



REVIEW OF THE

Demand Driven Funding System

○ REPORT

The Hon Dr David Kemp
Andrew Norton

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The Hon. Christopher Pyne MP,
Minister for Education,
Parliament House,
Canberra ACT 2600

Dear Minister,

We have pleasure in submitting to you the Report of the Review of the Demand Driven Funding System.

You appointed the review panel on 12 November 2013 to review and make recommendations in relation to the demand driven funding arrangements.

We have examined possible impacts of the system on the quality of teaching and of future graduates. We have considered, in this regard, the measures being taken by universities to ensure that quality teaching is maintained, the nature and level of support being provided to less academically prepared students, and whether this is effective in helping them complete their course of study.

In accordance with the terms of reference we have assessed the early evidence on the extent to which the demand driven funding arrangements are increasing participation, improving access to students from low socio-economic status backgrounds and rural and regional communities, and meeting the skill needs of the economy.

You asked us to review policies regarding the allocation of sub-bachelor and postgraduate places, and to recommend possible areas for improvement so that the system can better meet its objectives, be efficient and fiscally sustainable, and support innovation and competition in education delivery.

In the relatively short time available for this review we received more than 80 written submissions and have met with representatives of the public universities, TAFEs and private providers, including private universities.

Almost all submissions and consultations supported the continuation of the demand driven system, and nearly half of them contained suggestions for extending its principles into new areas.

In our judgement the public universities have responded well to the greater freedom conferred by the demand driven system in relation to course offerings, modes of delivery and admissions. Access has improved for students from all categories. Greater competition for student enrolments, and the opportunity for greater responsiveness to student demand, has driven innovation and lifted quality. In light of the benefits of the demand driven system, there is no persuasive case for the reintroduction of caps.

There is evidence that the greater flexibility and responsiveness resulting from the demand driven system has encouraged a better fit between the skill needs of the wider economy and society and those possessed by university graduates, and should therefore contribute to future improvements in productivity.

We have also concluded that there are significant further benefits to be obtained by extension of the demand driven system into the sub-bachelor level, and to private universities and to non-university higher education providers in TAFE and the private sector. We also propose a limited introduction of the demand driven system at the postgraduate level.

The benefits would be further innovations in courses and modes of delivery, and in the quality of teaching and graduates. They would also include improved responsiveness on the part of higher education providers to the wide variety of needs possessed by potential students. Within the standards and quality framework, more extensive competition will further enhance innovation, quality and efficiency.

Our recommendations take into account the requirement for fiscal sustainability of the system, and we have assessed policy options to achieve this objective.

Australia already has one of the world's better higher education systems, whether measured by the quality of individual institutions, by system-wide assessments, or by its attractiveness to international students. The responsiveness of higher education providers to funding arrangements that provide flexibility and opportunities is impressive, and the removal of remaining uncertainties and impediments to innovation will enhance the quality of our system and its capacity to contribute to students, the economy and to Australia's future.

We thank you for the opportunity to conduct this review.

A handwritten signature in blue ink that reads "David Kemp". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

The Hon. David Kemp
Senior Reviewer

A handwritten signature in blue ink that reads "Andrew Norton". The signature is highly stylized and cursive, with the letters being interconnected and flowing.

Andrew Norton
Reviewer

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OVERVIEW—REVIEW OF THE DEMAND DRIVEN FUNDING SYSTEM

In 2012, the Commonwealth Government lifted previously imposed limits on domestic bachelor-degree student numbers at public universities. The new system was called ‘demand driven’, because it let universities respond to student demand. It replaced a ‘supply driven’ system, in which the government allocated student places to public universities.

The new policy was immediately successful in increasing student numbers. Universities offered thousands of new student places in anticipation of the demand driven system. In 2013, the equivalent of 577,000 full-time students received Commonwealth support in paying their tuition costs, an increase of more than 100,000 on 2009. (For readers new to higher education, there is a policy summary in Appendix A and a glossary).

These new places have been widely distributed. There are more students from the major cities and from regional and remote areas, more students from all socio-economic backgrounds, and more Indigenous students. There are more undergraduate students in all major fields of education. Every public university increased its number of Commonwealth supported students between 2009 and 2012.

This review was commissioned to look at the consequences of this growth, and at various issues arising from the design of the demand driven system (the terms of reference are in Appendix B). Overall, we have concluded that there is no persuasive case for returning to the ‘capped’ system, and that the demand driven system should be retained, expanded and improved.

Inevitably, rapid enrolment growth makes it easier to get into university. The required Australian Tertiary Admission Rank (ATAR) for university entry has been reduced at most universities, and is below 50 at some. Some people say that this unacceptably lowers entry standards.

ATAR is not a measure of inherent academic capability. The review panel found strong evidence that lower-ATAR students can achieve academic success, but also that they are at considerable risk of not completing their courses.

A key to success in study is academic preparation. Outcomes for less-prepared students improve substantially if they first take a ‘pathway’ program, such as a diploma course. Some specialised colleges offer these programs, often with similar course content to the first year of university but with smaller classes and more personal support. Students who successfully complete pathway programs often do as well as, or out-perform, students with better original school results.

This finding contributed to our recommendations that the demand driven system be expanded to include sub-bachelor courses and non-university higher education providers.

Whether young people are well advised to proceed to higher education becomes less clear as ATARs decline. It is a decision that only the prospective student can make with information about his or her alternative options, while higher education providers should grant admission in light of their capacity to help under-prepared students. The government should not prevent these decisions with minimum mandatory admission requirements.

Other than the completion prospects of less-prepared students, the review panel found no other evidence of academic problems associated with the demand driven system. Student satisfaction with teaching continued its long-term increase as enrolments grew, including at the fastest-growing universities. Submissions to the review reported numerous examples of initiatives to improve teaching, including through the use of new technology. Some universities indicated that the demand driven system had increased pressure on them to offer higher-quality teaching.

A standards agency is an important complement to the demand driven system. The Tertiary Education Quality and Standards Agency (TEQSA) enforces standards on admitting providers to the higher education system, on how education is delivered, and as to the qualifications they teach. TEQSA also approves each course at most non-university higher education providers. There has never been greater regulatory scrutiny of higher education standards than there is now.

One important goal of the demand driven system was to help meet skills needs and lift productivity in the economy. In most occupations with skills shortages demand for the relevant courses has increased, and universities have responded to that demand. On the early evidence, the higher education system is more reliably adapting to skills shortages than it did before.

However, monitoring of the system's response to skills needs requires improvement. Reporting on student enrolments in courses is too slow and lacks sufficient detail.

We recommend dropping the targets for 40 per cent bachelor degree or higher attainment for 25–34 year olds by 2025 and for a 20 per cent low socio-economic status student enrolment share by 2020. The important aspect of the demand driven system is that it can adapt to individual needs, not that it can help meet arbitrary centrally determined targets. Participation will continue to grow overall and should continue to be monitored.

The demand driven system has prompted considerable innovation in the public university sector. Much of this comes from using partnerships with other organisations to develop new models of higher education delivery and reach new markets. This includes a public university collaborating with a private company to create a highly successful new online higher education institution, and several collaborations with TAFEs.

Despite this progress, the demand driven system could be a stronger driver of higher education innovation and diversity. Inclusion of private higher education providers and TAFEs within the demand driven system in their own right would give greater scope for new models of higher education delivery, and create more competition with the public universities. Not all private higher education providers would enter the demand driven system, as they earn more revenue in full-fee markets, but enough would to make a significant difference over time.

The review was also asked to examine the postgraduate coursework market. This is a mostly full-fee market for public universities, but an increasing share of students are enrolled on a Commonwealth supported basis. The Commonwealth supported places (CSPs) for these students are allocated centrally from Canberra, on a basis that is not always clear or consistent.

This mixed market of full-fee places and CSPs is creating problems. It distorts local markets where one university has more Commonwealth supported places than another. In courses that mix full-fee places and CSPs similar students pay very different amounts for the same course. This report recommends alleviating those problems by rationalising a limited range of postgraduate courses into the demand driven system, while retaining the bulk of postgraduate education as a competitive full-fee market.

The demand driven system is a policy advance that needs to be preserved and enhanced in the interests of student opportunity, institutional flexibility and economic productivity. This needs to be done in the context of the Commonwealth's demanding budgetary situation.

The demand driven system has increased the costs of higher education to government, and it has already responded by identifying offsetting savings. We have been asked to consider the fiscal sustainability of the system. It is desirable that any such savings are consistent with the continuing improvement of opportunities for students and the quality of higher education. We do not know the extent of budgetary savings that may need to come from higher education. However, we can suggest broad principles that may be useful in deciding how offsetting savings may be made if required.

The Higher Education Loan Program (HELP) is an important part of financing Australian higher education. While much less costly for government than paying for all higher education itself, HELP has substantial costs in interest subsidies and debt not expected to be repaid. One possible measure to increase the fiscal sustainability of government higher education programs is to charge a loan fee on all HELP lending.

The largest single higher education cost to government is the Commonwealth Grant Scheme, from which tuition subsidies are paid to universities on behalf of students. If savings are to be made in this area, the most equitable and efficient way is to reduce Commonwealth Grant Scheme payments per student, with a corresponding increase in the student contribution amount supported by the HELP loan scheme. This maintains for universities the income benefits of the demand driven system which have underpinned significant innovations. All students benefit from the more responsive and innovative institutions arising from the demand driven system, and it is fair that all contribute to ensuring its fiscal sustainability.

Some universities have called for higher student contributions and greater flexibility in setting fees, aimed at increasing the per student revenue of universities. It is clear that greater control over their capacity to raise resources could be of benefit to institutions, improving their competitiveness and enabling them to deliver higher quality teaching to students. The scope for diversity and innovation is limited by caps on student contributions. More detailed recommendations on the treatment of the student contribution at the undergraduate level are beyond the scope of this review.

The aim of policy should be to bring us closer to the goal of a flexible, responsive, quality higher education system based on clear policy objectives, rather than history and politics.

SUMMARY OF RECOMMENDATIONS:

Recommendation: Caps on the number of undergraduate bachelor-level places should not be re-imposed.

Recommendation: All higher education providers should be eligible for Commonwealth supported places when they and relevant courses have been approved by the Tertiary Education Quality and Standards Agency.

Recommendation: Non-university higher education providers accepting Commonwealth supported places should do so on the same basis as public universities.

Recommendation: Sub-bachelor higher education courses should be included in the demand driven system.

Recommendation: Caps on Commonwealth supported places should be removed from postgraduate courses with a combination of clear community benefit and modest financial rewards. Other postgraduate courses should be offered on an entirely full-fee basis.

Recommendation: Decisions as to whether universities can deliver Commonwealth supported places at new locations should be made according to clear guidelines.

Recommendation: There should be no higher education attainment targets.

Recommendation: The government should not set enrolment share targets for low socio-economic status students.

Recommendation: Higher education enrolment data systems should be updated so that they provide detailed and timely information on enrolment trends.

Recommendation: The Department of Education should re-introduce an annual report on higher education policies and include summary information on performance trends.

Recommendation: The MyUniversity website should be replaced with an improved student information website.

Recommendation: General information on attrition and completion rates by ATAR and for different bases of admission to university should be easily available to prospective students.

Recommendation: The University Experience Survey should be continued and extended to non-university higher education providers.

Recommendation: Maximum per Commonwealth supported place funding rates in engineering and health disciplines should be reviewed in the light of cost pressures.

Recommendation: The HECS-HELP benefit for graduates in designated occupations should be discontinued.

Recommendation: Students at all higher education providers offering HELP loans should be eligible for OS-HELP.

Recommendation: The provider category standards should be reviewed to consider their effects on innovation and competition.

SUMMARY OF FINDINGS

Finding: The Tertiary Education Quality and Standards Agency is a guard against sub-standard courses and institutions in an expanding higher education system.

Finding: Active efforts over 20 years to improve teaching in Australian universities have contributed to a steady increase in student satisfaction with teaching. This has continued through the early stages of the demand driven system.

Finding: The demand driven system has encouraged technology-based innovation in higher education.

Finding: For commencing bachelor-degree students with ATARs below 50 attrition rates are high and have not been improving.

Finding: Higher education providers are actively working to identify and better support less adequately prepared students.

Finding: Pathway programs successfully prepare students for university study.

Finding: Universities have responded to increases in aggregate demand with more places. In most fields of education, applicants are more likely to receive an offer. However, there has been only a small increase in the proportion of applicants receiving an offer for their first-preference course.

Finding: The demand driven system has responded effectively to most recent skills shortages.

Finding: In professional entry courses, declining employment opportunities have led to fewer tertiary admission centre applications.

Finding: The rapid increase in science enrolments is leading to employment problems for graduates.

Finding: The demand driven system has had little effect to date on low foreign language enrolments.

Finding: The demand driven system is responsible for increased enrolments in higher education by low socio-economic status students.

Finding: Low socio-economic status students would benefit from increased access to sub-bachelor courses.

Finding: The demand driven system and associated reforms have increased higher education opportunities for people from regional and remote areas.

Finding: The demand driven system and associated reforms have increased higher education opportunities for Indigenous Australians.

Finding: Women aged 25–34 have already achieved 40 per cent higher education attainment. Given enrolment trends and continued skilled migration, the attainment rate will grow in coming years.

Finding: The demand driven system has allowed online education to expand.

Finding: A HELP loan fee could help ensure the fiscal sustainability of the demand driven system.

Finding: The fiscal sustainability of the demand driven system, and university revenues, can be most equitably secured by adjustment of the Commonwealth per place subsidy and student contributions.

1. THE DEMAND DRIVEN SYSTEM

1.1. Improving a good higher education system

Australia has one of the world's leading higher education sectors, comprising both public and private providers. Our 37 public universities, the principal institutions in this sector to date, number among them some of the world's best. In the 2013 Times Higher Education ranking, five Australian universities are listed in the world's top 100. Australia has paid considerable attention to quality issues, and the institutions not ranked in the top 100 also have high quality features and maintain good standards.

While such rankings are based significantly on universities' contributions to knowledge through research, the reputation of our higher education sector also reflects the heightened emphasis on teaching in recent decades. Despite its smaller population Australia ranks third in the world after the United States and Britain in its capacity to attract fee-paying international students. Higher education is one of Australia's principal exports, and that success is associated with a reputation for teaching quality.

Reflecting the increasing international and domestic demand for higher education the sector has both grown and diversified. Alongside the public universities, the growth in Australia's capacity to deliver higher education to the world is linked also to the expansion of higher education delivery by the private sector. A large number of other providers have come into existence, including TAFEs, private universities, and a range of other profit and not-for-profit private providers. These at present total 135, and some of these are also very good.

The development of a higher education sector such as that which Australia now possesses reflects a long-term commitment by Australian governments and a widely shared belief of the Australian people in the importance of education. In building up higher education governments have sought to fulfil the promise of equal opportunity which has informed Australian politics since the start of democracy in the 1850s, provide the professional and technical knowledge and skills to meet the requirements of our major professions and institutions, and support an expanding economy that can compete internationally.

This national purpose was articulated by R. G. Menzies during the Second World War in terms that might be said to have outlined the reform charter for the years that followed, for his own and later governments:

[F]or every hundred boys and girls who now pass into higher schools and universities there must be a thousand. Lack of money must be no impediment to bright minds . . . to develop every human being to his fullest capacity for thought, for action, for sacrifice and endurance is our major task; and no prejudice, stupidity, selfishness or vested interest must stand in the way.¹

Since the Second World War the small, elite, high quality, universities inherited from colonial times have evolved into vastly larger institutions, as part of an expanded higher education system. Menzies himself made increased access to higher education his personal mission, and the large-scale involvement of the Commonwealth in funding and in decisions to expand higher education dates from his time as prime minister.

Building on these policy initiatives, Australian governments of all persuasions have sought to widen access to more students who may benefit, while maintaining the quality of the system. Public universities have accepted this as their mission, as have the other higher education providers that have now entered the system.

The international standing of the Australian higher education system is a measure of the considerable success that has been achieved. Further improvements are possible and this review assesses the important recent innovation of the demand driven system.

1.2. What has been learnt?

National debates over policies and frameworks, and a wide range of policy innovations over the years, have enabled educational leaders and policy makers to determine what works and what does not, and to attempt to discern what the most appropriate policy principles for the higher education system might be.

1 Menzies (1943/2011), p. 188

Along the journey towards a quality mass higher education system a number of different policy approaches and innovations have been tried. Some have worked well and become settled elements of policy; others have been abandoned. The regulatory framework for higher education has grown piecemeal and incrementally, and says more about history and politics than settled principles. We are not yet at the end of the journey of determining the 'best' framework to achieve our national purposes, and perhaps never will be, as circumstances are always changing and new opportunities opening up.

Nevertheless much has been learnt.

- It is now generally accepted that diversity rather than uniformity is an essential characteristic of a system that can meet the varying needs of students and respond effectively to their individual choices. This diversity now embraces a variety of institutions, including public universities with a great variety of course offerings, structures and modes of delivery, private universities, TAFEs, and private providers.
- The experience of public universities in opening up the international market, and of the private sector initiatives in this area, clearly indicates that institutional leaders respond with entrepreneurial flair and imagination to opportunities when they are free to do so. Responsiveness and innovation are linked to autonomy and flexibility and are stifled by regulation requiring uniformity.
- The income-contingent loan scheme (formerly HECS, now the Higher Education Loan Program) has been an innovation that, when combined with needs-based student allowances, has essentially removed the financial barrier to higher education study, though not necessarily barriers imposed by the experience, culture and expectations of non-traditional students.
- It is now generally recognised that, with the development of mass domestic and international markets it is good public policy to encourage investment in higher education, and that the level of investment required cannot be found exclusively from taxpayers through government budgets. Nor should it be, given the substantial private benefits many students obtain from their education. The present scale and quality of Australian higher education reflects this recognition, as student fees and private investment have greatly improved the resourcing of the sector. University income alone amounts to some \$25 billion per year, approaching 2 per cent of GDP, and Australia has been a leading country in encouraging private investment.

It remains unclear how far the reach of higher education into the post-secondary education market will extend. The panel believes there is little basis for making *a priori* judgements about how far participation in higher education should extend. Student and institutional decisions, and the changing nature of learning, society and the economy, will influence this in varying ways over time. In such a context it is relevant, however, that public policy does not arbitrarily prevent students and institutions from making choices they believe are in their own best interests, nor entice students to make choices based on poor signals, but rather facilitates through good information choices that are sound and meet the expectations and hopes of the students themselves, as well as those of the wider society.

In this context it should be noted that many students prefer vocational training, and that securing high status for both vocational and higher education is a cultural issue for Australia to address if it wishes to take full advantage of the high level skills transmitted by the best vocational education and training. It is valuable to individuals and society that such a variety of choices is available. Policy should not set out to bias these choices. What is important is that our institutions allow initial student decisions to be adjusted in the light of experience, and new paths taken when these are recognised by students as preferable. Institutional innovations facilitating transitions and recognition of prior learning have a vital role to play as participation levels rise and the diversity of student backgrounds increases.

We know from research that students undertake higher education study for a wide variety of reasons, of which obtaining a job on graduation is, though predominant, only one. Personal interest in the area studied rates highly, even if employment opportunities are less clear. Student choices are elements in the definition by students of their life paths. They are not made to serve the goals of governments or, necessarily, opinions held in the wider society. Freedom to make these choices is an inherent part of living in a democracy, and governments have never attempted to direct them. Nevertheless, in the pursuit of private purposes, wider interests may be served, and today governments of all persuasions in Australia have identified higher education as a fundamental element, not only in expanding human potential, but in raising the economic productivity and competitiveness of the Australian economy, with all that can mean for future incomes and economic growth.

And it is not only students who have a variety of purposes. Universities do also, including research and the creation of knowledge, as well as teaching students. Institutions require flexibility in their ability to raise revenue and apply it to these purposes according to their best judgements. The opening up of the international student market, and the ability to charge fees for postgraduate courses, has given greater flexibility and capacity to universities to meet these different demands, and to do so without making calls on taxpayers in these respects through the government budget.

It has been recognised for considerably more than a decade, again by governments of different persuasions, that the undergraduate student market in public universities has been excessively regulated. Limiting courses and capping admissions has unduly restricted opportunities for those who might benefit from higher education, as well as the ability of the public universities to respond with new courses and modes of delivery to the needs of students for employment in a changing economy. Central labour market planning has been notoriously ineffective, and the need for institutional flexibility in higher education has been increasingly recognised as necessary for institutions in the sector to play their anticipated role in mediating the flow of students into an always changing job market.

It is in this context that the demand driven system has been introduced.

1.3. The demand driven system

The ‘demand driven system’ is the name currently given to a policy under which the Commonwealth Government agrees to provide funding for every domestic bachelor degree student admitted to a public university, without restriction as to course (excepting medicine) or numbers of students. Previous ‘caps’ on student numbers have been removed. Commonwealth supported undergraduate places in public universities increased by 22 per cent between 2009 and 2013, from 444,000 to 541,000. All domestic bachelor places in public universities now receive Commonwealth support, and all such students pay a ‘student contribution’ (fee) set by universities up to a maximum determined by the government.

This policy was adopted on the recommendation of a review of higher education chaired by Professor Denise Bradley AC in 2008, and was part of a package of measures which included improved indexation arrangements to help universities keep pace with rising costs. Importantly, Bradley recommended that the demand driven system include both postgraduate and sub-bachelor courses, recommendation that have not yet been acted upon, and which form part of the inquiry of this panel.

Demand driven funding was designed to provide universities with greater flexibility in responding to changes in student demand and in the skill needs of the labour market. The previous system of capping undergraduate places at each public university and in each course meant that universities’ income from teaching undergraduate students was controlled, that Commonwealth regulation was used to distribute places among courses, and that many students who wished to pursue higher education could not do so – the problem of ‘unmet demand’. Many students who might have passed were excluded, and the discretionary allocation of places by government reduced the capacity of the universities to respond to the changing demands of students and of the economy, while inhibiting relations with other providers.

The lack of flexibility in the universities to respond to demand had been identified for some time. In 1997, the government opened public universities to students who had been denied a place under the capped system by permitting universities to admit these students at full-fees, on a similar basis to international students. This gave universities flexible access to additional revenue from undergraduate admissions, though it created a situation where students with virtually identical qualifications at the margin were paying very different prices for their education. The Bradley recommendation to admit all students on the same basis followed the abolition of this option by the previous government.

The implementation of the demand driven system proceeded relatively smoothly as the capping of student places had been gradually relaxed over several years in the lead-up to the ‘open’ system.

An important development flowing from the Bradley report has been the establishment of national standards for higher education providers and courses, which are enforced by the Tertiary Education Quality and Standards Agency (TEQSA). The assurance that institutions meet strict standards provides a firm policy foundation for including them in a system of common regulation. Our conclusion is that TEQSA, while subject to criticism for bureaucratic over-reach, is now effectively preventing sub-standard higher education courses in both public and private institutions. The existence of a system of standard setting, with appropriate monitoring and enforcement, has a significant bearing on any decision to expand the scope of the demand driven system.

Targets

An aspect of the Bradley recommendations that attracted attention was the statement of two national targets relating to attainment and participation, aimed at assisting with the achievement of the broader economic and social objectives of the policy. Drawing on Bradley, the then government announced an ambition by 2025 to achieve 40 per cent of all 25–34 year olds having a qualification at bachelor level or higher; and by 2020, 20 per cent of higher education enrolments at undergraduate level to be people from low socio-economic status (SES) backgrounds.

The attainment target is sensitive to the effect of skilled migration, and in any case is likely to be reached before 2025 as the higher education participation rate increases. The 2013 measure is 35 per cent. There is no basis for saying whether such a rate would be too low, too high or just right for the needs of students and the economy at the time or in any particular place. Women aged 25–34 have already achieved 40 per cent higher education attainment. In the ACT the present level is 49 per cent. In Victoria it is already over 40 per cent, but in South Australia, Queensland, Tasmania and the Northern Territory it is under 30 per cent.² The monitoring of attainment can assist with policy, but setting an arbitrary overall target to be achieved by a specific date does not.

The SES target does not relate to the proportion of people from low SES backgrounds attending university, but only their proportion of the university population. This has no clear interpretation. Nor does the concept of SES capture the range of non-traditional student categories. While low SES students on average have lower rates of educational attainment and preparation than other SES groups, many people from other backgrounds also do not meet the stereotypical image of a young and academically strong university student left over from the era of elite education.

The panel does not recommend the continued use of this attainment and enrolment information as targets.

The main economic objective of policy is the matching of student demand to skills shortages and more broadly, to the skills needs of the nation's enterprises and social institutions. This is where the focus of measurement should be. Student satisfaction with course offerings and teaching provides important feedback to institutions and its measurement could usefully be widened. Participation and attainment by non-traditional groups can be monitored in the interests of ensuring that the system provides opportunity for all.

Provider response

The continuation of the demand driven funding system received overwhelming support from all categories of providers in submissions to this review.

Our judgement is that universities have seized the opportunities provided by the new system. New courses have been initiated, student numbers in some institutions and some courses have grown rapidly, with five universities increasing commencing Commonwealth supported places by 40 per cent or more, new and expanded institutional partnerships have been formed, especially between universities and private providers and TAFEs, and online and technology-based education is expanding.

The new freedom for institutions has allowed them to more effectively meet the demands of students and employers. In this report, we show that students are now more likely to get an offer in their first preference field of education than they were before. Although universities have created new student places across all broad fields of education, a check on the demand driven system's response to all recent skills shortages shows a strong reaction in most cases.

The review panel has been asked to assess the case for expanding the demand driven system to the postgraduate and sub-bachelor levels. We take the term of reference relating to innovation, diversity and competition as requiring us to also consider the implications of extending the system to the private sector. All such extensions would have additional costs, unless offset by further savings.

We have been asked to ensure that we have in mind the fiscal sustainability of the demand driven system. Given our terms of reference, we have assessed the case for extension of the system apart from the issue of fiscal sustainability, and then considered the issue of offsetting savings.

1.4. Quality and access

One important question that the review panel has been asked to consider is whether this expansion of access to higher education has led to any decline in quality.

The 'quality issue' has a number of dimensions. One, often raised in public debate at the time of this review, is whether the admission by universities of students with lower Australian Tertiary Admission Ranks (ATAR) means that teaching and graduation standards will have to be lowered. It is important to recognise that ATARs do not, and are not intended to, indicate the capability of students to succeed in higher education. Ultimately the answer in relation to each student must be determined by that student and by any higher education provider to whose courses they seek admission. Institutions that admit students with

² ABS (2013b), table 1.11

lower ATAR scores are not thereby declaring that they are 'lower quality' institutions, or that the students they admit have a low capacity to successfully complete a degree. The important matter remains whether students are retained and complete a degree of satisfactory quality.

The admission of students with lower ATAR scores does impose significant responsibilities on institutions. While a low score *may* indicate lack of aptitude, low scores may arise from a variety of circumstances, and may indicate a lack of preparation or significant disadvantage in prior education, rather than a lack of ability to complete a higher education course at a satisfactory level. Institutions have an ethical and legal obligation not to admit students who are unlikely to be able to successfully complete. Equally, if a student is admitted who is underprepared, institutions have an obligation to take this into account in the courses they deliver. An important issue, therefore, that the review has been asked to consider is the preparedness of students admitted by institutions to undertake higher education, and the response of institutions to this fact.

Clearly the demand driven system has led to the admission of many students who would have been excluded under the capped system, or who might not have been prepared to pay for full-fee courses. It is evident that many of these are less well prepared to undertake higher education than students previously admitted, with the risk of higher attrition rates, and consequent waste of public money. Lack of aptitude and lack of preparedness are obviously different matters. Lack of preparedness can be addressed, particularly by appropriate support courses, often known these days as 'pathway' courses. The review has been asked to investigate whether appropriate support for underprepared students is being provided, and whether such support is effective.

While it is too early to make definitive conclusions on this matter, we have found that higher education providers are actively working to identify and better support less adequately prepared students; that the support offered by specialised sub-bachelor pathway colleges is effective; but that for commencing bachelor-degree students with ATARs below 50, attrition rates are high and not improving. This is, at a minimum, an important issue for the future development of the demand driven system, and we make proposals as to how this is to be best addressed.

The most important aspect of the quality issue, however, is the quality of the outcomes that higher education providers are able to achieve with their students. The community, in particular potential employers, rely on universities to produce a high level of knowledge and skills in graduates. A high quality system will also have a positive impact on many aspects of community life, including the quality of institutional leadership and, indeed, of public debate. Any significant decline in the quality of outcomes becomes an issue both for individual providers, for the international reputation of the Australian higher education system, and our national future. The Minister has asked the review panel to form a judgement on this matter.

It is noteworthy and encouraging that, at least from the standpoint of students, it appears that active efforts over 20 years to improve teaching in Australian universities have contributed to a steady increase in student satisfaction with teaching, and the evidence is that this has continued since the introduction of the demand driven system. Concerns expressed by business organisations before the introduction of the demand driven system about the unsatisfactory generic skills of graduates may remain relevant.

There is a further aspect of widening access to higher education that the review has also been asked to consider. Given the national commitment to expanding opportunity for all, it is important that there are not identifiable categories of potential students for whom, for one reason or another, the availability and appropriateness of higher education is not perceived, when it may be a good option.

