rates reflect retention in education (the adjusted attrition rate), rather than whether students have been retained within their initial degree program. Students move for positive reasons that should be encouraged – students who do not initially meet entry requirements for their degree of choice may enrol in another degree and subsequently upgrade, or students recognise that their initial choice was ill-informed and they move to another degree that better reflects their talents and interests. These students have not been lost to higher education and should not be counted as such.*

Universities Australia went so far as to suggest that department cease publishing raw (or as defined by the department 'normal') attrition rates. It claims that publishing both attrition rates is unnecessary, unhelpful and misleading.

The Panel considers that normal attrition rates are still important, with one reason being that adjusted attrition rates cannot be applied to international students, but agrees that adjusted attrition rates should be used as the primary measure of attrition.

### **Further development of regression based analysis of attrition rates**

As mentioned earlier in this report an analysis using regression techniques, published in the discussion paper and available at Appendix A, provided a valuable insight into how important factors such as the institution, part-time study, age, low academic achievement, external study, field of education and low socioeconomic status are associated with higher attrition. The analysis enables a 'modified' measure of attrition that better reflects institutional differences.

Some stakeholders, including the Innovative Research Universities, the Council of Private Higher Education, Charles Sturt University and Swinburne University of Technology, noted their support of this regression analysis. The Innovative Research Universities submission stated that for its members, the analysis more clearly represents the demographic diversity of its cohorts. Swinburne University of Technology agreed, stating the analysis represents a significant step towards properly and fairly assessing the performance of universities which provide access to larger than average cohorts of learners who may be experiencing educational disadvantage or studying externally. Swinburne University of Technology went on to recommend that for all official purposes institutions be assessed on either the OLS or Logit modified attrition rates, including TEQSA or QILT, and any future performance measurements.

The Panel considers that the department should further develop and publish the calculation of attrition rates that take into account key student characteristics so as to better reflect institutional differences.

## **Increased transparency**

### **NUHEP data**

During the consultation process private higher education stakeholders, including ACPET and the Council for Private Higher Education Providers, noted the value of the department's January 2017 report which benchmarked NUHEP completion rates for the first time and demonstrated that attrition is a significant issue for numbers of NUHEPs. In recent years, NUHEPs have been focussing more on their retention strategies and their own internal data and they have been increasingly benchmarking across their sector. However, private providers have called for further analysis of attrition data to help them understand the factors influencing the attrition and retention rates of their students.

The Panel agrees and recommends the department extend reporting of attrition to NUHEPs on a similar basis as the reporting of attrition among Table A and B universities. That is, the adjusted attrition rate would be published for NUHEPs for domestic commencing bachelor students and the normal attrition rate for overseas and all commencing bachelor students.

### **More disaggregated data**

Feedback on the publication of student success, completions, retention, and attrition data, included the provision of information at a more disaggregated level. Other feedback noted concerns about the inclusion of this data which can often be technical and open to misinterpretation.

The Panel acknowledges the concerns of stakeholders that presentation of data can be technical and complex, because that is what is required to show the diversity of the higher education sector. However, in the interests of transparency, the Panel considers it important that this information is available and recommends the department publish attrition data at levels, including by institution, by study area and by student characteristics, in the clearest most user-friendly form possible.

### **A national student identifier**

By far the most supported suggestion posed by the Panel in its discussion paper was to establish a common student identifier to better understand student pathways across tertiary education with a view to establishing a common identifier across all levels of schooling.

Institutions from the university and private higher education sector, peak bodies, governments and research organisations all agreed a common student identifier would assist provide a better understanding of how students move between the sectors and would inform public policy formulation and program delivery through evidence based data. Western Sydney University stated in its submission that the inability to track students across educational experiences is a significant impediment to effective student support and would strongly support linking student identifiers to encourage more tailored individual solutions that can better meet student needs and circumstances.

