

UNIVERSITIES AUSTRALIA

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# 2020 HIGHER EDUCATION FACTS AND FIGURES

OCTOBER 2020

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## FOREWORD

2020 is the year that facts, evidence and data became more critical than ever before. As the COVID-19 pandemic unfolded, Australia turned to university experts, research and facilities to educate and inform. Before that, universities helped with our understanding and response to the summertime bushfire crisis.

The elevation of facts and expertise was to the country's great benefit.

Whether in periods of relative calm or crisis, Australian universities provide a standing army of experts that underpin community discussion with knowledge and evidence. To help with an informed discussion about Australian higher education, the peak body for Australia's universities produces a regular snapshot of the sector's facts and figures.

In 2020 Higher Education Facts and Figures you will find the most recent key facts and figures about funding, students, staff, world-class research, international rankings performance and much more.

This update tells a clear story: universities remain a cornerstone of Australia's economic success. In 2018, universities contributed \$41 billion to the Australian economy and supported a total of 259,100 full-time jobs. Notably, 325,171 students completed their degrees at Australia's 39 universities.

In the future, Australia will need even more new ideas, new skills and new jobs to power the economic and social recovery. Universities will drive the nation's recovery through their research and innovation, and through the skilled graduates they supply to the labour market.

While this year's update does not yet reflect some of the profound changes brought about by the COVID-19 pandemic or the newly created 30,000 university places, we do see the impact of the December 2017 cap on domestic undergraduate places.

We hope you find this publication an informative contribution on the value of Australia's university sector: to our students, staff, and to the nation.



Professor Deborah Terry AO  
Chair, Universities Australia



Ms Catriona Jackson  
Chief Executive, Universities Australia

Note: Data in this report was current as at 9 September 2020

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# 1 FUNDING AND UNIVERSITY FINANCES

## 1.1 AUSTRALIAN GOVERNMENT FUNDING

The Australian Government provides funding to universities through several main funding programs:

- The *Commonwealth Grant Scheme (CGS)* that provides funding to support a range of university activities, principally teaching and learning for Australian domestic students.
- Research funding through the *National Competitive Grant Program* and research block grants that support research and research training.
- Other grants made under the *Higher Education Support Act 2003* to support equity and participation in higher education.
- *Higher Education Loan Program (HELP)* payments. Under the HELP scheme, the Australian Government pays student fees to higher education providers, which are income-contingent loans repaid by students through the taxation system.

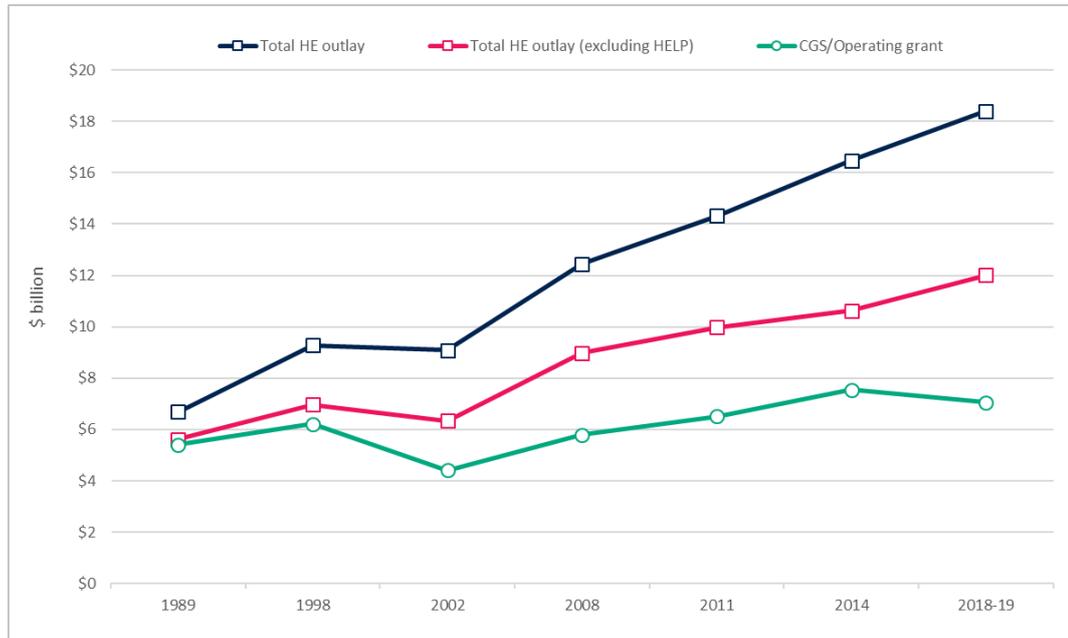
### 1.1.1 AUSTRALIAN GOVERNMENT HIGHER EDUCATION OUTLAYS

Total Australian Government outlays in higher education spending (including research) has almost tripled over the past three decades, from \$6.7 billion in 1989 to \$18.4 billion in 2018–19 (in 2018 dollars). However, most of the growth is due to the growth in HELP loans – of which 80 per cent are expected to be repaid in the future. Direct teaching and learning grants increased by only 31 per cent over the same period (Figure 1).

HELP loans as a share of total higher education outlays increased from less than 16 per cent in 1989 to 35 per cent in 2018–19. Excluding HELP loans, higher education (HE) spending has doubled, from \$5.6 billion to \$12 billion, over the same period.

Despite the growth in funding, Australian Government total higher education spending as a percentage of GDP only increased from 0.88 per cent in 1989 to just under one per cent in 2018–19. Excluding HELP loans, higher education grants for teaching and learning and research have declined from 0.74 per cent of GDP in 1989 to 0.65 per cent in 2018–19 (Figure 2).

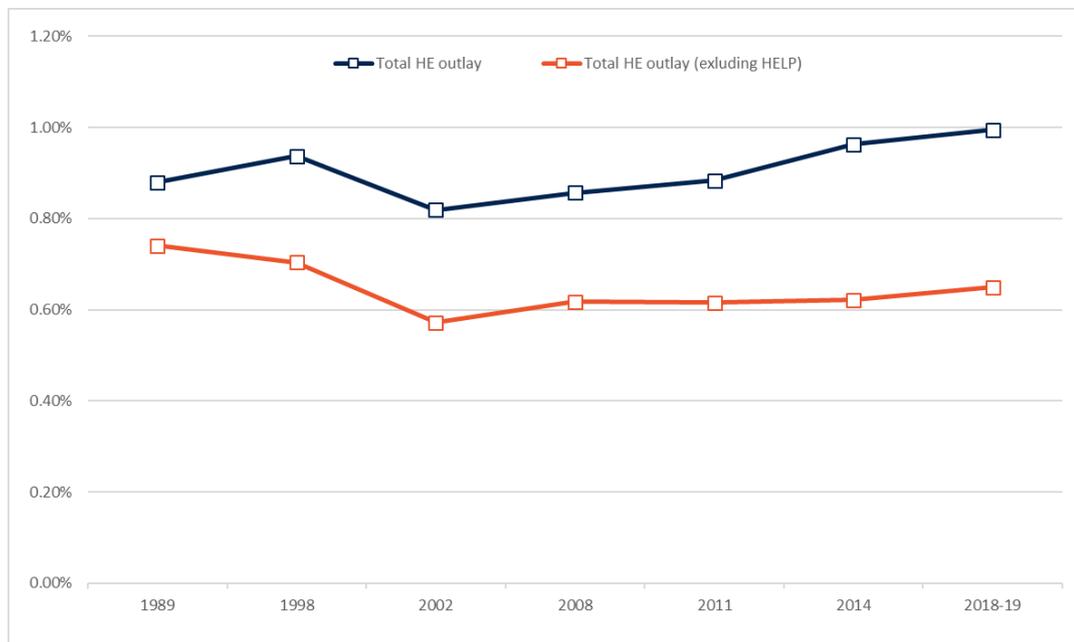
**Figure 1: Australian Government higher education spending, in 2018 dollars**



Source: Data from 1989 to 2014 are from Department of Education and Training 2015, *Higher Education in Australia: A Review of reviews from Dawkins to today*. 2018–19 data are from Australian Government 2019, *Portfolio Budget Statement 2019–20: Education and Training Portfolio*.

Note: Total higher education funding includes CGS or operating grants, HELP, research grants, other appropriations for higher education support and Australian Research Council funding.

**Figure 2: Australian Government higher education spending as a percentage of GDP**



Source: See Figure 1.

Table 1 shows the Australian Government's top 20 expenditure programs in 2019–20. The Commonwealth Grant Scheme (CGS) features in the top 20 at around \$7.2 billion, or 1.4 per cent of total government expenses.

**Table 1: Top 20 Australian Government programs by expenses in 2019–20**

Program(a)	Function	Estimates			Projections	
		2018-19 \$m	2019-20 \$m	2020-21 \$m	2021-22 \$m	2022-23 \$m
Revenue assistance to the States and Territories	Other purposes	67,134	69,053	71,256	75,067	78,608
Income Support for Seniors	SSW	46,741	48,301	50,265	52,285	54,766
Medical benefits	Health	24,227	25,526	26,858	28,357	30,085
Assistance to the States for public hospitals	Health	21,708	22,535	23,622	24,815	26,183
Aged care services	SSW	18,764	20,027	20,902	22,374	23,903
Family tax benefit	SSW	17,630	18,013	17,913	18,237	18,333
National Disability Insurance Scheme	SSW	12,910	17,439	22,181	23,470	24,755
Income Support for People with Disability	SSW	16,699	17,057	17,044	17,618	17,889
Non-government schools national support	Education	11,956	12,554	13,518	14,245	14,980
Pharmaceutical benefits, services and supply	Health	12,728	11,971	10,173	10,152	10,384
Job seeker income support	SSW	10,476	10,834	10,861	11,337	11,754
Income support for carers	SSW	8,770	9,207	9,493	10,038	10,552
Public sector superannuation(b)	Other purposes; General public services	8,983	8,945	9,064	9,221	9,359
Government schools national support	Education	7,684	8,326	8,995	9,673	10,385
Child Care Subsidy	SSW	7,725	8,267	8,642	9,108	9,646
Fuel Tax Credits Scheme	Fuel and Energy	7,168	7,504	7,937	8,424	8,966
<b>Commonwealth Grants Scheme</b>	<b>Education</b>	<b>7,053</b>	<b>7,212</b>	<b>7,341</b>	<b>7,467</b>	<b>7,581</b>
Air Force capabilities	Defence	6,534	6,945	7,644	7,894	8,239
Army Capabilities	Defence	6,760	6,888	7,607	7,896	8,507
Private Health Insurance	Health	6,170	6,313	6,423	6,601	6,809
<b>Sub-total</b>		<b>327,821</b>	<b>342,916</b>	<b>357,741</b>	<b>374,277</b>	<b>391,684</b>
Other programs		159,522	157,956	158,364	161,638	168,190
<b>Total expenses</b>		<b>487,343</b>	<b>500,872</b>	<b>516,105</b>	<b>535,915</b>	<b>559,874</b>

(a) The entry for each program includes eliminations for inter-agency transactions within that program.  
(b) This program is a combination of superannuation nominal interest and accrual expenses.

Source: Australian Government 2019, *Budget 2019–20: Budget Strategy and Outlook Budget Paper No. 1*, p.5-10.

### 1.1.2 FUNDING PER COMMONWEALTH SUPPORTED PLACE

Total funding received by universities for an average Commonwealth supported place (CSP) has increased by 26 per cent in real terms since 1989 to an estimated \$19,340 per place in 2018. It declined after 1994 to a low point in 2002 but has since recovered to a peak of \$19,660 per place in 2016. However, since 2016 total revenue per place has declined by 1.6 per cent due to the introduction of a nominal cap on total government funding announced in 2017–18 Mid-Year Economic and Fiscal Outlook.

The share of this revenue paid by the government has declined over time, from 78 per cent in 1989 to 58 per cent in 2018, with the government contribution amount – Commonwealth Grant Scheme (CGS) – declining 6.1 per cent in real terms, from \$11,930 per student in 1989 to \$11,210 per student in 2018. Over the same period, the student contribution amount has increased by almost 140 per cent from \$3,400 to \$8,130 per student.

Under the government's *Job-ready Graduates* (JRG) package, total base funding per place – i.e. CGS and student contributions – will decline by 5.8 per cent, assuming universities maintain their 2018 discipline mix.

**Figure 3: Total funding per Commonwealth supported place, in 2018 dollars**



Source: Data from 1989 to 2015 are from UA communications with Department of Education, Skills and Employment (DESE) following the May 2016 Budget. Data for 2016 to 2018 are from *Higher Education Support Act* (HESA) determinations.

### 1.1.3 PUBLIC VS PRIVATE CONTRIBUTION FOR COMMONWEALTH SUPPORTED PLACES

For students that receive a Commonwealth supported place, the Australian Government funds their course of study through a combination of a direct Commonwealth contribution, paid through the Commonwealth Grant Scheme, and a student contribution. Students can choose to pay their student contribution upfront or receive a loan from the Australian Government to pay it through the HECS-HELP scheme.

Under the existing funding arrangement, in 2021, the average public-private contribution split for a Commonwealth supported place is 58 per cent public contribution (or \$11,950 per place) and 42 per cent student/private contribution (or \$8,830 per place). The public-private contribution split differs according to disciplines as shown in Table 2.

**Table 2: Relative government and student contribution by discipline, 2021 (existing clusters)**

Funding clusters	Australian Government contribution	Maximum student contribution amounts	Total resourcing	Relative government and student contribution
Law, accounting, commerce, economics, administration	\$2,237	\$11,355	\$13,592	16 : 84
Humanities	\$6,226	\$6,804	\$13,030	48 : 52
Mathematics, statistics, computing, built environment or other health	\$11,015	\$9,698	\$20,713	53 : 47
Behavioural science or social studies	\$11,015	\$6,804	\$17,819	62 : 38
Education	\$11,462	\$6,804	\$18,266	63 : 37
Clinical psychology, foreign languages, or visual and performing arts	\$13,547	\$6,804	\$20,351	67 : 33
Allied health	\$13,547	\$9,698	\$23,245	58 : 42
Nursing	\$15,125	\$6,804	\$21,929	69 : 31
Engineering, science, surveying	\$19,260	\$9,698	\$28,958	67 : 33
Dentistry, medicine or veterinary science	\$24,446	\$11,355	\$35,801	68 : 32
Agriculture	\$24,446	\$9,698	\$34,144	72 : 28

Source: Department of Education, Skills and Employment (DESE) 2020, *Job-ready Graduates*, Higher Education Reform Package 2020.

Under the *Job-ready Graduates* package, in 2021, the average public contribution per place will fall to 51 per cent (or \$9,960 per place) while average student contribution will increase to 49 per cent (or \$9,620 per place). The public–private contribution split for most disciplines will widen further under the package (see Table 3). For example, the share of private contribution will increase further for management and commerce, arts, humanities (excluding languages), law, economics and communications, with the government contribution declining to just seven per cent for these disciplines.

**Table 3: Relative government and student contribution by discipline, 2021 (new clusters)**

Funding clusters	Australian Government contribution	Maximum student contribution amounts	Total resourcing	Relative government and student contribution
Law, accounting, administration, economics, commerce, communication, society and culture	\$1,100	\$14,500	\$15,600	7 : 93
Education, postgraduate clinical psychology, mathematics, statistics and English	\$13,250	\$3,950	\$17,200	77 : 23
Health, architecture and built environment, computing, visual and performing arts, professional pathway psychology and professional pathway social work	\$13,250	\$7,950	\$21,200	63 : 37
Nursing and languages	\$16,250	\$3,950	\$20,200	80 : 20
Engineering, science and environmental studies	\$16,250	\$7,950	\$24,200	67 : 33
Agriculture	\$27,000	\$3,950	\$30,950	87 : 13
Medicine, dentistry and veterinary studies	\$27,000	\$11,300	\$38,300	70 : 30

Source: Department of Education, Skills and Employment (DESE) 2020, *Job-ready Graduates*, Higher Education Reform Package 2020.

### 1.1.4 OTHER FUNDING TO SUPPORT TEACHING AND LEARNING

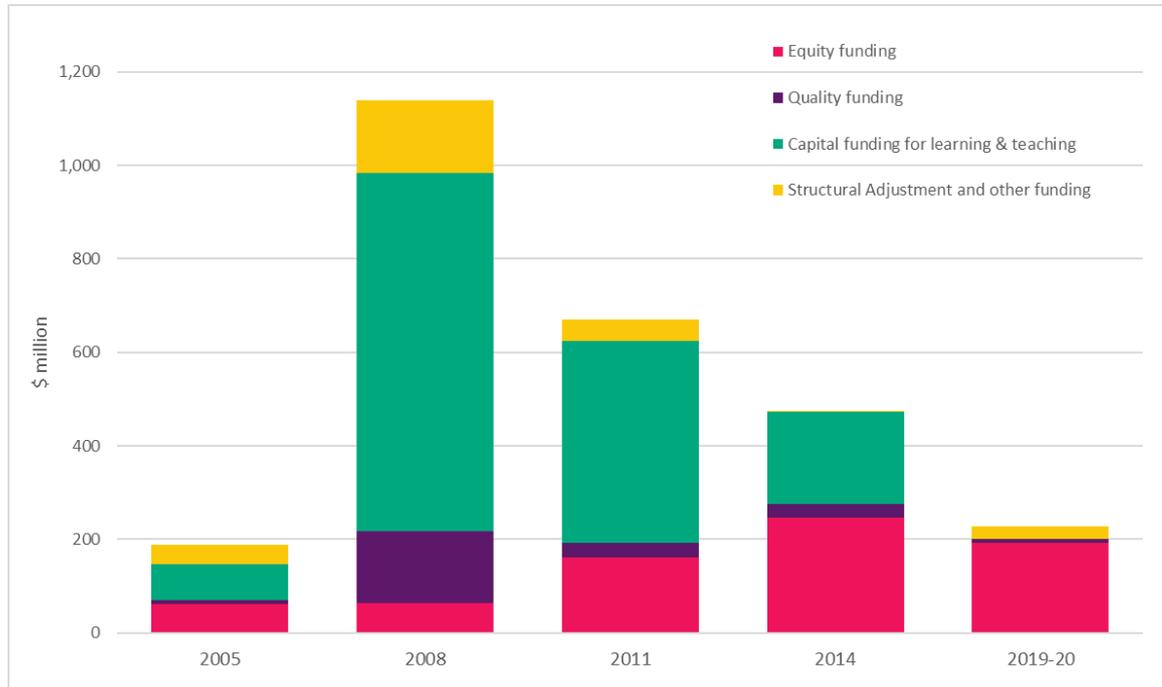
In addition to the direct CGS funding that subsidises tuition costs for Commonwealth supported students, the Australian Government also provides other funding to universities to support teaching and learning activities. However, these funding sources have been variable and are now minimal.

As part of the government's response to the 2008 global financial crisis and to help support the expansion of student places under the demand driven system, there was a large injection of capital funding for teaching-related purposes and funding for structural adjustment from around 2008 to 2012. There are currently no new capital grants for teaching-related purposes.

Funding to support quality and innovation in teaching was increased prior to 2008 but has since declined. Excluding funding for surveys to produce the Quality Indicators for Learning and Teaching (QILT), support for quality and innovation in teaching was only \$1 million in 2019–20.

Additional funding to promote equity in the provision of higher education accompanied the introduction of the demand driven system. This funding quadrupled to around \$200 million a year, mainly to support the participation and success of students from disadvantaged backgrounds. Some of the specific grants to promote equity are discussed in the following sections.

**Figure 4: Other government funding to support teaching and learning, by purpose, 2018 dollars**



Source: Actual data for 2005 to 2014 are from Department of Education, Skills and Employment (DESE) administrative data and 2019–20 data are estimates from Australian Government 2019, *Portfolio Budget Statement 2019–20: Education and Training Portfolio*.

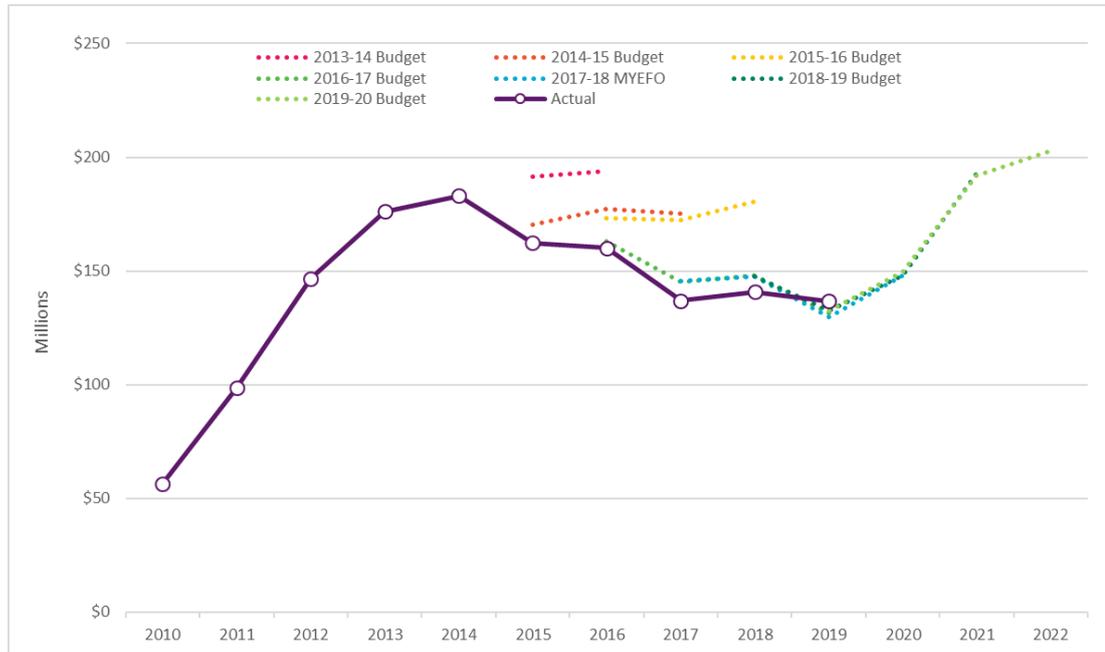
### Higher Education Participation and Partnerships Program

The Higher Education Participation and Partnerships Program (HEPPP) provides funding to assist universities listed in Table A of the *Higher Education Support Act 2003* to undertake activities and implement strategies that improve access to undergraduate courses for people from low socio-economic backgrounds, as well as improving the retention and completion rates of those students.

When HEPPP was introduced in the 2009–10 Budget, funding was set at two per cent of Commonwealth Grant Scheme (CGS) funding and was budgeted to increase to four per cent by 2012–13, in line with the recommendations of the *Bradley Review of Higher Education* in 2008.

However, HEPPP funding was cut in the 2011–12 Budget and several times since – most recently in the 2016–17 Budget (see Figure 5: HEPPP funding – actual and budget cuts). Total cuts of around \$250 million to 2019–20 have been announced since the 2011–12 budget. As a result, HEPPP has not reached the four per cent target. In 2019, HEPPP was around 1.9 per cent of CGS (including enabling and regional loadings).

**Figure 5: HEPPP funding – actual and budget cuts**



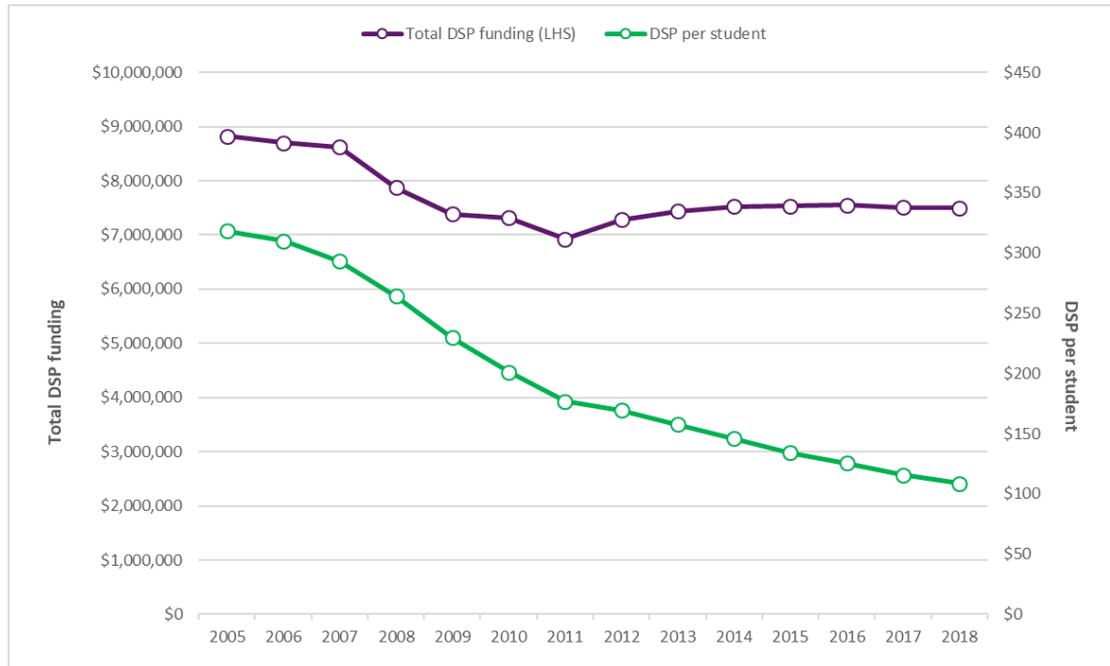
Source: Actual data for 2010 to 2015 are from Department of Education, Skills and Employment (DESE) administrative dataset and for 2016 to 2019 are from HESA Determinations. Forward estimates figures are from DESE's Portfolio Budget Statements (various years).

### Disability Support Program

The Disability Support Program (DSP) provides funding to eligible higher education providers to undertake activities that assist in removing barriers to access for students with disability.

While the funding for the DSP grew 17.6 per cent in nominal terms between 2008 and 2018, funding has declined by 4.8 per cent over the period in real terms. Significant growth (131 per cent) in students with disability means that DSP funding per student has declined by 58.8 per cent in real terms, from \$265 in 2008 to \$110 in 2018.

**Figure 6: Funding for Disability Support Program – total and per student – in 2018 dollars**



Source: Department of Education, Skills and Employment’s administrative data and HESA Determinations.

### Indigenous Student Success Program funding

The Indigenous Student Success Program (ISSP) provides supplementary funding to universities according to a formula that factors in enrolments, unit success rates and course completions of Indigenous students. A loading is included in the allocation formula for students from regional or remote areas.

The value of the ISSP is expected to increase by 6.4 per cent, from \$70.6 million in 2017–18 to \$75.1 million in 2022–23.<sup>1</sup>

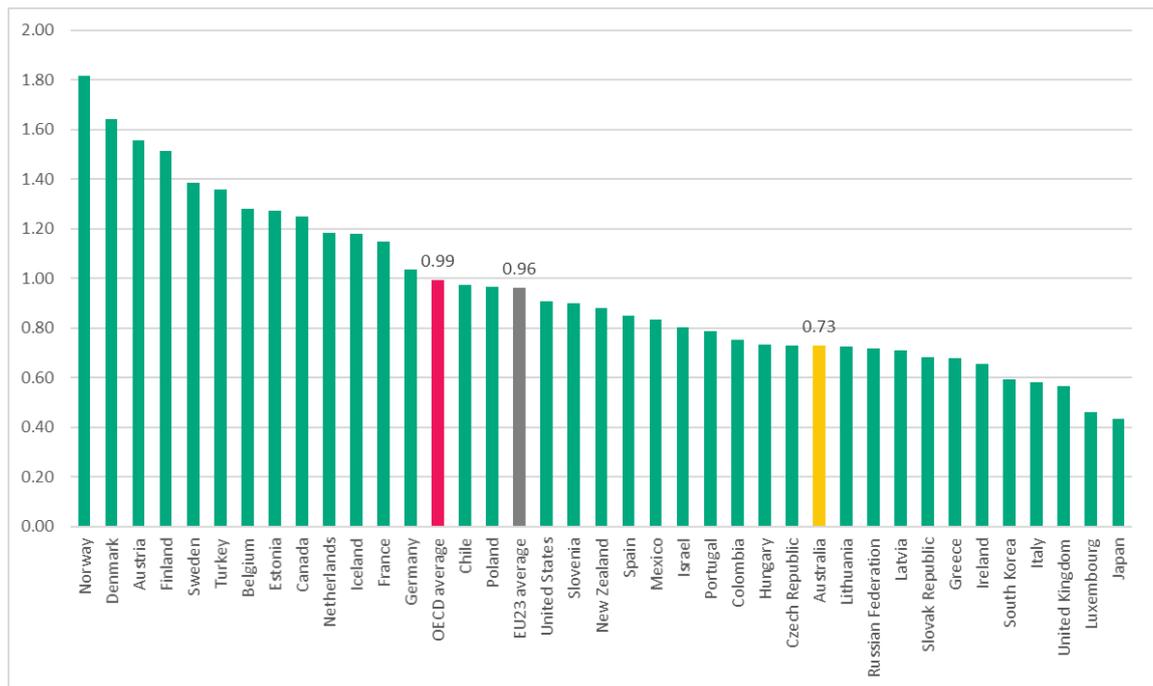
<sup>1</sup> Australian Government 2019, *Budget 2019–20: Department of Prime Ministers and Cabinet Portfolio Budget Statements*.

### 1.1.5 INTERNATIONAL COMPARISONS

In 2017, Australia's total investment – public and private – in tertiary education institutions as a share of GDP was above the OECD average and the fourth highest, behind Chile, the US, and Canada.

However, Australia's public investment (Figure 7) in tertiary institutions as a share of GDP was amongst the lowest in the OECD – ranked 26 out of 37 countries. Australia's public investment was 0.73 per cent of GDP in 2017 compared to an OECD average of 0.99 per cent of GDP.

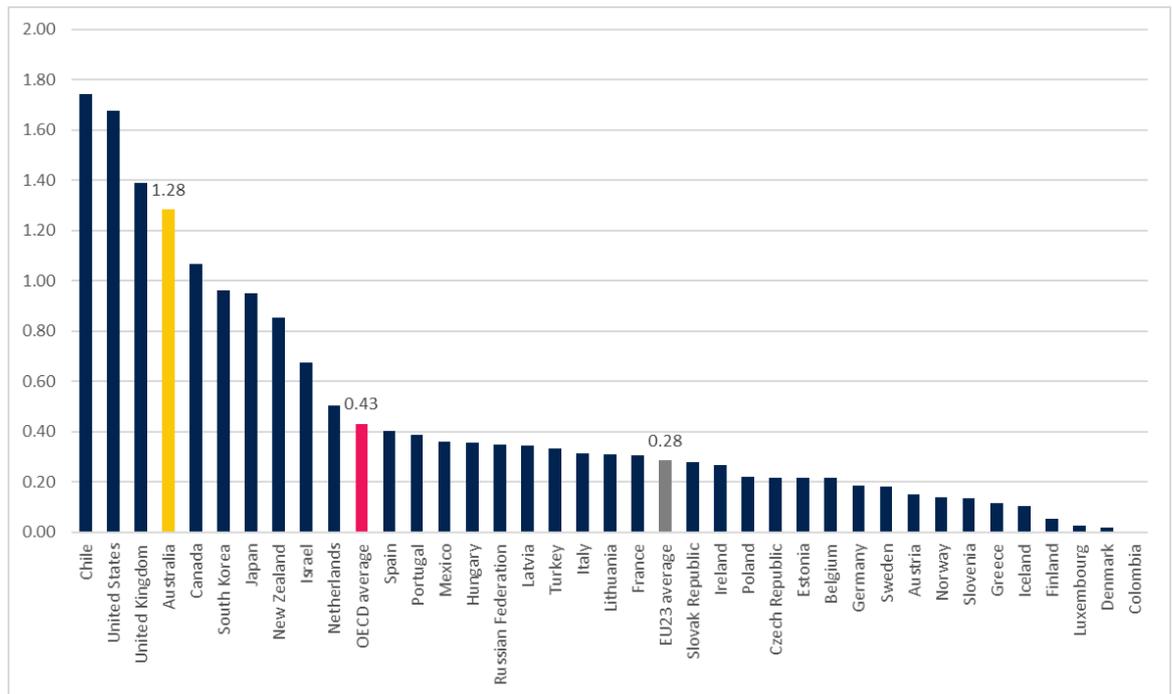
**Figure 7: Public investment in tertiary education institutions as a percentage of GDP, 2017**



Source: OECD 2020, *Education at a Glance*, Indicator C2.2.

On the other hand, Australia's private investment in tertiary education institutions is among the highest in the OECD – ranked four out of 37 countries (Figure 8). Australia's private investment was 1.28 per cent of GDP in 2017, compared to an OECD average of 0.43 per cent of GDP.

**Figure 8: Private investment in tertiary education institutions as a percentage of GDP, 2017**



Source: See Figure 7.

Tuition fees for domestic students studying a Bachelor degree in Australia are high compared to other OECD countries. Figure 9 shows the estimated average annual fees for a domestic student studying a full-time Bachelor degree in public institutions in selected OECD countries.

In 2017–18, Australia’s average tuition fee of US\$4,961 is higher than South Korea, New Zealand, the Netherlands and Israel, but lower than UK, US, Canada and Japan. However, most domestic students in Australia can defer their tuition fees through income-contingent loans (i.e. the Higher Education Loan Program).

**Figure 9: Estimated average annual tuition fees charged by public institutions for domestic students at Bachelor degree or equivalent, 2017–2018, in US dollars**



Source: OECD 2020, *Education at a Glance*, Indicator C5.1.

## 1.2 HIGHER EDUCATION LOAN PROGRAM (HELP)

Total annual HELP loan amounts more than doubled from \$3.5 billion in 2010 to \$8.7 billion in 2015, before reducing to around \$6.7 billion in both 2017 and 2018 following the reforms in VET FEE-HELP to VET Student Loans<sup>2</sup> (Table 4).

<sup>2</sup> HECS-HELP and FEE-HELP are income-contingent loan programs that allow domestic students to defer payment of student contributions for Commonwealth supported places and tuition fees for full-fee paying courses in higher education. VET Student Loans and the former VET FEE-HELP allow students to defer payment of tuition fees for vocational education and training courses outside of higher education.

Between 2010 and 2018, HECS-HELP lending grew 86 per cent while FEE-HELP lending increased by almost 80 per cent. However, growth in HECS-HELP lending is largely due to the growth in student places (40 per cent growth), while growth in FEE-HELP lending is largely due to growth in the average amount borrowed per student (49 per cent growth) – from about \$14,000 in 2010 to \$20,400 in 2018.

Figure 10 shows that VET FEE-HELP as a share of total new HELP lending increased from three per cent in 2010 to 34 per cent in 2015, before declining to four per cent in 2018 following the VET loan reform.

As at 30 June 2019, outstanding HELP debt was \$66.6 billion<sup>3</sup> and the 'fair value' of HELP debt – the amount that is expected to be eventually repaid by borrowers – was valued at \$46.1 billion.<sup>4</sup>

In 2018–19, the estimated proportion of new debt not expected to be repaid was 15.76 per cent, a significant decline from the estimate of 18 per cent in 2017–18. The Department of Education, Skills and Employment (DESE) attributed this decline partly due to the introduction of new HELP repayment rates and thresholds – including a lower minimum repayment threshold of \$45,881 – from 2019–20.<sup>5</sup>

**Table 4: Number of students receiving HELP loans and new HELP lending by programs**

Number of places (EFTSL) or students receiving HELP loans	2010	2011	2012	2013	2014	2015	2016	2017	2018
HECS-HELP (EFTSL)	395,177	414,709	450,314	484,681	507,629	520,606	532,940	548,802	553,137
FEE-HELP (EFTSL)	64,766	70,849	75,388	76,106	76,613	77,850	77,778	76,293	77,689
OS-HELP	4,086	5,035	5,675	6,373	10,986	12,818	14,861	15,654	16,392
SA-HELP	-	-	307,339	414,197	444,344	463,872	483,803	504,904	514,920
VET FEE-HELP (EFTSL)	18,247	25,909	35,550	64,564	131,344	196,108	115,068	25,972	-
VET Student Loans (EFTSL)	-	-	-	-	-	-	-	26,908	36,559
HELP payments to providers on behalf of students (\$ millions)	2010	2011	2012	2013	2014	2015	2016	2017	2018
HECS-HELP	2,467	2,646	2,992	3,601	3,949	4,134	4,297	4,452	4,578
FEE-HELP	885	1,008	1,142	1,265	1,354	1,440	1,516	1,570	1,587
OS-HELP	22	28	32	39	68	81	95	102	108
SA-HELP	-	-	58	85	95	100	105	112	114
VET FEE-HELP	117	204	323	696	1,743	2,915	1,470	307	-
VET Student Loans	-	-	-	-	-	-	-	200	279
<b>Total HELP loans</b>	<b>3,491</b>	<b>3,886</b>	<b>4,547</b>	<b>5,686</b>	<b>7,209</b>	<b>8,670</b>	<b>7,483</b>	<b>6,743</b>	<b>6,666</b>

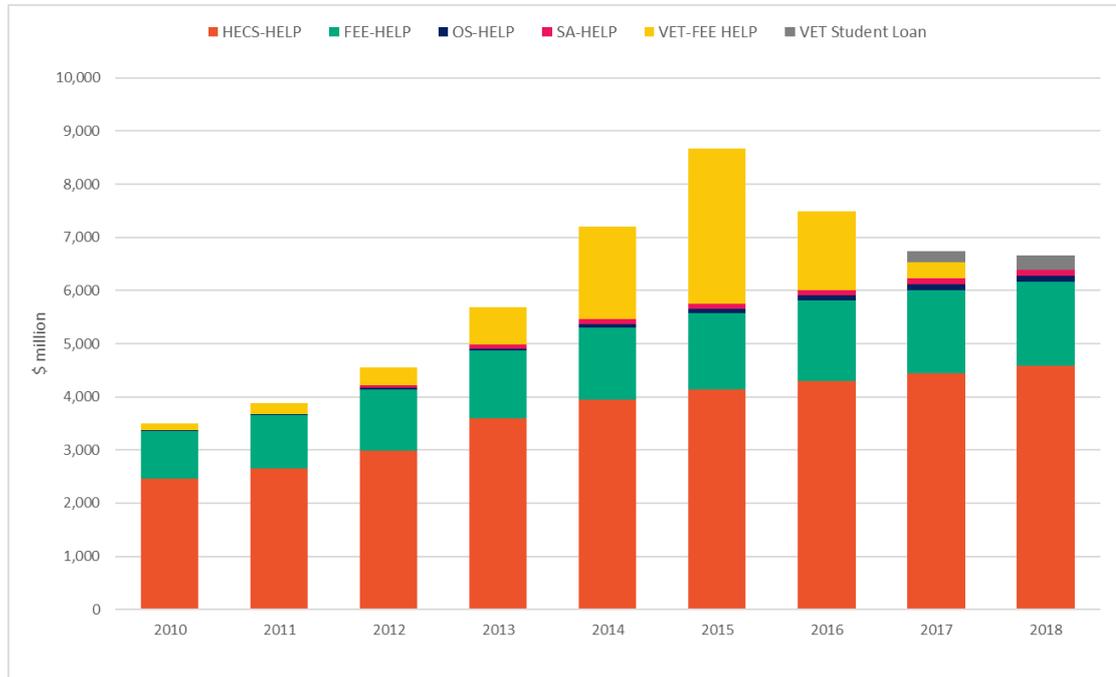
Source: 2010 to 2013 HECS-HELP, FEE-HELP, OS-HELP and SA-HELP figures are derived from the 2010 and 2011–13 *Higher Education Reports*. 2014 to 2018 HECS-HELP, FEE-HELP, OS-HELP and SA-HELP figures are sourced from HESA Determinations. 2010 to 2017 figures for VET FEE-HELP are from *2016 and 2017 VET FEE-HELP Statistical Report*. 2018 figure for VET Student Loan is from *VET Student loans: Annual Statistical Report 2018*.

<sup>3</sup> Australian Government 2019, *HELP Statistics 2018–19*, <https://data.gov.au/dataset/ds-dga-ce4c58ec-c930-4a05-8a37-f244d960e5f8/distribution/dist-dga-cf2440b5-2b21-4b87-88d7-82848e4ffe2e/details?q=>.

