Australian investment in higher education

August 2021

Dr. Peter Hurley
Dr. Cuong Hoang
Dr. Melinda Hildebrandt

mitchell INSTITUTE

VICTORIA UNIVERSITY

About us

The Mitchell Institute for Education and Health Policy at Victoria University is one of the country's leading think tanks and trusted thought leaders. Our focus is on improving our education and health systems so more Australians can benefit from these services, supporting a healthier, fairer and more productive society.

Suggested citation

Hurley, P., Hoang, C., Hildebrandt, M. (2021). Australian investment in higher education. Mitchell Institute, Victoria University. Melbourne.

Acknowledgements

The authors would like to acknowledge Prof. Maximilian de Courten and others for their contributions and feedback on drafts of this paper.

About this report

This report uses data published by the Department of Education, Skills and Employment (DESE) and university annual reports. It does not include data relating to non-university higher education institutions. Due to the lack of available 2020 data, Batchelor Institute of Indigenous Tertiary Education is not included in this analysis. All data in this report has been converted to 2020 dollars using CPI.

Table of Contents

Introduction

2020 was the year that the luck of Australia’s universities ran out.

Over the past two decades, investment in universities has grown almost without pause (Howard, 2021). Threats to income streams were offset by opportunities to expand into new areas.

When international students revenue began to drop because of the ‘de-coupling’ of skilled migration and student visas in 2010, demand-driven funding delivered an increase in domestic student revenue.

When the Australian Government re-introduced caps on domestic student funding in 2017, the international student market was experiencing blistering growth.

Pandemics, border closures and government reforms of student funding arrangements have resulted in the higher education sector facing some of its greatest challenges.

This report is part of a series examining investment in different parts of Australia’s education system. In this series, we examine investment over at least a decade to highlight trends and identify policy implications.

This year, we have used university annual reports to examine investment in the higher education sector. This means that we are unable to identify trends in other parts of the sector, such as non-university higher education providers. But it does mean we can more closely examine the impacts of the pandemic on universities – by far the largest part of Australia’s higher education sector.

The research in this report shows that 2020 was not as bad as was first envisaged. Overall revenue fell by 6% - the first fall in at least a decade. International student revenue is down about 9% compared to 2019, which is smaller than originally forecast. While fifteen universities reported a loss in 2020, overall the sector reported a small surplus.

However, there are very dark clouds on the horizon for universities.

The churn that meant international student enrolments did not fall as quickly as first forecast has given way to continued drops in enrolments.

The current enrolment trend shows an annualised fall of 20 to 25% in international student enrolments. This suggests that every missed 6-monthly intake results in a reduction in revenue of about $1 billion to $1.25 billion to universities.

The continuing impacts of the pandemic mean the worst impacts on the sector are yet to come.

It is likely that 2021, 2022 and 2023 will be the ‘proving ground’ (Marshman & Larkins 2021) for the approaches that individual universities have taken to steer their institutions through some of the most challenging conditions the sector has ever faced.

Key Points

- In 2020, the total revenue at Australia's universities was $34.6 billion, down in real terms by $2.4 billion, or 6%, compared to 2019. This is the first time that total revenue has fallen across the sector since at least 2009.
- Annual net operating results for universities were $669 million in 2020, the lowest since at least 2009. In terms of surpluses as a proportion of total revenue, this represents a margin of 1.9% where a 6% margin is considered financially prudent.
- The overall surplus reported across the sector obscures large differences in individual universities. Fifteen of the thirty-eight universities included in this analysis reported a deficit in 2020. Most of the surplus was located in three universities, Monash University ($267 million), The University of Melbourne ($178 million) and The University of Sydney ($107 million).
- The investment income (such as dividends and interest from investments) received by universities in 2020 was about $1.1 billion, which was a drop in real terms of about $1.1 billion from the peak recorded in 2019.
- The real financial assistance universities received from the Australian Government rose from 2009 to 2016 in line with the introduction of demand-driven funding, before plateauing from 2017 when the demand-driving system was effectively ended. This plateau continued with a small increase in real terms of $230 million, or 1.3%, in Australian Government financial assistance in 2020 compared to 2019.
- In 2020, international student revenue fell in real terms by $868 million, or 8.6%, to $9.2 billion. The falls in international student revenue were less than expected. This may be a combination of timing of border closures and also 'churn' in enrolments as the uncertainty caused international students to defer, delay or change their studies.
- Trends calculated from international student enrolment data for the first six months of 2021 suggest international student enrolments are falling at an annual rate of 20% to 24%. This suggests that every missed six-monthly intake of international students is costing universities about $1 billion to $1.2 billion.
- Universities continue to be exposed to problems caused by the coronavirus pandemic. The Job-ready Graduates package, the major reform of domestic student funding passed in 2020, is unlikely to make up for any revenue shortfall. Universities will receive an extra $1 billion in research funding for 2021 but there have been no other substantial extra funding announcements for 2022 or beyond. Without further support, the outlook for universities in 2022 and 2023 is very difficult.

Policy background

The impact of the pandemic on universities has dominated recent debates on investment in higher education. At the start of the pandemic, there were forecasts of annual losses between $3 billion to $5 billion for 2020 (Hurley & Van Dyke, 2020; Marshman & Larkins, 2020). There were also reports of thousands of jobs lost across the sector - estimated to be 17,000 by Universities Australia (Universities Australia, 2021). Border closures impacted the ability of international students to return to Australia, and for new international students to enrol, disrupting a significant income source for universities. While universities were ineligible for some forms of government support, such as JobKeeper, other state and federal government support was made available.

Major shifts occurred in two important higher education policy areas in 2020.

The first major policy change occurred in domestic student funding arrangements. After several failed attempts at reform, the Australian Government succeeded in passing the Job-ready Graduates package in October 2020. This reform replaced the demand-driven system, introduced in 2012, that had uncapped the number of places offered by universities and resulted in an increase in domestic student enrolments. In 2017, the Australian Government effectively ended the demand-driven system by re-introducing a cap on funding allocations, a cap that continued into 2018 and 2019. Funding for domestic students was set to increase, at levels lower than inflation, in 2020 and 2021 (Warburton, 2020). The Job-ready Graduates package supersedes all other arrangements from 2021.