The Grattan Institute stated:

*Having the ability to track students over time will help the government target resources on factors that drive desirable outcomes. The lack of linkages between vocational education and higher education sectors extends to the school and early childhood sectors. Many more students attend higher education now than in the past. Having the ability to track and understand what contributes to success is increasingly important. Many studies have shown that school characteristics and performance affect how well students do in higher education.*

As part of the 2017-18 Budget, the Government provided funding of \$14.3 million to the department to develop the National Education Evidence Base to create a more complete picture of pathways through the Australian education system and enable more connected analysis. It is proposed to establish a common student identifier as part of the National Education Evidence Base to better understand student pathways across tertiary education. The Panel agrees with stakeholders and supports the Government's announcement on this issue.

The Panel reflects on New Zealand's establishment of a National Student Number (NSN) which is assigned to any student who is enrolled with an education provider from early childhood education through to tertiary studies. The NSN has been valuable for monitoring and ensuring student enrolment and attendance, ensuring education providers and students receive appropriate resourcing, statistical and research purposes, ensuring students educational records are accurately maintained and establishing and maintaining student identities to support student' participation in online learning.

The Panel recommends the department establish a common student identifier to better understand student pathways across tertiary education with a view to working with State and Territory Governments to expand the identifier across all levels of schooling.

### **A completions calculator**

There were strong arguments against the idea of a completions calculator posed in the discussion paper. One of the main claims was that it could deter capable students from studying higher education. The University of Sydney stated in its submission:

*..'completion calculator', may be counter-productive for certain groups of students. While some prospective students may be overly optimistic about their chances of successfully completing a course of study, for other prospective students, particularly those from disadvantaged backgrounds, a negative response on the 'completion calculator' is likely to feed into an already-present negative internal view of the self as a potential student.*

While the Panel supports more information for students to make informed decisions, given the current amount of stakeholder concern, the Panel has not made a specific recommendation on the development of a completions calculator in this report.

### Recommendations

11. The higher education community should work together with the Department of Education and Training to ensure a greater understanding and clarity of definitions in attrition, retention, success and completions data. The Department should continue to measure and publish adjusted attrition, retention, student success and completions data.
12. At present some institutions have a trimester structure of teaching and this can lead to different timings for assessment, graduation and reporting. As a result, students who complete Semester 1 and 2 and enrol in Semester 3 but not Semester 4 are recorded as not completed. Consequently, the definition of attrition should be changed to reflect the trimester teaching structure.
13. The adjusted attrition rate should be the primary measure of attrition published for domestic commencing bachelor students.
14. The Department of Education and Training should further develop and publish the calculation of attrition rates that take into account key student characteristics so as to better reflect institutional differences.
15. The Department of Education and Training should report attrition among non-university higher education providers on a similar basis to its reporting of Table A and B universities.
16. The Department of Education and Training should publish attrition data at more disaggregated levels, for example, by institution, by study area and by student characteristics.
17. The Department of Education and Training should establish a common student identifier to better understand student pathways across tertiary education with a view to working with State and Territory Governments to establish a common student identifier across all levels of schooling.



## Accountability and regulation

As stated in the discussion paper, TEQSA already possesses a clear mandate to oversee student attrition, retention and completion with a number of clauses explicitly requiring providers to ensure student success.

TEQSA undertakes risk assessments of higher education providers and attrition as a risk factor in its assessment of providers. Risk ratings for indicators are derived by TEQSA giving consideration to risk thresholds and the specific circumstances of providers. This includes contextual information about the provider and information on the provider's own risk controls, where known to TEQSA. If TEQSA identifies potential risks, the provider is invited to discuss the risks and offer any further evidence that may impact the risk assessment. Data provided by a provider showing an improving attrition rate will contribute to a lower risk rating. This could be as a result of measures such as:

- identification and tracking of students at risk with support strategies/projects in place
- analysis of student performance in relation to admission
- evidence on reasons for attrition leading to adjusted attrition rate (e.g. data demonstrating significant proportion of students moving from a regional provider to another institution).

