

UNIVERSITIES AUSTRALIA

HIGHER EDUCATION: FACTS AND FIGURES

JULY 2019



UNIVERSITIES
AUSTRALIA

This work is licensed under a Creative Commons Attribution 4.0 International Licence.

Further inquiries should be made to the Chief Executive:

GPO Box 1142 Canberra ACT 2601

P: +61 (0)2 6285 8100

E: contact@universitiesaustralia.edu.au

universitiesaustralia.edu.au

ABN 53 008 502 930





FOREWORD

As part of their mission, universities seek to inform public discussion with facts and evidence.

In that spirit, every two years the peak body for Australia's universities produces an updated snapshot of facts and figures about the nation's higher education system.

The growth in government funding into universities from 2008 to 2017 occurred as a result of the decision to expand access to university education for more Australians than ever before.

Government funding rose over that decade to expand student places, including for tens of thousands more students from disadvantaged backgrounds.

In December 2017, government funding for domestic undergraduate places at each university was frozen at the level of 2017 nominal dollars for 2018 and 2019.

Given that the latest available data are for 2017, the impact of the funding freeze is not reflected in this edition of Facts and Figures.

Nonetheless, we commend this publication to you as an extremely valuable guide to many aspects of Australia's higher education system, its students, graduates, staff, research excellence and international rankings performance.

We trust it makes a helpful contribution to evidence-based discussion.

**Professor
Deborah
Terry AO**

Chair,
Universities
Australia



**Catriona
Jackson**

Chief Executive,
Universities
Australia



Note: the data in this report was current as at 15 July 2019.

CONTENTS

CONTENTS	6
1 FUNDING AND UNIVERSITY FINANCES	8
1.1 Australian Government funding	8
1.1.1 Australian Government higher education outlays	8
1.1.2 Funding per Commonwealth supported place	10
1.1.3 Public vs private contribution for CSP	10
1.1.4 Other funding to support teaching and learning	12
1.1.5 International comparisons	14
1.2 Higher Education Loan Program (HELP)	15
1.3 University finances	17
1.3.1 Revenue by source	17
1.3.2 Expenditure by category	17
1.3.3 Universities' financial position	18
2 STUDENTS	20
2.1 Domestic students	20
2.1.1 Student profiles	20
2.1.2 Commencing and total Commonwealth supported places	26
2.1.3 Growth in student enrolments by equity group	27
2.1.4 Improvement in pathway and flexibility	28
2.1.5 Commonwealth supported places and population growth	30
2.2 International students	32
2.2.1 International student enrolments	32
2.2.2 Student profiles	33
2.2.3 Contribution to the Australian economy	37
2.3 Enrolments in courses leading to professional registration	39
2.4 Work-integrated-learning	41
2.5 Student outcomes and employment	42
2.5.1 Award course completions	42
2.5.2 Attrition and completion rates	43
2.5.3 Graduate employment	45
2.5.4 Graduate salaries	48
2.5.5 Satisfaction	50
2.6 Educational attainment	51

3	SCIENCE, RESEARCH AND INNOVATION	55
3.1	Australian Government support for science, research and innovation	55
3.2	Business and higher education sector expenditure on R&D	56
3.3	Sources of university research income	58
3.4	Changing composition of Australian Government funding for university research	60
3.5	Government funding to support research training	61
3.6	University spending on research and development	63
3.7	Research outcomes	63
3.7.1	Higher degree by research completions	63
3.7.2	Research excellence	64
3.7.3	International research collaboration	67
3.7.4	University-industry collaboration	68
4	INTERNATIONAL RANKING	69
5	UNIVERSITY WORKFORCE	71
6	SPECIAL FEATURE: INDIGENOUS STUDENTS AND STAFF	74
6.1	Indigenous student enrolments	74
6.1.1	Field of education	76
6.1.2	Course level	76
6.1.3	Undergraduate applications	77
6.2	Indigenous student outcomes	79
6.2.1	Award course completions	79
6.2.2	Completion rates	79
6.2.3	Labour market outcomes	80
6.3	Indigenous workforce	81
6.3.1	Academic vs non-academic	81
6.3.2	Comparisons to non-Indigenous staff	83

1 FUNDING AND UNIVERSITY FINANCES

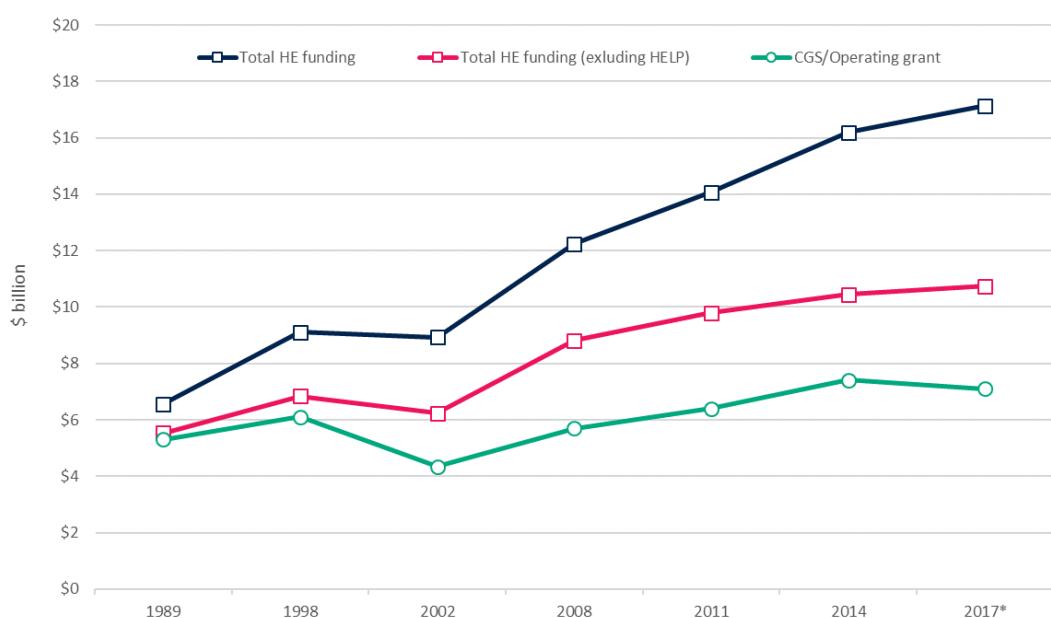
1.1 AUSTRALIAN GOVERNMENT FUNDING

1.1.1 AUSTRALIAN GOVERNMENT HIGHER EDUCATION OUTLAYS

Total Australian Government outlays in higher education spending (including research) increased from \$6.6 billion in 1989 to \$17.1 billion in 2017 (in 2017 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—and growth in research grants. Direct teaching and learning grants increased by only 34 per cent over the same period.

HELP loans as a share of total higher education outlays increased from less than 16 per cent in 1989 to almost 40 per cent in 2017. Excluding HELP loans, higher education spending has almost doubled, from \$5.5 billion to \$10.7 billion, over the same period.

Figure 1: Australian Government higher education spending, in 2017 dollars

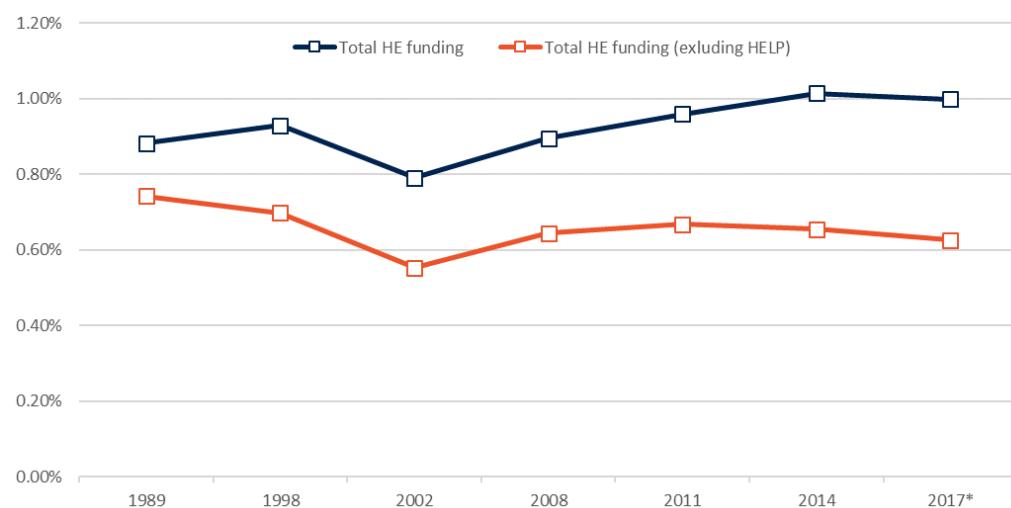


Source: Data from 1989 to 2014 are from Department of Education and Training [DET] 2015, Higher Education in Australia: *A Review of reviews from Dawkins to today*. Estimated 2017 data is from <http://www.theaustralian.com.au/higher-education/give-us-a-break/news-story/2a5f135ffaccd328e5da8522d5fba141>

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

Despite the growth in funding, Australian Government total higher education spending as a percentage of GDP only increased from 0.9 per cent in 1989 to one per cent in 2017. Excluding HELP loans, higher education grants for teaching and learning and research have declined from 0.7 per cent in 1989 to 0.6 per cent in 2017.

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 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
	Other purposes; General public services					
Public sector superannuation(b)	Education	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
Commonwealth Grants Scheme	Education	7,053	7,212	7,341	7,467	7,581
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
Sub-total		327,821	342,916	357,741	374,277	391,684
Other programs		159,522	157,956	158,364	161,638	168,190
Total expenses		487,343	500,872	516,105	535,915	559,874

(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.

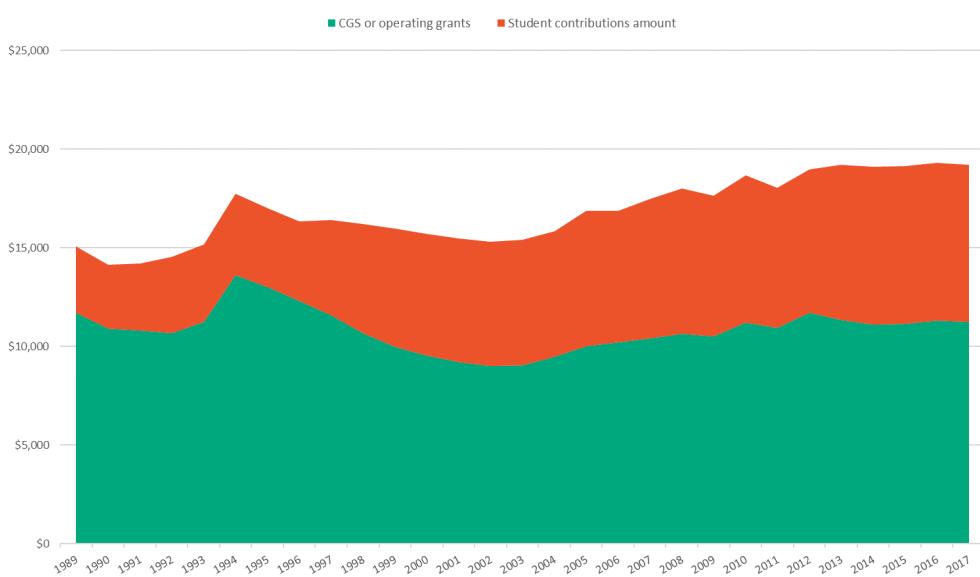
Source: Australian Government 2019, Budget 2019–20: Budget Strategy and Outlook Budget Paper No.1, p.5-10.

1.1.2 FUNDING PER COMMONWEALTH SUPPORTED PLACE

The revenue received by universities for an average Commonwealth Supported Place (CSP) has increased by 27.5 per cent in real terms since 1989 to an estimated \$19,230 per place in 2017. It declined after 1994 to a low point in 2002 but has since recovered. Many factors have contributed to this recovery—notably the 25 per cent increase in student contributions from 2005 and the reduction in unfunded places following the introduction of the demand driven system. Some of the increase in revenue was a result of a shift of places towards higher cost disciplines.

The share of this revenue paid by the Government has declined over time, from 78 per cent in 1989 to 58 per cent in 2017, with the Government contribution amount—Commonwealth Grant Scheme (CGS)—declining 4.2 per cent from \$11,730 per student in 1989 to \$11,240 per student in 2017. Over the same period, the student contribution amount has increased by almost 140 per cent from \$3,350 to \$8,000 per student.

Figure 3: Total revenue per Commonwealth Supported Place, in 2017 dollars



Source: Data from 1989 to 2015 are from UA communications with DET following the May 2016 Budget. Data for 2016 and 2017 are from HESA Determinations.

1.1.3 PUBLIC VS PRIVATE CONTRIBUTION FOR CSP

In a Commonwealth supported place, the Australian Government funds the place through the Commonwealth Grant Scheme and the student is required to pay a student contribution. Students can choose to pay their student contribution upfront or borrow it through HECS-HELP.

In 2019, the average public-private contribution split for a Commonwealth Supported Place is 58 per cent public contribution (or \$11,520 per place) and 42 per cent private contribution (or \$8,490 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, 2019

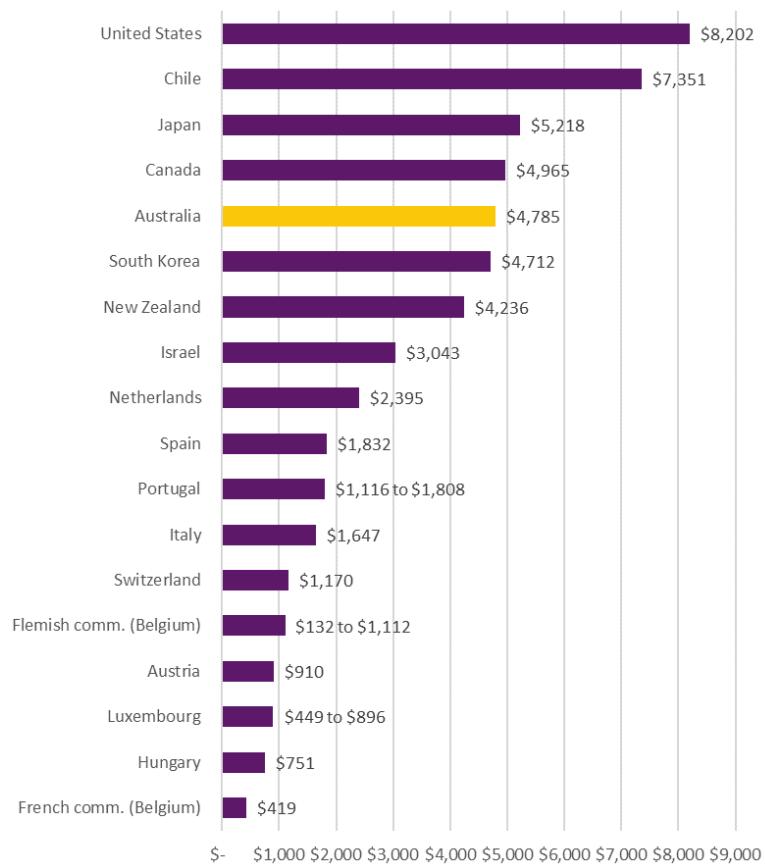
Funding clusters	Australian Government contribution	Maximum student contribution amounts	Total resourcing	Relative Government and student contribution
Law, accounting, commerce, economics, administration	\$2,160	\$10,958	\$13,118	16 : 84
Humanities	\$6,008	\$6,566	\$12,574	48 : 52
Mathematics, statistics, computing, built environment or other health	\$10,630	\$9,359	\$19,989	53 : 47
Behavioural science or social studies	\$10,630	\$6,566	\$17,196	62 : 38
Education	\$11,061	\$6,566	\$17,627	63 : 37
Clinical psychology, foreign languages, or visual and performing arts	\$13,073	\$6,566	\$19,639	67 : 33
Allied health	\$13,073	\$9,359	\$22,432	58 : 42
Nursing	\$14,596	\$6,566	\$21,162	69 : 31
Engineering, science, surveying	\$18,586	\$9,359	\$27,945	67 : 33
Dentistry, medicine or veterinary science	\$23,590	\$10,958	\$34,548	68 : 32
Agriculture	\$23,590	\$9,359	\$32,949	72 : 28

Source: DET 2018, *Total Resourcing for a Commonwealth Supported Place by discipline–2019*.

International tuition fee comparisons

Tuition fees for domestic students in Australia are high compared to other OECD countries. Figure 4 shows the estimated annual fees for a domestic student studying a full-time Bachelor degree in public institutions in selected OECD countries. In 2015–16, Australia's average tuition fee of US\$4,785 is higher than South Korea, New Zealand, the Netherlands and Israel, but lower than US, Chile, Japan and Canada.

Figure 4: Estimated annual tuition fees for Bachelor degree or equivalent at public institutions, 2015 or 2016, in US dollars



Source: OECD 2018, *Education at a Glance*, Indicator C5.1.

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.

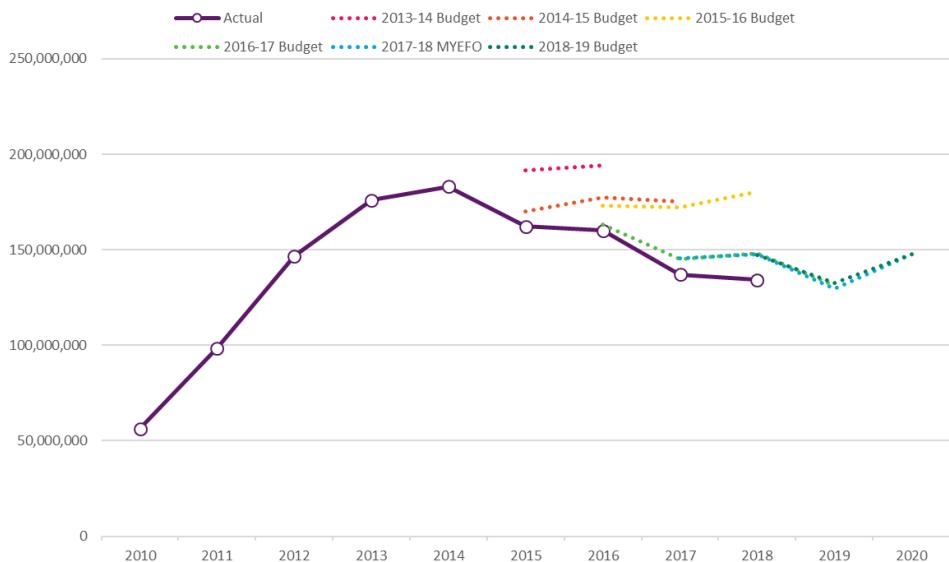
Higher Education Participation and Partnerships Program

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). 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 2018, HEPPP was around 2.1 per cent of CGS (including enabling and regional loadings) and is estimated to remain at this level in 2020.

