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Tracking demand : an early audit of Australia's new student demand driven system

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Introduction

In 2012, Australian universities entered a new era of student selection and enrolment. Australia’s universities are now able to enrol as many students as they choose (or to be more precise, as choose them) under a funding system driven by student demand. This *Joining the Dots Research Briefing* explores the changes that have occurred in the system over the few years since this funding arrangement was announced. This involves an early audit of the figures for 2012 in relation to those of the past six years, followed by some discussion of the consequences of student demand driven funding for the higher education system.

Key findings highlighted in this briefing are:

- Demand for university in Australia rose 2.1 per cent for 2012 enrolments and has increased 9.7 per cent since 2009.
- Among the states, Queensland and Victoria have experienced the largest growth in demand for university places over the past few years.
- University offers have surged in Australia following the announcement of student demand driven funding for the sector. In 2012, university offers increased 5.3 per cent nationally. This increase comes on top of notable rises of 3.5 per cent in 2011 and 6.4 per cent in 2010. This sudden growth directly parallels government policy announcements on student demand driven funding.
- Since 2009 the annual number of offers by universities has increased by 15.9 per cent, from about 200,000 in 2009 to more than 230,000 in 2012.
- The largest growth in supply of university places has occurred in Victoria, with a 22 per cent increase in offers since 2009. Queensland follows this with an 18 per cent rise over this period.

Tracking demand

An early audit of Australia’s new student demand driven system
• With supply growing faster than demand, the rate of offers to applicants has increased. In 2009, 83.7 per cent of applicants received a university offer. By 2012 this success rate had risen to 87.2 per cent.
• Growth in the system of this magnitude was not foreseen by the Bradley Review of Higher Education or the Australian Government prior to the policy announcement.

Background

Identifying unmet student demand for higher education and ensuring that capable and willing potential students are not left out is an issue that has been analysed and debated for several years (Birrell, Edwards, & Dobson, 2007; Birrell, Edwards, Dobson, & Smith, 2005; DEEWR, 2011; Department of Education Employment and Workplace Relations, 2008). The answers to how many worthy applicants each year missed out due to lack of places being funded, or how unmet demand should be measured were never fully resolved because the announcement of the introduction of a student-led funding model in 2012 ended the debates and turned attention away from government quotas and onto the capacity of universities to absorb students.

The student demand driven funding policy was a major recommendation of the Review of Australian Higher Education, chaired by Denise Bradley and conducted throughout 2008 (Bradley, Noonan, Nugent, & Scales, 2008). More broadly, the Bradley Review helped to set a number of ambitions for higher education in Australia and provided a range of policy ideas for achieving them.

In reference to demand driven funding, the report of the Bradley Review recommended:

That the Australian Government introduce a demand-driven entitlement system for domestic higher education students, in which recognised providers are free to enrol as many eligible students as they wish in eligible higher education courses and receive corresponding government subsidies for those students.

(Recommendation 29 Bradley, et al., 2008, p. 158)

The review panel suggested that this should apply initially to undergraduate, but be extended to postgraduate coursework degrees; initially be set for public universities only, but eventually extended to other providers; and that provision be allowed for government to exclude a course of study from the system if it saw a need for closer regulation of student numbers.

In a broad sense, the Australian Government accepted the vision developed in the Bradley Review. It introduced a range of policies from early 2009, outlined in a document titled Transforming Australia’s Higher Education System (Australian Government, 2009). A number of the policies stemming from the
review were announced by the then Minister for Education, Julia Gillard in March of 2009 (Gillard, 2009), further detail and costing of these were contained in the Federal Budget of that year.

In the government’s policy response were some important participation targets, in particular:

- By 2025, 40 per cent of all 25 to 34 year olds will hold a qualification at bachelor level or above.
- By 2020, 20 per cent of higher education enrolments at undergraduate level will be of people from a low-socio-economic-status background.

The Federal Government ambitious targets set the foundation for other policies designed to broaden and improve higher education in Australia.