It is widely believed that there are potential students who would benefit from higher education, yet who may not apply, even though they could qualify and would be admitted if they did apply. Some of these are students whose location makes it difficult for them to access a university or other provider, generally those in rural and remote areas. Others are potential students whose personal background leads them to discount higher education as an option, either through lack of information or discouragement, when it may indeed meet their needs better than other more visible or available choices. The review has been asked to consider the impact of the demand driven system in relation to access to higher education by students from low socio-economic status backgrounds. We also consider the impact on accessibility for Indigenous students.

While the demand driven system is still new, our overall judgement is that its freedoms are allowing many to successfully pursue higher education, and are encouraging public universities to pursue innovative courses, techniques and partnerships to meet students' needs. The greater freedom of access has brought many students from rural and regional Australia into the universities, and has increased participation by students from lower socio-economic backgrounds. The demand driven system and associated reforms have increased higher education opportunities for Indigenous students.

1.5. Innovation, competition, diversity and responsiveness

The review panel has been asked to assess the extent to which the reforms are encouraging innovation, competition, diversity and responsiveness to student demand. It has also been asked to report on early evidence on the extent to which this freeing up of institutions and greater student choice is meeting the skill needs of the economy.

It is early days for the demand driven system, but it is already clear that the uncapping of demand and the resources guaranteed by the Commonwealth for each student place have given a new level of flexibility to public universities. Universities have responded to the enhanced opportunities, as they did in relation to the international student market, with entrepreneurial flair. Competition is a function of flexibility, and flexibility is an important quality which empowers institutions to use their expertise and experience to respond to the needs of students on the one hand and of the economy and the wider society on the other. The review panel has examined the evidence on the extent to which they are in fact doing so.

In allowing an institution to freely admit students according to the university's own criteria, and to obtain public subsidies and capped fees (student contributions) for these additional students, the demand driven system has facilitated competition between public universities for enrolments, and competition for student enrolments has become a significant driver for change.

Competition arises when institutions have the freedom to take differing decisions in relation to the range of matters that affect the delivery of higher education. While public universities in Australia have exhibited a high degree of uniformity as a result of the legal and regulatory framework within which they have operated, significant differences have existed for many years in levels of research specialisation and in course offerings. This diversity has increased in recent years and has been further enhanced by the introduction of the demand driven system. Competition is also an important driver of efficiency in the use of resources, and has a valuable role to play in minimising waste and reducing costs within the sector.

As universities diversify and innovate to meet the needs of students, competition has also become an important driver of quality. Competition may occur in relation to any aspect of the provision of higher education, including course content, times and modes of provision, teaching and pricing. Although the demand driven system was framed, at its introduction, as a mechanism that could contribute to meeting general and specific targets for participation, its consequences extend well beyond the issue of meeting targets.

In weighing the impact of the demand driven system it is relevant that the greater freedom and flexibility attributable to it currently applies only to bachelor-level courses at public universities. Courses at private universities, TAFEs and private providers have access only to discretionary Commonwealth supported places. The uncapping of student places has given public universities a competitive advantage in relation to other higher education institutions which do not have access to Commonwealth supported places and are reliant on full-fees. At a cost, it would be possible to extend the benefits of competition more widely by including private providers in the demand driven system. While some private providers would probably choose to stay out of the system, continuing to charge full-fees for their courses, others are likely to enter.

Further possibilities to extend the flexibility of the demand driven system also exist in relation to courses leading to qualifications below that of the bachelor degree, such as diplomas and associate degrees, and above the bachelor level for coursework postgraduate degrees. The Bradley review recommended that both these levels should be included in the system, but at introduction it was decided to exclude them. At present, therefore, the government continues to allocate Commonwealth supported places at the sub-bachelor diploma and associate degree level, and at the postgraduate coursework level. This has undoubtedly impinged on the willingness and the capacity of institutions to innovate and has created certain undesirable issues for institutional competitiveness.

In general, an extension of demand driven funding is likely to increase competition and lead to further innovations. At a system level such an expansion holds out the promise of bringing about a higher education system which is even more innovative and responsive to the skill needs of the economy, and hence likely to make a larger contribution than at present to lifting productivity.

Access to resources is an important element of an institution's capacity to compete effectively. The limitation of the demand driven system to bachelor-level courses at public universities, while understandable, has created certain perverse incentives for universities. While universities have lost the right to charge full-fees at the bachelor level alongside Commonwealth supported places (and have no flexibility in relation to student contributions at that level beyond a legislated amount), they retain this right at the coursework postgraduate level. Private providers also have the freedom to charge full-fees.

A consequence of this lack of integration between the funding models for the two higher qualification levels is that universities have an incentive to shift courses to the postgraduate level in order to increase their revenue. At the same time any unfairness

experienced by students who pay full-fees for courses to which other students are admitted at Commonwealth supported rates is entrenched. In 2012, there were full-fee students in all postgraduate coursework fields, including 35,812 in courses which also contained students with Commonwealth supported places. In some kinds of course, such as management and commerce, almost all students are paying full-fees, while in teacher education, for example, only 22 per cent of postgraduate coursework students are paying full-fees.

Universities clearly place a high value on fee flexibility at the postgraduate level, and the large number of full-fee students (119,074 in 2012) shows that students themselves value highly the private benefits they obtain from such qualifications. Those who have made submissions to the review panel advocating the extension of the demand driven system to the postgraduate coursework level have generally requested that the freedom to charge full-fees at that level be retained. The issues involved in the extension of the demand driven system to the postgraduate level are therefore complex. The review panel has sought to provide a practical response taking into account the diversity of courses and providers.

The extension of the demand driven system to the sub-bachelor level raises some similar, but also some rather different, issues. The review has concluded that higher education diplomas are playing an important role in supporting the successful entry of many under-prepared students into higher education and reducing attrition rates. At present some students are paying high fees for such courses when they might enter the first year of a bachelor qualification at lower cost, but perhaps receive less support. Among the providers of sub-bachelor pathway programs are both TAFE institutions and private providers.

Under current arrangements, most diplomas and advanced diplomas are in the vocational education sector. They are offered by TAFEs, private registered training organisations, and dual sector universities that offer both vocational and higher education. In the course of the review the concern was expressed that if higher education diplomas were to be brought into the demand driven system, this might adversely affect the vocational education and training market. It was also suggested that vocational education providers might move more strongly into the higher education area, in the process shifting more of the cost of their students away from the States, which are the main funders of TAFEs, to the Commonwealth. We judge that a large scale movement by TAFEs into higher education is unlikely, because the hurdles in the way of becoming a higher education provider are substantial. Nevertheless there are sound educational and employment reasons for some students to prefer a higher education diploma.

In making its recommendations the review panel has sought to remove inequities and facilitate innovation while avoiding outcomes that lack an educational or occupational rationale.

1.6. Fiscal sustainability

The benefits of the demand driven system have been a result not only of the greater freedom the system has conferred on institutions to respond to student demand, but also of the additional resources it has brought to higher education. These resources have been provided by government through the subsidy for each student place (Commonwealth contributions) and by students through student contributions. Universities and students benefited from increased annual indexation of funding and from Commonwealth contributions being paid on every bachelor place, not just those within their previously capped number. Some universities have also been able to achieve new economies of scale through increased total enrolments.

It is estimated that, as a result of freeing up of bachelor places, the cost to the Budget of the Commonwealth Grant Scheme (CGS) increased from \$4.1 billion in 2009 to \$6.1 billion in 2013. Its cost is estimated to reach \$7.2 billion by 2016-17. In addition the Commonwealth bears costs associated with the various loans schemes supporting student participation.

The substantial cost of the new system led the previous government to offset the expense by finding savings elsewhere within the higher education budget to pay for it, and is likely to have been a factor in resisting expansion of the system to the sub-bachelor and postgraduate levels.

A variety of savings measures were announced by the previous government. These included the reduction of payments to universities as well as measures affecting loans and scholarships, and other benefits for students. The largest single saving affecting universities was the placing of an efficiency dividend on grants provided under the *Higher Education Support Act 2003* as from January 2014 (\$902.7 million over 2013–2014 to 2016–17). The largest saving affecting students was the conversion of Student Start-Up Scholarships to income contingent loans for new students from 1 January 2014 (\$1.2 billion over 2013–2014 to 2016-17). It was estimated that these and other measures would, if implemented, provide savings of over \$6.4 billion over 2011-12 to 2016-17, offsetting much of the expected future additional cost of the demand driven system over the coming years. However, the major savings measures have to date not received Parliamentary approval.

Alongside the greater costs to the Commonwealth Budget, the demand driven system has also delivered significantly greater revenue to universities from the student contributions of the additional students. One issue that emerged in the course of the review is whether the increased revenue from this source is adequate to enable universities to provide the quality of teaching and innovative delivery that meets student expectations and best standards.

The Group of Eight's submission to the review suggested an evolutionary path by which universities could choose to opt out of Commonwealth supported places (which limit student contributions), and thus escape the paradox of government subsidies reducing investment in higher education from what it otherwise would have been by setting a total funding rate that is below what the university thinks necessary and students are willing to pay. Other submissions suggested percentage increases in the student contribution, indicating a belief that student contributions can in some circumstances be equitably increased.

The costs that government may be prepared to bear in the future, or the flexibility it may consider desirable in undergraduate student contributions, are not known to the panel, but we have suggested options that are aimed at making any extensions to the system cost neutral, and that may be further extended by the government should it wish to further reduce net costs, while maintaining the flexible access by higher education providers to resources. We have also aimed at measures which avoid putting new distorting incentives into the system.

The following chapters consider in detail the issues raised by the terms of reference.

2. QUALITY IN THE DEMAND DRIVEN SYSTEM

Expanding higher education systems usually raise quality concerns, and the demand driven system has been no exception. Standards debates encompass many aspects of higher education: the prior academic achievement of students, the academic difficulty of course content, the quality of teaching, and how difficult it is to pass or get high marks. None of these factors provide any easy dividing line between practices or achievements that meet or fall below appropriate standards.

Debates about standards in part reflect disagreements about the role of higher education and universities in particular. At least implicitly, some academics and others see universities as elite institutions of learning—equivalent perhaps to the Australian Institute of Sport. On this account, a demand driven system brings into university people who cannot perform at the highest academic levels. Instead of failing these students, it adapts course content and assessment requirements so that most of them can pass.

Supporters of mass higher education, by contrast, believe that increased education can add significant value to a large percentage of individuals, and through them enhance the broader society. Many of the jobs to which bachelor-degree graduates aspire do not need academic brilliance, just knowledge and skills which can be acquired, with good teaching and student effort, by a wide range of people. Minimum standards must be relevant to the aim of the course, not set against a benchmark appropriate only for the most academically able students.

For supporters of mass higher education the problem has as much been under-prepared universities as under-prepared students. An earlier 'elite' era of higher education allowed universities to get away with poor practices in teaching: little or no training to help academics improve their teaching, little performance evaluation of teaching, and little or no student feedback on their learning experiences.

By the early 1990s, after a large expansion in student numbers, government and universities had started a serious effort to improve teaching. This has led to 20 years of initiatives aimed at improving teaching quality in Australian universities.³

In assessing the demand driven system's impact on quality in Australian higher education we had an analytical problem. Many current problems long predate the lifting of enrolment caps, and many responses to those problems were already widely used before 2012. However, we use recent activities and data where possible to illustrate what is happening.

2.1. Quality of teaching

A large international literature examines teaching practices that are conducive to student learning. Australian researchers have been active participants in this research, with government support through the Office for Learning and Teaching (olt.gov.au) and predecessor bodies going back to the early 1990s. This literature has informed the questions asked in internal university teaching quality surveys, and in national surveys such as the Course Experience Questionnaire (CEQ), of completing students, and the University Experience Survey (UES), of first and later year students.

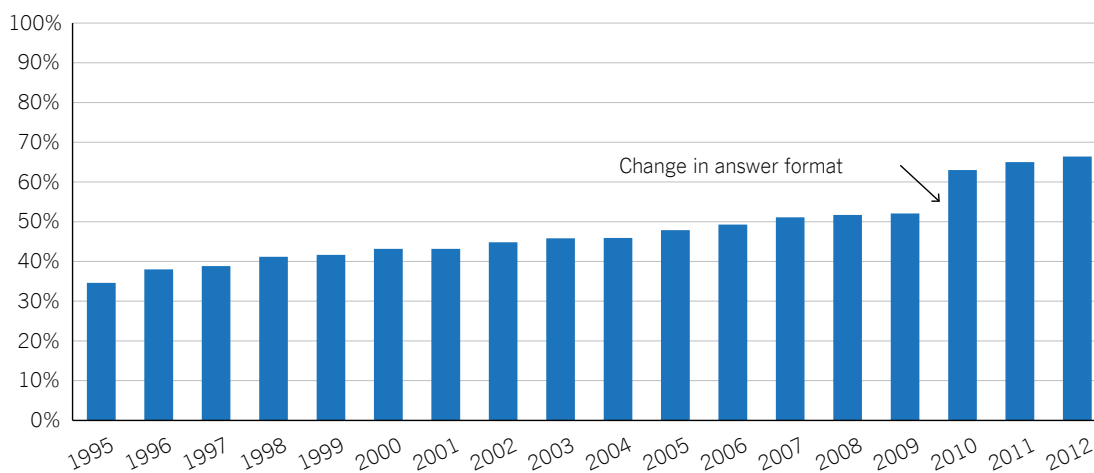
The UES is new, so this section will focus on CEQ results on teaching practices. The relevant questions cover feedback on student work, teaching staff effectiveness, whether students were motivated by teaching staff, and whether teaching staff made an effort to understand the difficulties students were having. As can be seen in Figure 1, early CEQ results on teaching questions were very poor. These results have steadily improved over time. Unfortunately a change to the way answer options were labelled in 2010 means that results before and after that year are not directly comparable. But results kept improving as enrolments increased from 2009.

Despite this positive trend, there remains room for improvement. A significant minority of students still take a neutral or negative view of teaching practices at their university. International comparisons of teaching performance are complicated, but Australian students appear less satisfied with their educational experience than American students, especially on interactions between students and academic staff.⁴

3 Norton, et al. (2013), chapter 6

4 Ibid., p. 9-13

Figure 1: Proportion of completing students 'satisfied' with teaching practices in the Course Experience Questionnaire, 1995-2012



Source: GCA (1995-2013)

Note: A student is interpreted as satisfied if they chose one of the top two points on a five-point scale. The overall scale averages the 'satisfied' responses to six teaching-related questions.

One possible concern with the demand driven system is that teaching staff may be over-stretched at fast-growing institutions. As growth started in 2009 ahead of the formal introduction of the demand driven system, some students from the increased intakes would have been included in the 2011 and 2012 CEQs. The CEQ results from the five fastest-growing universities are shown in Table 1. As can be seen, none of these universities had worse 2012 CEQ results compared to 2010 and several show substantial improvements.

Table 1: Trends in the CEQ Good Teaching Scale at the five fastest-growing universities

	CEQ Good Teaching Scale %				
	2010	2011	2012	Average 2010-2012	Change 2010-2012
Swinburne	66.3	71.0	72.2	70.1	5.9
Curtin	65.6	65.9	68.3	66.5	2.7
ACU	69.5	67.8	70.4	69.3	0.9
Deakin	68.5	70.4	73.0	70.6	4.5
CQU	58.8	66.4	63.7	63.5	4.9
All public universities	65.0	67.6	69.2	67.4	4.2

Note: Speed of enrolment growth based on commencing student numbers 2009-12.

CEQ results should continue to be monitored to identify any reversal in these positive trends. However, the incentives are to maintain the momentum for improvement. In submissions, some universities – including Swinburne University and Australian Catholic University (ACU) from Table 1 – noted that the demand driven system puts pressure on them to deliver quality teaching. The changed incentive is that under the old system demand always exceeded supply, so students who left without completing could be replaced with new students from the applicant pool. Now a student who leaves early is two or three years of lost revenue. This is a significant issue for universities and faculties within universities. In 2013, 68,000 applications were made to change course or university based on the applicant's results in an incomplete degree.⁵ Bad word-of-mouth reports on teaching and negative student survey results reported on MyUniversity, a student information website (see also section 5.3), may also inform the choices of prospective students.

⁵ DIICSRTE (2013), p. 11, 46. The number of unique applicants is lower due to the same individual making multiple applications.

2.2. Innovation in courses and teaching

Although the market penalty for bad teaching for universities may have increased with the demand driven system, it is difficult to distinguish its effects from the many other forces for quality improvement. In submissions from universities, there were numerous examples of long-standing and recent initiatives to improve the overall quality of the student experience.

At ACU, the Office of Student Success works with academic staff to create and deliver workshops and tutorials for students that focus on academic skills, career services, and student counselling. Workshops are offered in areas such as health sciences, physiotherapy, paramedicine, arts and sciences and education. ACU encourages staff to complete the Graduate Certificate in Higher Education (GCHE) to enhance their teaching skills and offers fee scholarships where the staff member's professional practice would benefit from the course. Completion of the GCHE is soon to be included in ACU's promotion policy. Many of these initiatives have been introduced since the demand driven funding system was announced.

Macquarie University is currently implementing a Teaching Standards Framework across all of its facilities. The Framework, developed with funding from the Office for Learning and Teaching, is a benchmarking tool that is used to assess standards in institutional practices against teaching, the learning environment and curriculum. The Framework can be applied at a whole-of-institution or faculty level.

The University of Southern Queensland's Personalised Academic Road to Success program provides individualised academic learning support and activities to all undergraduate students. RMIT University and Flinders University operate similar programs designed to provide peer mentoring and personalised academic support.

The Centre for Teaching and Learning at the University of Newcastle, which has responsibility for improving teacher quality, provides assistance to academic staff in curriculum and assessment design, development of learning resources and the use of new technologies. There are similar centres at other universities.

Across the higher education sector universities are using new or enhanced technologies to improve teaching. This is happening whether or not the formal enrolment is on-campus or external. 'Blended learning' that mixes online and on-campus is now the most common way of delivering higher education in Australia. Universities are adapting their teaching and other services to suit the technology their students use, including mobile phones and tablet computers. The University of Western Sydney issues all of its first-year students with iPads so that they can use the university's online services.

There are many examples of online technology being used to improve teaching. Griffith University has introduced a US-based online tutor service, SmartThinking. It provides 24 hour assistance to students on specific subjects and more general advice on essay writing. A Griffith evaluation found a positive reaction from students and an apparent increase in grades among users of SmartThinking compared to non-users.⁶ Another SmartThinking user, Open Universities Australia, reports similar positive results. A submission from the University of Technology, Sydney mentioned their use of the 'flipped classroom'. In this teaching model, students view videos and other learning materials before coming to class, allowing teachers to replace lectures with more collaborative and mentored activities.

Over the medium term, technology can potentially play a major role in improving both learning and retention. 'Learning analytics' software can be used to help identify students at risk of attrition or failure, allowing timely intervention to solve problems. A report for the Office for Learning and Teaching highlights the possibilities of learning analytics technology, but also the barriers to its large scale implementation in Australia.⁷ A number of university submissions noted their developing use of learning analytics, including the University of Newcastle, Curtin University, Southern Cross University, Swinburne Online and the University of Technology, Sydney. Learning analytics work is also being done at the University of New South Wales, the University of New England, Queensland University of Technology, Swinburne University of Technology and the University of South Australia.⁸

Personalised or adaptive learning, where software adapts course content in light of the needs of particular students, also holds considerable promise. Australian research, based on its trial use at the University of New South Wales (UNSW), highlights its importance in subjects with 'threshold concepts'. If students do not understand concepts on which other course content builds they are at high risk of falling behind, and eventually dropping out or failing. UNSW achieved considerable improvements in pass

6 Ashford-Rowe and Howarth (2011). The University of New England has also used SmartThinking.

7 Siemens, et al. (2014)

8 Ibid

rates and grades in mechanical engineering.⁹ A UNSW spin-off firm, Smart Sparrow, is a leader in commercialising adaptive learning technology for widespread use.

These technologies are in their early stage of adoption, and there is still considerable development work going on to improve the technology. But the early signs are that they could have a large and positive effect on the performance and productivity of Australian higher education.

Technology innovation can occur within any funding system. But the demand driven system puts added pressure on higher education providers to offer good technology. There is the potential for learning analytics and adaptive learning software to be a selling point for universities, if they can show that these have an observable effect on student grades and retention. Universities that do not offer the right technology risk losing market share.

As with any new technology, it is important to avoid hype. The near-daily reports on online education initiatives from around the world contain cautionary tales, but the examples mentioned in this chapter do mark important developments. Online technology is no longer just a convenient way of accessing learning materials. It can now improve learning and retention.

Finding: The demand driven system has encouraged technology-based innovation in higher education.

Finding: Active efforts over 20 years to improve teaching in Australian universities have contributed to a steady increase in student satisfaction with teaching. This has continued through the early stages of the demand driven system.

2.2.1. On-going monitoring of teaching quality

Considerable thought has been given to the on-going monitoring of teaching quality, prompted by the Advancing Quality in Higher Education agenda announced in 2011. This included seeking the views of higher education providers and an expert reference group, and establishing the UES. There have also been plans for a new survey of employer satisfaction with graduates.

The UES is a valuable addition to our understanding of the student experience. It provides data on the experience of first and later year students that can be compared across institutions and over time (see also section 5.3 on making this information available to prospective students). It is more timely and fine-tuned than the CEQ, which is a summary of teaching and campus life over several years. The initial versions of the UES did not include non-university higher education providers. A report on the 2012 survey recommended their inclusion, which we support.¹⁰

Unfortunately, the UES is not funded at all for 2014 or beyond. It would be disappointing if it could not secure public or private funding for its continuation. Student surveys help and encourage higher education providers to improve their performance, and assist students in making better choices. In contributing to a more efficient higher education sector, student surveys pay for themselves many times over.

Recommendation: The University Experience Survey should be continued and extended to non-university higher education providers.

9 Khawaja, et al. (2013)

10 Radloff, et al. (2012)

2.3. Tertiary Education Quality and Standards Agency

Many submissions endorsed the Tertiary Education Quality and Standards Agency's (TEQSA's) role in maintaining quality, which we take as in-principle support for a quality agency despite issues raised elsewhere by many of the same institutions with how TEQSA has gone about its task.¹¹ TEQSA enforces the threshold standards in the Higher Education Standards Framework.¹² Higher education providers must meet these standards to maintain their licence to operate. The standards cover a wide range of matters relating to teaching including course content, the qualifications and teaching skills of staff, the monitoring of performance information, academic integrity systems, and the benchmarking of academic standards.

Australian higher education is now tightly regulated for meeting minimum standards. All existing higher education providers are aware that their actions and performance, including any rapid expansion under the demand driven system, are potentially subject to scrutiny from TEQSA. They are reviewed annually based on a range of statistical indicators to identify any risks of not meeting the standards. Although TEQSA is not a complaints agency for individual students or staff, it does keep records of complaints received. When multiple credible complaints suggest there may be a significant problem, TEQSA is able to investigate further. All existing providers have a more comprehensive periodic review as part of their re-registration process.

For new providers, the threshold standards taken collectively impose a very significant barrier to entering the higher education system. As section 8.2 will report, TEQSA has rejected provider registration and course approval requests that do not meet the standards. They have also applied conditions to other approvals to ensure that the standards are met. This third-party scrutiny contributes to our confidence that Australia's higher education system can accommodate increasing numbers of students and higher education providers without compromising quality.

Finding: The Tertiary Education Quality and Standards Agency is a guard against sub-standard courses and institutions in an expanding higher education system.

2.4. Admission requirements and support for less adequately prepared students

The most common 'quality' criticism of the demand driven system is that it is leading to the admission of more school leavers with low Australian Tertiary Admission Ranks (ATARs). The key issue is whether these students can successfully complete a higher education course. There is no easy resolution to this issue because while the evidence reported below suggests that many lower-ATAR students do finish their courses, the risk of them not doing so is substantial. There are things that can be done at both the policy and higher education provider level to reduce these risks, but we are unlikely to avoid the need for case-by-case decisions.

Most school leavers with lower ATARs already recognise that higher education may not be their best first option. Application rates decline significantly below an ATAR of 70. The rate at which students reject offers they receive also increases as ATAR scores decline, showing perhaps that these applicants are keeping options open rather than definitely trying for a higher education place. A comparison of the applications and enrolments data also shows that there are significantly fewer enrolments of below 60 ATAR students than there are application acceptances. This is because students have a 'try before you buy' period. They are not charged a student contribution before a 'census date' that must be at least 20 per cent of the way through a semester. For students who start in late February or early March, the census data is typically at the end of March. They are not recorded in official enrolment statistics before the census date. Compared to students with higher ATARs, those with ATARs below 60 are much more likely to decide quickly that higher education is not for them. Each of these statistics indicates that students are making deliberate choices.

As will be discussed in more detail below, sub-bachelor courses can be a more prudent place to start higher education than in a bachelor degree. Table 2 shows that for lower-ATAR students sub-bachelor courses have become a more common way of entering the higher education system, although there was an easing off in 2012 compared to 2011.

11 Addressed in Lee Dow and Braithwaite (2013) and government responses to that report.

12 Higher Education Standards Framework (Threshold Standards) 2011. Delegated legislation under the *Tertiary Education Quality and Standards Agency Act 2011*.

Table 2: Proportion of domestic commencing undergraduate students enrolling in sub bachelor programs, by ATAR

ATAR	2007	2008	2009	2010	2011	2012
30-49	23%	21%	19%	32%	37%	36%
50-59	7%	8%	8%	13%	16%	15%
60-69	3%	3%	4%	5%	5%	5%

Source: Department of Education

Universities also generally exercise considerable caution in taking lower-ATAR students. There is now a legal requirement that as part of their admissions process higher education providers ensure that ‘students have adequate prior knowledge and skills to undertake the course of study successfully’. Similarly, after admission there is a legal requirement to have effective mechanisms for identifying and supporting students at risk of unsatisfactory academic progress.¹³ TEQSA examines whether institutions have appropriate diagnostic processes to identify those students, and whether they have adequate practices for helping them as required. Aside from these legal requirements, universities want to avoid the reputational and market perception issues surrounding courses with lower-ATAR cut offs, the burden on staff from under-prepared students, and the risk of negative comment around high attrition rates. Many will not accept applicants with ATARs below a certain level unless they go via a pathway program.¹⁴

The cumulative effect of these filters is that relatively few lower-ATAR applicants end up enrolled. In 2012, only 1,800 people with ATARs below 50 were enrolled, of whom fewer than 1,200 were in bachelor degrees. Although their numbers have increased, Table 3 shows that they remain a very small percentage of all commencing bachelor-degree students.

13 See also the discussion in section 4.3.2

14 Provider Course Accreditation Standards 3.1 and 4.4. Higher Education Standards Framework (Threshold Standards) 2011. Delegated legislation under the *Tertiary Education Quality and Standards Agency Act 2011*.

Table 3: Basis for admission to bachelor-degree courses, 2008-12

	2008	2009	2010	2011	2012	Increase 2008-12	% of 2012 total
Higher Education	41,627	47,476	50,679	51,850	57,701	16,074	24.5%
Secondary school (ATAR 30-49)	490	640	569	803	1,177	687	0.5%
Secondary school (ATAR 50-59)	2,510	3,038	2,888	3,499	4,443	1,933	1.9%
Secondary school (ATAR 60-69)	9,187	9,815	9,988	10,115	12,024	2,837	5.1%
Secondary school (ATAR 70-79)	14,825	15,794	16,382	15,764	17,773	2,948	7.5%
Secondary school (ATAR 80-89)	19,282	20,106	21,177	20,134	22,311	3,029	9.5%
Secondary school (ATAR 90-100)	20,524	22,398	24,444	23,877	25,286	4,762	10.7%
Secondary school (no ATAR)	21,110	22,013	25,598	30,311	29,229	8,119	12.4%
VET	17,690	18,893	22,090	24,280	26,888	9,198	11.4%
Mature Age	9,871	11,675	12,764	12,535	13,341	3,470	5.7%
Professional Qualification	1,273	1,517	1,454	1,181	1,574	301	0.7%
Other basis	19,290	19,410	21,128	20,984	23,784	4,494	10.1%
No information	3,625	3,438	88	15	2	-3,623	0.0%
TOTAL	181,304	196,213	209,249	215,348	235,533	54,229	100.0%

Source: Department of Education

While bachelor-degree lower-ATAR students are a small proportion of all commencing students, their completion prospects require comment (Table 4). In recent years, nearly a quarter of the students commencing bachelor degree courses with below 50 ATARs are not at any higher education provider the following year (the proportion that leave their original institution is higher). Attrition rates for this group have not improved. By contrast, for all other ATAR groups attrition is going down – a sign that overall the system is improving.

Table 4: System-level attrition rates for bachelor-degree commencing students by ATAR, 2007-2011 (%)

ATAR	2007	2008	2009	2010	2011
30-50	21.9	23.3	21.7	24.4	23.8
51-60	25.0	21.5	18.7	21.0	18.7
61-70	19.5	16.2	16.4	16.7	15.9
71-80	13.9	11.4	10.6	12.1	11.5
81-90	8.8	7.0	7.0	7.2	6.9
91-100	4.5	3.3	3.6	3.7	3.3

Source: Department of Education

Note: Some students who do not re-enrol after first year do so in subsequent years.