Figure 5: HEPPP funding—actual and budget cuts



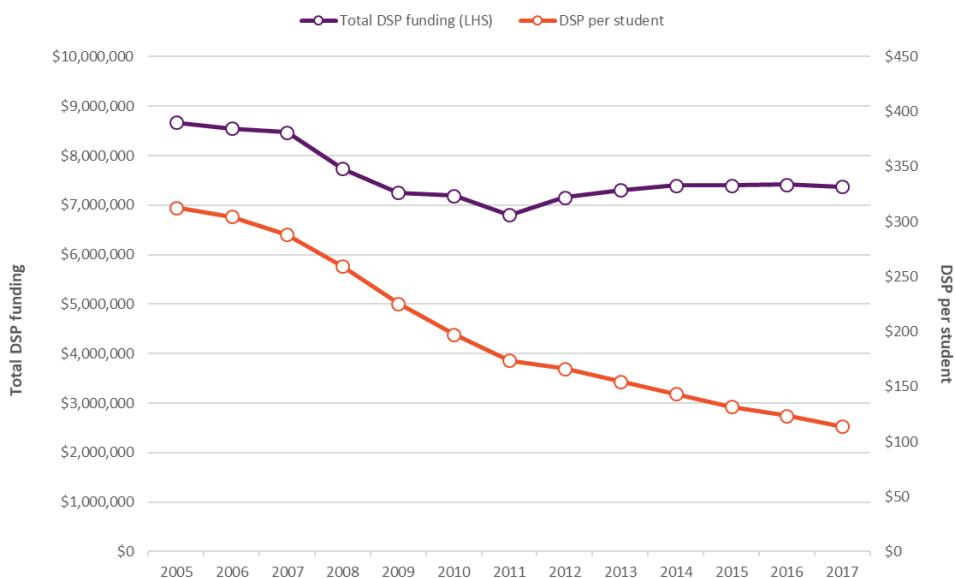
Source: Actual data for 2010 to 2015 are from DET administrative dataset and for 2016 to 2018 are from HESA Determinations. Forward estimates figures are from DET's Portfolio Budget Statements (various years).

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 15.7 per cent in nominal terms between 2008 and 2017, funding has actually declined by 4.7 per cent over the period in real terms. Coupled with the significant growth (117.7 per cent) in students with disability, DSP funding per student has declined by 56.2 per cent in real terms, from \$260 in 2008 to \$115 in 2017.

Figure 6: Funding for Disability Support Program—total and per student—in 2017 dollars



Source: DET administrative data and HESA Determinations.

Indigenous Student Success Program funding

In 2013, the Australian Government consolidated Indigenous funding programs from all portfolios into one large funding pool (the Indigenous Advancement Strategy or IAS) administered by the Department of Prime Minister and Cabinet. In this action the following specific programs were taken from DET and subsumed into the IAS:

- Indigenous Support Program (ISP);
- Indigenous Tutorial Assistance Scheme (ITAS); and
- Commonwealth Scholarships Program

After initial difficulties, when many universities failed to gain funding through the competitive IAS process, a separate portion of the IAS equivalent in value to the lost DET programs was set aside for universities—the Indigenous Student Success Program (ISSP)—which began in 2017.

The ISSP provides supplementary funding to universities according to a formula that takes into account 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.

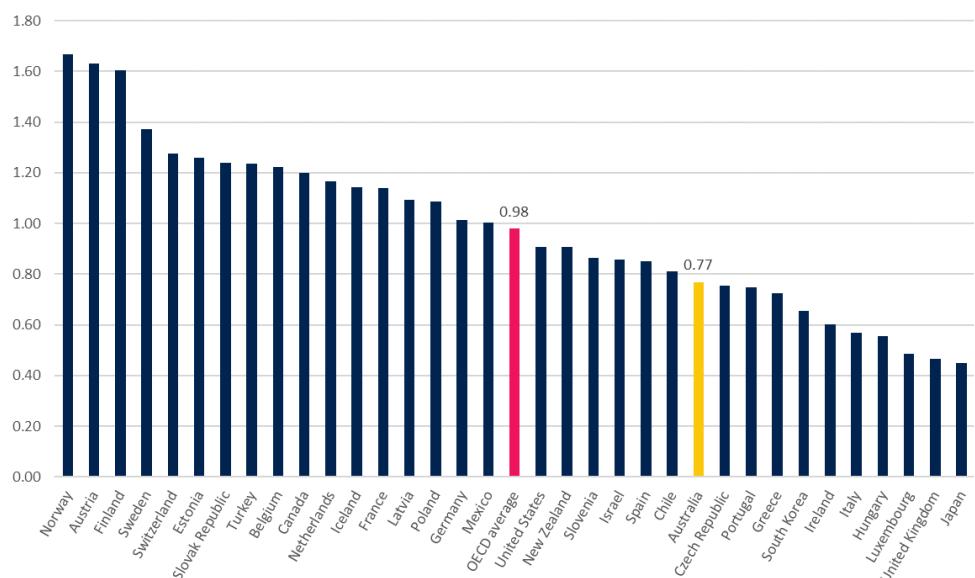
The value of the ISSP is expected to increase by 6.4 per cent, from \$70.6 million 2017–18 to \$75.1 million in 2022–23.¹

1.1.5 INTERNATIONAL COMPARISONS

In 2015, 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 the US, Chile 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 24 out of 34 countries. Australia's public investment was 0.77 per cent of GDP in 2015 compared to 0.98 per cent of GDP for average OECD countries.

Figure 7: Public investment in tertiary education institutions as a percentage of GDP, 2015

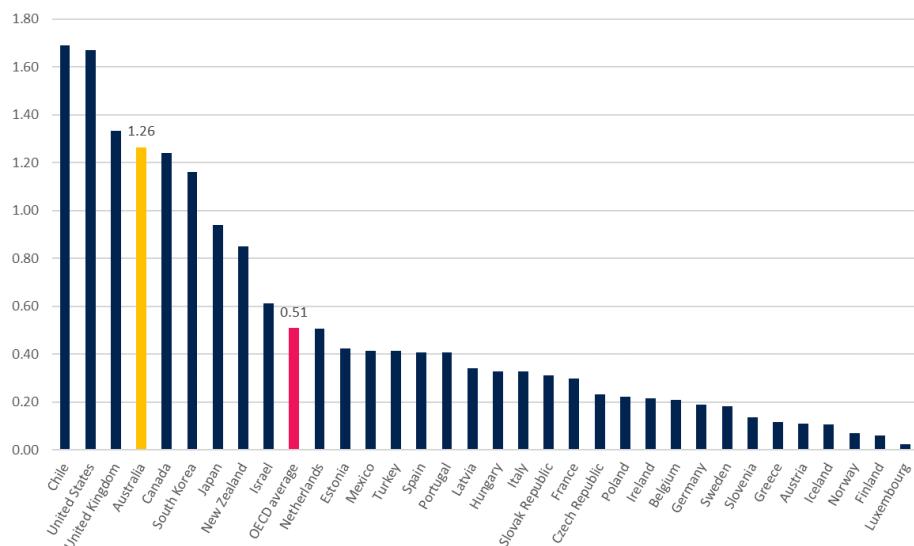


Source: OECD 2018, *Education at a Glance*, Table C2.2—Final funds after transfers between government and private sector.

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

On the contrary, Australia's private investment in tertiary education institutions is among the highest in the OECD—ranked four out of 33 countries (Figure 8). Australia's private investment was 1.26 per cent of GDP in 2015, compared to 0.51 per cent of GDP for average OECD countries.

Figure 8: Private investment in tertiary education institutions as a percentage of GDP, 2015



Source: See Figure 7.

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 \$7.5 billion and \$6.7 billion in 2016 and 2017 respectively following the reforms in VET FEE-HELP² (Table 3). Over this period, both HECS-HELP and FEE-HELP lending increased by around 80 per cent respectively. However, growth in HECS-HELP lending is largely due to the growth in student places (39 per cent growth); while growth in FEE-HELP lending is largely due to growth in the average amount borrowed per student (51 per cent growth) from about \$14,000 in 2010 to \$20,600 in 2017.

Figure 9 shows that VET FEE-HELP as a share of total new HELP lending has increased from three per cent in 2010 to 34 per cent in 2015, before declining to eight per cent in 2017 following the VET loan reform.

As at 30 June 2017, outstanding HELP debt was \$55.4 billion, including money lent to vocational education students under VET FEE-HELP.³ The 'fair value' of HELP debt—the amount that is expected to be eventually repaid by borrowers—was valued at \$35.9 billion.⁴

In 2016–17, the estimated proportion of new HELP debts not expected to be repaid was 25 per cent, which increased from 22 per cent in 2015–16. The Australian Government Actuary has estimated that excluding VET loans, 18 per cent of new HELP debts incurred in 2016–17 are not expected to be repaid.⁵

² 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 FEE-HELP allows students to defer places for vocational education and training courses outside of higher education.

³ Australian Tax Office 2018, *Taxation Statistics 2015–16*, Table 21.

⁴ Department of Education and Training 2017, *Annual Report 2016–17*, p.45.

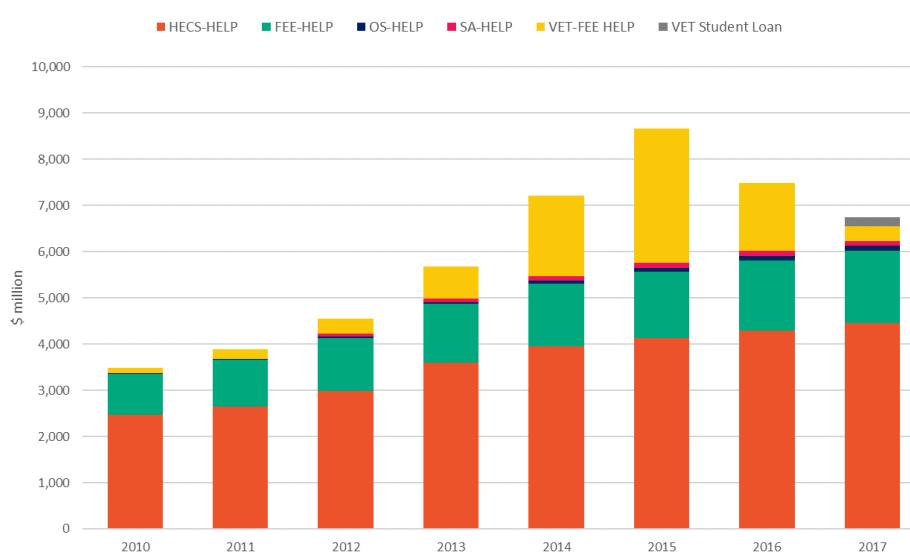
⁵ Ibid, p.45.

Table 3: 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
HECS-HELP (EFTSL)	395,177	414,709	450,314	484,681	507,629	520,606	532,940	548,802
FEE-HELP (EFTSL)	64,766	70,849	75,388	76,106	76,613	77,850	77,778	76,293
OS-HELP	4,086	5,035	5,675	6,373	10,986	12,818	14,861	15,654
SA-HELP	-	-	307,339	414,197	444,344	463,872	483,803	504,904
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
HELP payments to higher education providers on behalf of students (\$ millions)	2010	2011	2012	2013	2014	2015	2016	2017
HECS-HELP loans	2,467	2,646	2,992	3,601	3,949	4,134	4,297	4,452
FEE-HELP loans	885	1,008	1,142	1,265	1,354	1,440	1,516	1,570
OS-HELP loans	22	28	32	39	68	81	95	102
SA-HELP loans	-	-	58	85	95	100	105	112
VET FEE-HELP loans	117	204	323	696	1,743	2,915	1,470	307
VET Student loans	-	-	-	-	-	-	-	200
Total HELP loans	3,491	3,886	4,547	5,686	7,209	8,670	7,483	6,743

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 2017 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 DET's 2016 and 2017 *VET FEE-HELP Statistical Report*.

Figure 9: Amount of new HELP lending by programs, in nominal dollars



Source: See Table 3.

1.3 UNIVERSITY FINANCES

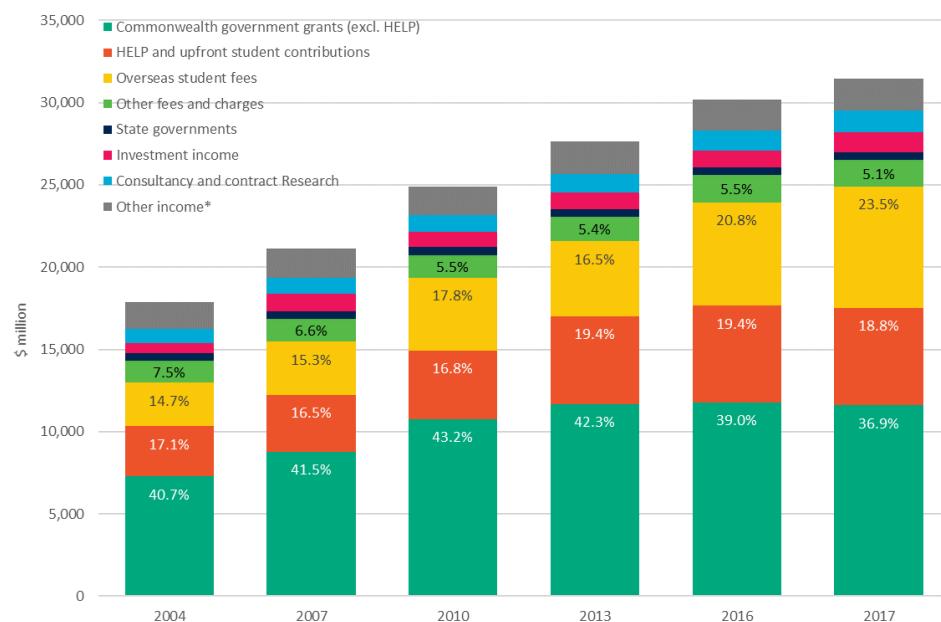
1.3.1 REVENUE BY SOURCE

In 2017, total operating revenue for Australian universities—in real terms—was \$31.5 billion, compared to \$17.9 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 36.9 per cent in 2017; while overseas student fees have increased from 14.7 per cent to 23.5 per cent over the same period.

This aggregate picture masks considerable variation between universities.

Figure 10: Sources of university revenue, in 2017 dollars



Source: Department of Education and Training, *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 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

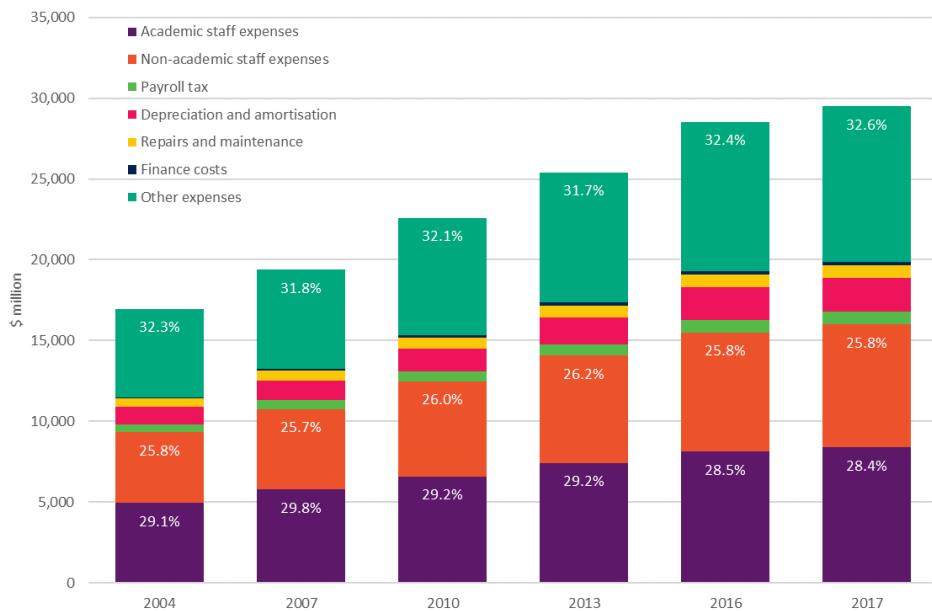
Australian universities' operating expenses have grown broadly in line with revenue growth, with total operating expenses increasing from \$17 billion in 2004 to \$29.5 billion in 2017. Changes in the proportion of expenditure on different expense categories have been relatively small.

The share of expenditure spent on staff (excluding payroll tax) has remained at around 55 per cent between 2004 and 2017.

Around 10 per cent of university budgets are devoted to depreciation and repairs and maintenance.

⁶ Excluding Bachelor Institute of Indigenous Tertiary Education (BIITE) and VET activity for dual sector universities.