In terms of student demand driven funding, the government amended the Bradley recommendation by removing the idea of uncapped postgraduate places and restricting the system to Australia’s public universities. The Transforming Australia’s Higher Education System policy document stated:

> From 2012, Australian public universities … will be funded for student places on the basis of student demand. The government will fund a Commonwealth supported place for all undergraduate domestic students accepted into an eligible, accredited higher education course at a recognised public higher education provider. (Australian Government, 2009, p. 17)

In the context of the key targets for higher education and the introduction of demand driven funding, other policies were also announced intended to support the sector, better monitor quality and improve Australian universities. These included the introduction of a Tertiary Education Quality and Standards Agency (TEQSA), structural adjustment funding, new indexation arrangements, increases to the Education Investment Fund and changes to income support for students from low-socio-economic-status backgrounds. While the individual merit and effectiveness of each of these policies is open to debate, the point here is to illustrate that there were a range of policy responses from the Federal Government in response to the Bradley Review.

The rationales for the introduction of a student demand driven funding system for universities as posited in the Bradley Review’s report include offering greater opportunities and choice to potential students and offering greater flexibility to institutions (e.g. allowing for adaptation during cyclical changes). Bradley also argued that a demand driven system would ‘allow funding to shift between institutions in response to student demand and to create a system in which each institution’s funding is determined dynamically by the quality of its performance rather than by an historically-based system of centrally-planned student load allocations’ (Bradley, et al., 2008, p. 156).

The Australian Government’s main justification for the student-centred funding system was described in the Transforming Australia’s Higher Education System policy document as: ‘an approach that moves from Government dictating and rationing the supply of university places to a position where our task is to meet and fund the needs of Australian students and the broader community’ (Australian Government, 2009). According to then Education Minister, Julia Gillard, the importance of this funding system to the overall policy impetus for Australian higher education: ‘Funding that meets the demands made by students, coupled with exacting targets, rigorous quality assurance, full transparency and an emphasis on equity, is the only way Australia can meet the knowledge and skills challenges confronting us’ (Gillard, 2009). Similarly, the Bradley Review panel noted that student demand driven funding was ‘necessary if Australia is to achieve better attainment of higher education qualifications’ (Bradley, et al., 2008, p. 155).
The response to demand driven funding

Overall, the response from universities in Australia to the introduction of student demand driven funding has been substantial. The change in the number of university places being made available throughout Australia is documented below. The response from potential students (as monitored through applications for university), while less substantial than institutions, has also been positive. Analyses of applications and offers are provided in this section.

Data relating to university applications through tertiary application centres (TACs) and university offers for study over the past few years have been collected for this briefing. Data have been obtained though TAC websites, directly from TACs and from publicly available data from by the Department of Innovation, Industry, Science, Research and Tertiary Education (DIISRTE). Data have been compiled and analysed for all states and territories except Tasmania, which was not able to provide data in time for publication. Comparisons with collections from previous years and cross-checking of figures against other public data have been carried out to ensure validity of the data and confirmation of the trends identified in the analyses.

Demand: applications for university

As discussed previously in the Joining the Dots series (Edwards, 2011b), many Australian vice-chancellors have taken a ‘front foot’ approach to building their institutions for a demand driven system. However, as its name suggests, this funding approach is designed to be student driven. Analysis of applications for university in the years since the announcement of a student demand driven system potentially provides some insight into the response of the public to the increased aspiration of the Australian Government towards educational attainment. However, a causal link between the announcement of this new funding arrangement and applications for universities is difficult to conclude, since changes in student demand are more likely to be influenced by more practical factors such as the availability of work.

The trends in university applications over the past decade are displayed in Figure 1. Overall between 2009 and 2012 the number of university applicants has risen 9.7 per cent. The numbers in the figure show annual fluctuation in applications for university over this time at the national level. The estimates show a 2.1 per cent increase in the number of applicants for university in 2012. The past four years have recorded growth in university applications, with large gains in 2009 and 2010. Prior to this there was a five year period of negative or zero growth in application numbers. The sudden rise in 2009 of 5.2 per cent cannot be attributed to any policy announcements relating to higher education, because the Bradley Review (end of 2008) and the Government’s response (in 2009) were released well after applications for that year had closed. It is more plausible that the notable rises in university applications in 2009 were a direct consequence of a downturn in immediate job opportunities as a result of the global financial crisis than of any specific reaction to the announcement of new government policies for higher education.