Table 5 reports the status of bachelor-degree student six years after they commenced their course. For students who started with ATARs below 60 between 2005 and 2007 their chance of completing within six years is at best 50:50. For the 2005 cohort, a little over half of below 60 ATAR students completed after eight years.¹⁵ Above an ATAR of 60, six-year completion rates increase consistently with ATAR. They are above 80 per cent for ATARs above 90.¹⁶ Analysis of institution-level data on retention rates after first year found considerable variation over time within and across universities for lower-ATAR students. Small numbers likely mean that the performance and decisions of a few students make a big difference to the percentages.

15 Department of Education (2014 forthcoming), p. 14

16 These completion figures are lower than previously reported in Grattan Institute publications. Grattan's data included students in sub-bachelor courses while this data is bachelor-degree courses only.

Table 5: Bachelor-degree completion status after six years by ATAR (%)

ATAR	Year of commencement	Completed	Still enrolled	Re-enrolled but dropped out	Never came back after the first year
30-50	2005	48.6	8.1	24.1	19.2
	2006	44.5	11.3	26.3	18
	2007	50.6	12.2	21.3	15.9
50-59	2005	49.3	13.9	19.6	17.2
	2006	46.2	14.1	22.8	16.9
	2007	48.2	14.8	20.2	16.7
60-69	2005	57.5	13.3	17.1	12
	2006	57.2	13.6	17.8	11.3
	2007	56.7	14.6	16.7	12.1
70-79	2005	65.1	13.4	13.6	7.9
	2006	67.4	12.4	13.2	6.9
	2007	66.5	13.1	13.5	7
80-89	2005	75.2	11.4	9.1	4.3
	2006	75.1	11.7	9.4	3.8
	2007	75.7	11.7	8.8	3.8
90-94	2005	82.4	9.9	5.5	2.2
	2006	83.3	9.8	5.2	1.8
	2007	82.7	9.9	5.6	1.8
95-99	2005	87.2	8.6	3.3	0.9
	2006	86.7	9.5	2.9	0.9
	2007	86.7	8.8	3.4	1.2

Source: Department of Education

2.4.1. Student selection

It is possible that attrition rates will decrease and completion rates will increase over the coming years. The results reported in Figure 1 and Table 4 show a history of continuous improvement in teaching and student support. Since most of these results were recorded, pressures for improvement have increased through TEQSA and market competition, and opportunities for improvement have increased with new technologies. Nevertheless, the review panel needed to ask whether there is more that policymakers should do.

A regulated minimum ATAR for university entry has occasionally been proposed. The review panel does not support this idea. Fair decisions on higher education admission require more information about individual applicants and higher education provider capacity than government can ever have. At the margins, any minimum is going to exclude some applicants who could succeed if they were given a chance. Some attrition should not always be seen as bad. While new information and technology may be able to improve the student selection process, there will always be people who will only be able to know if higher education is for them by trying it for a time. Particularly when attrition occurs in the first semester of study, the costs to students and taxpayers are not high. Across society there are matching costs as people experiment with jobs, goods, services, and experiences. Higher education will never be a complete exception to this.

However, the decision about whether or not to try could be more informed. For lower-ATAR students seriously considering higher education there is no easily accessible information that warns them of their risk of non-completion. This information is not routinely reported anywhere, and has appeared only occasionally in reports aimed at policymakers rather than prospective students. The replacement website proposed for MyUniversity (section 5.3) should also contain more general information about annual attrition and overall completion rates for different types of commencing students.

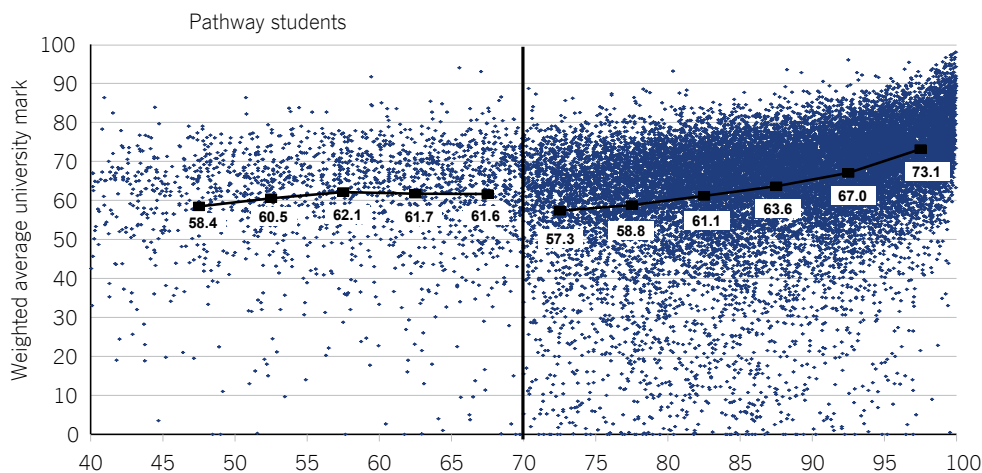
2.4.2. Pathway courses

In submissions and consultations, a strong case was put to the review panel that pathway programs of various kinds were a good response to the challenges of students without the necessary academic preparation for direct entry to a bachelor degree. Pathway programs with a qualification are usually diploma courses with a strong relationship to a specific bachelor degree, or sometimes an associate degree. Some TAFE diploma courses have related higher education courses within the TAFE or with a partner university.

Specialised pathway colleges typically offer one-year diploma programs equivalent to the first year of a university course in their academic content, but taught more intensively in smaller classes. Several private higher education providers offer these courses in co-operation with specific universities, and some universities have established their own pathway colleges. Of the around 8,000 domestic sub-bachelor students in full-fee places at university higher education providers (NUHEPs), more than 3,000 are at providers that specialise in pathway courses. These pathways programs are particularly policy relevant, as both sub-bachelor places and NUHEPs are excluded from the demand driven system.

Evidence to the review suggested that students who entered via a pathway course often did better than might have been expected, given their original level of academic preparation. At the University of Western Sydney’s UWS College more than 70 per cent of students progress straight into the second year of a bachelor program, often with retention and success results equivalent to their peers who enrol directly into bachelor courses. One major provider of pathway courses, Navitas Ltd, provided evidence that former students of its pathway colleges had academic results that compared favourably with those of direct entry students. One university provided evidence to the review that students admitted on the basis of a TAFE qualification had slightly higher retention than those admitted on their school results. The data shown in Figure 2 is from a university that does not accept direct entry from students with ATARs below 70, but does take them if they come via a pathway program, including TAFE courses. The non-school pathway students have average marks in their commencing year at the university that are as good as or better than direct entry students with ATARs below the mid-80s.

Figure 2: Relationship between ATAR and weighted average mark



Source: Provided by an Australian university and used with permission.

Note: Marks are weighted by the credit point value of each subject. Marks are for commencing students from each of the four years between 2007-2010. Marks are commencing year results (only).

Sector-wide subject pass rates for commencing students reinforce these examples. As Table 6 shows, commencing bachelor-degree students whose highest prior education is a sub-bachelor qualification on average pass more than 80 per cent of the subjects they attempt. Their pass rate is only four percentage points below that of school leavers. People entering a bachelor degree with a prior vocational education qualification similarly have a pass rate above 80 per cent.

The positive results from pathway courses are likely to be a function of the role of such programs in screening out people who are not suited to tertiary study, and giving those who are suited the study skills necessary for success at university. For students in diploma pathway programs who decide not to proceed to a bachelor degree, diplomas offer an exit qualification that simply finishing the equivalent first-year subjects would not. Pathway courses offer sensible risk management for students and higher education providers.

In principle, bringing pathway programs into the demand-driven system is very attractive. The current system encourages direct entry into a bachelor degree, which with Commonwealth support is often cheaper than the diploma alternative. However, given the overall financial constraints on government there are a range of issues that need to be considered before extending the system to both sub-bachelor courses and NUHEPs. These are discussed in chapters 7 and 8.

Table 6: Subject pass rates by highest prior qualification, commencing bachelor students, 2007-12

Highest Prior Qualification	Average 2007-2012
Bachelor degree	90
Secondary school	86
Sub-bachelor qualification	82
Incomplete higher education	82
VET	81

Source: Department of Education

Note: Pass rate is subjects passed as a percentage of subjects passed, failed or withdrawn.

Finding: For commencing bachelor-degree students with ATARs below 50 attrition rates are high and have not been improving.

Finding: Higher education providers are actively working to identify and better support less adequately prepared students.

Finding: Pathway programs successfully prepare students for university study.

Recommendation: General information on attrition and completion rates by ATAR and for different bases of admission to university should be easily available to prospective students.

3. SKILLS NEEDS AND THE DEMAND DRIVEN SYSTEM

The demand driven system assumes that flexible higher education providers will be able to mediate between student interests on the one hand and the skill needs of the economy on the other. Students, higher education providers and employers are each active parties in a process of exchanging information and influencing behaviour by a variety of signals. The key to success is the ability of students to make informed choices about where their interests lie, and the flexibility of providers to respond to these choices in the light of information from employers, and to connect the two so that a satisfactory ‘fit’ can be obtained.

In introducing the demand driven system, the government left in place supply-side constraints implemented through funding agreements with universities. Universities generally need to seek permission from the Commonwealth before closing courses leading to entry to an occupation that is experiencing a national skills shortage, or where closing the course would lead to a regional or national skills shortage. There are also restrictions on closing courses for a ‘nationally strategic language’. The current list of nationally strategic languages includes Indonesian, Arabic, Mandarin, Hindi, Japanese and Korean.

The government also offers a ‘HECS-HELP benefit’ to graduates in education, nursing, early childhood, maths and science. HECS-HELP repayments are reduced for graduates in these fields working in occupations related to their course. The benefit is worth around \$1,700 a year for eligible students.

Supply-side interventions and incentives to provide courses are potentially important (prices are to be discussed further in chapter 10). However universities ultimately decide what they teach. The Commonwealth has never required universities to offer new courses that are not already being taught. It deliberately does not usually tie spending of its teaching funding to particular students or courses. The aim is to give universities flexibility to support a range of courses and subjects. Universities do and should teach courses that are part of their mission even when they are not profitable.

Under the old system of allocated places and the current uncapped system, student demand is always important to a discipline’s survival. Unlike in school education, in higher education there is no compulsion to attend or to do a particular subject or course. Constraining options and hoping that prospective students take what is offered is not a promising strategy. Student motivation is important to academic success and retention. In any higher education funding system, students need to be persuaded that a subject is interesting, of future benefit to them, or both. This applies to both the initial choice of course and the internal market for subjects after enrolment.

3.1. The demand driven system and skills shortages

Skills shortages in some areas are a regular feature of the Australian labour market. Not all of these can be blamed on the education system. Shortages of experienced workers can in the short to medium term only be dealt with through staff development, retention and migration. Education policies and providers are not responsible for the wages and conditions on offer failing to attract applicants with the relevant qualifications and experience. Industries prone to boom-and-bust cycles provide uncertain futures for employees, and therefore caution on the part of prospective students and educators is to be expected. However, clearly the education system needs to adapt to the long-term structural needs of the labour force.

Before the demand driven system, there was no automatic system for adjusting the courses offered to skills needs. Pressure from employers and other lobby groups due to actual or perceived shortages of graduates seems to have been the main prompt for action.

The principal mechanism used by the government to steer the courses and places on offer was the allocation of new places. The Commonwealth was very reluctant to redistribute existing university places, which would have been criticised for undermining university autonomy, and for depriving particular students, academics or campuses of places or courses. New places by contrast were positive announcements.

These new places depended on a Budget decision. The budgetary cycle does not always align with the labour market. In the late 1990s and early 2000s, when there were few new places, the system struggled to deal with long-standing staff shortages

in health occupations.¹⁷ We know from historical university applications data that in these periods of labour market shortages significant numbers of applicants for health courses were rejected each year.¹⁸ There was however an active phase of distributing new places in response to labour market needs in the years leading up to the introduction of the demand driven system. This helped meet strongly growing demand, from both prospective students and the labour market, for health and engineering courses.

Without allocations of new places, universities themselves had the option of responding to changing labour market needs. They could do this within their historically allocated number of places. For example, there is evidence that between 2005 and 2007 they moved existing places from other disciplines into health, which was facing significant labour market shortages.¹⁹ As with Commonwealth redistributions of places, however, this could cause internal difficulties. With a fixed total allocation of places, some faculties had to lose places so that others could gain. A university could also lose out financially from moving places between funding clusters.²⁰ As it happened, declining demand for IT courses, which had the same funding rates as some health courses, gave many universities room to move during the last decade. Despite a fortuitous outcome on this occasion, it was generally a system with significant rigidities inhibiting satisfactory adjustment to labour market needs.

The flexibility of the demand driven system in meeting skills shortages is a significant improvement. The employment desires of students can now be better accommodated as universities are no longer restrained by their historical enrolment profile and a capped Commonwealth grant. The demand driven system can adjust continuously and automatically, without the political risk inherent in waiting for government decisions. But the new system does rely on young people making reasonably well-informed judgments about which courses will lead to labour market opportunities.

There have always been a variety of formal and informal information sources about job opportunities and trends. In recent years, the government has supplemented the job information available to prospective students. A variety of websites are available including MyFuture (myfuture.edu.au) which provides information on choosing careers and courses, Job Guide (jobguide.thegoodguides.com.au) which describes what people in various occupations do and the education needed, and Job Outlook (joboutlook.gov.au) which provides information on the earnings and job prospects for each occupation. The course information section of the MyUniversity website, a student guide to courses and universities, links through to the Job Outlook website as well as reporting on employment outcomes for recent graduates.

Whether or not many prospective students study official statistics on employment opportunities, demand is undoubtedly broadly responsive to the labour market. As noted, there has been increased student demand for health courses. Demand for engineering courses began increasing in the middle of the last decade, as the mining boom increased demand for their skills.²¹ At the broad field of education level, increased demand since 2009 has been concentrated in three areas, as Figure 3 shows: two are the principal recent areas of labour market shortage, health and engineering, and the other is science (discussed further below in section 3.3).

17 DEEWR (2011)

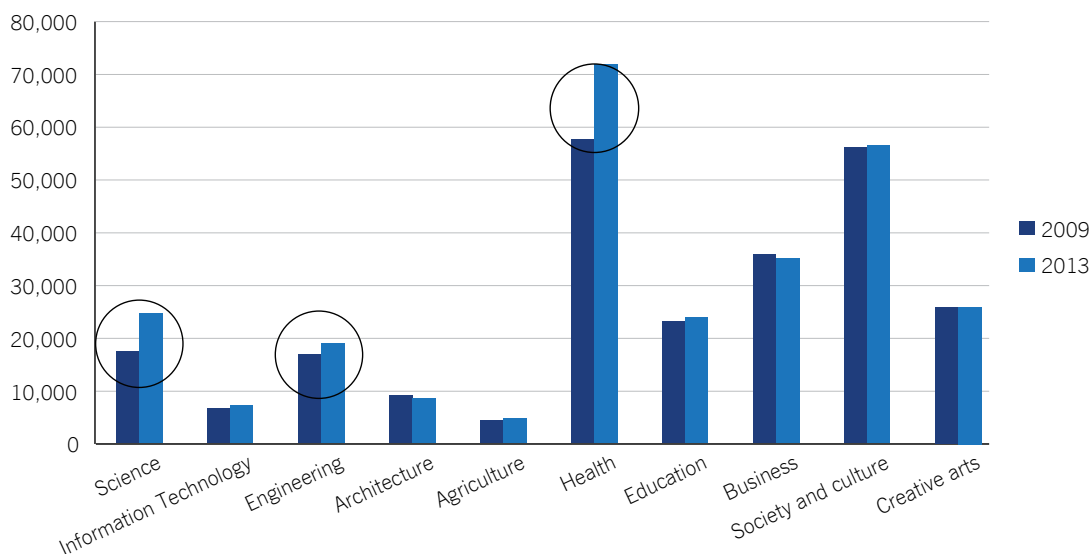
18 Norton (2009), p. 29

19 Ibid.

20 For a discussion of funding clusters, see Appendix A.

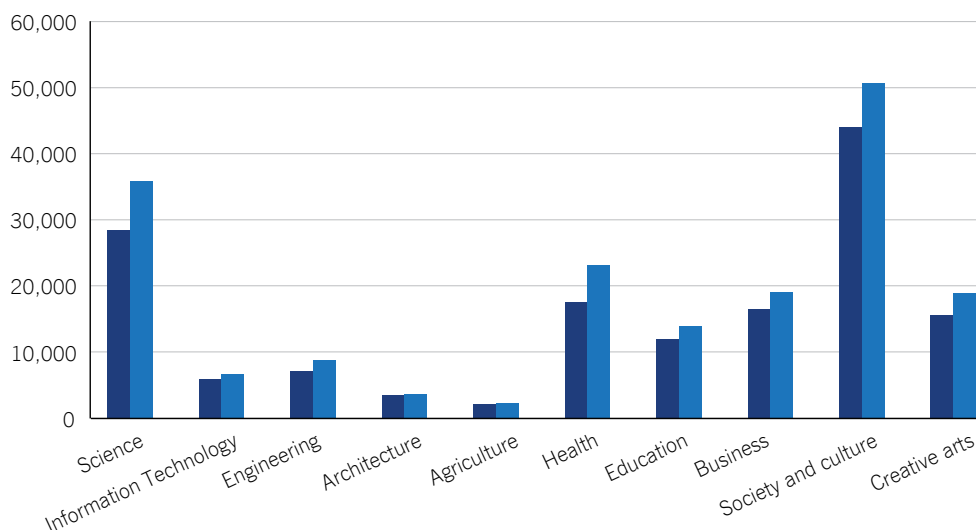
21 Norton (2013c), p. 77

Figure 3: Trends in tertiary admissions centre applications by broad field of education



Source: Department of Education (2013d)

Figure 4: Commencing domestic bachelor-degree EFTSL by discipline, 2009-12



Source: Department of Education (2013c)

Increases in commencing students are spread across all disciplines, reflecting the system's greater responsiveness to demand (chapter 5). This can be seen in Figure 4, which shows trends in full-time equivalent places for commencing bachelor-degree students. As the Group of Eight submission notes, this shows that although the system has responded to skills shortages, most additional student places are in other disciplines.²²

More detailed applications and enrolments data than is usually published can be used to see how the demand driven system is responding to particular skills shortages. Information on skills shortages is taken from the Department of Employment's skills shortages publications.²³ All of the occupations shown in Table 7 were in shortage for at least four years between 2007 and 2012.

22 The Group of Eight submission notes very large increases in the 'Society and Culture' category for commencing students (as opposed to EFTSL). This is despite no major increase in acceptances from tertiary admission centre applications. The increase may be the result of increased entry via direct applications and because commencing students in combined courses can be counted towards more than one major field of education.

23 DEEWR (2012) and predecessor publications

In courses related to most skills shortage occupations there was an increase in demand, as shown in Table 7. Sometimes these increases were very large, but in other cases there were fewer applications in 2013 than 2009. For civil engineering, the apparent drop in demand is unlikely to be real. Students often apply for a general engineering course rather than the specialist form of engineering they intend to pursue. Large increases in civil engineering enrolments show that the system is responding to demand for more civil engineers. While the same applications classification issue may affect demand figures for chemical engineering and surveying, there is evidence of a weak response to labour market changes. Fewer domestic undergraduate students in 2012 compared to 2009 are enrolled in courses coded as chemical engineering or surveying.²⁴ There are initial professional entry masters courses in surveying, but as of 2012 their enrolments were not making up for soft undergraduate supply. This is particularly concerning, as an Australian Workforce and Productivity Agency report on the resources sector predicted on-going shortages of surveyors.²⁵

In health the system response was stronger. In courses leading to health-related skills shortage occupations there has typically been a strong demand and supply response (Table 7). This has occurred despite problems in ensuring that students have adequate opportunities for clinical training. In some areas, the full supply response is not shown here because of initial professional entry courses offered at the postgraduate level. Since 2009, postgraduate enrolments in radiography have increased by 6 per cent and in rehabilitation therapies (a category that includes occupational therapy, physiotherapy, podiatry and speech pathology) by 44 per cent. The data does not distinguish between initial professional entry and professional development courses, which complicates monitoring of likely supply trends.

Dentistry is the only health related course for which demand decreased when we might have expected an increase. This may be because it too has experienced a shift to postgraduate initial professional entry courses. Fewer dentistry applications will have no consequences for workforce supply as less than 20 per cent of dentistry applications result in offers. For dentistry the issue has always been supply of places rather than demand for them. Total dentistry enrolments have increased substantially, although annual commencing student numbers have fluctuated since 2008.²⁶

Some reported skills shortages could not be fully investigated with the available data and are not shown in Table 7. There are shortages of secondary teachers with specialisations in maths and life sciences. As will be discussed further below, there are significant increases in enrolments in these fields. Whether these students will choose teaching careers cannot be determined from the available data.

Overall, the statistics on skills shortages, applications and enrolments shows that both student demand and university supply respond to labour market demand. Whether or not all university applicants make informed decisions about their course options, enough typically do that demand increases where it is needed. However, problems were identified with chemical engineering and surveying. What can be done when skills shortages emerge is discussed further in section 10.1 on the pricing of student places and section 3.6 on influencing student preferences.

24 This conclusion is supported by subject-level enrolment data, which shows no consistent growth in these fields.

25 AWPA (2013), p. 129, 132

26 HWA (2013), p. 32

Table 7: Higher education response to occupations in skills shortage

Occupation	Increase in demand 2009-13 (applications)	Increase in supply 2009-12 (enrolments)
Dentist	-13%	47%
Med. diagnostic radiographer	5%	23%
Midwife	58%	215%
Occupational therapist	46%	33%
Physiotherapist	36%	21%
Podiatrist	15%	20%
Registered nurse	18%	36%
Speech pathologist	76%	45%
Chemical engineer	58%	-10%
Civil engineer	-11%	31%
Electrical engineer	124%	6%
Geologist	150%	168%
Mining engineer	83%	23%
Surveyor	-16%	-30%
All disciplines	10%	22%

Source: Department of Education

Note: Demand is measured through tertiary admissions centres. Direct applications have not been included

Finding: The demand driven system has responded effectively to most recent skills shortages.

3.2. Skills over-supply and the demand driven system

In contrast to concerns about skills shortages, several submissions focused on skills over-supply. Dentistry, veterinary science and law were mentioned specifically. Recent survey data on the employment of graduates confirms that while graduates in all three areas still have above average levels of full-time employment four months after course completion, their employment rates are declining.²⁷ Graphic design was also mentioned as an area in which there were too many graduates (the survey of recent graduate employment does not report their outcomes). Consistent with the general observation that applicants respond to labour market trends, all four fields of education are experiencing declining demand in applications to tertiary admissions centres, as seen in Table 8. However, there are likely to be some offsetting increases in demand and offers through direct applications to universities.²⁸ First-half year 2013 commencing student enrolment data shows increases on 2012 for veterinary science and dentistry.²⁹

27 GCA (2013b); GCA (2013c)

28 Five per cent of tertiary admission centre applicants also make a direct application to a university. There is therefore some double counting. This is particularly in courses that are difficult to get into, as applicants apply for multiple courses to maximise their chance of an offer. Also, direct application data goes back to 2010 only, further complicating comparisons. With these caveats, the 2010/2013 direct applications numbers were dentistry 163/350, law 2011/2809, veterinary science 132/137, graphic design 493/873.

29 Department of Education (2014a)

Architecture and urban planning have also seen graduate employment and tertiary admissions centre applications diminish simultaneously in recent years.³⁰ Here too there may be some offsetting increases in demand and offers through direct applications to universities.³¹

Table 8: Application and offer trends for dentistry, law and veterinary science

	Applications 2009	Applications 2013	Change	Offers 2009	Offers 2013
Dentistry	2,614	2,284	-13%	479	356
Law	7,328	6,499	-11%	5037	4611
Veterinary science	2,378	2,243	-6%	699	683
Graphic design	3,752	2,814	-25%	2533	2257

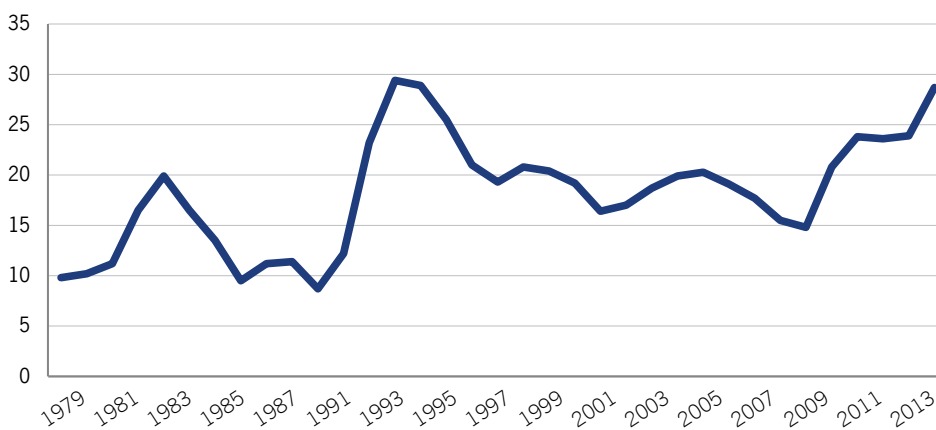
Source: Department of Education Tertiary admission centre data only.

Finding: In professional entry courses, declining employment opportunities have led to fewer tertiary admission centre applications.

Although a general over-supply of graduates was not a major theme in submissions to this review, the concern has been widely expressed elsewhere. In the United States some commentators have claimed that there is a ‘higher education bubble’, with far too many graduates relative to the jobs available. There is also a large academic literature on ‘over-education’. Generally, someone is regarded as ‘over-educated’ if their formal qualifications exceed those that are typical for their job.

Figure 5 shows that new graduates are finding it increasingly difficult to find full-time work shortly after completing their courses (about 60 per cent of those looking for full-time work have casual or part-time work). While graduate employability declined in the early 1980s and early 1990s recessions, the current downward trend comes at a time when the economy is still growing. However, graduates’ longer-term employment prospects remain good. The most recent survey of graduates three years on found that eight per cent were looking for full-time work, down from 21 per cent four months after completion.³² Holding a bachelor degree continues to provide significant insurance against unemployment. In 2013, 3.4 per cent of people with bachelor degrees were unemployed, compared to 6.6 per cent of people with lower or no post-school qualifications.³³

Figure 5: Bachelor-degree holders looking for full-time work, approximately 4 months after completion (%)



Source: GCA (1979-2013)

Tracking trends in graduate over-education is more difficult. The concept is more contestable than unemployment. Anyone classed as unemployed is looking for a job and trying to change their situation, but that may not be the case for someone

30 Architecture applications are stable between 2009 and 2013, but have declined since 2010.

31 Architecture direct applications were 707 in 2010 and 1,041 in 2013.

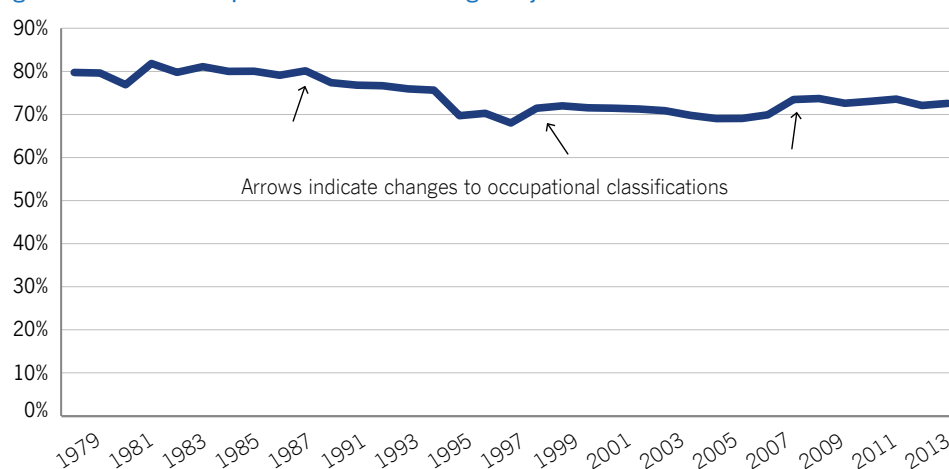
32 GCA (2013a), p. 2

33 ABS (2013c), calculated from Table 10

classed as ‘over-educated’. A job may in practice use more or less knowledge and skills than its classification suggests, and a person may be happy with their job even if it does not use skills matching their formal qualification. Australian research has found that over education is not on its own associated with lower job satisfaction. This occurs only when a person believes that their skills and abilities are not being used.³⁴ Not everyone studies to improve their work readiness, so this group may be neither surprised nor concerned that their qualification is not closely related to their job.

With these caveats, Figure 6 shows the proportion over time of graduates in jobs classed as professional or managerial, occupations that the Australian Bureau of Statistics currently regards as requiring a skill level commensurate with a bachelor degree or above.³⁵ The ABS occupational classifications have changed significantly over time, and especially in the earlier years the proportion of graduates in high-skill jobs is probably over-stated. Despite the massive increase in the number of graduates in the period shown in Figure 6 — from 437,000 to 3.3 million — the ‘over-education’ rate has not changed dramatically. However, a comparison of the censuses in 2006 and 2011 shows that the managerial and professional employment rates of graduates in their twenties declined by two percentage points.