Figure 11: Categories of university expenditure, in 2017 dollars



Source: Department of Education and Training, *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

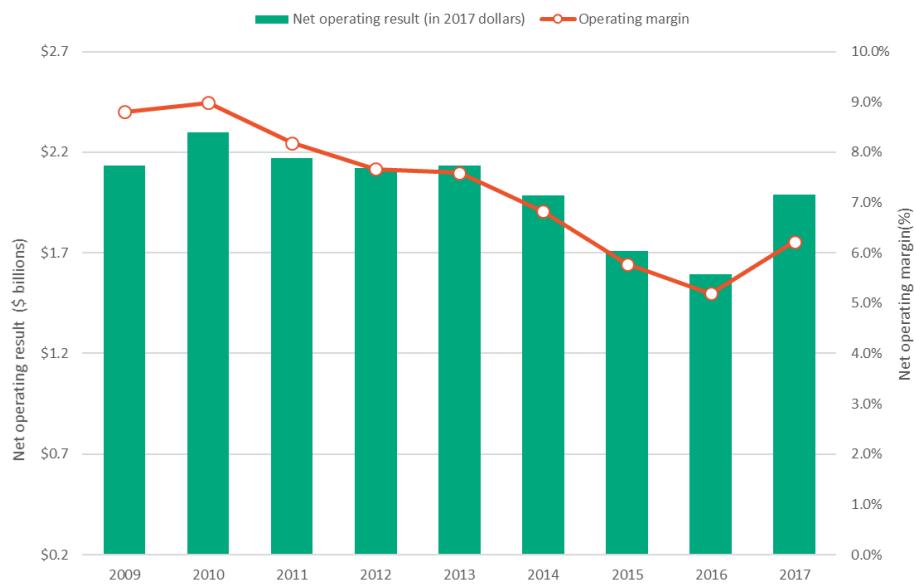
According to published net operating result figures from the Department of Education and Training (DET) Higher Education Finance Statistics,⁷ the total sector net operating result in absolute nominal dollar terms has increased by 11 per cent in 2017 compared to 2009. However, in real terms, net operating result has declined by 7 per cent since 2009 (Figure 12).

As a percentage of total revenue, operating margins for the whole sector have declined from 8.8 per cent in 2009 and 2010 to 6.2 per cent in 2017.

There is a clear negative trend over time in the number of universities with healthy margins (Figure 13). Six universities were in deficit in 2017 compared to none in 2009. Moreover, the number of universities with a surplus margin greater than 8 per cent has declined from 24 universities (or 63 per cent of universities) in 2009 to ten universities in 2017 (or 26.3 per cent of universities).

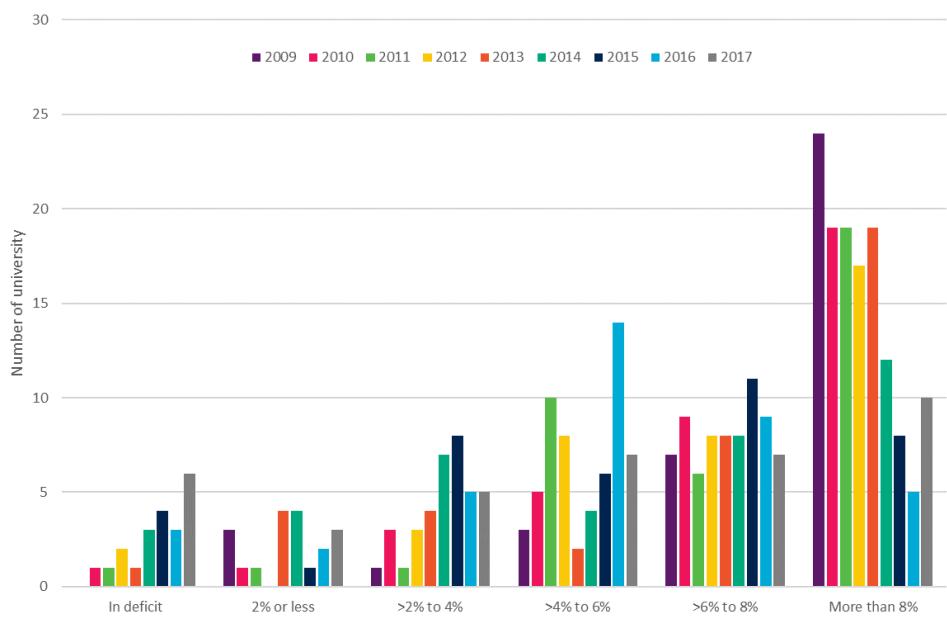
⁷ Data reported in Figure 12 and Figure 13 include both higher education and VET activities for 38 universities. They exclude results BIITE.

Figure 12: University net operating results, 2009 to 2017, in 2017 dollars



Source: Department of Education and Training, *Financial Reports of Higher Education Providers* [various years], excluding BIITE.

Figure 13: Number of universities by size of operating margins, 2009 to 2017



Source: Department of Education and Training, *Financial Reports of Higher Education Providers* [various years], excluding BIITE.

2 STUDENTS

In 2017, 1,387,409 students studied at Australia's 39 comprehensive universities. Of these, 73 per cent (or 1,014,503) were domestic students and the remaining 27 per cent (or 372,906) were international students.

2.1 DOMESTIC STUDENTS

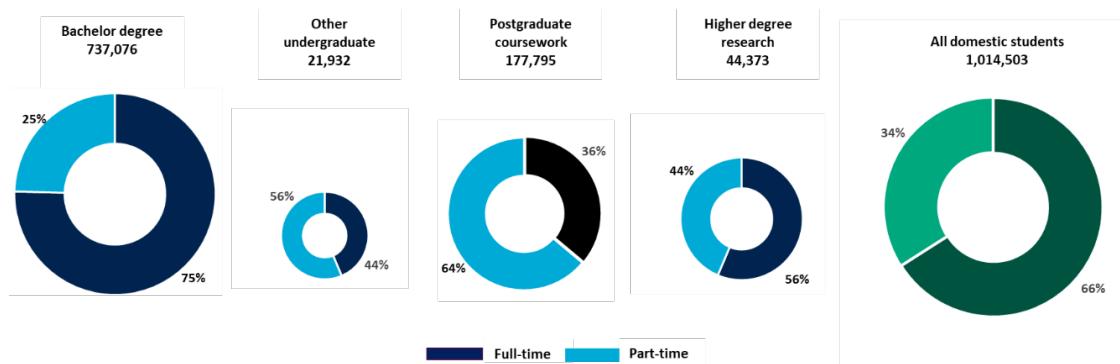
2.1.1 STUDENT PROFILES

Course level and type of attendance

Of the 1,014,503 domestic students studying in Australian universities in 2017—73 per cent were studying Bachelor degrees, 18 per cent were studying for postgraduate coursework degrees and a further 4 per cent were studying postgraduate research (HDR) degrees.

The majority (66 per cent) of students—669,400—were studying their qualifications full-time in 2017. 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 14).

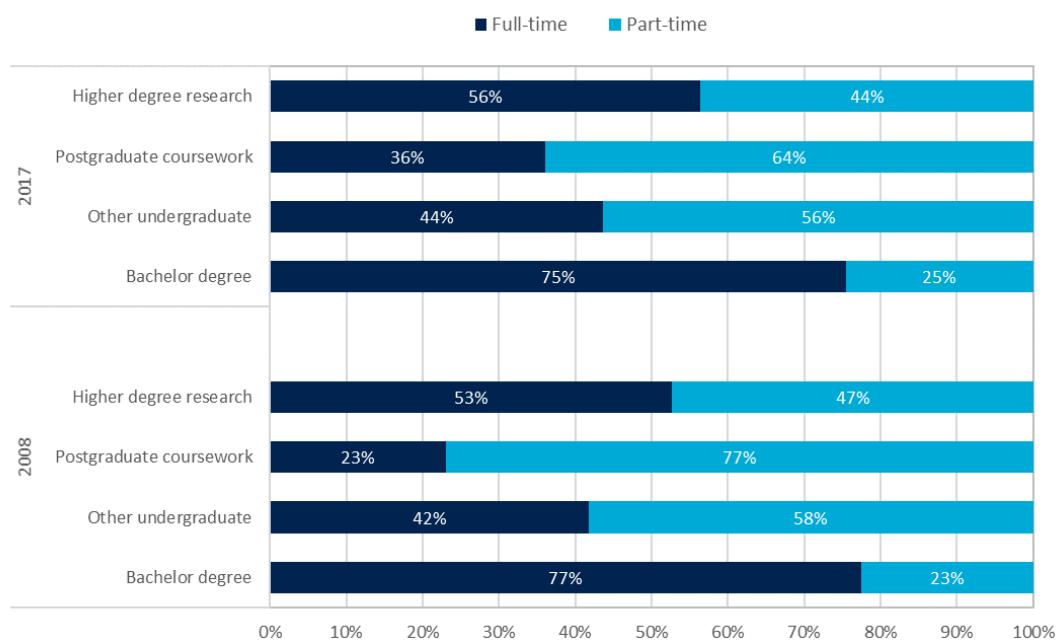
Figure 14: Domestic students, by course level and type of attendance, 2017



Source: DET, *uCube*.

Figure 15 shows that the proportion of Bachelor degree students studying full-time has declined slightly from 77 per cent in 2008 to 75 per cent in 2017, while a greater share of postgraduate students—both coursework and research—was studying full-time in 2017 than in 2008.

Figure 15: Share of domestic students, by course levels and type of attendance, 2008 and 2017



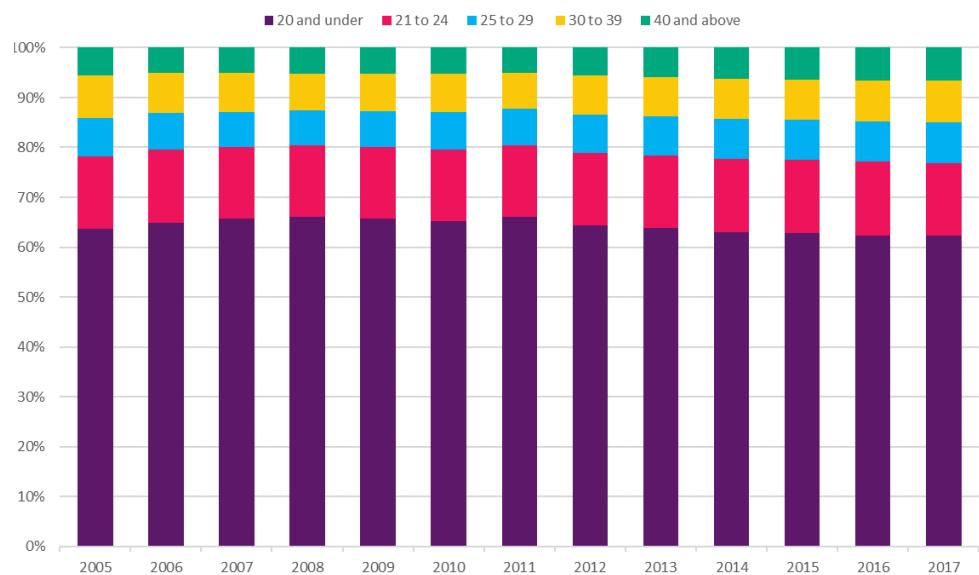
Source: See Figure 14.

Age cohort

In 2017, 62 per cent of first-year domestic students enrolled in undergraduate courses were aged 20 or younger, 15 per cent were aged between 21 and 24 and the remaining 23 per cent of students were aged 25 and older. These proportions have remained relatively unchanged since 2005 (Figure 16).

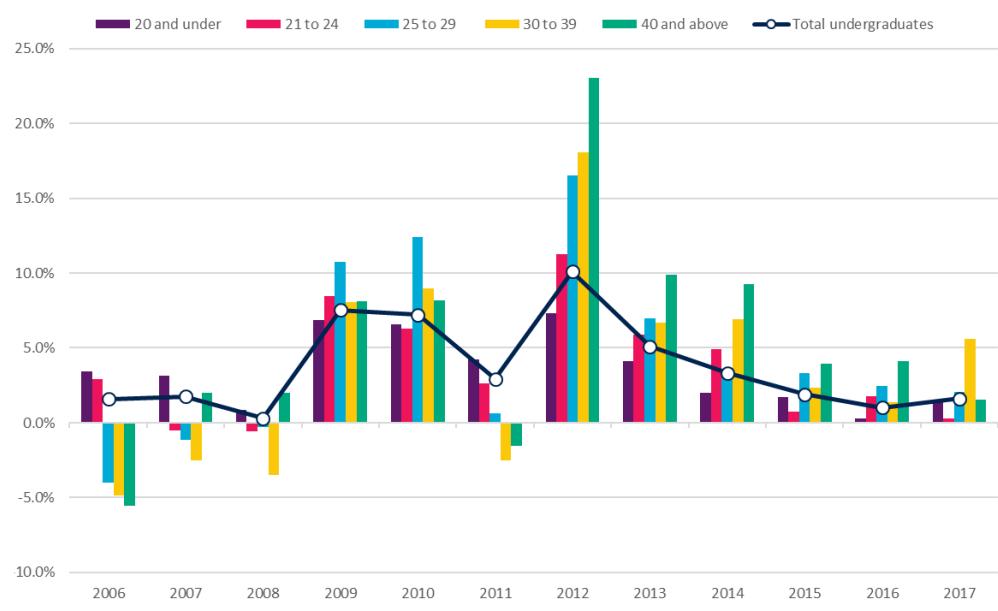
Figure 17 shows that annual growth in first-year domestic undergraduate enrolments has declined in recent years, from 10.1 per cent growth recorded in 2012 to 1.6 per cent in 2017. However, this growth varied significantly by age cohort, from as high as 5.6 per cent for 30 to 39 years old to as low as 0.3 per cent for students aged 21 to 24 in 2017.

Figure 16: Share of commencing domestic undergraduate students, by age cohort



Source: DET, unpublished HEIMS data, various years.

Figure 17: Annual growth in commencing domestic undergraduate student enrolments, by age cohort

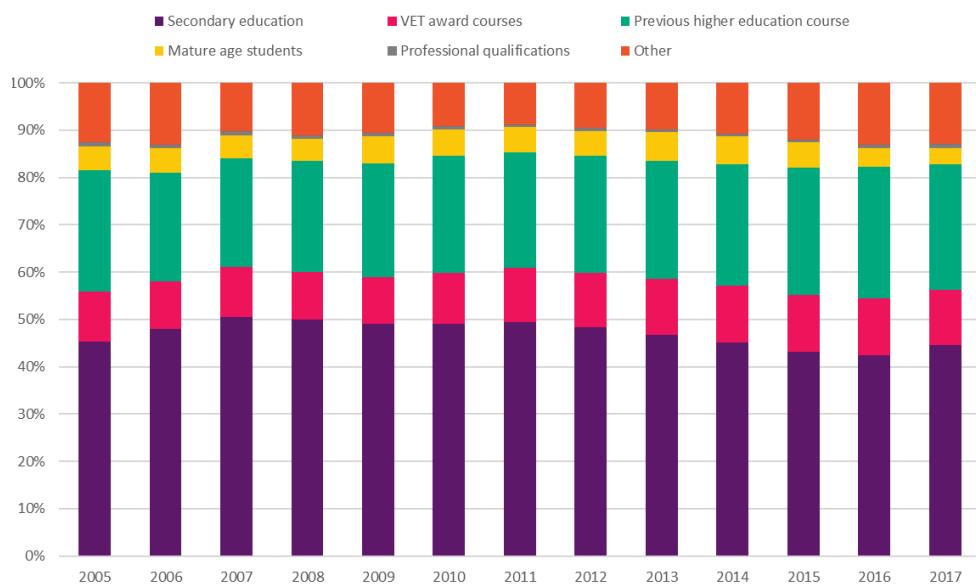


Source: DET, unpublished HEIMS data, various years.

Basis of admission

Figure 18 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 2017. 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 18: Basis of admissions for commencing domestic Bachelor degree students



Source: DET, unpublished HEIMS data, various years.

The share of all undergraduate offers made to prospective students with an ATAR score of 50 or less in 2018 was 2.9 per cent—slightly higher than in 2017 at 2.7 per cent—consistent with the share recorded in 2016. The absolute number in 2018 was 8,023, compared to 7,620 in 2017 and 8,215 in 2016—a decline of 2.4 per cent on 2016.

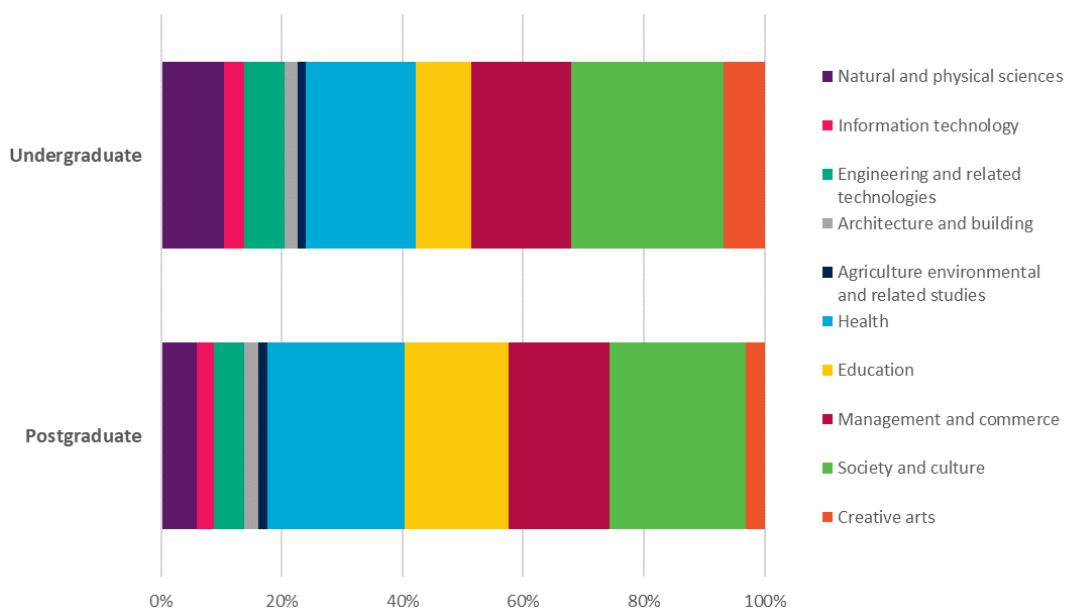
Nonetheless, only 64 per cent of students with an ATAR of 50 or less accepted their offers in 2018 compared to 74 per cent for students with an ATAR above 90.

Broad field of education

The most popular fields for undergraduate students are society and culture (25.2 per cent), health (18.4 per cent), management and commerce (16.5 per cent) and natural and physical sciences (10.5 per cent).

The most popular field for postgraduate students—both coursework and research—are health (22.7 per cent), society and culture (22.6 per cent), education (17.3 per cent) and management and commerce (16.7 per cent).