Provider risk would also be mitigated if TEQSA can see providers identifying and tracking students at risk with support strategies/projects in place, and potentially analysis of student performance in relation to admission.

In June 2017, TEQSA published its report, *Characteristics of Australian higher education providers and their relation to first-year student attrition*. This report identified characteristics of higher education institutions which are associated with high levels of attrition and looked at how these characteristics might assist in identifying potentially high-risk institutions and actions which might address these high levels of attrition. TEQSA's analysis used aggregate whole of institution figures and provider characteristics (for example the size, number of senior academics, aggregate field of study and basis of admission) to inform their analysis. The analysis also included both undergraduate and postgraduate, and domestic and international first-year students. The department's analysis of attrition uses unit record data for individual students and student characteristics (for example age, individual field of study and individual basis of admission) and only includes domestic undergraduate first-year students. Overall, TEQSA and the department found the factors which impact on attrition to be broadly similar and their analyses, while informed by different methodologies, are complementary.

Feedback from stakeholders generally indicates that TEQSA's powers in relation to provider compliance with the Higher Education Standards Framework are appropriate. The Group of Eight stated:

*...we would be concerned about any proposals to broaden TEQSA's role or to enhance existing functions, both of which we feel are unnecessary. Such proposals would represent a level of regulatory creep that is not supported by evidence. Based on the high-level evidence presented in the Panel's paper and in the TEQSA paper, there may be a basis for TEQSA to take a more investigative approach with respect to some providers and some student cohorts. Such an approach — within the existing regulatory and quality assurance framework — would be appropriate.*

Universities Australia stated:

*TEQSA has sufficient powers. Its normal processes, focusing on risk, necessity and proportionality, are adequate to identify any provider that has an upward trend in, or sustained high levels of, unexplained attrition. The agency has appropriate powers of intervention to address any instance that may arise.*

In its submission, TEQSA also believed that its powers are appropriate:

*TEQSA believes its powers in relation to provider compliance with the Higher Education Standards Framework are appropriate.*

The Panel agrees with this assessment that TEQSA already has sufficient powers in relation to provider compliance with the Higher Education Standards Framework and considers TEQSA should continue to take account of every institution's retention performance in assessing whether these standards are being met.

#### **Recommendations**

18. TEQSA already has sufficient powers in relation to provider compliance with the Higher Education Standards Framework in terms of the identification and tracking of students at risk with support strategies in place, analysis of student performance and evidence on reasons for attrition. TEQSA should continue to take account of every institution's retention performance in assessing whether these standards are being met.

## Appendix A – Regression analysis

Research suggests student attrition is the result of a mix of personal and education related factors. While institutions may have limited ability to influence personal factors, for example, through student support, they have greater scope to influence education related factors impacting on attrition.

Measuring the influence of institution on attrition is confounded by student characteristics. For example, inspection of adjusted attrition rates in Table A1 (a repeat of Table 10 for ease of exposition) shows many institutions with high attrition also tend to have a high proportion of external students. On the other hand, many institutions with lower attrition tend to have selective intakes of more academically able students. Regression techniques permit calculation of ‘modified’ attrition rates for each institution to allow for the influence of student characteristics. For example, knowing external students have higher attrition, a benchmark is calculated for external attrition and the difference between the actual result and the benchmark can be identified as the institutional effect. In effect, institutions are on a ‘level playing field’. However, there is a caveat that regression techniques fail to capture the influence of many other factors that impact on attrition such as motivation and resilience. Usually these factors are not readily measured and hence not captured by regression models.