Figure 6: Graduates in professional and managerial jobs



Sources: ABS (1979-1993); (1994-1997); (1998-2013)

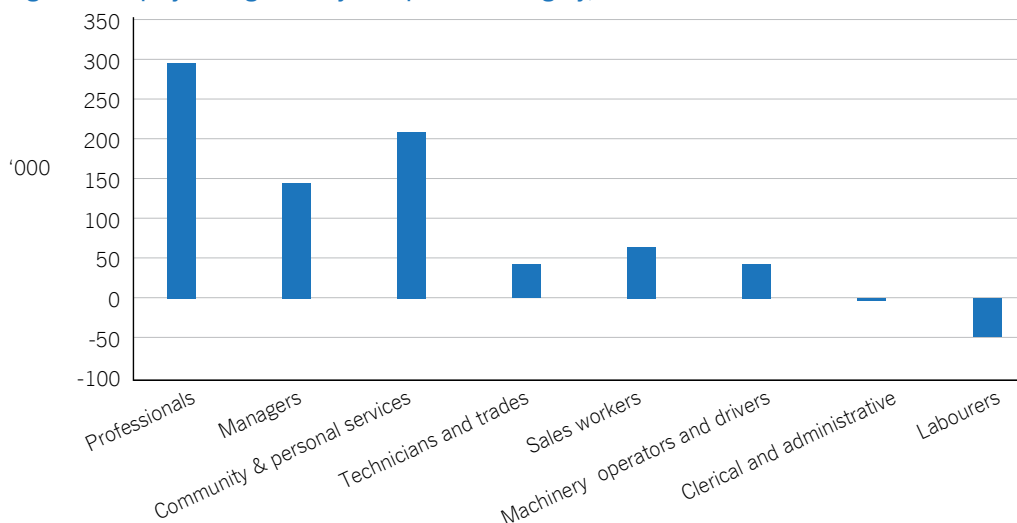
Note: Occupational classification systems are Classification and Classified List of Occupation (CCLO) 1979-1986; Australian Standard Classification of Occupations 1st edition (ASCO 1st edition) 1987-1996; Australian Standard Classification of Occupations 2nd edition (ASCO 2nd edition) 1997-2006; Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2007-2013. In 1994, there were changes to qualification classifications, particularly affecting nurses.

As the Bradley report forecast, job growth has been disproportionately in the higher-skill professional and managerial jobs, as seen in Figure 7. This helps explain why there is no significant overall negative trend in graduate employment. However, at least for entry level professional and managerial jobs the evidence mentioned above shows job seekers have outnumbered the available jobs in recent years. It is too early to say whether this is of long-term significance. The big late 1980s and early 1990s expansion in higher education places looked for a while like it was producing an over-supply of graduates, but the labour market adjusted as it emerged from the early 1990s recession. In chapter 4, we say more about the implications of labour market movements for government policy.

34 ABS (2006), p. 7

35 Mavromaras, et al. (2013), p. 387

Figure 7: Employment growth by occupational category, 2008-13



Source: ABS (2013d)

3.3. Enrolments in mathematics and science

The previous government strongly encouraged increased enrolments in mathematics and science. Apart from rhetorical support for these disciplines, from 1 January 2009 it reduced annual student contributions for commencing maths and science students from \$7,412 to \$4,162. After several years of slowly declining applications, between 2008 and 2009 the number of applications for natural and physical sciences (which includes mathematics) leapt by 17 per cent.³⁶ Application numbers have continued to grow year-on-year, despite the student contribution being restored to previous levels in 2013.³⁷

Until 2013, the increase in applications following a decrease in student contributions was the main evidence that changing the price of a course could influence demand. The lack of any obvious application response to the price increase weakens the evidential value of the 2009 student contribution cut. Possibly the important factor was not the monetary saving but the emphasis put by government on these disciplines.

Without the demand driven system, increased applications for science may not have made a major difference to enrolments. The previous system was not designed to respond to demand. With the demand driven system, science enrolments were able to increase by a quarter between 2008 and 2012.³⁸ Table 9 shows science enrolments at the subject level, converted to full-time equivalents. For example, in 2012 enrolments in physics and astronomy disciplines were equivalent to 4,060 students all studying full-time. In practice, most earlier-year students take a mix of subjects from different disciplines. In line with the original policy goal, mathematics enrolments have increased substantially. However, the number of students majoring in maths is much smaller. Analysis prepared for this review showed that nearly 40 per cent of maths enrolments are outside maths departments.

The largest absolute increase in enrolments has been in the biological sciences, which have added the equivalent of 6,500 full-time students since 2008. However, all the science sub categories have enjoyed increased enrolments.

36 DEEWR (2009b), calculated from appendix table A6. The Department's more recent applications data does not report time series numbers going back to 2008 due to a change in the way applications are counted.

37 Department of Education (2013d), Table A4.1

38 Department of Education (2013c)

Table 9: Trends in bachelor-degree science enrolments 2008-2012, equivalent full-time students

Narrow Discipline Group	2008	2009	2010	2011	2012	Increase
Mathematical Sciences	14,280	15,238	15,605	16,427	17,664	3,384
Physics and Astronomy	3,498	3,596	3,771	3,928	4,060	562
Chemical Sciences	6,154	6,351	6,925	6,978	7,493	1,339
Earth Sciences	2,923	3,254	3,378	3,512	3,718	858
Biological Sciences	27,444	28,558	30,957	32,240	33,943	6,499
Other Natural and Physical Sciences	5,425	6,032	7,351	7,688	8,896	3,471
Total	59,724	63,028	67,987	70,773	75,837	16,113

Source: Department of Education (2013b) and predecessor publications

Unlike the more expressly vocational degrees (section 3.2 above), science demand has to date been immune to negative feedback from the labour market. Labour market evidence has never shown an overall shortage of bachelor-level graduates in science.³⁹ Although secondary science teachers are hard to recruit, there are large numbers of science graduates who could have pursued teaching courses and careers but did not. The consequences of over-encouraging science enrolments are now becoming apparent. Students who enrolled in the early years of the science boom are entering the labour market, with very poor results for graduates in the life sciences and below-average results for maths and other sciences. In early 2013, 48 per cent of life science graduates were still looking for full-time work.⁴⁰ In more than 30 years of data on graduate employment by discipline, this is one of the worst employment outcomes ever recorded.

Higher education is not just about jobs. Almost all students nominate interests as a motivation for study, and around a quarter of students nominate reasons not related to jobs as their main reason for study.⁴¹ But it is a poor outcome when graduates looking for full-time work struggle to find it, and especially so if their course choices were influenced by misleading signals from the government.

Finding: The rapid increase in science enrolments is leading to employment problems for graduates.

3.4. Enrolments in foreign languages

Enrolments in foreign language subjects are low in Australian universities, as seen in Table 10. Across the entire public university system in 2012 there are only seven full-time equivalent bachelor degree enrolments in Southern Asian languages, which includes the nationally strategic language Hindi. For Eastern Asian languages, with three nationally strategic languages (Mandarin, Korean, and Japanese), there were 1,182 Commonwealth supported bachelor degree places. Diploma-level enrolments in Eastern Asian languages have increased from a low base to 113 places in 2012.

The government has given languages specific policy attention. Universities need to seek permission from the government before closing a nationally strategic language course. In late 2013, the government announced the awarding of around 500 annual places in language diplomas across eleven universities. Under the recommendations of this report both sub-bachelor and postgraduate language courses would be included in the demand driven system.

Despite these policy initiatives, low demand for language studies remains a problem. Although there has been a small increase in total student numbers at least three universities have in recent years closed a language course due to low enrolments.

39 Some of the relevant evidence is cited in Norton (2013a)

40 Of those looking for full-time work: GCA (2013b)

41 On interests, James, et al. (2010), p. 18. On main motivation, ABS (2010), calculated from Table 5.

Table 10: Commonwealth supported places in bachelor-degree language subjects (EFTSL)

	2007	2008	2009	2010	2011	2012
Northern European Languages	341	365	407	441	419	429
Southern European Languages	1,192	1,277	1,433	1,570	1,505	1,568
Eastern European Languages	15	17	20	20	18	22
Southwest Asian and North African Languages	67	70	71	68	72	72
Southern Asian Languages	7	8	8	7	5	7
Southeast Asian Languages	157	157	130	126	123	133
Eastern Asian Languages	991	1,037	1,064	1,105	1,140	1,182

Source: Department of Education

Finding: The demand driven system has had little effect to date on low foreign language enrolments.

3.5. Monitoring of skills needs and course supply

The Australian Workforce and Productivity Agency is now monitoring skills needs in the economy. However, the Department of Education does not coordinate this information with its reports on student enrolments. Enrolment data is typically put on the Department's website in summary spreadsheets with no announcement and no accompanying analysis. Although six 'special courses' are reported on in detail (nursing, teaching, medicine, veterinary science, dentistry and clinical psychology), trends in other courses relating to workforce needs are not discernible. This is because student numbers are included within broader discipline categories. Some of the detailed discipline-level information discussed in this report was produced in response to a request from the review panel. It is desirable that it should be routinely produced and analysed.

There is also an issue with timeliness. Enrolment statistics are typically old before they are published. Summary first semester data for 2013 was not published until mid-January 2014. While preliminary application statistics are available earlier (applications as of February 2013 were published in May 2013), these signal broad trends without the detail of enrolment data. In a demand driven system timely data contributes to its effective operation. It can help education providers respond to actual or anticipated under- or over-supply. It can give government an early warning of emerging problems.

The core problem is that the Department's data systems are designed for an earlier policy framework. Previously there was only limited capacity for enrolment changes other than those approved by the Commonwealth. Now enrolments can shift quickly and unannounced through the initiatives of higher education providers and the choices of students.

Data categories are also no longer entirely adequate. Commencing undergraduate numbers in a field of education were once a rough guide to whether the system was responding to demand. With the rise of initial professional entry postgraduate qualifications this is no longer true for all courses. There are statistics on commencing students in courses leading to initial registration in the six 'special courses' listed above. But these are not the full range of professions now taking new entrants from postgraduate courses. We need data systems that can tell us what is going on.

The Victorian Department of Education and Early Childhood Development has a demand driven system for its vocational education funding. It collects data monthly and publishes quarterly, with an annual report published within a few months of the year's end.⁴² There are specific sections on training related to skills shortage areas. Within higher education, the Commonwealth's Provider Registration and International Student Management System (PRISM) produces data on a monthly basis and publishes it on the Australian Education International website. Because PRISM is used as part of the visa granting and compliance monitoring system it is kept up to date. The Department of Immigration updates PRISM nightly. The Victorian and international student data systems are fit for purpose, but this can no longer be said of the domestic student higher education data system.

42 DEECD (2013a); DEECD (2013b)

The Department of Education used to produce an annual higher education report that summarised the government's higher education policies and key trends. This has not been done since 2010. The Department says that it will publish a similar report every three years, with the first covering the 2011-13 period. Although some aspects of the current system operate on a three-year timeframe, such as the funding agreements that allocate sub-bachelor Commonwealth supported places, this triennial report reflects an earlier slow-moving funding system. It would be useful to have an annual summary of policy and key outcomes, including how well the system is performing in meeting skills shortages.

Recommendation: Higher education enrolment data systems should be updated so that they provide detailed and timely information on enrolment trends.

Recommendation: The Department of Education should re-introduce an annual report on higher education policies and include summary information on performance trends.

3.6. Influencing student preferences

In submissions there were proposals to reduce student contributions to increase demand in particular areas. While at some point a course will be too expensive to attract students, Australian student contributions are not at this level. Changing HECS and student contributions over the years have altered the relative costs of different disciplines, but without significantly increasing demand for the cheaper disciplines⁴³. As noted in section 3.3 reduced student contributions for maths and science from 2009 looked to have been an exception to this generalisation, until demand did not go down again when student contributions were increased.

Similarly, there is little evidence that HECS-HELP benefits for graduates in some courses make a difference. This benefit reduces HECS-HELP repayments by around \$1,700 a year. Eligibility includes most recent graduates working as school teachers, early childhood teachers, nurses, midwives, actuaries, statisticians, laboratory assistants and technicians, geologists, metallurgists and many other mathematics or science-related occupations. In 2012-13, 7,220 HECS-HELP benefits were granted, suggesting that awareness of it is low (and that was a large increase on less than 2,500 benefits granted in 2011-12).

Nor is there strong evidence that the HECS-HELP benefit influences the job decisions of graduates. More than three-quarters of the benefits were paid to graduates working as teachers or nurses.⁴⁴ The Graduate Destination Survey of recent graduates shows that transition into these occupations was high before the HECS-HELP benefit was introduced and has not changed significantly since.⁴⁵ The benefit is a windfall gain to graduates who find out about it, rather than something that shapes their decisions on courses and careers.

One likely reason for these weak results is that the amounts saved or lost by each student are small compared to the lifetime financial implications of course choices. Few prospective students would radically alter their course or career aspirations for small sums of money. This likelihood is further lowered by the long wait for financial benefit. The HECS-HELP benefit is at least three years away from the time of a course decision. For students who take out HELP loans, the financial benefit of reduced student contributions could be ten or more years away. This includes three or four years of study and then six or seven years of repaying the HELP loans they still need to take out. The financial benefit comes in the form of a reduced repayment period.

Changing student behaviour needs deeper work in shaping and guiding underlying preferences for particular courses. School experiences influence whether or not students have prerequisite subjects and their perceptions of those subjects. The information sources prospective students use need to be targeted to ensure that they are aware of courses and occupations that fit within their interests and aptitudes. Research into the influences on Year 12 students found that on average they used seven sources of information in making their university decision, with the most common being tertiary admission centre guides, external (to their school) speakers, and school career advisors.⁴⁶ As noted in chapter 3, job websites now provide extensive information on careers. The MyUniversity website aims to provide information on universities and courses (section 5.3).

43 The evidence is summarised in Norton (2012a), p. 77-79

44 Data provided to the review panel by the Department of Education

45 GCA (2013c), table 25, GCA (2010), p. 56

46 Roy Morgan Research (2009), p. 59-71

Generally, the evidence suggests that government should resist calls for market intervention through financial incentives aimed at students. In areas of genuine skills shortage, student demand usually increases without any government action. Skills shortages improve job prospects and usually trigger wage growth that is above the national average. In financial terms, these factors will be much more significant than discounting student contributions or HELP repayments.

Recommendation: The HECS-HELP benefit for graduates in designated occupations should be discontinued.

4. PARTICIPATION IN HIGHER EDUCATION

The previous government set a target for 40 per cent of young adults to attain at least a bachelor-level education by their thirties.⁴⁷ Attainment was 32 per cent at the time the target was first proposed by the Bradley report in 2008, and was 35 per cent in 2013.⁴⁸

The target communicates a goal of increased levels of higher education. In broad terms that aim is sound. Long-term changes to the labour market will drive increased demand for people with higher education qualifications into the foreseeable future.⁴⁹ As more people acquire the academic foundations for further education, demand for higher education out of interest is also likely to grow.

Although 40 per cent attainment signalled the government's aims, the strength of a demand driven system is not in achieving centrally-determined targets, but in adjusting to decentralised aspirations and needs. The previous system had no reliable mechanisms for meeting student demand or employer needs. The system is now responding to student demand and most skills needs.

A long-term trend towards increased attainment does not mean that higher education student numbers should increase each year. It is desirable for both demand and supply to respond to 'real world' information. If the labour market is over-supplied with graduates an easing off of demand is a sensible and desirable response. This has happened for courses that are producing too many graduates compared to employment opportunities.

Weaker overall demand for higher education would not be a surprising response to the deteriorating job opportunities for recent graduates. Preliminary tertiary admission centre applications data for 2014, counting applications as of October, shows that numbers are down for the first time since the data series began in 2010.⁵⁰ Direct applications to universities may offset some or all of this decrease. But it may also signal that the years of strong domestic enrolment growth are at least temporarily over.

4.1. Participation trends

Participation in higher education is affected by both the level of demand for higher education and whether higher education providers meet that demand. Policies around the demand driven system were partly aimed at increasing demand, especially from people from low socio-economic status (SES) backgrounds and regional and remote areas (these specific groups are discussed below). Prior to 2009, demand for undergraduate higher education had been trending down, although the annual statistics on undergraduate applications, offers and acceptances had always shown that more people wanted to go to university than were offered a place ('unmet demand').⁵¹ Since 2009, demand has trended up. Table 11 improves on previously published data by removing the effects of multiple applications from the same individual. Growth in demand is moderating, but growth in offers remains strong, reflecting the lifting of supply constraints.

47 Expressed as 40 per cent attainment by 2025 for people aged 25 to 34 years old.

48 ABS (2013c), Table 8. It has been volatile in the intervening years, because the ABS survey used is too small to give precise estimates for a narrow age group.

49 AWP (2012) and section 3.2

50 Department of Education (2014b)

51 DEEWR (2009b). The numbers were calculated on a different basis to now, so they are not directly comparable with Table 11.

Table 11: Demand for undergraduate higher education, 2010-2013

Unique applicants and offers: TAC and direct combined, 2010-2013				
Year	Applicants	Growth rate	Offers	Growth rate
*2010	292,854		234,999	
2011	302,472	3.3%	244,431	4.0%
2012	309,639	2.4%	256,472	4.9%
2013	316,607	2.3%	267,244	4.2%

Source: Department of Education

Note: This table removes double counting of individuals who use two or more application systems. There are some data quality issues with direct applications.

Since demand has always exceeded supply, lifting supply constraints was a more important policy change than any measures to influence demand. These were relaxed in 2008, and again in 2010, before the demand-driven system started in 2012. Commencing student numbers show steady growth between 2009 and 2012, as seen in Table 12. First half year enrolment data for 2013 shows a 5.4 per cent increase in commencing domestic bachelor degree students on the same time in 2012. Table 12 also shows that public university commencements declined in 2003 and remained below their previous peak until 2006. The then Minister had announced penalties for enrolling more than a target number of students. University behaviour is consistently sensitive to signals from the government.

Table 12: Number of domestic bachelor student commencements and enrolments, Table A universities, 2002-2012

Total	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Commence-ments	166,280	159,161	158,657	165,911	167,221	170,494	170,021	182,731	194,472	199,991	219,867
Enrolment	513,458	512,814	509,281	509,276	514,116	523,415	527,251	548,042	573,015	591,965	624,661
Enrolment growth rate		-0.1%	-0.7%	0.0%	1.0%	1.8%	0.7%	3.9%	4.6%	3.3%	5.5%

Source: Department of Education.

There is a complex relationship between enrolments and participation rates. Participation rates measure the percentage of the population enrolled in higher education. As the number of births in each year varies, population can affect participation rates without a change in student numbers. The number of young people in the peak university attendance ages of 18 to 21 is expected to grow modestly in coming years. However, it will grow quickly in the early years of the next decade, as children born in the baby boom that started in the middle of the last decade reach their tertiary study years. An increase in the annual number of births from around 250,000 a year to around 300,000 a year has significant consequences for all levels of education. A strength of the demand driven system that will only become fully apparent in time is that, in future, young people will not miss out on higher education just because they were born during a baby boom.

Table 13 shows that the demand driven system has increased higher education participation rates across the age groups, but most significantly for those aged between 17 and 24 years. This is despite that population growing by 250,000 in the decade to 2012. If student numbers had remained at their 2007 levels through to 2012 the 17-24 year old participation rate would have dropped to 17.5 per cent.

Table 13: Higher education participation rates by age (%), 2002-12

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
17-24*	18.30	18.10	17.91	17.94	18.14	18.48	18.46	19.00	19.93	20.68	21.43
25-29	3.72	3.69	3.64	3.57	3.49	3.46	3.35	3.37	3.52	3.64	3.84
30-39	1.78	1.76	1.71	1.69	1.65	1.64	1.59	1.62	1.65	1.67	1.78
40-49	0.91	0.88	0.85	0.84	0.82	0.82	0.81	0.82	0.84	0.85	0.91
50-64**	0.26	0.25	0.24	0.24	0.25	0.25	0.25	0.26	0.27	0.27	0.29
Total	4.13	4.07	4.01	3.99	4.00	4.06	4.04	4.15	4.30	4.41	4.60

Sources: ABS (2013a), Department of Education (2013b).

Note 1: Small numbers of enrolments aged under 17 are included in the 17-24 category, and small numbers of enrolments aged over 64 are included in the 50-64 category.

Note 2: Onshore international student enrolments have been removed from the population denominator.

4.2. The 40 per cent attainment target

The Department of Education estimates that the target of 40 per cent of 25–34 year olds achieving at least bachelor-level education will be reached before 2025. This assumes both increased numbers of domestic graduates and continued skilled migration. Indeed, for women, the 40 per cent attainment target had already been achieved by 2011.⁵² However, for men, attainment levels are around 30 per cent.

One implication of these gender discrepancies is that to reach the target male enrolments need to increase significantly. After decades of declining enrolment share, men have made up a slowly increasing proportion of domestic undergraduates in recent years (42.3 per cent in 2012). However, there are no signs of the higher education gender balance changing radically. The gender difference at university is, in part, because young men more than women prefer vocational education options. The evidence is that generally these are good choices for them.⁵³

Although the prediction that demand for graduates will grow in the future is almost certainly correct, nobody can sensibly say whether 40 per cent attainment in 2025 will be too low, too high, or about right. We have no solid basis for saying that the young men currently choosing vocational education should be doing higher education instead. Nor do we have a solid basis for saying that higher education attainment for young women should be significantly higher than 40 per cent, to make up for lower attainment among men.

As we argued in the introduction to this chapter, the strength of a demand driven system is in adapting to individual and local needs and circumstances, and not in meeting centrally-determined targets. Targets create inferior benchmarks for judging the success or failure of the higher education system.

Recommendation: There should be no higher education attainment targets.

Finding: Women aged 25–34 have already achieved 40 per cent higher education attainment. Given enrolment trends and continued skilled migration, the attainment rate will grow in coming years.

52 ABS (2013b)

53 Karmel and Liu (2011)

4.3. Low SES participation

Increased participation from people of low SES backgrounds was a particular goal in creating the demand driven system. The policy concern was that relative disadvantage often replicates itself between generations. Although people from all backgrounds on average have much more education now than in the past, education has also become more necessary for employment and economic advancement. Policymakers have therefore had a focus on increasing the proportion of people with upper-level vocational and higher education qualifications.

The previous government set an enrolment share target of 20 per cent low SES higher education enrolments at the undergraduate level by 2020. The Bradley report had recommended this target, but without discussing the rationale for this particular proportion or timeframe. Presumably the thought was that a target would focus attention on providing higher education opportunities for people from low SES backgrounds. This was more important than the precise details.

To ensure that universities did focus on low SES enrolments, universities were given annual targets for low SES enrolment shares, which were set out in the mission-based compact agreements they signed with the government for 2011–13. Usually, these were incremental increases on the previous year’s enrolment share. For the 2014–16 compacts, these remain under consideration but have not been set.

4.3.1. Progress on low SES participation

There is no regular reporting of higher education participation rates based on social background. Ad hoc studies invariably find large differences by common measures of socio-economic status such as occupation, education or income. Table 14 shows, for example, that in the 20-24 year old age group the children of managers and professionals are more than twice as likely to have a degree or be studying for one as the children of technicians and trade workers. In turn, the children of technicians and trade workers have a stronger connection to higher education than the children of labourers and machinery operators.

Table 14: Level of highest education enrolment or attainment for 20-24 year olds, by parent’s occupation, 2009

Highest qualification or enrolment of children (20-24)	Parent occupation			
	Managers & professionals	Technicians & trade workers	Community, clerical & sales workers	Machinery operators, drivers & labourers
Bachelor degree or above	49%	23%	28%	15%
Certificate III - Advanced diploma	31%	42%	33%	31%
Year 12	12%	16%	18%	29%
Below Year 12	7%	19%	21%	27%

Note Where parents had different occupations, the occupation requiring the highest skill level was used. Not all columns sum to 100 due to rounding. Source: Based on ABS (2011)

Participation rates by SES are not frequently calculated because we need to know both the number of low SES students and the low SES proportion of the broader community. The latter is not available in the data collected by the Department of Education. For convenience, it uses low SES students as a percentage of domestic higher education students. SES is defined by how the Australian Bureau of Statistics classifies student home address according to an index of education and occupation. Students with home addresses in the areas ranked as the lowest 25 per cent in Australia are classified as ‘low SES’. The resulting statistics are an enrolment share rather than a participation rate.

This distinction has caused considerable confusion over the years. Low SES groups can increase their participation rate without increasing their enrolment share. As long as all groups increase their enrolments at similar speeds all will achieve higher participation rates without their enrolment shares changing. Over the long run, low SES Australians have substantially increased their higher education participation rates because higher education enrolments have been growing across the SES spectrum.⁵⁴

Until recently, the low SES enrolment share has been stable at about 16 per cent, when it would be 25 per cent if all SES groups participated exactly according to their share of the total population. Since 2008 there has been a slow upward trend in low SES

54 Marks and Macmillan (2007)

enrolment share, as seen in table 15. What is more interesting is the annual rate of increase in low SES enrolments since 2009 of five to eight per cent. With population in the 17–29 year old age groups growing at an average of 1.6 per cent since 2009, the low SES participation rate must be increasing. First-half year enrolment data for 2013 suggests that both the strong growth rate and increase in enrolment share will continue.⁵⁵

Table 15: Domestic undergraduate students at all higher education institutions (low SES postcode measure), 2002-2012

Total	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All students	528,593	526,094	522,260	524,518	534,719	552,581	561,886	588,016	619,625	643,066	679,595
Low SES students	87,924	86,615	85,028	83,829	85,379	88,922	90,467	95,080	102,027	107,792	116,202
Low SES annual growth rate		-1.5%	-1.8%	-1.4%	1.8%	4.1%	1.7%	5.1%	7.3%	5.7%	7.8%
Low SES enrolment share	16.6%	16.5%	16.3%	16.0%	16.0%	16.1%	16.1%	16.2%	16.5%	16.8%	17.1%

Source: Department of Education

One leading indicator of future low SES enrolments is the undergraduate applications, offers and acceptances data. Preliminary tertiary admissions centre applications data for 2014 suggest a decline in low SES applications, although there was a larger decline in high SES applicants.⁵⁶ However, 2013 first-half year low SES enrolments were higher than would have been predicted from 2013 tertiary admission centre applications data. This suggests that there may be a change in how prospective low SES students apply for university.

4.3.2. Reasons for low SES student enrolment levels

The principal reason for low SES under-representation in higher education is prior education achievement. NAPLAN and other school performance data show that large SES gaps in literacy and numeracy achievement emerge early and persist through the school years.⁵⁷ Although there are high and low academic achievers across the socio-economic spectrum, people from low SES backgrounds are less likely to finish school than people from higher SES backgrounds, and less likely to achieve a high Australian Tertiary Admission Rank (ATAR). Figure 8 shows applications for 2013 by ATAR. In the above 90 ATAR group applications from high SES applicants outnumber those from low SES applicants by more than four to one. Only for applications below 70 do low SES applicants outnumber high SES applicants.

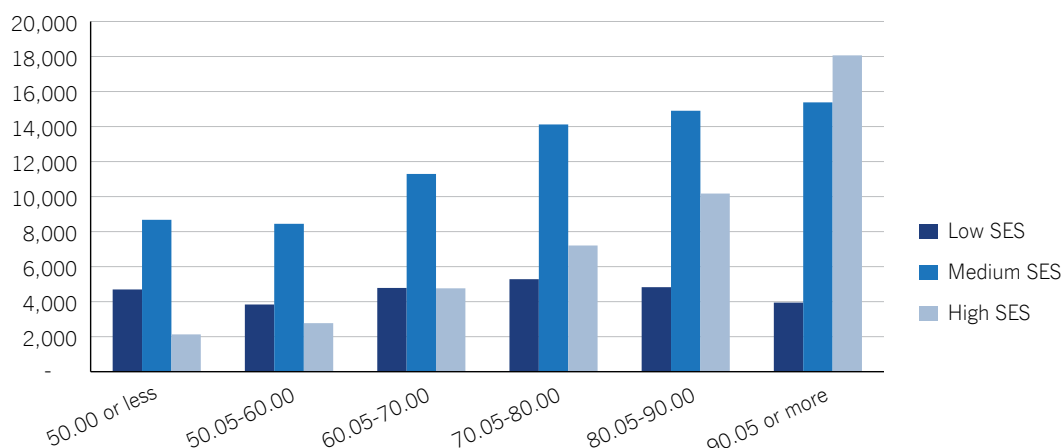
Figure 8 explains some of the patterns evident in Table 15. Because student places are typically rationed by prior academic performance, a decline in commencing students (Table 12) makes it more difficult for low-ATAR applicants to be admitted. This meant a decline in the absolute numbers of low SES students between 2003 and 2005. As the number of places grew in subsequent years entry requirements were relaxed and more low SES students were admitted. Short of requiring higher education providers to take low SES applicants over others, the demand driven system is a necessary (although not sufficient) condition of continued increases in low SES enrolments.

55 Department of Education (2014a)

56 Department of Education (2014b), p. 8

57 ACARA (2013)

Figure 8: Applications by ATAR, 2013



Source: Department of Education (2013d)

For students who do complete Year 12, the available evidence does not show that low SES applicants are reluctant to apply for higher education, given their academic achievement levels. Some older research finds that for a given ATAR low and high SES students have very similar rates of applying to university.⁵⁸ Due in part to data limitations, this finding has not been replicated using more recent data. Table 16 uses a unique applicant count by ATAR for 2013 and compares their numbers with Year 12 students the year before. It shows that all but a handful of 80-plus ATAR students apply for a university place. The numbers are consistent with the conclusion that, regardless of SES background, young people with good school results pursue their higher education opportunities at least to the point of application.