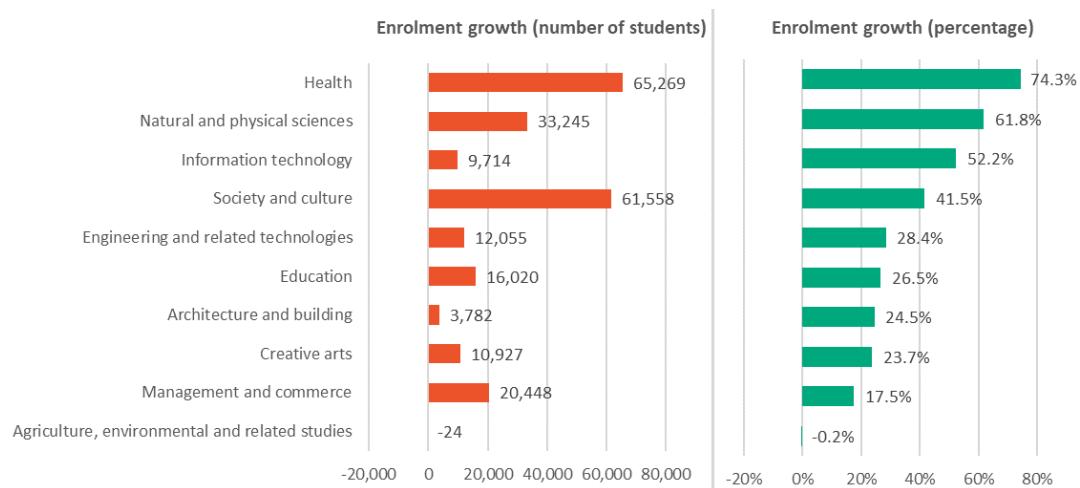
Figure 19: Domestic undergraduate and postgraduate enrolments, by broad FOE, 2017



Source: DET, *uCube*.

Undergraduate disciplines that have experienced the largest percentage increase in enrolments since 2008 were health (a growth of 74.3 per cent), natural and physical sciences (61.8 per cent) and information technology (52.2 per cent). Agriculture, environmental and related studies is the only discipline that has experienced a decline in enrolment (-0.2 per cent).

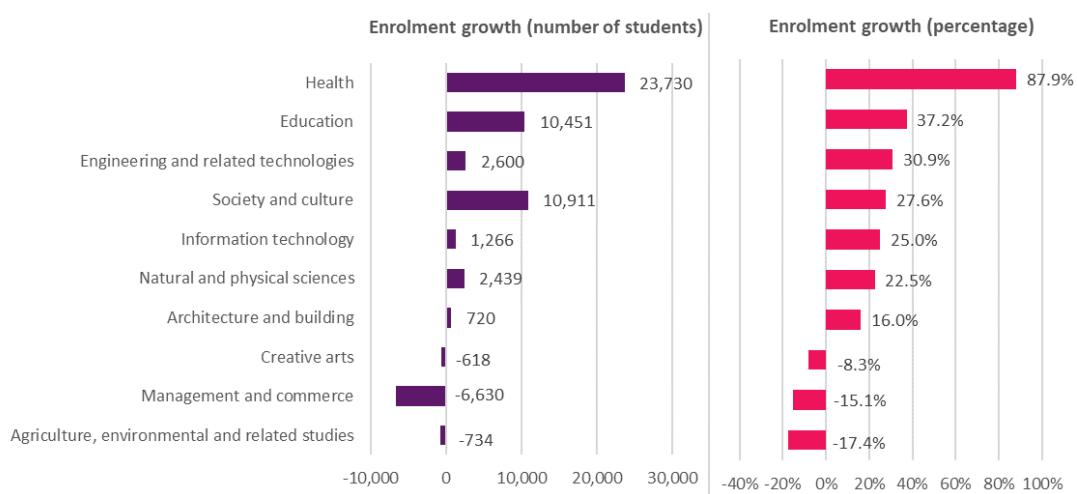
Figure 20: Growth in domestic undergraduate enrolments, by broad FOE, between 2008 and 2017



Source: DET, *uCube*.

For postgraduate study, health (87.9 per cent), education (37.2 per cent) and engineering and related technologies (30.9 per cent) were the disciplines that have experienced the largest percentage growth in enrolments since 2008 (Figure 21). Disciplines that experienced a decline in enrolments were agriculture, environmental and related studies (-17.4 per cent), management and commerce (-15.1 per cent) and creative arts (-8.3 per cent).

Figure 21: Growth in domestic postgraduate enrolments, by broad FOE, between 2008 and 2017

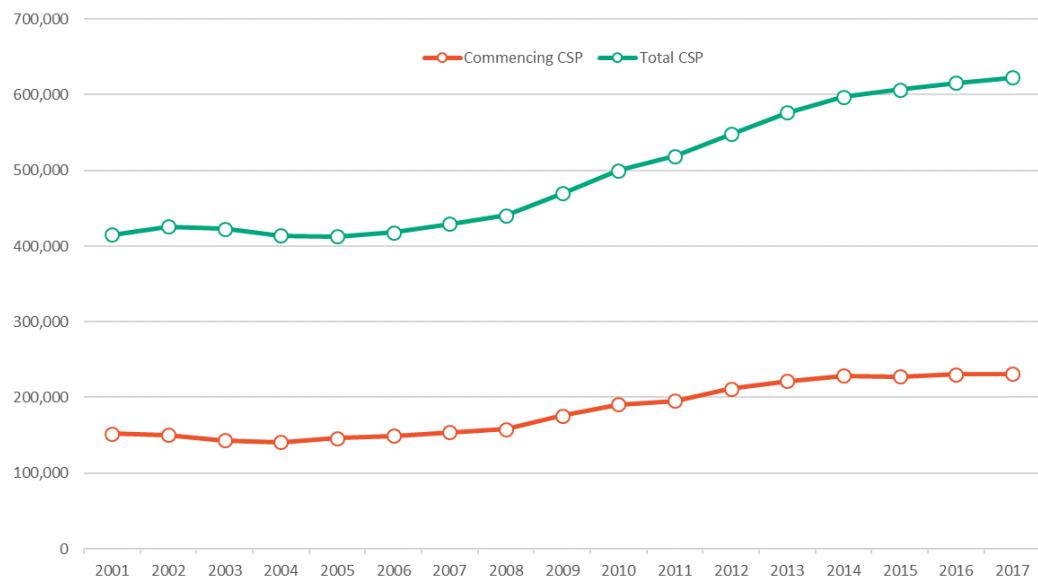


Source: DET, *uCube*.

2.1.2 COMMENCING AND TOTAL COMMONWEALTH SUPPORTED PLACES

Australia now educates 622,647 students in Commonwealth Supported Places (CSP), 182,300 more than in 2008 (Figure 22).

Figure 22: Commonwealth supported enrolment, equivalent full-time student load (EFTSL)



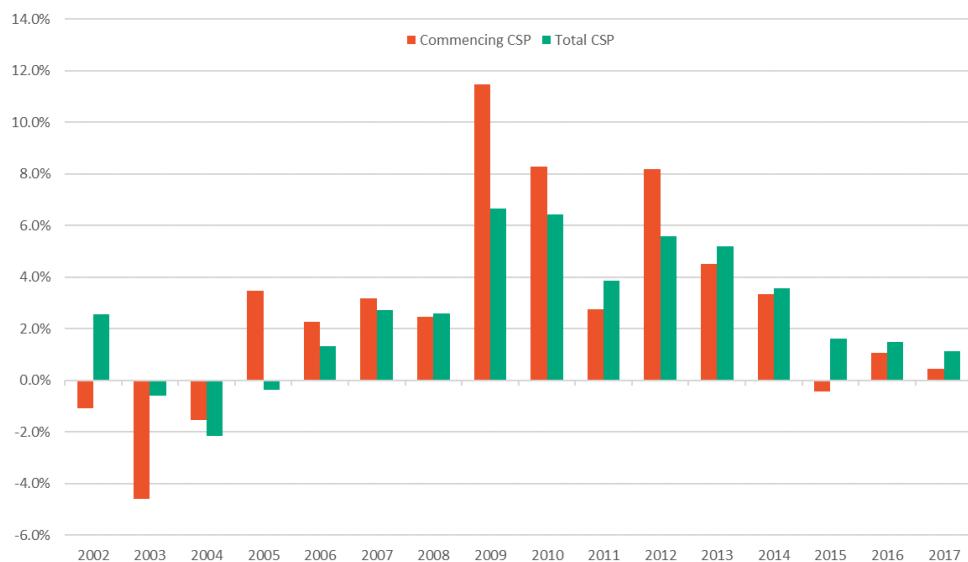
Source: DET, *uCube*.

Note: Include Commonwealth supported places in non-Table A universities for national priority places.

The growth in total CSP enrolment was initially rapid at around 6 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.

Eight years later, annual growth in enrolments has stabilised to levels slightly below population growth. In 2017, total Commonwealth Supported Places grew by only 1.1 per cent, down from 1.5 per cent in 2016, 1.6 per cent in 2015 and 3.6 per cent in 2014. Over the same period, commencing CSP enrolments grew by 3.3 per cent in 2014, before declining by 0.4 per cent in 2015. Commencing CSP enrolments increased by just 1.1 per cent in 2016 and 0.4 per cent in 2017.

Figure 23: Growth in Commonwealth supported enrolments (EFTSL)

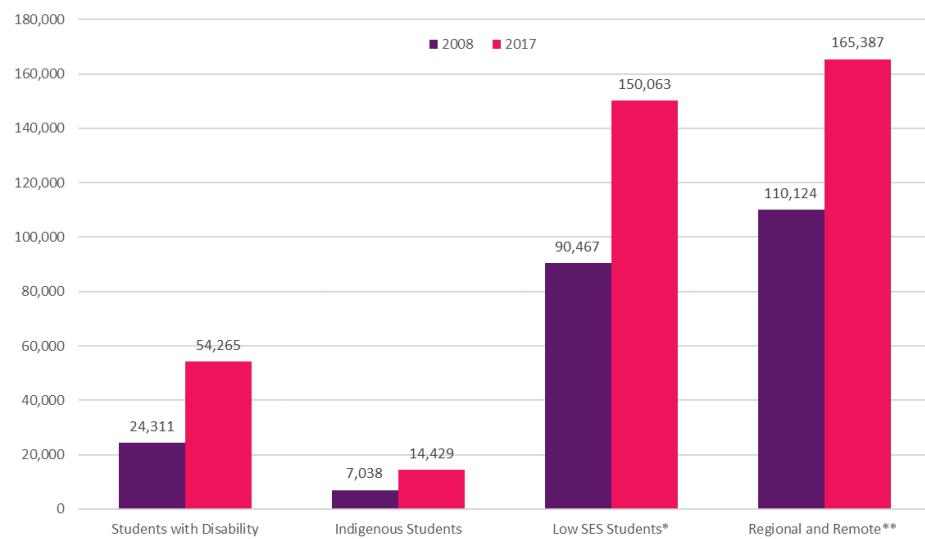


Source: DET, *uCube*.

2.1.3 GROWTH IN STUDENT ENROLMENTS BY EQUITY GROUP

The demand driven system has led to an increase in 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 [Figure 24].

Figure 24: Number of domestic undergraduate student enrolments, 2008 and 2017



Source: DET 2018, *Selected Higher Education Statistics–2017 Student Data*, Appendix B–Equity Groups.

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

The latest Department of Education data show that since 2008:

- enrolments of undergraduate students with a disability rose 123 per cent;
- Indigenous undergraduate student enrolments have more than doubled (105 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 50 per cent.

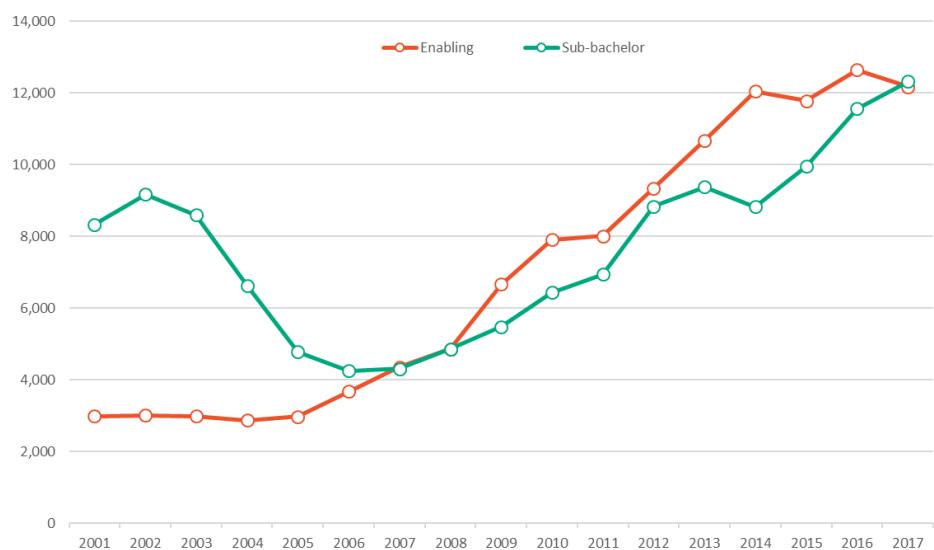
As a proportion of all domestic undergraduate students:

- enrolments of students with disability grew by 2.4 percentage points, from 4.3 per cent in 2008 to 6.8 per cent in 2017;
- Indigenous student enrolments increased from 1.3 per cent in 2008 to 1.8 per cent in 2017, a growth of 0.5 of a percentage point;
- low SES student enrolments grew from 16.1 per cent in 2008 to 18.7 per cent in 2017, a growth of 2.6 percentage points; and
- enrolments of students from regional and remote areas grew one percentage point, from 19.6 per cent to 20.6 per cent.

2.1.4 IMPROVEMENT IN PATHWAY AND FLEXIBILITY

Since 2008, Commonwealth supported enabling places have increased by 150 per cent from around 4,870 places to 12,170 places in 2017. Commonwealth supported sub-Bachelor places have also grown by 154 per cent, from 4,860 places in 2008 to 12,330 places in 2017.

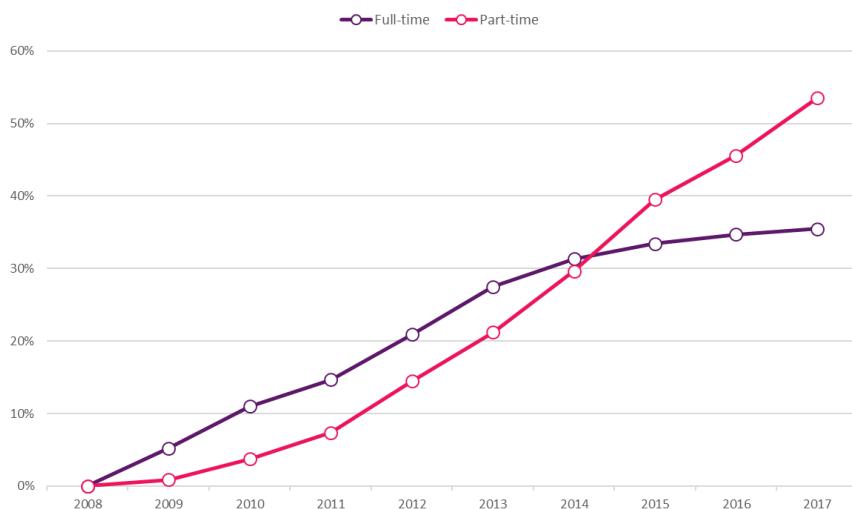
Figure 25: Growth in Commonwealth supported enabling and sub-Bachelor places



Source: DET, *uCube*.

Figure 26 shows domestic undergraduate students studying part-time have increased 54 per cent, compared to 35 per cent growth in students studying full-time since 2008. In 2017, 25 per cent of domestic undergraduate students were studying part-time (or 193,500 students). Of these part-time students, only 48 per cent were studying on-campus. The remaining 42 per cent were studying externally and another 10 per cent were mixed mode students.

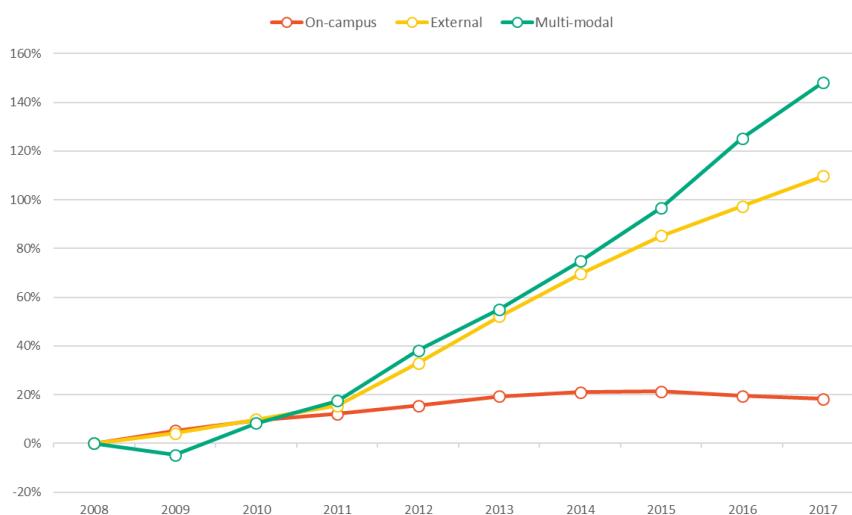
Figure 26: Growth in domestic undergraduate enrolments—by type of attendance—since 2008



Source: DET, *uCube*.

Figure 27 shows while the number of domestic undergraduate students studying on-campus has increased by 18 per cent since 2008, students studying externally have more than doubled (110 per cent) and students studying mixed mode has increased by almost 150 per cent. In 2017, 15 per cent of domestic undergraduate students are studying externally (or 117,210 students) and another 16 per cent are mixed mode students (or 125,220 students).