The Job-ready Graduates package aims to drive enrolments towards courses the government states have better graduate employment prospects. It changes the amount universities receive for courses, as well the amount that students are liable to repay through income-contingent loans (previously known as HECS). The package claims to create up to 30,000 new university places and provide additional support for students in regional and remote Australia. Alongside the package, the Australian Government provided an extra $1 billion to universities in research that the sector will receive in 2021(DESE 2021a).

The Job-ready Graduates package has been controversial. It is unclear how the extra places will be created (Norton, 2020). There were reports of 'perverse incentives' built into the package that encourage universities to enrol students in courses the government is attempting to discourage (Bolton, 2020). The use of 'price-signals' to influence student choice has been described as ineffective (Hunter, 2020). There is also little evidence that shows encouraging enrolments in certain areas of study will improve overall employment outcomes for graduates (Warburton, 2020).

The second major policy shift in 2020 occurred with international students. Since 2012, universities have pursued an increase in international student enrolments, particularly Chinese international students. These international students attracted a premium, with some Group of Eight universities charging up to $50,000 per year for a standard degree, approximately two and a half times the amount they received for a domestic student.

The closure of international borders has caused massive disruption to universities and their ability to enrol international students. In April 2020, following the closure of Australia's international borders, there were about 81,000 higher education international student visa holders outside Australia. In August 2021, this had grown to about 138,000 student visa holders (DESE, 2021b). Universities have mounted several efforts to enable current and new international students to enter Australia. To date, almost all efforts have been unsuccessful.

The impact of the pandemic on international students remains one of the biggest issues facing the sector. Continued border closures mean that the pipeline of international students continues to be disrupted. International students study on average for two to four years, and every missed intake caused by border closures means the cumulative impact of compromised international student intakes on the sector grows.

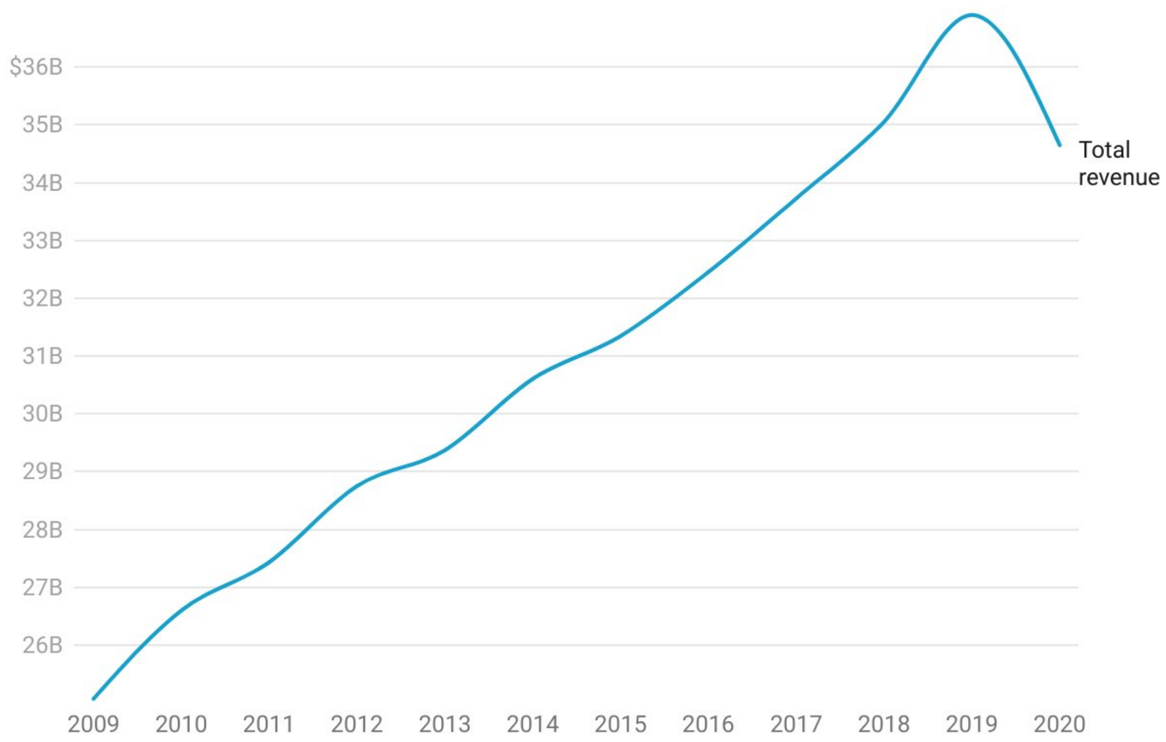
How has the pandemic impacted the revenue and surpluses of Australia's universities?

Universities report their revenue annually on an accrual basis. This means that revenue is reported in the year that the transaction occurs instead of when income is received. Universities operate principally on cash flow, mostly in the form of government grants and support, and revenue raised through student fees and other charges. This cash flow is used to meet obligations such as teaching and research. Surplus cash is invested for use in future years.

Understanding both annual revenue and surpluses can help to demonstrate the size of Australia's universities, and the ability of Australian universities to meet their obligations.

Figure 1 shows the total revenue from continuing operations across Australia's universities.