Table A1 shows ‘modified for student distribution’ attrition rates for domestic bachelor commencing students for all institutions in receipt of Commonwealth Grant Scheme (CGS) funding. This includes all 37 Table A universities, one Table B university, the University of Notre Dame Australia and, six non-university higher education providers (NUHEPs). ‘Modified’ institutional attrition rates are calculated using the standard Ordinary Least Squares (OLS) technique<sup>10</sup> and also the logit estimation technique which acknowledges the discrete nature of attrition, that is, a student is either attrited or not attrited. In more technical terms, logit estimation is a closer approximation to the actual attrition behaviour of individual students where attrition takes the value of 1 and non-attrition takes a value of 0.

Controlling for student characteristics certainly makes a difference, as shown by Table A1. Institutions with low adjusted attrition rates generally have higher ‘modified’ attrition rates while institutions with high adjusted attrition rates generally have lower ‘modified’ attrition rates. Controlling for student characteristics reduces variation in institutional attrition rates by just under half. The standard deviation of adjusted institutional attrition rates is 7.5 percentage points which reduces to 4.4 percentage points for the OLS method and 4.3 percentage points for the logit method, as shown by Table A1.

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<sup>10</sup> This approach follows that taken in *Characteristics and Performance Indicators of Australian Higher Education Institutions, 2000*. Where the dependent variable lies within the range of 0.1 to 0.9, as is the case with the attrition rate, then Ordinary Least Squares estimates will give broadly similar results to those generated by logit or probit estimation techniques.

However, it is interesting to observe, notwithstanding controlling for student characteristics, that institutions with a low adjusted attrition rate still have 'modified' attrition rates that are below average. Conversely, institutions with high adjusted attrition rates still have 'modified' attrition rates that are above average. Controlling for student characteristics appears to make very little difference to the relative performance of institutions in terms of measured attrition rates. The rank correlation coefficient between pairwise comparisons of adjusted, OLS and logit estimates of institutional attrition rates are very high at around 0.90 or higher, as shown by Table A2. While institutions are keen to ensure their mission is reflected, measuring the relative performance of institutions using adjusted attrition rates may be sufficient, avoiding a descent into unresolvable technical arguments.

**Table A1: Adjusted and ‘modified for student distribution’ institutional attrition rates, domestic bachelor commencing students, 2014, per cent**