Figure 27: Growth domestic undergraduate enrolments—by mode of study—since 2008



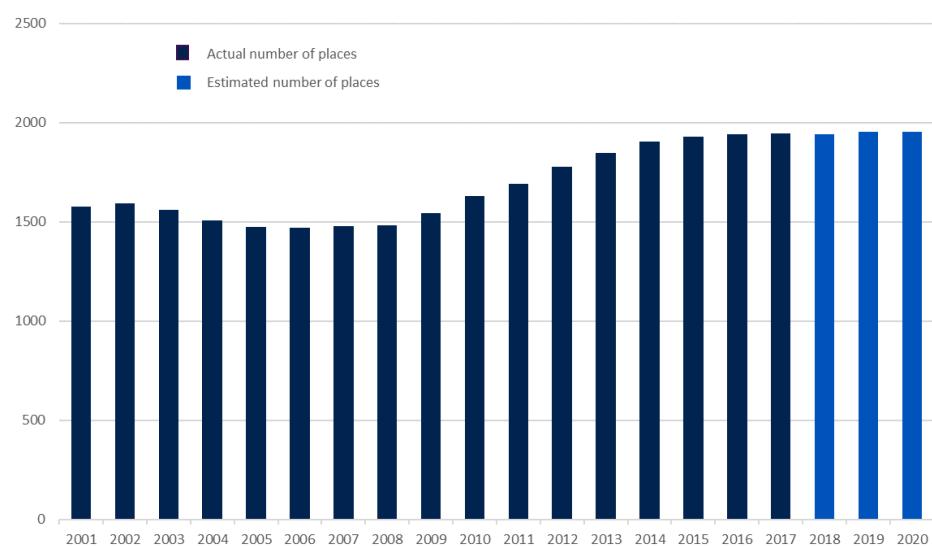
Source: DET, *uCube*.

2.1.5 COMMONWEALTH SUPPORTED PLACES AND POPULATION GROWTH

Most Commonwealth Supported Places (CSP) are provided for domestic students undertaking courses leading to a Bachelor degree. Around 75 per cent of these students are aged under 25 years old.

In 2001 and 2002, there were around 1,600 Commonwealth Supported Places 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 2015, the number of CSPs has stabilised at around 1,950 places for every 10,000 people aged 15–24 years (Figure 28).

Figure 28: Commonwealth supported places per 10,000 population aged 15–24 years old



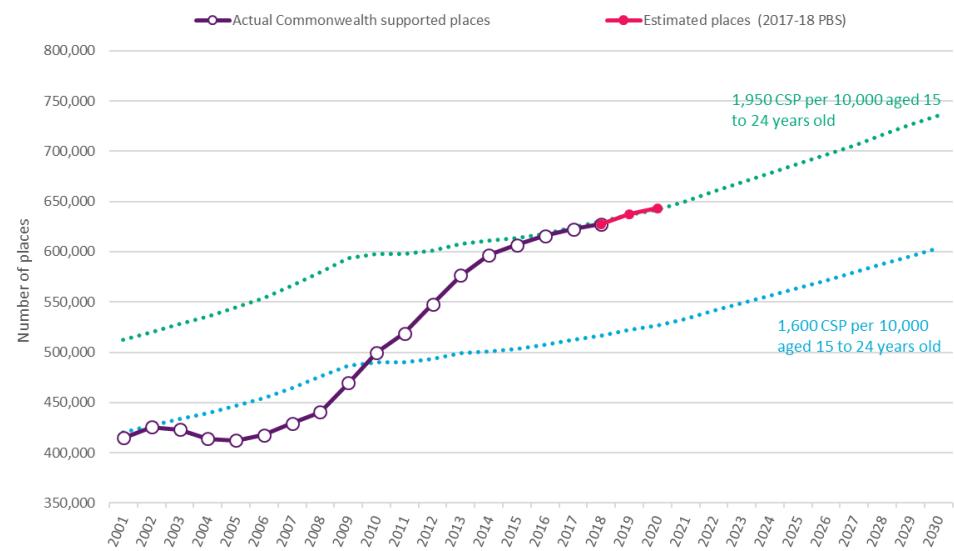
Source: DET, *uCube*; Australian Bureau of Statistics (ABS) 2014, *Australian Historical Population Statistics*, Cat. No. 3105.0.65.001; ABS, *Australian Demographic Statistics*, Cat. No. 3101.0, June 2016, 2017 and 2018.

Note: For 2001 to 2017, actual numbers of Commonwealth supported places and population were used in the analysis. From 2018 onwards, CSPs per 10,000 population aged 15–24 years old are calculated based on the estimated number of places outlined in the 2017–18 DET Portfolio Budget Statements and the ABS 2018, *Population Projections, Australia, 2017 (base) to 2066*, Cat. No. 3222.0, Series B.

As shown in Figure 29, the growth in Commonwealth Supported Places (CSP) 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 opportunity for Australians to acquire a higher education qualification is to keep up with population growth, there needs to be a modest increase in the number of CSP each year. Figure 30 shows the provision of around 1,950 CSP 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.

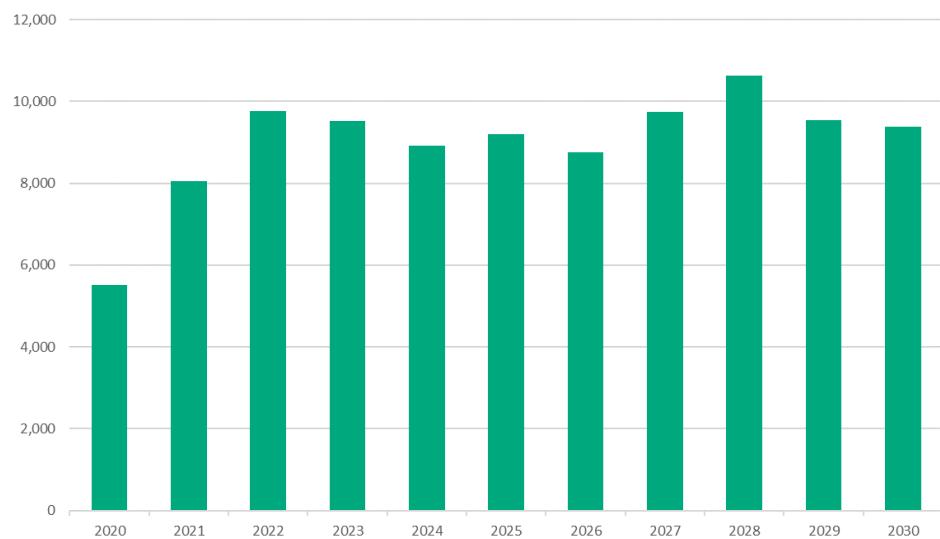
Figure 29: Actual and projected CSP compared to the 15–24 year-old population



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 30: Estimated annual increase in additional CSP to align with population growth



Source: See Figure 29.

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.

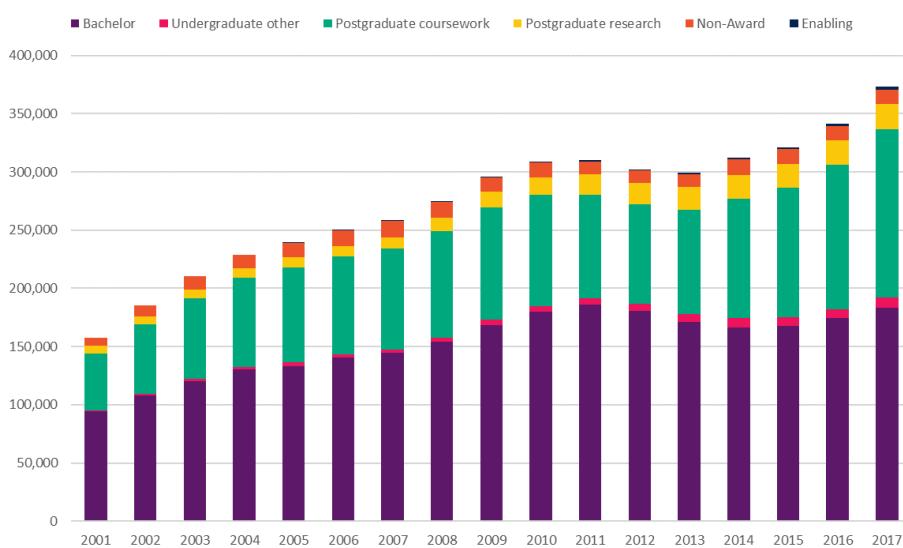
2.2 INTERNATIONAL STUDENTS

2.2.1 INTERNATIONAL STUDENT ENROLMENTS

International student enrolments have more than doubled since 2001, from 157,427 students to 372,906 students in 2017. This represents an average annual growth rate of 5.5 per cent over the period. In 2017, 27 per cent of students enrolled in Australian universities were from overseas, compared to 19 per cent in 2001.

Figure 31 shows the share of international students who are enrolled in postgraduate studies—both coursework and research—have increased since 2001, from 35 per cent in 2001 to 45 per cent in 2017. Between 2001 and 2017, average annual enrolment growth in Bachelor degrees was 4.3 per cent, compared to 8.1 per cent for postgraduate research and seven per cent for postgraduate coursework.

Figure 31: International student enrolments, by course levels



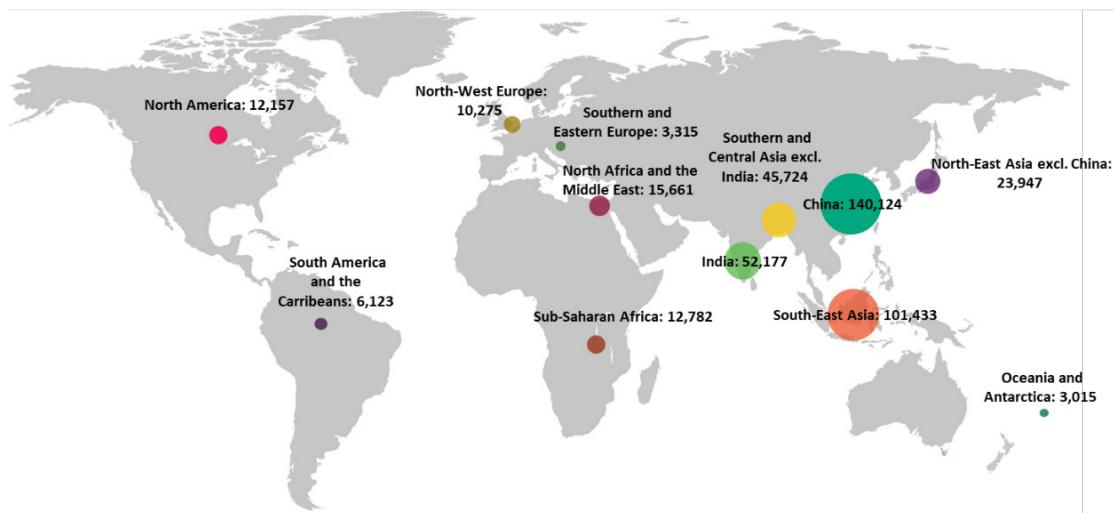
Source: DET, *uCube*.

Figure 32 shows the region or country of origin of international students studying in Australian higher education institutions in 2017. In 2017, China was the biggest source of international students—at 32 per cent—followed by South-East Asia (24 per cent) and India (12 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, 869,387 Chinese students studied overseas.⁸

Overall, Australia hosts 6.6 per cent of the world's international students studying at a tertiary (VET and higher education) level.

⁸ UNESCO Institute of Statistics, *Education dataset: Total outbound internationally mobile tertiary students studying abroad, both sexes*, 2017, accessed on 21 May 2019.

Figure 32: International students, by country or region of origin, 2017



Source: DET 2018, *Selected Higher Education Statistics–2017 Student Data*, Section 7: Overseas students.

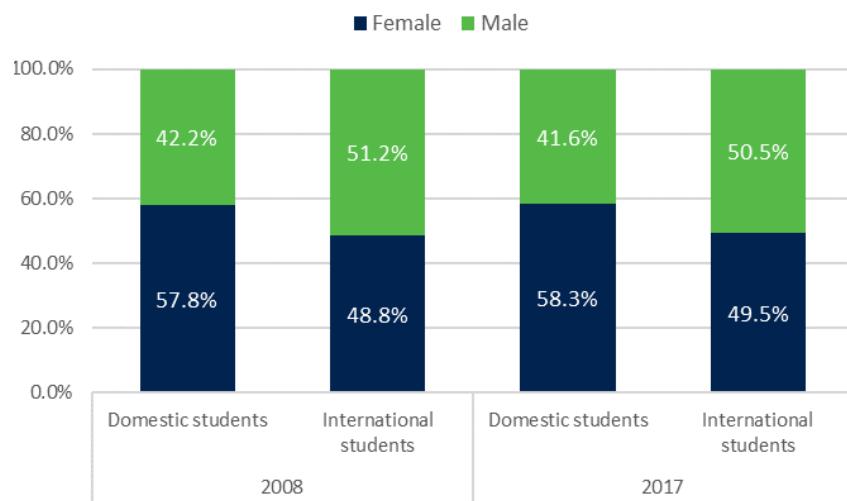
Note: The size of the bubble represents the number of international students from the country or region in 2017—the larger the bubble, the larger the number of students from the country or region. Data includes non-university higher education providers that provide data through HEIMS.

2.2.2 STUDENT PROFILES

Gender

In 2017, 50 per cent of international students were female, compared to 58 per cent for domestic students (Figure 33). The proportion of male students—both domestic and international—has declined slightly since 2008.

Figure 33: Share of students by gender, domestic vs international students, 2008 and 2017



Source: DET, *uCube*.

Course level

International enrolments in Bachelor degree courses have increased 19.2 per cent since 2008, while international enrolments in postgraduate coursework and higher degree research rose 58.2 per cent and 94.3 per cent respectively.

In contrast, for domestic students, growth in Bachelor degree enrolments was the strongest (38.1 per cent) compared to enrolments in postgraduate coursework (28 per cent) and higher degree research (11.9 per cent) over the same period.

Table 4: Enrolments by course level, domestic vs international students, between 2008 and 2017

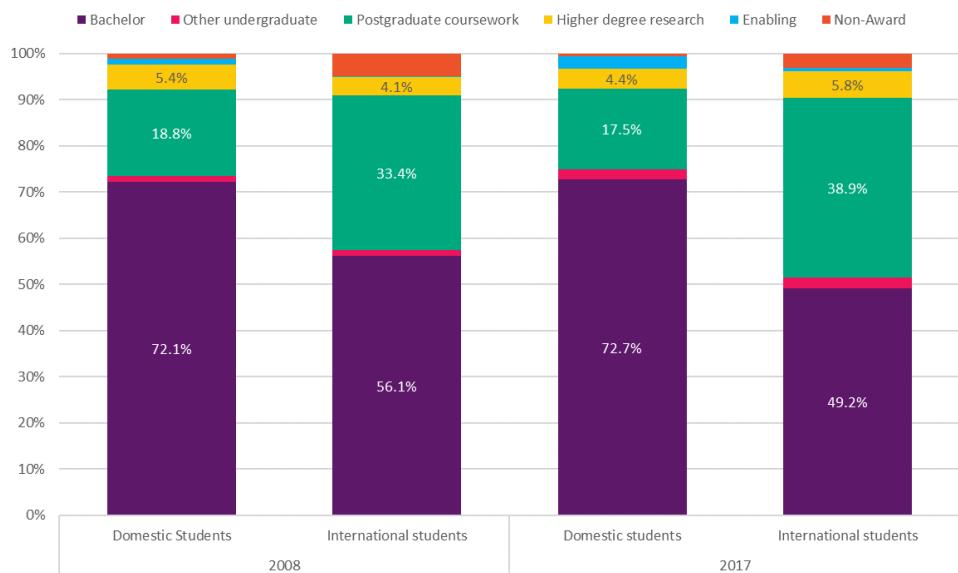
	Domestic students			International Students		
	2008	2017	Growth	2008	2017	Growth
Bachelor degree	533,845	737,076	38.1%	153,917	183,497	19.2%
Other undergraduate	9,638	21,932	127.6%	3,846	8,332	116.6%
Postgraduate coursework	138,854	177,795	28.0%	91,601	144,934	58.2%
Higher degree research	39,663	44,373	11.9%	11,200	21,757	94.3%

Source: DET, *uCube*.

In 2017, 49 per cent of international students were enrolled in Bachelor degree courses compared to 73 per cent of domestic students. In the same period, 39 per cent of international students were enrolled in postgraduate coursework, compared to just 18 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 49.2 per cent in 2017, the share of international students enrolling in postgraduate degrees—both coursework and research—has increased from 37.5 per cent to 44.7 per cent over the same period.

Figure 34: Share of students by course level, domestic vs international students, 2008 and 2017

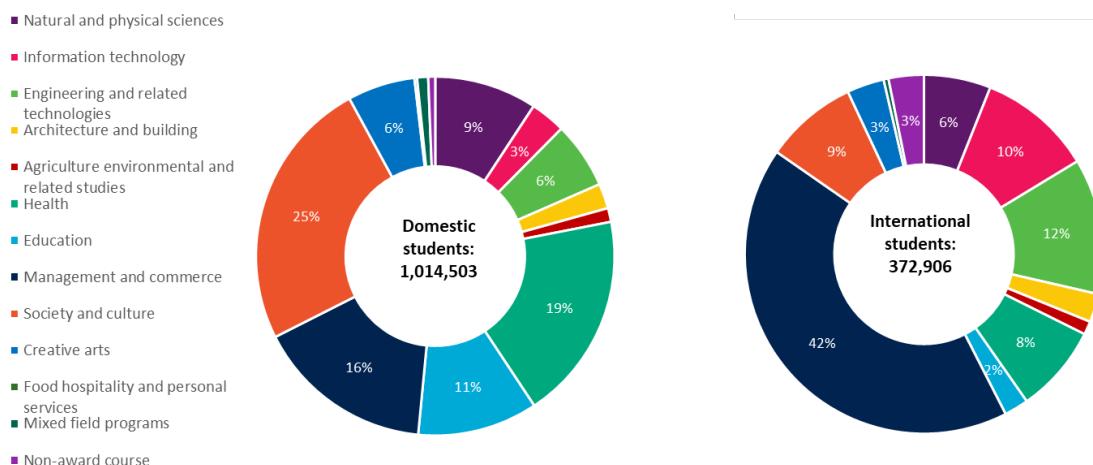


Source: DET, *uCube*.

Broad field of education

The discipline profile for international students is quite different from that of domestic students. In 2017, greater proportions of international students were studying management and commerce (42 per cent vs 16 per cent for domestic students), information technology (10 per cent vs 3 per cent) and engineering and related technologies (12 per cent vs 6 per cent). International students were less likely to study in society and culture (9 per cent vs 25 per cent for domestic students), health (8 per cent vs 19 per cent) and education (2 per cent vs 11 per cent).