Figure 1: Real total revenue from continuing operations for Australian universities (2009-2020)



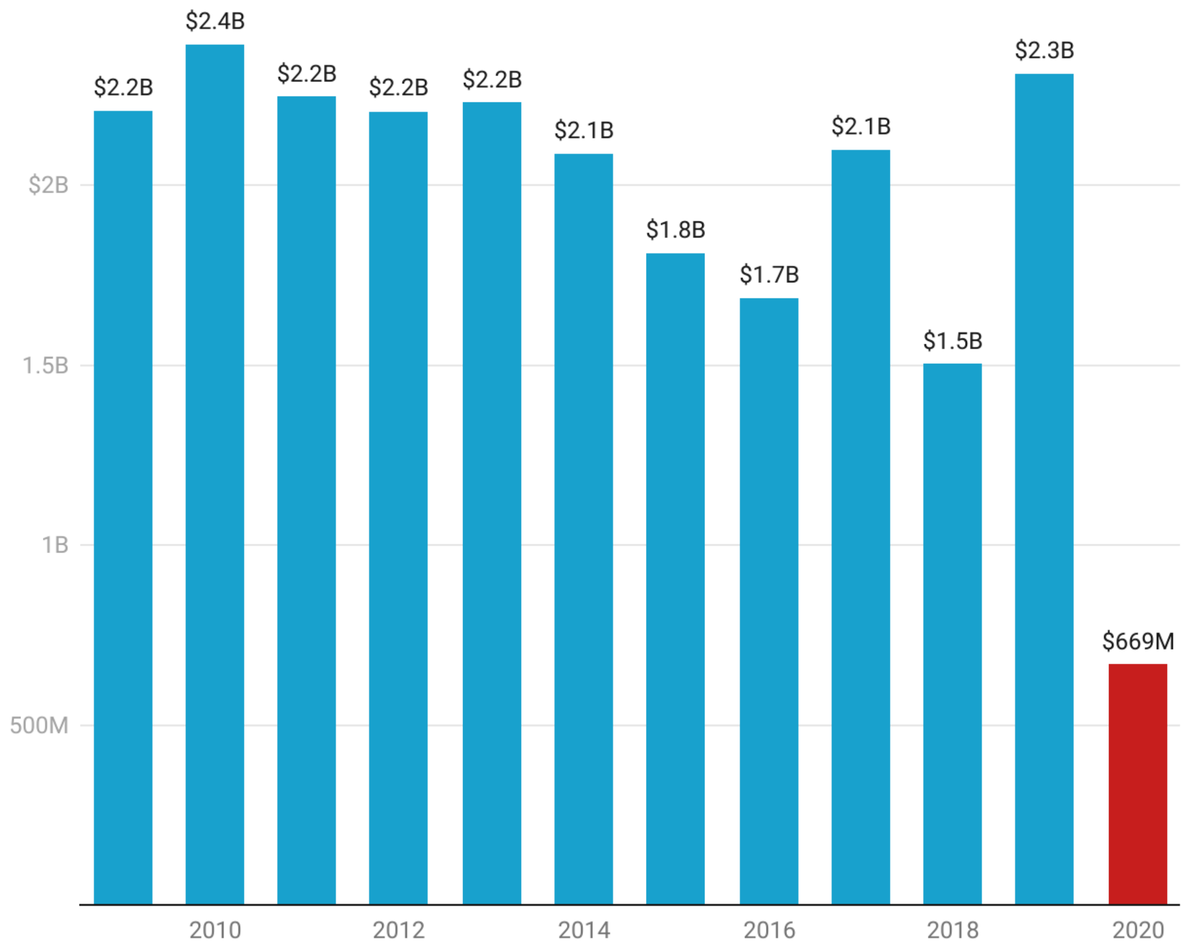
Source: DESE (2020). Mitchell Institute analysis of university annual reports.
Note: All amounts adjusted to 2020 dollars using CPI.

This figure shows that in 2020, the total revenue at Australia's universities was $34.6 billion, down in real terms by $2.4 billion, or 6%, compared to 2019. This is the first time that total revenue has fallen across the sector since at least 2009.

The annual surpluses of universities is measured by the net operating result. This is the amount of revenue that is left over after expenditure. According to Howard (2021, p. 68), a margin of 6% is considered financially prudent for universities.

Figure 2 shows the real net operating results for universities since 2009.

Figure 2: Real net operating result for Australian universities (2009-2020)



Source: DESE (2020). Mitchell Institute analysis of university annual reports.
Note: All amounts adjusted to 2020 dollars using CPI.

This figure shows that annual surplus for the university sector was $669 million in 2020, the lowest since at least 2009. In terms of surplus or deficit as a proportion of total revenue, this represents a margin of 1.9%.

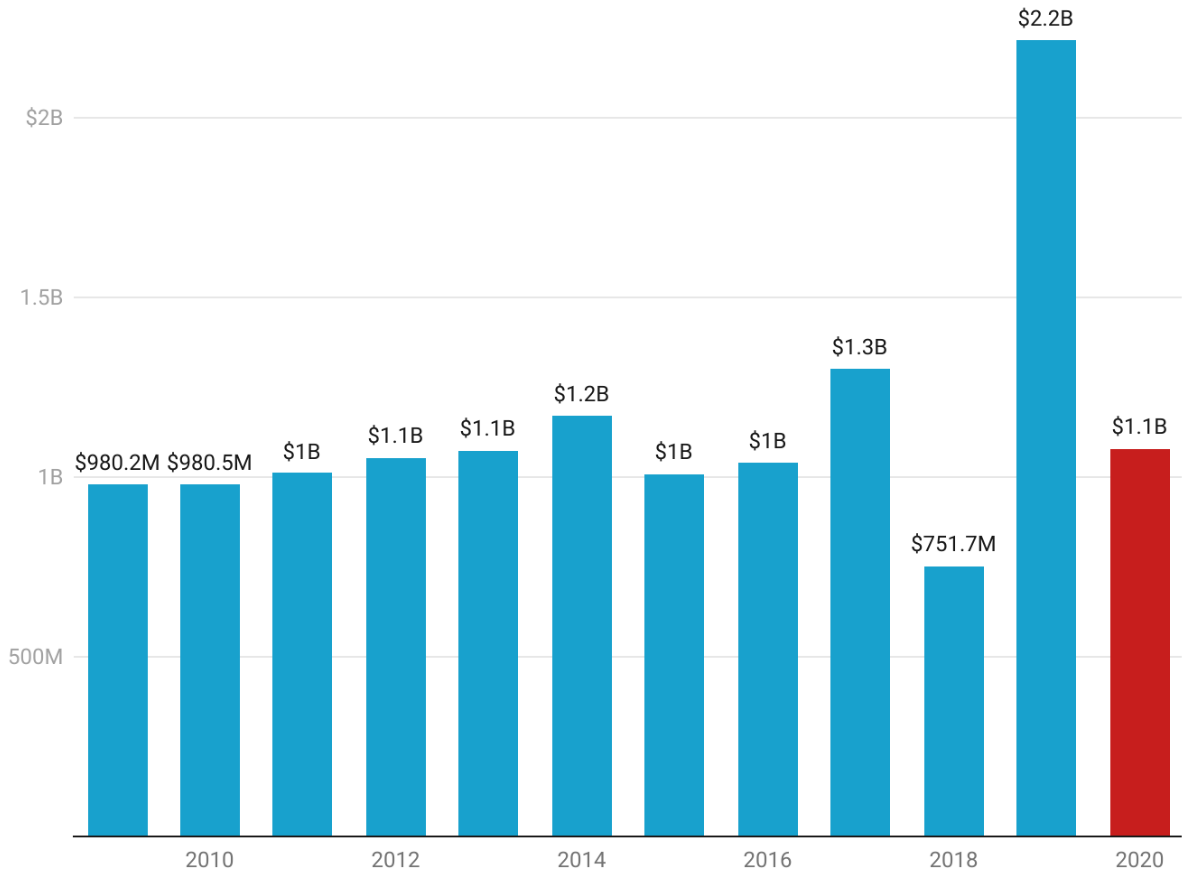
The overall surplus reported across the sector obscures large differences in individual universities. Fifteen of the thirty-eight universities included in this analysis reported a deficit in 2020. Most of the surpluses was located in three universities, Monash University ($267 million), The University of Melbourne ($178 million) and The University of Sydney ($107 million).