The proportion of Year 12 students applying with an ATAR between 70 and 80 is lower than for the 80-plus ATARs but still high. Only for ATARs of 50 or below are applicants less than half of the available pool of school leavers. As section 2.4 showed, for bachelor-degree courses this is prudent aversion to high rates of non-completion.

Table 16: Applicants by ATAR 2013

ATAR band	Parent occupation			
	2012	Applied for HE	Applicants receiving an offer	Year 12 students receiving an offer
Not scored	41,850	9%	55%	5%
0-50.00	32,317	47%	33%	15%
50.05-60.00	21,765	66%	77%	51%
60.05-70.00	24,458	81%	92%	74%
70.05-80.00	26,481	95%	97%	92%
80.05-90.00	27,456	99%	99%	98%
90.05 or more	29,247	96%	100%	96%
Total	203,574	66%	87%	57%

Source: Department of Education

Table 17 reports on the proportion of original applicants who accepted an offer, by ATAR band and SES. Compared to applications from high SES applicants, low SES application acceptances are higher for ATARs below 70 and above 90. Between ATARs of 70 and 90 there are similar acceptance rates across the SES groups. The apparently lower acceptance rates in the above 90 group is because this table measures applications rather than applicants, with double counting of applicants who apply

58 Cardak and Ryan (2009)

in more than one state. Although more research is needed, it is possible from the results in Table 17 that low SES applicants are more likely to accept an offer once their ATAR is taken into account. If so, it could be because they have fewer options to use social connections to find a job. It highlights the importance of education to low SES social and economic advancement.

Table 17: Acceptances as a proportion of applications by SES and ATAR

	Low	Medium	High
50.00 or less	20%	16%	13%
50.05-60.00	50%	49%	45%
60.05-70.00	64%	62%	60%
70.05-80.00	67%	70%	69%
80.05-90.00	70%	72%	73%
90.05 or more	65%	65%	61%

Source: Department of Education (2013d), calculated from appendix Table A9.1

4.3.3. Increasing low SES demand for higher education

Among existing school leavers there is only limited scope for increasing low SES enrolment. While not all lower-ATAR low SES Year 12 students take up higher educational opportunities, on current completions evidence (section 2.4) we cannot recommend that lower-ATAR student enrolment rates should be higher. Case-by-case judgments are needed as to whether higher education is preferable to vocational education or direct workforce entry.

The key policy for lifting low SES participation in higher education is to increase the proportion of low SES students completing Year 12 with adequate results. In implementing the demand driven system, the previous government recognised that there was a problem with school outcomes. Aside from specific school education policies, they funded a program for university outreach to low SES schools – the partnerships component of the Higher Education Participation and Partnerships Program (HEPPP). This outreach is aimed at changing educational aspirations among low SES communities, and ensuring more students make the educational decisions needed to give them realistic higher education choices by their late teenage years.

In their submissions, several universities strongly supported HEPPP. In 2012, universities used HEPPP funds to deliver 1,029 projects and engaged with close to one million participants. The National Centre for Student Equity in Higher Education has recently published a report with case studies of some of these projects.⁵⁹ Research commissioned from the Centre for the Study of Higher Education (CSHE) at the University of Melbourne has evaluated the likely effectiveness of HEPPP projects based on an international literature review.⁶⁰ However, the CSHE report acknowledges that there is limited methodologically rigorous research in this area. It is inherently difficult to isolate the effects of an outreach program given the many other influences on educational decision-making.

Given that HEPPP started in 2010 and many outreach programs are aimed at primary or early secondary age students it is too early to make any findings about its effectiveness. The students are still years away from school completion. However, HEPPP is a theoretically plausible program aimed at raising educational aspirations and achievement.

4.3.4. Design of the demand driven system and low SES students

Due to their over-representation in low-ATAR school leavers, low SES students would particularly benefit from more readily available sub-bachelor qualification programs (section 2.4). In 2012, 21 per cent of sub-bachelor students were from low SES backgrounds, compared to 17 per cent of bachelor-degree students. The significant price premium on many sub-bachelor courses compared to bachelor courses makes the latter more attractive when the former would be more suitable.

The exclusion of non-university higher education providers from the demand driven system also works against low SES participation. For example, it limits the capacity of TAFEs to offer higher education to their low SES students. They already have

59 NCSEHE (2013)

60 Naylor, et al. (2013)

much greater reach into low SES communities than higher education.⁶¹ Compared to public universities, TAFEs are likely to better deal with the perception by some prospective low SES students that they do not ‘belong’ at university.⁶² TAFE students are on average older than undergraduate university students, and this mature age cohort is one not targeted under the HEPPP. The exclusion of non-university higher education providers from the demand driven system also keeps out the colleges focusing on sub-bachelor qualifications.

Although the HEPPP and improved design of the demand driven system are likely to increase low SES higher education enrolments over the medium term, we cannot estimate this growth with precision. Given this uncertainty, it does not seem sensible to judge success or failure against the 20 per cent enrolment share by 2020 target. Success is more individuals from low SES backgrounds having realistic options for improving their lives through higher education.

While understanding why the Bradley committee proposed targets, we have reservations about their use at the institutional level. Our principal concern is that higher education providers must act in the interests of prospective students. As discussed in section 2.4, some applicants have at best a 50 per cent chance of successful completion. It would be a poor outcome if students were recruited because a university wanted to meet its low SES target rather than because admission served the long-term interests of the applicant. The risk of this is heightened by the lack of science in setting institutional targets. It is very difficult to say whether there is any significant number of potential low SES students who could be recruited over the 2014-16 period who would not otherwise apply on current trends.

Although there is no evidence of inappropriate practices by universities to achieve their targets, we recommend not proceeding with targets in the 2014-16 compacts. Keeping the demand driven system in place, and extending it to non-university higher education providers and sub-bachelor courses, would maintain the momentum to attract and cater to students from all backgrounds.

Finding: The demand driven system is responsible for increased enrolments in higher education by low socio-economic status students.

Finding: Low socio-economic status students would benefit from increased access to sub-bachelor courses.

Recommendation: The government should not set enrolment share targets for low socio-economic status students.

4.4. Rural and regional students

People living in regional and remote areas are less likely than their metropolitan peers to go to university. In 2011, 27.4 per cent of the population aged 15–64 years lived in regional and remote areas of Australia, while the enrolment share of domestic undergraduate students from regional and remote areas in higher education was 19.5 per cent.⁶³ The enrolment share gap reflects a mix of issues. Compared to metropolitan areas, more regional and remote residents are from low SES backgrounds.⁶⁴ With the associated lower school completion rates and ATAR ranks, this means that higher education is a realistic and attractive option for a smaller share of people from regional and remote areas compared to city areas. Long distances to campuses create logistical problems in getting to a higher education provider for many people outside the major urban centres. Leaving home to study adds to the total cost of education. Unlike tuition charges, students cannot borrow under HELP to fund living costs.⁶⁵

The Bradley report recommended a parity enrolment share target. The previous government did not adopt this proposal, but stated that improved regional provision would contribute to meeting its overall participation and attainment targets.⁶⁶ It also changed student income support to make travel for study more affordable.

61 In 2012, low SES students had a 21 per cent enrolment share in vocational education, compared to 15 per cent for high SES students. Calculated from NCVER (2013a), Table 24

62 Naylor, et al. (2013), p. 16

63 DIISRTE analysis of 2011 census data using the MCEETYA definition of regionality. See the note to Table 18.

64 DEEWR (2010)

65 A precedent for a loan for living expenses will be created if a bill to convert current Student Start-Up Scholarships to Student Start-Up Loans is passed.

66 DEEWR (2009a), p. 40

4.4.1. Regional provision of higher education

While many regional communities want local campuses, universities report difficulty in maintaining regional provision. Small enrolments lead to high per student costs. In 2009, the previous government announced policies to support regional higher education provision. These included new funding for structural adjustment, capital investment and a new regional loading.

Most regionally-headquartered universities received structural adjustment funding. For example, the University of Ballarat received \$25 million to partner with six regional Victorian TAFE institutes (Bendigo, Bairnsdale, Mildura, Morwell, Shepparton and Wodonga). Part of the \$32 million received by Southern Cross University (SCU) was to support a new SCU College on the Gold Coast and partnerships with North Coast TAFE and the Gold Coast Institute of TAFE. Central Queensland University (CQU) was allocated \$74 million to support their merger with CQ TAFE to establish Queensland's first dual-sector university.

The previous government also doubled the regional loading funding from \$32 million in 2011 to \$64 million in 2012. The revised regional loading formula was based on student enrolments and the remoteness of each campus.

Mainly through use of TAFE facilities, there are more physical places where higher education students in regional areas can study than there were prior to the demand driven system. Campus-level statistics provided to the review indicate that total enrolments at regional and remote campuses have grown slightly more quickly since 2009 than at major city campuses. However, this is due more to growth in existing campuses in regional urban areas than to recent initiatives aimed specifically at the regions. The lifting of caps on student enrolments is therefore the most important reason for increased regional enrolments.

Despite improved student numbers at regional campuses, it is unlikely that the demand driven system will transform the economics of higher education in smaller regional centres. Study on big campuses in major metropolitan areas will remain attractive for school leaver students from regional areas. Regional campuses can rarely match the range of courses and subjects or the campus life of major city universities. Smaller regional centre campuses compete on convenience and lower total study costs, by removing the need to move or travel long distances. However, in this convenience market, they face competition from improved and growing online provision (section 5.2).

4.4.2. Regional student enrolments

Because many students travel or move to undertake their preferred course, both in and out of regional areas, regional university campus enrolments cannot be used to track numbers of students from regional areas. Regional and remote student statistics are based on the permanent home address students give when enrolling.

As part of the demand driven reform package, the previous government introduced changes to student income support to help regional students move to study. In 2014, the relocation scholarship for first year students is \$4,145. It declines to \$2,073 in the second or third year of study and \$1,036 in the fourth or subsequent years.

Calculating trends in regional and remote student numbers is complicated by changing classifications of areas. New classifications introduced by the Australian Bureau of Statistics in 2011 give higher numbers than the previously used definition. This analysis uses the earlier definition to see longer-term trends. Since the demand driven system was announced, annual enrolment growth rates for students from regional and remote areas have increased. This suggests that the participation rate is also increasing. However, there is no clear improvement in their enrolment share. This is because enrolments from students in the major metropolitan areas are increasing at a similar rate.

Table 18: Trends in regional and remote domestic undergraduate students, 2002-2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All domestic under-graduate students	528,593	526,094	522,260	524,518	534,719	552,581	561,886	588,016	619,625	643,066	679,595
Regional plus remote students	112,376	110,591	108,379	106,008	106,545	109,108	110,124	113,814	120,740	125,685	132,420
Regional plus remote growth rate	0.8%	-1.6%	-2.0%	-2.2%	0.5%	2.4%	0.9%	3.4%	6.1%	4.1%	5.4%
Regional plus remote enrolment share	21.3%	21.0%	20.8%	20.2%	19.9%	19.7%	19.6%	19.4%	19.5%	19.5%	19.5%
Regional plus remote proportion on 2011 definitions										21.3%	21.3%

Source: Calculated from Department of Education (2013b), Table 2.2

Note: 2002-2012 data based on the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) Geographical Location Classification. 2011 definition is based on the Australian Bureau of Statistics' Australian Statistical Geography Standard (ASGS).

As with low SES students, the undergraduate applications, offers and acceptances data is a leading indicator of likely trends in regional and remote enrolments. In 2013, both applications from and offers to students in regional and remote areas declined slightly from 2012 in tertiary admissions centre data.⁶⁷ Preliminary applications data for 2014 indicates a further decrease.⁶⁸ However, commencing student enrolments from regional but not remote areas increased in the first half of 2013 compared to 2012. As with low SES students, it suggests direct applications are at least partly compensating for fewer tertiary admission centre applications.

Finding: The demand driven system and associated reforms have increased higher education opportunities for people from regional and remote areas.

4.5. Indigenous students

Successive governments have been concerned with relatively poor educational outcomes for Indigenous Australians. These remain relatively poor in higher education, but as shown in Table 19 enrolment growth rates have been high since 2009. First-half year enrolment data for 2013 shows continued strong increases in Indigenous student numbers. Growth rates were higher than shown in Table 19 for commencing students, but high attrition rates reduce the impact on total enrolment growth.

The demand driven system has opened up additional opportunities for Indigenous students. Policies aimed specifically at Indigenous students as well as low SES and regional students are also likely to have played a positive role. However, there are still significant issues in prior academic preparation, demand for higher education, and high rates of course non-completion.

⁶⁷ Department of Education (2013d), p. 31-32

⁶⁸ Department of Education (2014b), p. 9-10

Table 19: Trends in Indigenous undergraduate students, 2002-12

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
All domestic under-graduate students	528,593	526,094	522,260	524,518	534,719	552,581	561,886	588,016	619,625	643,066	679,595
Indigenous students	6,494	6,641	6,628	6,331	6,604	6,975	7,038	7,551	8,243	8,857	9,441
Indigenous growth rate	2.0%	2.3%	-0.2%	-4.5%	4.3%	5.6%	0.9%	7.3%	9.2%	7.4%	6.6%
Indigenous enrolment share	1.2%	1.3%	1.3%	1.2%	1.2%	1.3%	1.3%	1.3%	1.3%	1.4%	1.4%

Source: Department of Education (2013b)

Finding: The demand driven system and associated reforms have increased higher education opportunities for Indigenous Australians.

5. MEETING STUDENT DEMAND

In chapter 3, the report examined how the demand driven system was meeting demand for skills. Generally, it found that the system was, to date, performing well. This section looks at demand for undergraduate courses more broadly. Not all demand can be met, given finite capacity in specific courses, or should be met when the applicant is not suited to the course. However, improved matching between students and courses would be a system improvement. A submission from La Trobe University showed that attrition rates increase for students admitted on their second or lower-preference course. This creates costs both for students and taxpayers.

At the aggregate level, universities have responded to an increased number of applications with more offers of places. The number of commencing undergraduate students has increased steadily since 2009, as earlier caps on student places were first eased and then largely removed in 2012 (chapter 4). A more detailed picture of how universities have been responding to demand can be drawn by using the annual statistics on undergraduate applications, offers and acceptances.

Several caveats need to be noted about this data. Only people who apply for a Commonwealth supported place (CSP) are counted in applications statistics. Consequently, applicants for most non-university higher education providers are excluded. There are also issues with multiple applications. The same person can apply to a tertiary admissions centre in more than one state, as well as directly to a university.

Although most applications are made through tertiary admissions centres, applying directly to universities has become more common in recent years. These applications were up 30 per cent between 2010 and 2013, compared to around 3 per cent for tertiary admission centre applications. An apparent consequence of the rise of direct applications is that non-Year 12 applications to tertiary admissions centres are decreasing.

As far as we are aware, there is no published analysis of why direct applications are increasing. However, in part, it may signal the changing nature of student demand as the system evolves. The pathway and articulation arrangements described elsewhere in this report focus university entrants on a single target institution. With direct and sometimes guaranteed (contingent on set minimum marks) entry schemes for these students there is no need for the tertiary admission centre intermediary. A key benefit of these centres for prospective students—allowing them to apply at low cost in time and money for multiple courses—is not relevant.

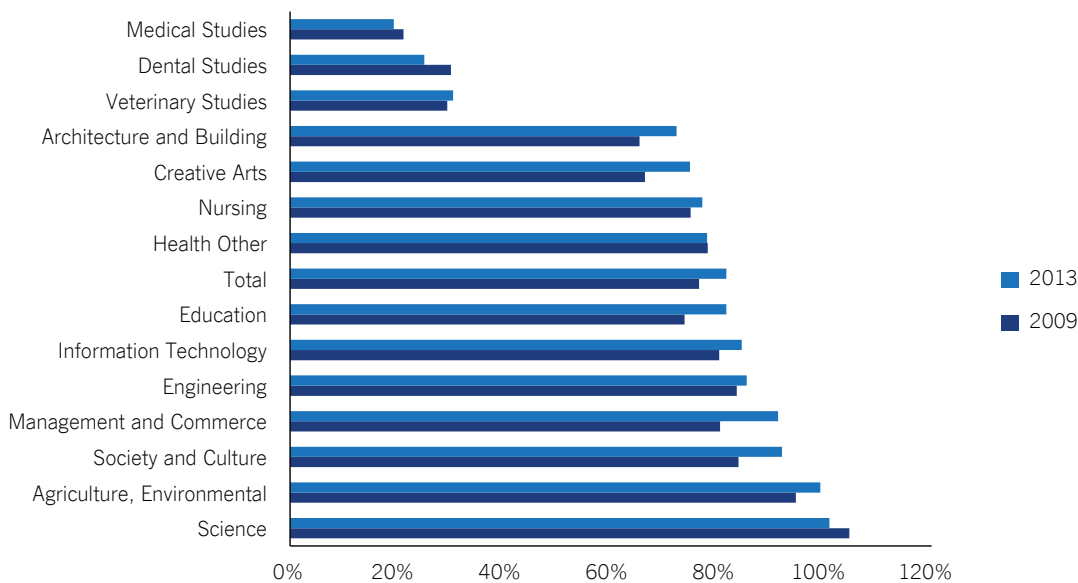
5.1. Offer rates

The demand driven system has only slightly improved an applicant's chance of receiving an offer for their first-preference course when applying through a tertiary admissions centre. For non-Year 12 applicants, the first-preference offer rate has increased from 51 per cent to 54 per cent. This result may have been influenced by the shift to direct applications.

For Year 12 applicants through tertiary admissions centres, since 2010 their first-preference offer rate has increased from 49 per cent to 51 per cent. In part, this small increase is because of the increasing number of lower Australian Tertiary Admission Rank applicants who have limited course options. However, there are limits on how much offer rates can improve. For strategic, prestige and other reasons, some universities are never going to expand to meet demand. But the tertiary admissions centre application process means that this does not necessarily deter applicants. They can submit an 'aspirational' first-preference course application without jeopardising more realistic options.

Applicants are more likely to be offered a place in their preferred field of education than their first-preference course. Since 2009, the proportion of tertiary admission centre applicants offered a place in their preferred field of education has increased from 77 per cent to 82 per cent. This is a sign that universities are adjusting places to meet demand by field of education. However, as can be seen in Figure 9 the offer rate varies significantly by field of education. Offer rates remain low for medicine, dentistry and veterinary studies. Medicine is outside the demand driven system, and as discussed in chapter 10 there could be funding issues affecting dentistry and veterinary science. In most other fields, an applicant's chance of receiving an offer increased between 2009 and 2013. This helps explain why increased enrolments are across a wider range of fields of education than increased demand (chapter 3).

Figure 9: Offers rates by field of education, 2009/2013 (tertiary admission centres only)

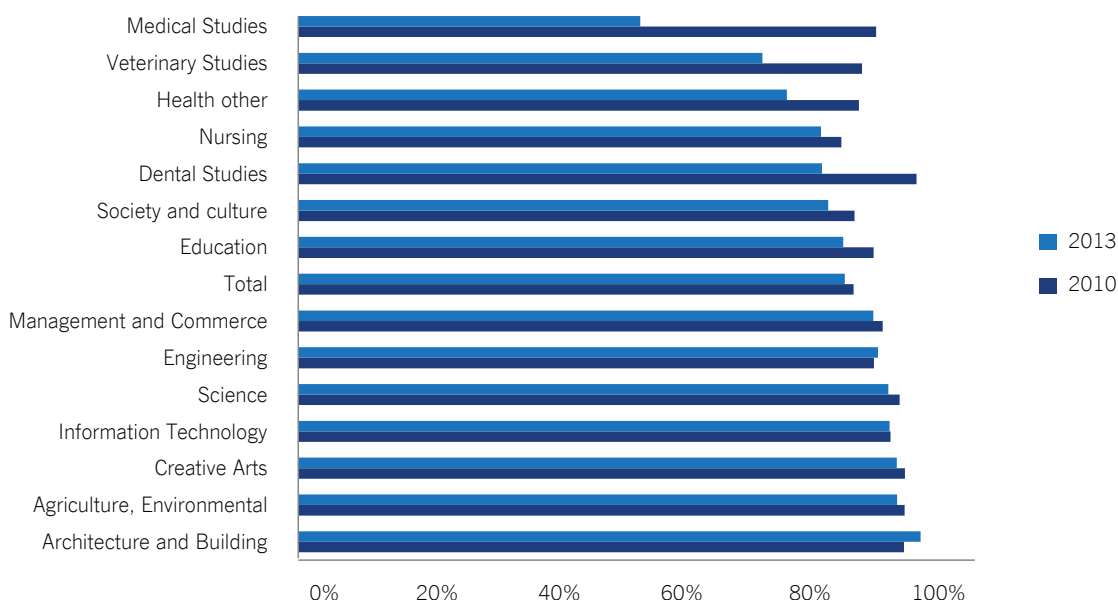


Source: Department of Education (2013d), Table A4.2

Note: Offer rates are calculated as a percentage of first-preference applications. Offer rates can exceed 100 per cent due to offers made on the basis of second or lower preferences.

Offer rates are very similar for direct applicants, at 81 per cent in 2013. There is no real trend since 2010 when this data series begins, although this is a good result given the large increase in applications. Offer rates are better for some high-demand courses compared to tertiary admission centre applications, although not higher than in 2010 (Figure 10).

Figure 10: Offer rates by field of education, 2010/2013 (direct applications only)



Source: Department of Education

Finding: Universities have responded to increases in aggregate demand with more places. In most fields of education, applicants are more likely to receive an offer. However, there has been only a small increase in the proportion of applicants receiving an offer for their first-preference course.

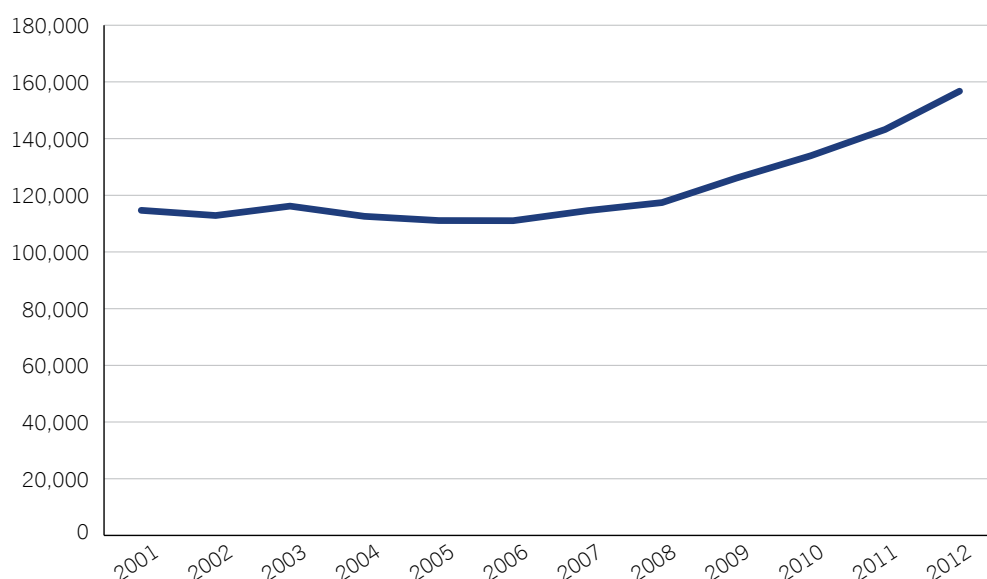
5.2. Meeting demand for online education

By coincidence, the easing and then removal of caps on CSPs coincided with surging interest in online higher education. Although most media attention went to the major American MOOCs (Massive Open Online Courses) offering free online course materials, there was also increased student interest in online Australian higher education.

The enrolment statistics show a significant increase in external students, as can be seen in Figure 11. These statistics do not include Open Universities Australia, which enrolled nearly 60,000 students in 2012 (mostly not in degree programs). While improved online educational technology must have contributed to this growth, it was the demand driven system that enabled a major expansion in online provision. Under the previous system of capped university places, universities had to apply for new places or reduce their on-campus enrolments if they wanted to expand online. Now those restraints have been removed, and we observe rapid growth in this market.

It is worth re-emphasising the point made in section 2.2 about the blurring between online and on-campus education. While on-campus students increasingly use online technology, some of the major providers of distance education are providing more physical spaces for their students. The University of New England has regional study centres where students can go to use quiet study areas, hold meetings, work on a computer, or participate in classes via video conference. Charles Sturt University and Central Queensland University also provide regional study centres for their distance students.

Figure 11: Domestic students enrolled externally, 2001-12



Source: Department of Education (2013c)

Note: Online study is not identified in the data collection, but most external students are now online.

Finding: The demand driven system has allowed online education to expand.

5.3. MyUniversity website

In a student choice-based system prospective students need information to help them decide on institutions and courses. Without it, prospective students may choose based on historical reputations rather than recent performance. It is difficult for newer higher education providers to attract students when they cannot show that their performance matches or exceeds that of well-established competitors.

The MyUniversity website (myuniversity.gov.au) started in 2012 as part of the demand driven system. It contains extensive information about both institutions and courses. At the field of education level, it has information about student satisfaction using two surveys, one of current students (the University Experience Survey) and one of completing students (the Course Experience Questionnaire). Graduate employment rates and median starting salaries are also available.

In principle, an information website is a necessary part of the demand driven system. However, in consultations with stakeholders, feedback on MyUniversity was overwhelmingly negative. Only the National Union of Students clearly supported MyUniversity, with some suggestions for improvement.

Non-university higher education providers (NUHEPs) had the strongest objections to MyUniversity. From its title to its operation MyUniversity reduces their visibility to prospective students. NUHEP courses are listed under MyUniversity's courses section, but the institutional section on MyUniversity is restricted to universities only.⁶⁹ It should be easy for prospective students to find information about all higher education providers.

The way performance information is presented on MyUniversity does not always help with decision making. For example, somebody considering nursing courses could use the 'courses' section of MyUniversity to compare up to three different courses on indicators such as degree length and admission requirements. However, to compare student satisfaction with teaching, it would be necessary to go to the 'university' section, find each university, click on 'student survey results', and then select 'nursing' from a drop-down list. The results would have to be written down or printed out to construct a comparison. By contrast, the United Kingdom's MyUniversity equivalent, UNISTATS (unistats.direct.gov.uk) does this comparison automatically.

MyUniversity seems to be struggling to reach its target audience. In the year to the end of November 2013, it had 193,000 site visits – well under the number of people who applied for a higher education course in that time period. Google searches on terms relating to finding or comparing Australian universities found that MyUniversity was not prominently displayed in the results.

MyUniversity's lack of visibility is a particular problem given the many ways people enter higher education. Nearly half the students admitted to undergraduate courses each year do so on a basis other than their school results, and so are less likely than school leavers to have access to career advisers or other organised information about their higher education options. A course and higher education provider information service needs to be promoted in ways that will bring it to the attention of people interested in further study.

The idea of a website with information about higher education providers and courses is a good one. However, we need a higher education information website that more fully covers Australia's higher education providers, allows easier comparisons between courses of interest, and is easily discoverable by people thinking about taking a higher education course.

Recommendation: The MyUniversity website should be replaced with an improved student information website.

69 It also excludes providers not eligible for FEE-HELP loans. This is because the Education Department does not receive statistical information on these providers.

6. ORGANISATIONAL INNOVATION

The demand driven system has prompted not just innovation in how universities deliver their own courses, but in the broader organisational structures they use to deliver higher education. It has contributed to some organisational restructures and, perhaps more than expected, it has encouraged collaboration between public universities and other institutions. The result is new types of higher education provision and an expansion in alternative methods of delivery. Despite this progress, submissions and consultations revealed some remaining obstacles to innovation.

6.1. New organisational structures

The demand driven system has contributed to two major organisational restructures for universities. In Victoria, the University of Ballarat and Monash University's Gippsland campus merged to form a new university, Federation University Australia from January 2014. A submission to the review from the University of Ballarat noted that as part of Monash University, the Gippsland campus had a minimum entry Australian Tertiary Admission Rank of 70. This was an obstacle to the campus serving its local market. Moving the campus to the combined Federation University Australia, which has more flexible entry requirements, will meet Gippsland's demand for higher education more effectively. As noted in section 4.4.1, Central Queensland University and the Central Queensland Institute of TAFE merged, in part to offer better pathways between vocational education and university courses.

Closer ties with TAFEs are a common feature of organisational change prompted by the demand driven system. These have been made possible by easing constraints on numbers of Commonwealth supported places (CSPs). Previously, few universities had CSPs that they did not need for their own programs. With this limitation reduced, they have sought out collaborations with non-university higher education providers.

For example, the University of Canberra is using its CSPs as the basis of the 'Australian Polytechnic Network' (APN). Under this network, TAFEs will deliver University of Canberra qualifications. Participating TAFEs include the Holmesglen Institute in Melbourne, Northern Sydney Institute, South Western Sydney Institute and Brisbane's Metropolitan South Institute of TAFE. Courses include a Bachelor of Business, Bachelor of Information Technology, Bachelor of Graphic Design, and a Bachelor of Interior Architecture.

La Trobe University is using its CSPs in a collaboration with the Northern Melbourne Institute of TAFE (NMIT). Delivered under the brand 'Melbourne Polytechnic', the first NMIT delivered degree is a Bachelor of Agriculture and Technology. Both organisations have ambitious plans for the Melbourne Polytechnic, although these are constrained by some aspects of policy (section 6.1.1 below).