The last two years, 2011 and 2012 saw continued growth in addition to the large increases in 2009 and 2010, and arguably after the worst of the global financial crisis. This perhaps suggests some positive influence of the demand driven policies on applications for university, although this continued growth is probably as much a result of universities increasing their presence in the hope of attracting new and larger student cohorts as it is a result of a public response to the introduction of a demand driven system.

Figure 2 shows that the change in the number of applicants to university in 2012 differed notably between the states. While the nation-wide numbers of applicant were up 2.1 per cent this year, Western Australia experienced a decline in university applicants (down 6.1 per cent). Victoria and Queensland experienced the largest growth in interest for university courses in the first year of the demand driven system.

The changes in the absolute number of applicants by state are further explored in Figure 3, which charts the number of applicants for university over the past four years. Since 2009 every state recorded here has experienced an increase in the number of applicants for university study. Over this period of time, the number of applicants for Queensland universities has increased more than 17 per cent, from about 55,300 for 2009 entry to more than 65,000 for 2012. Victoria has experienced a 9.2 per cent increase in applications over this period. Even Western Australia, which experienced a downturn in the past two years, has recorded an overall growth of 3.3 per cent in applicant numbers for university since 2009.
Figure 1: Annual change in the number of university applicants 2003 to 2012 (%)

Note: 2003 to 2011 data based on changes in number of DEEWR-defined ‘eligible’ applicants. 2012 calculation data based on comparison of all applicants for both 2011 and 2012.

Source: DEEWR Undergraduate Applications and Offers (2011) and data compiled by ACER

Figure 2: Annual change in the number of university applicants between 2011 and 2012, by state (%)

Note: Data for Tasmania not available

Source: Data compiled by ACER from TACs and DIISRTE

Figure 3: Number of university applicants by state, 2009 to 2012

Source: Data compiled by ACER from TACs and DIISRTE
Supply: number of offers by universities

The most interesting story in the advent of the student demand driven system is told from the perspective of changes in the number of university places being made available by institutions following the policy announcement.

As charted previously in the JTD Research Briefings series, the reaction from many universities to the government’s policy announcement in 2009 was to begin expansion immediately in preparation for the funding system being introduced in 2012 (Edwards, 2011b). In the first two years following the government announcement of demand driven funding, at least 17 universities in Australia had enrolled more students than their government-funded quota supported (even after funding was lifted to a threshold of 10 per cent above the quota). These institutions were absorbing the cost of early expansion to prepare for the competition that was expected to begin in 2012 when all quotas were removed. The institutions knew that the pain in lack of funding for their over-enrolments would only be short-term because from 2012 the government would be paying for all students, even those who had already (over) enrolled prior to the lifting of the quotas.

Using data compiled for this research, it is possible to now more accurately chart the recent changes in the system. Changes in national supply over the past seven years are documented here.

The national picture shows a notable reaction from institutions in the three years following the announcement of the introduction of student demand driven funding and the removal of enrolment quotas for universities. As detailed in Figure 4, consistent and noteworthy growth in the sector has been occurring over the past three years. At the first opportunity to begin the expansion (despite having to absorb the short-term cost of over-enrolments), there were 6.4 per cent more offers made across Australia (2010), in the second year the figure was 3.5 per cent growth (2011), and in the year when full funding for students was introduced and the caps were removed, there were an additional 5.3 per cent of university offers made. This cumulative growth is substantial and has led to an increase in the number of offers from about 200 000 in 2009 to more than 230 000 in 2012 – a 15.9 per cent increase.

The annual change in number of offers for university places for the years post-2010 are included in Figure 4 to provide some perspective on the sudden and consistent growth in the past three years. Between 2006 and 2009, annual change in university offers followed no apparent pattern, and none of the years in which growth occurred during this time had an annual growth rate higher than the figures achieved between 2010 and 2012.

To provide a perspective on the national overview, Figure 5 shows the number of university offers made by state from 2009 to 2012. In the larger states, there is a clear growth trend, with continuous increases in the number of offers being made each year. Institutions in Victoria and NSW-ACT have bolstered yearly offerings by nearly 10 000. In Queensland, the number of offers made in 2012 is about 8500 more than in 2009.