| Institution                                   | Adjusted attrition rate | OLS ‘modified’ attrition rate | Logit ‘modified’ attrition rate |
|---|-------------------------|-------------------------------|---------------------------------|
| The University of Melbourne                   | 3.7                     | 8.6                           | 5.3                             |
| University of New South Wales                 | 4.8                     | 9.2                           | 5.9                             |
| The University of Sydney                      | 5.9                     | 10.3                          | 7.2                             |
| Monash University                             | 6.5                     | 11.8                          | 8.8                             |
| The Australian National University            | 7.3                     | 10.1                          | 7.7                             |
| The University of Western Australia           | 7.7                     | 12.7                          | 10.6                            |
| University of Technology Sydney               | 7.7                     | 10.0                          | 8.0                             |
| The University of Notre Dame Australia        | 9.5                     | 10.4                          | 8.6                             |
| Macquarie University                          | 9.7                     | 11.7                          | 9.9                             |
| The University of Queensland                  | 9.9                     | 14.3                          | 12.4                            |
| RMIT University                               | 10.3                    | 13.2                          | 11.0                            |
| University of Wollongong                      | 10.6                    | 12.0                          | 10.0                            |
| The University of Adelaide                    | 11.6                    | 14.8                          | 13.1                            |
| La Trobe University                           | 11.6                    | 13.7                          | 11.3                            |
| Queensland University of Technology           | 12.0                    | 14.2                          | 12.3                            |
| Western Sydney University                     | 14.0                    | 13.4                          | 11.7                            |
| Curtin University of Technology               | 14.1                    | 14.3                          | 12.6                            |
| Deakin University                             | 14.4                    | 13.7                          | 11.8                            |
| University of Newcastle                       | 14.5                    | 15.1                          | 13.0                            |
| Avondale College of Higher Education          | 15.3                    | 14.3                          | 12.2                            |
| Australian Catholic University                | 15.3                    | 15.8                          | 13.8                            |
| Griffith University                           | 16.0                    | 17.3                          | 15.2                            |
| University of South Australia                 | 16.1                    | 16.3                          | 14.5                            |
| Flinders University of South Australia        | 17.1                    | 17.8                          | 15.8                            |
| University of Canberra                        | 17.3                    | 17.6                          | 15.6                            |
| Murdoch University                            | 18.7                    | 16.5                          | 14.4                            |
| James Cook University                         | 19.0                    | 20.1                          | 18.3                            |
| Victoria University                           | 19.5                    | 18.1                          | 15.6                            |
| University of the Sunshine Coast              | 19.9                    | 20.0                          | 17.9                            |
| Edith Cowan University                        | 20.7                    | 17.8                          | 15.6                            |
| Eastern College Australia Inc                 | 21.9                    | 13.9                          | 11.5                            |
| University of Southern Queensland             | 22.2                    | 16.6                          | 15.3                            |
| University of New England                     | 22.6                    | 15.1                          | 13.8                            |
| Charles Sturt University                      | 22.7                    | 15.2                          | 13.2                            |
| Federation University Australia               | 23.3                    | 21.3                          | 18.3                            |
| Central Queensland University                 | 23.9                    | 18.9                          | 17.0                            |
| Southern Cross University                     | 24.1                    | 20.5                          | 17.8                            |
| Christian Heritage College                    | 24.4                    | 21.8                          | 19.1                            |
| Swinburne University of Technology            | 24.7                    | 16.8                          | 14.4                            |
| Holmesglen Institute of TAFE                  | 25.8                    | 23.5                          | 22.9                            |
| Charles Darwin University                     | 26.1                    | 18.7                          | 16.5                            |
| Tabor Adelaide                                | 27.4                    | 18.9                          | 15.3                            |
| Melbourne Polytechnic                         | 28.1                    | 24.5                          | 20.8                            |
| University of Tasmania                        | 37.7                    | 30.2                          | 25.4                            |
| <b>Standard deviation (percentage points)</b> | <b>7.5</b>              | <b>4.4</b>                    | <b>4.3</b>                      |

**Table A2: Rank correlation coefficients of institutional attrition rates**

|                 | <b>Adjusted</b> | <b>OLS</b> | <b>Logit</b> |
|-----------------|-----------------|------------|--------------|
| <b>Adjusted</b> |                 | 0.90       | 0.89         |
| <b>OLS</b>      |                 |            | 0.99         |
| <b>Logit</b>    |                 |            |              |

Table A3 (a repeat of Table 11 for ease of exposition) shows the influence of student characteristics on attrition, measured using the OLS technique. The full model, including all the student characteristics listed in Table A3, explained 22.55 per cent of the variation in the attrition rate (adjusted R<sup>2</sup>). There are two points to note about this result. First, the relatively low proportion of variance explained by the full model is not uncommon in cross-sectional models such as the attrition rate analysis presented here. Second, given the relatively low proportion of variance explained, this suggests there are likely to be many other factors not captured by the model that might account for attrition. As noted above, student traits such as motivation and resilience, not measured by the model, might be thought to contribute to attrition.

The approach taken here is a series of bivariate linear regressions to examine the relationship between each of the explanatory variables and the attrition rate. This shows that institution attended has the largest influence on attrition over all other variables, explaining 18.83 per cent of the variation in attrition. The second largest factor is type of attendance, explaining 4.94 per cent of the variation in attrition. That is, part-time students are more likely to withdraw from their studies than are full-time students. The third most important factor is mode of attendance, explaining 3.12 per cent of the variation in attrition. That is, external students are more likely to withdraw from their studies than are internal or multi-modal students.