<sup>4</sup> Australian Government 2019, *Budget Strategy and Outlook 2019–20*, Budget Paper No. 1, pp. 6–20.

<sup>5</sup> Department of Education 2019, *Annual Report 2018–2019*, p.32.

**Figure 10: Amount of new HELP lending by programs, in nominal dollars**



Source: See Table 4.

## 1.3 UNIVERSITY FINANCES

### 1.3.1 REVENUE BY SOURCE

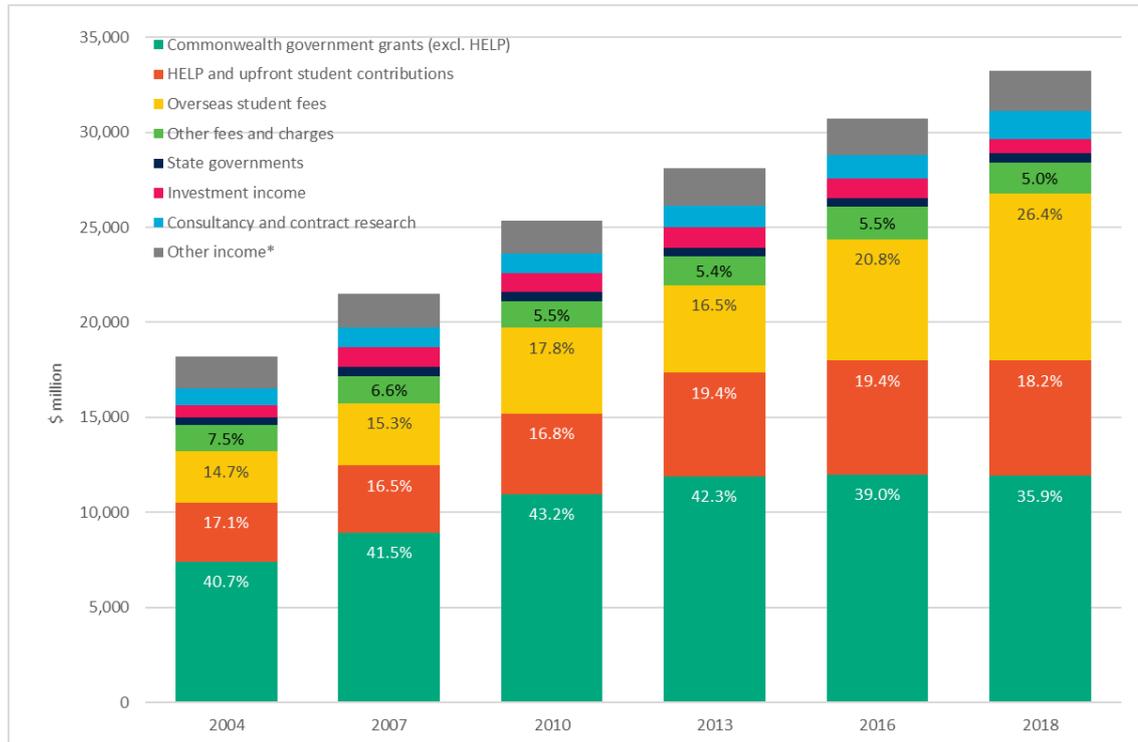
In 2018, total operating revenue<sup>6</sup> for Australian universities – in real terms – was \$33.2 billion, compared to \$18.2 billion in 2004.

As a proportion of total revenue, revenue sourced from Australian Government grants (excluding HELP) has declined from 40.7 per cent in 2004 to 35.9 per cent in 2018; while overseas student fees have increased from 14.7 per cent to 26.4 per cent over the same period.

This aggregate picture masks considerable variations between universities.

<sup>6</sup> Excluding Batchelor Institute of Indigenous Tertiary Education and VET activity for dual sector universities.

**Figure 11: Sources of university revenue, in 2018 dollars**



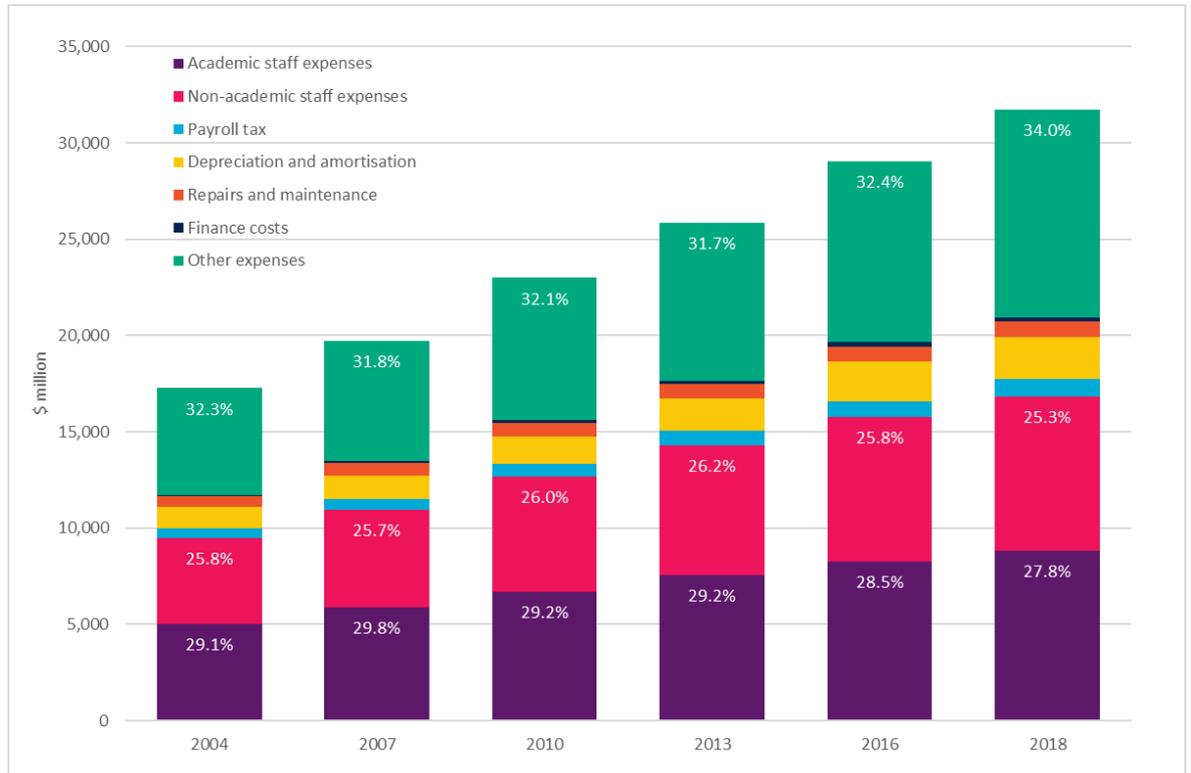
Source: Department of Education Skills and Employment, *Financial Reports of Higher Education Providers* (various years), excluding BIITE – Batchelor Institute of Indigenous Tertiary Education and VET activity for dual sector universities. Note: Data are not available for Bond University. Other income includes royalties, trademarks and licences and the share of net result of associates and joint ventures accounted for using the equity method.

### 1.3.2 EXPENDITURE BY CATEGORY

Australian universities' operating expenses have grown broadly in line with revenue growth, with total operating expenses increasing from \$17.3 billion in 2004 to \$31.7 billion in 2018. Changes in the proportion of expenditure on different expense categories have been relatively small.

The share of expenditure spent on staff (excluding payroll tax) has declined marginally from 55 per cent in 2004 to 53 per cent in 2018. Around 10 per cent of university budgets are devoted to depreciation and repairs and maintenance.

**Figure 12: Categories of university expenditure, in 2018 dollars**



Source: Department of Education, Skills and Employment, *Financial Reports of Higher Education Providers* (various years), excluding BIITE – Bachelor Institute of Indigenous Tertiary Education, and VET activity for dual sector universities.

Note: Data are not available for Bond University. Other expenses include impairment of assets, investment losses and deferred superannuation expenses.

### 1.3.3 UNIVERSITIES' FINANCIAL POSITION

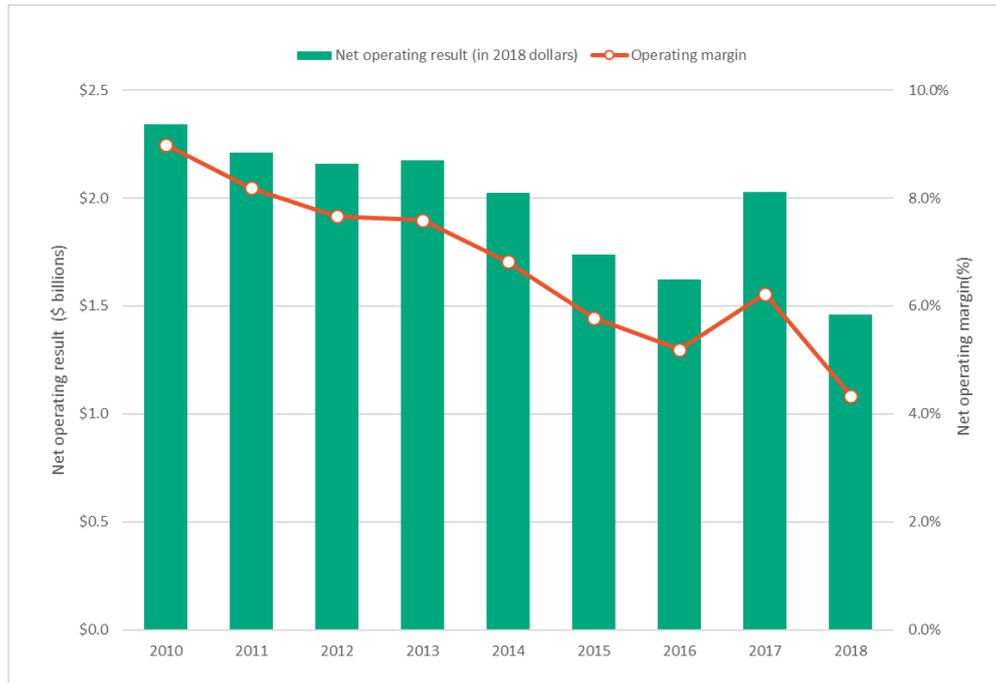
According to published net operating result figures from Department of Education, Skill and Employment *Higher Education Finance Statistics*,<sup>7</sup> the total sector net operating result has declined by 38 per cent in real terms since 2010, from \$2.3 billion in 2010 to \$1.5 billion in 2018 (Figure 13).

As a percentage of total revenue, the operating margin for the whole sector has declined from nine per cent in 2010 to 4.3 per cent in 2018.

There is a clear negative trend over time in the number of universities with healthy margins (Figure 14). Five universities were in deficit in 2018 compared to one in 2010. Moreover, the number of universities with a surplus margin greater than eight per cent has declined from 19 universities (or half of universities) in 2010 to just four universities in 2018.

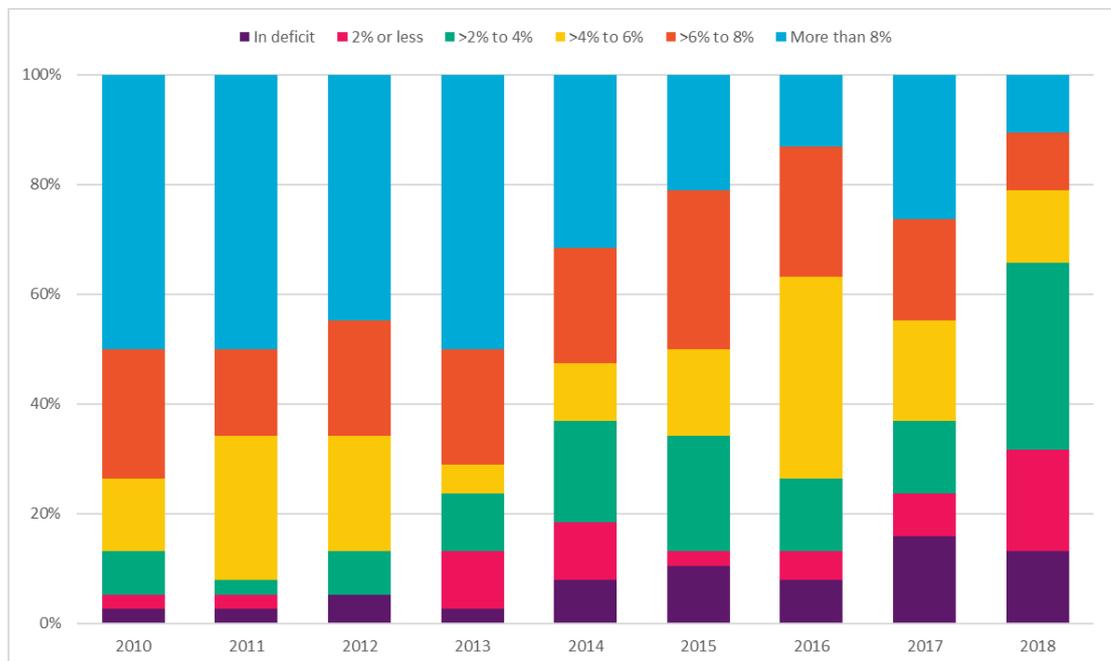
<sup>7</sup> Data reported in Figure 13 and Figure 14 include both higher education and VET activities for 38 universities. They exclude financial position of Bachelor Institute of Indigenous Tertiary Education.

**Figure 13: University net operating results, 2010 to 2018, in 2018 dollars**



Source: Department of Education, Skills and Employment, *Financial Reports of Higher Education Providers* (various years), excluding BIITE.

**Figure 14: Proportion of universities by size of operating margins, 2010 to 2018**



Source: Department of Education, Skills and Employment, *Financial Reports of Higher Education Providers* (various years), excluding BIITE.

## 2 STUDENTS

In 2018, 1,426,594 students studied at Australia’s 39 comprehensive universities. Of these, 71 per cent (or 1,014,027) were domestic students and the remaining 29 per cent (or 412,567) were international students.

Overall, enrolments have increased 41 per cent since 2008. Domestic enrolments have increased by 37 per cent while international enrolments have risen 50 per cent.

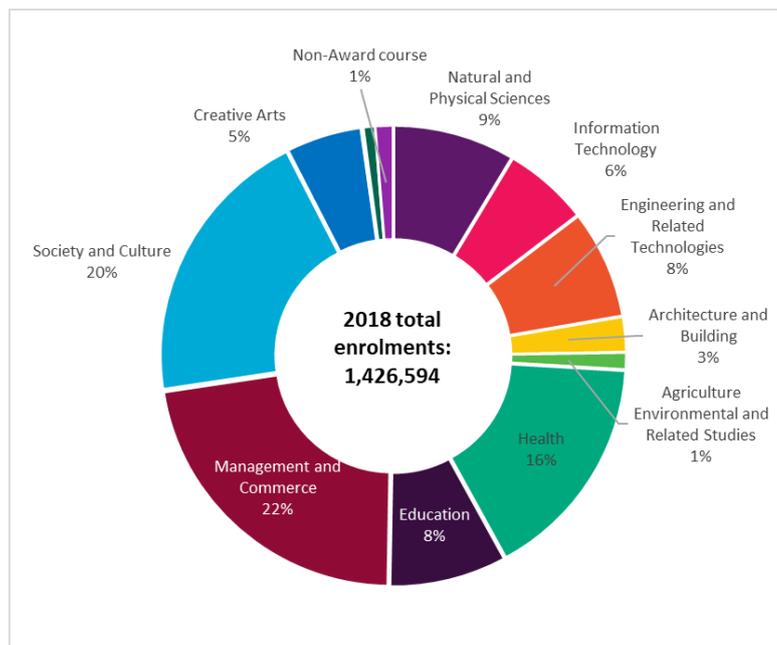
**Figure 15: Overall university enrolments, 2001 to 2018**



Source: Department of Education, Skills and Employment, *uCube*.

In 2018, the most popular disciplines were management and commerce (22 per cent), society and culture (20 per cent) and health (16 per cent).

**Figure 16: Overall enrolments, by broad disciplines, 2018**



Source: Department of Education, Skills and Employment, *uCube*.

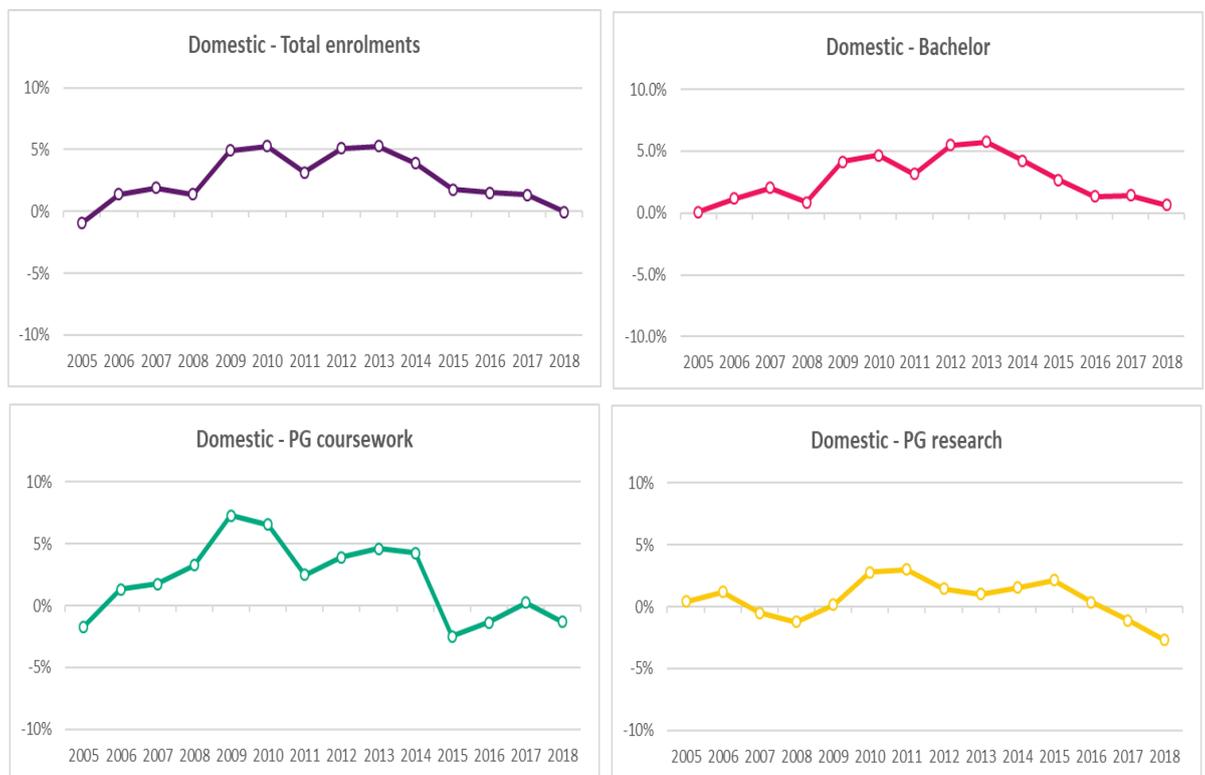
## 2.1 DOMESTIC STUDENTS

### 2.1.1 TRENDS IN DOMESTIC ENROLMENTS

In 2018, there were 1,014,027 domestic students studying at Australian 39 comprehensive universities, marginally fewer students than in 2017. This is the first decline in total domestic student enrolments since 2005.

In 2018, domestic enrolments in Bachelor degree courses grew by 0.7 per cent, the lowest level since 2005. Annual growth in Bachelor course enrolment peaked in 2012 at 5.8 per cent. In 2018, domestic enrolments in both postgraduate coursework and research degrees fell by 1.3 and 2.7 per cent respectively (Figure 17).

**Figure 17: Annual growth in domestic enrolments, by course levels, 2005 to 2018**



Source: Department of Education, Skills and Employment, *uCube*.

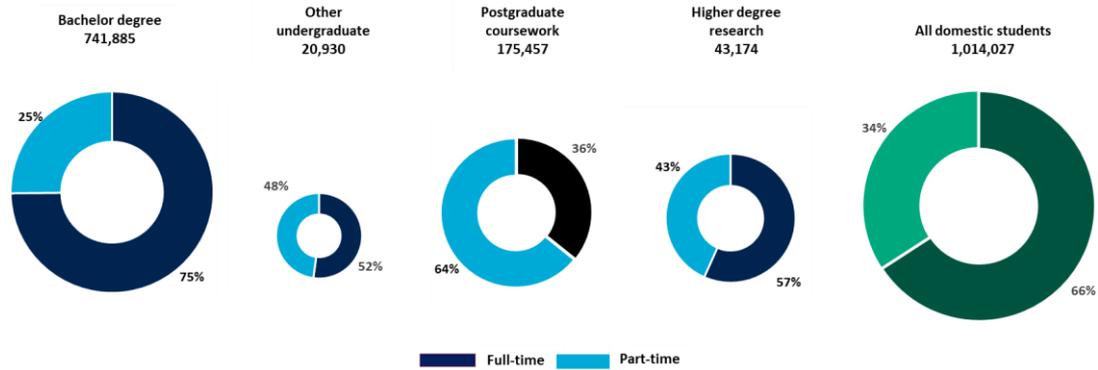
### 2.1.2 STUDENT PROFILES

#### Course level and type of attendance

Of the 1,014,027 domestic students studying at Australian universities in 2018, 73 per cent were studying Bachelor degrees, 17 per cent were studying for postgraduate coursework degrees and a further four per cent were studying postgraduate research degrees.

The majority (66 per cent) of students – 667,231 – were studying their qualifications full-time in 2018. However, this varied at different levels of study, ranging from 75 per cent for Bachelor degree students to 36 per cent for postgraduate coursework students (see Figure 18).

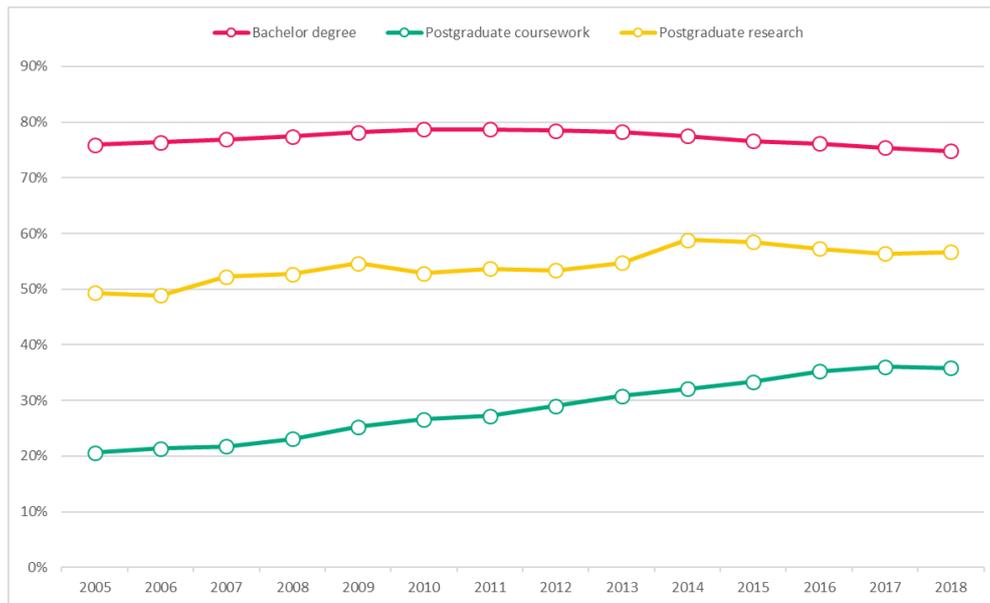
**Figure 18: Domestic students, by course level and type of attendance, 2018**



Source: Department of Education, Skills and Employment, *uCube*.

Figure 19 shows that the proportion of Bachelor degree students studying full-time has declined slightly from 76 per cent in 2005 to 75 per cent in 2018, while a greater share of postgraduate students – both coursework and research – was studying full-time in 2018 than in 2005.

**Figure 19: Share of domestic students studying full-time, 2005 to 2018**



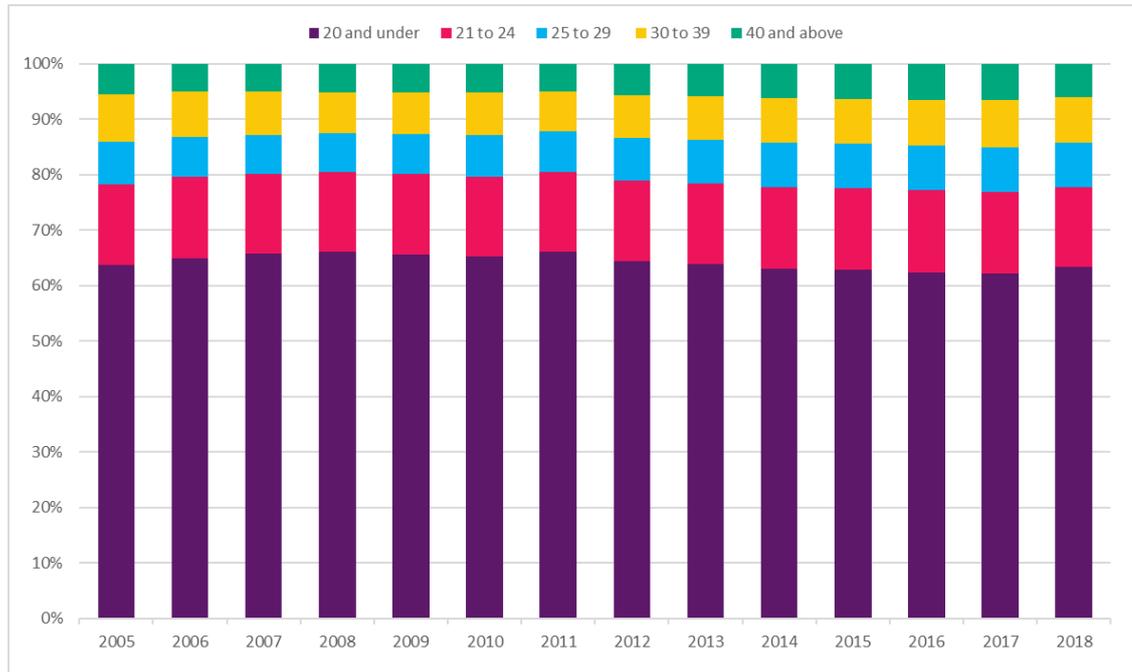
Source: Department of Education, Skills and Employment, *uCube*.

### Age cohort

In 2018, 63 per cent of first-year domestic students enrolled in undergraduate courses were aged 20 or younger, 14 per cent were aged between 21 and 24 and the remaining 22 per cent of students were aged 25 and older. These proportions have remained relatively unchanged since 2005 (Figure 20).

Annual growth in first-year domestic undergraduate enrolments has declined in recent years, from 10.1 per cent growth recorded in 2012 to 1.6 per cent in 2017, before declining by 1.3 per cent in 2018. However, Figure 21 shows that this growth varied significantly by age cohorts. For example, in 2018, commencing enrolments only increased for students aged 20 and under (by 0.5 per cent) but declined for all other age cohorts, with those aged 40 and over recorded the largest contraction of – 9.6 per cent.

**Figure 20: Share of commencing domestic undergraduate students, by age cohort**



Source: Department of Education, Skills and Employment, unpublished HEIMS data, various years.

**Figure 21: Annual growth in commencing domestic undergraduate student enrolments, by age cohort**

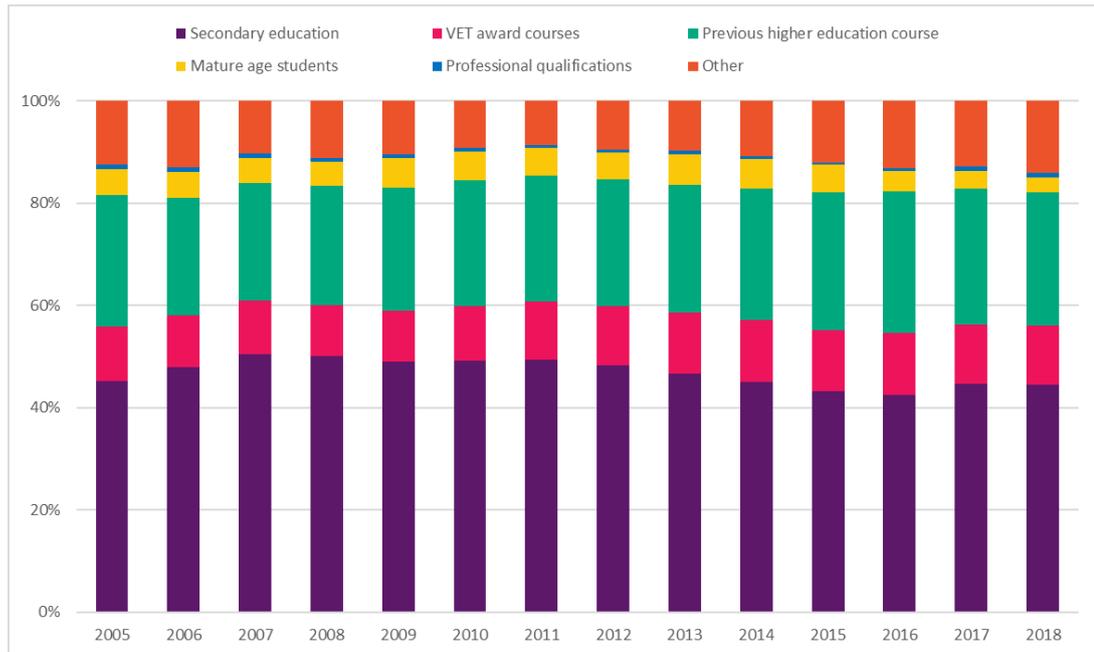


Source: Department of Education, Skills and Employment, unpublished HEIMS data, various years.

### Basis of admission

Figure 22 shows that the proportion of first-year domestic Bachelor degree students admitted on the basis of secondary education has declined from 50 per cent in 2008 to 45 per cent in 2018. Over the same period, the share of students admitted on prior higher education and VET courses (whether complete or incomplete) increased from 33 per cent to 38 per cent, while the share of students admitted based on other pathways has remained relatively unchanged at around 17 per cent.

**Figure 22: Basis of admissions for commencing domestic Bachelor degree students**



Source: Department of Education, Skills and Employment, unpublished HEIMS data, various years.

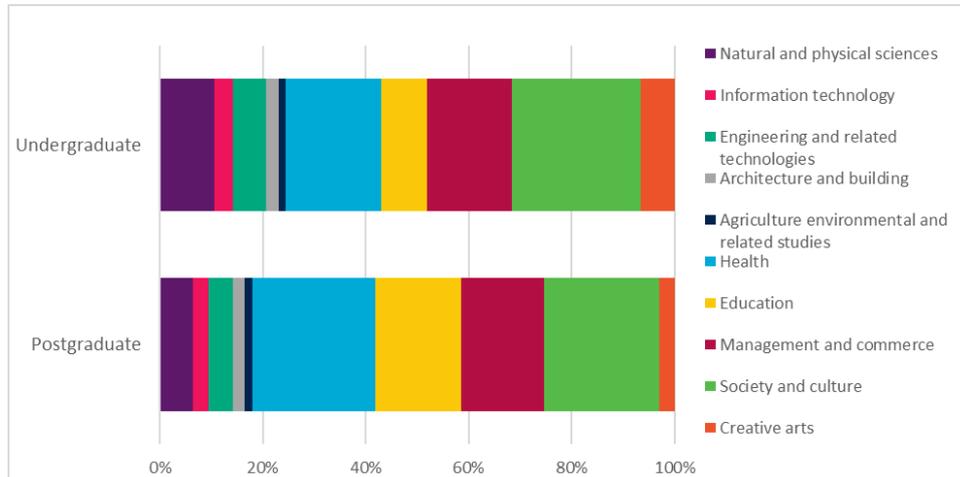
The share of all undergraduate offers made to prospective students with an Australian Tertiary Admissions Rank (ATAR) of 50 or less in 2019 was 2.5 per cent – slightly lower than the 2.9 per cent recorded in 2018. The absolute number of offers made to prospective students with an ATAR of 50 or less fell 14 per cent, from 8,023 offers in 2018 to 6,891 in 2019.

### Broad field of education

In 2018, the most popular fields of education (FOE) for domestic undergraduate students were society and culture (25 per cent), health (18.7 per cent), management and commerce (16.5 per cent) and natural and physical sciences (10.6 per cent).

The most popular fields for domestic postgraduate students – both coursework and research – were health (23.9 per cent), society and culture (22.4 per cent), education (16.8 per cent) and management and commerce (16.1 per cent).

**Figure 23: Domestic undergraduate and postgraduate enrolments, by broad field of education, 2018**

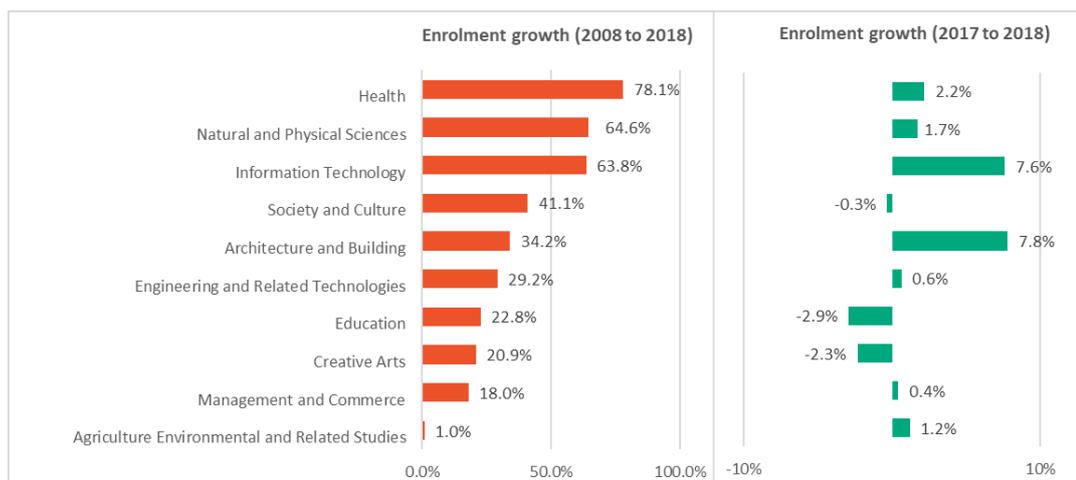


Source: Department of Education, Skills and Employment, *uCube*.

Figure 24: Growth in domestic undergraduate enrolments, by broad field of education, between 2008 and 2018 shows undergraduate disciplines that have experienced the largest percentage increase in enrolments since 2008 were health (a growth of 78.1 per cent), natural and physical sciences (64.6 per cent) and information technology (63.8 per cent). Agriculture, environmental and related studies is the only discipline that has not experienced substantial increase in enrolment over the period (1.0 per cent).

Architecture and building (7.8 per cent) and information technology (7.6 per cent) recorded the largest increase in undergraduate enrolments between 2017 and 2018, while education (-2.9 per cent) and creative arts (-2.3 per cent) experienced the largest fall in undergraduate enrolments.

**Figure 24: Growth in domestic undergraduate enrolments, by broad field of education, between 2008 and 2018**



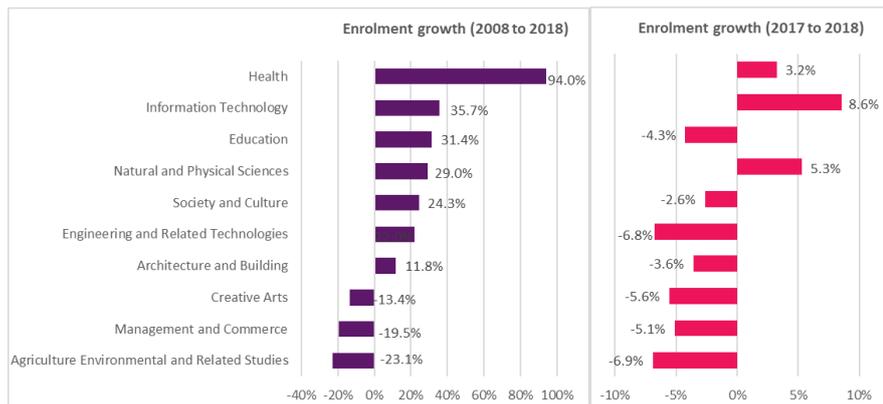
Source: Department of Education, Skills and Employment, *uCube*.

For postgraduate study – by coursework and research – health (94 per cent), information technology (35.7 per cent) and education (31.4 per cent) were the disciplines that experienced the largest percentage growth in enrolments since 2008 (Figure 25: Growth in domestic postgraduate enrolments, by broad field of education, between 2008 and 2018). Disciplines that have experienced a decline in enrolments over the same period were agriculture, environmental

and related studies (-23.1 per cent), management and commerce (-19.5 per cent) and creative arts (-13.4 per cent).

Information technology (8.6 per cent), natural and physical sciences (5.3 per cent) and health (3.2 per cent) were the only disciplines that experienced an increase in postgraduate enrolments between 2017 and 2018.

**Figure 25: Growth in domestic postgraduate enrolments, by broad field of education, between 2008 and 2018**



Source: Department of Education, Skills and Employment, *uCube*.

### Growth in student enrolments by equity group

The number of undergraduate students from key equity groups, including Indigenous students, students with a disability, and students from low socio-economic backgrounds and regional and remote areas has increased significantly since 2008 (Figure 26).

**Figure 26: Number of domestic undergraduate student enrolments, 2008 and 2018**



Source: Department of Education, Skills and Employment 2019, *Selected Higher Education Statistics – 2018 Student Data*, Appendix B–Equity Groups.

Note: \*denotes low SES definition changed from 2006 SEIFA in 2008 to 2016 SEIFA in 2018. \*\* denotes regional and remote student definition changed from 2006 MCEETYA in 2008 to 2016 ASGS in 2018.

The latest Department of Education, Skills and Employment (DESE) data show that since 2008:

- enrolments of undergraduate students with disability rose 139 per cent;
- Indigenous undergraduate student enrolments have more than doubled (111 per cent);
- enrolments of undergraduate students from low socio-economic backgrounds (low SES) increased 66 per cent; and
- enrolments of undergraduate students from regional and remote areas have increased 48 per cent.

As a proportion of all domestic undergraduate students:

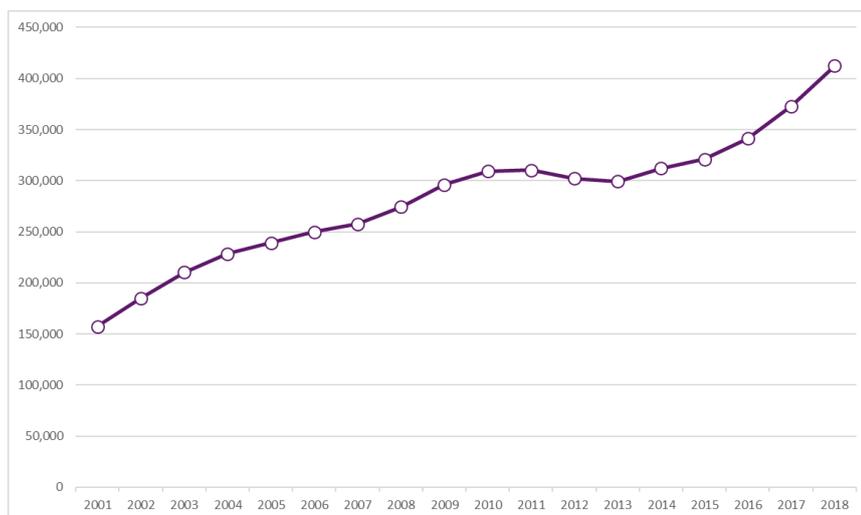
- enrolments of students with disability grew by 2.9 percentage points, from 4.3 per cent in 2008 to 7.2 per cent in 2018;
- Indigenous student enrolments increased from 1.3 per cent in 2008 to 1.8 per cent in 2018, a growth of 0.6 of one percentage point;
- low SES student enrolments grew from 16.1 per cent in 2008 to 18.7 per cent in 2018, a growth of 2.6 percentage points; and
- enrolments of students from regional and remote areas rose 0.7 of a percentage point, from 19.6 per cent to 20.3 per cent.