The relatively small net operating result in 2020 suggests the ability for universities to cope with further falls in revenue in 2021 and beyond is less than what it was compared to the start of the pandemic.

One reason for the fall in revenue and net operating results is the crisis affecting international students. This is explored in later sections of this report.

Another important reason for the fall in university revenue and surpluses is investment income. Investment income is the revenue universities receive from sources such as dividends or interest on investments. Figure 3 shows the real investment income Australian at Australian universities from 2009.

Figure 3: Real investment income for Australian universities (2009-2020)



Source: DESE (2020). Mitchell Institute analysis of university annual reports.

Note: All amounts adjusted to 2020 dollars using CPI.

This figure shows that the investment income received by universities in 2020 was about $1.1 billion, which was a drop in real terms of about $1.1 billion from 2019.

Even though a fall was recorded, the amount universities received from investment income in 2020 was in line with what was received between 2009 and 2018. Nonetheless, it suggests that a fall in investment income was a major component for the fall in revenue shown in Figure 1.

How was Australian Government assistance provided to universities changed?

Australian universities receive funding from the Australian government for various reasons. Funding for domestic students is the largest source of Australian Government assistance. There are two main components for this funding.

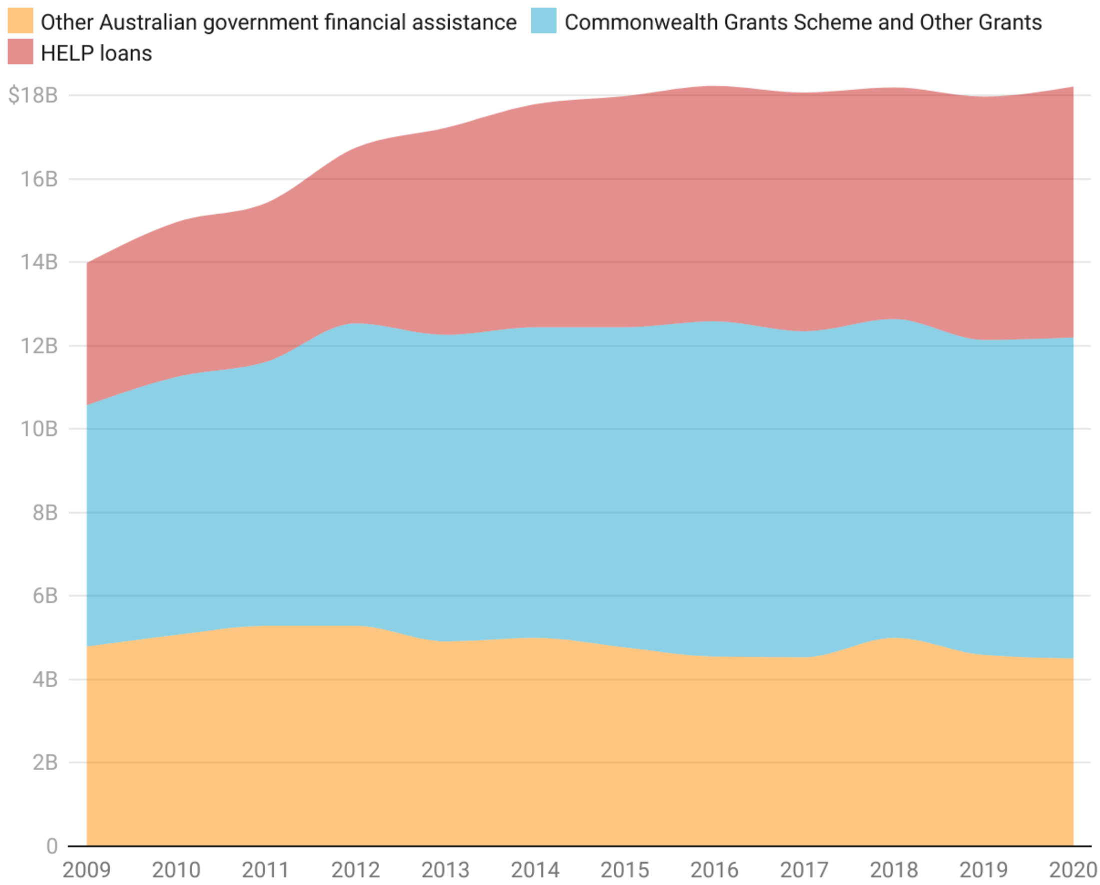
The first is the Commonwealth Government Grant Scheme. These grants are primarily based on the number of student places the Australian Government decides to fund and funding rates per student place.