It is important to note that Table A3 only shows bivariate relationships and therefore may be overstating the strength of the relationship between particular factors and attrition. For example, it is known that part-time students are more likely to study externally and therefore some of the variation in attrition explained by type of attendance might actually be accounted for by mode of attendance, and vice-versa. Thus the results shown in Table A3 are likely to represent the ‘upper bound’ of the influence of each factor on attrition. This is also the reason that the sum of the adjusted R<sup>2</sup> from the bivariate linear regressions shown in Table A3 is greater than the adjusted R<sup>2</sup> of the full model (22.55 per cent).

A student’s basis of admission including their ATAR score or other basis of admission such as prior higher education experience or mature-age entry, for example, explains 2.51 per cent of the variation in attrition. First, basis of admission or ATAR represents or explains only a small part of the attrition story, suggesting there are many other factors that contribute to whether a student continues on with their degree. Second, basis of admission is less important than institution, type of attendance, mode of attendance or age group in explaining attrition. Third, basis of admission appears more important than other factors such as field of education, socio-economic status, Indigenous status, non-English speaking background or gender in accounting for attrition.

**Table A3: Ordinary Least Squares linear regression analysis (full model and bivariate linear regressions by student characteristics) for 2014 attrition rate of domestic bachelor commencing students**

| <b>Student Characteristic</b>                                     | <b>Adjusted R<sup>2</sup><br/>(variation explained), %</b> |
|---|--|
| Institution   | 18.83  |
| Type of attendance (full-time, part-time)                         | 4.94   |
| Mode of attendance (internal/external/multi-modal)                | 3.12   |
| Age group (<20, 20-24, 25+ years)                                 | 2.66   |
| Basis of admission (ATAR group, higher education, mature-age etc) | 2.51   |
| Field of education (narrow field of education)                    | 1.49   |
| Socio-economic status (SES)                                       | 0.29   |
| Indigenous  | 0.14   |
| Non English Speaking Background                                   | 0.08   |
| Gender  | 0.01   |
| <b>Full model including above variables</b>                       | <b>22.55%</b>  |

## **Methodology**

The datasets used for the analysis were from the Higher Education Student Data Collection as can be found in Table A4 below.

**Table A4: Datasets used in attrition analysis**

| <b>Year</b> | <b>Enrol</b> | <b>Load</b> | <b>Completions</b> |
|-------------|--------------|-------------|--------------------|
| 2014        | X            | X           | X                  |
| 2015        | X            |             | X                  |

To obtain the population used for the attrition rate analysis, the following filters were applied. Note the SAS code used to filter the data is contained in brackets.

For the dataset of commencing students in 2014:

- Commencing students (E922 = 1)
- Onshore students for commencing year, that is students term location was Australian or unknown or the student studied at an Australian campus (substr(E319,1,1) = "A" or "X" OR e459 = 1)
- Domestic students (e358 in (1,2,3,8))
- Bachelor courses (e310 in (8,9,10))
- One record per student for commencing year – being the major course in cases where there are more than one (E331 in (1,2) )
- No records from Open Learning Universities in commencing year (if E306=3037 then delete)
- Providers currently receiving CGS funding

For the datasets to determine retained or completed students in 2015:

- Any provider for determination of attrition in the following year

A student is counted as attrited if they were a commencing onshore domestic bachelor student in 2014 in a provider currently receiving CGS cluster but in 2015 they had neither completed their course, were continuing their course nor enrolled in any other higher education course. The attrition rate is then calculated as follows.

$$\text{Attrition rate} = \frac{\text{Number of students in denominator who neither complete nor re – enrol in 2015}}{\text{Number of commencing onshore domestic bachelor students in 2014}}$$



The variables included in the OLS and logit regression analysis were:

- Gender
- Mode of study (internal/mixed mode/external)
- Intensity of studies (full time/part-time)
- Socioeconomic status (low/medium/high)
- Age group (<20, 20-24 years, 25+ years)
- Indigenous status
- NESB status
- Combined Tertiary entrance score and Basis of admission (ATAR group, higher education, mature-age etc)
- Narrow field of education
- Institution