## 2.2 INTERNATIONAL STUDENTS

### 2.2.1 TRENDS IN INTERNATIONAL STUDENT ENROLMENTS

International student enrolments studying onshore and offshore at Australia's 39 comprehensive universities have more than doubled since 2001, from 157,427 students to 412,567 students in 2018. This represents an average annual growth rate of 5.8 per cent over the period. In 2018, 29 per cent of students enrolled in Australian universities were from overseas, compared to 19 per cent in 2001.

**Figure 27: International student enrolments, 2001 to 2018**

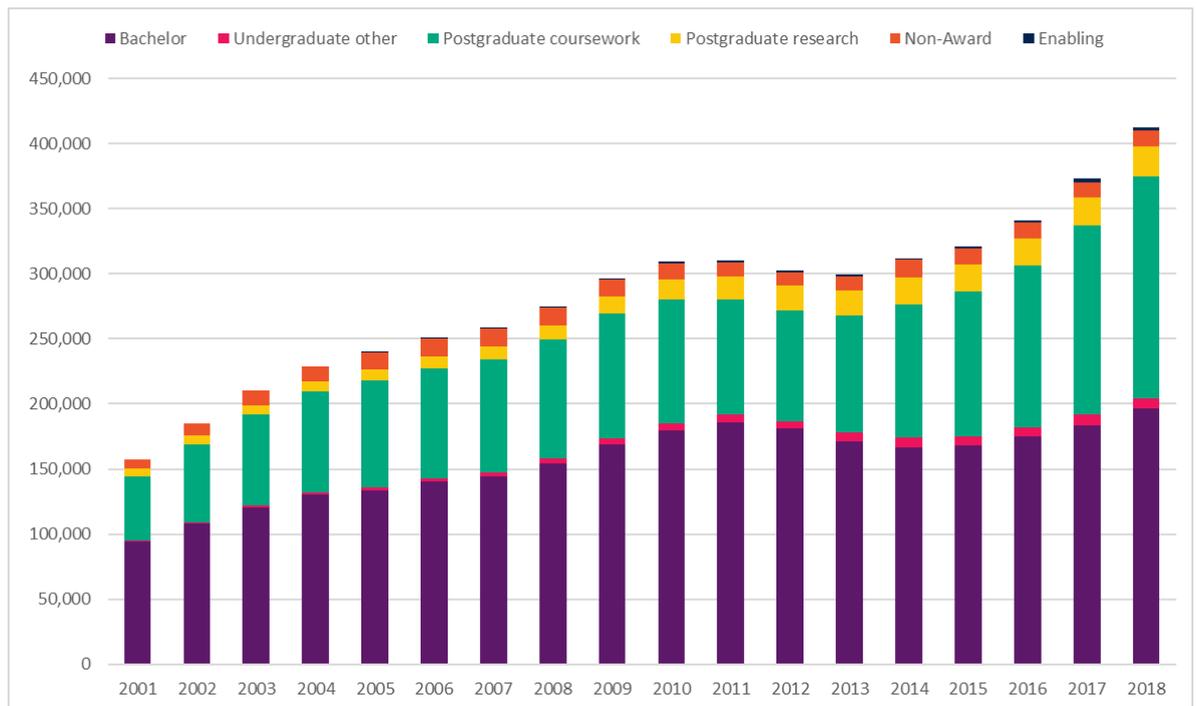


Source: Department of Education, Skills and Employment, *uCube*.

Figure 28 shows the share of international students who are enrolled in postgraduate studies – both coursework and research – has increased from 35 per cent in 2001 to 47 per cent in 2018, while the share of students pursuing a Bachelor degree has declined from 60 to 48 per cent over the same period. The remaining five per cent were enrolments in enabling, non-award and sub-bachelor courses.

Between 2001 and 2018, the average annual enrolment growth in Bachelor degrees was 4.4 per cent, compared to eight per cent for postgraduate research and 7.6 per cent for postgraduate coursework.

**Figure 28: International student enrolments, by course levels**



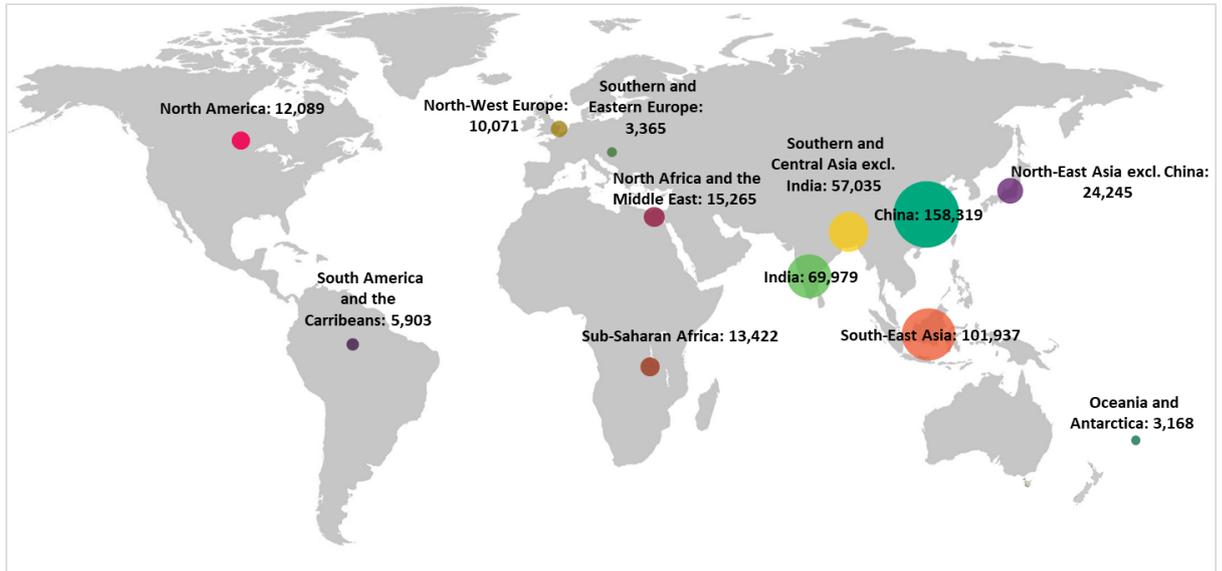
Source: Department of Education, Skills and Employment, *uCube*.

Figure 29 shows the region or country of origin of international students studying in Australian higher education institutions in 2018. In 2018, China was the biggest source of international students – at 33 per cent – followed by India (15 per cent). It is important to note for context, however, that a larger share of Chinese students is to be expected, given the large cohort of Chinese students studying outside their home country. In 2017, 928,090 Chinese students studied overseas, almost triple the next largest source country (India, 332,033 students).<sup>8</sup>

Figure 30 shows Australia is the third most popular destination for students choosing to study overseas, behind the United States and United Kingdom. In 2017, Australia hosted 7.2 per cent (or 381,202 students) of the 5.3 million international students worldwide studying at a tertiary level (VET and higher education).

<sup>8</sup> UNESCO Institute of Statistics, *Education dataset: Total outbound internationally mobile tertiary students studying abroad, both sexes, 2017*, accessed on 28 January 2020.

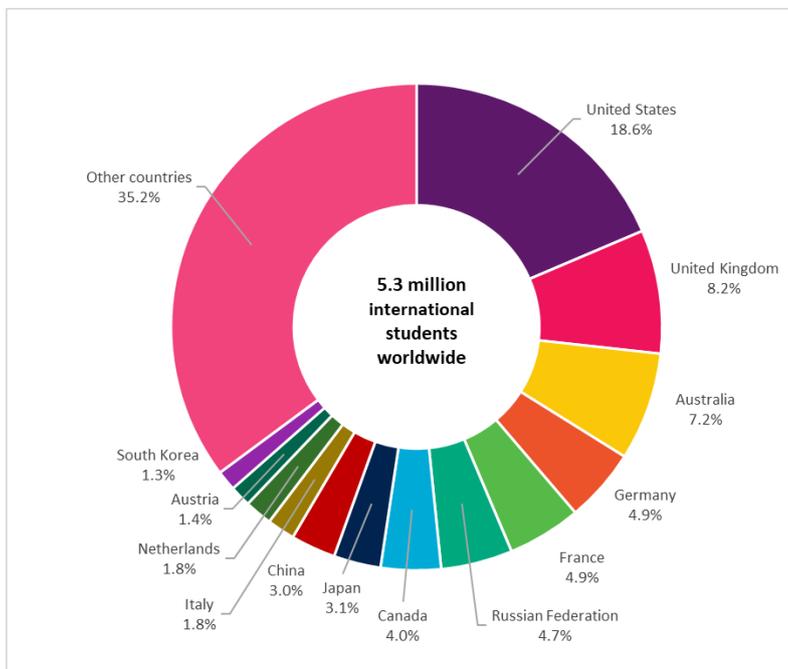
**Figure 29: International higher education students in Australia, by country or region of origin, 2018**



Source: Department of Education, Skills and Employment 2019, *Selected Higher Education Statistics – 2018 Student Data*, Section 7: Overseas students.

Note: The size of the bubble represents the number of international students from the country or region in 2018—the larger the bubble, the larger the number of students from the country or region. Data includes non-university higher education providers that provide data through HEIMS.

**Figure 30: Distribution of international students in tertiary education, by country of destination, 2017**



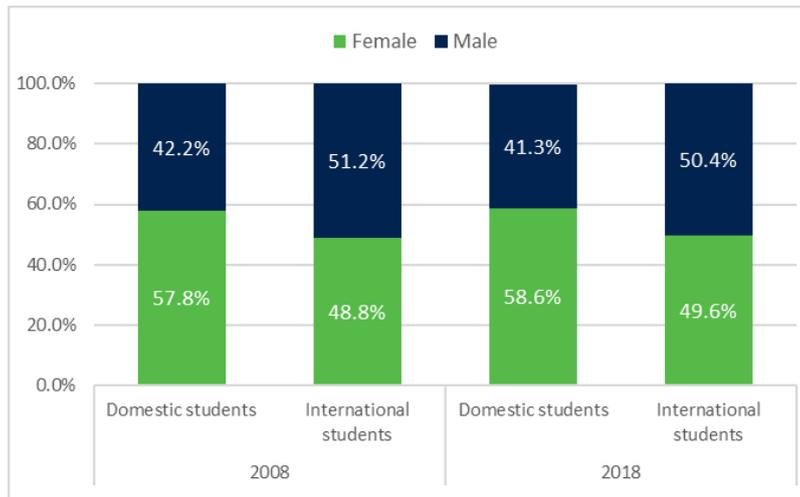
Source: UNESCO Institute of Statistics, *Education dataset: Total inbound internationally mobile students, both sexes, 2017*, accessed on 28 January 2020.

## 2.2.2 STUDENT PROFILES

### Gender

In 2018, 49.6 per cent of international students were female, compared to 58.6 per cent for domestic students (Figure 31). The proportion of male students – both domestic and international – has declined slightly compared to 2008.

**Figure 31: Share of students by gender, domestic vs international students, 2008 and 2018**



Source: Department of Education, Skills and Employment, *uCube*.

### Course level

International enrolments in Bachelor degree courses have increased 27.7 per cent since 2008, while international enrolments in postgraduate coursework and higher degree research have increased significantly, rising 86.1 per cent and 105.8 per cent respectively.

In contrast, for domestic students, growth in Bachelor degree enrolments was the strongest (39 per cent) compared to enrolments in postgraduate coursework (26.4 per cent) and higher degree research (8.9 per cent) over the same period.

**Table 5: Enrolments by course level, domestic vs international students, between 2008 and 2018**

	Domestic students			International students		
	2008	2018	Growth	2008	2018	Growth
Bachelor degree	533,845	741,885	39.0%	153,917	196,501	27.7%
Other undergraduate	9,638	20,930	117.2%	3,846	7,938	106.4%
Postgraduate coursework	138,854	175,457	26.4%	91,601	170,467	86.1%
Higher degree research	39,663	43,174	8.9%	11,200	23,052	105.8%

Source: Department of Education, Skills and Employment, *uCube*.

In recent years, international students are more likely to enrol in a postgraduate degree than a Bachelor degree compared to domestic students. In 2018, 47.6 per cent of international students were enrolled in Bachelor degree courses compared to 73.2 per cent of domestic students. In the same period, 41.3 per cent of international students were enrolled in postgraduate coursework, compared to just 17.3 per cent of domestic students.

While the proportion of international students studying a Bachelor degree has declined from 56.1 per cent in 2008 to 47.6 per cent in 2018, the share of international students enrolling in postgraduate degrees – both coursework and research – has increased from 37.5 per cent to 46.9 per cent over the same period.

**Figure 32: Share of students by course level, domestic vs international students, 2008 and 2018**

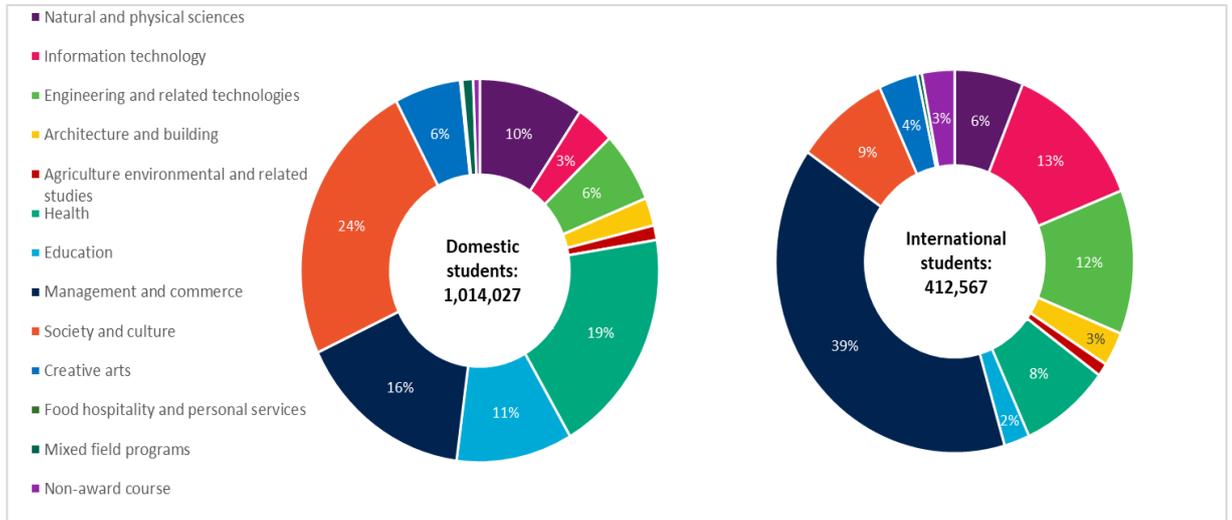


Source: Department of Education, Skills and Employment, *uCube*.

### Broad field of education

The discipline profile for international students is quite different from that of domestic students. In 2018, greater proportions of international students were studying management and commerce (39 per cent vs 16 per cent for domestic students), information technology (13 per cent vs three per cent) and engineering and related technologies (12 per cent vs six per cent). International students were less likely to study in society and culture (nine per cent vs 24 per cent for domestic students), health (eight per cent vs 19 per cent) and education (two per cent vs 11 per cent).

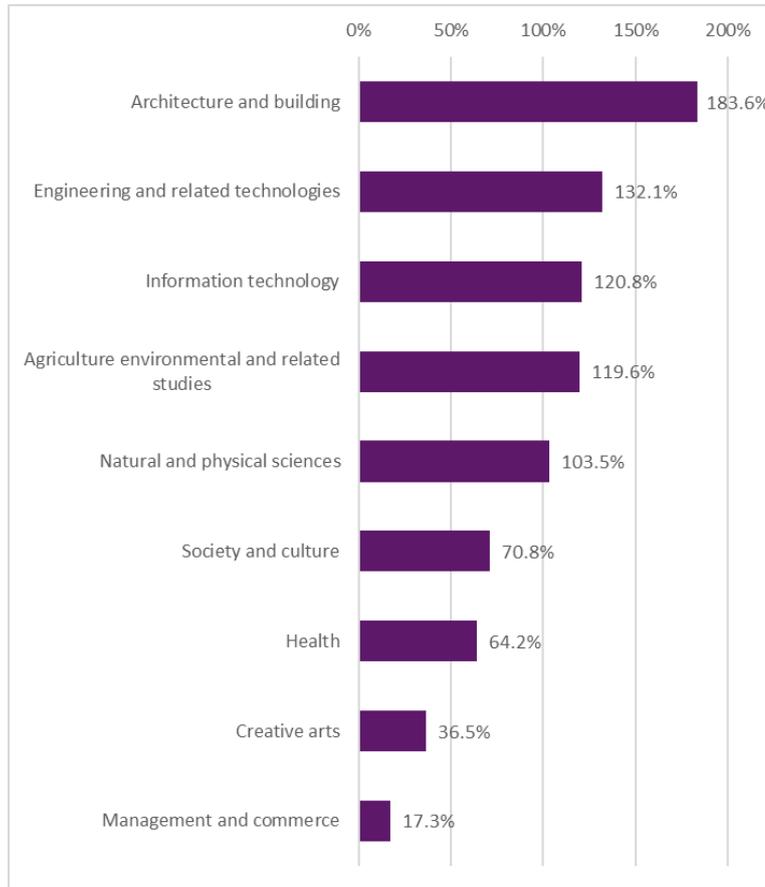
**Figure 33: Share of students by broad field of education, domestic vs international students, 2018**



Source: Department of Education, Skills and Employment, *uCube*.

Since 2008, international student enrolments have more than doubled in architecture and building (up 184 per cent), engineering and related technologies (132 per cent), information and technology (121 per cent) and agriculture, environmental and related studies (120 per cent). Despite the large number of enrolments, international enrolments in management and commerce increased by just 17 per cent over the same period.

**Figure 34: Growth in international student enrolments by broad field of education, between 2008 and 2018**



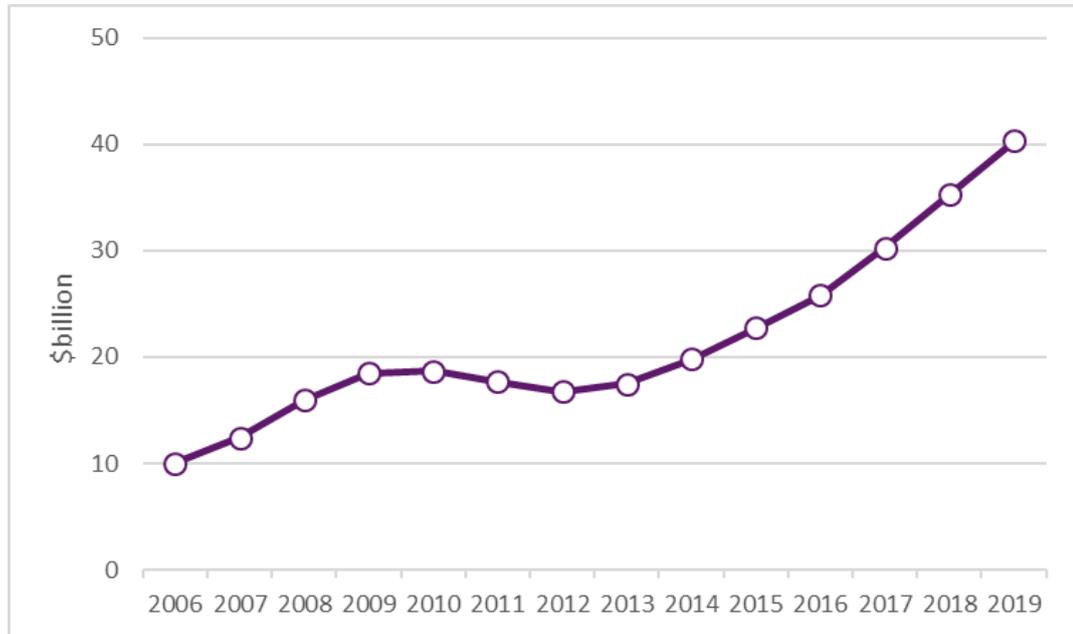
Source: Department of Education, Skills and Employment, *uCube*.

### 2.2.3 CONTRIBUTION TO THE AUSTRALIAN ECONOMY

International education is Australia’s fourth largest export – and the largest services export industry – generating \$40.3 billion in export income in 2019. International education export income increased by 153 per cent from 2008 to 2019 (Figure 35).

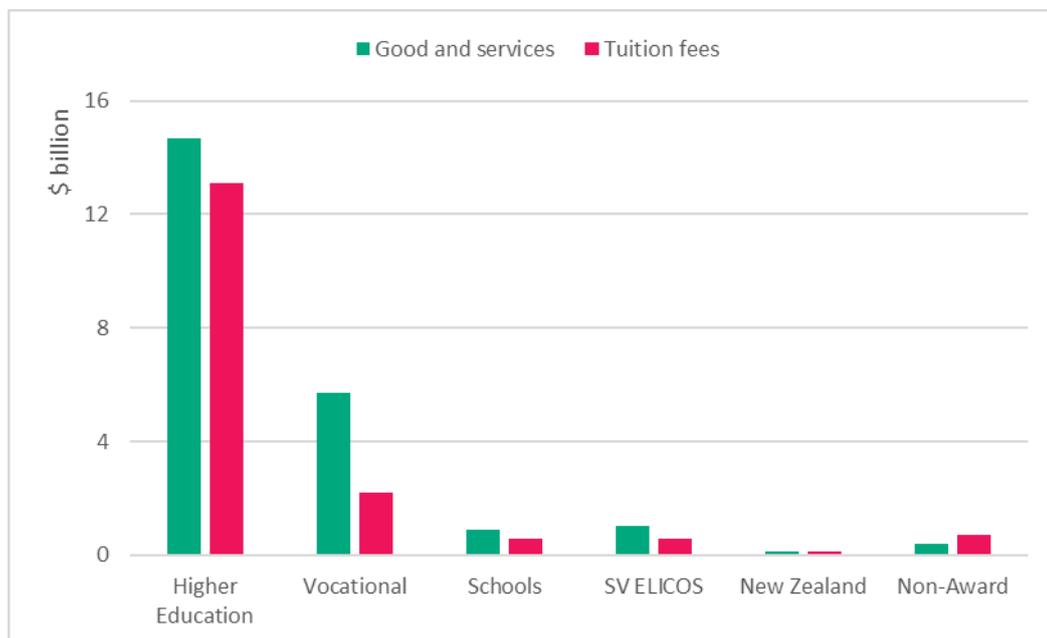
The higher education sector contributed around 70 per cent – or \$27.8 billion – of the international education export income in 2019. Of this, 52.8 per cent of export income was international students spending on goods and services from Australian businesses and the remaining 47.2 per cent was international student fees payable to higher education providers (Figure 36).

**Figure 35: Value of education-related personal travel exports, in nominal dollars**



Source: ABS 2020, *International Trade in Goods and Services*, March 2020, cat. no. 5368.0, ABS, Canberra, Table 11a.

**Figure 36: Type of international student expenditure, by educational sector, 2019**



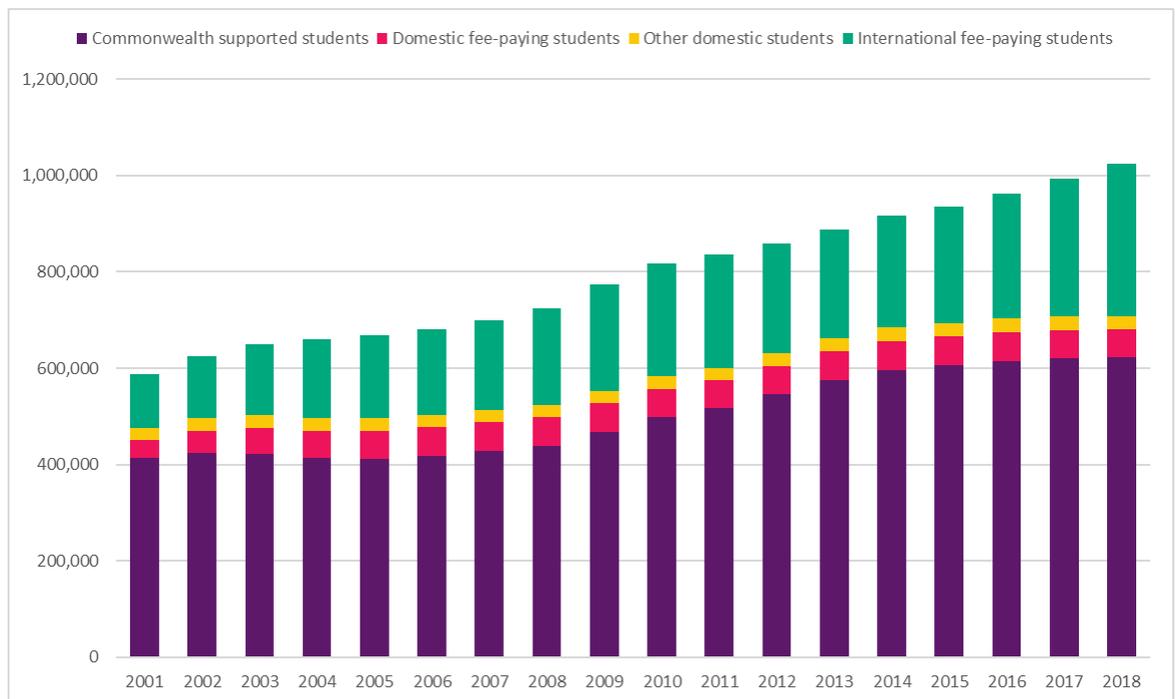
Source: ABS 2019, *International Trade: Supplementary Information, Calendar Year, 2019*, cat. no. 5368.0.55.004, ABS, Canberra, Table 9.1.

## 2.3 STUDENT LOAD

### 2.3.1 TRENDS IN STUDENT LOAD BY LIABILITY STATUS

Figure 37: EFTSL – student places – by liability status, 2001 to 2018 shows total student load – i.e. equivalent full-time student load (EFTSL) or student places – by liability status since 2001. In 2018, there were 1,023,845 EFTSL at Australia’s 39 comprehensive universities, an increase of 41 per cent from 2008. In 2018, 60.9 per cent of student load were in receipt of Commonwealth supported places, 30.9 per cent were international fee-paying places, 5.6 per cent were domestic fee-paying places and the remaining 2.6 per cent were non-award students and domestic students with a place in the Research Training Program (RTP).

**Figure 37: EFTSL – student places – by liability status, 2001 to 2018**

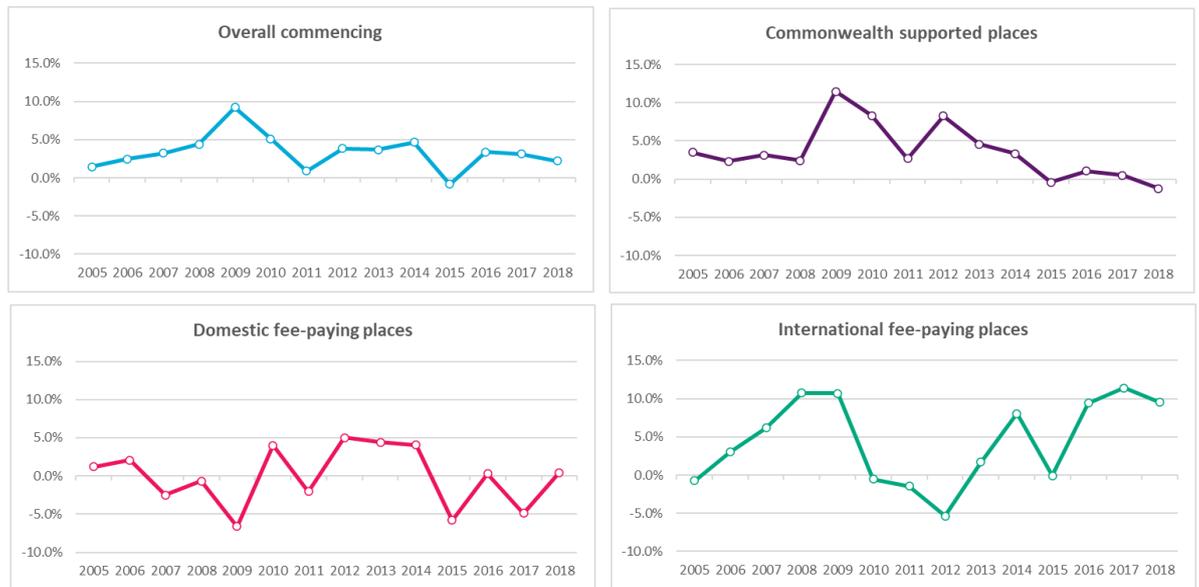


Source: Department of Education, Skills and Employment, *uCube*.

Note: Other domestic students include non-award students and domestic students receiving Research Training Program (RTP) with fees offset.

Annual growth in total commencing student load has declined from a peak of 9.2 per cent in 2009 to just 2.2 per cent in 2018. Specifically, growth in commencing Commonwealth support places has declined from a peak of 11.5 per cent in 2009 to a 1.3 per cent contraction in 2018. In contrast, annual growth in commencing fee-paying international places has recovered from a negative growth of 5.4 per cent in 2012 to a growth of 9.5 per cent in 2018 (Figure 38).

**Figure 38: Annual growth in commencing EFTSL, by liability status, 2005 and 2018**

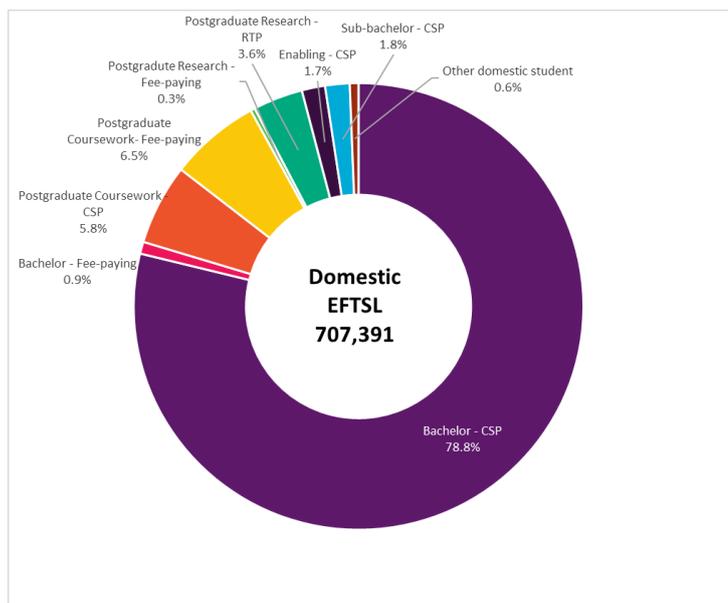


Source: Department of Education, Skills and Employment, *uCube*.

### 2.3.2 COMPOSITION OF DOMESTIC STUDENT PLACES

There were 707,391 domestic places in 2018. Of this, nearly 80 per cent were in courses leading to a Bachelor degree, 5.8 per cent were in Commonwealth supported postgraduate coursework places and a further 6.5 per cent were in full fee-paying postgraduate coursework places. Almost four per cent of domestic places were in sub-bachelor, enabling and non-award courses and the remaining 3.9 per cent in postgraduate research degree.

**Figure 39: Composition of domestic student places, 2018**

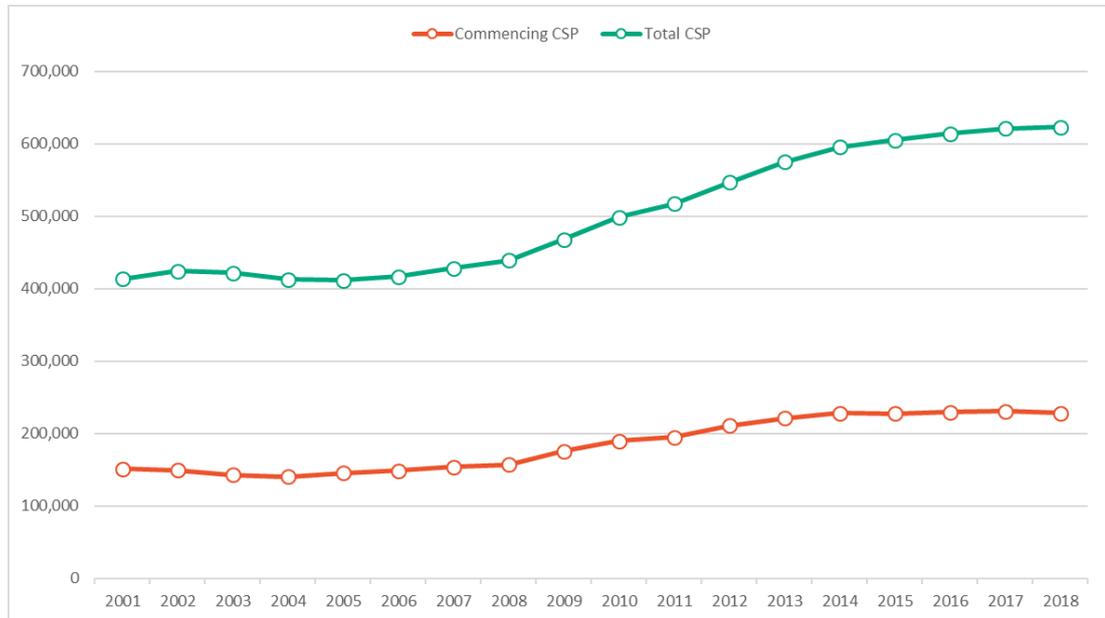


Source: Department of Education, Skills and Employment, *uCube*.

### 2.3.3 TRENDS IN COMMONWEALTH SUPPORTED PLACES

Australian universities delivered 623,100 Commonwealth supported places (CSPs) in 2018, 184,107 more places than in 2008 (Figure 40). In 2018, 36.6 per cent of the total CSPs were commencing places.

**Figure 40: Commonwealth supported places, 2001 to 2018**



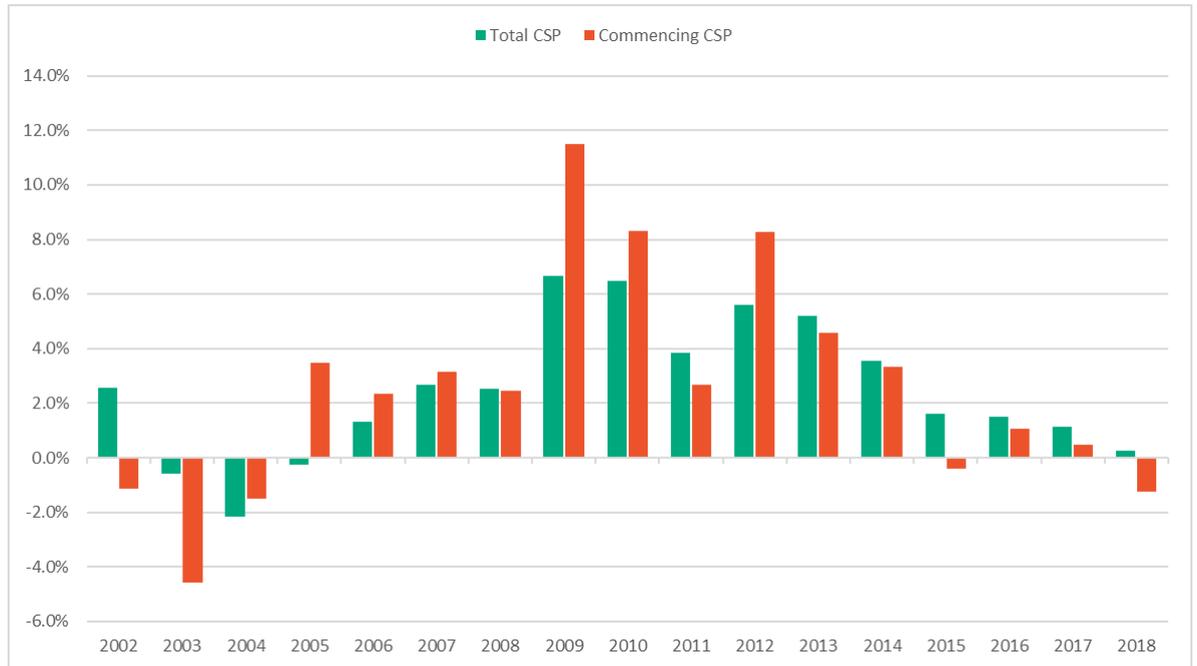
Source: Department of Education, Skills and Employment, *uCube*.

The growth in total CSP enrolment was initially rapid at around six per cent per year during the transitional years prior to the full introduction of the demand-driven system, with commencing CSP enrolments increasing by 11.5 per cent in 2009 and 8.3 per cent in 2010.

Nine years later, annual growth in enrolments has declined to levels below population growth. In 2018, total Commonwealth supported places grew by only 0.3 per cent, down from 1.1 per cent in 2017, 1.5 per cent in 2016 and 1.6 per cent in 2015 respectively (Figure 41). Commencing CSP enrolments declined by 1.3 per cent in 2018, the slowest annual growth since 2004. Commencing CSP enrolments increased by just 1.1 per cent in 2016 and 0.5 per cent in 2017.

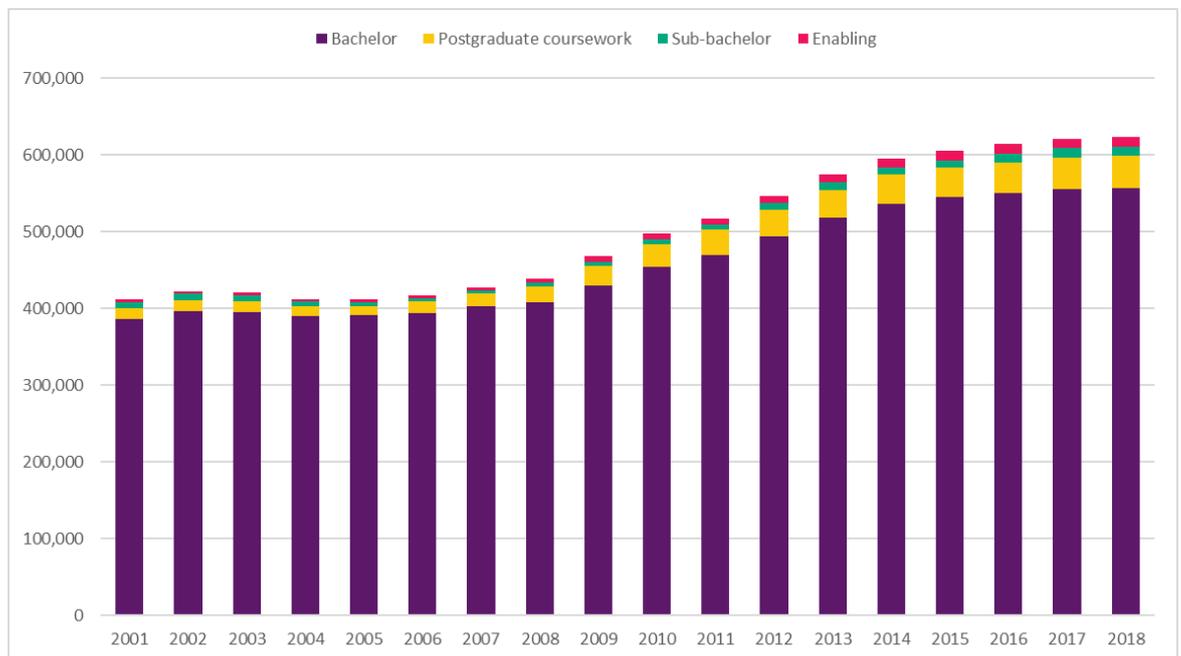
The number of students studying Bachelor degrees as a proportion of all Commonwealth supported places has declined from 93.1 per cent in 2008 to 89.5 per cent in 2018, while the share of postgraduate coursework CSP has increased from 4.7 per cent to 6.6 per cent over the period. Shares of Commonwealth supported places for sub-bachelor and enabling courses have also increased marginally over the period (Figure 42).

**Figure 41: Annual growth in Commonwealth supported places, 2001 to 2018**



Source: Department of Education, Skills and Employment, *uCube*.

**Figure 42: Commonwealth supported places, by course level, 2001 to 2018**



Source: Department of Education, Skills and Employment, *uCube*.