Student loans comprise the second major stream of government assistance universities receive for domestic students. Student loans are categorised under the Higher Education Loan Programme (HELP), commonly known as HECS. In this arrangement, the government provides universities with funding to universities, and students become liable for this amount through an income-contingent loan (ICL). HELP student loans consist of various types such as Commonwealth Supported Places (CSP-HELP), full fee amounts (FEE-HELP), and loans to cover student amenities fees (SA-HELP)

The remainder of Australian Government assistance consists of various other programs such as funding for research, and some capital funding.

In order to explore changes in the amount of funding received by universities from the Australian Government, Figure 4 shows the real Australian Government financial assistance by the three main groups outlined above.

Figure 4: Real Australian Government financial assistance to Australian university by type (2009-2020)



Source: DESE (2020). Mitchell Institute analysis of university annual reports.
Note: All amounts adjusted to 2020 dollars using CPI.

This figure shows that real Australian Government Financial assistance rose from $14 billion in 2009 to $18.2 billion in 2016. This was in line with the introduction of the demand-driven funding scheme that uncapped domestically funded university places. When the demand-driven funding was effectively ended in 2017, the amount of funding the Australian Government provides to universities plateaued.

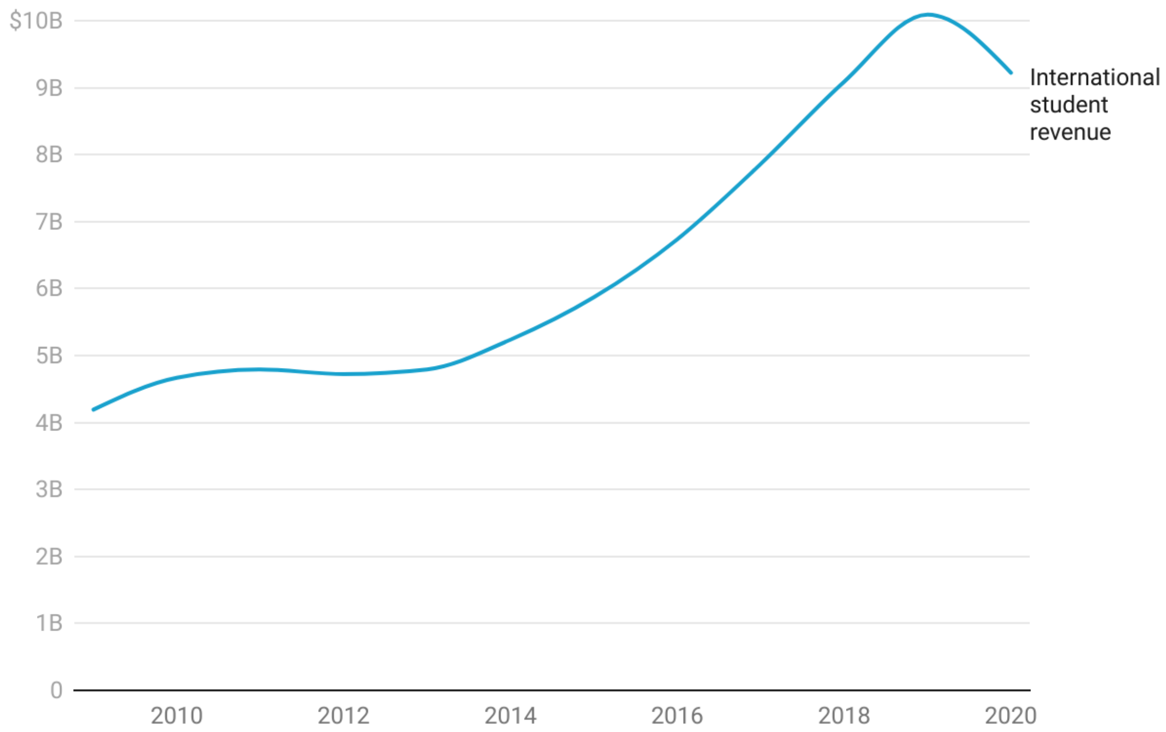
This plateau continued into 2020 with a small increase of $230 million, or 1.3%, in Australian Government financial assistance compared to 2019.

In the 2020 budget the Australian Government announced a once-off extra $1 billion of research funding for the higher education sector. This funding effectively doubles the amount universities receive through the Research Support Program and will be delivered to universities in 2021.

What is the revenue universities receive from international students?

The coronavirus has caused enormous disruption to international students and the international education industry. To explore the impact of the pandemic on international student revenue, Figure 5 shows the real fee-paying overseas student revenue universities have received from 2009 to 2020.

Figure 5: Real fee paying overseas student revenue at Australian universities (2009-2020)



Source: DESE (2020). Mitchell Institute analysis of university annual reports.
Note: All amounts adjusted to 2020 dollars using CPI.

This figure shows that there has been a large increase in the amount universities receive from international students since 2009. The bulk of the increase occurred from 2014 to 2019 when international student revenue almost doubled, increasing in real terms from $5.2 billion in 2014 to $10.1 billion in 2019.

In 2020, international student revenue fell in real terms by $868 million, or 8.6%, to $9.2 billion.

The implications of falling international student revenue and the outlook for 2021 and beyond are discussed in the next section regarding policy implications.