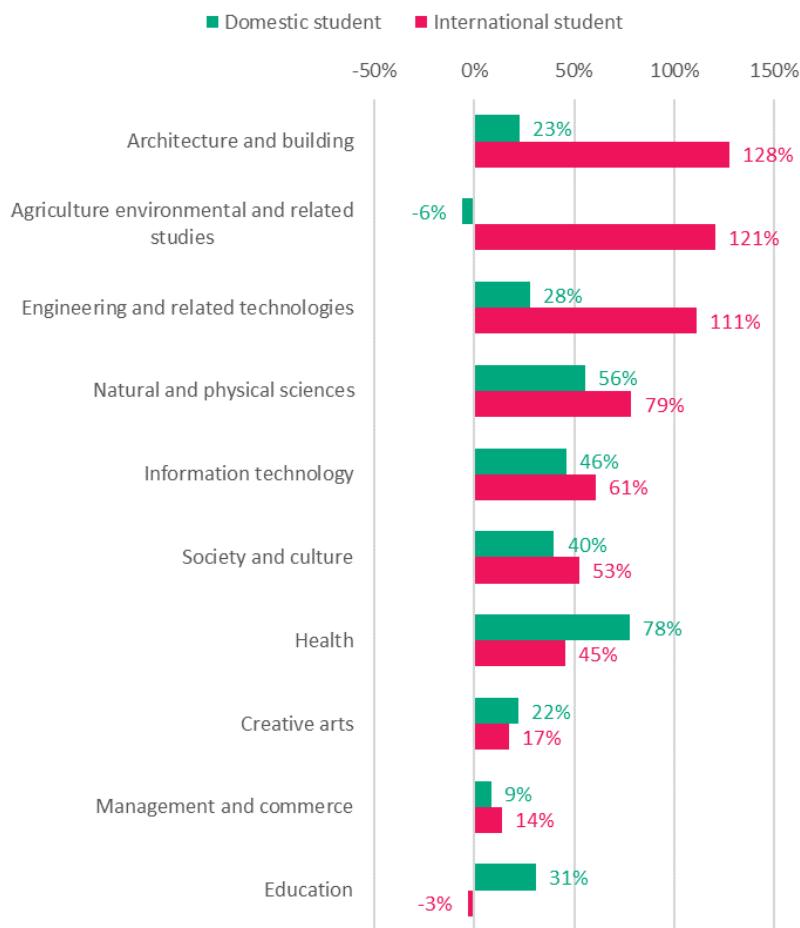
Figure 35: Share of students by broad FOE, domestic vs international students, 2017



Source: DET, *uCube*.

Since 2008, international student enrolments have more than doubled in architecture and building (up 128 per cent), agriculture, environmental and related studies (121 per cent) and engineering and related technologies (111 per cent), while international enrolments in management and commerce increased by only 14 per cent.

Figure 36: Growth in student enrolments by broad FOE, domestic vs international students, between 2008 and 2017

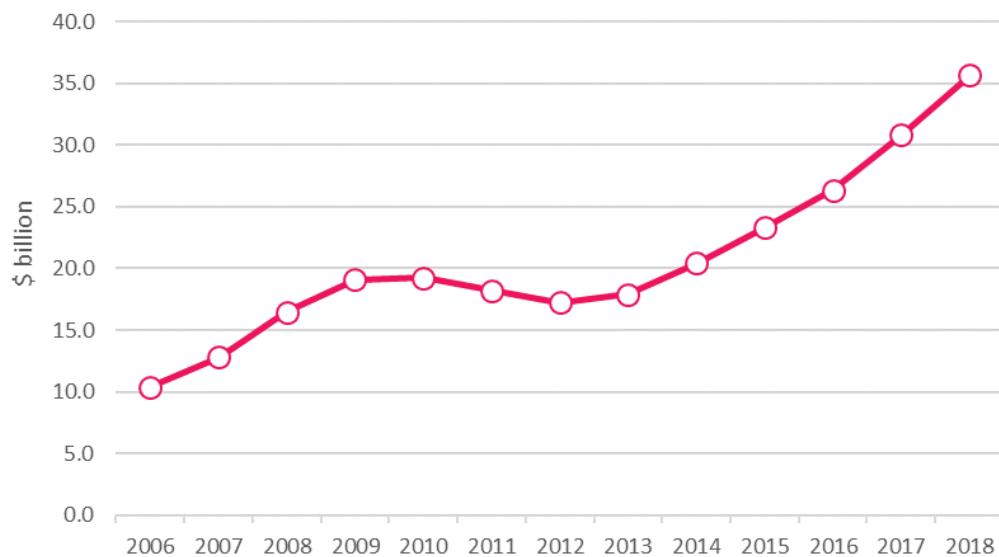


Source: DET, *uCube*.

2.2.3 CONTRIBUTION TO THE AUSTRALIAN ECONOMY

International education is Australia's third largest export—and the largest services export industry—generating \$35.8 billion in export income in 2018. Of this, around 70 per cent was contributed by the higher education sector. Figure 37 shows international education export income increased 118 per cent to 2018 from \$16.4 billion in 2008.

Figure 37: Value of international education exports, in nominal dollars



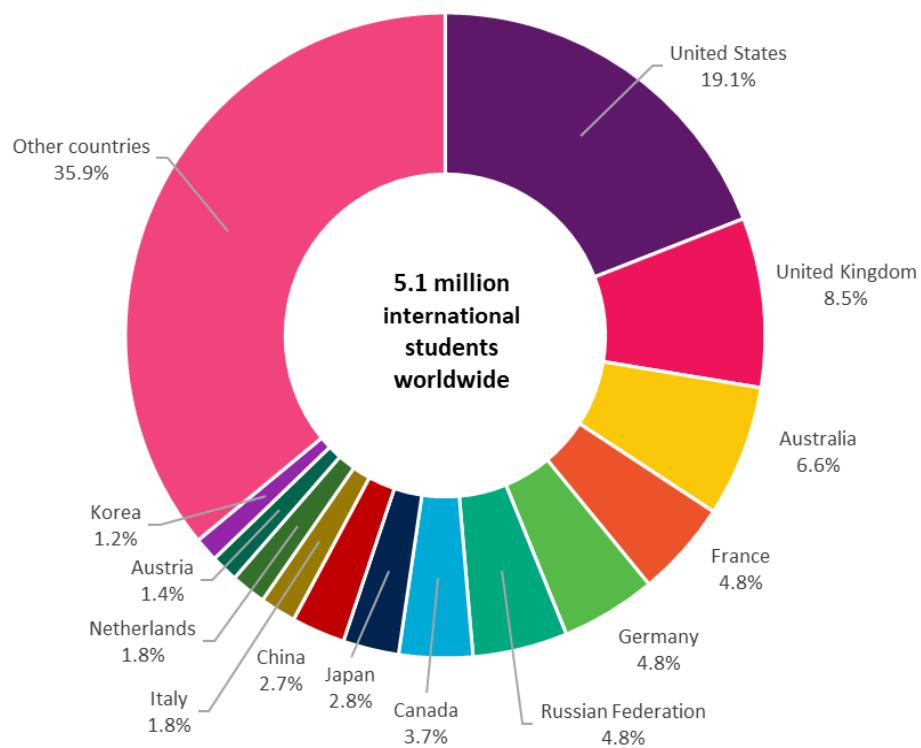
Source: ABS 2019, *International Trade in Goods and Services, March 2019*, Cat. No. 5368.0, Table 11a.

Note: Data include education-related personal travel, royalties on education and other personal, cultural and recreational services—education services.

Figure 38 shows Australia is the third most popular destination for students choosing to study overseas, behind the United States and United Kingdom. In 2016, Australia hosted 6.6 per cent (or 335,512 students) of the 5.1 million international students worldwide.

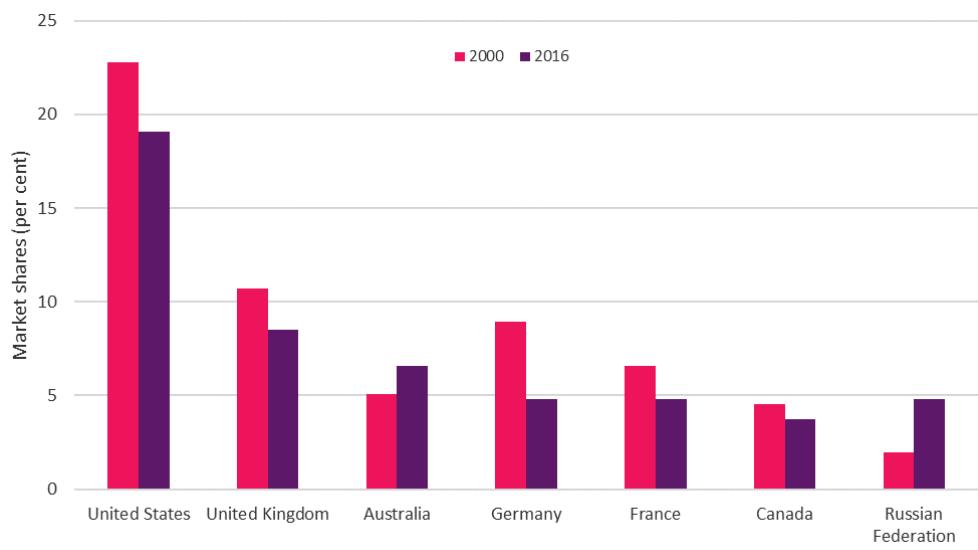
Of the top seven destination countries for international education, Australia is one of only two countries that grew its international student market share in 2016 in compared to 2000, the other being the Russian Federation (Figure 39).

Figure 38: Distribution of international students in tertiary education, by country of destination, 2016



Source: UNESCO Institute of Statistics, *Education dataset: Total inbound internationally mobile students, both sexes, 2017* or latest data available, accessed on 21 October 2018.

Figure 39: Trends in international tertiary education market shares, 2000 and 2016

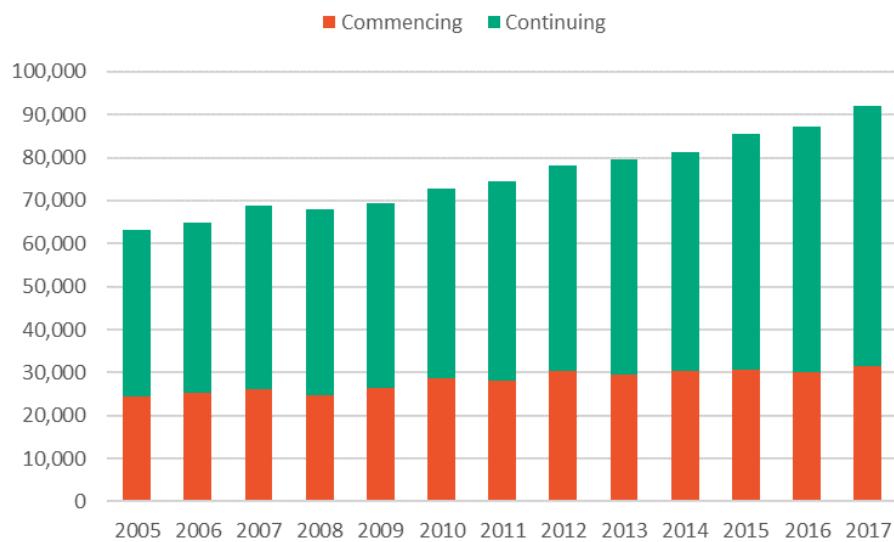


Source: See Figure 38.

2.3 ENROLMENTS IN COURSES LEADING TO PROFESSIONAL REGISTRATION

Enrolments in initial teacher training courses increased 35 per cent, from 68,088 students in 2008 to 92,095 in 2017. However, commencing student enrolments have remained at around 30,000 students since 2012.

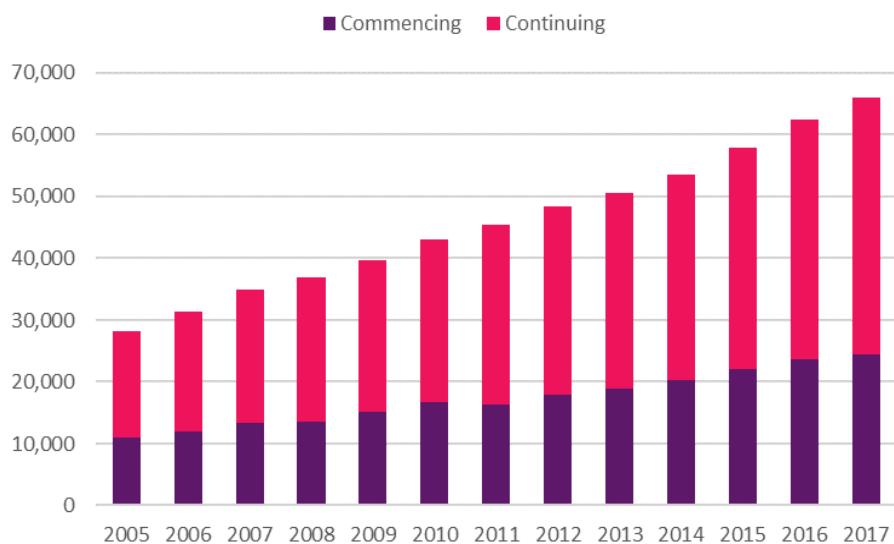
Figure 40: Enrolments in courses for initial teacher training



Source: DET 2018, *Selected Higher Education Statistics-2017 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 grew 79 per cent since 2008, from 36,958 students to 65,977 students in 2017. Both commencing and continuing enrolments have increased at an average annual growth rate of around 7 per cent between 2008 and 2017.

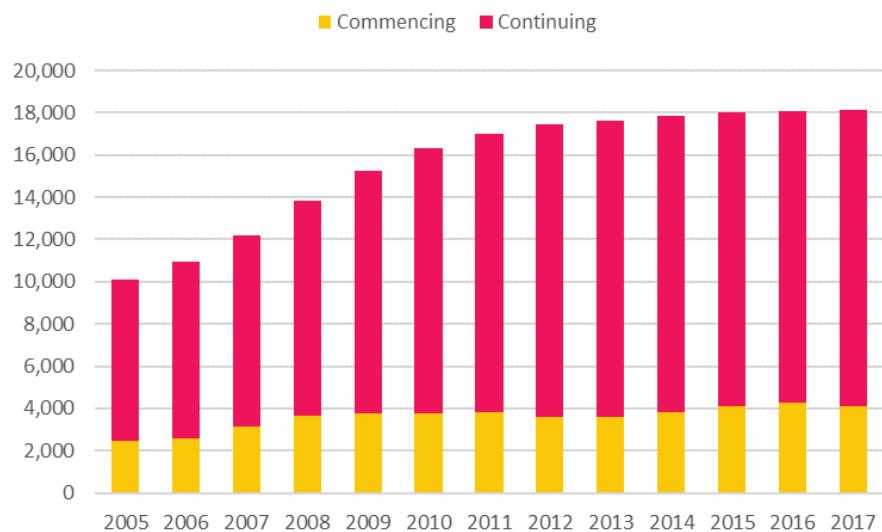
Figure 41: Enrolments in courses for initial registration as nurses



Source and note: See Figure 40.

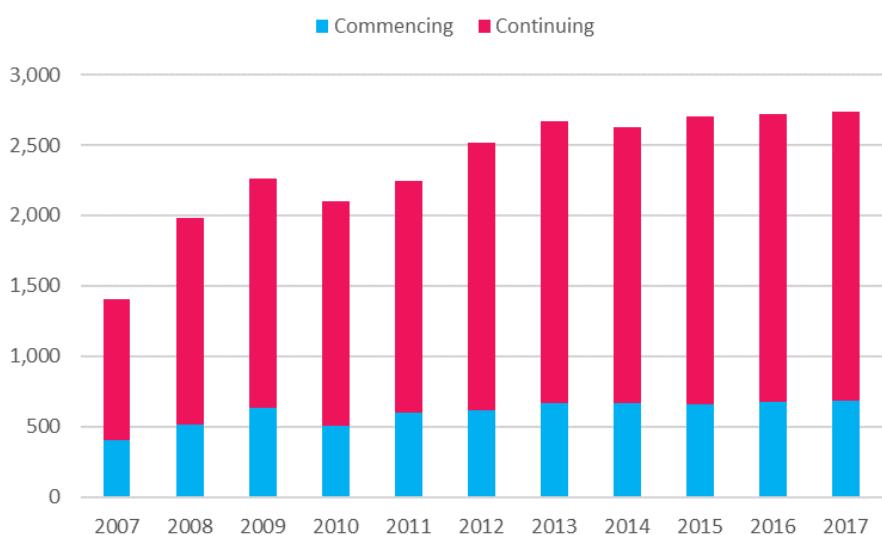
Figure 42 and Figure 43 show that whilst enrolments in courses providing for provisional registration as medical or dental practitioners increased by 31 and 38 per cent respectively between 2008 and 2017, enrolments for both courses have plateaued at around 18,000 and 2,700 respectively since 2014.

Figure 42: Enrolments in courses leading to provisional registration as a medical practitioner



Source and note: See Figure 40.

Figure 43: Enrolments in courses leading to provisional registration as a dental practitioner



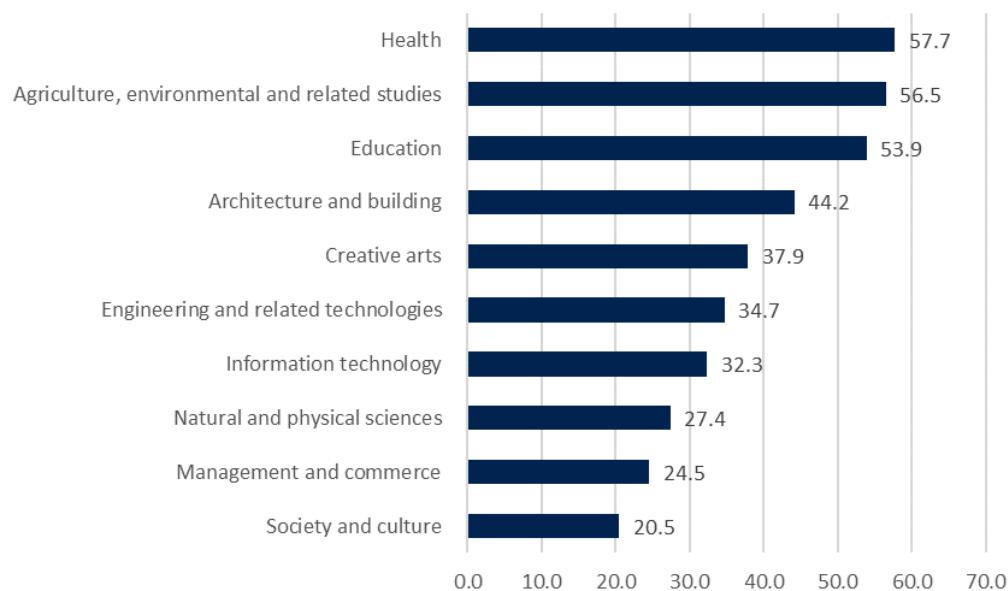
Source and note: See Figure 40.