Other university-TAFE arrangements involve partial integration of courses. For example, students can take the first two years of the Charles Sturt University (CSU) Bachelor of Oral Health course at the Holmesglen Institute in Melbourne before taking the final year at CSU in Wagga Wagga, including clinical placements. CSU also has an arrangement with Goulburn Ovens TAFE in which advanced diploma students in agriculture can articulate into a related CSU bachelor degree. These students receive advanced standing for their TAFE qualification. Other universities have similar arrangements where students start at a TAFE, but with clear pathways into a university bachelor degree.

These arrangements are recent and it is too soon to judge their success. However, they are interesting initiatives from several perspectives. By using TAFE facilities, they extend the geographic reach of higher education provision, putting on-campus education closer to potential students. A submission from TAFE Directors Australia argued that a TAFE's relatively small classes and supported learning environment was good for students not yet ready for university life.

Franchise arrangements between TAFEs and universities can help open up the higher education market. The university provides course content, quality control and a credential while the TAFE provides the campus, teaching, and student services. The university content and credential helps overcome brand obstacles to non-university higher education providers finding a market. Over time, this will help build up higher education experience and expertise in TAFEs so that they are better equipped to become distinct higher education brands. In the short to medium term, by making it easier for universities to establish provision in other states, these arrangements could make the overall higher education market more competitive.

The most interesting collaboration to date between a public university and another organisation has been Swinburne Online, a joint venture between Swinburne University and SEEK Ltd. As with the TAFE arrangements, the university partner provides

accredited courses, quality control, and a qualification. SEEK provides teaching and other staff, technology and extensive experience in online provision of other services, and the market insights and reach that come from SEEK Learning (an intermediary that connects students and courses) and the SEEK job search business. The result is an organisation that neither of the partners could have created alone.

Because Swinburne Online is a new entity, it provided an opportunity for re-thinking the organisation of higher education delivery. While university academic staff are recruited for both teaching and research expertise, for Swinburne Online they are only recruited for teaching. Shortlisted applicants for Swinburne Online teaching positions undertake an intensive four-week training program. They do not continue to become Swinburne Online teachers unless they have satisfactory performance in the training program. All teachers have a teaching coach, and teacher performance is continually reviewed. This teacher training, support and performance evaluation is more extensive than typically occurs within public universities.⁷⁰

Swinburne Online's target market is mature-age students who find it difficult or impossible to come to campus. Nearly a quarter of their students are from regional areas, and three quarters are female. Many of them chose online study because of family commitments. Other students have work commitments that prevent them from studying on campus. Swinburne Online's operating hours reflect the student profile. Its support services are available 9 am to 9 pm Monday to Friday and 10 am to 6 pm on weekends and public holidays, 364 days a year.

There has been a very strong market response to Swinburne Online. After taking its first students in early 2012, it had reached 5,000 students by late 2013 across 18 degrees. It anticipates that its enrolments will reach 7,000 students during 2014. If that number is reached, it will have more undergraduates than two or three public universities. Submissions from both Swinburne University and Swinburne Online are very clear that this could not have happened without the demand driven system.

6.1.1. Limits on organisational innovation

Higher education providers have resourcefully worked around the constraints of the current system to find new ways of delivering higher education. However, even within the existing partnership framework, growth is not always encouraged by the Commonwealth. The 2014 Commonwealth Grant Scheme funding agreements include a new provision requiring universities to seek the Commonwealth's permission to enrol Commonwealth supported students at 'educational facilities' other than those already listed in their agreement. This introduces bureaucratic discretion into plans to offer Commonwealth supported students through TAFEs, as well as for universities to open new campuses of their own. While the review panel is not aware of rejected requests for new educational facilities, universities involved in recent successful applications have agreed to limit their Commonwealth supported enrolments to previously notified levels. While the government is understandably trying to control expenditure on the demand driven system, ad hoc decisions made without clear rules are not desirable. If there are to be controls on new educational facilities, decisions should be made according to published guidelines.

A number of TAFEs made strong representations to the panel about how the provider category standards, which form part of the Threshold Standards, regulate use of the word 'university'. Essentially, they would like to be able to use the term 'polytechnic university'. The most compelling market argument they gave was that their ability to compete in international markets, especially China, was restricted by not being able to call themselves 'universities'. They also suggested redefining the 'university college' category. Under the current provider categories, 'university college' is an intermediate step on the way to becoming a full university rather than an ongoing provider type. On a similar note, a submission from Kaplan Australia stated that they had abandoned the idea of bringing an online university to Australia because universities in Australia have to be research active across three broad fields of study. Kaplan University is a teaching intensive university in the United States. We received no evidence on the market value of the term 'university' in Australia, although we would presume it is significant.

The review panel was not directly asked to consider the provider category standards, and it would not be appropriate to recommend specific changes without giving universities a chance to make submissions. There is a strong belief in the university sector that research is an integral part of any organisation that calls itself a university. However, this was not always the case in Australia. Former colleges of advanced education with little research activity were made universities in the late 1980s and early 1990s. The Commonwealth government of the time believed that to be called a 'university' an institution needed to reach a minimum size and offer a range of courses and disciplines, but proposed no research requirement.⁷¹ Nor is it always the case internationally that research is necessary for the 'university' title, as the Kaplan University example indicates.

70 Norton, et al. (2013), esp. Ch 3

71 Dawkins (1987), p. 35

The current provider category standards that define the different types of higher education provider are based on national guidelines established in 2000. They were partly intended to make it difficult to establish a university in Australia, but it is not clear that this is still required. We now have other regulatory mechanisms for ensuring that sub-standard providers are kept out of the system, and a greater need to foster organisational innovation and competition. Although the hybrid organisations described in this chapter show that workarounds can be found, they mean that universities retain a privileged position even when they are unable to deliver on a ‘teaching-research’ nexus in courses outsourced to teaching-only providers.

The provider category standards need to be reviewed in light of the current regulatory and market environment, and the changing ways in which higher education is delivered. The Higher Education Standards Panel is already reviewing the Higher Education Standards Framework, which includes the provider category standards. However, our understanding is that the Panel is not considering the standards from an innovation and competition perspective. We therefore recommend a separate but co-ordinated review, which would preferably include people with expertise on the non-university higher education sector.

Recommendation: Decisions as to whether universities can deliver Commonwealth supported places at new locations should be made according to clear guidelines.

Recommendation: The provider category standards should be reviewed to consider their effects on innovation and competition.

7. NON-UNIVERSITY HIGHER EDUCATION PROVIDERS AND PRIVATE UNIVERSITIES

Only the public universities are in the demand driven system. Private universities and non-university higher education providers – 135 in all – are excluded, *contra* a recommendation of the Bradley report. It supported their inclusion after the creation of the Tertiary Education Quality and Standards Agency (TEQSA), which commenced operation in early 2012. Our understanding is that the exclusion was primarily for financial reasons.

Like many aspects of higher education policy, history explains current circumstances more than clear principles. The institutions that were largely publicly funded before the late 1980s became entitled to demand driven funding in 2012. Institutions left out of public funding in the late 1980s or founded subsequently are not entitled to demand driven funding. (More background information on funding policy is in Appendix A).

Distinctions between the two groups that existed in the late 1980s have diminished since. Public universities have become more private as their funding sources have diversified. In international markets especially, public universities earn significant surpluses on full-fee students. Outside the demand driven system, some higher education providers receive negotiated Commonwealth supported place (CSPs). The University of Notre Dame Australia is the largest recipient of these places, but in 2014 six other institutions that are not public universities are also receiving some CSPs.

In addition to CSPs directly allocated to non-university higher education providers (NUHEPS), public universities increasingly use such providers for third-party delivery of their own CSP courses. These arrangements were discussed in chapter 6. Through these collaborations NUHEPs are contributing to innovation by the publicly-funded higher education sector. However, NUHEP involvement is presently dependent on the CSP entitlements of their public university partners. This restricts the scope that NUHEPs have for their own innovation. It also limits competition between universities and NUHEPs.

Exclusion of NUHEPs is inconsistent with the access objectives of the demand driven system. Non-university providers play a major role in delivering pathway programs into university, reflected in sub-bachelor courses. Private providers are especially important in the provision of sub-bachelor courses. Such courses comprise 36 per cent of private higher education provider commencing undergraduate enrolments, compared to 4 per cent in public universities.⁷² As section 2.4 explains, pathway programs are a good alternative to direct university entry for students who are less well prepared for higher education. The combined effect of excluding sub-bachelor courses and NUHEPS from the demand driven system is that disadvantaged students pursuing this option have to enrol on a full-fee basis. Low socio-economic status students make up 14 per cent of full-fee domestic undergraduate enrolments, compared to 17 per cent of CSP enrolments.

In submissions, there was little opposition to the idea of opening up the demand driven system. Unsurprisingly, the institutions that stood to benefit from entering the demand driven system were in favour. Public university submissions did not oppose the idea, with the Group of Eight endorsing the use of NUHEPS for pathway courses. Among the major interest groups, only the National Tertiary Education Union (NTEU) put forward a strong view against expanding eligibility for CSPs.

The NTEU's opposition appeared to be partly based on concerns that the outcome may resemble the Victorian vocational education market. It notes that TAFEs have lost market share to private vocational education providers. Yet in the higher education case, opening the market would help TAFEs adapt to their competitive situation. Some TAFEs believe that they can provide higher education courses that integrate with vocational education and will produce 'work ready' graduates.

A common concern about opening up the higher education system has been that it would lead to a decline in quality. The NTEU points to alleged 'sub-standard' courses in the Victorian vocational education sector. While most tertiary education quality problems have been in the vocational rather than the higher education sector, historically state-based higher education regulators have had varying capacity to monitor adherence to quality standards. This is why the Bradley review panel recommended the establishment of TEQSA. TEQSA has removed any systemic quality concerns surrounding the non-university higher education sector. Providers must comply with strict rules to operate at all, and in most cases TEQSA approves their courses individually.

In principle, the higher education system should be opened up to private universities and non-university providers. The issue is how.

72 Edwards and Radloff (2013), p. 12

7.1. Funding for teaching-only higher education providers

Now that there is both national regulation of standards and a national funding system the two systems should be linked. Eligibility for CSPs should flow from the decisions of TEQSA. This would include provider registration and approval of courses that fall within the demand driven system. Providers that want to join the demand driven system would need to comply with the same regulations and other requirements regarding CSPs as public universities.

The system would then be based on clear and consistent rules rather than history or political discretion. This principle has already been applied to FEE-HELP, and it should now also apply to CSPs.⁷³ On the same grounds, students at all HELP eligible higher education providers should also be entitled to OS-HELP, a loan scheme that assists with exchange study overseas. Its current restriction to students in CSPs undermines efforts to encourage more Australian students to participate in international exchange programs.

Establishing connections between the higher education standards and funding raises broader issues about funding rates. The standards required of higher education providers vary according to their classification under the 'provider category standards'. As noted in chapter 6, institutions with 'university' in their title must have research activity. By contrast, institutions that only offer undergraduate courses and/or postgraduate coursework qualifications are not obliged to conduct research. The higher education provider standards require only that their academic staff are active in scholarship that informs their teaching.⁷⁴

The 2011 review of funding chaired by Jane Lomax-Smith recommended that teaching-only higher education providers be funded at an up to 10 per cent lower rate than teaching and research institutions.⁷⁵ This recommendation was based on the history of student-driven funding including money for research activity. According to a Deloitte Access Economics study of teaching and scholarship costs this is generally still the practice, with six to ten per cent of student funding at universities being spent on research (the gap between expenditure and the funding rate shown in most disciplines in Figure 13 in section 10).

Funding teaching-only institutions at a lower per-student Commonwealth-funding rate would contribute to the fiscal sustainability of the demand driven higher education system. If the CSP funding system included NUHEPs, over time they are likely to take a larger share of the student population at lower total cost to the Commonwealth. Two types of non-university providers – pathway colleges and TAFEs – are well-designed for providing the right kind of educational support for students now entering the higher education system (section 2.4). This is one reason that they have grown despite the demand driven system creating more competition for them from public universities.⁷⁶

During consultations, some teaching-only higher education providers indicated that they were prepared to accept a funding rate that reflected this focus of their activities. This willingness was also acknowledged by two peak bodies, the Australian Council for Private Education and Training (ACPET) and TAFE Directors Australia. However, it was also stressed to the review panel that NUHEPs are a diverse group. Some are accredited to offer research higher degrees, reflecting their research aspirations. For many providers, their smaller classes and more personalised education than public universities also lead to higher costs.

This diversity means that there are risks in setting a lower total funding rate for teaching only higher education providers. Too few may enter the demand driven system to make a substantial difference to the access, innovation and competition objectives in letting them in. A significant reduction in per student income may compromise the kind of education that they offer. Identifying a distinct research element of per student funding could also trigger other complex issues about whether this is the best way to fund research and whether universities should receive it for all their courses.

73 There are a range of other grants funded through the *Higher Education Support Act 2003*. Eligibility for these should be linked to objective attributes of institutions rather than history, but due to time constraints we have not examined all of these programs.

74 Higher Education Standards Framework (Threshold Standards) 2011. Delegated legislation under the *Tertiary Education Quality and Standards Agency Act 2011*.

75 Lomax-Smith, et al. (2011), p. 84

76 Edwards and Radloff (2013). Some non-university higher education providers believe that their decline in student enrolments is due to the demand driven system. However, overall the non-university higher education sector is still growing. First semester enrolment data for 2013 showed an 11 per cent increase in commencing students compared to the same time in 2012 (on a same institution basis, including international students).

While the review panel believes a lower funding rate for teaching-only higher education providers is something the government could reasonably consider, given that it would raise issues that are beyond our terms of reference we are not making a firm recommendation on this point.

Whether at current or at lower funding rates, not all existing private universities or non-university providers would enter the system as it stands if the opportunity were available. An analysis carried out for ACPET showed that, on 2010 enrolments and prices, the private higher education sector would be \$50 million worse off at CSP funding rates, or a loss of 8 per cent of revenues. However, depending on institution and discipline the results ranged from better off to much worse off.⁷⁷ Similarly, an analysis of a sample of private higher education institutions provided to the panel indicated that many were likely to stay outside the demand driven system. In some cases, this was because they have no or few domestic undergraduates, in others because it would mean a substantial reduction in per student funding. However, two private higher education providers indicated to the review panel that they could adapt to CSP funding rates that are lower than their current fees. This is partly because they expect to attract more students and increase their economies of scale.

One issue affecting whether private higher education providers will enter the demand driven system will be whether they are permitted to differentiate courses between those that receive CSP funding and those that do not. Some may find that that they could afford to offer some courses on the CSP rate but not others. If a ‘some courses in, some courses out’ approach were allowed for non-university providers the public universities would equitably be able to seek the same entitlement. They too have been shaped by their funding circumstances, and forced to keep average costs down around the regulated funding rate for Commonwealth supported students.⁷⁸ Public universities are unable to compete with private institutions on small classes, even if they would like to do so. They are not allowed to offer full-fee courses to domestic undergraduates. Despite their dominant market share, public universities too sometimes feel that they are at a competitive disadvantage.

In the interests of clear and consistent rules applying to all higher education providers, we recommend that new entrants to the demand driven system, like the public universities, deliver all their undergraduate courses as Commonwealth supported. This would not prevent organisations with multiple higher education providers making different decisions depending on the circumstances and target market of each of their providers. Existing higher education providers with CSPs could choose to keep their current capped allocations rather than enter the demand driven system.

Recommendation: All higher education providers should be eligible for Commonwealth supported places when they and relevant courses have been approved by the Tertiary Education Quality and Standards Agency.

Recommendation: Students at all higher education providers offering HELP loans should be eligible for OS-HELP

Recommendation: Non-university higher education providers accepting Commonwealth supported places should do so on the same basis as public universities.

77 Allen Consulting Group (2012)

78 As confirmed by their spending: see section 10.

8. SUB-BACHELOR COURSES

In higher education, the main sub-bachelor qualifications are associate degrees, advanced diplomas, and diplomas. When the demand driven system was announced in 2009 sub-bachelor higher education places were included. However in November 2011, shortly before the demand driven system was due to start, the then Minister decided to control places in sub-bachelor courses. Sub-bachelor places are now allocated through the Commonwealth Grant Scheme funding agreements negotiated between the Commonwealth and individual universities. The funding agreements effectively cap the number of domestic sub-bachelor students in universities as public universities cannot enrol them on a full-fee basis.

The Minister’s decision was taken in part to protect TAFEs and vocational education providers from universities expanding into their markets. Universities were told that sub-bachelor places applications would not be approved if they would displace existing courses in the vocational education sector. The Minister was also concerned that dual sector education providers – those offering both vocational and higher education – would shift places from vocational to higher education to take advantage of higher funding rates. Requests for sub-bachelor places that might do this were not approved. Universities were also unable to use sub-bachelor places to establish new provision in areas already well served by other providers.

Despite the formal capping of sub-bachelor places, initially most requests for new places were approved. Enrolments in sub-bachelor Commonwealth supported places (CSPs) increased from less than 8,000 in 2007 to nearly 16,000 in 2012 (Table 20). In November 2013, the Commonwealth announced 445 new diploma places for 2014. In addition, by 2012 there were nearly 11,000 domestic students in fee-paying sub-bachelor courses, mostly at non-university higher education providers. Despite regulatory constraints, this is the fastest-growing level of higher education award.

Table 20: Trends in Commonwealth supported sub-bachelor students, 2007-12

	2007	2008	2009	2010	2011	2012
Associate Degree	3,147	4,284	5,172	5,599	6,092	6,587
Advanced Diploma (AQF)	2,923	2,815	3,135	3,898	4,181	4,227
Diploma (AQF)	1,417	1,205	1,411	2,119	2,833	4,676
Other award course	429	229	280	387	549	386
Total	7,916	8,533	9,998	12,003	13,655	15,876

Source: Department of Education

Sub-bachelor courses in higher education are available in all the major fields of education, and serve a variety of purposes. Some are diploma-level pathway courses aimed principally at getting students into a higher qualification, which were discussed in section 2.4. Others are shorter qualifications in particular areas, such as a diploma of languages, arts or music. Language courses were emphasised in the 2013 distribution of new sub-bachelor places. Sometimes these diploma courses are studied in combination with a bachelor degree by students who want to pursue broader interests in their undergraduate education. Associate degrees are two-year courses that typically prepare students for paraprofessional work. Students can usually get academic credit towards a bachelor degree if they want to continue with their studies.

8.1. The demand driven system and pathway courses

Diploma-level pathway courses face double discrimination from the demand driven system. Because historically universities have had little interest in pathway programs except for enabling courses (section 8.4), diplomas are mostly provided by TAFEs and private higher education providers. Neither group of higher education providers is in the demand driven system. Although public universities have creatively used their own CSPs in other higher education providers (chapter 6), limited numbers of sub-bachelor places means that few go to pathway courses.

From a student’s perspective, these exclusions encourage direct entry into a bachelor degree on cost grounds, even though a pathway program may significantly enhance their chance of success. Especially at the private higher education providers, full-fee places cost thousands of dollars more than the student contributions charged for CSPs. Students taking out the FEE-HELP loan

for full-fee domestic undergraduate students are also charged a 25 per cent loan fee. This is added to their HELP debt (the loan fee is discussed further in section 10.3).

There is a strong case for expanding access to sub-bachelor pathway courses. It would improve the efficiency of the higher education system by better matching students with appropriate courses. It would address student quality concerns about lower ATAR entrants, by increasing their academic preparation before they enter a bachelor-degree course. It would provide a lower risk entry point for low SES students. In combination with the inclusion of non-university higher education providers in the demand driven system, it would remove the unfairness inherent in diploma students in private colleges paying much higher annual tuition charges than bachelor-degree students in public universities.

The current system of higher education providers applying for sub-bachelor places is not likely to see this market reaching its full potential. Although the number of sub-bachelor CSPs has expanded, current policies create high business risk. In each of 2011, 2012, and 2013 there has been a shift in policy on sub-bachelor places. There is always the danger of an arbitrary reduction in the number of student places.⁷⁹ Although higher education providers other than the public universities can mix full-fee and Commonwealth supported students, the danger of their business plan being destroyed by bureaucratic or ministerial decisions will make them wary of a discretion-based system. Extending the demand driven system would create the confidence needed for providers to expand CSP courses.

As with the old capped system of allocating bachelor-degree places, the discretionary allocation of CSPs undermines competition. The government's perception of whether an area is well-served by existing providers may not accord with the views of students. A key virtue of the demand driven system, explored in chapter 5, is that competition will bring benefits to students in better matching their preferences for courses and services. If so, this will be as true for sub-bachelor students as it is for bachelor-level students.

8.2. Objections to including sub-bachelor qualifications in the demand driven system

Despite the arguments for bringing sub-bachelor qualifications into the demand driven system, the original reasons for excluding them need to be addressed. One reason was the potential incursion into the TAFE sub-bachelor area by universities.

The market position of TAFEs is not, in itself, a strong rationale for keeping higher education sub-bachelor places out of the demand driven system. While acknowledging the pressures TAFEs face due to changing government policies, the higher education funding system should be as neutral as possible between provider types. It is up to students to decide which kind of provider is most likely to help them meet their goals. As part of the overall reforms proposed in this report, TAFEs would gain access to CSPs for their higher education qualifications (chapter 7). For the reasons noted in section 2.4, many universities will remain reluctant to enter the sub-bachelor market on a large scale. They would prefer the TAFEs and private higher education providers to handle pathway students.

The other major concern with bringing sub-bachelor places into the demand driven system is the potential it creates for cost shifting from the states to the Commonwealth. Most diplomas are currently vocational education qualifications that carry an entitlement to State Government funding. Despite qualifications having the same titles in both sectors, there are differences between these two categories. Vocational diplomas are based on training packages developed in consultation with industry. The training packages set out units of competency related to skills and knowledge needed in the workplace. With higher education diplomas and advanced diplomas there is more scope for the higher education provider to set the curriculum. Courses are approved by universities for their own higher education diplomas and advanced diplomas, and by the Tertiary Education Quality and State Agency (TEQSA) for most other higher education providers. Although both vocational and higher education diplomas exist, in practice most diplomas are vocational. Higher education diplomas made up about 5 per cent of all diploma enrolments in 2012.

Vocational diplomas and advanced diplomas would not be included in the higher education demand driven system. However, diploma providers may seek to convert current vocational education diplomas into higher education diplomas.

For some diplomas, this conversion could be desirable. Research published by the National Centre for Vocational Education Research (NCVER) examines the different functions performed by 'mid-level' qualifications such as diplomas. Although vocational diploma content is linked to a specific occupational outcome, in practice a large proportion of people with these

⁷⁹ In the demand-driven system there are limits on re-capping below the previous year's funding level. This does not apply for allocated places. See Norton (2013b), Ch. 7.

qualifications do not work in that occupation. Instead, many of them proceed with further study.⁸⁰ Another NCVET paper shows how for these students the vocational rather than higher education path can be more costly.⁸¹ As a vocational education curriculum is limited by the training packages, students are not taught material necessary for a higher education qualification. This lessens the credit they receive for work already done, and increases the time taken to complete a bachelor degree qualification. A higher education diploma would be more flexible and better targeted to the needs and long-term aspirations of these students.

In considering the fiscal sustainability of expanding the demand driven system it must be noted that there is a substantial financial incentive for education providers to be funded through the higher education system. Although the many differences in funding systems make exact comparisons difficult, an analysis was carried out for the review of vocational diploma and advanced diploma courses taught by Victorian dual sector universities. It showed that, on average, universities received thousands of dollars less per year for a vocational diploma or advanced diploma course than they would for a higher education diploma or advanced diploma course in the same field of education.

We want to avoid financially-motivated course reclassifications or new higher education sub-bachelor courses that lack an educational or occupational rationale. The question the panel asked itself is whether there are sufficient barriers to such simple reclassification to give reassurance that the risk is manageable. Such barriers could be regulatory, market, or a mix of both.

Vocational education providers do not enter the higher education market lightly. Providing a higher education course requires substantial organisational change. The regulatory requirements around governance structures, staffing and course content differ substantially between the two sectors. The separate funding and reporting requirements for the two sectors add another layer of complexity and cost. Consistent with these difficulties and a lack of interest in becoming a higher education provider, few vocational education providers are in both industries. In early 2014, only 83 of the 4,700 vocational education providers also offer higher education courses (and many of these are principally higher education providers that also offer vocational education).

Evidence received in consultations was consistent with this analysis. We were advised that regulatory obstacles to higher education provider status had deterred some vocational providers. TEQSA has also rejected some vocational education applicants for registration as a higher education provider. They are among the one-third of new provider registration applications that have been rejected by TEQSA.

Once registered, new higher education providers also need to have each course approved by TEQSA and renewed periodically.⁸² Since TEQSA was established, 3 per cent of new course applications have been rejected and another 9 per cent have been approved only with conditions. TEQSA scrutiny prevents any simple reclassification from a vocational to a higher education diploma or advanced diploma. These regulatory obstacles make it unlikely that we would see a rush from current vocational education providers to enter the higher education diploma market.

The 'dual sector' universities – those with substantial TAFE operations – face fewer regulatory obstacles than vocational education providers. They already have all the initial registrations and because they are self-accrediting they do not need TEQSA approval for each individual course. However, they must comply with the same course requirements as any other higher education provider. During a university's re-registration process TEQSA checks a range of courses to ensure compliance with the relevant rules.

In addition to regulatory constraints, there are also market obstacles to large-scale conversion of vocational diplomas and advanced diplomas to higher education. From a student's perspective, higher education and vocational education diplomas are not perfect substitutes. Especially in regulated professions, students choose vocational diplomas and advanced diplomas because this is how they get their desired job. The underlying training packages are developed in consultation with industry, and provide the skills that employers want. A more general higher education qualification would be a less employable substitute, and therefore less attractive to students.

While student preferences are likely to change with more education options, recent history can give us some guide as to the aspirations of diploma students. The NCVET Student Outcomes Survey reports on the activities of recent vocational education diploma graduates about six months after completing their course. Thirty-four per cent had proceeded to further study, but

80 Moodie, et al. (2013)

81 Karmel and Lu (2012)

82 There is provision for non-university higher education providers to become self-accrediting. However, only a very small number have achieved this.

only 15 per cent of the whole group were studying at a university.⁸³ The ABS Learning and Work Survey 2010-11 records that 22 per cent of diploma and advanced diploma holders also have a bachelor degree or above (including people who were awarded a diploma after their degree).⁸⁴ While there is an important overlap between the diploma and bachelor markets, most people with diplomas have not pursued higher education. On the evidence we have seen, there is little reason to believe that this will change radically in the near future.

The fees students pay will also influence market demand for higher education compared to vocational education courses. Although education providers receive more in total for a higher education place than a vocational education place, this is in part because on average higher education students pay more. The diploma and advanced diploma market is highly competitive, so most prospective students will not choose more expensive options without a reason. This financial factor will also limit uptake of higher education diplomas when they are not the most suitable form of education.

8.3. Cost issues in extending the demand driven system to sub-bachelor places

The review panel is conscious of the fiscal sustainability element of its terms of reference. However, in examining the issues in the review's terms of reference we took the decision to first decide the best policy direction, and then examine the implications for fiscal sustainability.

We are satisfied that limitations on the number of sub-bachelor places are undermining the higher education system's capacity to meet the needs of a significant minority of students. Some of these needs are going unmet, some are being handled less appropriately through direct entry to a bachelor degree, and others are being met at higher education providers that charge full-fees at a high financial cost to students.

We are not satisfied that current practices for allocating sub-bachelor places can remedy the problem. This is partly due to the general exclusion of the higher education providers best suited to deliver sub-bachelor higher education courses. However, even without this constraint the changing policies on allocating new places and the overall caps give little scope for higher education providers to develop and market sub-bachelor courses. Using an expanded rule-based demand driven system to distribute sub-bachelor places would avoid these problems.

Including sub-bachelor places in the demand driven system would increase the cost to taxpayers in the absence of offsetting measures. Many, although not all, currently full-fee sub-bachelor programs would instead be funded under the Commonwealth Grant Scheme (CGS). Some non-university higher education providers will prefer to maintain higher per student revenues than can be achieved under student contribution price caps.

We expect that if sub-bachelor places were in the demand driven system more students would choose a pathway college over direct entry to university. When the pathway college diploma is based on the first year of a course at a target university this would result in substitution – one year of a diploma course would replace one year of a bachelor course. If a lower funding rate for non-university higher education providers was introduced, this substitution would result in a small saving to the CGS.

The main financial concern is the interaction between demand driven sub-bachelor places and the vocational education system. To determine the limiting case the cost of a full Commonwealth takeover of state-funded vocational education diplomas and advanced diplomas was estimated, at higher education funding rates. With the caveat already noted about the complexity of these comparisons, the estimate was \$1.27 billion for 2012. The reported proportions of diploma graduates pursuing or achieving a higher education qualification suggest that 20 per cent of this market might prefer to be in a course better aligned with higher education. If they were all funded on full higher education rates, that would have cost around \$250 million in 2012 (depending on precise numbers and fields of education). This could be brought down if a lower funding rate for non-university higher education providers was adopted.

Relative to existing spending on the CGS, these costs are not excessive for the benefits likely to be gained. In chapter 10, we will consider options for savings in higher education that could mean these reforms could proceed at no net cost to the Budget.

