University funding is complex. It covers a range of different activities, sometimes in not entirely transparent ways. Policies and programs change over time. Inflation and movements in enrolments complicate the picture further. For all of these reasons, it is easy to make claims about funding over time that are only partly right. This paper looks at aggregate university funding, and funding for different university activities over time, adjusting for inflation and changes in student and staff numbers in order to develop a more informed and nuanced picture of trends.

**Budgeted university funding**

The Government has committed very large sums of money towards universities. A 2012-13 Budget press release claims a multi-billion dollar increase in aggregate funding over the life of the Government. ‘Total expenditure’ on universities is said to have risen from $8 billion in 2007 to nearly $12 billion in 2010, with further growth to $14 billion predicted by 2013. Commonwealth Grant Scheme (CGS) funding has risen from $3.5 billion in 2007 to $4.8 billion in 2010, with a further budgeted increase to $6.8 billion by 2015.¹

However, these figures are in nominal dollars: they do not allow for inflation. Furthermore, aggregate figures of this kind make no allowance for the increasing size of the job that universities have to do. Aggregate CGS figures do not explicitly take account of levels of funding per student. Overall funding aggregates may be growing, but so are universities’ budgets for staffing, infrastructure and other essentials.

According to DIISRTE Higher Education Finance Statistics, deflated using the non-farm GDP implicit price deflator, total Australian Government grants to universities increased in real terms from $6.7 billion to $9.4 billion between 2004 and 2011 (Table 1). Different elements of Government funding show quite different trends. CGS funding grew from $3.9 billion to $5 billion, or 26.8%. This was only very slightly faster than growth in student numbers (25.5%). As a result, real funding per student grew only marginally, from $9550 to $9640 (Table 2).

| Table 1. Commonwealth Government grants to universities, 2004, 2007, and 2011, $’000 real |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| Australian Government Grants  | 6,732,243       | 8,264,144       | 22.8%           | 9,420,708       | 14.0%           |
| Commonwealth Grants Scheme and Other Grants | 3,948,398       | 4,857,125       | 23.0%           | 5,005,800       | 3.1%            |
| Scholarships  | 159,148         | 244,643         | 53.7%           | 272,822         | 11.5%           |
| DIISRTE Research Grants  | 1,296,021       | 1,294,032       | -0.2%           | 1,239,253       | -4.2%           |
| Education Investment Fund and One-off Capital Grants | –              | –               | –               | 545,345         |
| Australian Research Council  | 522,662         | 612,303         | 17.2%           | 663,662         | 8.4%            |
| Other Australian Government Financial Assistance  | 806,013         | 1,256,041       | 55.8%           | 1,693,826       | 34.9%           |
| HEC$-HELP – Australian Government Payments  | 2,032,453       | 2,304,028       | 13.4%           | 2,485,341       | 7.9%            |
| FEE$-HELP – Australian Government Payments  | 294,638         | 426,264         | 44.7%           | 492,162         | 15.5%           |


Competitive grant funding for research grew from $523 million to $664 million, or 27%. Over the same period, the number of research-active academic staff grew somewhat more slowly (19.5%). Competitive grant funding per research academic therefore grew from $14,800 to $15,700.

Research block grants, on the other hand, declined slightly over the period 2004 to 2011, falling from $1.3 billion to $1.2 billion (a drop of 4.4%). As a per capita amount per research-active academic, block grants fell from $36,700 to $29,300 (Table 2).

<table>
<thead>
<tr>
<th>Table 2. CGS and research funding per capita, 2004 and 2011</th>
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<tr>
<td><strong>2004</strong></td>
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<tr>
<td>Commonwealth Grants Scheme and Other Grants</td>
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<td>DIISRTE Research Grants</td>
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<td>Australian Research Council</td>
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Capital funding increased significantly, though this is not immediately apparent from the DIISRTE Finance Statistics. In 2011, the Education Investment Fund (EIF) delivered $545 million in infrastructure funding to universities. EIF was not in operation in 2004, but Commonwealth funding through the capital roll-in to operating grants, the Capital Development Program (CDP) and funding for teaching hospitals added up to more than $420 million in 2011 dollars. Even so, capital funding through EIF in 2011 was nearly 30% higher.

Growth in funding over the life of the present Government is more modest than growth over the period 2004-07. CGS (and other grants) funding grew only 3% between 2007 and 2011 (despite strong enrolment growth), compared to 23% in the earlier period. As a result, per student funding was slightly higher in 2011 than it had been in 2004, but was nearly 15% lower than in 2007.

Similarly, research block grants fell 4.2% between 2007 and 2011, following a decline of only 0.2% in the earlier period. As an amount per researcher, though, the decline was fairly similar in both periods.

Competitive grant research funding through the ARC grew by 8.4% between 2007 and 2011, which was less than half the growth rate observed in the earlier period. Growth in competitive grants per research active academic likewise fell from 6.5% to 3%.