In terms of growth proportionate to population size, Figure 6 provides state-by-state insight into the change in university offers between 2009 and 2012. Victoria leads the way in the expansion with a 22 per cent increase in the number of offers being made since 2009. Queensland’s 18 per cent growth is not far behind, NSW-ACT and SA-NT have recorded growth of 13 per cent and WA institutions expanded offerings by 8 per cent over the 2009 to 2012 period.

Offer to applicant rates

The rate at which university offers are growing (15.9 per cent between 2009 and 2012) has been notably larger than the rate in which applications for university have grown over the same period (9.7 per cent). The obvious conclusion from this is that over the past three years it has become easier to gain access to Australian universities. This conclusion is quantified in the figures below.

An indicative measure of success rates for applicants has been applied in this analysis. This analysis is based on a ratio calculation of the number of university offers made versus the number of applicants to universities. This figure is indicative because in some cases multiple university offers are made to individual applicants, thus artificially increasing the ratio of offers to applicants. This indicative calculation shows that in 2012 the rate of offers to applicants was 87.2 per cent. While this does not imply that every successful applicant gained entry to the course that they had listed as their first preference, when examined over a number of years, it does help to quantify the rate at access higher education has changed. Calculated on a yearly basis from 2009, Figure 7 shows that the ratio of university offers to applicants increased during the period of expansion in the lead-up to the 2012 introduction
Figure 4: Offers for university study, annual percentage growth, 2006 to 2012 and number of offers, 2009 to 2012
Note: Data for Tasmania not available
Source: Data compiled by ACER from TACs and DIISRTE

Figure 5: Number of university offers made, by state 2009 to 2012
Source: Data compiled by ACER from TACs and DIISRTE

Figure 6: Change in number of offers made by universities between 2009 and 2012, by state (%)
Source: Data compiled by ACER from TACs and DIISRTE
of demand driven funding. In 2009, 83.7 per cent of applicants received a university offer. This rate fell marginally in 2010, but has risen steadily in the past two years.

The likelihood of gaining an offer to university has increased between 2009 and 2012 across all states included in this analysis. However, there are some interesting differences between states in terms of these success rates for applicants. In 2012, the indicative ratio of offers to applicants was 92.2 per cent for NSW-ACT, WA was 87.8 per cent, followed by Queensland (87 per cent), Victoria (84.3 per cent) and SA-NT (78.4 per cent).

Over time, the greatest gains in terms of access to university places for applicants have been experienced in Victoria, which recorded an 8.6 percentage point increase in the indicative offer to applicant rate between 2009 and 2012 (from 75.7 per cent to 84.3 per cent).
to 84.3 per cent). As shown in Figure 8, the most significant impact on this rate for Victoria occurred between 2010 and 2011 rather than in 2012.

Changes in the indicative rate of offers to applicants between 2009 and 2012 varied least in Queensland, where the rate is only marginally higher in 2012 compared with 2009. This is largely due to parallel growth in both applications and offers in this state over this period. In WA and SA-NT, increases in this rate only spiked in 2012, directly in line with the introduction of demand driven funding, perhaps suggesting that in these states universities have been less aggressive in their ‘gearing up’ for demand driven funding, or perhaps a reflection of the economic climates and job availability in these states — this certainly holds true for WA.
Discussion

This JTD Research Briefing has charted the growth in demand for and supply of university places over the past four years, with a focus on the relationship between these changes and policy announcements on university funding. The data are new and the reactions to student demand driven funding still too immature. However, this analysis serves as an early audit of where the Australian higher education sector is placed at the introduction of the new funding arrangements. The discussion below outlines some key issues that arise from this audit.

Underestimation of growth

The first noticeable outcome in the figures presented here is that the immediate growth in the sector appears to have occurred at a greater pace than was anticipated by the panel of the Bradley Review or by the Australian Government.

The Bradley Review drew on evidence in 2007 and 2008 of a limited response by institutions to the slight increase in over enrolment caps (where universities were allowed to enrol 5 per cent over their government quota). This evidence suggested that removing quotas altogether would not have a major immediate impact on the sector because of what the panel perceived a ‘general low level of unmet demand for higher education places in the sector’ (Bradley, et al., 2008, p. 156).