Policy implications

International student revenue will continue to decline

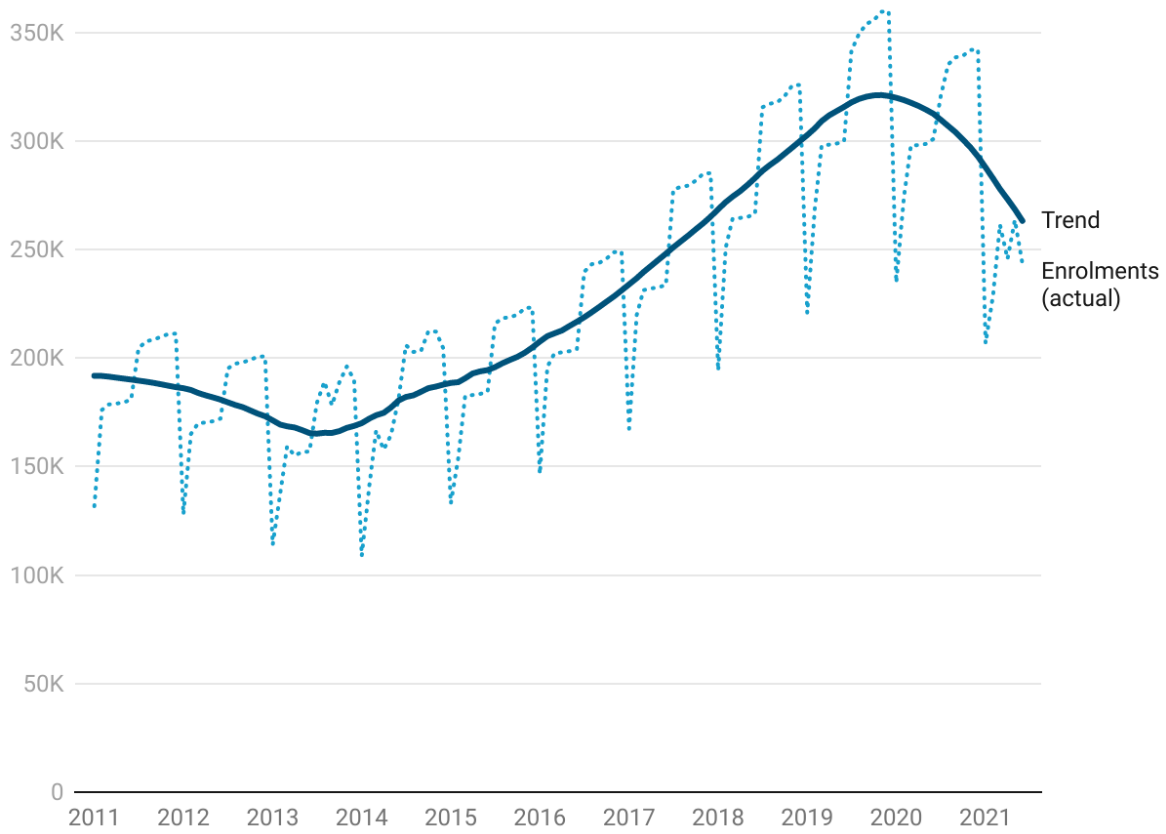
This report identifies that international student revenue has fallen in real terms by 8.6% in 2020. This is at a slower pace than had been expected at the start of the pandemic.

Part of the reason for the slower fall may be the timing of border closures and deferrals in international student enrolments. Borders began closing in February 2020, just before the start of the academic year. Many international students were able to enter Australia and start their courses. This meant that in 2020 it was semester two when the first fully compromised intake occurred.

There was also a large increase in deferments at the initial stages of the pandemic. From January to May 2020 about 40,000 higher education international students deferred their studies, up from about 6,000 during the same period in 2019. Many international students delayed starting their courses, or changed to part-time, resulting in a form of churn in enrolments where normal enrolment patterns were altered.

To explore trends in enrolments, Figure 6 shows the total international student enrolments at public higher education institutions in Australia from 2011 to June 2021. Two values are shown. The first is actual enrolments by month. As actual enrolments are subject to seasonal variation based on the academic calendar, Figure 6 also shows trend values. Trend values enable a better identification of underlying movements in total enrolments.

Figure 6: International student enrolments at public higher education institutions (Jan 2011 – Jun 2020)



Source: DESE (2021)

This figure shows that international student enrolments have begun to fall since the onset of the pandemic. In 2020, this fall was relatively modest. In December 2020, trend levels were about 10% below what they were one year previously in December 2019.

However, as the pandemic has progressed, the rate of decline in international enrolments is increasing. In the first six months of 2021, international student enrolments at public higher education institutions fell at an annualised rate of between 20% and 24%. If this rate were to continue, this roughly equates to about $2 billion to $2.4 billion in annual revenue across the university sector.

It suggests that every missed six-monthly intake of international students is costing universities about $1 billion to $1.2 billion.

This figure shows that the closure of international borders is having a negative impact on international student enrolments. It is also unclear that changes in Australia's border policy will be sufficient to arrest the continuing decline.

For instance, the NSW government announced in June 2021 a now shelved plan to enable up to 250 international students per week to enter the country through hotel quarantine (Wibawa, 2021). In August 2021, there were about 58,000 NSW international students outside Australia. Based on a hotel quarantine stay of two weeks, it would take over four years to process the international students who are outside Australia.

This helps demonstrate how the rate at which international students can cross Australia's borders is an important factor when exploring how quickly universities will be able to recover from continuing declines in international student enrolments.

The impact of the Job Ready Graduates remains uncertain

The potential value of Job-ready Graduates to aid in the recovery of rapidly declining university revenue is unclear. Early data released in March 2021 shows some growth in targeted areas (IT, Science, Engineering), but it is too soon to tell if this is causally related to Job-ready Graduates or other trends in demand (Norton, 2021b). Any significant increase in student places will not occur until after 2024 - beyond the Budget forward estimates period and the next election (Anderson, 2021).

Ultimately, it seems likely universities will need to enrol more students for less money. For instance, analysis suggests that universities will have to teach an additional 39,000 students to obtain the $58 million increase in revenue being promised by the Government – less than $1,500 for each additional student place. Moreover, it seems likely that students will be required to pay a higher proportion of course costs (Norton (2020); Anderson (2021)).