Total Commonwealth grants grew by 14% between 2007 and 2011, down somewhat on the rate of increase from 2004 to 2007 (23%).

**CGS funding**

Growth in CGS funding has been driven mainly by growth in enrolments. Over time, the balance of Commonwealth and student contributions to total resourcing per Commonwealth supported place (CSP) has changed, but total resourcing in 2010 was not much different from 1996 levels. Increases under the present Government are less than those under *Backing Australia’s Ability* in 2005, which took total resourcing to slightly above levels observed in the 1990s (Figure 1). The latest published data for CGS funding (as opposed to ‘CGS and other grants’ in the Finance publication) are still for 2010.

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2 Note that these figures include only ARC funding, and exclude funding disbursed through the NH&MRC.
Recent changes

Historical analysis is, in a sense, always out of date, as it relies on lagged publication of data. Taking projected CSP load and CGS funding from Budget estimates, and assuming no change in rates of HECS-HELP borrowing, suggests that there are fairly big increases (in inflation-adjusted terms) in per student funding in 2012, but that funding falls slightly in 2013. This is due to the big, one-off impact of the new, more generous indexation rate in 2012. From 2013, funding per EFTSL is back at around 2010 levels in real terms (Figure 2).

Figure 2. Real CGS funding per EFTSL, 2010 (actual) and 2011-15 (projected)

Source: Ministerial Budget press release, ‘Record investment opens doors to nation’s universities’, May 2012; figures deflated by non-farm GDP implicit price deflator
Indexation

The new indexation formula is based on movements in salaries in the ABS category ‘professional, scientific and technical services’ and CPI. This is clearly more appropriate to indexing university funding than the previous index, which used the safety net adjustment – the formula used to adjust the minimum wage and social security benefits. More than 60 per cent of universities’ costs are salaries and related expenses, split roughly evenly between academic and general staff salaries. From the early 2000s, indexation failed to keep pace with inflation (Figure 3).

Figure 3. Actual indexation of higher education funding versus change in non-farm GDP, 1996-2013 (1996=100)

New indexation is a big improvement in higher education funding, but it has to be understood against the background of a decade of indexation that did not keep pace with inflation.

In any case, indexation is at the margins of aggregate funding. New indexation rates in 2012 will deliver an extra $125 million in CGS funding, or around $200 million including HECS-HELP loans, compared to the 2011 indexation rate. This is around 2 per cent of total funding. While this is a welcome increase, it cannot address the basic and systemic funding problems in higher education.

Future demand

The long-term sustainability of demand-driven funding has been questioned since before the system was introduced. In each of the first two years after demand-driven funding was budgeted, budget estimates of CGS funding were revised upward significantly. The gap between initial 2009-10 Budget estimates and 2011-12 estimates was over $500 million (or 11%) for 2011-12 and over $800 million (or 16%) for the financial year 2012-13.³

From late in the current decade, the number of school leavers seeking university places will increase rapidly (Figure 4). Growth in the number of school leavers, combined with likely increases in participation rates, will put an increasingly heavy fiscal load on a system that guarantees Government funding for as many students as universities choose to admit. There is a danger that in this scenario Government will allow per student funding rates to decline, at least in real terms, to limit their fiscal commitment.

³ Figures are derived by comparing DEEWR Portfolio Budget Statements (PBS) for 2011-12 with the PBS for 2009-10.
Competitive grant research funding

Under the Howard Government (1996-2007), the average annual increase in Commonwealth competitive research grants in real terms was 7.1% (with a spike over 2003-2007 of 10.1% per annum), primarily due to significant increases in ARC and NHMRC funding via Backing Australia’s Ability initiatives and the response to the Wills report. Figure 5 shows the increase in real terms of university income from Australian Competitive Grants over the period 1992-2010.

Figure 5. University income from Australian Competitive Grants, 1992-2010, in 2010 Dollars ($m)
Figure 6 shows the annual percentage change in real (Commonwealth) income, 1993 to 2010. From an average increase of 7.1% per year under the Howard Government, average annual growth dropped to 5.3% under the Keating Government (1993-96). There was a further decrease to only 3.2% over the first three years of the Rudd Government (2008-10).

Figure 6. Annual increases in university income from Australian Competitive Grants (constant dollars)

The Labor (Rudd and Gillard) governments have concentrated on funding short-term initiatives focused on infrastructure and capital funding as part of the stimulus package and terminating programs such as Future Fellowships, Super Science Fellowships and National Collaborative Research Infrastructure Scheme (NCRIS) projects. As noted above, they have also provided some additional funding to cover a proportion of indirect research costs, and to encourage excellence through the Sustainable Research Excellence Program (SRE), as well as generally improving the indexation of Commonwealth payments for teaching and research.