The Australian Government’s budget estimates papers on higher education funding and student load over the past few years also contain substantial revisions of forward estimates on student numbers, revealing the extent to which the impact of the student demand driven funding policy was underestimated. At the announcement of the new funding arrangements in 2009 the budget forward estimates predicted 458 000 domestic Commonwealth supported places (equivalent full-time student load). In the 2011 budget this estimate had been revised up to 507 000 – over 50 000 more places than initially anticipated, or an 11 per cent increase in the period of three budgets (Edwards, 2011a).

The implications for the Federal Government regarding funding of university places are important, especially in the context of promises relating to eradicating budget deficits. The response of the government to the Higher Education Base Funding Review and the modelling of student numbers now that the system of uncapped funding for places has begun will be extremely important in this regard.

Impact on attainment

The growth recorded in this research briefing provides solid evidence of an expansion phase in the higher education sector. It is therefore appropriate to consider whether it is likely that Australia will meet the attainment target of 40 per cent of 25 to 34 year olds with a bachelor level qualification or above by 2025. Previous analyses have shown (Birrell, Rapson, & Smith, 2010; Edwards, 2011a), achieving these targets will require consistent increases in student enrolments over a number of years. So while these figures suggest that Australia is currently on track to achieve these targets, Australia’s likelihood of achieving the attainment target depends on its questionable ability to continue to expand for a number of years yet to come.

Another major question in relation to the expanding commencement numbers is whether these students are retained in the system at a rate that results in a subsequent large expansion in university completions (and thus a contribution to the attainment target). Monitoring retention during this period of growth in order to ensure that the influx of new students to the system has the support and the ability to graduate is a fundamental issue for Australian higher education.

Student-driven or university-led?

The evidence presented in this research briefing suggests that so far the new student demand driven system is controlled by universities rather than driven by students. It can be argued that at this very early stage in the policy, while universities are adjusting to the new policy environment and establishing student load plans, that this outcome is inevitable.

However, at some point in the near future, it is expected that the power will turn to the ‘consumers’. What the consequences for individual universities will be at this point is likely to depend heavily on what other institutions in their market are doing and their relative strengths. It appears from this early analysis that the full consequences of the open market for universities are yet to manifest themselves.

With current lobbying by Universities Australia for the deregulation of student fees (Craven & Davis, 2012),
the extent to which the system will be student-led or university-led or neither remains of great interest.

Quality versus quantity

The recent expansion of the higher education sector has also raised the question of compromising quality. This was a question addressed in the Bradley Report which recommended that the quality assurance structures needed to be reformed if quality were to be assessed rigorously under an open enrolment model. While this question is a large one and the structures are too new to be assessed sufficiently in this paper, it is worth noting that ATARs for entry on average are declining. This is inevitable in a system that is expanding while mostly selecting applicants based on their relative ranking on completion of high school. As the entrant population expands, the average ATAR necessarily declines. While there are major variations in this average ATAR by institution and by course, this necessary fact is often overlooked in broad analyses. The main issue relating to ATAR ranking points is identifying the extent to which a decline in scores is likely to compromise quality – or more importantly whether it is possible to identify a “cut-off” or range at which such a judgement can be made.

Use of additional metrics for assessing candidate aptitude for higher education could be a useful tool for institutions in the future as competition grows and the need to make judgements about the capacity of candidates to succeed in university becomes increasingly important. A DEEWR study undertaken between 2007 and 2010 by ACER involved six universities piloting an undergraduate aptitude test known as UniTest. The report of these results highlight the usefulness of a supplementary metric when selecting students for higher education (Coates, Edwards, & Friedman, 2010).
Conclusion

Policy-relevant research into the issues discussed above is imperative to establish the value of a student demand driven funding system in Australia. The emerging debate relating to the deregulation of student fees will no doubt increase the need for solid evidence about how the system is tracking.

This JTD Research Briefing has provided an indication of how the Australian higher education system has adapted to the new student demand driven funding environment. It shows early signs of growth and at the national level some overall success in the policy to date. Growth becomes more complex when examined at the state level. Once more complete data on individual institutions becomes available and is analysed, it is likely that some cracks in the system may become.
References


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