Recommendation: Sub-bachelor higher education courses should be included in the demand driven system.

83 NCVET (2013b), Table 64

84 ABS (2013e)

8.4. Enabling programs

Another pathway into higher education is through ‘enabling courses’. These are aimed at preparing students for higher education, through subjects aimed at general study skills or building discipline-specific knowledge. In the student market, these courses go under a variety of titles in addition to ‘enabling’, including foundation studies, university or tertiary preparation, and access programs.⁸⁵

Although a student may sometimes later receive credit for their work in an enabling course, their enrolment is not linked to a higher education qualification. Enabling courses are an exception to the general exclusion of not-for-degree subjects from Commonwealth support. Higher education providers with enabling places are paid a Commonwealth contribution for each place. Students in Commonwealth-supported enabling places are not charged a student contribution and an enabling loading is paid to higher education providers in compensation. In 2013, this was equivalent to \$2,500 per full-time student and has increased to \$3,006 in 2014.

Like other sub-bachelor places, the number of enabling places is capped and they are distributed through funding agreements between universities and the government. In 2012, there were over 9,000 enabling CSPs, a one-third increase on 2009. There is also a fee-paying market for enabling courses. According to a 2013 report, 14 universities have fee-paying enabling programs.⁸⁶ There are also many enabling-type programs outside the university sector.

A number of submissions called for the uncapping of or, increased funding for, enabling courses. As with the sub-bachelor programs, for some students enabling courses can be a better place to start higher education than in a bachelor degree. Enabling programs have helped many people prepare for and/or gain entry to higher education.⁸⁷ An analysis of completions by 2012 for students who had started in 2005 found that 63 per cent of students with a prior enabling course had completed. This was 10 percentage points below students who had not taken an enabling course, but better than students entering with Australian Tertiary Admission Ranks below 60.⁸⁸ Despite the parallels in function between sub-bachelor and enabling courses, there are some important differences.

Unlike courses leading to sub-bachelor qualifications, enabling courses are outside the standard-setting and monitoring system under TEQSA. Consequently we are less confident that complete uncapping would not lead to a large expansion in possibly low-quality programs than we are for sub-bachelor courses. The fact that Commonwealth supported enabling programs are free to the student removes another brake on a rapid increase in student numbers. The lack of a student contribution could be one reason why attrition from enabling courses is often very high, with rates of 40 or 50 per cent not uncommon.⁸⁹ Significant minorities of students at some institutions never seriously engage with their enabling course.

Enabling courses are also less regulated than sub-bachelor courses on fee charging. Although Commonwealth supported enabling courses are free, public universities can also enrol fee-paying domestic students.⁹⁰ This means that excluding enabling courses from the demand driven system is not a fundamental constraint on increased numbers of enabling course students, as it is for the sub-bachelor places. Reflecting the wide variety of enabling programs and student needs they are intended to serve, a limited examination of fees charged showed a range from \$200 for an online subject to nearly \$3,000 for a 14-week, full-time and on-campus access program. The latter fee could be borrowed under the FEE-HELP loan scheme.

The review panel prefers clear rules that treat higher education providers and their students in consistent ways. That is not the case with enabling courses. However, in the time available we were not able to come to a firm conclusion on whether enabling courses should be included in the demand driven system. Compared to the sub-bachelor places, there appear to be more risks and fewer benefits. The government would need to consider these risks and benefits in deciding whether to bring enabling courses into the demand driven system.

85 Hodges, et al. (2013), p. 137-138

86 Ibid., p. 21

87 Smith (unknown), Hodges, et al. (2013); Muldoon, et al. (unknown)

88 Department of Education (2014 forthcoming)

89 Hodges, et al. (2013), p. 25, 52

90 Enabling courses are not legally classified as undergraduate courses, and so the prohibition on charging domestic undergraduate students fees does not apply.

9. POSTGRADUATE AND MEDICAL PLACES

Postgraduate coursework places are not part of the publicly-funded demand driven system, but they have been largely ‘demand driven’ for many years. Unlike sub-bachelor and bachelor degree places public universities are free to offer full-fee places to domestic students.⁹¹ They can offer as many places as students are willing to fill, at any fee the market will pay. This freedom applies to both entirely full-fee courses and mixed Commonwealth supported and full-fee courses. Given this flexibility, the problems the demand driven system was intended to remedy are much less significant at the postgraduate level, though there remain cases of obvious unfairness and perverse incentives.

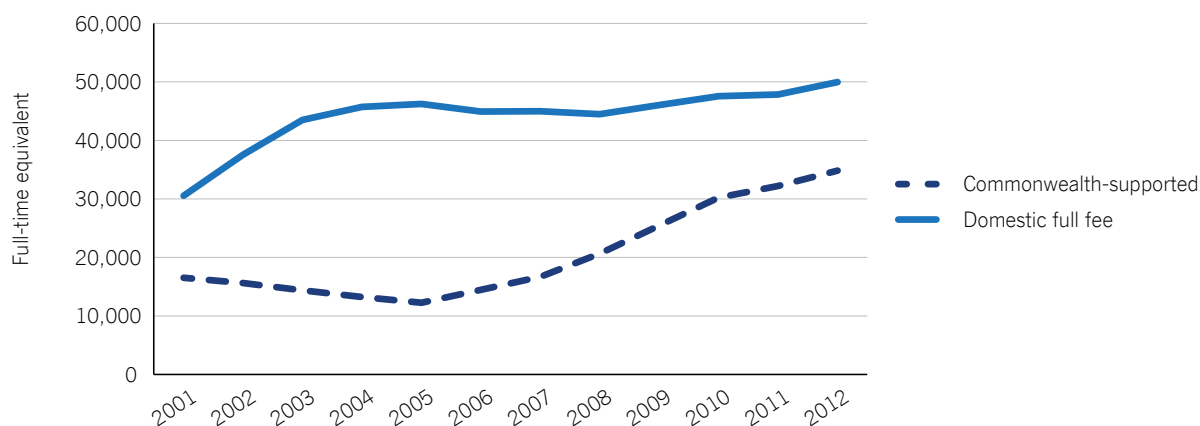
Full-fee postgraduate places were introduced in the late 1980s. As full-fee enrolments grew, Commonwealth supported places (CSPs) declined as a share of all postgraduate coursework places. This trend was reinforced by a 1996 government decision to focus Commonwealth supported postgraduate coursework places on initial professional entry qualifications for teachers and nurses.

Since 2005, however, the Commonwealth has increased the number of postgraduate coursework CSPs, as seen in Figure 12. These are allocated by the government to particular universities, focusing particularly on education and health but now spread across a wide range of disciplines. New allocations of postgraduate student places already agreed between the Commonwealth and universities will see their numbers increase further in coming years.

Domestic full-fee postgraduate coursework places are still growing, but their enrolment share is declining. From their recent peak of 79 per cent of all domestic postgraduate places in 2005, they are now down to 58 per cent.⁹² Despite the flexibility provided by full fee places, postgraduate coursework is drifting back towards central allocation just as undergraduate coursework is being freed from this constraint.

This trend is partly a sign that, from 2005, the system of centralised allocation operated more effectively than it had before. Many new places were allocated in courses leading to careers in areas of skills shortage, including at the postgraduate level. Meeting a skills need is still one of the potential reasons for allocating new places used today. Other rationales include that a course is, or is moving towards, being an accepted entry level for a profession; or is of national significance. This can include national interests or cultural development, for example, a specialist postgraduate mathematics course.

Figure 12: Postgraduate full-time student equivalents, by fee status



Source: Department of Education (2013c)

Universities have also sometimes been allowed to trade-off undergraduate and postgraduate places. Requests have been approved if they were cost neutral and satisfied one of the criteria for new places, or supported a restructure of existing course requirements. The Melbourne Model at the University of Melbourne and similar arrangements at the University of Western Australia are the main examples of this practice. They have turned initial professional entry courses that were previously taught at the undergraduate level into masters-level courses.

91 With some constraints around medicine, see section 9.3.

92 However, they are 65 per cent of all students, reflecting the large numbers of full-fee part-time students.

9.1. Problems with the current system of allocating postgraduate CSPs

Although the postgraduate coursework market has more flexibility than the sub-bachelor market, there are problems with the current system. These include slow decision making on requests for CSPs, uncompetitive markets due to the way CSPs are allocated, and students paying very different fees for the same course.

In the demand driven and full-fee markets, universities can decide how many places to offer and in which courses. For postgraduate coursework CSPs they must apply for new places or seek permission to redistribute their existing CSPs. As with the bachelor-degree market prior to the demand driven system, the reliance on active decision-making by the Commonwealth to allocate places can be problematic. The system lacks clear rules that allow universities to predict with reasonable certainty whether an application will be successful, and can be prone to long delays in decision-making.

For example, in its submission the University of Sydney states that it has waited two years on a decision to shift its veterinary science degree to the postgraduate level. This reflects policy uncertainty created by the earlier approval of similar requests by other universities. In April 2011, Commonwealth, State and Territory education ministers agreed to new standards for initial teacher education courses, which require that graduate entry teacher education courses must comprise at least two years of full-time equivalent study. Universities have too few CSPs to support a transition from teaching graduate diplomas that are currently one year or 18 months long while maintaining graduate numbers. Nearly three years on from the original agreement between ministers there is no decision as to whether the Commonwealth will provide additional Master of Teaching CSPs.⁹³

Delays in announcing eventually successful applications can also cause problems. Central Queensland University notes in its submission the organisational difficulties created by the announcement of calendar 2014 places on 21 November 2013. A large number of new ministers and an election during 2013 help explain this late announcement, but new ministers and elections are regular features of our political system. Ideally, routine operation of the system should not depend on decisions by one or a small number of individuals.

Ad hoc decisions to allocate CSPs to one university can affect the competitiveness of local markets. The University of Western Australia reports in its submission that one Western Australian university has postgraduate Commonwealth supported physiotherapy places while its competitor does not. Flinders University made a similar observation about its postgraduate education programs, as did Macquarie University in environmental planning. Examination of enrolment data at the narrow field of education level showed other cases where universities in the same city have largely full-fee postgraduate coursework enrolments while others have a significant number of CSPs. Irrespective of current enrolments, universities will be reluctant full-fee market entrants if their competitor has CSPs.

Several submissions made general criticisms of the way the current system left some universities with large numbers of postgraduate coursework students, while others had very few. In 2012, one university had only 120 students in postgraduate CSPs, while another had 6,754. Relative to total postgraduate coursework enrolments, the Commonwealth supported share by university ranges from 4 per cent to 98 per cent. Some of this reflects differing disciplinary emphases. Institutions that offer education and nursing courses tend to have more CSPs. Others are the result of restructures that moved places from the undergraduate to postgraduate level. But there is a perception that postgraduate CSPs are distributed unfairly.

As well as creating issues with the consistent treatment of universities, the current system of allocating postgraduate coursework places leads to a mixing of postgraduate full-fee domestic and Commonwealth supported students in the same course. In practice similar students often pay very different amounts for their course. In teaching and nursing, full-fee students typically have to pay \$10,000 or more a year extra for their course compared to a Commonwealth supported student.

In some cases, this fee gap is clearly a by-product of the capped numbers of CSPs, as the total full-fee amount is very close to what the university would receive for a CSP. In other cases, universities use full-fee places to increase average per-student revenue, by charging fees well in excess of what they would receive for a CSP. This system of fee-setting permits a wider range of educational models, but at considerable cost to some students.

93 Universities have been notified of a Ministerial Advisory Group to advise on teacher training.

9.2. Policy options for postgraduate coursework places

The challenge facing the review panel was how to alleviate these problems while preserving the flexibility of the postgraduate market. These problems have lingered because there is no obvious solution. While we will come to a recommendation, we also present here versions of the five options found in submissions or consultations. These are:

Policy option 1 – Bring all postgraduate coursework into the demand driven system

Policy option 2 – Bring only some disciplines or courses into a postgraduate demand driven system

Policy option 3 – Allow universities to have demand driven postgraduate coursework enrolments up to a set percentage of their domestic enrolments

Policy option 4 – A cap and trade system

Policy option 5 – A tidied up version of the current system

Policy option 1 – Bring all postgraduate coursework into the demand driven system

In their submissions some universities supported bringing all postgraduate coursework places into the demand driven system. The Bradley report made a similar suggestion, with universities retaining the freedom to offer full-fee places.

This option would create clear and consistent rules for every higher education provider. The current slow and uncertain decision-making process on CSPs would end. Each university could make its own educational, social and commercial decision about whether to use Commonwealth supported or full-fee places.

The problems of local competition and price discrimination might be solved in some current cases. For example, in nursing the fees charged to full-fee students are usually similar to the total Commonwealth supported funding rate. In such cases, universities would likely transition all of their full-fee places into CSPs, as they could do so with financial gain to their students but without revenue loss. The funding system would produce a nursing market that was largely neutral between institutions and students. In teaching, some universities charge full-fee students considerably more than the Commonwealth supported rate. However others have fees roughly matching the Commonwealth supported rate, and they would presumably put all their students into the demand driven system.

In other fields of education, such as business and law, there is a history of charging fees for postgraduate courses that are well in excess of the Commonwealth supported rate. Less than 10 per cent of law and 5 per cent of business postgraduate coursework students are in CSPs. In an uncapped system, universities may increase their numbers to gain a competitive advantage. This could exacerbate rather than alleviate problems of the subsidy system complicating local markets and encouraging price discrimination between students.

Removing the cap on student contributions is one partial solution to price discrimination. It is discussed further under policy option 2.

Extending CSPs into postgraduate coursework would add to Budget costs, as students currently willing to pay full-fees moved into the subsidised system. This would make it more difficult to achieve fiscal sustainability of the system overall.

Although there would be some positive outcomes from extending the demand driven system to all postgraduate coursework students, the review panel was not satisfied that these gains would justify the additional expenditure, nor that it was desirable to provide a general subsidy to the postgraduate coursework market. There was little evidence in submissions or found elsewhere that the full-fee postgraduate coursework market was in general functioning poorly. The main issue was the inequity that arose as a result of the mixing of Commonwealth supported and full-fee places in the same field of education. The introduction of income-contingent loans for full-fee postgraduate students in 2002 had already substantially reduced financial obstacles to further study previously faced by some students (seen in increased enrolments in Figure 12). It is not clear that additional subsidies would make a large difference to the accessibility of postgraduate education.

For these reasons, the review panel decided against recommending policy option 1.

Policy option 2 – Bring only some disciplines or courses into a postgraduate demand driven system

A lower-cost alternative to policy option 1 is to only bring some postgraduate disciplines or courses into the demand driven system. The challenge is to devise the criteria for determining which courses should be in the demand driven system and which should be market-driven on a full-fee basis.

Rationale for deciding which disciplines and courses are in the system.

Generally disciplines or courses that are eligible for CSPs will have a combination of clear community benefit and/or skills shortages and modest financial rewards for graduates. This would provide a public policy rationale for paying a subsidy: the community would receive something in return for its investment, or would avoid existing inequitable situations where some students pay full-fees for courses that are usually Commonwealth supported. The most commonly subsidised courses now, teaching and nursing, and a number of allied health courses, are the most obvious candidates for inclusion in a limited postgraduate coursework demand driven system.

In submissions, mixed views were expressed on using initial professional entry as a criterion for allocating postgraduate CSPs. These courses can have stronger parallels with undergraduate initial professional entry courses than postgraduate courses that are used for career advancement. Where the initial professional entry course is a graduate diploma it is at the same Australian Qualifications Framework level as an undergraduate bachelor honours degree. Arguably, graduate diplomas in teaching are functionally equivalent to the fourth year of an undergraduate course that gives students with discipline knowledge specific teaching skills. From this perspective, initial professional entry courses are so analogous to undergraduate education that they should be included in the demand driven system.

Despite this argument, some submissions cautioned against using initial professional entry as a criterion. The core objection is that as postgraduate qualifications become required or expected for professional entry costs are increased, for both students and the Commonwealth. It was also argued that there are added risks that the investments made by each party will not pay off. Long sequences of courses increase the likelihood of attrition prior to the final professional entry point.

If the Commonwealth made a general commitment to fund initial professional entry postgraduate courses it would encourage employers or professional bodies to lift their entry requirements. These changes would not always be justified by genuine work requirements. Qualification bars can be used in an attempt to lift the status of a profession or to reduce competition within that profession. Employers can use qualifications as a 'cheap to them but expensive to others' way of screening potential employees.

There are also advanced or specialised professions that would not meet the initial professional entry criterion but which might meet a broader community benefit test, such as nurse practitioner courses. There is a public policy interest in promoting nurse practitioners as cheaper alternatives to doctors for some medical procedures. Their pay is relatively low for highly-skilled graduates, with a base annual salary of \$86,500 in Victoria, plus loadings. A focus on initial professional entry would lose the necessary flexibility to assist skill improvement among current professionals.

In practice, initial professional entry is likely to be an on-going factor that is taken into account when deciding eligibility for CSPs. Once postgraduate qualifications are established as a professional entry requirement it will influence how many people apply for courses. However, not including it as a formal part of the criteria for Commonwealth support will help prevent potentially costly increases in initial professional entry requirements.

The broad principles suggested here would not deliver the same level of certainty for higher education providers as including all postgraduate coursework places in the demand driven system. To improve clarity, the Department should draw up a formal list of courses or disciplines that would be supported. It could also draw up a list of courses or disciplines it would not support, to help resolve ambiguous cases. Decisions made on courses not on the list but potentially meeting the broad criteria would have precedent value that could be used by other higher education providers. These lists and precedents would ensure that all higher education providers and their students were treated equally.

Effects on competition and price discrimination

Policy option 2 as stated would not, on its own, entirely eliminate CSPs affecting local markets or causing price discrimination. However, it would do more than policy option 1 to remove it. With most fields of education put clearly in the full-fee market (with an exception noted below), all universities and students would be funded on the same basis in those fields. In the fields that are candidates for inclusion, enrolments are already predominantly CSP (Table 21). In teaching and nursing, as noted above, along with radiology and clinical psychology, current practice is that fees are similar to the total Commonwealth funding rate.

This should ensure that most places are converted to CSP. However, average fees for physiotherapy courses are significantly above the total funding rate for CSPs, making conversion less likely.

Table 21: Commonwealth supported and full-fee students in mixed postgraduate courses, 2012

	CSP	Full-fee	% full-fee
Teacher Education	20,379	2,702	12%
Radiography	666	118	15%
Nursing	7,238	1,408	16%
Other Education	2,077	445	18%
Curriculum and Education Studies	2,220	1,061	32%
Rehabilitation Therapies	2,141	1,183	36%
Behavioural Science	2,463	1,608	39%

Source: Department of Education

The problems of CSPs affecting competition and price discrimination are largely caused by the total CSP funding rate being too low in some cases. Ironically, the student contribution price cap means that some students are charged very high fees. If the student contribution price cap was lifted for postgraduate courses, this would remove the need to price discriminate: all students could be charged the same average amount needed to finance the course. Full-fee students are likely to pay less than they do now, while Commonwealth supported students are likely to pay more. This would produce a fairer distribution of the cost burden of each course than under the current system.

Niche areas

There is an existing public policy interest in maintaining some niche areas. For example, as part of its New Colombo Plan policy the government has expressed interest in the teaching of foreign languages. There are only a handful of postgraduate coursework students in non-English language courses across the whole system, most of whom are Commonwealth supported (see section 3.4). In these cases, lack of demand means that a demand driven system is unlikely to quickly give rise to any major additional costs.

Implementation

CSPs in courses not meeting the criteria established for policy option 2 would be phased out, grandfathering existing students. Conversely, CSPs for full-fee places meeting the criteria would be phased in.

The biggest implementation issue would be how to treat significant transitions of initial professional entry courses into masters-level qualifications. Examples include some of the postgraduate courses introduced by the University of Melbourne and the University of Western Australia, and various more limited changes at other universities, including masters-level medical courses. Many of these postgraduate courses would not be eligible for Commonwealth support under policy option 2. The universities involved have made major structural changes based on a clear commitment from the Commonwealth to support those transitions with postgraduate coursework subsidies. It would be very disruptive to effectively force a conversion of these back to undergraduate courses because CSPs were no longer available.

The spirit of the commitments made by the Commonwealth needs to be honoured. These would be legacy arrangements standing outside the new policy framework. These courses would not be demand driven, and the universities involved would need to use the funding agreement process to negotiate the number of Commonwealth supported student places.

Courses in these legacy arrangements provide some of the most striking examples of price discrimination. They include long courses in high-cost disciplines. Lifting the student contribution cap on postgraduate coursework places would give the universities involved the flexibility to end or ease price discrimination.

Compared to policy option 1, the costs of policy option 2 are likely to be low. This is because most of the affected courses are already largely Commonwealth supported, and there will be some savings from fewer Commonwealth supported places in disciplines that will become full-fee markets.

The review panel believes that policy option 2 would be a significant improvement on the current system.

Policy option 3 – Allow universities to have demand driven postgraduate coursework enrolments up to a set percentage of their domestic enrolments

During consultations it was suggested that demand driven postgraduate enrolments be capped for each higher education provider by some proportion relative to their overall enrolment. This could be compared to their undergraduate enrolments (mentioned by the Group of Eight and Universities Australia) or their total postgraduate enrolment (mentioned by Flinders University). This proposal would put some constraint on expansion of CSP postgraduate numbers, while giving providers greater predictability and flexibility in allocating postgraduate CSPs. It would also remove historical anomalies where some universities have high numbers of postgraduate CSPs and some universities have very few. Despite these benefits, the review panel was not persuaded that this was the strongest option.

In practice, this capping could cause significant problems. Universities with large enrolments in teaching and nursing could find that they exceed their CSP cap. This could force them to charge full-fees in some places that are currently Commonwealth supported, or to reduce their student numbers. Universities with relatively few postgraduate CSPs would be able to allocate them in courses that are usually offered on a full-fee basis. In either case, it would exacerbate rather than alleviate the problems of CSPs distorting local markets and encouraging price discrimination. On these grounds, this proposal was not adopted.

Policy option 4 – A cap and trade system

Submissions from Universities Australia and the Group of Eight both mention, without going into great detail, a cap and trade system. Under this system universities agree to limit their undergraduate CSPs in exchange for postgraduate CSPs. The University of Melbourne and the University of Western Australia did this to secure support for their current funding model.

This proposal is not compatible with an undergraduate demand driven system. There is a danger that universities could cap and trade their way back to the old system of allocating university places. The Commonwealth would need to approve each change in the distribution of CSPs. Capping also undermines the competition goals of the demand driven system.

Under the previous funding system, cap and trade was accepted by the government on the assumption that it was cost neutral. Under a demand driven system with no overall undergraduate cap there is no guarantee that any public money will be saved as other institutions can expand their undergraduate enrolments in response to constraint elsewhere. Cap and trade worked only within a fixed overall allocation of places.

Cap and trade also fails to deal with the major problems in the current postgraduate coursework system. In practice, it involves a high level of bureaucratic discretion in whether a cap-and-trade deal is done. It creates, rather than solves, problems of uneven competition in local markets and price discrimination between students.

Policy option 4 is not recommended.

Policy option 5 – A tidied up version of the current system

A final policy option would be to tidy up the current system. The aim would be to set clearer rules and remove anomalies, but without the Commonwealth relinquishing central control of postgraduate CSP numbers.

General principles for postgraduate CSPs would be established, along the lines of those set out in policy option 2. As with that option, the Commonwealth should set rules that would give universities a high degree of predictability as to whether or not, in principle, their application will be successful. In deciding how many places to offer to which universities, the Commonwealth would consider employment trends for graduates and effects on the local market. In situations where CSPs would give a university an advantage over one of its competitors, the request should be refused or CSPs also offered to the other university.

Based on the principles and rules established, the government would phase out postgraduate CSPs that do not meet the criteria. It would also consider allocating new places to institutions disadvantaged by historical patterns of allocation. However, the flexibility of enrolling both full-fee and CSP students should be retained, to guard against the Commonwealth not allocating sufficient places to courses.

This policy would move us closer to a rule-based system with benefits in clarity, fairness and competitive neutrality. It would allow the Commonwealth to control its expenditure on postgraduate CSPs.

The biggest policy issue would be how to treat the University of Melbourne and the University of Western Australia. As noted earlier, the review panel believes that the government's commitments to these universities should be honoured within a negotiated funding agreement framework.

Policy option 5 would improve on the status quo, but produce fewer benefits than policy option 2.

Recommendation: Caps on Commonwealth supported places should be removed from postgraduate courses with a combination of clear community benefit and modest financial rewards. Other postgraduate courses should be offered on an entirely full-fee basis.

9.3. Exclusion of medicine

In recommending the demand driven system, the Bradley report stated that the government could exclude a course if it wanted to control student or graduate numbers. Medicine is the only course specifically mentioned in the higher education funding legislation as outside the demand driven system. However, the legislation gives the minister power to exclude other courses.⁹⁴ This has been used to exclude sub-bachelor courses generally, but no field of education other than medicine has so far been excluded from the demand driven system.

The exclusion of medicine was not a major issue in submissions. While not opposing the capping of medical places, a submission from Macquarie University noted the lack of a transparent process for establishing new medical schools.

The decision to exclude medicine was taken in consultation with the Health portfolio. Through the old system of allocated places there had already been rapid growth in medical student numbers in the years leading up to the demand driven system being announced. Following the establishment of several new medical schools the number of commencing medical students doubled between 2003 and 2009 to around 3,000.⁹⁵

Several reasons were given for capping medical student places. As in other health courses, rapid increases in student numbers had created a shortage of clinical training places for medical students. Medical training is very expensive, with Commonwealth contributions alone for a six year medical degree exceeding \$120,000. A further factor was a long-standing concern that too many doctors would result in additional unnecessary costs through Medicare and the Pharmaceutical Benefits Scheme.

These are all significant considerations. However, medicine is also the leading case study in the limits of central labour force planning through controlling university places. Medical workforce reports in the mid-1990s stated that there was and would continue to be an over-supply of doctors, although with shortages in regional areas and some specialities.⁹⁶ This was one reason why the number of commencing medical students was reduced from around 1,400 a year in the early 1990s to 1,200 a year in 1997.⁹⁷

By the late 1990s it became clear that this cutback was a mistake. Fortunately, Australia was able to recruit large numbers of doctors from overseas. Among general practitioners, the proportion trained overseas went from 30 per cent in 2005–06 to 37 per cent in 2011–12.⁹⁸ Without Australia's flexible skilled migration system, the mid-1990s decisions on medical student numbers would have caused a serious shortage of doctors.

94 *Higher Education Support Act 2003*, section 30-12. A decision to exclude courses other than medicine could be disallowed by either the House of Representatives or the Senate. The government is also using Commonwealth Grant Scheme funding agreements to control the number of full-fee postgraduate places in medicine, where a university is offering an initial professional entry medical course at the postgraduate level.

95 HWA (2013), p. 13

96 AMWAC (1996), Duckett and Willcox (2011), p. 87-88

97 AMWAC (1997), p. 15

98 HWA (2013), p. 14

Reductions in medical student numbers would almost certainly not have occurred if there had been a demand driven higher education funding system in place in the mid-1990s. Universities want to offer medicine, as seen in the new medical schools established since the 1990s and in the other universities, including Macquarie, that still want one. Demand for medical courses always significantly exceeds supply (chapter 5). While there are supply constraints for the clinical training part of medical education, this can also be seen as a check on over-expansion.

Given the complexity of the policy considerations around the health workforce and the health budget, and the short timeframe for this review, we decided against recommending inclusion of medicine in the demand driven system. There is detailed annual reporting on the number of people in medical training, which should assist in alerting policymakers to potential problems in workforce supply.⁹⁹

99 DOHA (2013)

10. SETTING FUNDING RATES FOR STUDENT PLACES

In submissions to this review, the issue of student contribution rates per place produced both anxiety and hope. Some submissions were adamantly opposed to any increase while others argued for modified maximum student contributions. The Australian Technology Network universities indicated support for a 10 per cent increase in student contributions, and the Innovative Research Universities group suggested a single maximum student contribution that would lead to increases in most disciplines. The Group of Eight proposed a system in which universities could forgo public funding in some disciplines in exchange for the freedom to set their own fees. Recognising that many of its members no longer support the status quo on student contributions, Universities Australia is planning a discussion paper on funding that will consider the issues involved.

The interest of major groups of providers in breaking through current restrictions on the level of student contributions reflects several factors, including the impact of the demand driven system. There are new pressures to compete on the quality of teaching and the student experience, in ways that are not always achievable on current funding rates associated with Commonwealth supported places (CSPs). Although the demand driven system has brought additional resources into higher education, the system also imposes a ceiling on these resources. Attempts by government to offset its costs by seeking savings on CSPs and other aspects of the system have created uncertainty. It is evident that institutions are keen to find ways to reduce this uncertainty and gain autonomous control over the resources available to facilitate planning for further innovation.

In principle, the review panel supports a less regulated system for setting student charges. The current system of fixed Commonwealth contributions and capped student contributions was not designed for the current regulatory or market circumstances. It pre-dates both the Higher Education Standards Framework enforced by the Tertiary Education Quality and Standards Agency, which has implications for costs, and the demand driven system, which introduces competition for Commonwealth supported students.