It is important to note that even if the Job-ready Graduates package had featured uncapped student places, like the demand-driven system, it is not clear it would be enough to mitigate the impact of falling international students revenue caused by continuing border closures. This is because universities generally receive more money per place for an international student and it is not clear there would be sufficient demand from domestic students to compensate for the decline in international student enrolments.

Universities are very exposed to the continuing problems caused by the pandemic

The figures shown in this report highlight the increasing importance of non-government grants to university revenue. Indeed, it is possible to view the Job-ready Graduates package as part of longer term shifts in the purpose of Australia's universities. As Howard (2021, p. 120) writes:

> The higher education industry has grown from its traditional beginnings around the community of science and disinterested scholarship into an industry required to be intimately interested in the economic value of the education products and services it delivers.

From a policy perspective, universities have been increasingly encouraged to cultivate commercial revenue, such as international students and research commercialisation. While the success of research commercialisation has been mixed, universities have been very successful in growing international student revenue. Commonwealth grants as a proportion of total revenue has fallen.

One result of this shift is that universities are now much more exposed to external shocks affecting their revenue. The pandemic and international student crisis are examples of external shocks that are likely to continue affecting universities.

Some universities are more exposed than others. As the data in the Appendix shows, Group of Eight universities derive large amounts of their revenue from international students.

As Norton (2021a) writes, an over reliance on international students meant some “universities were pursuing international strategies they knew were high risk”. While it would not be reasonable to expect the government to compensate for the loss of international student revenue, the extraordinary situation universities are facing means that there may be a case for further targeted support. This is especially relevant for 2022 and 2023, as reduced movements across Australia’s international border seems likely to impact the revenue streams universities have relied on.

What is required is a broader, long-term plan that addresses the scale of the crisis, the very real prospect that international students revenue may not recover to its pre-pandemic levels and the long-term effect on the sector’s ability to stabilise.

Appendix

Table 1: University revenue by type and change from 2019 ($ millions)

University	Total Revenues	Change from 2019	Net Operating Result	Change from 2019	Fee Paying Overseas Students	Change from 2019
Charles Sturt University	$569.2	-$54.6	$19.0	$14.2	$113.5	-$42.6
Macquarie University	$974.1	-$62.4	-$52.7	-$54.2	$301.9	-$25.5
The University of Newcastle	$794.9	-$48.4	$5.9	-$59.8	$113.7	-$9.6
Southern Cross University	$291.3	-$26.5	-$2.8	-$18.7	$75.0	-$24.5
The University of New England	$347.9	$2.9	-$19.0	-$14.1	$28.2	-$0.1
The University of New South Wales	$2,162.2	-$198.2	-$24.2	-$55.7	$671.4	-$104.9
The University of Sydney	$2,644.4	-$126.9	$106.6	-$73.3	$1,105.2	$31.2
University of Technology, Sydney	$1,058.8	-$51.4	-$43.1	-$71.0	$366.8	-$42.8
Western Sydney University	$887.9	-$31.6	$22.0	$2.7	$148.8	-$16.5
University of Wollongong	$620.3	-$78.3	-$52.8	-$70.6	$144.6	-$37.4
New South Wales	**$10,351.0**	**-$675.5**	**-$41.1**	**-$400.6**	**$3,068.9**	**-$272.7**
Federation University Australia	$343.3	-$69.5	$3.9	-$33.3	$125.2	-$60.1
Deakin University	$1,224.0	-$111.4	$32.1	-$76.4	$395.8	-$21.5
La Trobe University	$786.2	-$86.9	-$51.5	-$71.0	$159.2	-$44.0
The University of Melbourne	$2,664.1	-$241.2	$178.2	-$176.9	$845.6	-$69.4
Monash University	$2,705.7	-$113.2	$267.3	$34.7	$982.6	-$32.7
RMIT University	$1,308.4	-$68.0	-$78.7	-$122.3	$454.4	-$74.0
Swinburne University of Technology	$745.2	-$36.2	-$35.7	-$69.8	$150.1	-$32.0
Victoria University	$474.3	-$15.6	$5.7	-$25.0	$99.0	-$10.1
Victoria	**$10,251.2**	**-$742.0**	**$321.4**	**-$540.0**	**$3,211.9**	**-$343.8**
Central Queensland University	$450.0	-$42.7	-$33.2	-$36.6	$122.3	-$55.7
Griffith University	$967.8	-$74.5	-$5.1	-$58.4	$189.6	-$6.5
James Cook University	$476.5	-$33.3	$14.0	$3.5	$73.9	-$9.4
Queensland University of Technology	$1,054.2	-$119.7	$25.2	-$64.2	$221.2	-$27.0
University of the Sunshine Coast	$321.6	$7.9	$24.1	$4.0	$46.3	-$18.3
The University of Queensland	$2,119.6	-$99.3	$82.9	-$50.4	$648.9	-$37.6
University of Southern Queensland	$345.0	$13.9	$12.6	$6.9	$48.7	$1.5

Queensland	**$5,734.5**	**-$347.7**	**$120.5**	**-$195.3**	**$1,350.8**	**-$153.1**
Curtin University of Technology	$902.7	-$78.2	-$1.1	-$84.1	$160.9	-$7.0
Edith Cowan University	$477.2	-$9.8	$23.7	-$13.2	$119.8	$1.7
Murdoch University	$378.7	-$20.8	-$11.0	-$31.1	$80.6	-$4.3
The University of Notre Dame Australia	$198.9	$6.8	-$5.0	$0.1	$6.3	$2.1
The University of Western Australia	$968.9	-$100.7	$58.1	-$54.9	$139.7	-$13.0
Western Australia	**$2,926.4**	**-$202.7**	**$64.7**	**-$183.1**	**$507.3**	**-$20.5**
University of Adelaide	$976.9	-$5.9	$40.8	-$1.7	$254.1	-$3.5
Flinders University	$532.2	-$1.3	$37.8	$12.4	$102.4	$2.7
University of South Australia	$696.1	$3.6	$21.1	-$0.3	$150.0	$1.3
South Australia	**$2,205.2**	**-$3.6**	**$99.7**	**$10.5**	**$506.6**	**$0.6**
Australian National University	$1,297.5	-$228.1	-$17.7	-$323.5	$249.0	-$83.6
University of Canberra	$312.4	-$5.4	$29.4	$9.9	$69.5	$1.6
ACT	**$1,609.9**	**-$233.5**	**$11.7**	**-$313.5**	**$318.5**	**-$82.1**
University of Tasmania	$712.9	-$65.1	$18.0	-$55.2	$130.1	-$11.1
Tasmania	**$712.9**	**-$65.1**	**$18.0**	**-$55.2**	**$130.1**	**-$11.1**
Charles Darwin University	$308.3	$34.4	$42.8	$51.7	$50.6	$12.3
Northern Territory	**$308.3**	**$34.4**	**$42.8**	**$51.7**	**$50.6**	**$12.3**
Australian Catholic University	$548.1	-$14.2	$31.4	-$14.2	$78.7	$2.3
Total	**$34,647.5**	**-$2,284.5**	**$669.0**	**-$1,637.0**	**$9,223.5**	**-$868.1**