As noted above, the rate of annual increase in Australian Competitive grants fell to 3.2% over the period 2008-10. While this includes a short-term increase due to the funding of Super Science and Future Fellowships, the annual increase will begin to decline rapidly from 2014 as a result of the termination of the Future Fellowships Scheme. Further, the Labor Government has not provided for the further funding of major national research facilities.

Figure 7 shows the funding of major infrastructure programs (including Major National Research Facilities (MNRF), the Systemic Infrastructure Initiative (SII), the National Collaborative Research Infrastructure Strategy (NCRIS) and the Synchrotron). Investment through these schemes peaked in 2006-07 and then declined except for funding drawn down from the Education Investment Fund (EIF).

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4 MNRF was a former research infrastructure funding program for Major National Research Facilities. The Systemic Infrastructure Initiative was announced in 2001 by the Howard Government with $246 million allocated over five years “to upgrade the basic infrastructure of universities, such as scientific and research equipment, libraries and laboratory facilities” to support research and research training.
Since 2001-02 ARC grant funding has increased as a result of funding increases provided by the Coalition Government (Backing Australia’s Ability) and the Labor Government (including funding for Super Science and Future Fellowships) as shown in Figure 11 (constant dollars). The average annual growth rate was 9.0% for the period 2000-01 to 2006-07 but only 2.8% for the period 2007-08 to 2015-16. The current forward estimates show a decline in funding from 2013-14 as a result of the loss of funding from the terminating Future Fellowships Scheme (about $145 m pa).

Source: DIISRTE, Science, Research and Innovation Budget Tables, various years
Figure 9 shows NHMRC grants to universities over the period 1996 to 2010 showing the increase in NHMRC funding largely resulting from the Coalition Government’s response to the 1998 Wills Review. By 2010 NHMRC funding had plateaued.

Figure 9. NHMRC grant funding to Australian universities, 1996-2010 ($m)

Over the period 2002-12, the average funding for the first year of ARC Discovery grants declined in real terms by 8.9% (Figure 10). Over 2002-2006 there was an 8.5% increase while over 2007-2012 there was a decline of about 13%.

Figure 10. Average first year of funding for ARC Discovery Grants (in 2010 dollars)

In the same period success rates for Discovery fell from 25.5% to 22.0% after a peak in 2005 under the Coalition Government of 30.9%.
Research block grant funding

While research block grants have been flat over the longer term, they are forecast to increase in real terms over the forward estimates to levels somewhat above historic peaks (Figure 11). Block grants have suffered from the same problems of insufficient indexation as the CGS. New indexation from 2012 will yield welcome funding increases.

Research block grants in 2015 are forecast to be 8% higher in real terms than 1996, and 5% higher than the previous peak in 2003.

Figure 11. Research block grant funding, 1996-2010 and 2011-2015 (projected), $m real

Funding for the Research Training Scheme (RTS) has not been increased since its introduction in 2001. Annual indexation failed to keep pace with inflation, with the result that RTS funding declined by about 14% in real terms in the period 2001 and 2012. At the same time the Domestic HDR load has increased by 10%, so that RTS funding per Domestic HDR EFTSU has fallen by over 23% in the same period.

Similarly block funding through the Institutional Grants Scheme/Joint Research Engagement scheme (IGS/JRE) has declined in real terms over the same period. In addition the Labor Government has changed the funding formula to remove Category 1 (national competitive grants) funding from the JRE block fund. The change to the JRE formula was partly designed to offset the expected impact of ERA results.

The Excellence in Research for Australia (ERA) evaluative process from 2009 and subsequently has provided incentives, reputational as well as financial, for universities to address areas of weak research performance and build on their research strengths. Action has included buying in star researchers and expanding doctoral student enrolments, especially international students. This sharper focus on research performance may well have been influenced by factors taken into account by the world university rankings.

ERA outcomes provided the Government with the opportunity for the first time to allocate research block grant funding based on demonstrated research excellence. In 2012 the Government incorporated those outcomes into the funding formula for the Excellence

Source: DIISRTE, Research Block Grant data, various years, Portfolio Budget Statement 2012-13
Component of Sustainable Research Excellence (SRE) Threshold 2 funding. The funding driven by ERA outcomes in 2012 was $65.7 million of SRE Threshold 2 funding, only about 4% of the total funding provided through research block grants. The weightings used in the formula were 7:3:1:0:0 for ERA rankings of 5:4:3:2:1. Australia’s investment through ERA needs to be compared with the English approach through its Research Assessment Exercise (RAE). There the amount allocated for research excellence annually exceeds £1 billion, and the top rated research is weighted by a factor of 9 rather than 7 as in Australia. Nevertheless, the ERA weights sent a strong signal to Australian universities to strive for excellence in research. SRE funding is the only one of the Government’s research funding schemes to have growth projected over the forward estimates of budget outlays.