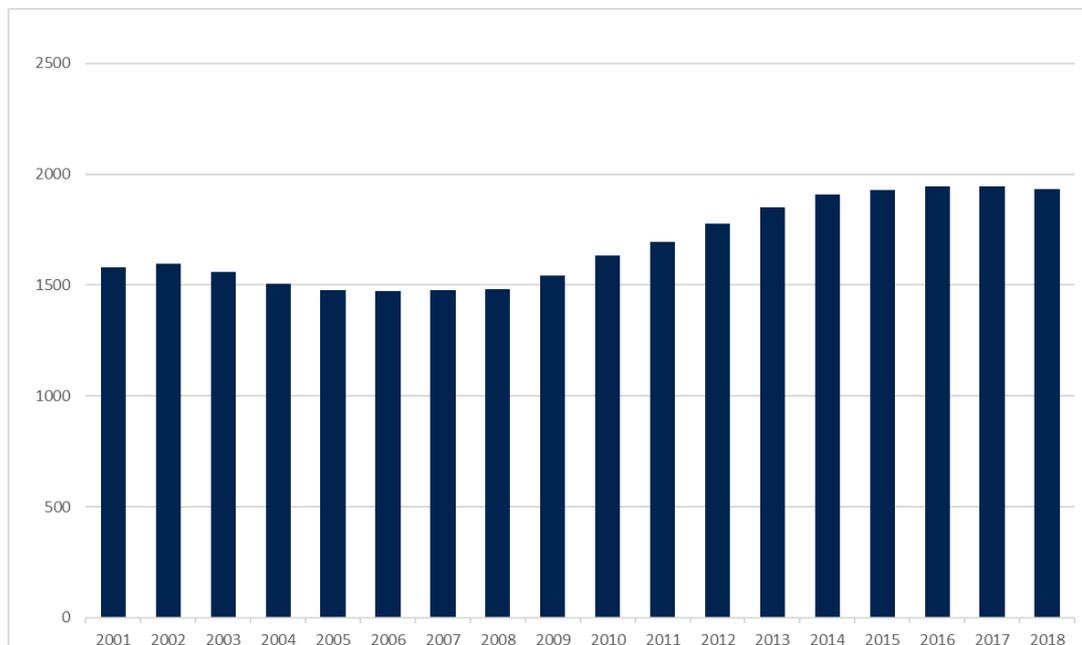
### 2.3.4 COMMONWEALTH SUPPORTED PLACES AND POPULATION GROWTH

Most Commonwealth supported places (CSPs) are provided for domestic students undertaking courses leading to a Bachelor degree. In 2018, around 78 per cent of these students are aged under 25 years old.

In 2001 and 2002, there were around 1,600 CSPs for every 10,000 people aged 15–24 years. This declined to under 1,500 places for every 10,000 people aged 15–24 years, prior to the introduction of the demand-driven system in 2009.

Since 2009, the number of CSPs has increased from around 1,500 places for every 10,000 people aged 15–24 years, stabilising at around 1,950 places in 2016 and 2017. However, the number of CSPs per population declined in the first year of the freeze on the Commonwealth Grant Scheme (CGS) in 2018. (Figure 43)

**Figure 43: Commonwealth supported places per 10,000 population aged 15–24 years old**

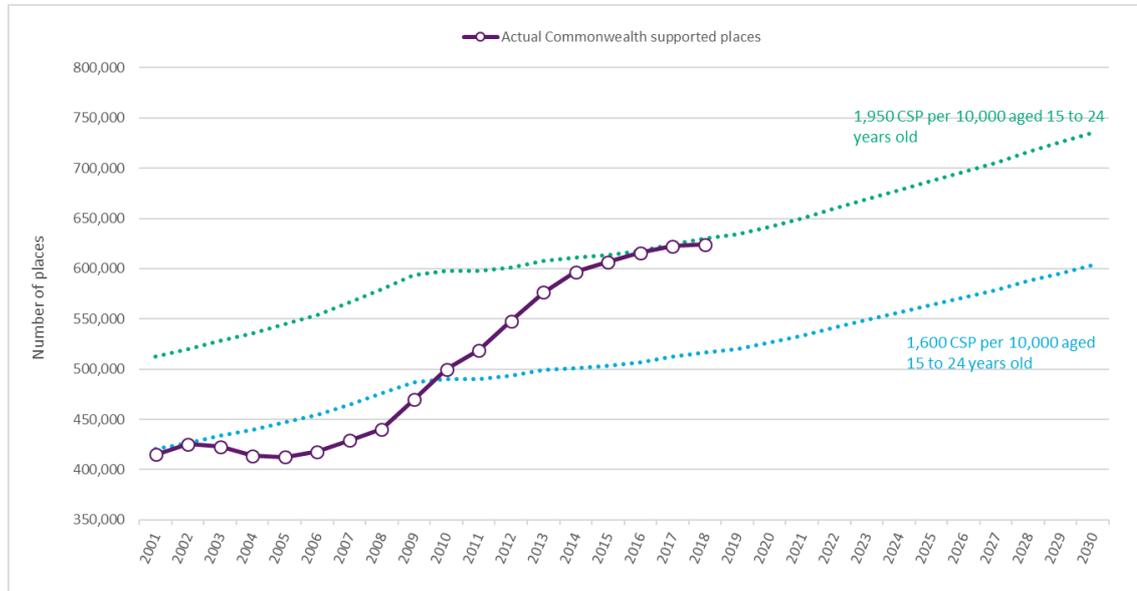


Source: Department of Education, Skills and Employment, *uCube*; Australian Bureau of Statistics (ABS) 2014, *Australian Historical Population Statistics*, cat. no. 3105.0.65.001; ABS, *Australian Demographic Statistics*, cat. no. 3101.0.

As shown in Figure 44: Actual Commonwealth supported places compared to the 15–24 year old population, the growth in Commonwealth supported places (CSPs) has slowed since 2014 and aligned with population growth, even before the December 2017 freeze on the Commonwealth Grant Scheme (CGS) that effectively ended the demand-driven system.

If the number opportunities for Australians to acquire a higher education qualification is to keep up with population growth, there needs to be an increase in the number of CSPs each year. Figure 45: Estimated annual increase in additional Commonwealth supported places to align with population growth shows the provision of around 1,950 CSPs for every 10,000 people aged 15–24 years would require around 9,000 to 10,000 additional places each year between 2022 and 2030. This does not include the increase in places required to meet the expected increase in demand, resulting from weakness in the labour market following the COVID-19 pandemic.

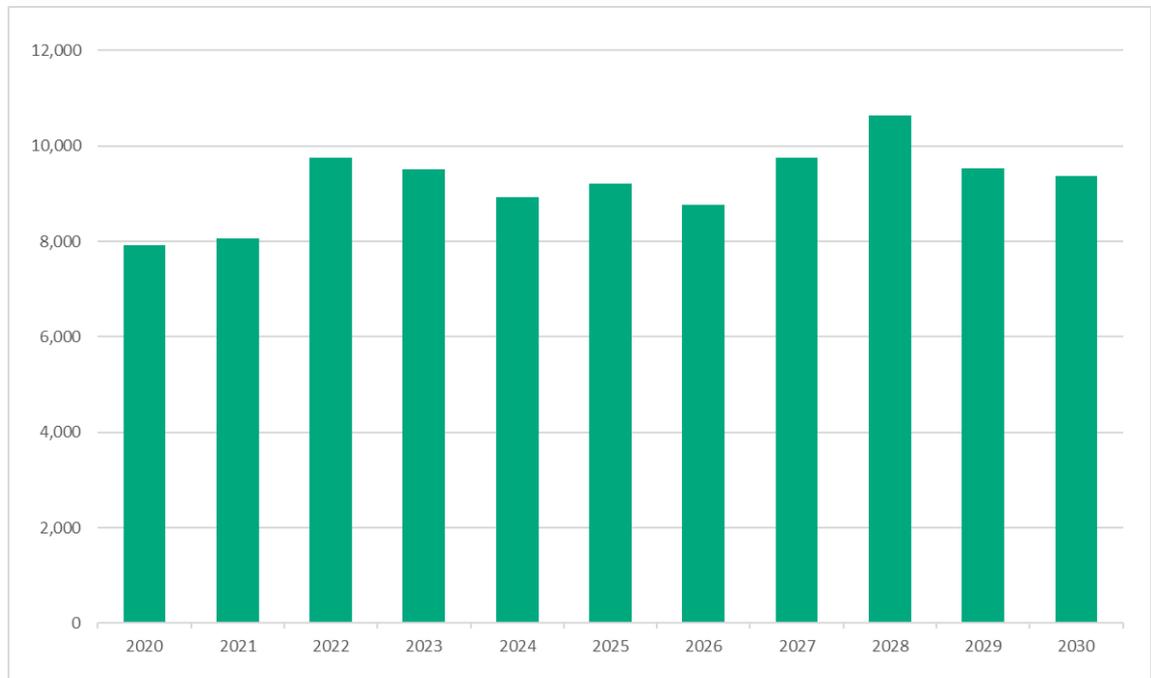
**Figure 44: Actual Commonwealth supported places compared to the 15–24 year old population**



Source: UA analysis based on ABS 2018, *Population Projections, Australia, 2017 (base) to 2066*, cat. no.3222.0, Series. B.

Note: The dotted lines represent the number of Commonwealth supported places required for there to be 1,600 or 1,950 places for every 10,000 people aged 15–24 years of age.

**Figure 45: Estimated annual increase in additional Commonwealth supported places to align with population growth**



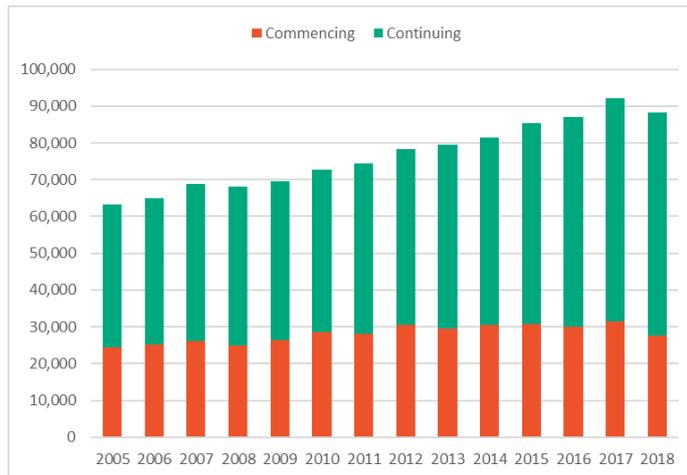
Source: See Figure 44: Actual Commonwealth supported places compared to the 15–24 year old population.

Note: The data reflects the estimated annual growth in the number of CSPs that would be required to deliver exactly 1,950 CSPs per 10,000 population aged 15–24 years old every year.

## 2.4 ENROLMENTS IN COURSES LEADING TO PROFESSIONAL REGISTRATION

Enrolments in initial teacher training courses increased 29 per cent from 2008 to 2018 (68,088 students to 88,156). However, commencing enrolments in initial teacher training have declined by 12.7 per cent between 2017 and 2018. Commencing student enrolments remained at around 30,000 students between 2012 and 2017, before declining to 27,531 commencing in 2018, the lowest since 2009.

**Figure 46: Enrolments in courses for initial teacher training**

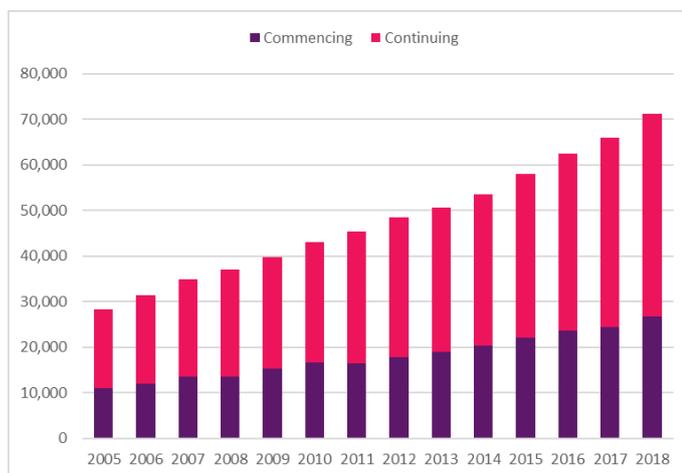


Source: Department of Education, Skills and Employment 2019, *Selected Higher Education Statistics–2018 Student Data*, Section 8: Special courses.

Note: Data include other higher education providers that provided data through HEIMS.

Enrolments in courses providing for initial registration as nurses have almost doubled since 2008, from 36,958 students to 71,157 students in 2018. Both commencing and continuing enrolments have increased at an average annual growth rate of around seven per cent between 2008 and 2018.

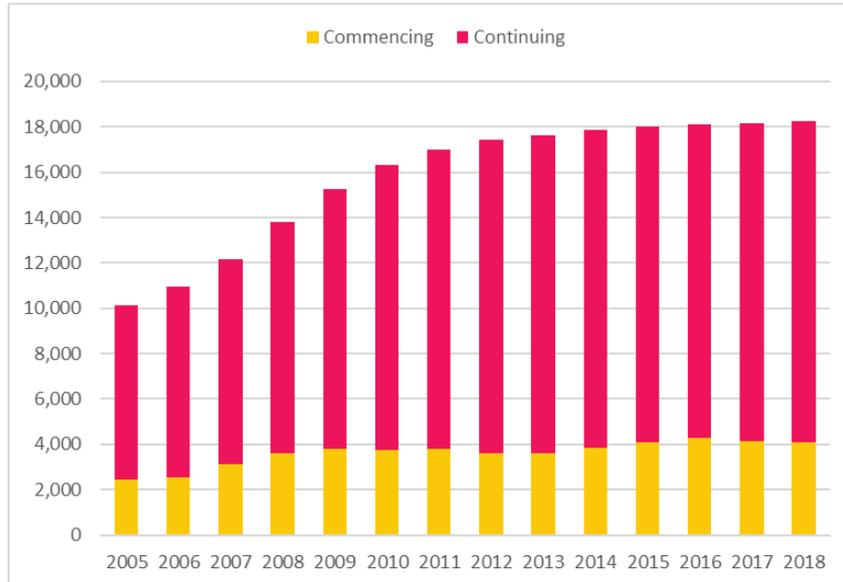
**Figure 47: Enrolments in courses for initial registration as nurses**



Source and note: See Figure 46.

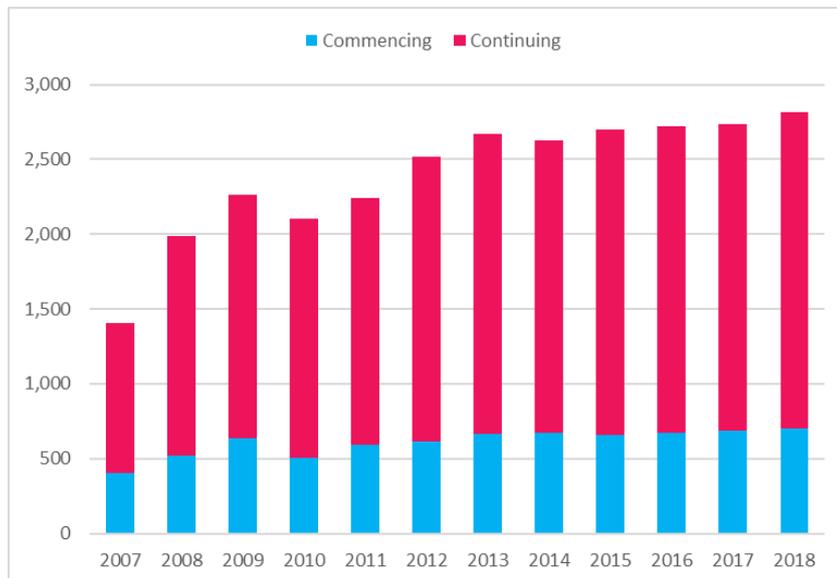
Figure 48 and Figure 49 show that whilst enrolments in courses providing for provisional registration as medical or dental practitioners increased by 32 and 42 per cent respectively between 2008 and 2018, enrolments for both courses have stabilised at around 18,000 and 2,700 respectively since 2014.

**Figure 48: Enrolments in courses leading to provisional registration as a medical practitioner**



Source and note: See Figure 46.

**Figure 49: Enrolments in courses leading to provisional registration as a dental practitioner**



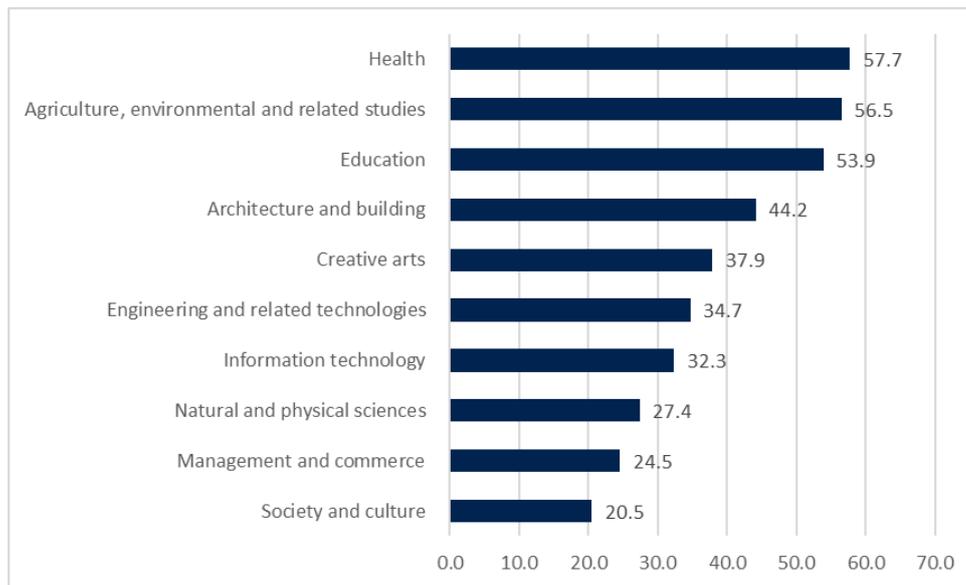
Source and note: See Figure 46.

## 2.5 WORK-INTEGRATED LEARNING

In 2017, a total of 451,263 students – both domestic and international – participated in work-integrated learning (WIL), making the WIL participation rate 37.4 per cent of all enrolled students.

Figure 50: Work-integrated learning participation rates, by broad field of education, unique headcount, per cent shows the proportion of students – both domestic and international students – who had participated in WIL by broad discipline areas. In 2017, 57.7 per cent of students enrolled in health participated in WIL, followed by agriculture, environmental and related studies (56.5 per cent), education (53.9 per cent), and architecture and building (44.2 per cent).

**Figure 50: Work-integrated learning participation rates, by broad field of education, unique headcount, per cent**



Source: 2017 Universities Australia WIL Data Collection.

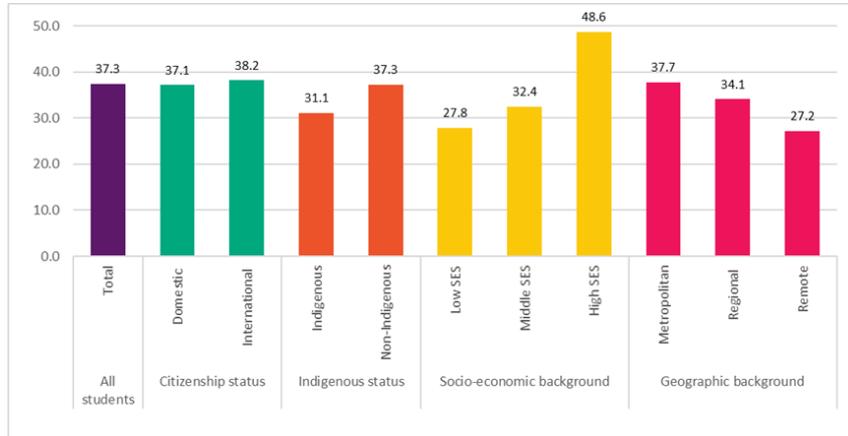
Note: Data only include WIL activities for domestic and international students studying onshore at 38 UA member universities in 2017. Postgraduate research students are excluded from the data collection.

Figure 51: Work integrated learning participation rates, by student characteristic, per cent shows WIL participation rates by different student characteristics. In 2017:

- WIL participation rates for domestic and international students were relatively similar – 37.1 per cent of domestic students (or 357,806 students) participated in WIL, compared to 38.2 per cent of international students (or 93,126 students).
- Indigenous students were less likely than non-Indigenous students to participate in WIL activities. 37.3 per cent of domestic non-Indigenous students (or 352,320 students) participated in WIL activities, compared to 31.1 per cent of domestic Indigenous students (or 5,486 students).
- Domestic students from low socio-economic backgrounds were less likely than students from middle and high socio-economic backgrounds to participate in WIL. While almost one in two students (or 48.6 per cent) from high socio economic backgrounds participated in WIL, fewer than one in three students (or 27.8 per cent) from low socio economic backgrounds participated in WIL.
- Domestic students from metropolitan areas were more likely to participate in WIL than students from regional and remote areas. 37.7 per cent of students from metropolitan areas

participated in WIL, compared to 34.1 per cent and 27.2 per cent for students from regional and remote areas respectively.

**Figure 51: Work integrated learning participation rates, by student characteristic, per cent**



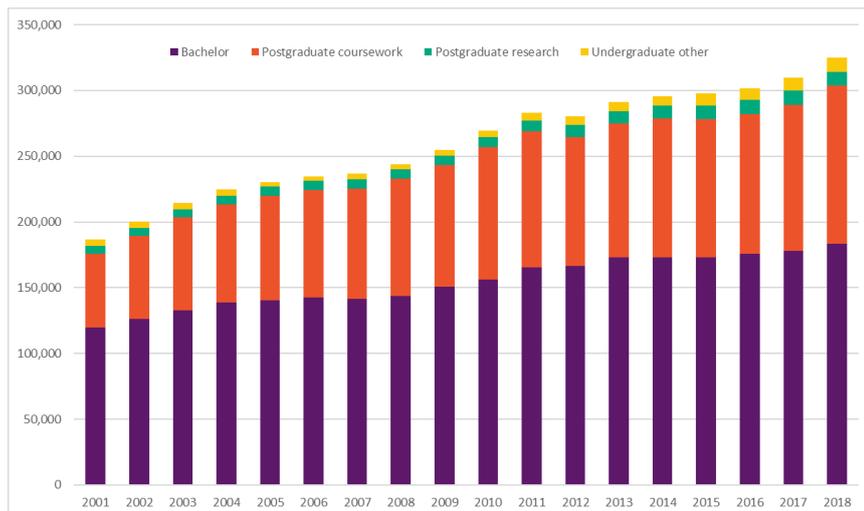
Source and note: See Figure 50: Work-integrated learning participation rates, by broad field of education, unique headcount, per cent.

## 2.6 STUDENT OUTCOMES AND EMPLOYMENT

### 2.6.1 AWARD COURSE COMPLETIONS

In 2018, 325,171 students completed their degrees at Australia’s 39 comprehensive universities. This is an increase of 33.2 per cent from 2008. In 2018, 39,876 more students completed a Bachelor degree, an increase of 27.8 per cent, compared to 2008. Postgraduate research completions increased 41.5 per cent, from 7,334 completions in 2008 to 10,381 in 2018.

**Figure 52: Number of award completions, by course level**

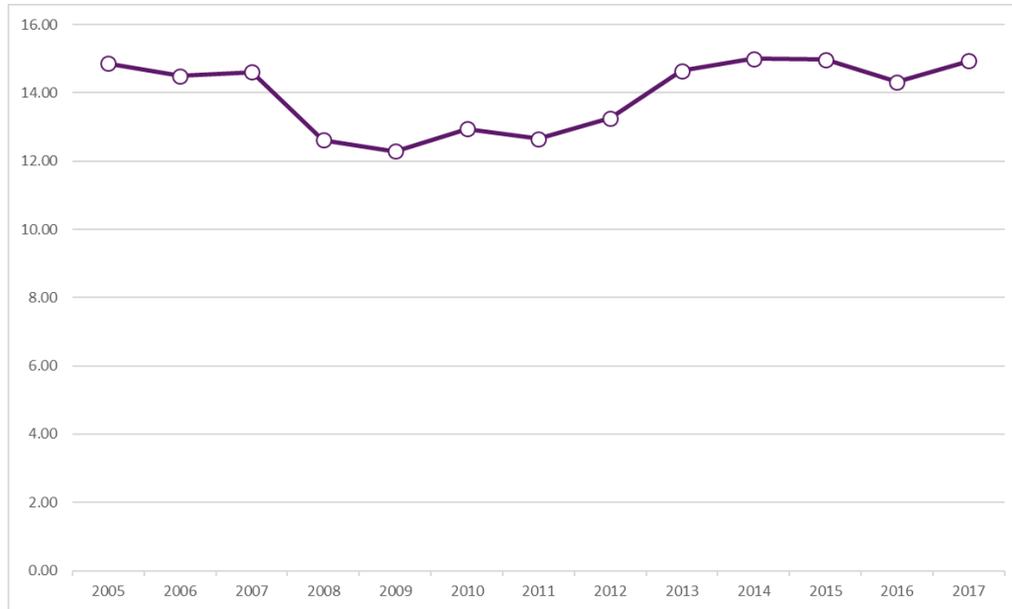


Source: Department of Education, Skills and Employment, *uCube*.

## 2.6.2 ATTRITION AND COMPLETION RATES

Figure 53 shows attrition rates increased marginally in 2017, although attrition has remained relatively stable overall at around 15 per cent since 2013.

**Figure 53: Attrition rate for domestic commencing Bachelor degree students**



Source: Source: Department of Education, Skills and Employment 2019, *Selected higher education statistics—2018 Student data*, Section 15: Attrition, success and retention.

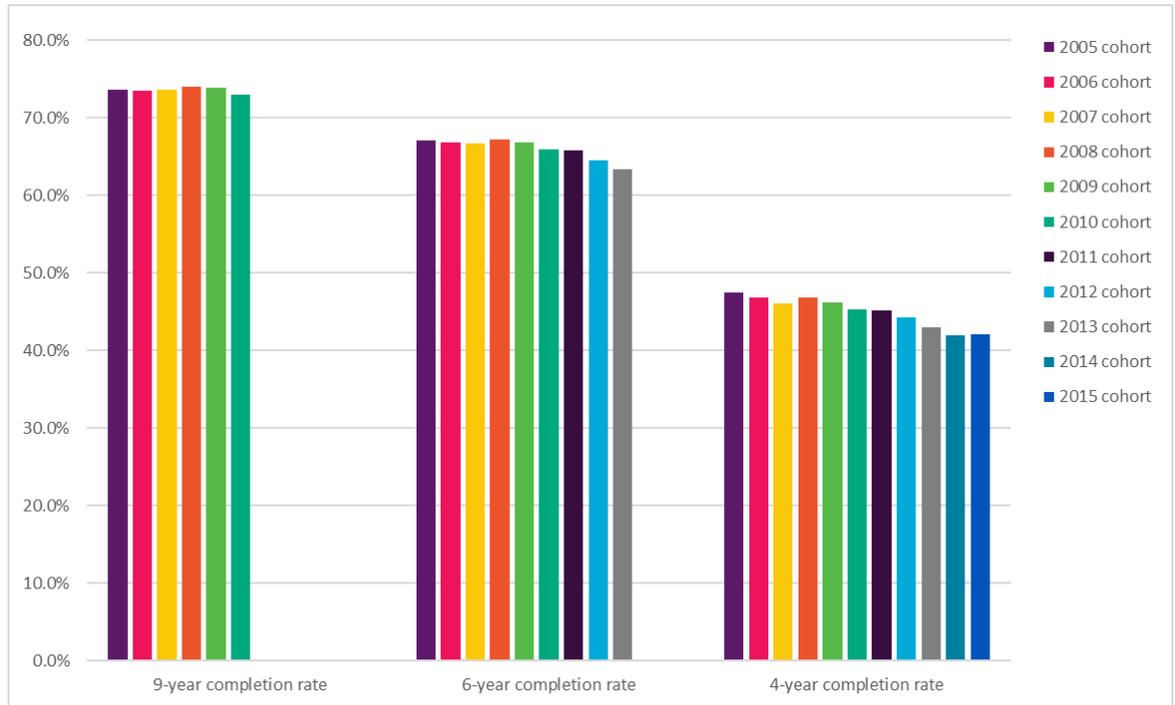
Note: Attrition rate for year (x) is the proportion of students who commenced a course in year(x) who neither complete in year (x) or year (x + 1) nor return in year (x + 1). Only those students who left the higher education system entirely—that is, they were no longer at any institution—are counted as attrited.

Figure 54 shows that nine-year completion rates for the student cohort admitted to a Bachelor degree each year have been relatively stable since 2005 – the first year this type of analysis became possible. For each cohort, around 73 to 74 per cent completed their degrees within nine years.

Six and four-year completion rates have declined slightly. Six-year completion rates declined from around 67 per cent for the cohorts commencing between 2005 and 2009, to 63 per cent for the 2013 cohort. Four-year completion rates fell from around 47 per cent for the 2005 and 2006 cohorts to 42 per cent for the most recent cohorts.

However, the percentage of students that either have completed or are still enrolled at the end of six-year and four-year periods remains at above 75 per cent for all cohorts. The proportion of students who had dropped out after four or six years has remained relatively unchanged.

**Figure 54: Completion rates – nine, six and four years – of commencing domestic Bachelor degree students**



Source: Department of Education, Skills and Employment 2019, *Completion rates of higher education students—Cohort Analysis—2005–2018*.

The *Student Experience Survey* asks students to indicate whether they had seriously considered leaving their institutions during the year and their reasons why. In 2019, 20 per cent of undergraduate students indicated that they had considered early departure, slightly higher than the 19 per cent reported in 2018 and 18 per cent in 2016, but similar to the 20 per cent reported in 2017.

Table 6 shows that in 2019, the most common reasons for considering departure relate to personal or situational factors, such as health or stress (46 per cent), study/life balance (30 per cent), the need to do paid work (27 per cent), difficulties related to workload (25 per cent) and personal reasons (25 per cent). The most common institutional-related factors featured in the top ten were students' expectations had not been met (22 per cent) and issues with academic support (19 per cent).

**Table 6: Top 10 reasons for undergraduate students considering early departure, 2016 to 2019**

Departure reason	Per cent considering departure 2016	Per cent considering departure 2017	Per cent considering departure 2018	Per cent considering departure 2019
Health or stress	41	45	45	46
Study/life balance	27	30	30	30
Need to do paid work	25	26	27	27
Workload difficulties	25	26	25	25
Personal reasons	24	25	25	25
Need a break	22	24	24	24
Financial difficulties	24	24	23	23
Expectations not met	22	23	22	22
Boredom/lack of interest	22	22	21	21
Academic support	17	18	18	19

Source: Social Research Centre (SRC), *Student Experience Survey: National Report* (various years)

### 2.6.3 GRADUATE EMPLOYMENT

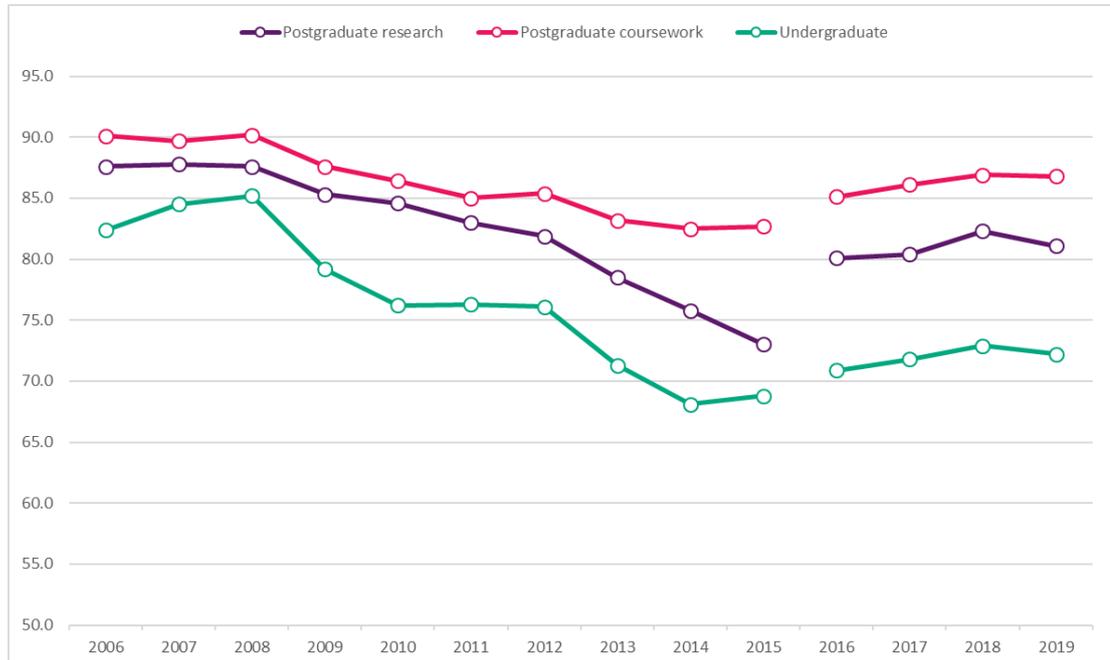
Figure 55: Graduate full-time employment rate – four months after completing their degree – by course levels, per cent shows the short-term full-time employment outlook for undergraduates – four months after completion – has improved steadily from 68.1 per cent in 2014 to 72.9 per cent in 2018, before declining marginally to 72.2 per cent in 2019. Graduates with a postgraduate degree have better full-time employment outcomes than graduates with an undergraduate degree, particularly postgraduate coursework graduates. In 2019, 86.8 per cent of postgraduate coursework graduates and 81.1 per cent of postgraduate research graduates were in full-time employment four months after completing their degrees.

In recent years, graduates have taken longer to successfully establish themselves in the labour market. Figure 56: Short- and medium-term full-time employment rate for 2007 to 2017 graduates – undergraduate degree, per cent shows that for undergraduates who completed their degrees in 2017, 73 per cent of graduates were in full-time employment four months after completing their course. In 2020, three years after completion, 90.1 per cent of the same undergraduate cohort were in full-time employment. Medium-term employment outcomes for graduates have remained above 88 per cent for cohorts that have graduated since 2011.

The *2020 Graduate Outcomes Survey – Longitudinal (GOS-L)* survey shows that graduates with specialist degrees have stronger employment outcomes shortly after graduation compared to graduates with generalist degrees. However, employment outcomes for those with generalist degrees are comparable to those with specialist degrees three years after graduation. For example, in 2017, 80.1 per cent of nursing undergraduates were in full-time employment shortly after graduation compared to 61.9 per cent of humanities, culture and social sciences undergraduates. However, 92.1 per cent and 87.0 per cent of graduates from both disciplines were in full-time work in 2020.

In the short term, 73.4 per cent of undergraduates in full-time employment were in managerial and professional occupations upon graduation in 2017. This proportion increased to 80.4 per cent three years after graduation in 2020. Similarly, 61.7 per cent of all employed graduates (full-time and part-time) who had completed an undergraduate qualification were working in professional and managerial occupations four months after graduation, increasing to 76.3 per cent three years later.

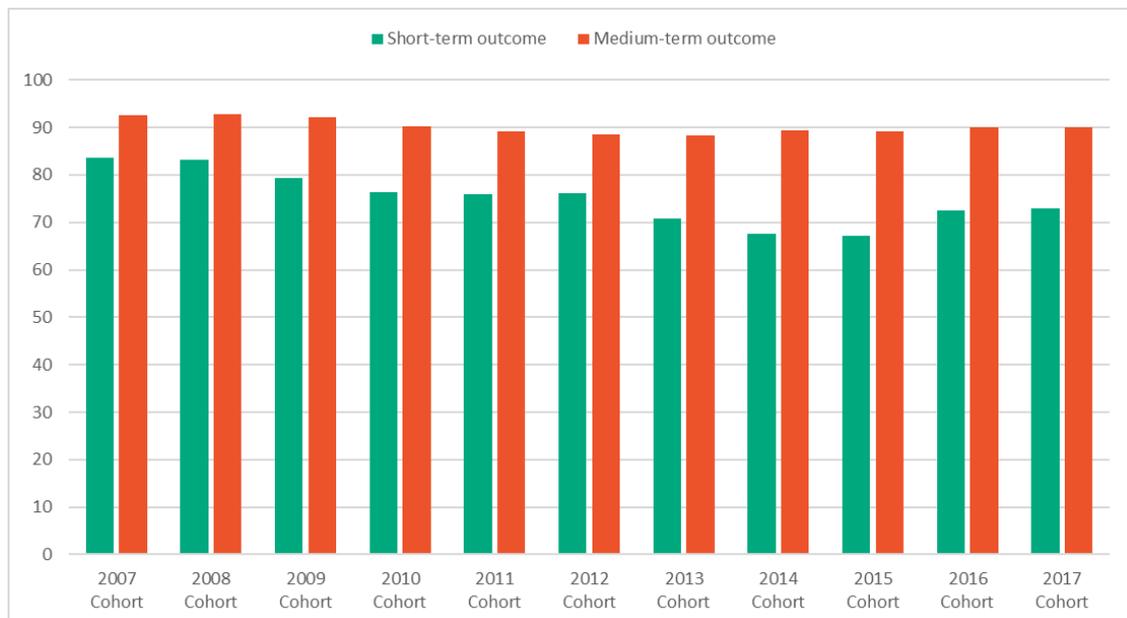
**Figure 55: Graduate full-time employment rate – four months after completing their degree – by course levels, per cent**



Source: SRC 2020, 2019 Graduate Outcome Survey: National Report.

Note: There is a break in the series between 2015 and 2016 due to the change in collection methodology when the survey instrument changes from the *Australian Graduate Survey* previously administered by Graduate Career Australia to the *Graduate Outcome Survey* administered by the Social Research Centre.

**Figure 56: Short- and medium-term full-time employment rate for 2007 to 2017 graduates – undergraduate degree, per cent**

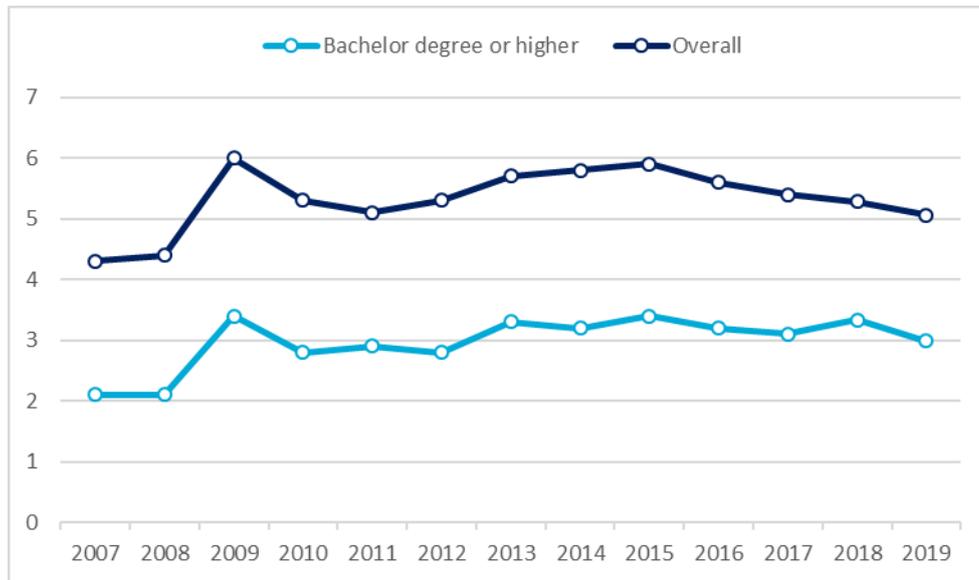


Source: SRC 2020, 2020 Graduate Outcomes Survey – Longitudinal (GOS-L).

Note: Short-term refers to four months after completion and medium-term refers to three years after completion.

Australian Bureau of Statistics (ABS) data also consistently shows that graduates perform better in the Australian labour market than non-graduates. Figure 57: Unemployment rates – graduates and overall – May 2007 to May 2019, per cent shows that unemployment rates of graduates are consistently below the national unemployment rate by more than two percentage points. In May 2019, while Australia’s overall unemployment rate was 5.1 per cent, the unemployment rate for those with a Bachelor degree or higher was lower at three per cent.