Except in the case of full-fee places, the higher education system currently only has indexation as a way of adapting to cost increases. This can deal with routine inflation, but not higher costs flowing from increased regulatory obligations, or increases in educational delivery expenses such as new technology, teaching methods or cost transfers to higher education providers, as has occurred in some disciplines with clinical training components. Although this weakness has not yet led to an under-supply of student places, as explained in section 10.1 below it creates that risk.

The current CSP system (which prescribes a maximum student contribution) assumes that a standard amount should be spent per student each year. The demand for full-fee education in partly or fully deregulated markets shows that some students are willing to pay significantly more than current student contributions for an education that better suits their needs. Starting with Bond University in the 1980s, many private higher education providers have found a niche in the Australian higher education market offering smaller classes and more personalised attention. It is not clear why public policy should confine that opportunity to people willing to forgo a Commonwealth contribution and study outside the public university system.

In the context of the 'fiscal sustainability' term of reference, one important consideration in any decision to grant greater fee flexibility is the Budget cost of this flexibility. A higher maximum or deregulated student contribution to increase spending per student is not a Budget neutral reform. Students would borrow to pay their student contributions through the Higher Education Loan Program (HELP), which has substantial costs in debt not expected to be repaid and interest subsidies. On current estimates, nearly 20 per cent of new loans are classed as doubtful and expensed annually in the Budget. To finance HELP, the government is borrowing money on the bond markets and re-lending at a lower rate based on the consumer price index. To achieve budget neutrality, measures to control these costs would be a necessary complement to more flexible student contributions.

It is sometimes said that price competition will not be the result even if student contributions are deregulated.¹⁰⁰ This argument is based partly on HELP reducing price sensitivity, and partly on the experience in Australia when all universities, and in England when most universities, went to the new maximum student charge after partial deregulation.

100 Ross (2013)

Experience shows the consequences of deregulating student charges while constraining the supply of places below demand. That happened in Australia when universities were allowed to set student contributions up to a cap in 2005, and to a lesser extent in England when maximum fees were increased in 2012. Due to caps on student places, universities knew that they could take student contributions to their legal maximum with low risk of leaving allocated student places empty.

If it were decided to permit providers greater flexibility in relation to student contributions, in principle, this should be simultaneous with, or follow, the expansion of the demand driven system to achieve a more competitive environment. This would help to ensure that there will be variation in the pricing of courses.

As in any other competitive market, we would expect price to be a factor in student choices. This prediction is supported by the experience of FEE-HELP supported full-fee markets in non-university higher education providers (NUHEPS) and postgraduate coursework. Fees vary considerably, including for courses with the same or similar titles. Higher education providers are targeting potential students with different educational needs and varying willingness to pay.

Even within current price caps, small-scale signs of competition in the Commonwealth supported market have emerged since the demand driven system was introduced. The Northern Melbourne Institute of TAFE (NMIT) is offering its first Commonwealth supported course at a 5 per cent discount on the maximum student contribution amount. If more TAFEs and other NUHEPS enter the CSP market, their missions (in the case of TAFEs and other not-for-profits) and market pressures should bring an increased number of reasonably-priced courses to the higher education market.

We are also seeing price competition on student amenities fees in online markets. The maximum annual compulsory fee a student can be charged for non-academic services in 2014 is \$281. Late in 2013, the University of New England announced that it was abolishing this charge for online students. Several other universities are charging fees for online students that are well below the maximum of \$281. This passes on lower costs to students who cannot use campus facilities, but the reason these savings are passed on is competition. Online students can choose universities from around the country, without geographic constraint. With new market entrants such as Swinburne Online and possibly more if non-university providers are admitted to the system, there is the prospect of cheaper online higher education.

Although the system needs to move towards a more flexible system of setting student charges, we did not see this issue as clearly within the terms of reference. The recommendations we make around student contributions are aimed more narrowly at ensuring the survival of the demand driven system through fiscal sustainability, and improving its operation through some additional structural changes. These recommendations do not stand in the way of the on-going evolution of the higher education system towards one which gives greater control to higher education providers and students.

10.1. Pricing student places and the demand driven system

In the former system, total CSP funding rates for specific disciplines were less important than under the demand driven system. Universities could not easily manipulate their enrolments to maximise funding, which was largely set independently of their enrolment decisions. As the Lomax-Smith review observed about the demand driven system:

It can be expected that university decisions will be strongly influenced by the extent to which discipline funding matches the costs. Over- or underfunding has the potential to create a range of inefficient incentives and disincentives.¹⁰¹

If a discipline is 'under-funded', in the sense that the amount of CSP funding received does not match the costs of providing the course, the university's long-term incentive is to reduce losses by ending teaching. This could occur even if the discipline is popular with students, contrary to the goals of the demand driven system. 'Over-funding' is less likely to distort supply, although it may suggest that Commonwealth funding or student contributions could come down.

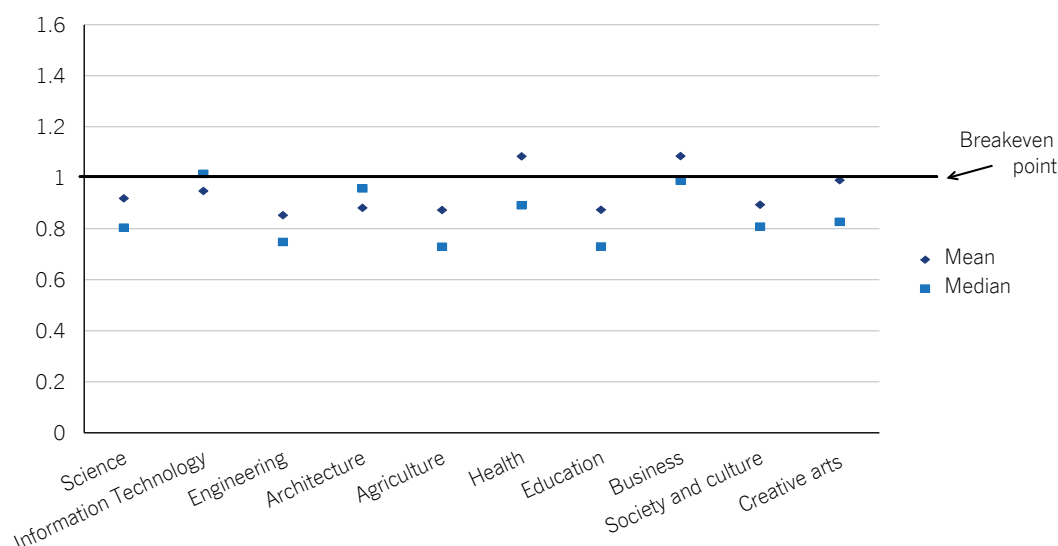
University behaviour since the demand driven system was introduced is not consistent with a widespread under-pricing problem. On the government's estimates, 100,000 new CSPs were added between 2009 and 2013. Every university increased their number of CSPs, with eight having expanded by 25 per cent or more by 2012. These are not marginal increases; they are major structural changes that could not have occurred unless university administrators believed they were economically viable. Confirming the latter judgment, 2012 university financial statements showed that most of them were in a good position.¹⁰² This was despite slightly reduced international student enrolments, which typically earn universities much more per student than domestic students.

101 Lomax-Smith, et al. (2011), p. 10

102 Department of Education (2013a)

Research commissioned by the Lomax-Smith review from Deloitte Access Economics helps explain why universities responded in this way. Its final report used cost data from eight universities. Figure 13 shows broad field of education teaching and scholarship costs relative to its funding rate, described as the 'breakeven point'. In most cases, both the mean and median teaching and scholarship costs are below the breakeven point. This explains willingness to supply additional places. The occasional means above the breakeven point indicate some universities or sub-disciplines are making losses. These are the potential problems that the Lomax-Smith review highlighted.

Figure 13: Mean and median teaching and scholarship costs, 2010



Source: Deloitte Access Economics (2011)

Note: This figure does not include research costs.

Despite the theoretical problem, enrolment trends at the narrow field of education level do not reveal conclusive evidence of funding issues triggering under-supply. Some disciplines have declining enrolments, but mostly due to falling student demand. In some cases, reduced undergraduate numbers are because universities moved initial professional entry courses to the postgraduate level.

Although the Deloitte Access Economics report found that engineering teaching costs were below the funding rate in the universities they examined, other evidence suggested that at least some supply issues could be due to under-funding issues. Submissions from the Mineral Councils of Australia and the Surveyors Board of South Australia both reported on their financial assistance to courses of particular concern to them. Given the consistent supply-side evidence for surveying at least, the review panel considers that there may be a case for increased funding per CSP.

The review panel was also persuaded that the funding of health-related disciplines requires further scrutiny. As Figure 13 shows, mean teaching and scholarship costs in the broad health discipline were above average funding rates. The Deloitte Access Economics report did not report below the broad field of education level. But in submissions to the Lomax-Smith review, veterinary science and dentistry school representatives provided detailed evidence of their funding issues.¹⁰³ The Australian Veterinary Association noted this earlier evidence in its submission to this review.

The health-related disciplines (including veterinary science) all have problems with the clinical training component of their courses. The large increases in student numbers across most health disciplines have severely strained clinical training capacity in health providers. There are issues with current health professionals lacking time for training students in addition to their usual clinical responsibilities, and space in health facilities being insufficient to accommodate additional students.¹⁰⁴ Traditional pro bono models of providing clinical training are breaking down as health services have to deal with more patients and more students. Understandably, their first priority is patient care.

103 ACODS (2011); Veterinary Deans (2011). The funding review also cited a KPMG report for one university confirming costs well above funding rates for veterinary science and medicine: Lomax-Smith, et al. (2011), p. 51

104 HWA (2011)

There is already significant policy work being carried out to increase clinical training opportunities. However, an increased maximum funding rate available for universities needs to be among the policy options. When health providers are no longer able to subsidise clinical training, education providers need to provide financial incentives for its provision.

How higher per student funding rates can be delivered in the current Budget situation is discussed below.

Recommendation: Maximum per Commonwealth supported place funding rates in engineering and health disciplines should be reviewed in the light of cost pressures.

10.2. Fiscal sustainability changes to student contributions

This report concludes that further benefits in competition, innovation, flexibility and meeting skills needs can be obtained by extending the demand driven system to higher education sub-bachelor qualifications and some currently full-fee postgraduate places. To finance this expansion and secure the demand driven system's future we need to identify ways of moderating its costs.

A re-capping of the system targeting particular institutions or types of students would be neither fair nor efficient. It would impose a disproportionate share of the costs of bringing down spending on those who subsequently miss out on a place. They would find it much more difficult to achieve their course and career plans, possibly forcing them to go to a full-fee private higher education provider. We have already noted the anomalies of diploma students paying more than bachelor-degree students (chapter 8) and low socio-economic status students making up 14 per cent of full-fee students (chapter 7).

Depending on how the recapping was done, it could also impose subtle but significant costs on the students who still do get a higher education place. A return to the old system of Commonwealth control of places would substantially reduce the flexibility of universities to adjust what they offer in light of student demand. Gains in admission to a preferred field of education and course (chapter 5) may be reversed. The subsequent lack of competition between providers would weaken incentives to improve teaching and other university services (chapter 2).

Re-imposed caps on student places at universities would leave institutions with less flexibility in responding to skills shortages (chapter 3). This could impose constraints on the economy and important service industries, especially health. Demographic changes will drive up demand for health sector employment regardless of the economic cycle.

The biggest demand driven expenditure item is the Commonwealth Grant Scheme (CGS) that finances Commonwealth contributions. It is expected to cost \$6.2 billion in 2013–2014 and \$7.2 billion by 2016–17. To protect and extend the demand driven system, and possibly to achieve additional higher education savings, the total package of Commonwealth and student contributions (which together make up the total income to universities per student) will have to be examined. Fiscal sustainability can only be determined in the context of the Commonwealth's overall fiscal position. We can however suggest principles to be followed when reducing expenditure, if this needs to occur. There are ways of limiting expenditure at minimum loss of fairness and efficiency.

Given that the significant benefits in course delivery and innovation arising from the demand driven system derive both from the greater freedom to institutions and the additional resources attracted by increased student numbers, we do not recommend measures leading to a reduction in total university income per student. While some universities can find genuine efficiencies, reduced income per student would likely lead to the postponement or cancellation of worthwhile expenditure. Some submissions noted the expense of new technology. While technological change can contribute to higher education productivity, it has initial capital and on-going operating costs. Cuts to total per student funding rates would also complicate further the economic viability of some disciplines.

A preferable change would be to balance any reduction in Commonwealth contributions with an increase in maximum student contributions by an equivalent amount, thus maintaining the total income to institutions per student place. Student contributions would continue to be borrowed under HELP, as now.

Recommendation: Caps on the number of undergraduate bachelor-level places should not be re-imposed.

Finding: The fiscal sustainability of the demand driven system, and university revenues, can be most equitably secured by adjustment of the Commonwealth per place subsidy and student contributions.

10.3. Fiscal sustainability changes to HELP

Another major cost of the demand driven system is the HELP loan scheme. Its main costs are interest subsidies and debt not expected to be repaid. As more money is lent, these costs increase. According to the Budget papers, HELP's costs will be \$1.5 billion in 2014-15, rising to \$1.75 billion in 2016-17. A major review of HELP would consider a wide range of issues. These include whether students should contribute more than inflation indexation to the cost of maintaining more than \$30 billion in HELP debt, the write-off of HELP debt when people pass away before repaying in full, the income threshold at which repayment is required, and the collection of HELP repayments from overseas. A full examination of HELP is outside the scope of this review. With a more limited fiscal sustainability goal, there is however a simple way of improving HELP's finances without a major redesign.

A loan fee could be imposed on all higher education HELP borrowing: HECS-HELP, FEE-HELP, OS-HELP and SA-HELP. There is precedent for this in the existing loan fee on undergraduate FEE-HELP courses. A loan fee works by adding a percentage to the loan being taken out. For example, the student contribution for a year of engineering is \$8,613. If the loan fee was 10 per cent, the resulting debt would be \$9,474. A loan fee offsets some of the costs of lending money to students, while still limiting total costs for those who take lengthy periods to repay. As now, the loan would be repaid based on the HELP debtor's annual income. A loan fee does not change the yearly repayment amount, but it makes the repayment period longer.

A loan fee is conceptually similar to the discount for paying student contributions up-front that is a long-standing feature of the student finance system (although legislation before the Parliament would abolish it). However, since 2005 the value of the up-front discount has been paid to the universities as compensation for a reduced student contribution, undermining its value to the Budget. As well as providing an accrual accounting additional revenue stream for the government, a loan fee would encourage students who can afford to pay up-front to do so. This would reduce the cash demands of the higher education system on government, and through reduced lending bring down interest costs and bad debt.

Some submissions called for the current 25 per cent loan fee on undergraduate FEE-HELP loans to be abolished. Given our suggestion for a more general loan fee, the review panel does not support complete abolition. However, any differences in HELP loan fees should be based on actuarial evidence that some types of loans are systematically more expensive to provide than others, such as incurring higher interest subsidies or rates of doubtful debt. As many students acquire postgraduate FEE-HELP debt without first repaying their prior HECS-HELP loans, it seems unlikely that undergraduate FEE-HELP borrowers are systematically more expensive for the government. In the absence of evidence on different costs between types of student and HELP loans, FEE-HELP borrowing for undergraduate courses should be charged the same loan fee as other courses.

Finding: A HELP loan fee could help ensure the fiscal sustainability of the demand driven system.

APPENDIX A: A BRIEF INTRODUCTION TO AUSTRALIA'S HIGHER EDUCATION SYSTEM

Australia's higher education system is made up of 37 public universities, four private universities and 131 other higher education providers able to award their own degrees. These are sometimes called 'non-university higher education providers', or NUHEPs, or 'private providers', although some NUHEPs are government owned.

The gatekeeper to Australian higher education is the Tertiary Education Quality and Standards Agency (TEQSA). Any organisation wanting to award higher education qualifications in Australia must be registered by TEQSA. It assesses higher education providers based on rules contained in the 'Higher Education Standards Framework'. Within this framework, the 'provider category standards' classify higher education providers. To be called a university a higher education provider must be active in research. There is provision for specialist universities with research in one field of study, but full universities must have research activities in at least three fields of study.

Universities have the power to 'self-accredit' their courses, to approve their own courses through academic boards or similar bodies. However, they must do so in accordance with the Higher Education Standards Framework. Among other requirements, they must adhere to the Australian Qualifications Framework, a national set of standards as to what different qualifications such as 'diploma' or 'bachelor' mean. A small number of NUHEPs can self-accredit their courses, but most have their courses approved by TEQSA.

TEQSA is a new body which commenced operations in 2012. Prior to TEQSA's establishment, regulation of higher education quality was largely a matter for state governments. Most universities still have statutes that are laws of their home state, but their licence to operate as a university and the standards they must follow are now determined by the Commonwealth. As state governments took a very light touch with universities, TEQSA is a substantial increase in regulation for universities. NUHEPs were previously regulated by state governments. However, weaknesses in state government regulation of higher education were one reason for TEQSA's creation.

There is no automatic link between TEQSA's decisions and university funding. This is partly because the regulation and funding of higher education have different histories. Although the Commonwealth has only been the principal regulator since 2012, it has been the dominant funder since 1974. Prior to 1974, both the states and the Commonwealth funded universities (including indirectly through scholarships), along with universities raising money from student fees and other private sources.

This history of funding is important to understanding current policy issues. The list of institutions eligible for public funding in 1974 has a descendant today, 'Table A' of the *Higher Education Support Act 2003*. Whether or not an institution is on Table A has significant financial implications for it and its students. These institutions have full rights to all Commonwealth Government higher education funding programs, while others have no or limited rights. The term 'public university' does not have a legal meaning, but commonly refers to 'Table A' institutions.

The main source of public funding for higher education is the Commonwealth Grant Scheme. It finances tuition subsidies that are paid to higher education providers on behalf of students. The students then become known as 'Commonwealth supported students'. The term 'Commonwealth supported place' is also used. This is funding terminology, often expressed in full-time equivalents. For example, two part-time Commonwealth supported students each taking half the normal study load for their course would occupy one Commonwealth supported place.

How much money a higher education provider receives for a Commonwealth supported place depends on its field of education. This tuition subsidy is usually called a 'Commonwealth contribution' to the total funding rate associated with a Commonwealth supported places. It varies between fields of education (see Table 22 below).

Students in Commonwealth supported places are charged a 'student contribution'. Their university or higher education provider sets the student contribution up to a maximum amount set out in legislation (see Table 22 below). Universities almost always charge the legislated maximum amount.

One key area of contention discussed in this report is who is entitled to become a Commonwealth supported student. While Australian citizens, permanent residents and New Zealanders are eligible for a Commonwealth supported place, historically this eligibility has been limited by other factors. In the past, the government funded a finite number of places, the total of which was always below demand. It also restricted which higher education providers could take Commonwealth supported students to Table A providers and a small number of other institutions.

From 2005, Commonwealth supported places were distributed by 'funding agreements' between the higher education provider and the government. The places were distributed between 'funding clusters', groups of disciplines with the same level of Commonwealth subsidy (see Table 22 below).

The rules on enrolling more than the agreed number of places varied over time. For several years, higher education providers faced a financial penalty if they enrolled Commonwealth supported students in excess of five percentage points more than their funding agreement number. This was supply constraint at its strictest.

From 2008, the government started easing enrolment constraints. In 2010 and 2011, universities could increase their total Commonwealth contribution revenue by up to 10 per cent on the original funding agreement, and keep the student contributions from all students. These changes created a phase-in to the demand driven system. Table A institutions can now enrol unlimited numbers of bachelor-degree Commonwealth supported students, except in medicine.

This freedom is, however, subject to ministerial discretion. Using funding agreements, the government can set a maximum total payment for student places by institution, so long as the maximum is not lower than the higher education provider received the previous year. The government can also determine that some types of courses are 'designated', which means that the total number for each institution is determined through funding agreements. Diploma, advanced diploma and associate degree courses are designated.

Funding agreements are also used to allocate Commonwealth supported places to postgraduate courses. How many of these places a Table A institution receives largely reflects historical factors and special deals with the government. However, in recent years there have been some broad guidelines influencing how the discretion to allocate places has been exercised.

There are Commonwealth supported places in some non-Table A institutions, which are allocated through funding agreements. These are largely based on historical deals between the institutions and the government.

Australia uses income-contingent loans to help students pay for their education under the Higher Education Loan Program (HELP). Students or graduates with incomes below a threshold, which is \$51,309 in 2013–2014, do not pay for their education. HELP debtors earning more than this pay at least four per cent of their total income until their debt is repaid.

Commonwealth supported students borrow under HECS-HELP. They are still commonly called HECS students, although that terminology (short for 'Higher Education Contribution Scheme') has not been used officially except in the name HECS-HELP since 2005.

In addition to Commonwealth supported students, Australian higher education providers enrol full-fee students. Except under very limited circumstances, Table A institutions cannot enrol full-fee domestic students in undergraduate courses. However, they can enrol unlimited numbers of international and postgraduate full-fee students. There are no restrictions on maximum fees. Other higher education providers have no restrictions on full-fee students at any level.

Students who are Australian full-fee students can usually borrow under the FEE-HELP loan scheme. Higher education providers can get access to FEE-HELP for their students based on clear and objective criteria, so most higher education providers now offer it. There is a lifetime maximum amount students can borrow under FEE-HELP but not HECS-HELP. Undergraduate FEE-HELP borrowers incur a 25 per cent loan fee, which is added to their total debt. Postgraduate FEE-HELP borrowers have no loan fee.

For higher education students, there are also two smaller loan schemes: SA-HELP, to finance a non-academic amenities fee that most universities charge, and OS-HELP, which assists with the costs of overseas study exchange programs. OS-HELP is only available to Commonwealth supported students.

As can be seen from this brief description, Australian higher education policy has not been designed from first principles. It is the accumulated result of decisions made over decades.

Table 22: Funding rates for Commonwealth supported places, 2014

Funding cluster	Discipline	Cth.	Student	Total
1	Law, accounting, administration, economics, commerce	\$1,990	\$10,085	\$12,075
2	Humanities	\$5,530	\$6,044	\$11,574
3	Mathematics, statistics, built environment, computing, other health	\$9,782	\$8,613	\$18,395
3	Behavioural sciences, social studies	\$9,782	\$6,044	\$15,826
4	Education	\$10,178	\$6,044	\$16,222
5	Clinical psychology, foreign languages, visual and performing arts	\$12,031	\$6,044	\$18,075
5	Allied health	\$12,031	\$8,613	\$20,644
6	Nursing	\$13,432	\$6,044	\$19,476
7	Engineering, science, surveying	\$17,104	\$8,613	\$25,717
8	Dentistry, medicine, veterinary medicine	\$21,707	\$10,085	\$31,792
8	Agriculture	\$21,707	\$8,613	\$30,320

Note: These rates do not include an 'efficiency dividend' which, if passed by Parliament, would reduce the Commonwealth contribution.

APPENDIX B: TERMS OF REFERENCE FOR THE REVIEW OF THE DEMAND DRIVEN FUNDING SYSTEM

Background

In 2012, the demand driven funding system was introduced for public universities. Under this system, the Government funds Commonwealth supported places for all domestic undergraduate students accepted into a bachelor-degree course (excluding medicine) at a public university.

These reforms have seen the number of Commonwealth supported places increase from around 469,000 in 2009 to an estimated 577,000 in 2013. It is critical that this expansion in Australian higher education:

- enhances the knowledge and capabilities of Australians; and
- delivers quality graduates who are able to contribute to their society and thrive in the global economy.

Scope of the review

The review will examine the following aspects of the demand driven system:

1. the effectiveness of its implementation, including policies regarding the allocation of sub-bachelor and postgraduate places;
2. early evidence on the extent to which it is:
 - a. increasing participation;
 - b. improving access for students from low socio-economic status backgrounds and rural and regional communities;
 - c. meeting the skill needs in the economy;
3. extent to which the reforms have encouraged innovation, competition, diversity and greater responsiveness to student demand including development of new modes of delivery such as online learning;
4. whether there is evidence of any potential adverse impacts on the quality of teaching and of future graduates;
5. measures being taken by universities to ensure quality teaching is maintained and enhanced in the demand driven system; and
6. whether less academically prepared students are receiving the support they need to complete the course of study to which they have been admitted.

The review will recommend possible areas for improvement to ensure that the system better meets its objectives, is efficient, is fiscally sustainable, and supports innovation and competition in education delivery.

Conduct and Timing of review

The review will seek the views of major stakeholders and draw on available information and data.

The Review will report to the Minister for Education by mid-February 2014.

APPENDIX C: SUBMISSIONS TO THE REVIEW

Note: these public submissions are listed in alphabetical order. Submissions with multiple authors are listed under the name of the first author. The submissions below are posted on the Review of the Demand Driven Funding System page of the Department of Education. The web address is www.education.gov.au/review-demand-driven-funding-system.

NAME	SUBMISSION NUMBER
Abingdon Advisory	33
Academy of Design Australia	37
Australasian Council of Deans of Arts, Social Sciences and Humanities	75
Australian Catholic University	79
Australian Chamber of Commerce and Industry	28
Australian Computer Society	41
Australian Council for Private Education and Training	22
Australian Council of Deans of ICT	8
Australian Dance Council	84
Australian Industry Group	61
Australian Technology Network of Universities	38
Australian Veterinary Association	9
Australian Workforce and Productivity Agency	13
Bond University	4
Central Queensland University	21
Charles Darwin University	70
Charles Sturt University	18
Council of Private Higher Education	82
CPA Australia and Institute of Chartered Accountants Australia	56
Curtin University of Technology	60
Deakin University	30
Dieticians Association of Australia	72
Dr Bruce Stevens	63
Dr Stephen Lake	81
Edith Cowan University	59
Emeritus Professor Donald W Watts	2
Emeritus Professor Steven Schwartz	12
Flinders University of South Australia	10
Griffith University	65
Group of Eight	48
Holmesglen Institute	29
Hume City Council	19
Innovative Research Universities	68
Isolated Children's Parents' Association	6
James Cook University	76
Kaplan Australia	74
Kenvale College	57

NAME	SUBMISSION NUMBER
La Trobe University	67
Law Society of South Australia	16
Macarthur Regional Organisation of Councils	1
Macquarie University	34
Michael Gormly	80
Minerals Council of Australia	11
Monash University	78
Murdoch University	15
National Centre for Student Equity in Higher Education	23
National Tertiary Education Union	54
National Union of Students	62
Navitas	52
Northern Melbourne Institute of TAFE	17
Open Universities Australia	46
Optometrists Association of Australia	83
Queensland University of Technology	51
Regional Universities Network	27
RMIT University	44
South Australian Minister for Employment, Higher Education and Skills	36
Southern Cross University	25
Students' Representative Council, University of Sydney	69
Study Group Australia	71
Surveyors Board of SA	42
Swinburne Online	66
Swinburne University of Technology	73
TAFE Directors Australia	53
TAFE NSW	20
The Australasian Institute of Mining and Metallurgy	39
Torrens University	7
Universities Australia	55
University of Ballarat	24
University of Melbourne	45
University of Newcastle	31
University of Queensland	26
University of South Australia	14
University of Sydney	40
University of Tasmania	49
University of Technology Sydney	43
University of the Sunshine Coast	58
University of Western Australia	77
University of Western Sydney	64
Victoria University	32
Whitehouse Institute of Design	5
Widening Tertiary Participation Queensland	47

GLOSSARY

ABS	Australian Bureau of Statistics
ACPET	Australian Council for Private Education and Training
AQF	Australian Qualifications Framework
ATAR	Australian Tertiary Admission Rank
Bradley review	A 2008 review of higher education policy chaired by Professor Denise Bradley AC
CGS	Commonwealth Grant Scheme
Commonwealth contribution	The Commonwealth Government's tuition subsidy for Commonwealth supported places
CSP	Commonwealth supported place
DEEWR	Department of Education, Employment and Workplace Relations
DIISR	Department of Innovation, Industry, Science and Research
DIISRTE	Department of Industry, Innovation, Science, Research and Tertiary Education
EFTSL	Equivalent full-time student load
FEE-HELP	HELP for full-fee students
GCA	Graduate Careers Australia
Group of Eight	A group representing Australia's most research intensive universities
HECS	Higher Education Contribution Scheme
HECS-HELP	HELP for Commonwealth supported students
HELP	Higher Education Loan Program
Higher Education Standards Framework	A set of standards enforced by TEQSA that all higher education providers must meet
IRU	Innovative Research Universities
Lomax-Smith review	A 2011 review of higher education funding policy chaired by Jane Lomax-Smith
NCVER	National Centre for Vocational Education Research
NUHEP	Non-university higher education provider
OLT	Office for Learning and Teaching
OS-HELP	HELP for overseas study
Pathway college	Institution specialising in diploma level courses aimed at facilitating entry to university courses
Postgraduate coursework	A course leading to a graduate diploma, graduate certificate, or master's degree
Provider category standards	Rules which classify different types of higher education provider
Public university	Commonly refers to universities listed in Table A of the <i>Higher Education Support Act 2003</i>
RUN	Regional Universities Network
SA-HELP	HELP for the student amenities fee
SES	Socio-economic status
Society & culture	An ABS category that includes humanities, social sciences and law
Student contribution	The amount paid by a student in a Commonwealth supported place
Sub-bachelor course	A diploma, advanced diploma or associate degree course
TAFE	Technical and further education
TEQSA	Tertiary Education Quality and Standards Agency
Universities Australia	A group representing Australia's 37 public universities and two major private universities

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