Research funding covers only part of the cost of research. Competitive grants do not cover principal investigators’ salaries, which must be funded from general university revenue. Competitive grant funding covers only direct costs – and on average only 70% of these. Indirect costs are supported by two of the research block grants (RBGs), namely Research Infrastructure Block Grants (RIBG) and Sustainable Research Excellence (SRE). The Government had announced its intention to fund indirect costs more generously through SRE, raising the level of support from 20 cents in the dollar in 2008 to 30 cents in 2012, due to increase to 40 cents in 2014, on an upward trajectory towards 50 cents. Cuts to SRE funding announced in October 2012, however, mean that this agenda has been postponed by at least several years.

**Infrastructure funding**

Capital funding for universities is volatile over time, mainly because funding programs have changed quite drastically since 1996. Before the beginning of the CGS in 2005, capital funding was an identified component of university operating grants. From 2005, there was no identified capital funding within recurrent grants, though there were relatively small capital funding programs such as the Capital Development Pool (CDP).

To deal with the infrastructure funding gap, the Howard Government set up the Higher Education Endowment Fund (HEEF) in 2007-08. The Rudd Government’s Education Investment Fund (EIF) subsumed HEEF. EIF – plus the Better Universities Renewal Fund (BURF) – greatly increased capital funding. BURF made around $420 million available in 2008.

EIF funding in 2008 and 2009 included $580 million for Round 1 of EIF plus $500 million for a one-off Teaching and Learning Capital Fund. The 2009-10 Budget made a further $934 million available for Round 2 of EIF. Round 3 – worth $550 million – was announced in 2010. Funding has recently been awarded as part of a $500 million Regional Priorities Round.

The Labor Government’s boost to infrastructure funding under BURF and EIF was large and historic. EIF continues to make large amounts available. However, EIF provides funding only for new infrastructure, not for maintenance or rehabilitation of existing infrastructure. It does not provide ongoing funding for maintenance of new buildings and facilities whose construction it funds. EIF grants require universities to leverage other sources of funding to complement grants. Finally, EIF provides funding according to Government priorities, potentially diverting investment away from priorities identified by universities themselves – such as for refurbishment of existing buildings, rather than new buildings. There is still a large maintenance backlog in the higher education sector. In Go8 universities alone, the backlog exceeded $1.5 billion in 2009.5

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International fee income

The one item of university revenue that has grown strongly and consistently over time is international student fee revenue. Between 2004 and 2011, international fee income grew from $2.4 billion to $3.7 billion in constant 2011 dollars: a percentage increase of 56%. Growth in international fees makes up over a quarter of total growth in university revenue over this period. As a proportion of total university revenue, international fees grew from 14% in 2004 to nearly 17% in 2011.

Over the longer term, growth in international student fee income relative Government funding is still more striking (Figure 12).

Figure 12. International fees and recurrent funding, 1996-2010, $m real

While year-on-year growth in international enrolments has been somewhat volatile (especially before 2000), average annual growth for the period 1997-2011 is nearly 11%. Growth of 15% or more – as seen in 1997-2002 – marked an earlier stage in the international market. Nevertheless, growth rates were consistently at 5-10% in the more mature market of the 2000s. If the trend were to repeat the pattern observed after 2002 – a few years of slower growth and then a plateau at a new, lowered level – then the outlook for international enrolments would be poor. This would have a significant effect on overall university finances, especially at a time of rapid growth in domestic enrolments.
More recent monthly data on international enrolments suggest continuing decreases. AEI data show that international enrolments in higher education at year-to-date October 2012 had fallen by 4.5% compared to the same period in 2011. The decline in commencements was 7.1%.

A 2011 study found that international students’ fees subsidised each domestic student by around $1200 (2009 values – approximately equal to $1500 in 2012), or 10% of total funding (Commonwealth plus student contributions per place). In Australian universities’ current financial situation, growth in domestic enrolments requires growth of at least equal size in international volume or price to maintain the subsidy on which domestic provision partially depends. Needless to say, however, the subsidy will necessarily fall if domestic enrolments continue to grow while international enrolments flatline or fall.

**Conclusion**

There have been some real improvements in universities' financial position in recent years, due to improved indexation and significant boosts to capital funding. Nevertheless, a longer term view shows that the sector is not doing much better than standing still, when all costs and revenues are considered. There has been no improvement in base funding rates and no allowance for the step costs of rapidly growing enrolments. In both education and research, indexation is a big and welcome improvement, but funding does not cover costs and funding gaps remain. Research block grants have fallen in value and competitive research grants are set to flatline. Funding for major research infrastructure has lapsed and has not been renewed. A major boost in capital funding has not addressed the maintenance backlog, and there is no funding for major research infrastructure. Perhaps most ominously, the outlook for income from international fees is fragile. This will create major financial difficulties at a time when domestic enrolments are expanding.

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