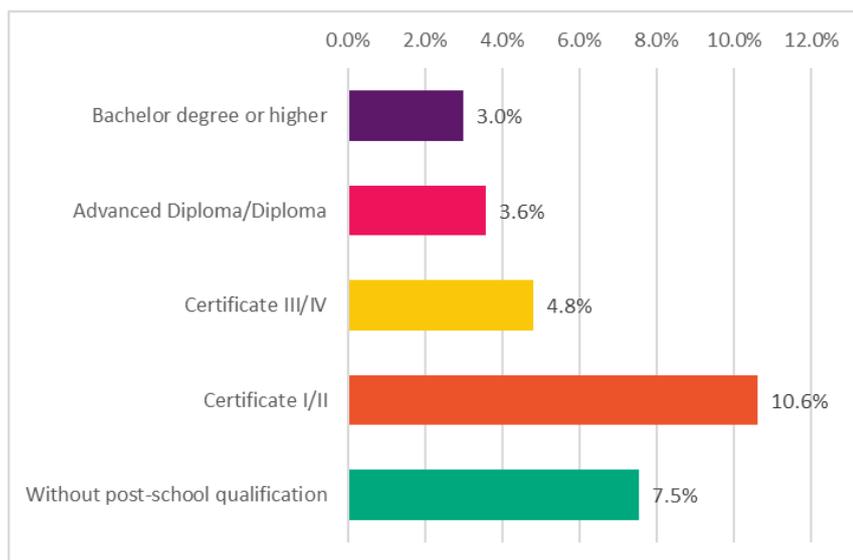
**Figure 57: Unemployment rates – graduates and overall – May 2007 to May 2019, per cent**



Source: ABS, *Education and Work, Australia*, cat. no. 6227, ABS, Canberra, various years.

In May 2019, three per cent of graduates were unemployed compared to 7.5 per cent of those without a post-school qualification. Unemployment rates for those with a diploma/advanced diploma and Certificate III/IV were higher at 3.6 per cent and 4.8 per cent respectively (Figure 58).

**Figure 58: Unemployment rates, by level of qualification, 2018**

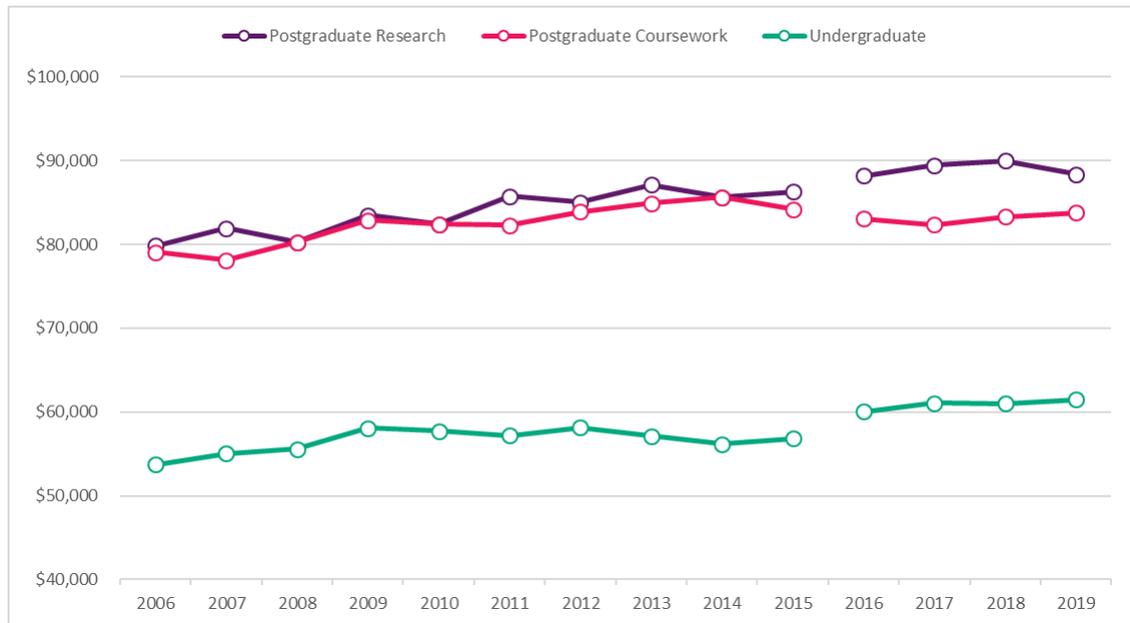


Source: ABS 2019, *Education and Work, Australia, May 2019*, cat. no. 6227, ABS, Canberra.

## 2.6.4 GRADUATE SALARIES

While median starting salaries – in real dollar terms – for graduates employed full-time fell 1.8 per cent to \$88,370 for postgraduate research degrees, they increased by 0.8 per cent to \$61,470 for undergraduate degrees and rose by 0.5 per cent to \$83,760 for postgraduate coursework degrees in 2019 (Figure 59).

**Figure 59: Median starting salaries for graduates employed full-time, in 2018 dollars**



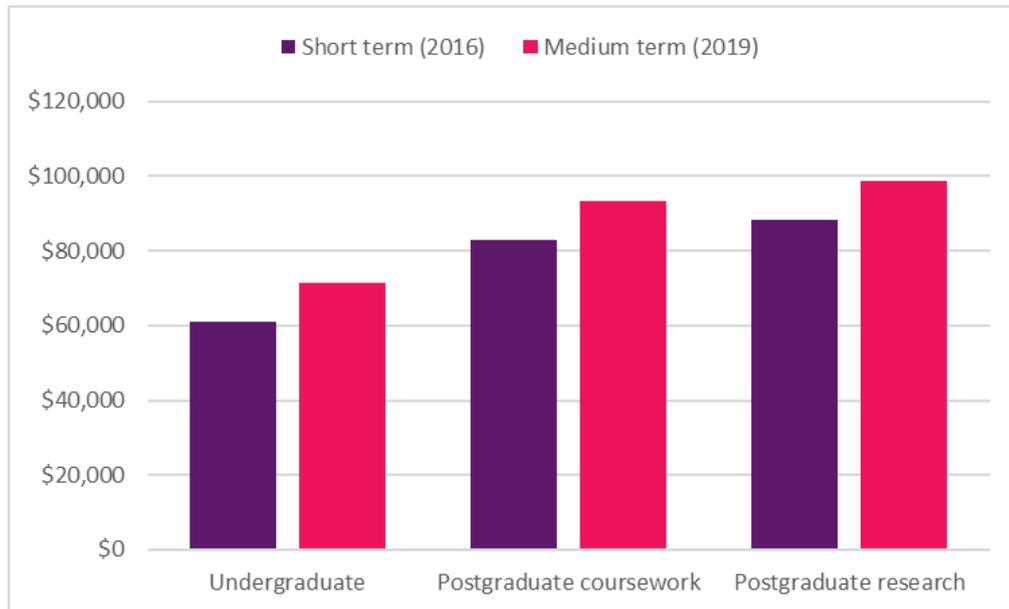
Source: SRC 2020, *2019 Graduate Outcomes Survey: National Report*.

Note: There is a break in the series between 2015 and 2016 due to the change in collection methodology when the survey instrument changes from the *Australian Graduate Survey* previously administered by Graduate Career Australia to the *Graduate Outcome Survey* administered by the Social Research Centre.

For the 2016 graduate cohort, Figure 60 shows median salaries for graduates in full-time employment with an undergraduate qualification rose from \$60,890 to \$71,480 – an increase of 17 per cent in real terms – three years after graduation. Three years out, the median salary level among graduates with postgraduate coursework and postgraduate research qualifications increased by 12 per cent respectively in real terms.

Recent ABS data also show that median weekly earnings for people with a postgraduate degree were 95 per cent more than people with no post-school qualifications in 2019. Compared to employees with no post-school qualification, Bachelor degree graduates were earning 64 per cent more. Certificate III/IV holders earned 40 per cent more per week than employees with no post-school qualifications (Figure 61).

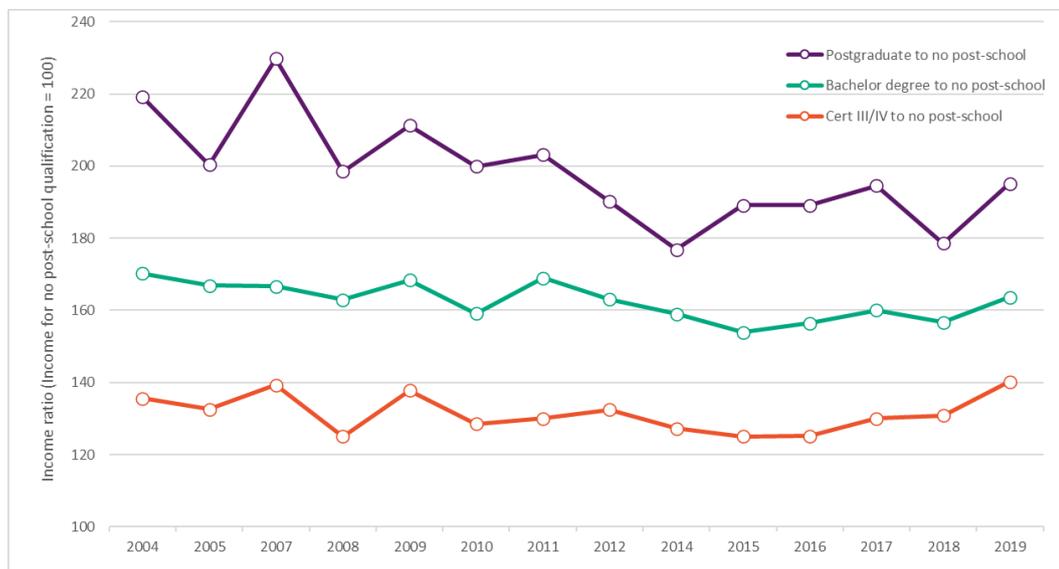
**Figure 60: Short and medium-term salary outcomes for 2016 graduates employed full-time, in 2018 dollars**



Source: SRC 2019, *2019 Graduate Outcomes Survey – Longitudinal (GOS-L)*.

Note: Short-term refers to four-months after completion and medium-term refers to three years after completion.

**Figure 61: Median weekly earnings ratios compared to people with no post-school qualification**



Source: ABS 2019, *Characteristics of Employment, Australia, August 2019*, cat. no. 6333.0, ABS, Canberra.

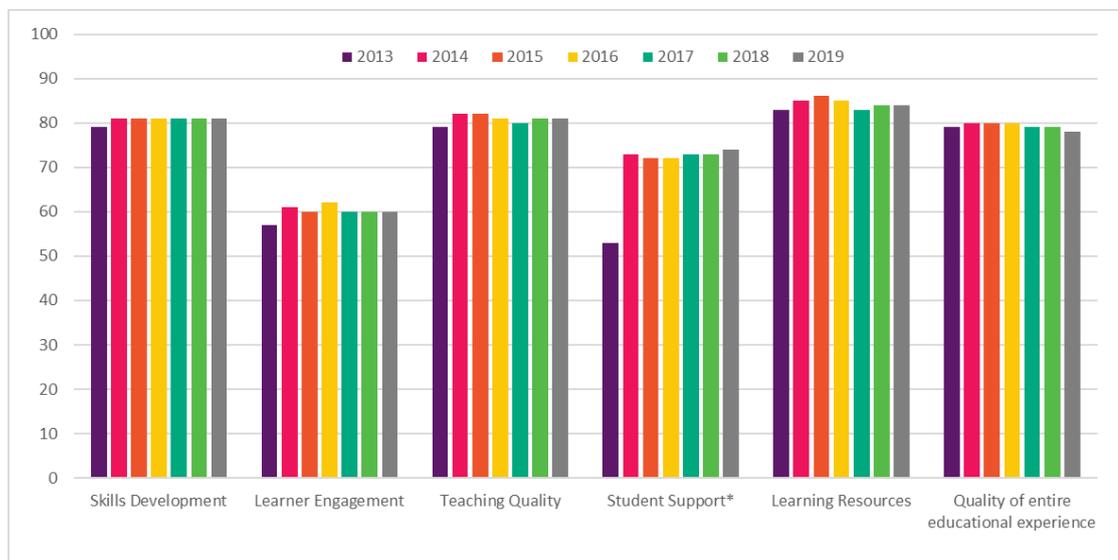
Note: A ratio of 100 implies median weekly earnings for a person with a post-school qualification is equal to a person with no post-school qualification.

## 2.6.5 SATISFACTION

According to the most recent *2019 Graduate Outcome Survey*, overall satisfaction among graduates with undergraduate or postgraduate research qualifications increased marginally from 79.7 to 80.1 per cent and 85 to 85.5 per cent respectively over the year to 2019. Postgraduate coursework graduates' overall satisfaction remained relatively unchanged at 81.8 per cent in 2019.

The *2019 Student Experience Survey*, which measures the experience of current commencing and later-year undergraduate students, found that an overwhelming majority of undergraduate students – 78 per cent – were satisfied with their overall educational experience in 2019. Student ratings of the quality of their entire educational experience have remained consistently high – at around 80 per cent – across the entire survey period from 2012 to 2019.

**Figure 62: Undergraduate student experience, 2013 to 2019, per cent of positive rating**

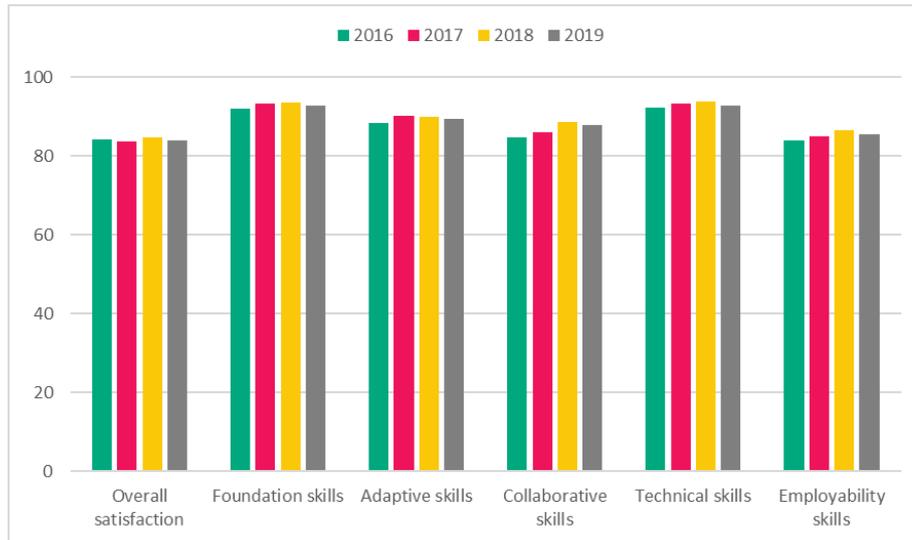


Source: SRC 2020, *2019 Student Experience Survey: National Report*

Note: There is a break in the Student Support focus area in 2014 due the removal of one item so results are not comparable with those from earlier surveys.

The *2019 Employer Satisfaction Survey* – which reported the views of almost 4,700 direct supervisors of recent graduates – found that 84 per cent of employers expressed overall satisfaction with their recent graduates in 2019 (Figure 63). More than nine-in-ten supervisors (92 per cent) indicated that the graduate's qualification prepared the graduate for their current employment.

**Figure 63: Employer satisfaction with graduate attributes and overall satisfaction, per cent**



Source: SRC 2019, 2019 Employer Satisfaction Survey: National Report.

## 2.7 EDUCATIONAL ATTAINMENT

In 2019, 40.6 per cent of 25–34 year olds had a Bachelor-level qualification or higher, up from 31.9 per cent in 2008.

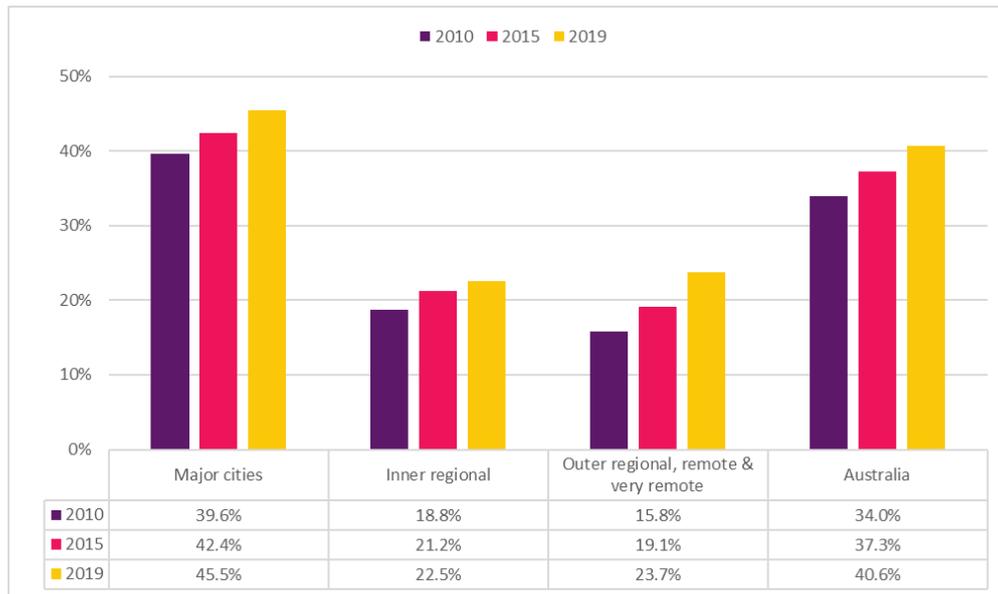
**Figure 64: Proportion of people aged 25–34 years old with a Bachelor degree or higher**



Source: ABS, *Education and Work, Australia*, Cat. No. 6227.0, various years.

However, the 2019 national outcome masks wide variances in attainment levels across geographic areas. While university attainment has increased across geographical locations since 2010, people in major cities remain twice as likely to hold a university degree as those in regional and remote areas. In 2019, the educational attainment rate in major cities was 45.5 per cent compared to less than 24 per cent outside major cities (Figure 65).

**Figure 65: Proportion of people aged 25–34 years old with a Bachelor degree or higher, by degree of remoteness**

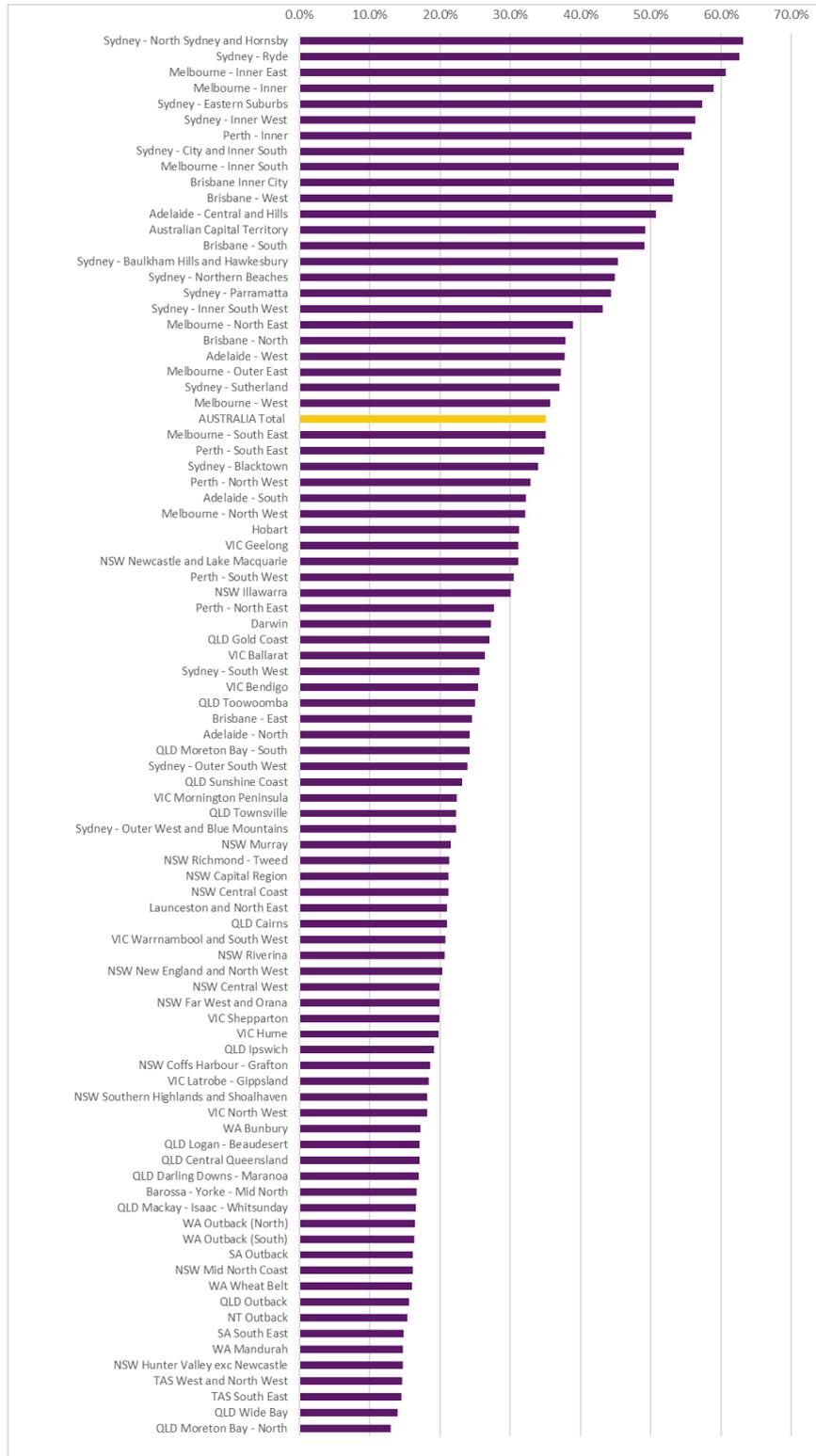


Source: ABS, *Education and Work, Australia*, Cat. No. 6227.0, various years.

According to the latest 2016 Census, university education attainment levels differ significantly depending on geographical location, ranging from 13 per cent to more than 60 per cent. Figure 66 shows that 63 of the 88 Statistical Area Level 4 regions had attainment levels below the nationwide average of 35 per cent in 2016 (Figure 66).

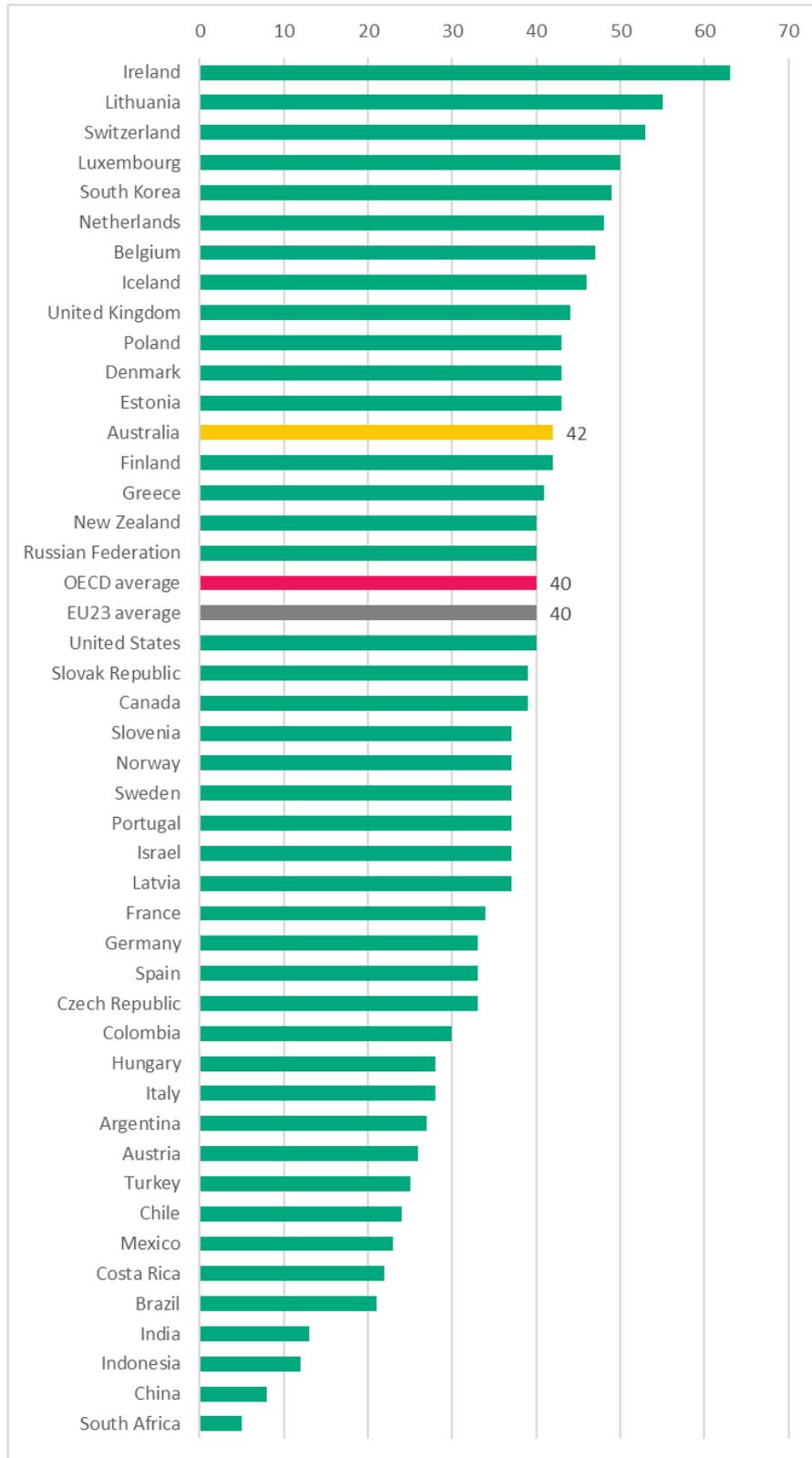
According to the latest *OECD 2020 Education at a Glance*, in 2019 the proportion of people aged 25 to 34 years old with a Bachelor degree or higher was 42 per cent in Australia, higher than the OECD average of 40 per cent (Figure 67). However, Australia’s university attainment remained behind Ireland, Switzerland, South Korea, the Netherlands, Belgium, UK and Denmark.

**Figure 66: Proportion of people aged 25–34 years old with a Bachelor degree or higher, by SA4 area, 2016**



Source: ABS, *Census of Population and Housing 2016*, TableBuilder.  
Note: Data are for Statistical Area Level 4 (SA4).

**Figure 67: Proportion of people aged 25–34 years old with a Bachelor degree or higher, by selected countries, 2019**



Source: OECD 2020, *Education at a Glance*, Figure A1.6.

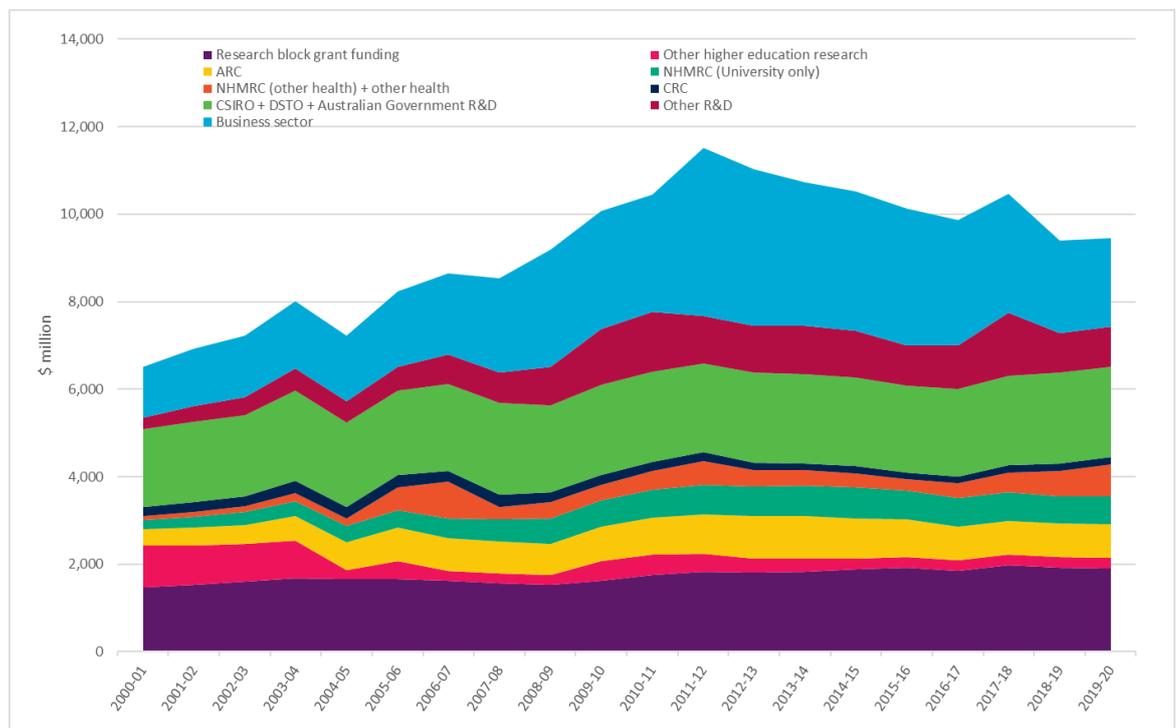
### 3 SCIENCE, RESEARCH AND INNOVATION

#### 3.1 AUSTRALIAN GOVERNMENT SUPPORT FOR SCIENCE, RESEARCH AND INNOVATION

The total amount of Australian Government spending on science, research and innovation (SRI) increased – in real terms – from \$6.5 billion in 2000–01 to a peak of \$11.5 billion in 2011–12 before declining to an estimated \$9.4 billion in 2018–19, the lowest level since 2009–10. Spending rose slightly to \$9.5 billion in 2019–20. (Figure 68).

Total Australian Government funding for university research – including research block grants and competitive grants (primarily from the Australian Research Council (ARC) and National Health and Medical Research Council (NHMRC)) – increased by 18 per cent in real terms, from around \$3 billion in 2000–01 to an estimated \$3.5 billion in 2019–20. Over the same period, support to encourage innovation in business has increased 76 per cent from around \$1.2 billion in 2000–01 to \$2 billion a year in 2019–20. However, the principal mechanism for encouraging business R&D, the research and development tax incentive (RDTI), peaked in 2011–12 at \$3.4 billion, and so has dropped 42 per cent in real terms over the past eight years.

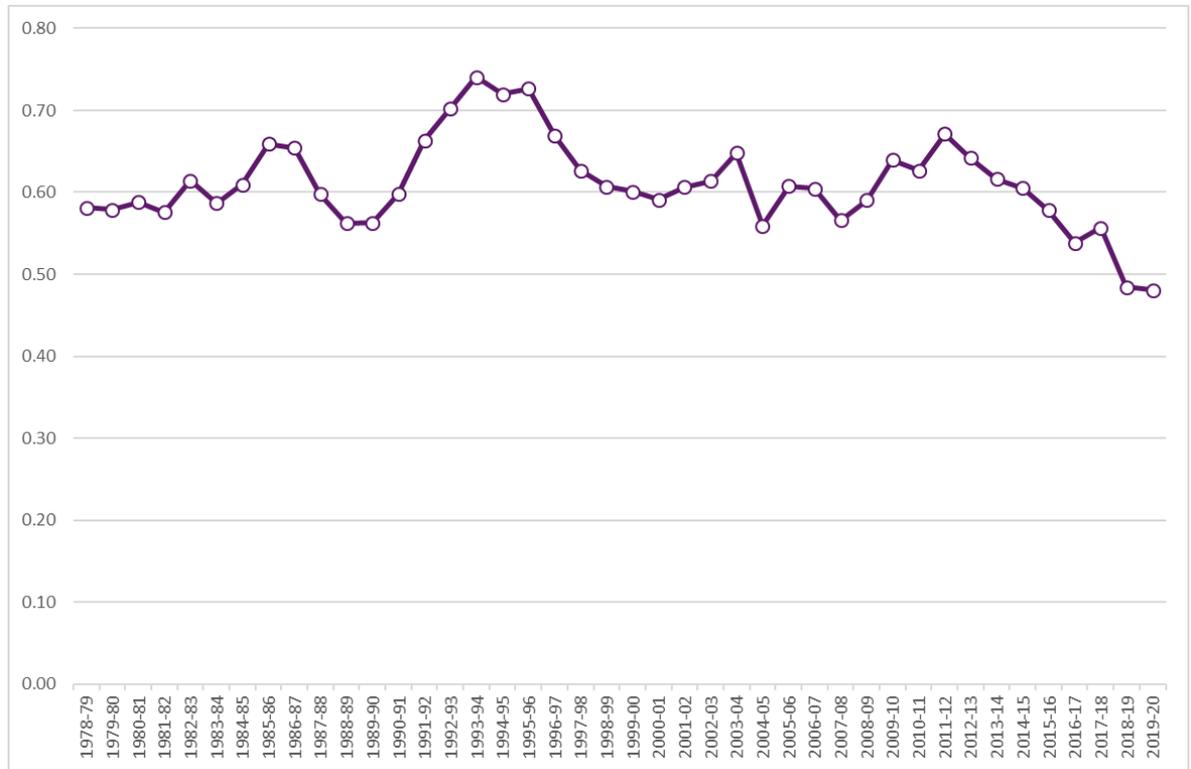
**Figure 68: Australian Government support for science, research and innovation, in 2018 dollars**



Source: Department of Industry, Innovation and Science 2019, 2019–20 SRI Budget Tables.

Despite the growth in investment, Figure 69 shows total Australian government investment in science, research and innovation has not kept pace with the growth in the Australian economy, with total spending declining from 0.59 per cent of GDP in 2000–01 to 0.48 per cent of GDP in 2019–20, the lowest in four decades.

**Figure 69: Australian Government support for SRI, per cent of GDP**



Source: Department of Industry, Innovation and Science 2019, *2019–20 SRI Budget Tables*.

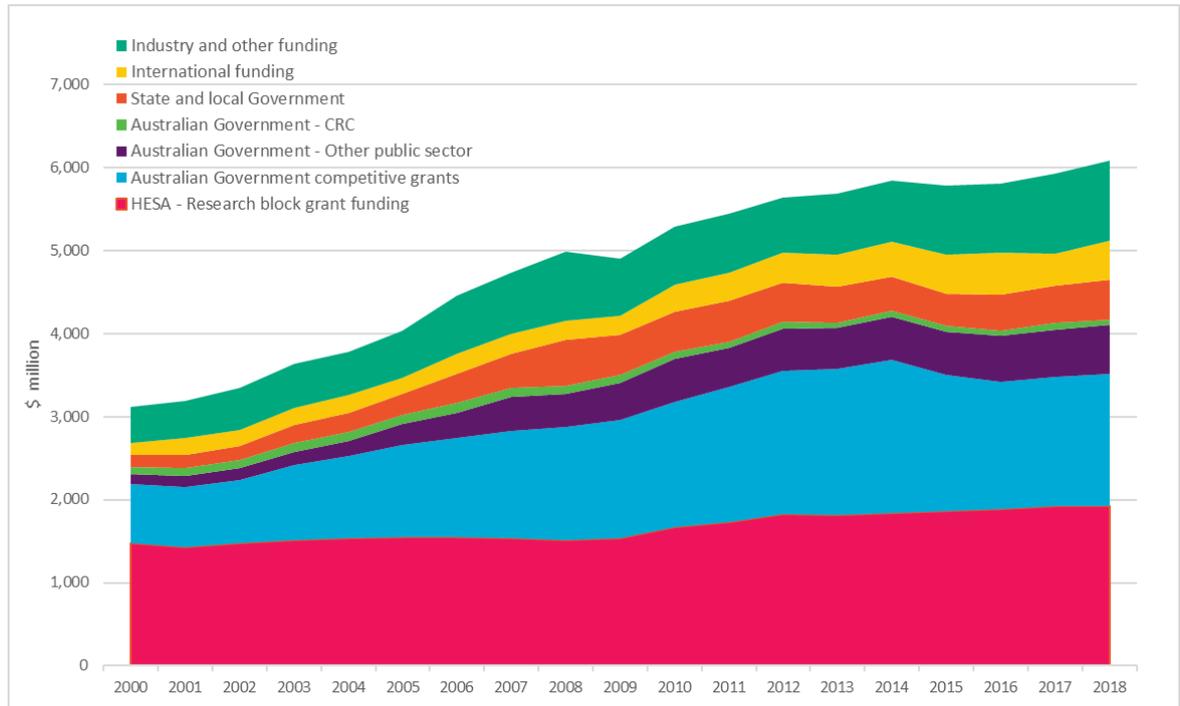
### 3.2 SOURCES OF UNIVERSITY RESEARCH INCOME

Since 2000, total research income received by universities has increased by 95 per cent – in real terms – to \$6.1 billion in 2018. There are large differences in how the various components of this income have grown over time.

While income from Australian Government competitive grants (for example from the ARC and NHMRC) has more than doubled in real terms from \$720 million in 2000 to \$1.6 billion in 2018, income from research block grants only increased by 31 per cent since 2000 to \$1.9 billion in 2018. Although ‘Australian Government–Other public sector’ income accounts for only \$587 million of total research income in 2018, it has more than quadrupled since 2000.

Research income from all sources other than the Commonwealth Government has increased by 164 per cent – in real terms – from \$728 million in 2000 to \$1.9 billion in 2018.

**Figure 70: Sources of university research income, in 2018 dollars**



Source: Department of Education, Skills and Employment (DESE) 2019, *Higher Education Research Data Collection (HERDC)–Research Income Data, 2004–2018* and DESE 2019, *Research Block Grants Allocations, 2001–2020*.

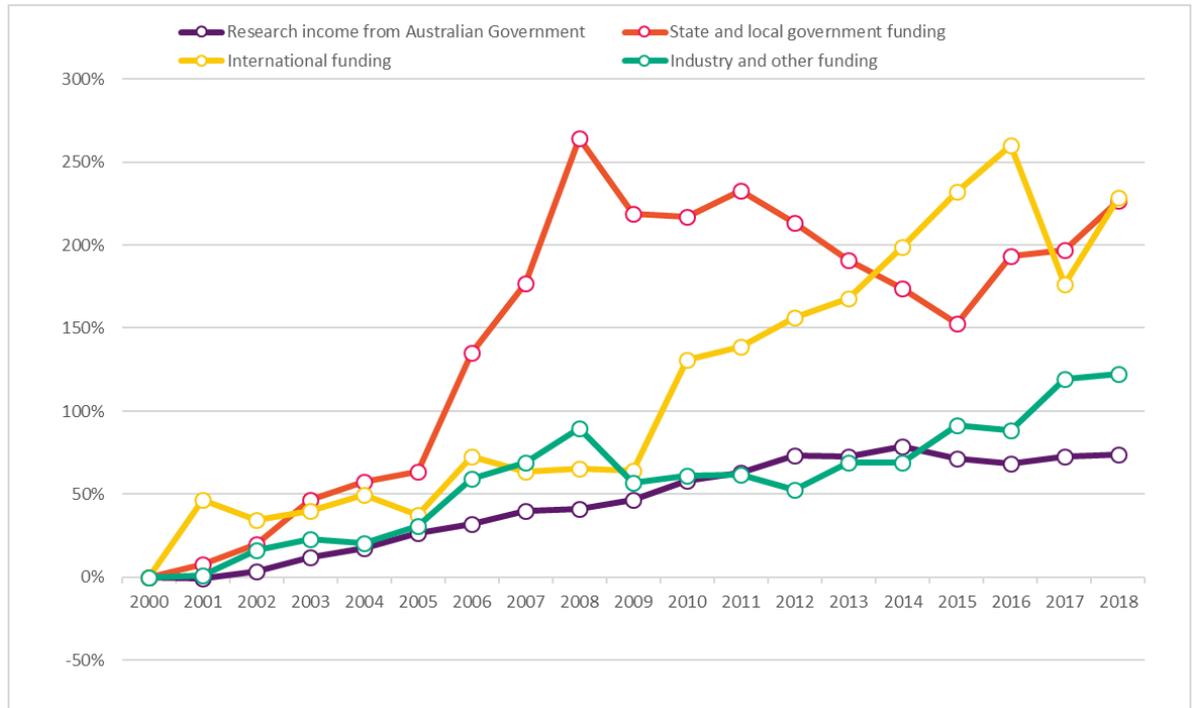
Notes:

- a. Research block grant funding is as defined under the *Higher Education Support Act (HESA) 2003*.
- b. All other categories of research income are defined using the HERDC specifications. There are minor clarifications of the definitions in some years but the concepts behind the classification remain largely unchanged.
  - i. Australian Government income is separately identified for Australian competitive grants (HERDC Category 1); Other public sector (HERDC Category 2); and CRC (HERDC Category 4). HERDC Category 3 does not include any income from Governments.
  - ii. State and local government is defined as local and state Government income from within HERDC Category 1 and Category 2.
  - iii. International funding is defined as International income from within HERDC Category 3.
  - iv. Industry and other funding includes Non-Commonwealth competitive income within HERDC Category 1, all HERDC Category 3 income excluding International funding, and CRC income from non-Commonwealth source within HERDC Category 4.