The regression analyses answer the question:

*'What would the estimated probability of first year attrition be if the characteristics of the students, course and institution only differed for the characteristic in question, and the rest of the characteristics were the same as the national average?'*

Therefore, the institution estimates answer the question:

*'What would the estimated institution first year attrition rate be if the student cohort was the same as the national average?'*

The OLS regression model used to estimate attrition probabilities was as follows:

$$\begin{aligned} \text{Attrition}_{ijk} = & \beta_{\text{male}} \text{male} + \beta_{\text{mixedmode}} \text{mixed mode} + \beta_{\text{external}} \text{external} + \beta_{PT} \text{part - time} \\ & + \beta_{\text{lowSES}} \text{low SES} + \beta_{\text{highSES}} \text{high SES} + \beta_{\text{age20-24}} \text{age}_{20-24} + \beta_{\text{age25+}} \text{age}_{25+} \\ & + \beta_{\text{ATSI}} \text{ATSI} + \beta_{\text{NESB}} \text{NESB} + \beta_{\text{ATAR}_{30-60}} \text{ATAR}_{30-60} + \beta_{\text{ATAR}_{61-70}} \text{ATAR}_{61-70} \\ & + \beta_{\text{ATAR}_{71-80}} \text{ATAR}_{71-80} + \beta_{\text{ATAR}_{81-90}} \text{ATAR}_{81-90} + \beta_{\text{ATAR}_{91-100}} \text{ATAR}_{91-100} \\ & + \beta_{\text{SecEdNoATAR}} \text{SecEdNoATAR} + \beta_{\text{VETaward}} \text{VETaward} + \beta_{\text{ProfQual}} \text{ProfQual} \\ & + \beta_{\text{MatureAge}} \text{MatureAge} + \beta_{\text{OtherBasis}} \text{OtherBasisAdm} + \beta_{\text{nFoE}_j} \text{nFoE}_j \\ & + \beta_{\text{Inst}_k} \text{Institution}_k \end{aligned}$$

Where

$\text{Attrition}_{ijk}$  = probability of attrition for student  $i$  in narrow field of education  $j$  in institution  $k$

While the logit regression model used was:

$$\ln\left(\frac{\text{Attrition}_{ijk}}{1 - \text{Attrition}_{ijk}}\right) = \beta_{\text{male}} \text{male} + \beta_{\text{mixedmode}} \text{mixed mode} + \beta_{\text{external}} \text{external} + \beta_{\text{PT}} \text{part - time} \\ + \beta_{\text{lowSES}} \text{low SES} + \beta_{\text{highSES}} \text{high SES} + \beta_{\text{age20-24}} \text{age}_{20-24} + \beta_{\text{age25+}} \text{age}_{25+} \\ + \beta_{\text{ATSI}} \text{ATSI} + \beta_{\text{NESB}} \text{NESB} + \beta_{\text{ATAR}_{30-69}} \text{ATAR}_{30-69} + \beta_{\text{ATAR}_{61-70}} \text{ATAR}_{61-70} \\ + \beta_{\text{ATAR}_{71-80}} \text{ATAR}_{71-80} + \beta_{\text{ATAR}_{81-90}} \text{ATAR}_{81-90} + \beta_{\text{ATAR}_{91-100}} \text{ATAR}_{91-100} \\ + \beta_{\text{SecEdNoATAR}} \text{SecEdNoATAR} + \beta_{\text{VETaward}} \text{VETaward} + \beta_{\text{ProfQual}} \text{ProfQual} \\ + \beta_{\text{MatureAge}} \text{MatureAge} + \beta_{\text{OtherBasis}} \text{OtherBasisAdm} + \beta_{\text{nFoE}_j} \text{nFoE}_j \\ + \beta_{\text{Inst}_k} \text{Institution}_k$$

Where

$\text{Attrition}_{ijk}$  = probability of attrition for student  $i$  in narrow field of education  $j$  in institution  $k$

## **Appendix B – Terms of reference**

The Minister for Education and Training, Senator the Hon Simon Birmingham, wrote to the Panel chair on 24 November 2016, thanking the Panel for its work on admissions transparency and commissioning further work on completions and attrition.