2.4 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 44 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 44: WIL participation rates, by broad FOE, unique headcount, per cent



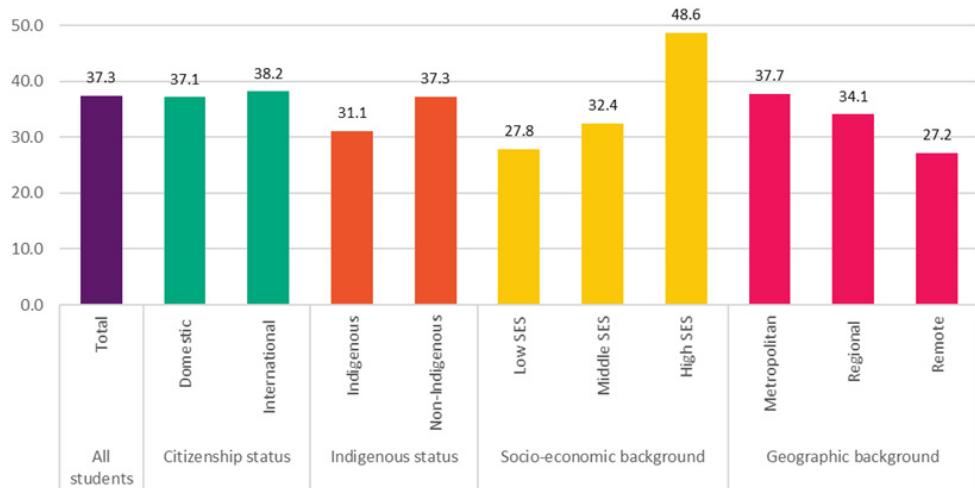
Source: 2017 Universities Australia WIL Data Collection.

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 45 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 activity, compared to 38.2 per cent of international students (or 93,126 students).
- Indigenous students were less likely to participate in WIL activity than non-Indigenous students. 37.3 per cent of domestic non-Indigenous students (or 352,320 students) participated in WIL activity, compared to 31.1 per cent of domestic Indigenous students (or 5,486 students).
- Domestic students from low socio-economic backgrounds were less likely to participate in WIL than students from middle and high socio-economic backgrounds. While almost one in two students (or 48.6 per cent) from high SES backgrounds participated in WIL, fewer than one in three students (or 27.8 per cent) from low SES 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 45: WIL participation rates, by student characteristic, per cent



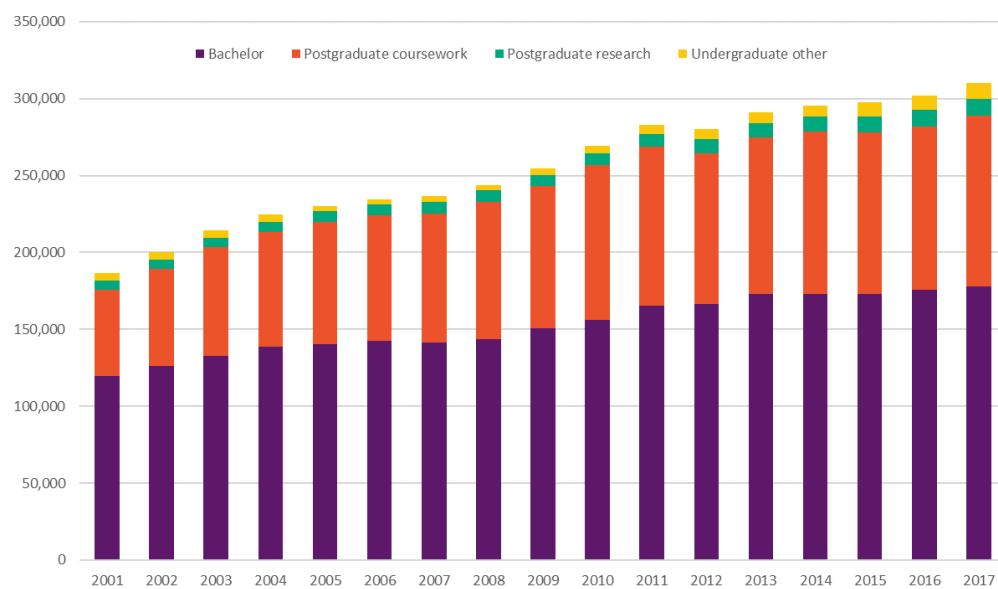
Source and note: See Figure 44.

2.5 STUDENT OUTCOMES AND EMPLOYMENT

2.5.1 AWARD COURSE COMPLETIONS

In 2017, 309,978 students completed their degrees at Australia's 39 comprehensive universities. This is an increase of almost 30 per cent on 2008. 34,227 more students completed a Bachelor degree in 2017, compared to 2008, an increase of 24 per cent. A growth of 48 per cent was recorded for postgraduate research completions, from 7,334 completions in 2008 to 10,858 in 2017.

Figure 46: Number of award completions, by course level

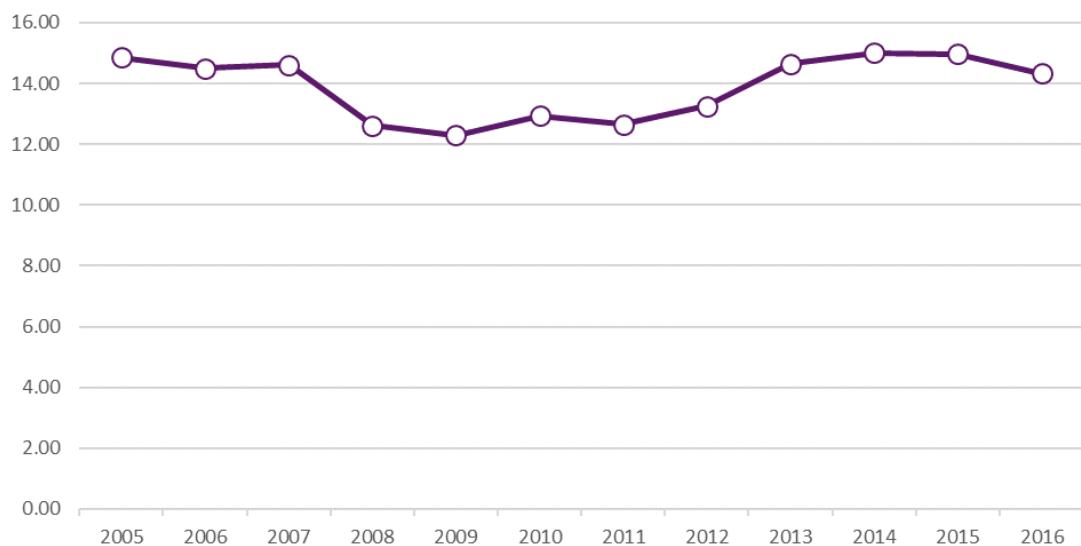


Source: DET2018, uCube.

2.5.2 ATTRITION AND COMPLETION RATES

Figure 47 shows attrition rates declined slightly in 2016, although attrition remains relatively stable overall.

Figure 47: Attrition rate for domestic commencing Bachelor degree students



Source: DET 2018, *Selected higher education statistics–2017 Student data*, Section 15: Attrition, success and retention.

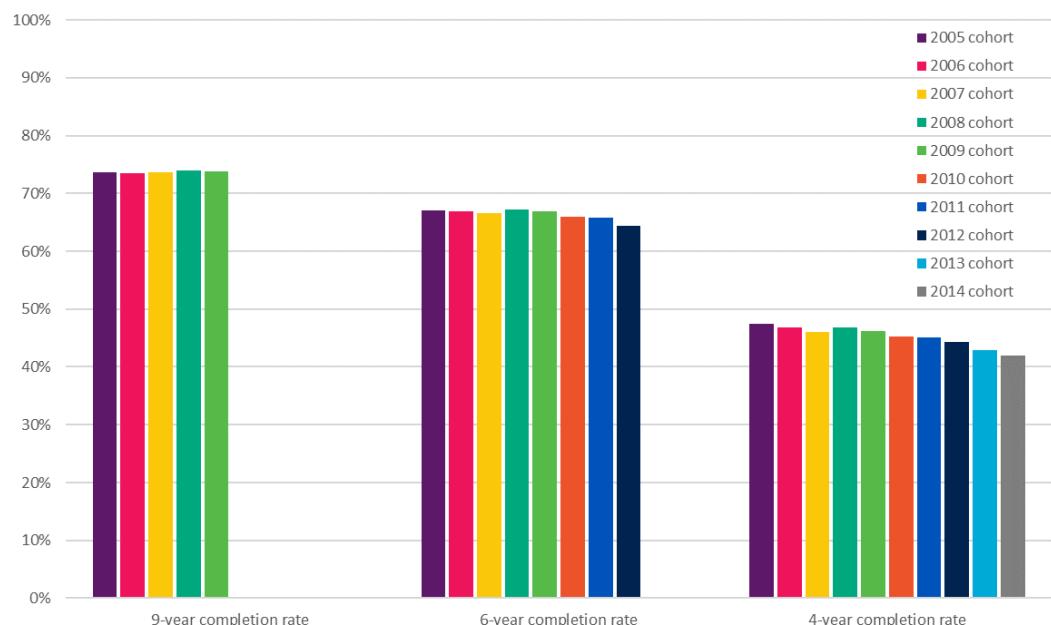
Note: Attrition rate for year [x] is the proportion of students who commenced a course in year[x] who neither complete in year [x] or year [x + 1] nor return in year [x + 1]. Only those students who left the higher education system entirely—that is, they were no longer at any institution—are counted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

Figure 48 shows that nine-year completion rates for the student cohort admitted to a Bachelor degree each year has been relatively stable since 2005—the first year this type of analysis became possible. For each cohort, around 74 per cent completed their degrees within nine years.

Six and four year completion rates declined slightly. Six-year completion rates declined from around 67 per cent for the cohorts commencing between 2005 and 2009, to 64 per cent for the 2012 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 cohort.

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 76 per cent for all cohorts. The proportion of students who have dropped out after four or six years has not increased.

Figure 48: Completion rates—9, 6 and 4 years—of commencing domestic Bachelor degree students



Source: DET 2018, *Completion rates of higher education students—Cohort Analysis—2005–2017*.

The *Student Experience Survey* asked students to indicate whether they had seriously considered leaving their institutions during the year and the reasons why. In 2018, 19 per cent of undergraduate students indicated that they had considered early departure, which is broadly comparable to the figures of 20 per cent reported in 2017 and 18 per cent in 2016.

Table 5 shows that in 2018, the most common reasons for considering departure relate to situational factors, such as health or stress (45 per cent), study/life balance (30 per cent), difficulties related to workload (27 per cent) and finances (25 per cent) and the need to do paid work (25 per cent). Similar to 2016 and 2017, the most common institutional-related factors featured in the top-ten were students' expectations had not been met (22 per cent) and career prospects (19 per cent).

Table 5: Top 10 reasons for undergraduate students considering early departure, 2015 to 2018

Departure reason	Per cent considering departure 2015	Per cent considering departure 2016	Per cent considering departure 2017	Per cent considering departure 2018
Health or stress	42	41	45	45
Study/life balance	29	27	30	30
Workload difficulties	25	25	26	27
Need to do paid work	26	25	26	25
Financial difficulties	25	24	25	25
Personal reasons	25	24	24	24
Need a break	22	22	24	23
Expectations not met	22	22	23	22
Boredom/lack of interest	22	22	22	21
Career prospects	20	20	19	19

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

2.5.3 GRADUATE EMPLOYMENT

Figure 49 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. Graduates with a postgraduate degree have better full-time employment outcomes than graduates with an undergraduate degree, particularly postgraduate coursework graduates. In 2018, 86.9 per cent of postgraduate coursework graduates and 82.3 per cent of postgraduate research graduates were in full-time employment four months after completing their degrees.

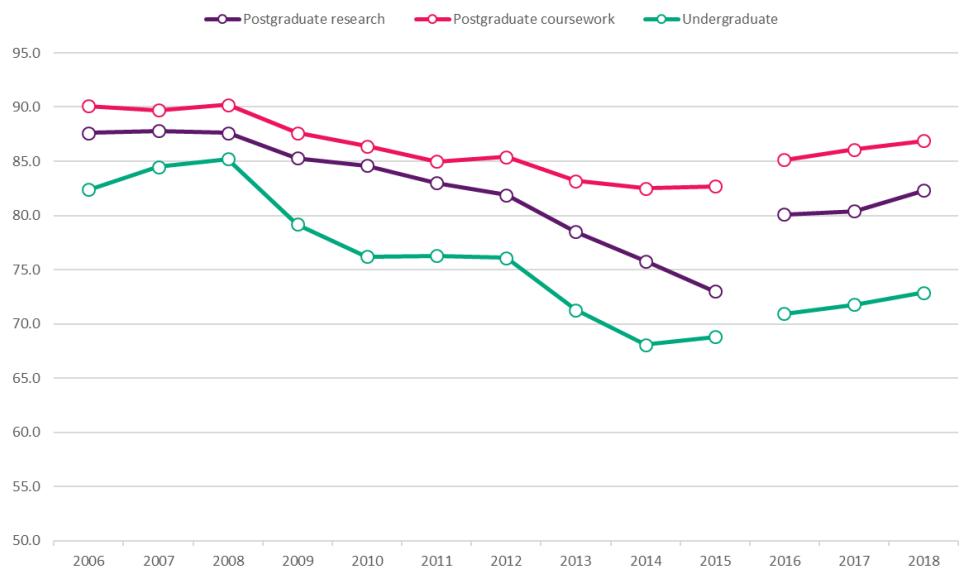
Since the Global Financial Crisis, graduates have taken longer to successfully establish themselves in the labour market. This is hardly surprising, graduate employment levels track closely to economic conditions.

Figure 50 shows that for undergraduates who completed their degrees in 2015, 67.1 per cent of graduates were in full-time employment four months after completing their course. In 2018, three years after completion, 89.2 per cent of the same undergraduate cohorts were in full-time employment. Medium-term employment outcomes for graduates have remained at around 89 per cent for cohorts that have graduated since 2011.

The *2018 Graduate Outcomes Survey – Longitudinal (GOS-L)* survey shows that graduates with generalist degrees such as science and humanities struggle to gain a foothold in the labour market immediately upon graduation, but they do succeed over time. For example, in 2015, 48.3 per cent of science and mathematics and 55.1 per cent of humanities, culture and social sciences undergraduates were in full-time employment shortly after graduation. However, three years later—in 2018—85.6 per cent and 82.5 per cent respectively were in full-time work.

In the short term, 75.8 per cent of undergraduates in full-time employment were in managerial and professional occupations upon graduation in 2015. This proportion increased to 80.7 per cent three years after graduation in 2018. Similarly, 60 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 76.4 per cent three years later.

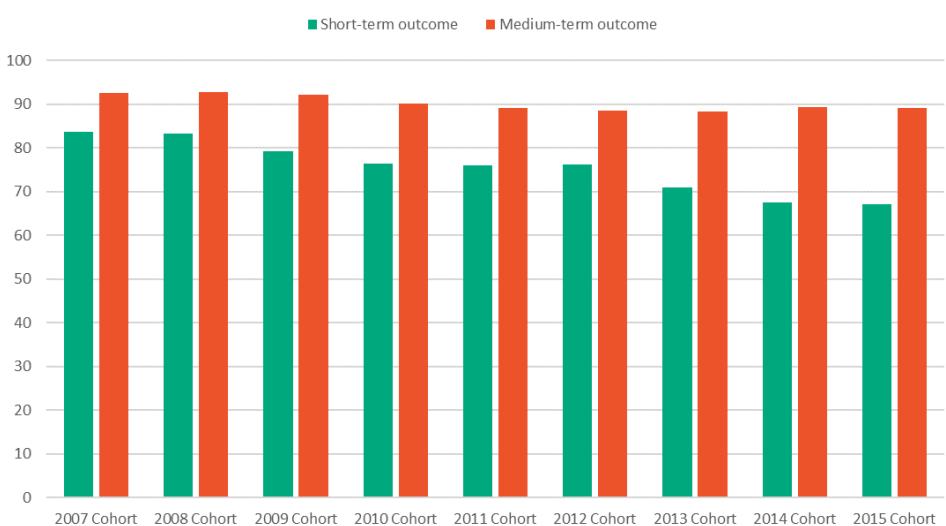
Figure 49: Graduate full-time employment rate—four months after completing their degree—by course levels, per cent



Source: SRC 2019, 2018 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 50: Short- and medium-term full-time employment rate for 2007 to 2015 graduates—undergraduate degree, per cent

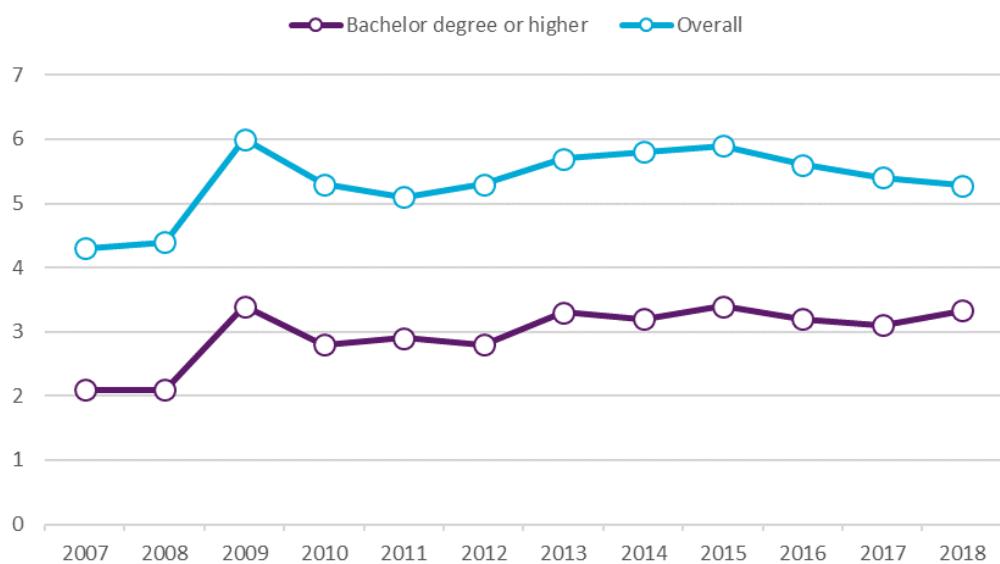


Source: SRC 2018, 2018 Graduate Outcomes Survey – Longitudinal (GOS-L).