Figure 71 shows total university research income sourced from the Australian Government increased by 74 per cent in real terms, from \$2.4 billion in 2000 to \$4.2 billion in 2018. It constituted 68 per cent of universities' total research income in 2018.

The next largest source of research income is 'Industry and other funding', representing 16 per cent of universities' total research funding in 2018 (\$971 million). It has more than doubled in real terms since 2000. Income sourced from state and local government and from overseas sources have more than tripled respectively over the same period (albeit from a low base).

**Figure 71: Growth in sources of funding for university research since 2000, in 2018 dollars**



Source: See Figure 70.

Note: Research income from Australian Government includes research block grant funding plus all HERDC income sourced from the Australian Government.

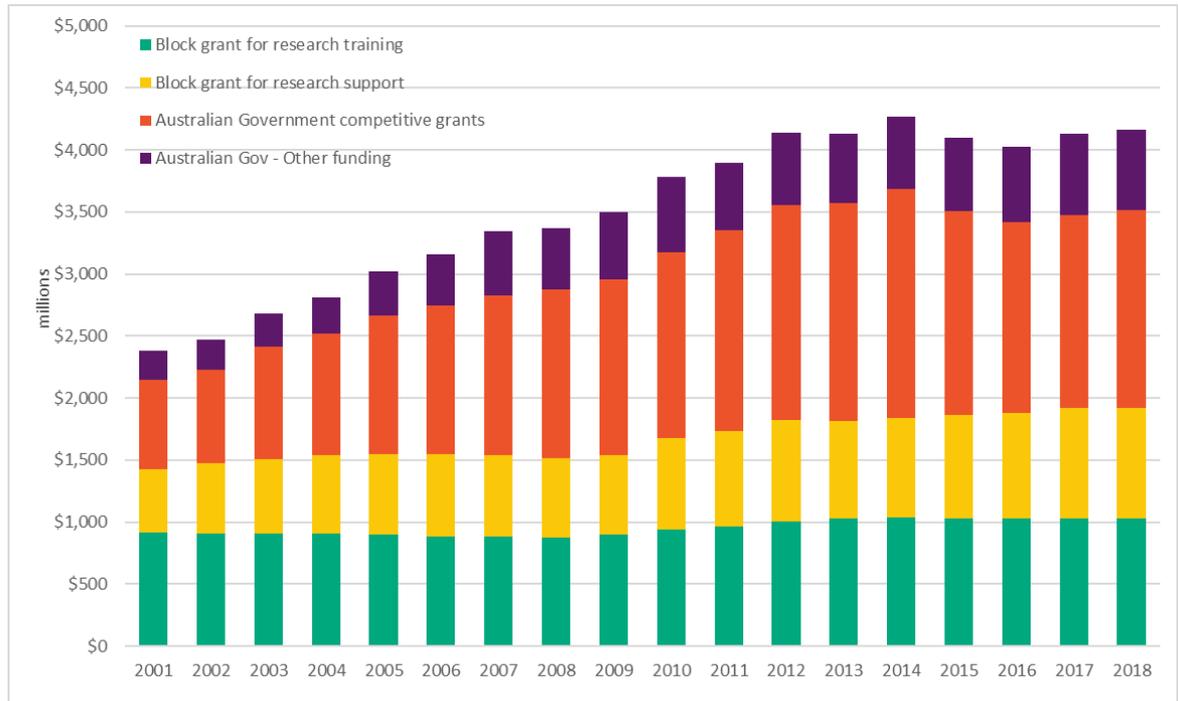
### 3.2.1 CHANGING COMPOSITION OF AUSTRALIAN GOVERNMENT FUNDING FOR UNIVERSITY RESEARCH

Figure 72 shows that while the real value of total research income sourced from the Australian Government increased by 75 per cent between 2001 and 2018, most of the growth has occurred in Australian Government competitive grants, which grew from \$720 million in 2001 to around \$1.6 billion in 2018 – an increase of 122 per cent. However, competitive grant funding has been in decline since 2014.

There has been a 74 per cent increase in block grant funding for research support, from \$513 million in 2001 to \$893 million in 2018. However, block grant funding for research training only increased by 12 per cent over the same period, from \$915 million in 2001 to just over \$1 billion in 2018. Block grant funding from research training has declined in real terms since 2014.

In 2018, 38 per cent of total university research income from the Australian Government was competitive grants, 46 per cent was research block grant funding – research support and research training – and the remaining 15 per cent was made up of other government funding, including Cooperative Research Centres (CRC).

**Figure 72: Composition of research income sourced from Australian Government, in 2018 dollars**



Source: Department of Education, Skills and Employment 2019, *Higher Education Research Data Collection (HERDC) – Research Income Data, 2004 – 2018* and DET 2019, *Research Block Grants Allocations, 2001–2020*.

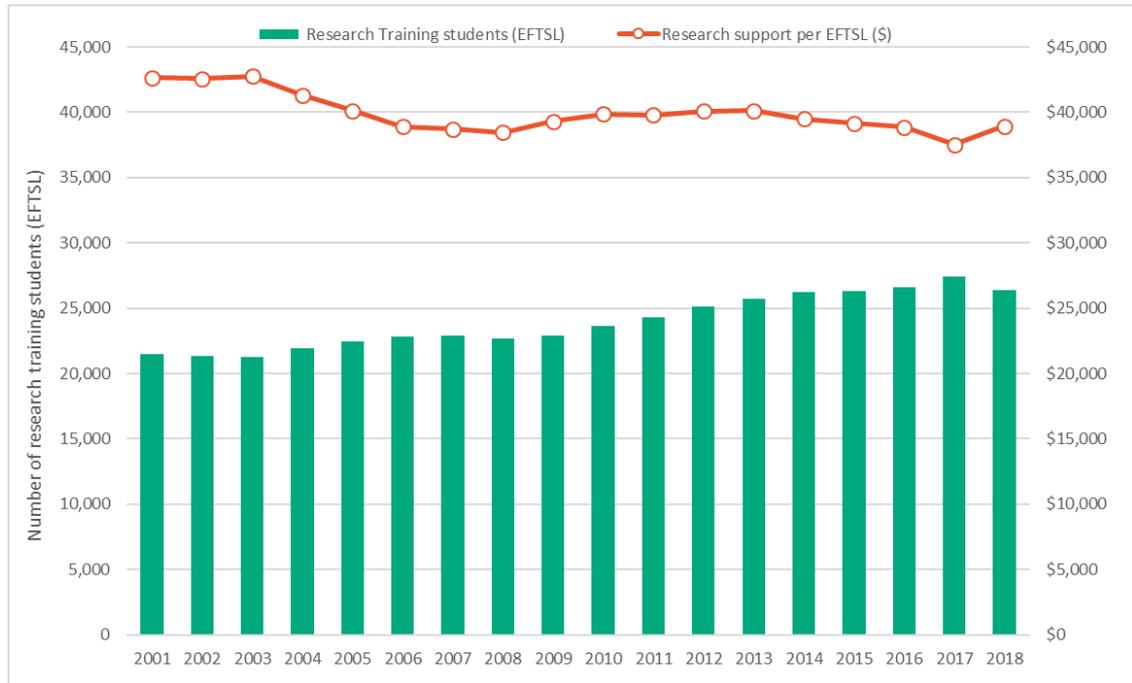
Note: Block grant for research training includes the former Research Training Scheme, the Australian Postgraduate Awards and International Postgraduate Research Scholarships. Block grant for research support includes the former Research Infrastructure Block Grant, Joint Research Engagement Scheme and Sustainable Research Excellence. Australian Government competitive grants are HERDC Category 1 income from Australian Government. Australian Government–Other funding includes HERDC Category 2 (Other public sector) and Category 4 income (CRC) sourced from Australian Government.

### 3.2.2 GOVERNMENT FUNDING TO SUPPORT RESEARCH TRAINING

Figure 73 shows the number of research training students increased by 28 per cent, from around 21,450 in 2001 to 27,418 EFTSL in 2017. The number of research training students has declined by four per cent since 2017 to 26,355 EFTSL in 2018. Government funding to support the training of Australia’s future researchers only increased 12 per cent in real terms between 2001 and 2018. As such, research training funding per student has declined by 12 per cent in real terms, from \$42,640 in 2001 to \$37,522 in 2017, before increasing to \$38,929 in 2018 due to the decline in the number of research training EFTSL.

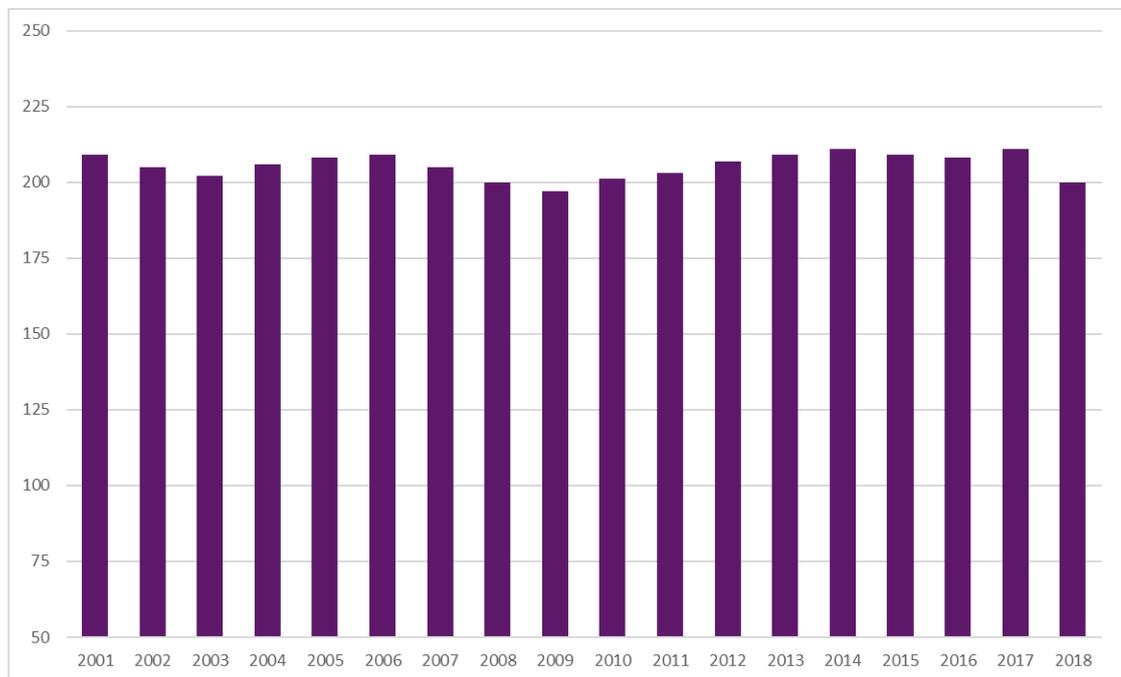
Despite the growth in the absolute number of research training students between 2001 and 2018, the number of research training students as a share of working age population has remained relatively unchanged – at around 200 per 100,000 population aged 25–64 years old (Figure 74).

**Figure 73: Research training funding per student, in 2018 dollars**



Source: Department of Education, Skills and Employment (DESE) 2019, *Research Block Grants Allocations, 2001–2020* and DESE 2019, *Visual Analytics – Load Time Series*.

**Figure 74: Number of research training students per 100,000 population aged 25–64 years**



Source: Department of Education, Skills and Employment 2019, *Visual Analytics—Load Time Series*; ABS 2015, *Australian Historical Population Statistics 2014*, Cat. No. 3105.0.65.001 and ABS, *Australian Demographic Statistics*, June (various years).

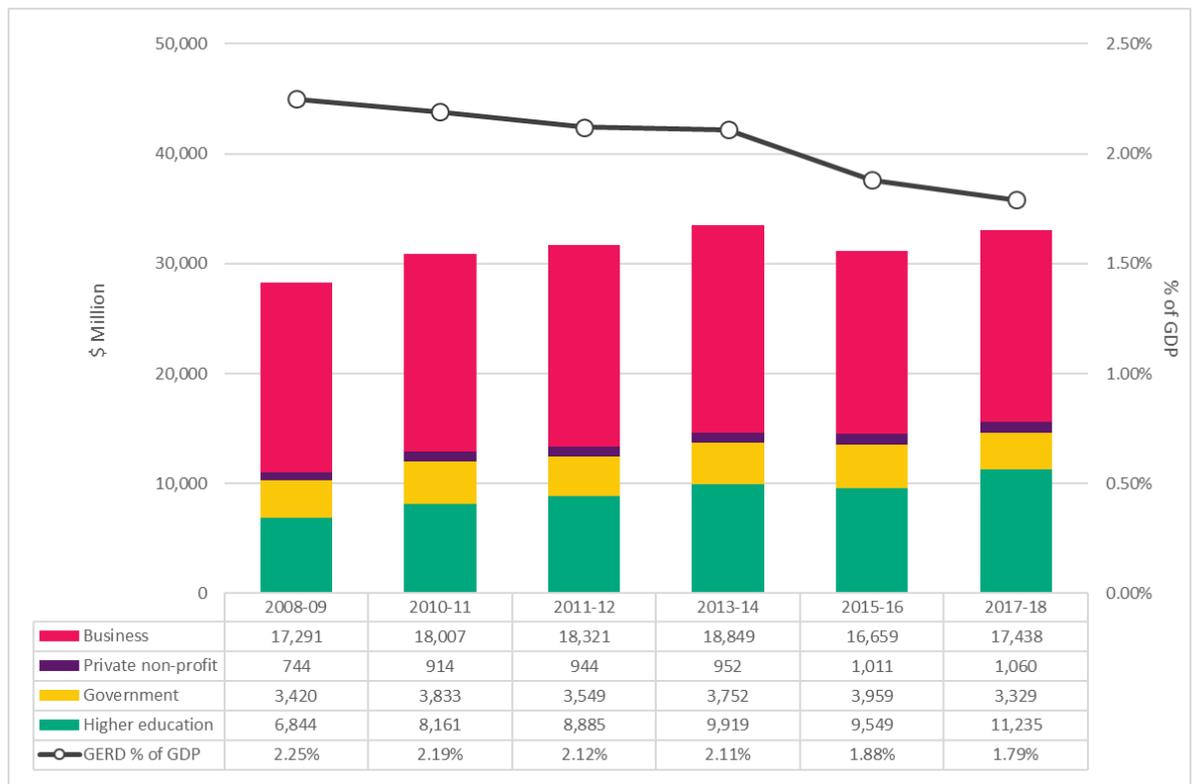
### 3.3 AUSTRALIA'S GROSS EXPENDITURE ON RESEARCH AND DEVELOPMENT

Despite the significant growth in government incentives to encourage business research and development (R&D), Australia's business expenditure on R&D (BERD) is going backwards. The latest ABS data shows that BERD declined by seven per cent between 2013–14 and 2017–18, or \$1.4 billion (from \$18.8 billion to \$17.4 billion).

While 61 per cent of Australia's gross expenditure on R&D (GERD) was contributed by the business sector in 2008–09, this proportion had declined to 53 per cent by 2017–18. On the other hand, the higher education sector has increased its contribution to the nation's research effort, from 24 per cent in 2008–09 to 34 per cent in 2017–18.

Australia's total investment in R&D as a percentage of GDP has declined from 2.25 per cent in 2008–09 to 1.79 per cent in 2017–18.

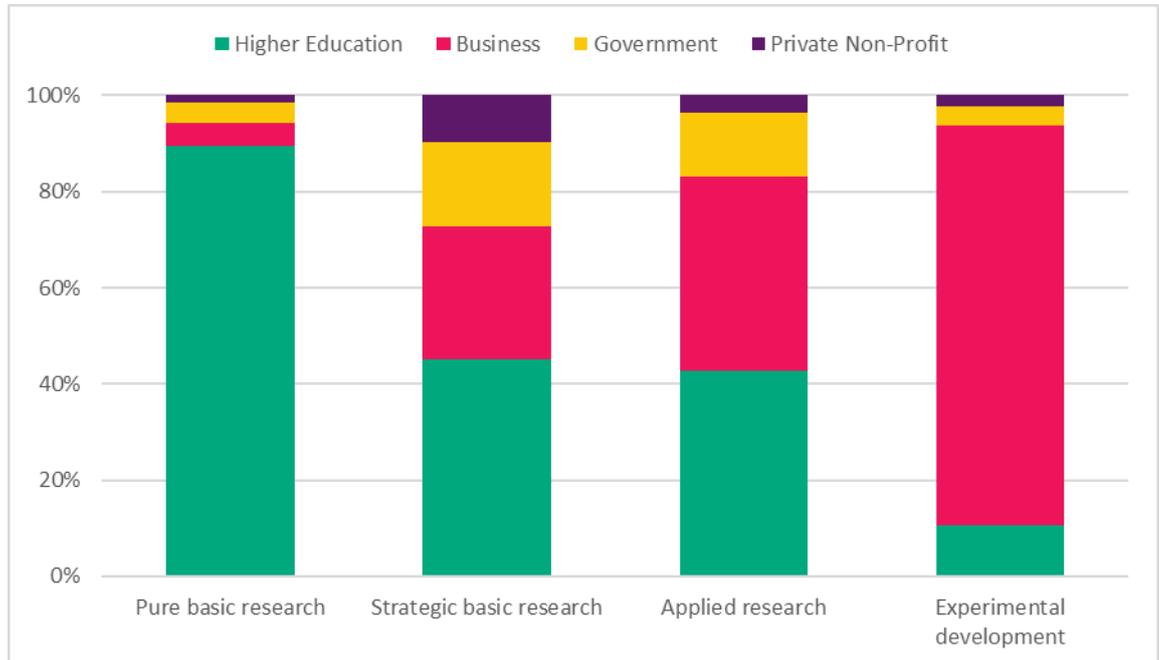
**Figure 75: Composition of Australia's gross expenditure on research and development (GERD), in nominal dollars**



Source: ABS 2019, *Research and Experimental Development, Businesses, Australia, 2017–18*, Cat. No. 8104.0.

Latest ABS figures show that Australia spent \$13.8 billion on applied research, \$12.5 billion on experimental development, \$4.8 billion on strategic basic research and \$3.1 billion on pure basic research. Universities perform approximately 43 per cent of all applied research in Australia compared to 40 per cent by businesses. Businesses are most active in the experimental development area of research, comprising 83 per cent nationally. At the same time, Government has reduced its investment in R&D, most notably in basic research. Universities now perform 90 per cent of pure basic research in Australia (Figure 76: Share of research and development expenditure, by type of activity and sector, latest available).

**Figure 76: Share of research and development expenditure, by type of activity and sector, latest available**



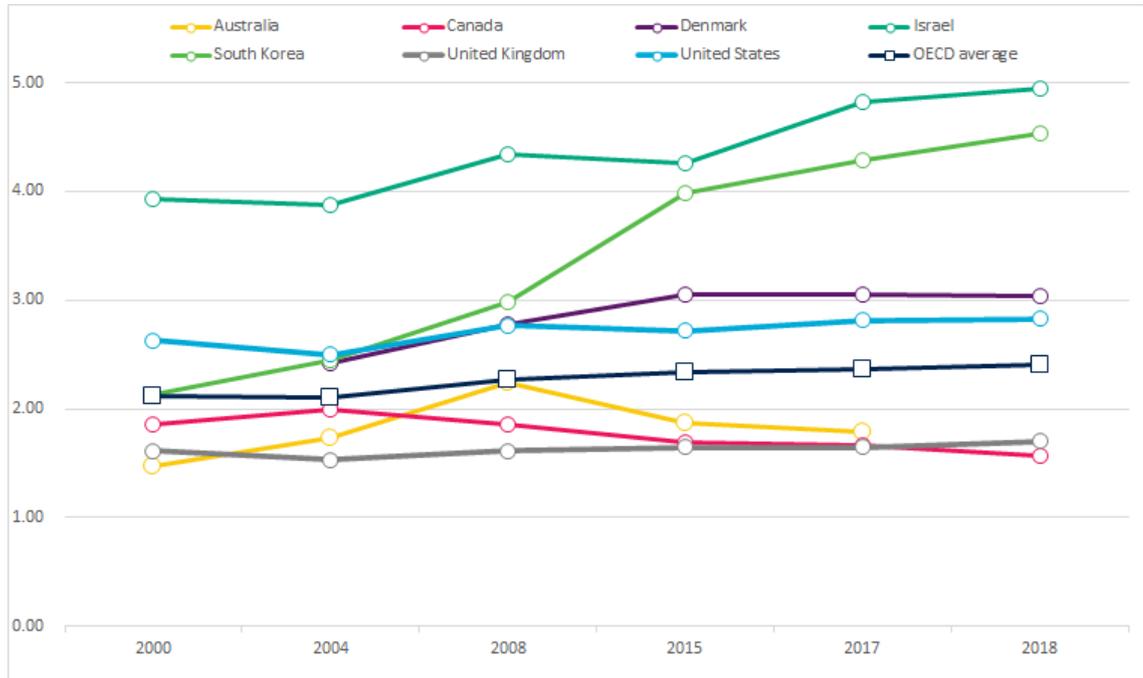
Source: ABS 2019, *Research and Experimental Development, Businesses, Australia, 2017–18*, Cat. No. 8104.0, ABS 2020, *Research and Experimental Development, Higher Education Organisations, Australia, 2018*, Cat No. 8111.0 and ABS 2020, *Research and Experimental Development, Government and Private Non-Profit Organisations, Australia, 2018-19*, Cat. No. 8109.0.

### 3.3.1 INTERNATIONAL COMPARISONS

Figure 77 shows that Australia’s gross expenditure on research and development (GERD) as a percentage of GDP has declined from a peak of 2.25 per cent in 2008 to 1.79 per cent in 2017; while the average investment of OECD countries has increased steadily from 2.27 per cent to 2.4 per cent over the same period. Our research and development investment also lagged significantly behind innovation leaders – Israel (4.94 per cent), South Korea (4.53 per cent), Denmark (3.03 per cent) and the United States (2.83 per cent).

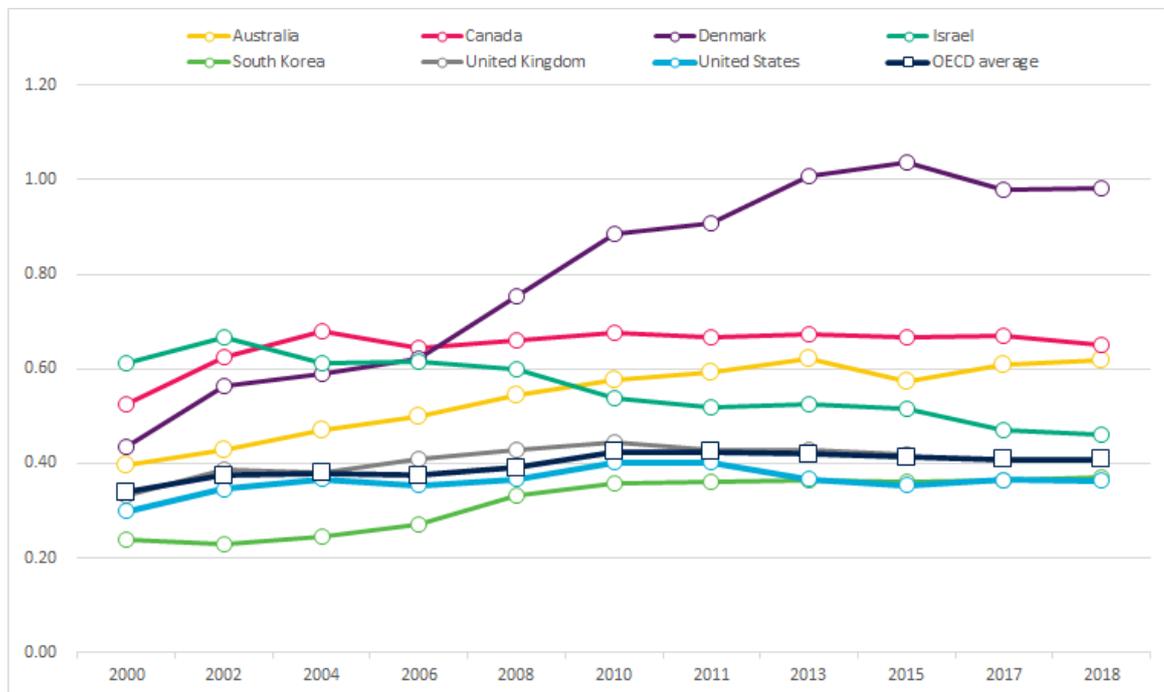
In contrast, Figure 78: Higher education expenditure on research and development (HERD) as a percentage of GDP, by country shows that Australia’s higher education sector expenditure on research and development (HERD) as a percentage of GDP was 0.62 per cent in 2018, increasing from 0.4 per cent in 2000. In 2018, Australia’s HERD was higher than the OECD average of 0.41 per cent but remains below Denmark (0.98 per cent) and Canada (0.65 per cent).

**Figure 77: Gross expenditure on research and development (GERD) as a percentage of GDP, by country**



Source: OECD.Stat accessed on 18 May 2020.

**Figure 78: Higher education expenditure on research and development (HERD) as a percentage of GDP, by country**



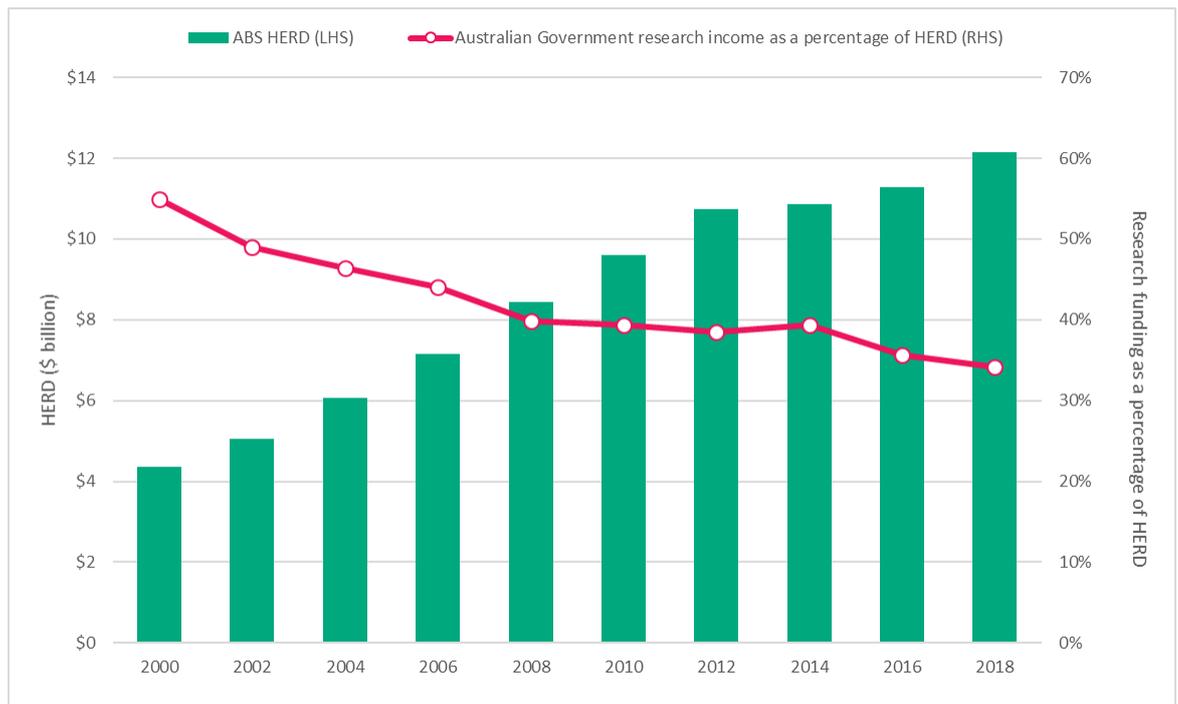
Source: OECD.Stat accessed on 24 July 2020.

### 3.3.2 UNIVERSITY SPENDING ON RESEARCH AND DEVELOPMENT

According to the ABS, higher education expenditure on research and development (HERD) has increased by 179 per cent in real terms, from around \$4.4 billion in 2000 to \$12.2 billion in 2018.

However, the share of that spending which is funded by dedicated research grants from the Australian Government – including research block grants – has declined from 54.9 per cent in 2000 to 34.2 per cent in 2018.

**Figure 79: Higher education expenditure on research and development (HERD) compared to research income sourced from Australian Government, in 2018 dollars**



Source: ABS, *Research and Experimental Development, Higher Education Organisations, Australia*, Cat. No. 8111.0, various years; DET 2019, *Higher Education Research Data Collection—Research Income Data, 2004–2018* and DET 2019, *Research Block Grants Allocations, 2001–2020*.

Note: Australian Government research income includes research block grant funding and all HERDC income sourced from Australian Government.

#### Higher education expenditure on research and development, by type of activity

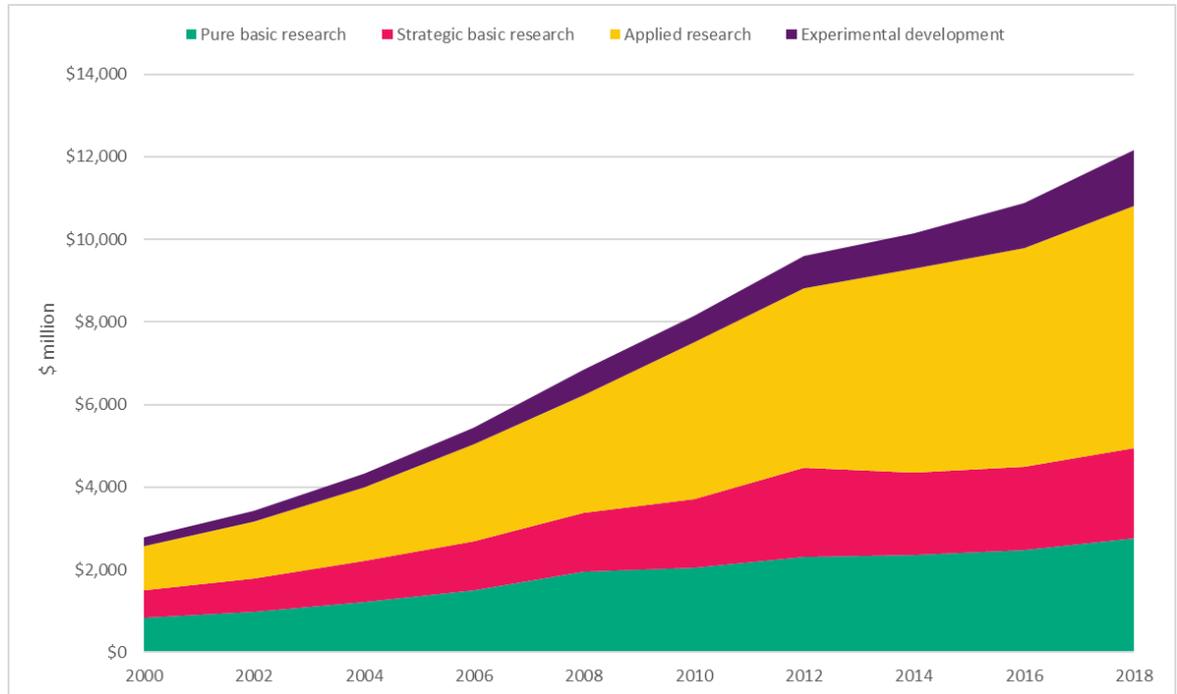
Figure 80: Higher education expenditure on research and development (HERD), by type of R&D activity, 2000 to 2018, in nominal dollars shows that between 2008 and 2018 university spending on:

- pure basic research has increased by 41 per cent, from \$1.96 billion in 2008 to \$2.77 billion in 2018;
- strategic basic research has increased by 53 per cent, from \$1.41 billion to \$2.17 billion;
- applied research has more than doubled (107 per cent) over the period, from \$2.84 billion to \$5.88 billion; and
- experimental development has also more than doubled (113 per cent) from \$626.8 million to \$1.34 billion.

Notwithstanding the significant increase in spending on pure or strategic basic research, the share of HERD spending on basic research has declined from 49 per cent in 2008 to 41 per cent

in 2018. In contrast, the share of spending on applied research has increased from 42 per cent to 48 per cent over the period.

**Figure 80: Higher education expenditure on research and development (HERD), by type of R&D activity, 2000 to 2018, in nominal dollars**



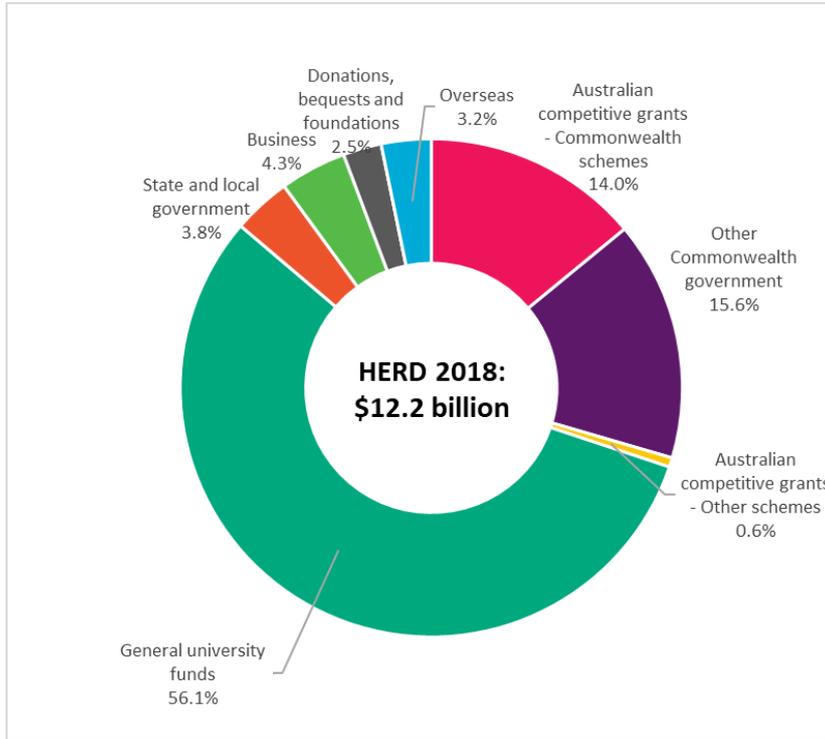
Source: ABS, *Research and Experimental Development, Higher Education Organisations, Australia*, Cat. No. 8111.0, various years

### Higher education expenditure on research and development, by source of funds

In 2018, 56.1 per cent of university spending on research and development (R&D) was funded from internal university resourcing – i.e. general university funds – while 29.5 per cent was funded from Australian Government grants. The remaining 14.3 per cent of HERD was funded from other funding sources, including state and local governments, business, donations and other domestic and international sources (Figure 81: Higher education expenditure on research and development, by source of funds, 2018).

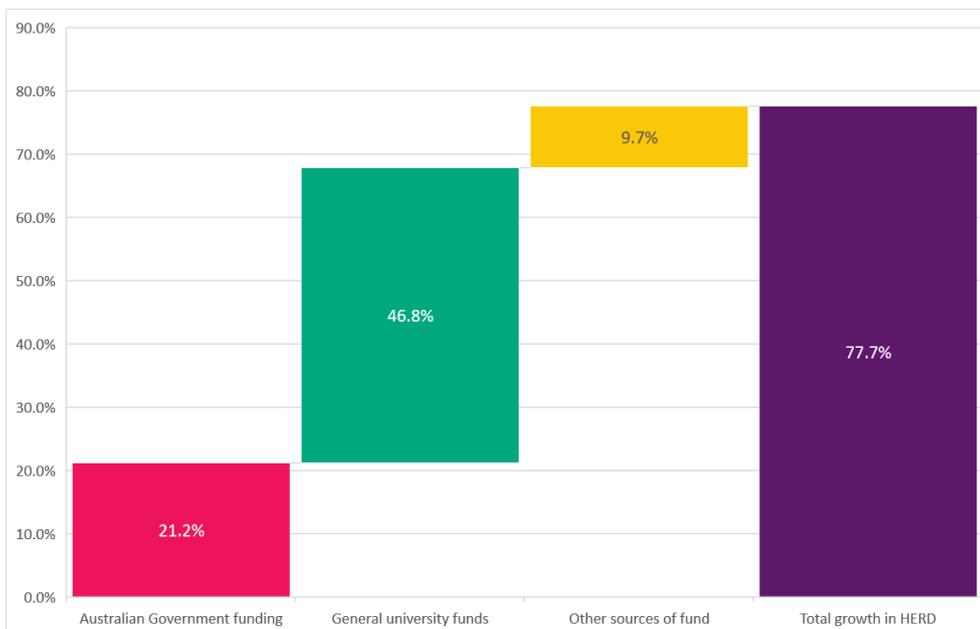
Figure 82: Contributions to growth in higher education expenditure on research and development, 2008 to 2018, by source of funds shows university spending on R&D grew 77.7 per cent between 2008 and 2018. Most of this growth was funded by internal university resourcing (46.8 percentage points), while Australian Government funding only contributed 21.2 percentage points of the growth in HERD over the period. Other funding sources contributed the remaining 9.7 percentage points of the growth in HERD.

**Figure 81: Higher education expenditure on research and development, by source of funds, 2018**



Source: ABS 2020, *Research and Experimental Development, Higher Education Organisations, Australia*, Cat. No. 8111.0, 2018.

**Figure 82: Contributions to growth in higher education expenditure on research and development, 2008 to 2018, by source of funds**



Source: ABS, *Research and Experimental Development, Higher Education Organisations, Australia*, Cat. No. 8111.0, various years.

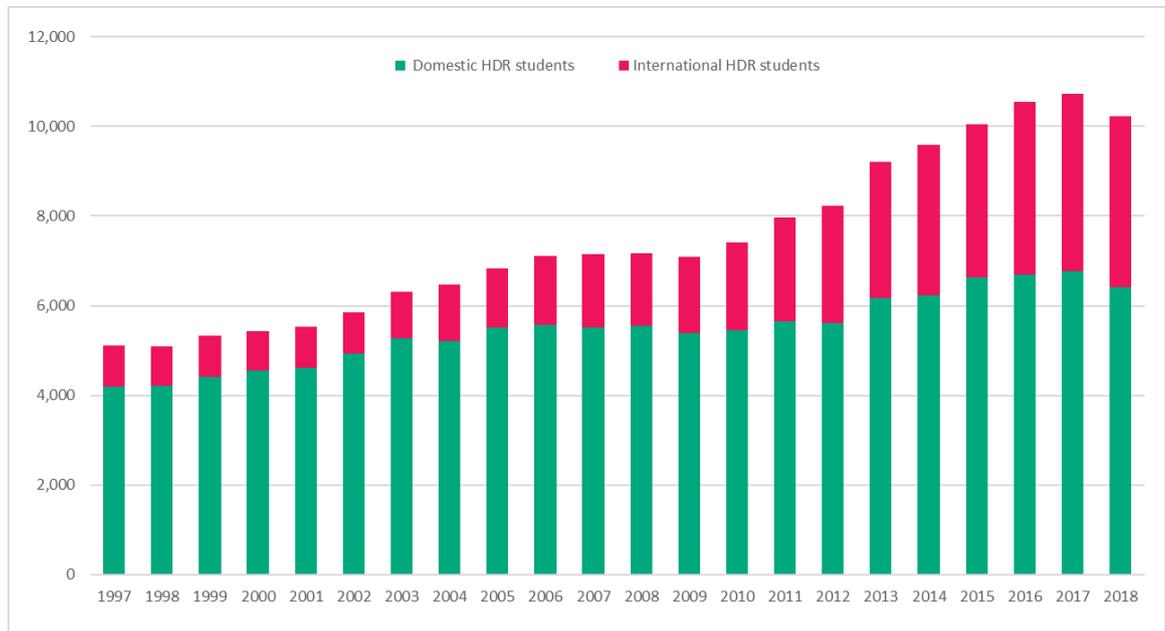
### 3.4 RESEARCH OUTCOMES

#### 3.4.1 HIGHER DEGREE BY RESEARCH COMPLETIONS

Over the last two decades, the total number of students – both domestic and international – completing a higher degree by research (HDR) has more than doubled.