Source: DESE and 2020 university annual reports

Note: All data converted to 2020 dollars using CPI.

References

Anderson, I. (2021). Australia's international education market share is shrinking fast: Recovery depends on unis offering students a better deal. *The Conversation.* Retrieved from Australia's international education market share is shrinking fast. Recovery depends on unis offering students a better deal (theconversation.com)

Bolton, R. (2020). Fee change will 'punish students for following their interest'. *Financial Review*. Retrieved from https://www.afr.com/work-and-careers/education/fee-change-will-punish-students-for-following-their-interest-20200915-p55vua

DESE. (2020). Finance Publication: Financial Reports of Higher Education Providers. Retrieved from https://www.dese.gov.au/higher-education-publications/finance-publication

DESE. (2021a). Research Support Program. Retrieved from https://www.dese.gov.au/research-block-grants/research-support-program

DESE. (2021b). Student visa holders in and outside Australia. Retrieved from https://infogram.com/1pk29egzly7zwnb9e009jk5q15a3xlm7jrj?live

Howard, J. (2021). Rethinking Australian higher education: Towards a diversified system for the 21st century. Centre for Business and Social Innovation, University of Technology Sydney. Retrieved from https://www.uts.edu.au/research-and-teaching/our-research/centre-business-and-social-innovation/news/rethinking-australian-higher-education

Hunter, F. (2020). Uni Fee Overhaul Won't Change Demand or Affordability: HECS Architect. *Sydney Morning Herald*. Retrieved from https://www.smh.com.au/politics/federal/uni-fee-overhaul-won-t-change-demand-or-affordability-hecs-architect-20200619-p5549a.html

Hurley, P., Van Dyke, N., (2020). Australian Investment in Education: Higher Education. Mitchell Institute. Retrieved from https://www.vu.edu.au/sites/default/files/australian-investment-in-education-higher-education-mitchell-institute.pdf?fbclid=IwAR38CBffBIK8N8XEWPBSXFkP0M2jv5GRoAkD5B8sXo-0Y1zh-OsP863GIeY

Marshman, I., Larkins, F. (2020). Modelling Individual Australian Universities Resilience in Managing Overseas Student Revenue Losses from the COVID-19 Pandemic. Melbourne University. Retrieved from https://melbourne-cshe.unimelb.edu.au/lh-martin-institute/fellow-voices/modelling-individual-australian-universities-resilience-in-managing-overseas-student-revenue-losses-from-the-covid-19-pandemic

Marshman, I., Larkins, F. (2021). Uni finances: 2020 could have been worse, this year will be: The financial challenges occurring in 2021 are likely to be greater. *Campus Morning Mail*, Victoria University. Retrieved from https://campusmorningmail.com.au/news/uni-finances-2020-could-have-been-worse-this-year-will-be/?utm_source=sendgrid.com&utm_medium=email&utm_campaign=website

Norton, A. (2020). 3 Flaws in Job Ready Graduates Package Will Add to the Turmoil. *The Conversation*. Retrieved from https://theconversation.com/3-flaws-in-job-ready-graduates-package-will-add-to-the-turmoil-in-australian-higher-education-147740

Norton, A. (2021a). The 2020-21 budget has added salt to universities covid wounds. *The Conversation*. Retrieved from https://theconversation.com/the-2021-22-budget-has-added-salt-to-universities-covid-wounds-160862

Norton, A. (2021b). The Job-ready Graduates student places debate. Retrieved from https://andrewnorton.net.au/2020/09/29/the-job-ready-graduates-student-places-debate/

Ross, John. (2020). Australian international education 'a cheap fix'. *Times Higher Education*. Retrieved from https://www.timeshighereducation.com/news/australian-international-education-cheap-fix#

Thatcher, A., Zhang, M., Todoroski, H., Chau, A., Wang, J., Liang, G. (2020). Predicting the Impact of COVID-10 on Australian Universities. *Journal of Risk and Financial Management*. Retrieved from https://doi.org/10.3390/jrfm13090188

Universities Australia. (2021). 17,000 uni jobs lost to COVID-19. Retrieved from https://www.universitiesaustralia.edu.au/media-item/17000-uni-jobs-lost-to-covid-19/

Warburton, M. (2020). Unravelling the Tehan vision for higher education. Centre for the Study of Higher Education, University of Melbourne. Retrieved from https://melbourne-cshe.unimelb.edu.au/lh-martin-institute/fellow-voices/unravelling-the-tehan-vision-for-higher-education

Wibawa, T. (2021). International student pilot plan by NSW 'a step closer' for those hoping to study on campus in Australia. *ABC Online*. Retrieved from https://www.abc.net.au/news/2021-06-11/nsw-international-student-pilot-plan-welcomed-covid/100208006

Mitchell Institute for Education and Health Policy
300 Queen Street, Melbourne, Victoria 3000
+61 3 9919 1820
info@mitchellinstitute.org.au
mitchellinstitute.org.au