The terms of reference posed by the Minister are to identify:

- the trends and factors driving completions and attrition
- the adequacy of existing data on completions and attritions and improvements that can enhance transparency and institutional accountability
- strategies institutions can pursue to support student success and course completion in higher education
- ways in which the identification of students at risk of non-completion and the adoption of evidence-based support strategies to maximise their opportunity to succeed, can be systematically embedded in provider practice.

## Appendix C – Higher Education Standards Panel membership

The Higher Education Standards Panel is a legislative advisory body under the *Tertiary Education Quality and Standards Agency Act (2011)* with responsibility related to Australia's Higher Education Standards.

The current Higher Education Standards Panel members are:

**Chair:**

Professor Peter Shergold AC

**Members:**

Professor Greg Craven AO

Dr Krystal Evans

The Hon Phil Honeywood

Emeritus Professor Alan Robson AO, CitWA

Ms Karen Thomas

**Observers:**

Professor Ian O'Connor AC

Dr Don Owers AM

## Appendix D – Consultation process

In June 2017 the Higher Education Standards Panel released a discussion paper, calling for public submissions on improving retention, completion and success in higher education. Forty-three written submissions were received and are listed below.

*Note: The submissions below can be found at: <https://www.education.gov.au/higher-education-standards-panel-hesp-0>*

1. La Trobe University
2. Deakin University
3. Australian Council for Private Education and Training
4. Australian Secondary Principals Association
5. Victoria University
6. University of South Australia
7. Curtin University
8. Fay Patel
9. University of Adelaide
10. Swinburne University of Technology
11. Western Sydney University
12. National Centre for Student Equity in Higher Education
13. University of Sydney
14. YourTutor
15. Tertiary Education Quality and Standards Agency
16. University of Notre Dame Australia
17. University of Canberra
18. Innovative Research Universities
19. Federation University of Australia
20. Griffith University
21. University Admissions Centre
22. Monash University Library
23. University of New England
24. Grattan Institute
25. Regional Universities Network
26. National Union of Students
27. Council of University Librarians
28. Council of Australian Postgraduate Associations
29. University of Newcastle
30. University of Newcastle Wollotuka Institute
31. NSW Department of Education
32. In confidence
33. University of the Sunshine Coast
34. Edith Cowan University
35. Equity Practitioners in Higher Education Australasia

## FINAL REPORT - Improving retention, completion and success in higher education

36. Queensland University of Technology
37. Australian Catholic University
38. Council of Private Higher Education
39. Charles Sturt University
40. Charles Darwin University
41. Group of Eight
42. Australian Technology Network
43. Universities Australia

As part of the consultation process, members of the Panel and staff from the Department of Education and Training, within the Panel's secretariat, met with a range of key stakeholders, listed below.

- Universities Australia
- Australian Council for Private Education and Training
- Tafe Directors Australia
- Council of Private Higher Education Providers
- A selection of Deputy Vice Chancellors (Academic)
- Career Industry Council of Australia
- Australian Centre for Career Education
- National Union of Students
- Council of Postgraduate Associations
- National Centre for Student Equity in Higher Education
- Professor Sally Kift, James Cook University
- Dr Sarah O'Shea, University of Wollongong
- Dr Cathy Stone, University of Newcastle
- Dr Jessica Vanderlelie, Griffith University
- Dr Andrew Harvey, La Trobe University
- Professor Marcia Devlin, Federation University Australia
- Ms Andrea Parks, University of South Australia