The number of domestic students completing an HDR qualification has increased by around 52 per cent, from 4,207 completions in 1998 to 6,414 in 2018. Over the same period, the number of international HDR completions has more than quadrupled, from 875 to 3,817 completions. However, between 2017 and 2018, domestic and international HDR completions fell by 5.2 and 3.4 per cent respectively.

**Figure 83: Higher degree by research completions**

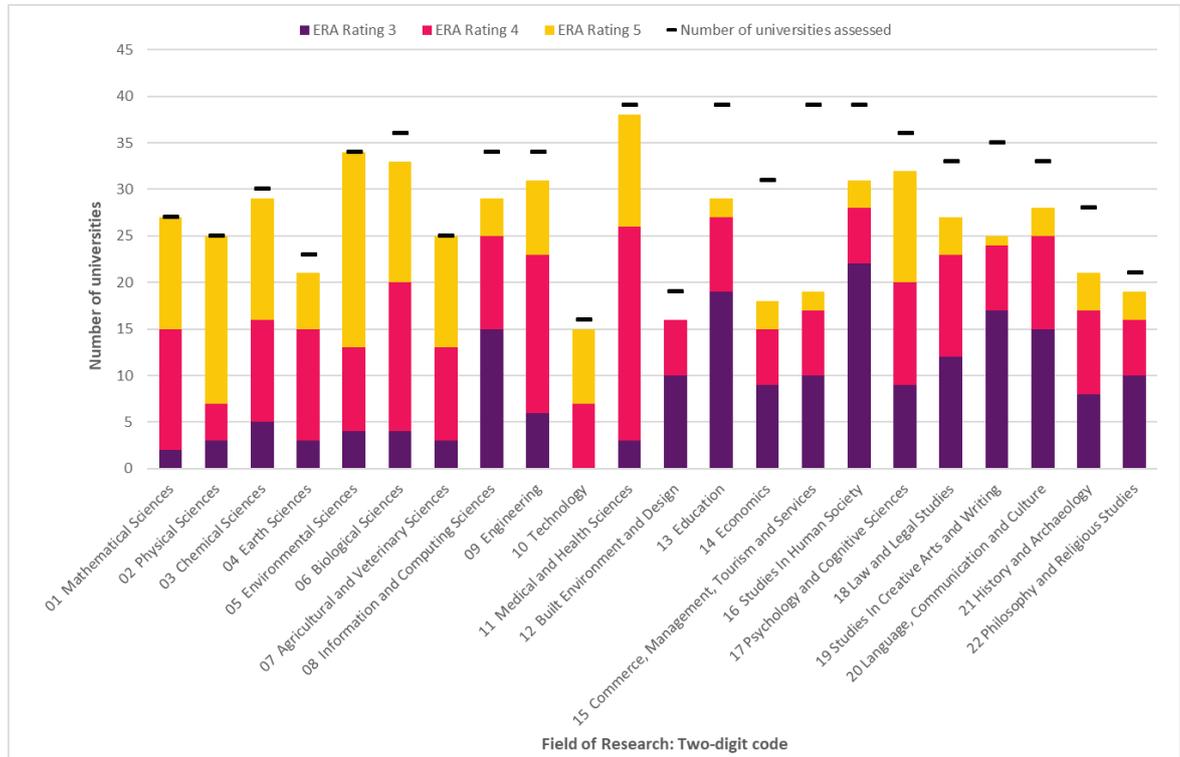


Source: Department of Education, Skills and Employment, *Selected Higher Education Statistics—Student Data: Award Course Completions*, various years.

#### 3.4.2 RESEARCH EXCELLENCE

The 2018 Excellence in Research for Australia (ERA) national report provides information on the quality of research undertaken by Australian universities. Overall, 90 per cent of Australian university research assessed was performing at, or above, world standard in 2018.

**Figure 84: Universities at or above world standard by Excellence in Research for Australia rating – two-digit field of research code – 2018**



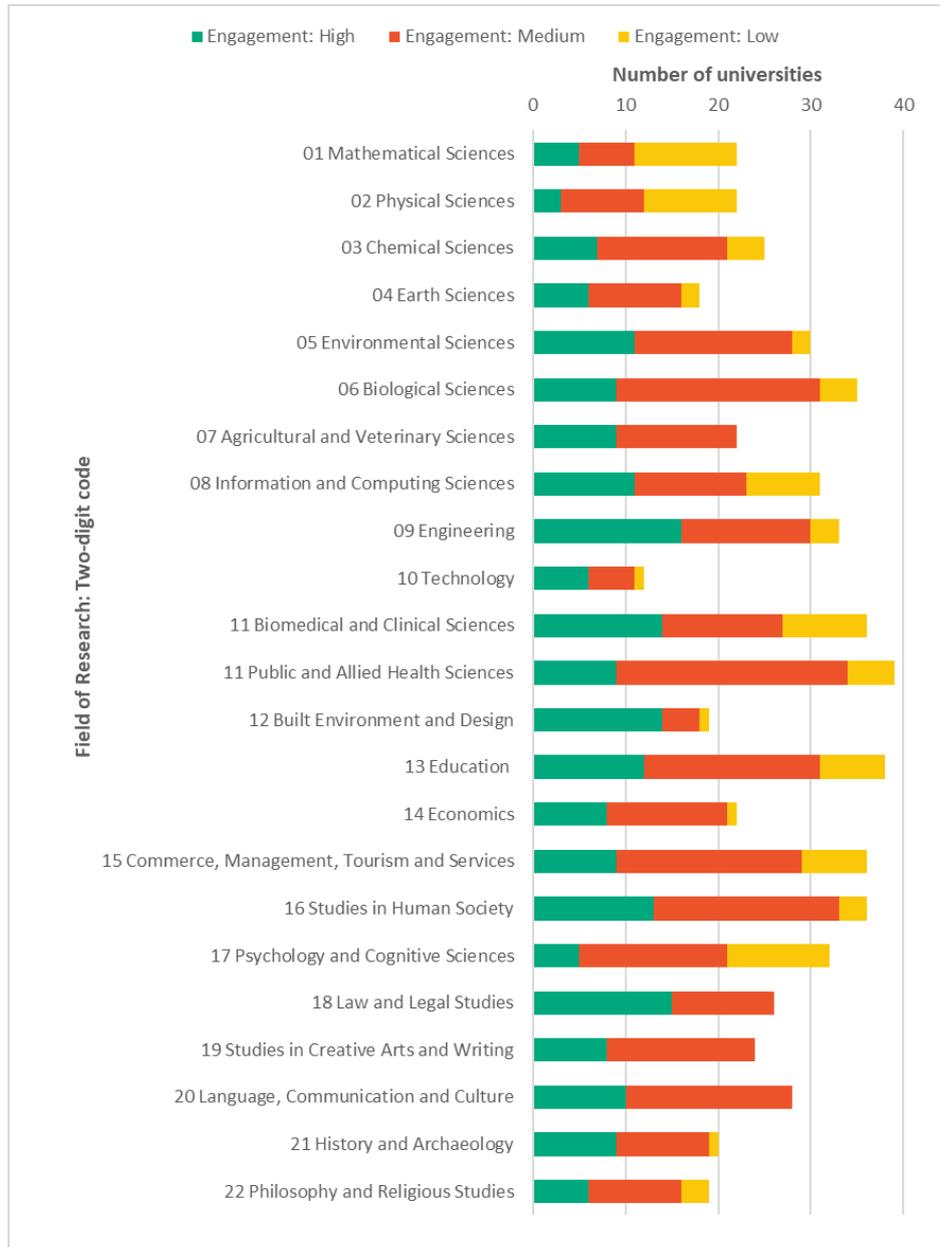
Source: ARC 2019, *State of Australian University Research 2018–19: ERA National Report*.

The inaugural Australian Research Council Engagement and Impact Assessment (EI) – which assesses how well researchers in Australian universities are engaging with end-users of research and shows how universities are translating their research into economic, social, environmental, cultural and other impacts – was conducted in 2018. EI used a three-point rating scale – high, medium and low.

The EI report found that overall 85 per cent of the 626 Units of Assessment (UoAs) for engagement and 88 per cent of the 637 UoAs for impact were rated at medium or high in 2018.<sup>9</sup>

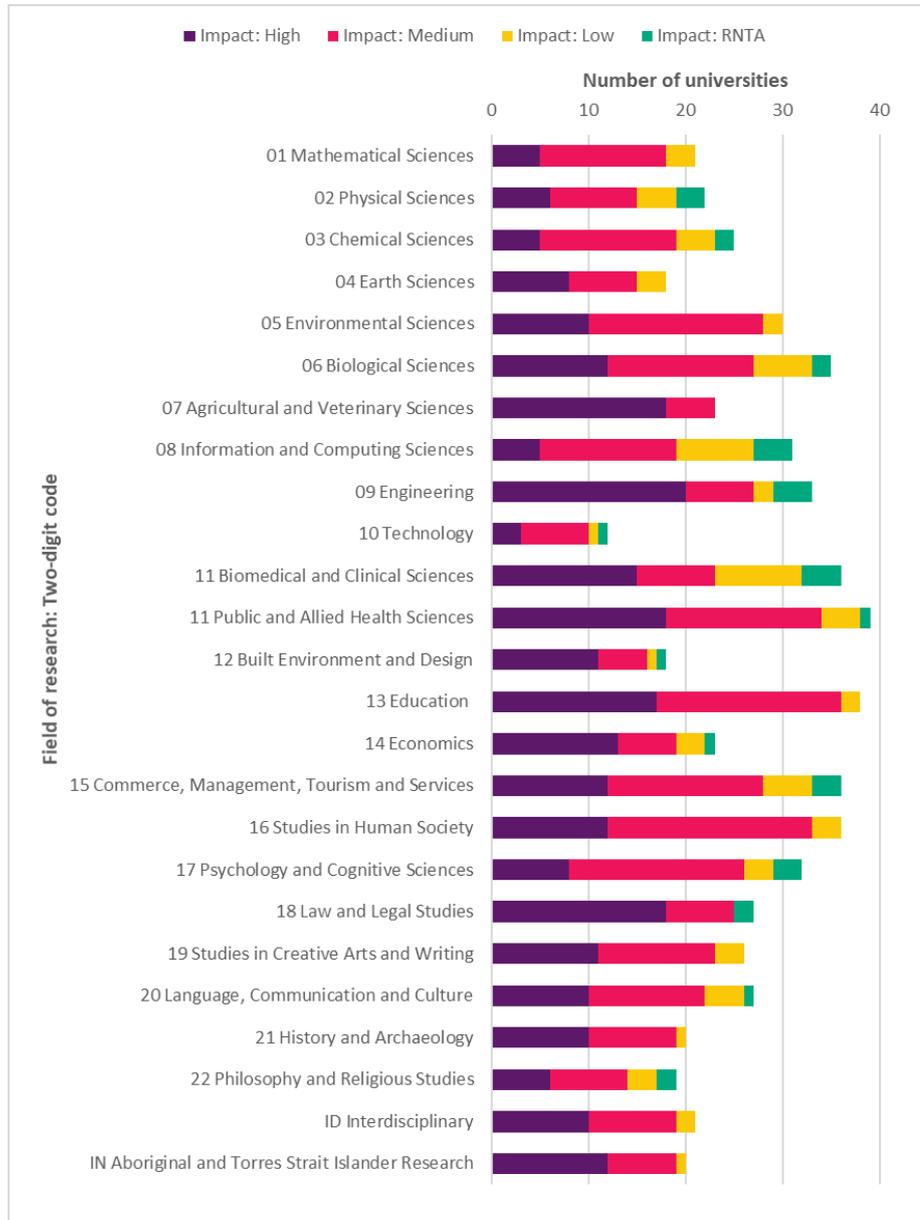
<sup>9</sup> ARC 2019, *Engagement and Impact Assessment 2018–19: National Report*.

**Figure 85: Ratings for research engagement by two-digit field of research, interdisciplinary and Aboriginal and Torres Strait Islander research, 2018**



Source: Australian Research Council 2019, *Engagement and Impact Assessment 2018–19: National Report*.

**Figure 86: Ratings for research impact by two-digit field of research, interdisciplinary and Aboriginal and Torres Strait Islander research, 2018**

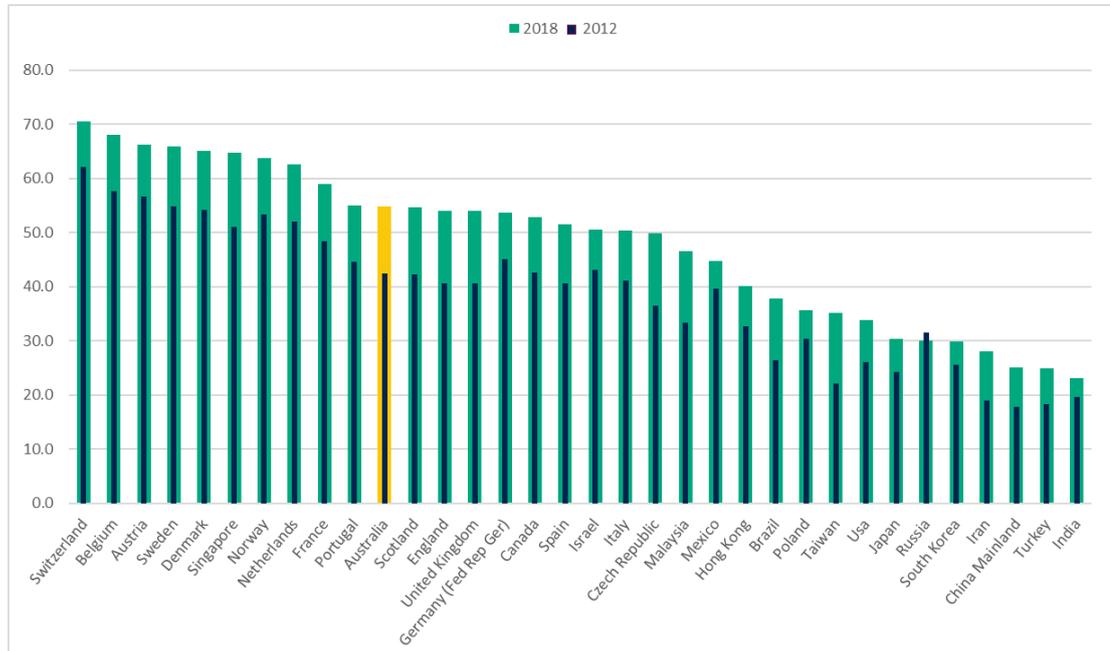


Source: Australian Research Council 2019, *Engagement and Impact Assessment 2018–19: National Report*.  
 Note: RNTA denotes cases where institution requested that the UoA not be assessed for impact. For example, the majority of research output were primarily basic research.

### 3.4.3 INTERNATIONAL RESEARCH COLLABORATION

The level of research collaboration with other countries is recognised as an important contributor to a nation’s research performance. Figure 87 shows most countries have increased their international collaborations between 2012 and 2018, with the exception of Russia. While Australia is geographically isolated, our rate of international collaboration is above that of the UK, Canada and the US. In 2018, 54.8 per cent Australia’s Web of Science documents were co-authored with international researchers, compared to 42.4 per cent in 2012.

**Figure 87: Percentage of Web of Science documents with international collaborators, 2012 and 2018**



Source: Thomson Reuters, *Incites™ Database*, extracted on 9 December 2019.

### 3.4.4 UNIVERSITY-INDUSTRY COLLABORATION

The OECD indicators reported in Table 7 suggests that Australia lags other OECD nations on collaboration between business and higher education institutions. However, these OECD indicators are only one set of metrics, based upon a survey of businesses.

Analysis using metrics of cooperation on patents shows a different picture, in which collaboration between Australian universities and industry is at a higher level. This research by IP Australia (2017) shows that Australia ranks 13th of 35 OECD countries for proportion of industry-university collaborative patent applications and is in the top ten for patents filed by a university.<sup>10</sup> Yet Australian entities are ranked 23rd of 35 for filing of collaborative patents overall, suggesting Australian businesses prefer to not collaborate in development of intellectual property. As the authors note, ‘*Comparing [these results] suggests that Australia’s issues with collaboration do not lie with universities*’.<sup>11</sup>

<sup>10</sup> IP Australia 2017, *University–Industry Collaboration and Patents*, Australian Government, Canberra, [https://www.ipaustralia.gov.au/sites/g/files/net856/f/reports\\_publications/university-industry\\_collaboration\\_and\\_patents.pdf](https://www.ipaustralia.gov.au/sites/g/files/net856/f/reports_publications/university-industry_collaboration_and_patents.pdf)

<sup>11</sup> Ibid, p.7

**Table 7: Selected OECD metrics for engagement between business and higher education institutions**

	<b>Firms collaborating on innovation with higher education institutions</b>	<b>Business-funded R&amp;D in the higher education and government sectors</b>
<b>1999</b>	Not reported for Australia	16 of 28
<b>2001</b>	Not reported for Australia	18 of 29
<b>2003</b>	Not reported	Not reported
<b>2005</b>	Not reported	19 of 30
<b>2007</b>	26 of 26	21 of 33
<b>2009</b>	20 of 23	21 of 36
<b>2011</b>	Not reported for Australia	16 of 37
<b>2013</b>	33 of 33	16 of 36
<b>2015</b>	Not reported for Australia	22 of 37
<b>2017</b>	28 of 28	20 of 38

Source: OECD, *Science, Technology and Industry Scoreboard*, various years.

## 4 INTERNATIONAL RANKINGS

Australia consistently ranks highly in the *Universitas 21 Report* which assesses the national higher education systems – rather than individual universities – of 50 countries. Australia ranked ninth in 2020, one position lower than in 2019.

In 2020, Australia ranked third on ‘outputs’, which includes measures of student participation rates, employability of graduates and research performance. However, Australia is one of only two countries – the other being the United Kingdom – that are in the top five for output but do not rank in the top ten for resources.

Australia is ranked 14th based on the resources available to its universities. Australia’s ranking for resources is dragged down by Australia’s low (34 out of 50 countries) government expenditure on tertiary education institutions as a percentage of GDP.

**Table 8: Top 10 university systems and their measures for resources and output, 2020**

	Overall ranking		Resource measure		Output measure	
	Rank	Score	Rank	Score	Rank	Score
United States	1	100.0	10	86.2	1	100.0
Switzerland	2	90.1	3	97.9	5	67.5
Denmark	3	85.7	4	97.6	4	67.8
Singapore	4	84.5	2	98.2	11	59.0
Sweden	5	84.3	5	94.2	6	65.1
United Kingdom	6	83.6	19	65.5	2	72.9
Canada	7	83.2	6	93.0	7	64.1
Finland	8	82.8	9	86.3	9	60.9
<b>Australia</b>	<b>9</b>	<b>82.2</b>	<b>14</b>	<b>71.8</b>	<b>3</b>	<b>67.8</b>
Netherlands	10	81.6	11	79.3	8	62.4

Source: Universitas21 2020, *Ranking of National Higher Education Systems 2020*.

Notes:

- The 2020 report presents the results for the ninth annual ranking of national systems of higher education undertaken under the auspices of the Universitas 21 (U21) network of universities. Fifty national systems of higher education – from all continents – are evaluated across 24 attributes. The measures are standardised for population size. Countries are ranked overall and on each of four modules: Resources, Policy Environment, Connectivity and Output. Within each measure the highest achieving country is given a score of 100 and scores for other countries are expressed as a percentage of this highest score.
- Resources** module is one of the input variables and covers government expenditure, total expenditure and R&D expenditure in tertiary institutions. Resources, whether private or public, are a necessary condition for a quality system of higher education but they must be complemented by a policy environment which facilitates their efficient use.
- Output** module is one of the outcome measures. The nine output measures encompass research output and its impact, student throughput, the national stock of graduates and researchers, the quality of a nation’s best universities, and the employability of graduates.

Australian universities perform well on the various international university ranking systems. The latest ranking shows more than eight Australian universities are ranked in the top 200 universities and almost two-thirds of Australia's 39 universities are in the top 500.

**Table 9: Australian universities performance in different university ranking systems**

	Times Higher Education World University Rankings		Academic Ranking of World Universities (SHJT)		QS World University Rankings	
	2020	2021	2019	2020	2020	2021
<b>Top 100</b>	6	6	7	7	7	7
<b>Top 200</b>	11	12	8	8	9	11
<b>Top 400</b>	27	27	21	22	22	21
<b>Top 500</b>	30	28	23	23	26	26

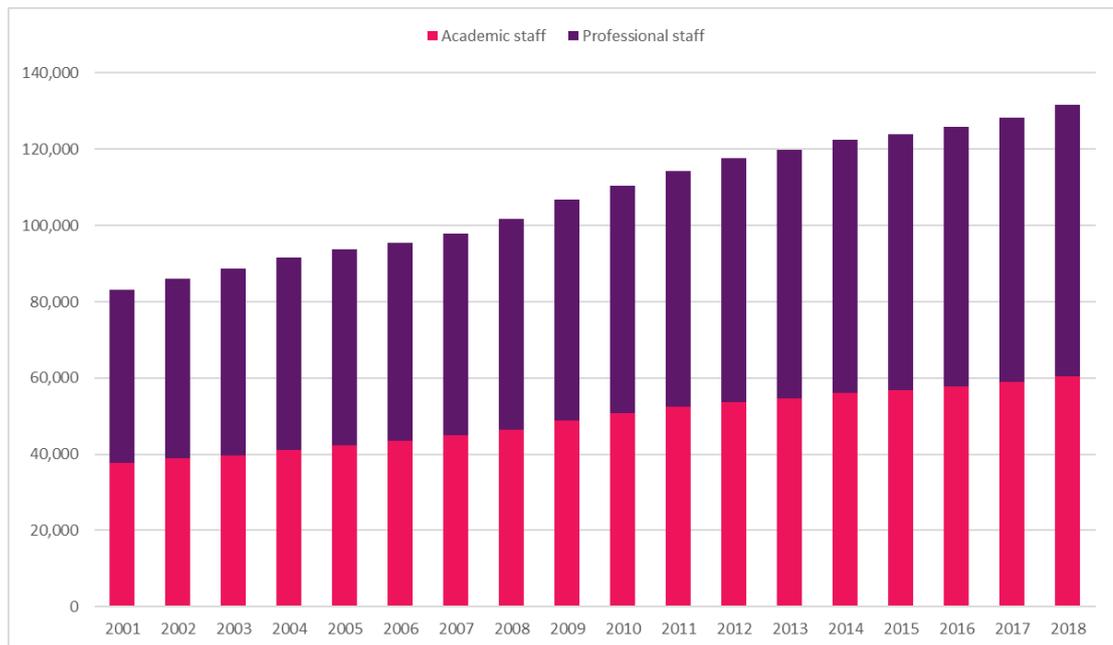
Source: The Times Higher Education *World University Rankings* (various years); Shanghai Jiao Tong University *Academic Ranking of Work Universities* (various years); QS *World University Rankings* (various years).

## 5 UNIVERSITY WORKFORCE

In 2018, Australia’s 39 comprehensive universities employed 131,588 full-time equivalent (FTE) staff. Total FTE staff count has grown by 29.4 per cent, from 101,656 in 2008. Over the same period, the growth in academic and professional or non-academic staff has been similar at around 29 per cent.

Since 2001, academic staff have consistently made up around 45 to 46 per cent of all university staff FTE.

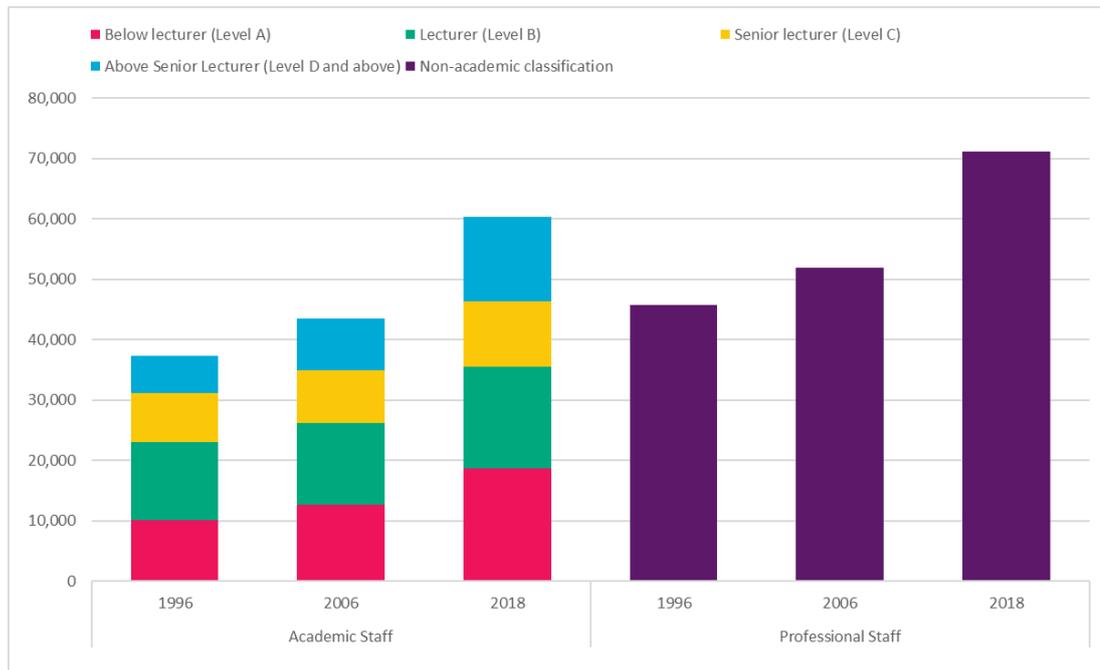
**Figure 88: Full-time equivalent (FTE) staff count, academic and professional, including casual staff**



Source: Department of Education, Skills and Employment, *uCube*.

Over the last decade, there has been significant growth in more experienced senior academic staff and junior academic staff. Since 2006, academic staff at Level D and above grew by 63 per cent – from 8,629 to 14,084 in 2018 – and academic staff at Level A grew by 47 per cent – from 12,690 to 18,646 in 2018. Over the same period, academic staff at Level B and Level C increased by around 25 per cent (Figure 89: Full-time equivalent (FTE) staff count, by classification, including casual staff).

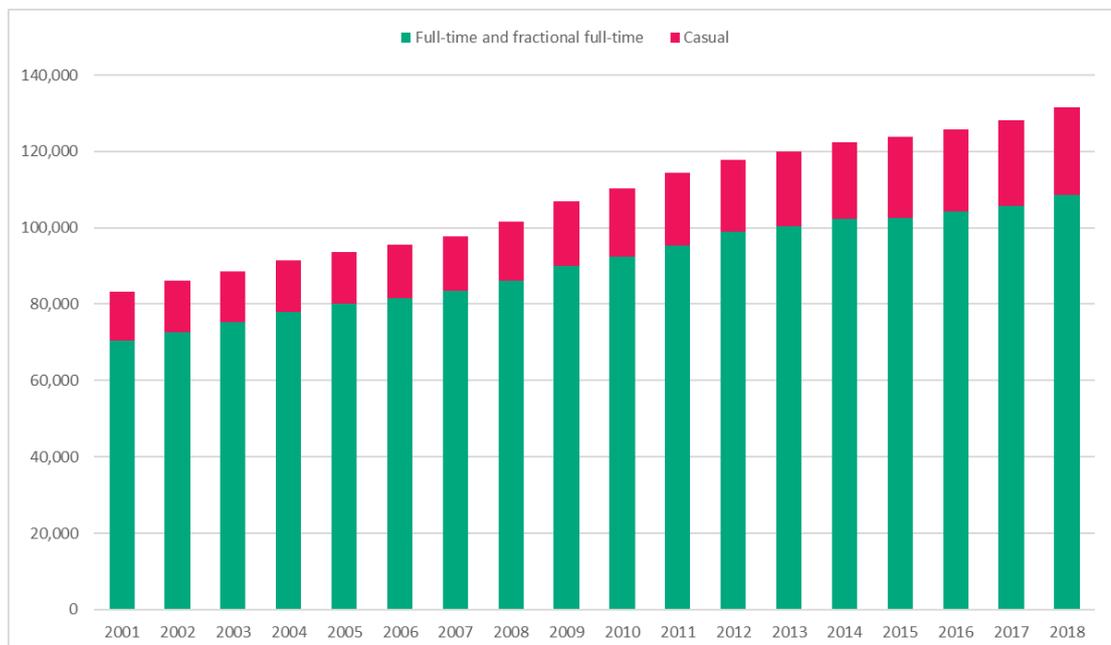
**Figure 89: Full-time equivalent (FTE) staff count, by classification, including casual staff**



Source: Department of Education, Skills and Employment, *uCube*.

Casual staff FTE has increased from 13,907 in 2006 to 23,026 in 2018, while full-time and fractional full-time staff FTE rose by 33 per cent – from 81,583 to 108,562 in 2018. Over the same period, the proportion of casual staff has increased from 15 per cent in 2006 to 17 per cent in 2018 (Figure 90: Full-time equivalent (FTE) staff count, by work contract).

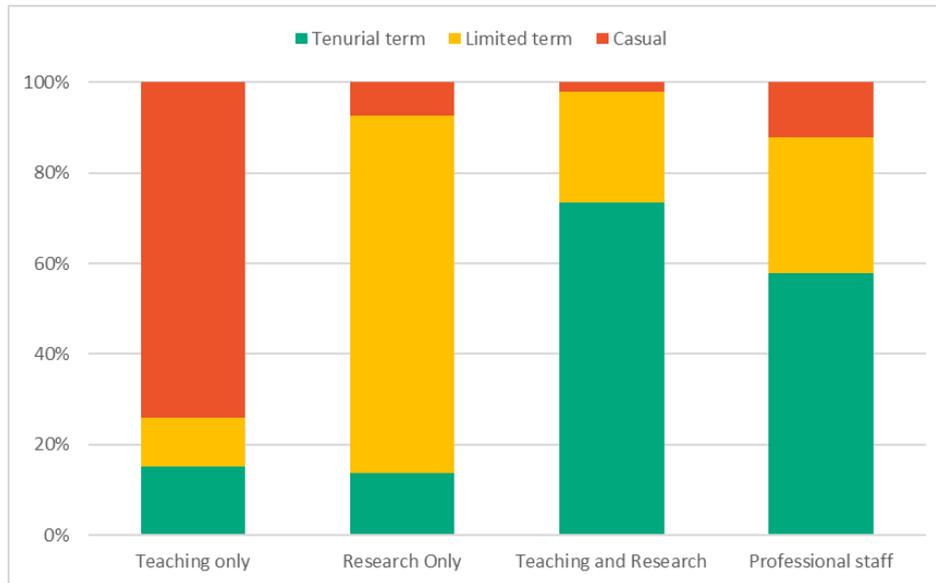
**Figure 90: Full-time equivalent (FTE) staff count, by work contract**



Source: Department of Education, Skills and Employment, *uCube*.

Figure 91 shows that most of the teaching-only staff were casual staff (74 per cent); while most of the staff with research-only function (79 per cent) were on fixed-term contracts in 2018. In contrast, 74 per cent of teaching and research staff and 58 per cent of professional staff were tenured or permanent ongoing staff.

**Figure 91: FTE staff count, by function and duties term, 2018**



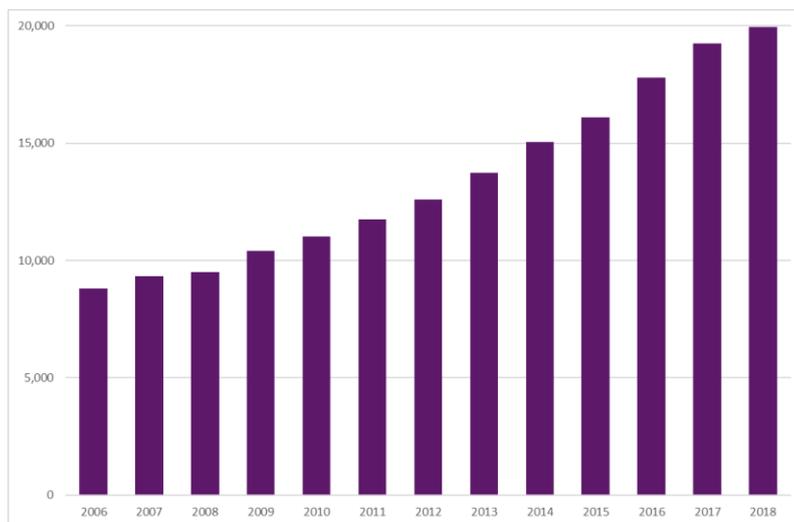
Source: Department of Education, Skills and Employment, *uCube*.

## 6 INDIGENOUS STUDENTS AND STAFF

### 6.1 INDIGENOUS STUDENT ENROLMENTS

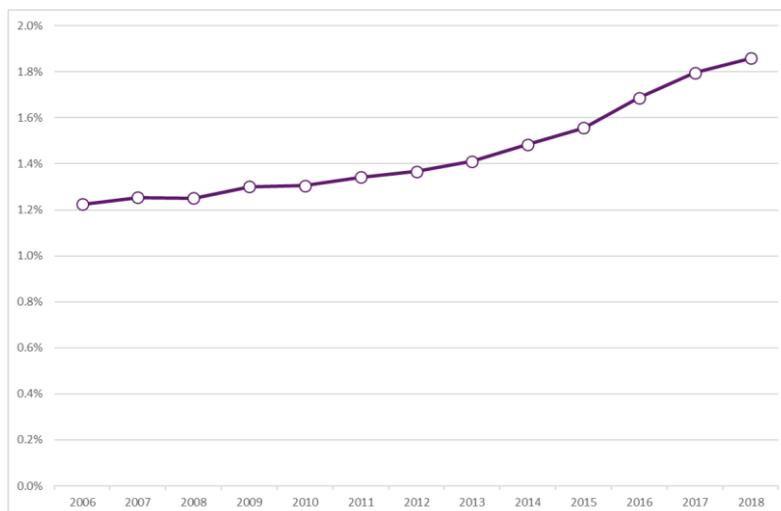
Figure 92 shows that Indigenous student enrolments have more than doubled since 2008 – increasing by 110.1 per cent – from 9,490 students to 19,935 students in 2018. Despite this significant growth, Indigenous student enrolments remain well below population parity (3.1 per cent). As a proportion of all domestic enrolments, Indigenous students increased from 1.3 per cent in 2008 to 1.9 per cent in 2018 (Figure 93).

**Figure 92: Indigenous student enrolments, 2006 to 2018**



Source: Department of Education, Skills and Employment 2019, *Selected Higher Education Statistics – 2018 Student Data*.

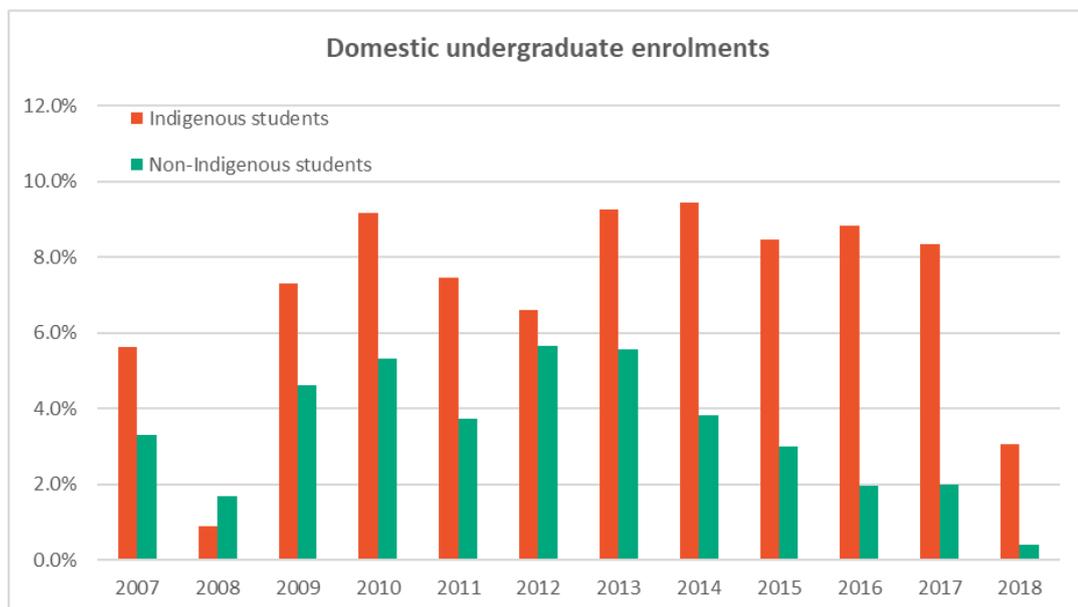
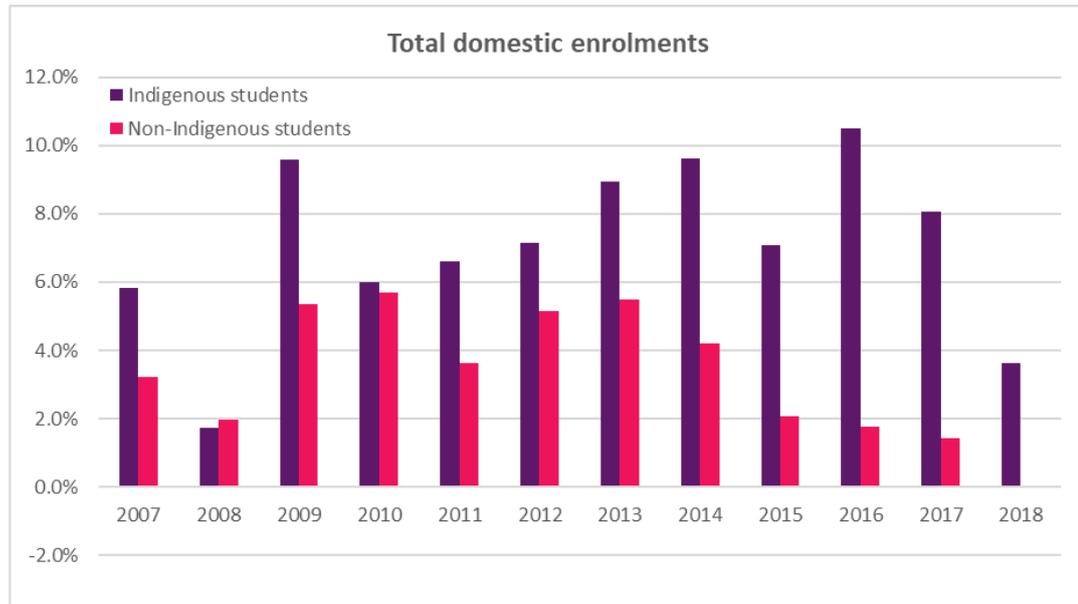
**Figure 93: Share of Indigenous student enrolments, 2006 to 2018**



Source: Department of Education, Skills and Employment 2019, *Selected Higher Education Statistics – 2018 Student Data*.

Figure 94 shows annual growth in Indigenous student enrolments has more than tripled the rate of growth in non-Indigenous student enrolments in recent years. In 2018, Indigenous undergraduate enrolments grew by 3.1 per cent, compared to 0.4 per cent growth for non-Indigenous undergraduate enrolments. Total Indigenous enrolments rose by 3.6 per cent, compared to a marginal decline (-0.02 per cent) in total non-Indigenous enrolments.

**Figure 94: Annual growth in Indigenous student enrolments, 2007 to 2018**

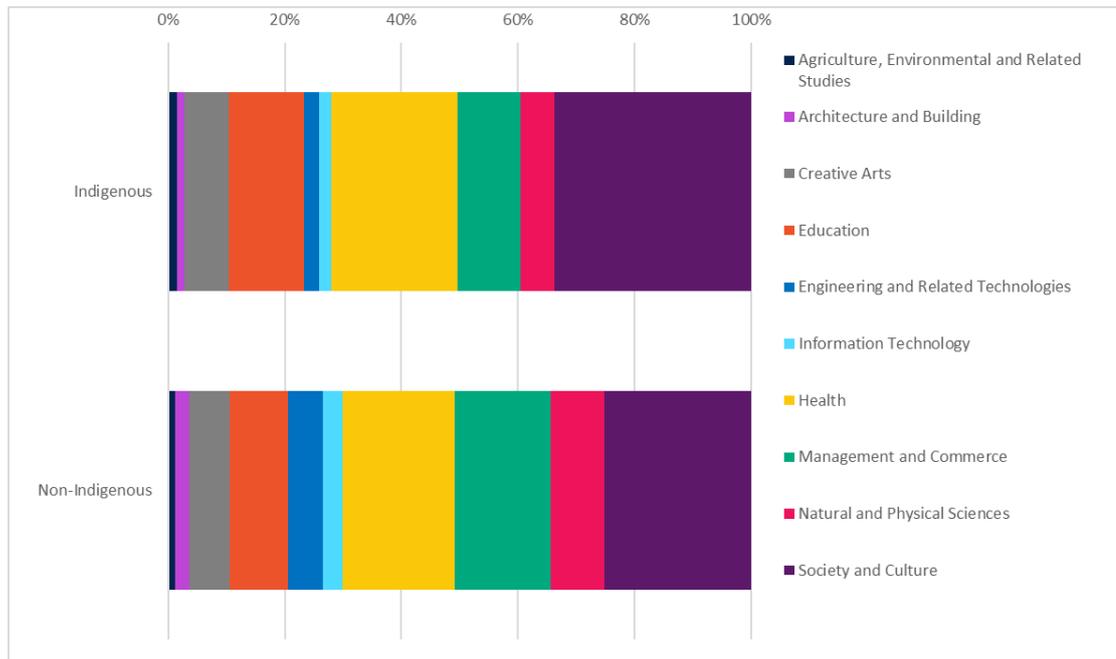


Source: Department of Education, Skills and Employment 2019, *Selected Higher Education Statistics – 2018 Student data*, Section 11: Equity Group.

### 6.1.1 FIELD OF EDUCATION

Figure 95 shows Indigenous students are more likely than non-Indigenous students to enrol in courses in society and culture (31.8 per cent), health (20.5 per cent) and education (12.3 per cent) and less likely to enrol in management and commerce (10.3 per cent), natural and physical sciences (5.5 per cent) and engineering (2.3 per cent).

**Figure 95: Enrolments by broad disciplines, 2018**



Source: Department of Education, Skills and Employment 2019, *Unpublished HEIMS data*.

## 6.1.2 COURSE LEVEL

Indigenous enrolments in Bachelor degree courses increased by 119.4 per cent, from 6,352 in 2008 to 13,936 in 2018. Indigenous enrolments in enabling courses have doubled, from 871 in 2008 to 1,810 in 2018. While Indigenous student postgraduate research enrolments grew by a more modest 63.1 per cent over the period – from 393 to 641 – enrolments in postgraduate coursework degrees have more than doubled, from 1,138 to 2,508.

**Table 10: Indigenous enrolments, by course level, 2008 and 2018**

Course level	2008	2018	Growth (per cent)
Postgraduate research	393	641	63.1
Postgraduate coursework	1,138	2,508	120.4
Bachelor	6,352	13,936	119.4
Sub-bachelor	686	935	36.3
Enabling	871	1,810	107.8
Non-award	50	105	110.0
<b>All courses</b>	<b>9,490</b>	<b>19,935</b>	<b>110.1</b>

Source: Department of Education, Skills and Employment 2019, *Visual analytics – Enrolment time-series*.

## 6.1.3 UNDERGRADUATE APPLICATIONS

Figure 96 shows Indigenous undergraduate applications grew by 3.3 per cent in 2019 – following a decline of 4.9 per cent in 2018 – while applications from non-Indigenous students have continued to decline (-1.4 per cent). Despite the increase, the share of Indigenous applications remained at around two per cent of all undergraduate applications in 2019.

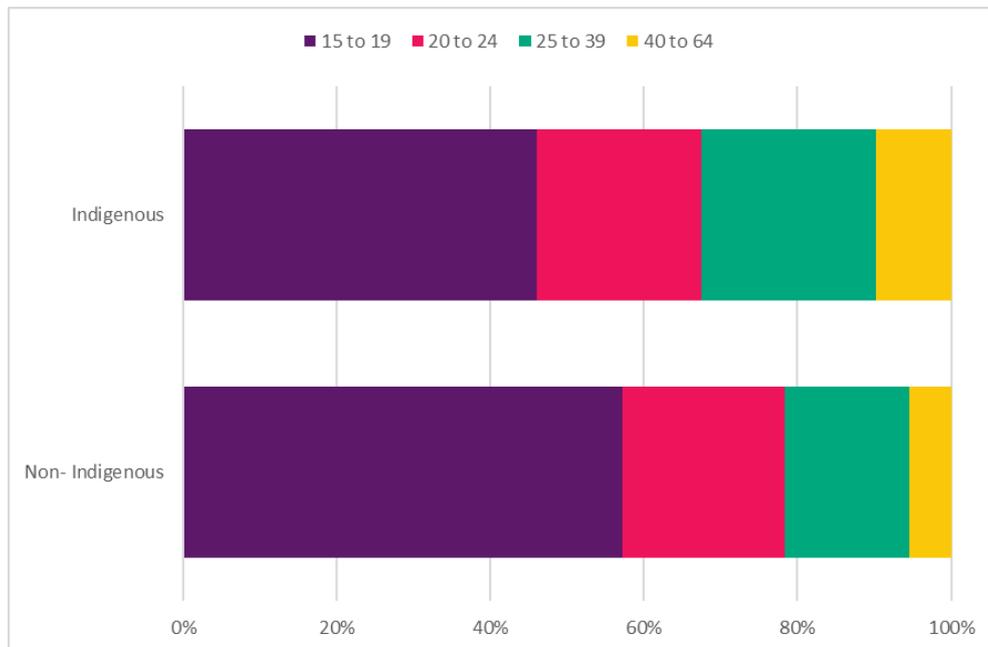
**Figure 96: Annual growth in undergraduate applications, 2013 to 2019**



Source: Department of Education, Skills and Employment 2019, *Undergraduate Applications Offers and Acceptances*, unpublished data

Figure 97 shows Indigenous applicants for undergraduate courses are more likely to be older than non-Indigenous applicants. In 2019, one-third of Indigenous applicants are aged 25 or older, compared to 21 per cent for non-Indigenous applicants.

**Figure 97: Share of undergraduate applications, by age, 2019**

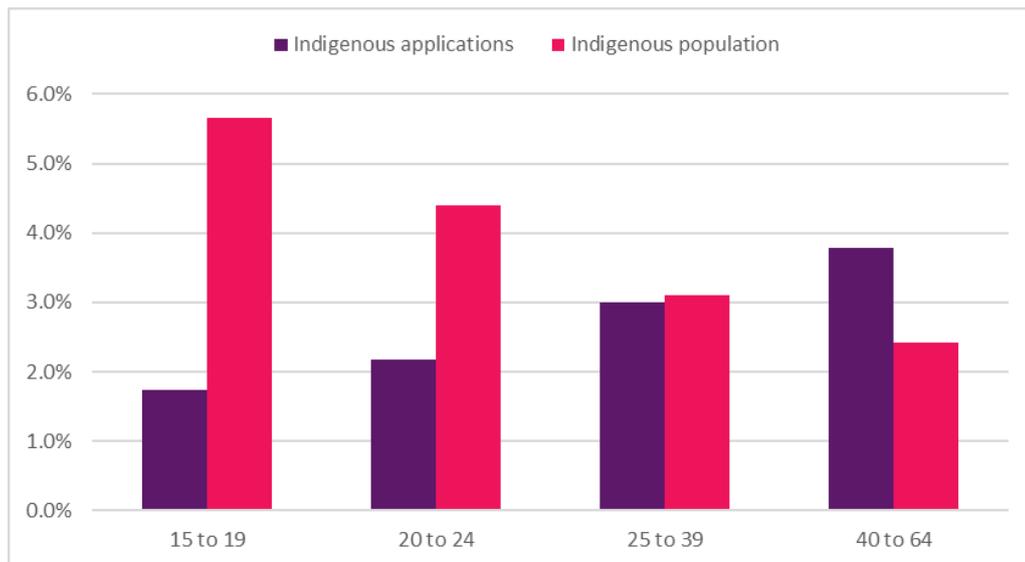


Source: Department of Education, Skills and Employment 2019, *Undergraduate Applications Offers and Acceptances*, unpublished data.

The share of Indigenous undergraduate applications at younger age cohorts remains significantly below the share of the young Indigenous population.

Only 1.7 per cent of all undergraduate applicants aged 15–19 are Indigenous, compared with an Indigenous population share of 5.7 per cent in 2019. For the 20–24-year-old age group, Indigenous people are 2.2 per cent of applicants but 4.4 per cent of the population as a whole. In contrast, for the 40–64-year-old age group, Indigenous students are 3.8 per cent of applications but represent 2.4 per cent of the whole population.

**Figure 98: Share of Indigenous undergraduate applications compared to share of Indigenous population, by age, 2019**

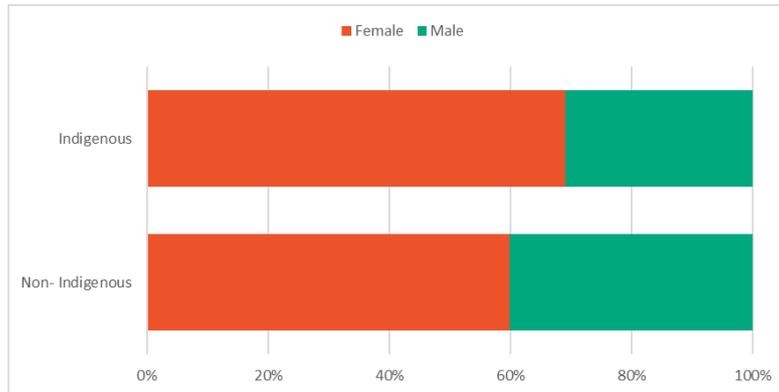


Source: Department of Education, Skills and Employment 2019, *Undergraduate Applications Offers and Acceptances*, unpublished data and ABS 2019, *Estimates and Projections, Aboriginal and Torres Strait Islander Australians, 2016 to 2031*, Cat. No. 3238.0., Series B.

Indigenous undergraduate applicants are also more likely to be female compared to non-Indigenous applicants.

In 2019, 69 per cent of Indigenous undergraduate applicants were female compared to 60 per cent for non-Indigenous applicants.

**Figure 99: Share of undergraduate applications, by gender, 2019**



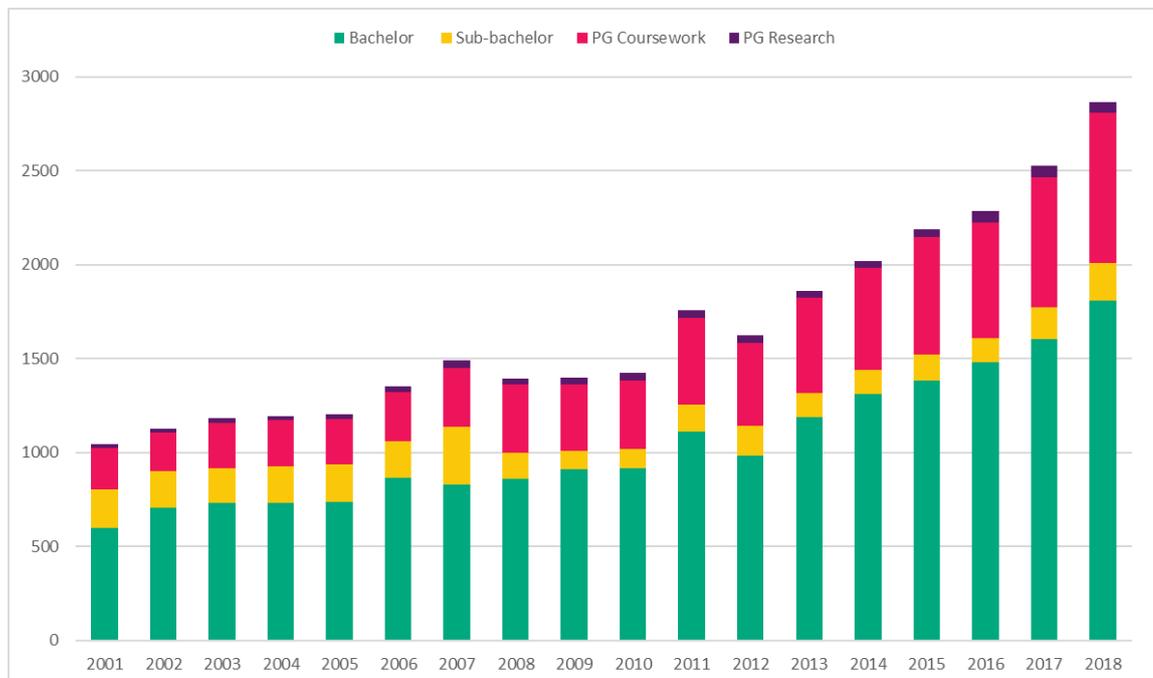
Source: Department of Education, Skills and Employment 2019, *Undergraduate Applications Offers and Acceptances*, unpublished data

## 6.2 INDIGENOUS STUDENT OUTCOMES

### 6.2.1 AWARD COURSE COMPLETIONS

Since 2008, award course completions by Indigenous students have continued to grow year-on-year, consistent with the growth in Indigenous enrolments. Indigenous Bachelor award course completions grew by 110.6 per cent – from 860 degrees awarded to Indigenous students in 2008 to 1,811 in 2018. Postgraduate research course completions rose 63.6 per cent – from 33 in 2008 to 54 in 2018 – and postgraduate coursework completions rose 120.9 per cent – from 364 to 804 (Figure 100).

**Figure 100: Number of award course completions by Indigenous students, by course level**

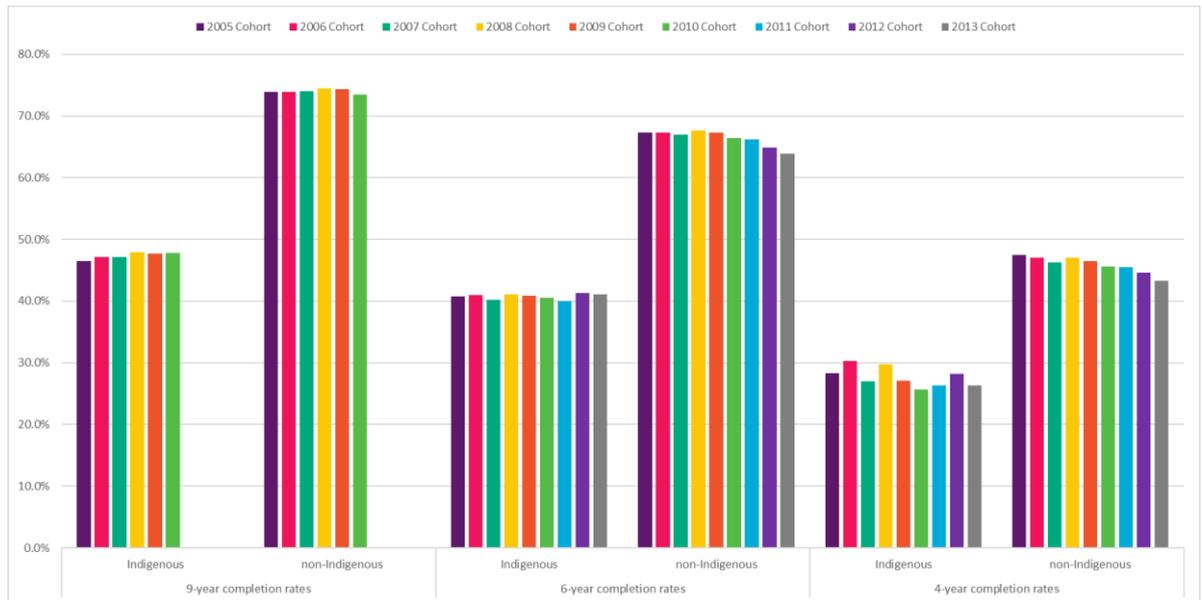


Source: Department of Education, Skills and Employment 2019, *Visual analytics – Award course completions time series*.

## 6.2.2 COMPLETION RATES

Bachelor degree completion rates for Indigenous students remained low compared to non-Indigenous students. While Indigenous students typically can take longer to graduate, nine-year completion rates for Indigenous students remains around 47 per cent, significantly below 74 per cent for non-Indigenous students.

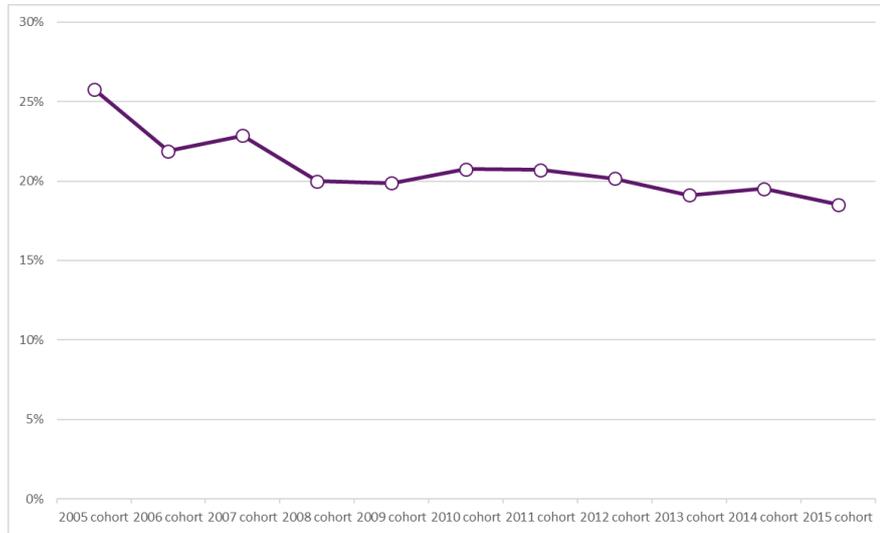
**Figure 101: Completion rates – nine, six and four years – of commencing Indigenous and non-Indigenous Bachelor degree students**



Source: Department of Education, Skills and Employment 2019, *Completion Rates of Higher Education Students – Cohort Analysis, 2005–2018*.

On a positive note, since 2005, fewer Indigenous students leave their studies and do not return. Of the Indigenous students who started university in 2005, 26 per cent had left their studies four years later. For Indigenous students who started university in 2015, the attrition rate had fallen to 19 per cent – a substantial improvement.

**Figure 102: Share of Indigenous students commencing a Bachelor degree that never return – after four years**



Source: Department of Education, Skills and Employment 2019, *Completion Rates of Higher Education Students – Cohort Analysis, 2005–2018*.

### 6.2.3 LABOUR MARKET OUTCOMES

Indigenous graduates generally experience strong employment outcomes, comparable to non-Indigenous graduates and sometimes better. In 2019, 78.2 per cent of Indigenous undergraduates were in full-time employment four months after completion, outperforming non-Indigenous undergraduates (72.1 per cent). For graduates with postgraduate degree, 84.7 per cent of Indigenous graduates were in full-time employment four months after completion, comparable with non-Indigenous graduates (86.8 per cent).

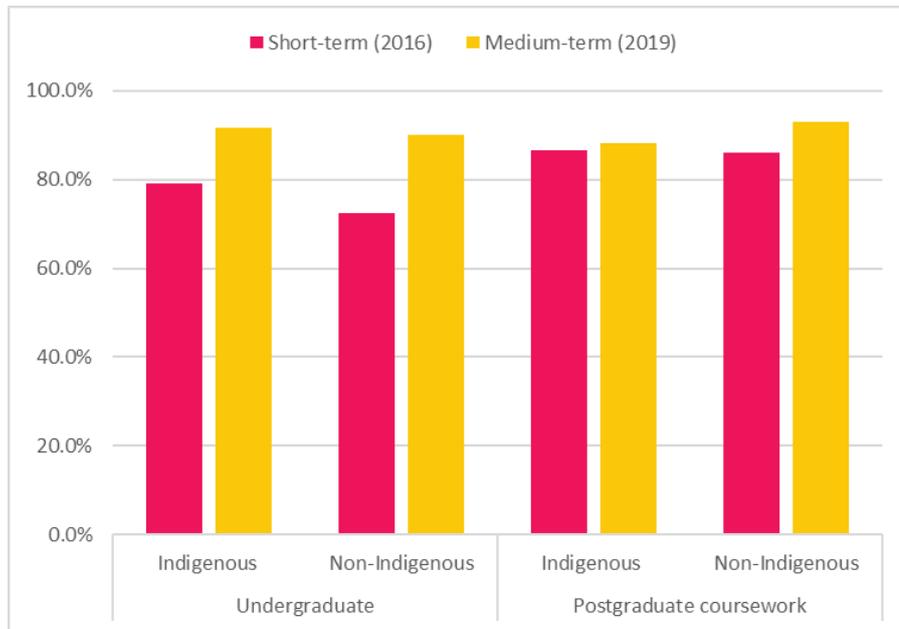
**Figure 103: Short-term graduate employment outcomes, 2019**



Source: SRC 2020, *2019 Graduate Outcomes Survey*.

Figure 104 shows that over the medium-term – three years after finishing their degrees – employment outcomes for Indigenous graduates are similar to non-Indigenous graduates. While Indigenous graduates with an undergraduate degree have higher full-time employment outcomes (79.1 per cent) than non-Indigenous graduates (72.5 per cent) in the short-term, non-Indigenous graduates catch up in full-time employment in the medium-term to trail Indigenous graduates by around 1.5 percentage points.

**Figure 104: Short and medium-term full-time employment outcomes, for 2016 graduates**



Source: SRC 2019, *2019 Graduate Outcomes Survey–Longitudinal*.

In 2019, Indigenous undergraduates continued to earn more than non-Indigenous undergraduates immediately upon graduation, with median full-time salaries of \$65,200 compared to \$62,600 for non-Indigenous graduates. Indigenous undergraduates earned \$4,000 more than non-Indigenous undergraduates in 2018.

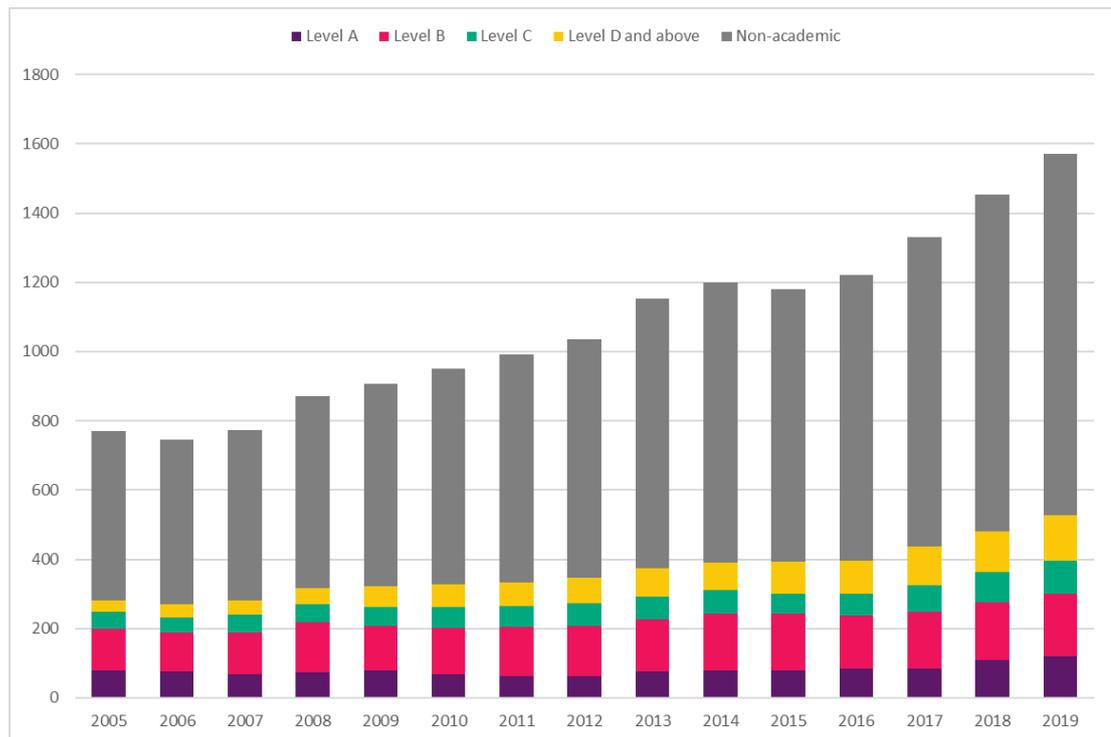
## 6.3 INDIGENOUS WORKFORCE

In this section, data refers to staff headcount (rather than full-time equivalent (FTE)) and only includes full-time and fractional full-time staff.

### 6.3.1 ACADEMIC VS NON-ACADEMIC

Figure 105 shows the total number of Indigenous staff has doubled since 2005, from 771 staff to 1,571 staff in 2019. Of these, around one-third are academic staff. The number of Indigenous academic staff has increased by 86.9 per cent over the period, from 282 in 2005 to 527 in 2019.

**Figure 105: Number of Indigenous staff by duties classification, 2005 to 2019**

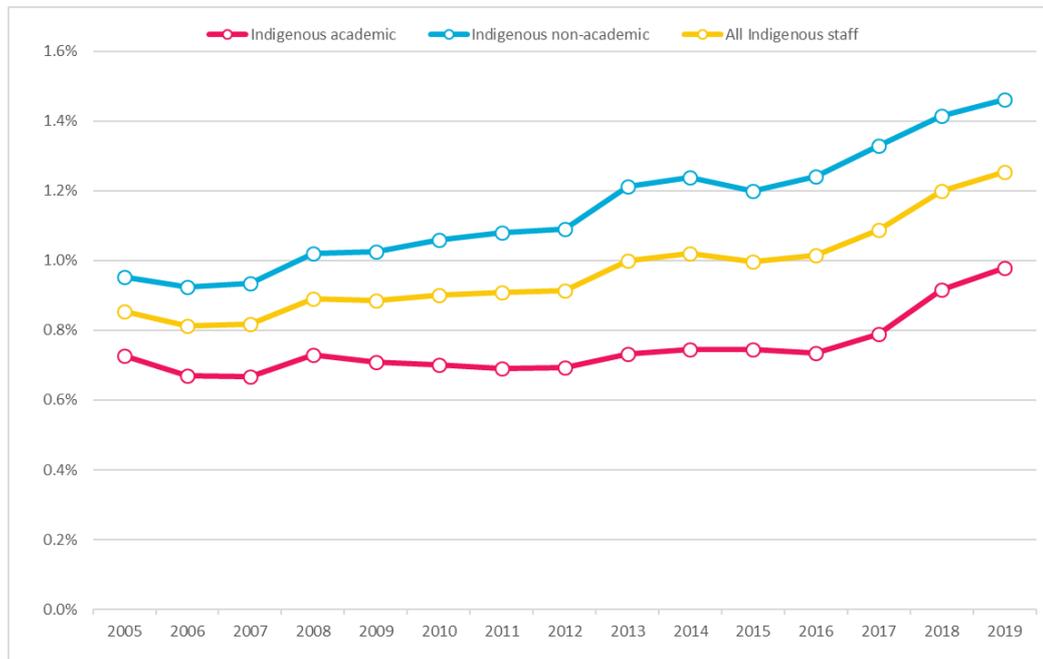


Source: Department of Education, Skills and Employment, Unpublished HEIMS data, various years.

Figure 106 shows that the Indigenous share of academic staff has increased from 0.73 per cent in 2005 to 0.98 per cent in 2019, with most of the increases occurring after 2016. There has been slightly greater growth in the proportion of non-academic positions held by Indigenous people over the same period. The share of non-academic Indigenous staff increased from just under one per cent in 2005 to 1.46 per cent in 2019.

In 2019, just 1.3 per cent of Australian university staff – both academic and non-academic – were from an Indigenous background, significantly below the working-age population parity figure of 3.1 per cent.

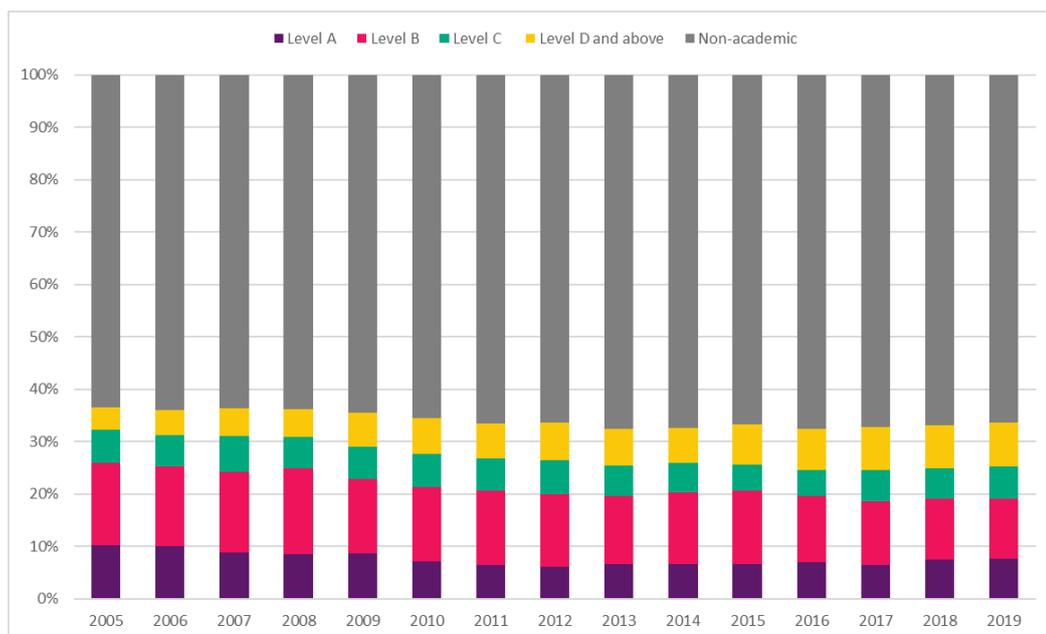
**Figure 106: Share of Indigenous staff, 2005 to 2019**



Source: Department of Education, Skills and Employment, Unpublished HEIMS data, various years.

Figure 107 shows the share of Indigenous staff in non-academic roles has increased from 63.4 per cent in 2005 to 66.5 per cent in 2019, while the share of Indigenous staff in academic Level A positions has declined from 10.1 per cent to 7.6 per cent over the period. In 2019, 8.3 per cent of Indigenous staff were employed in senior academic roles – Level D and above – increasing from 4.4 per cent in 2005.

**Figure 107: Proportion of Indigenous staff by duties classification**



Source: Department of Education, Skills and Employment, Unpublished HEIMS data.

### 6.3.2 STAFF CHARACTERISTICS

In 2019, a greater proportion of Indigenous staff were women, over 40 years old and in lower academic positions compared to non-Indigenous staff.

#### Age

Indigenous academic staff are more likely to be older than non-Indigenous academic staff. In 2019, only 20.1 per cent of Indigenous academic staff were aged under 40 compared to 31.4 per cent of non-Indigenous academic staff. The share of Indigenous academic staff under 40 has declined since 2005 – from 32.3 per cent to 20.1 per cent in 2019 – while the share of non-Indigenous academic staff under 40 has increased over the same period.

The share of Indigenous staff aged under 40 is significantly lower than non-Indigenous staff for staff employed in academic Level A, Level B and Level C positions. In contrast, 53 per cent of Indigenous staff employed in non-academic roles were aged under 40 in 2019, compared to 42 per cent of non-Indigenous staff .

**Figure 108: Proportion of staff aged under 40 by duties classification, 2019**

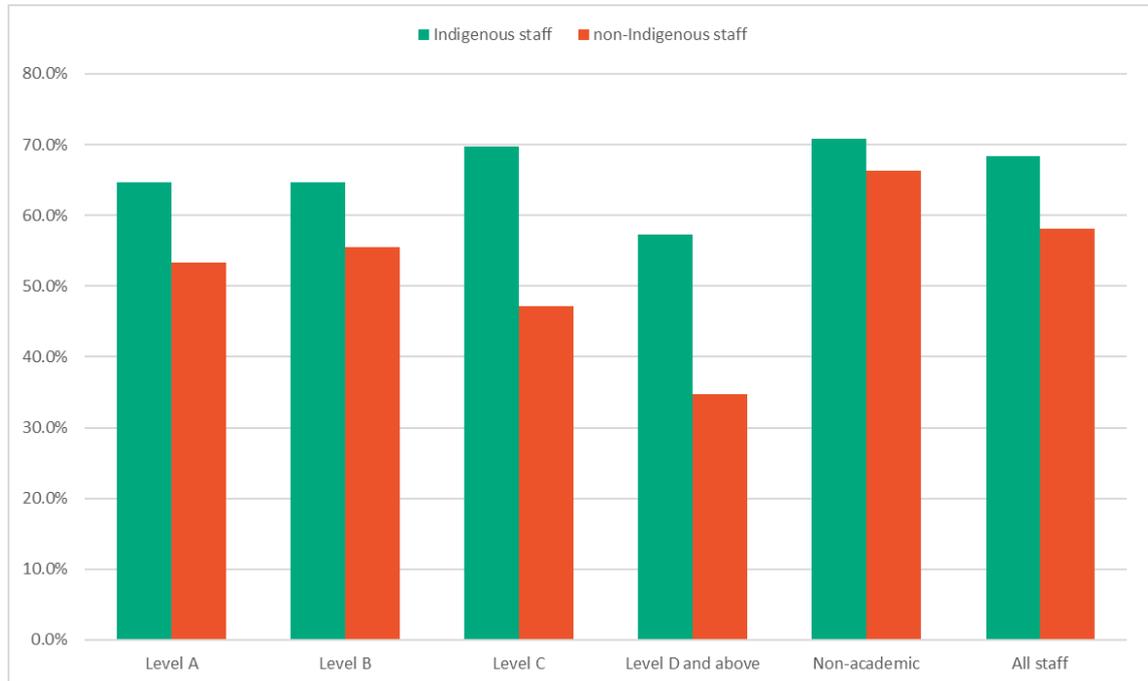


Source: Department of Education, Skills and Employment 2020, Unpublished HEIMS data.

#### Gender

Indigenous staff are more likely to be female compared to non-Indigenous staff, particularly at senior academic positions – at Level C and Level D and above. In 2019, 68.4 per cent of all Indigenous staff were female compared to 58 per cent of non-Indigenous staff.

**Figure 109: Share of female staff by duties classification, 2019**



Source: Department of Education, Skills and Employment 2020, Unpublished HEIMS data.

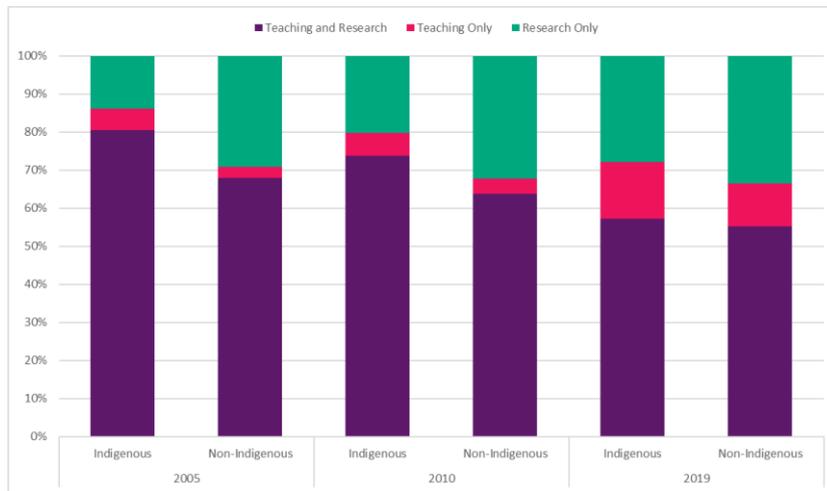
### Academic functions

Indigenous academic staff are more likely to be employed in teaching and research or teaching-only positions and less likely to be employed in research-only functions. However, similar to non-Indigenous academics, the share of staff employed in teaching and research functions has declined over time, with more staff being employed in teaching-only or research-only roles.

In 2019, most Indigenous academic staff were employed in teaching and research functions (57.2 per cent), declining from 80.6 per cent in 2005. The proportion of Indigenous academic staff employed in teaching-only increased from 5.6 per cent in 2005 to 14.9 per cent in 2019; while the share of research-only Indigenous staff increased from 13.9 to 27.9 per cent over the same period.

This compares to only 11.3 per cent of non-Indigenous academic staff employed in teaching-only function and 33.5 per cent in research-only function in 2019. Nevertheless, similar proportion of Indigenous and non-Indigenous staff were employed in teaching and research functions.

**Figure 110: Share of staff by academic functions, 2005, 2010 and 2019**



Source: Department of Education, Skills and Employment, Unpublished HEIMS data, various years.

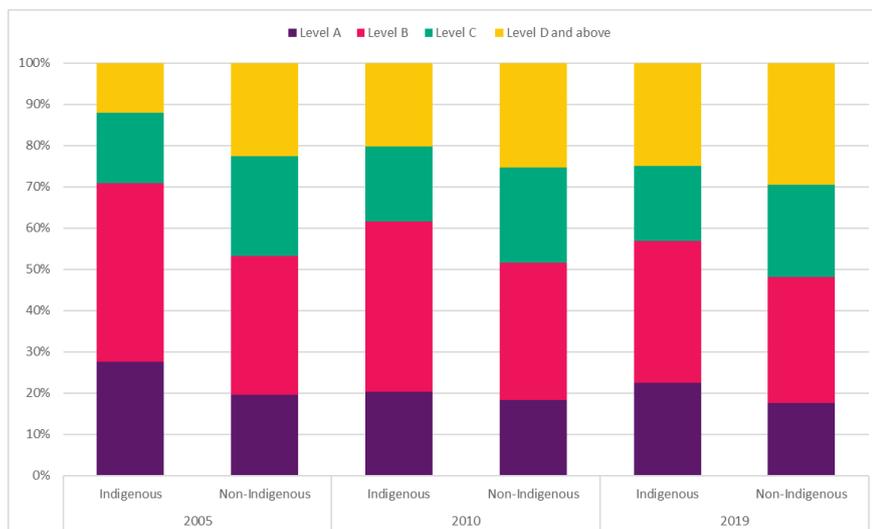
### Duties classification

In 2019, Indigenous academic staff were employed in greater proportion at more junior academic ranks compared to non-Indigenous staff. This includes levels below lecturer (Level A) – 22.6 per cent, compared to 17.6 per cent for non-Indigenous staff – and lecturer (Level B) – 34.3 per cent, compared to 30.6 per cent for non-Indigenous staff.

In contrast, Indigenous academic staff were employed in lower proportion at levels of senior lecturer and above, compared to non-Indigenous staff. 18.2 per cent of Indigenous staff were employed at the level of senior lecturer (Level C), compared to 22.3 per cent for non-Indigenous – and above senior lecturer (Level D and above) – 24.9 per cent, compared to 29.5 per cent for non-Indigenous.

Nonetheless, the share of Indigenous staff in senior academic roles – Level D and above – has doubled since 2005, from 12.1 per cent to 24.9 per cent in 2019.

**Figure 111: Share of staff by academic duties classification, 2005, 2010 and 2019**



Source: Department of Education, Skills and Employment, Unpublished HEIMS data, various years.