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 51 shows that unemployment rates of graduates are consistently below the national unemployment rate by more than two percentage points.

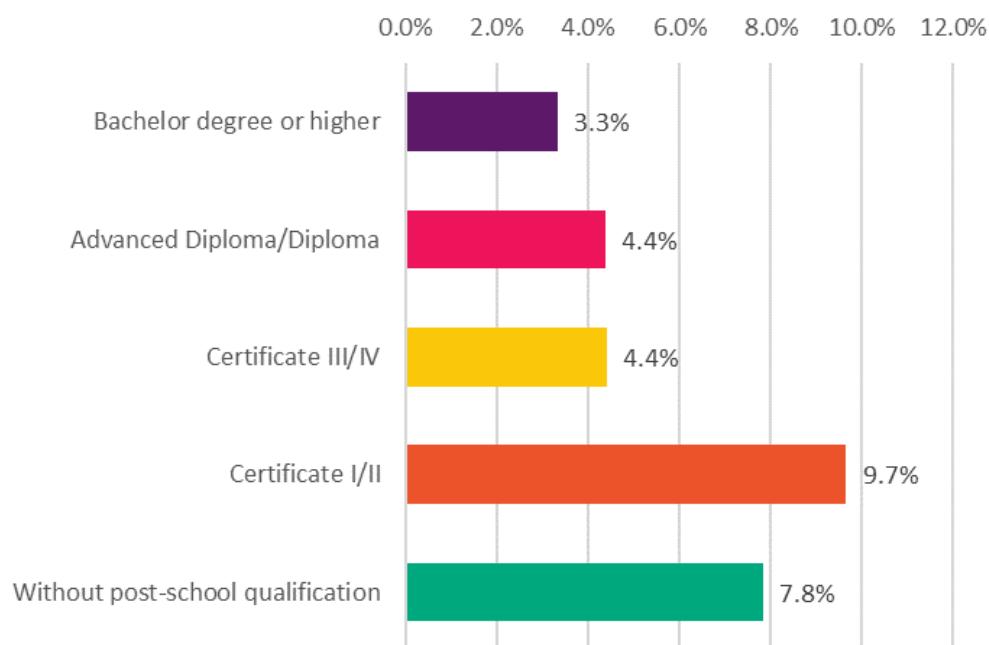
Figure 51: Unemployment rates—graduates and overall—2007 to 2018, per cent



Source: ABS, *Education and Work, Australia*, Cat. No. 6227, various years.

In May 2018, 3.3 per cent of graduates were unemployed compared to 7.8 per cent of those without a post-school qualification and 4.4 per cent for those with a diploma/advanced diploma or Certificate III/IV (Figure 52).

Figure 52: Unemployment rates, by level of qualification, 2018

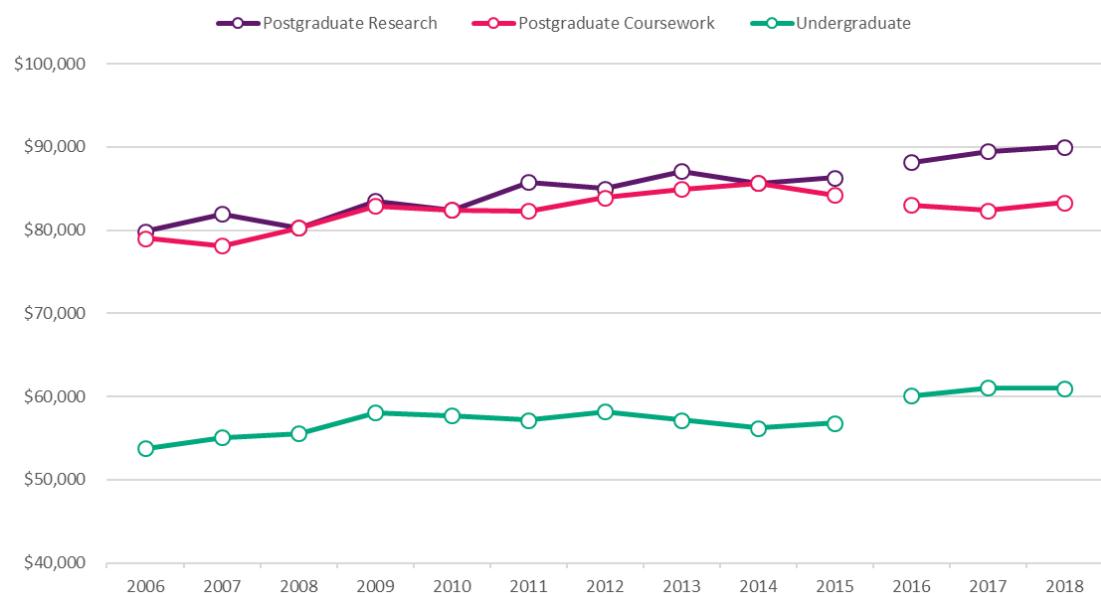


Source: ABS 2018, *Education and Work, Australia*, May 2018, Cat. No. 6227

2.5.4 GRADUATE SALARIES

While median starting salaries—in real dollar terms—for graduates employed full-time remained relatively unchanged at \$61,000 for undergraduate degrees, they increased by 0.6 per cent to \$90,000 for postgraduate research degrees and rose by 1.2 per cent to \$83,300 for postgraduate coursework degrees in 2018 (Figure 53).

Figure 53: Median starting salaries for graduates employed full-time, in 2018 dollars



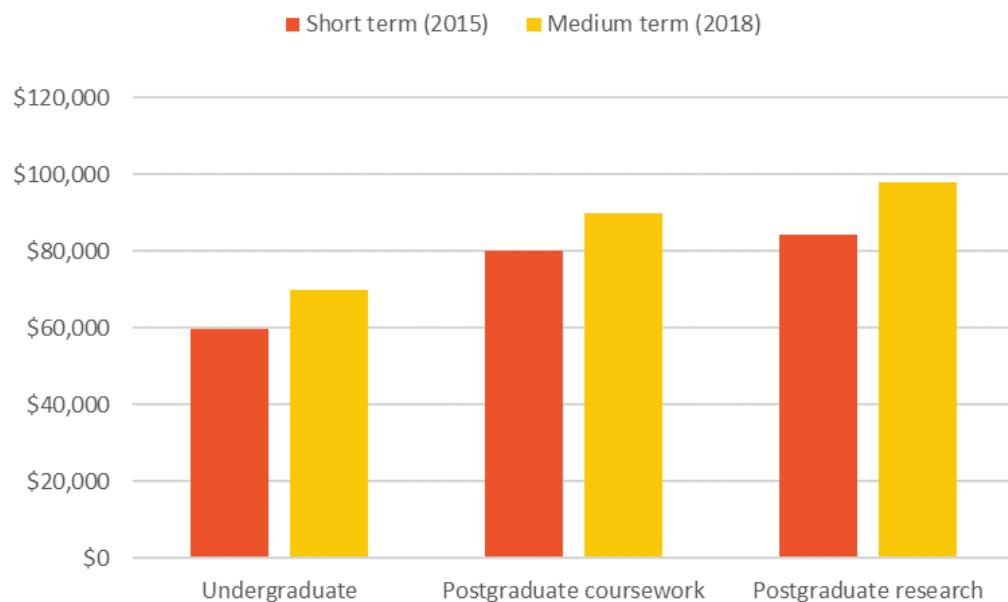
Source: SRC 2019, *2018 Graduate Outcomes Survey: National Report*.

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 2015 graduate cohort, Figure 54 shows median salaries for graduates in full-time employment with an undergraduate qualification rose from \$59,681 to \$70,000—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 13 and 16 per cent respectively in real terms.

Recent ABS data also show that median weekly earnings for people with a postgraduate degree were almost 80 per cent more than people with no non-school qualifications in 2018. Compared to employees with no post-school qualification, Bachelor degree graduates were earning almost 55 per cent more. Certificate III/IV holders earned almost 30 per cent more per week than employees with no non-school qualifications (Figure 55).

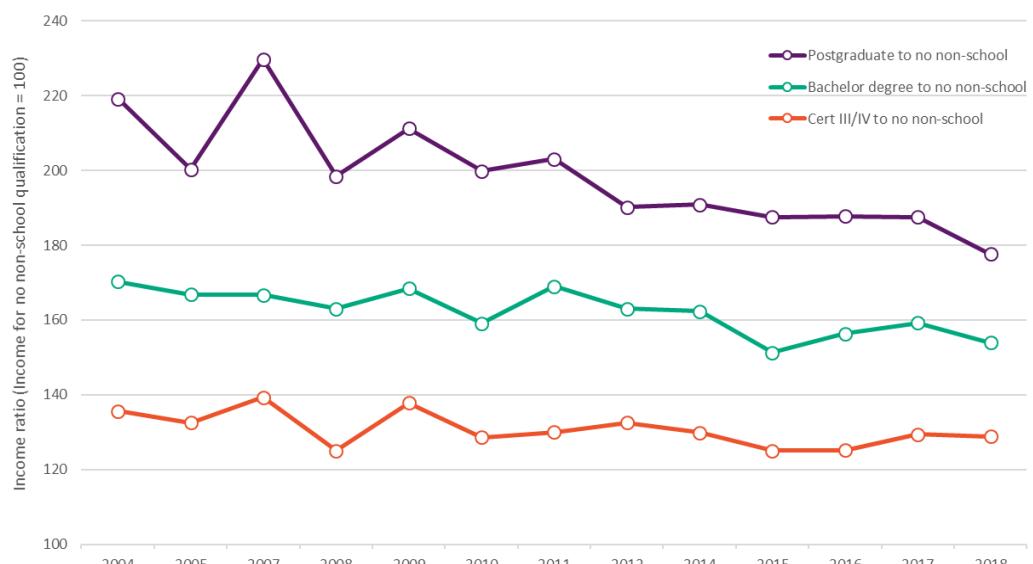
Figure 54: Short and medium-term salary outcomes for 2015 graduates employed full-time, in 2018 dollars



Source: SRC 2018, *2018 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 55: Median weekly earnings ratios compared to people with no post-school qualification



Source: ABS 2018, *Characteristics of Employment, Australia, August 2018*, Cat No 6333.0.

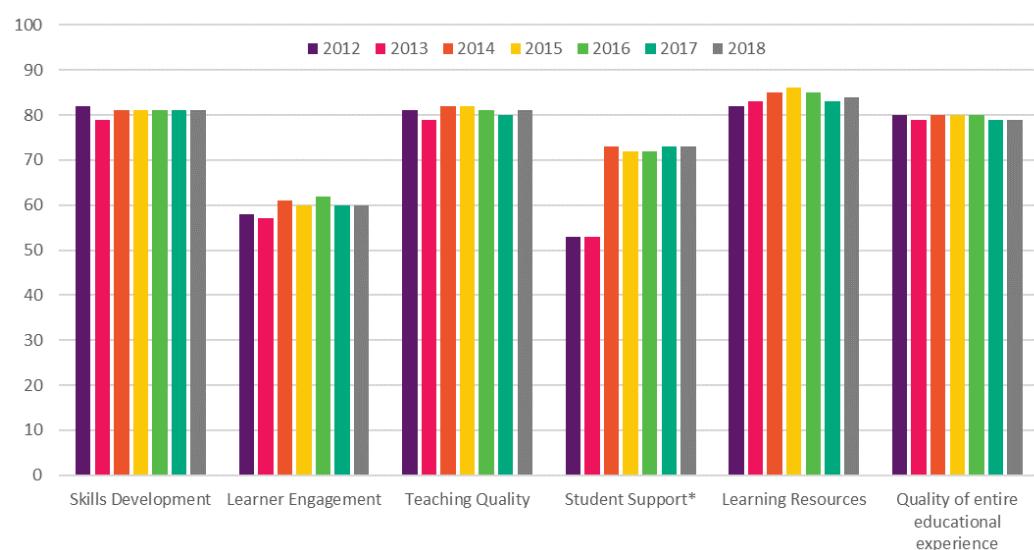
Note: A ratio of 100 implies median weekly earnings for a person with a post-school qualification is equal to a person with no post-school qualification.

2.5.5 SATISFACTION

According to the most recent *2018 Graduate Outcome Survey*, overall satisfaction among graduates with undergraduate or postgraduate research qualifications increased marginally from 79.4 to 79.7 per cent and 84.4 to 85 per cent respectively over the year to 2018. However, postgraduate coursework graduates' overall satisfaction declined marginally from 81.9 to 81.7 per cent over the same period.

The *2018 Student Experience Survey*, which measures the experience of current commencing and later-year undergraduate students, found that an overwhelming majority of undergraduate students—79 per cent—were satisfied with their overall educational experience in 2018. 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 2018.

Figure 56: Undergraduate student experience, 2012 to 2018, per cent of positive rating

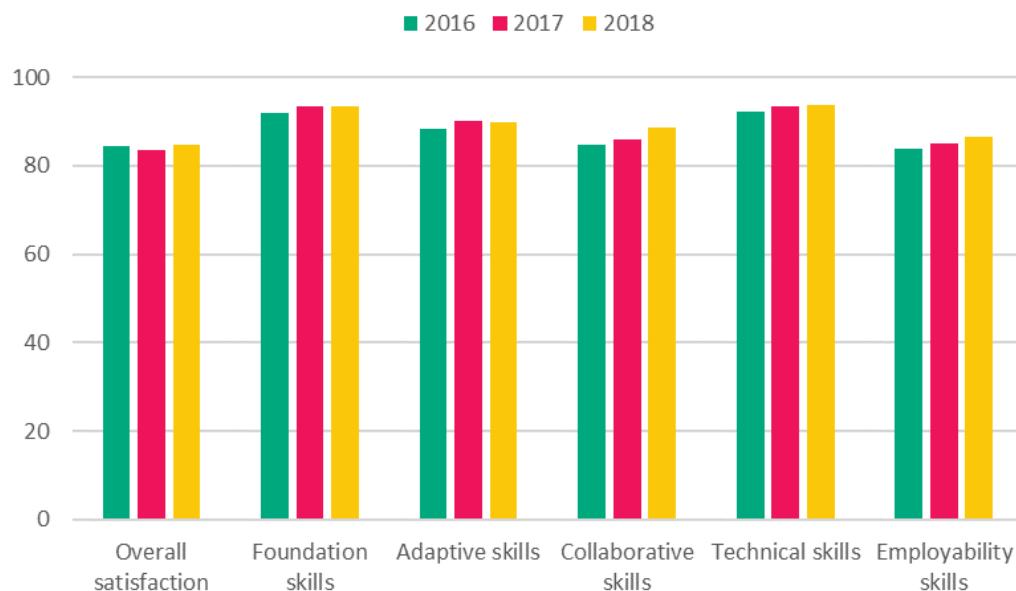


Source: SRC 2019, *2018 Student Experience Survey: National Report*

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

The *2018 Employer Satisfaction Survey*—which reported the views of over 5,300 direct supervisors of recent graduates—found that almost 85 per cent of employers expressed overall satisfaction with their recent graduates (Figure 57). More than nine-in-ten supervisors (92 per cent) indicated that the graduate's qualification was important for their current job.

Figure 57: Employer satisfaction with graduate attributes and overall satisfaction, per cent

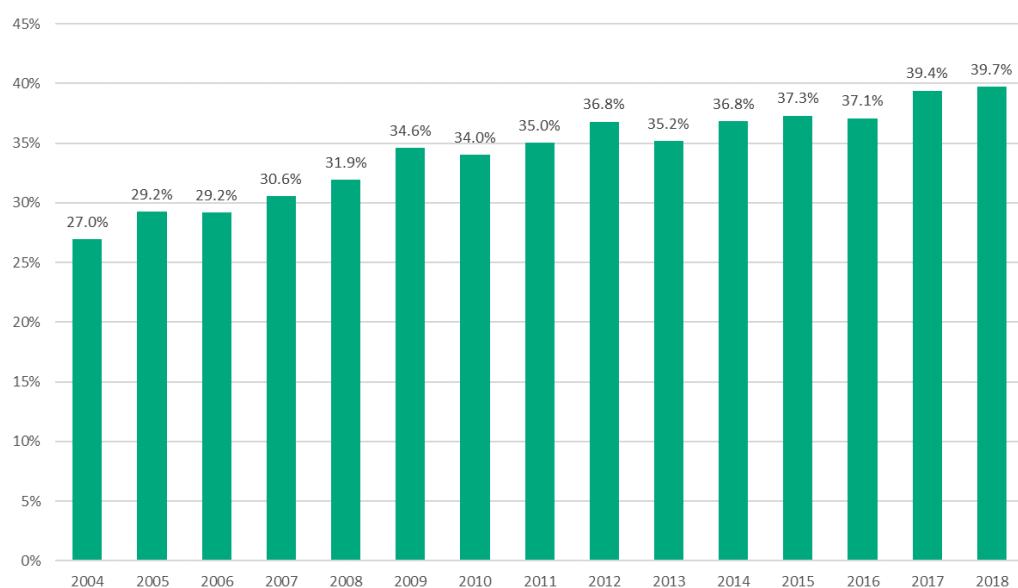


Source: SRC 2019, 2018 Employer Satisfaction Survey: National Report

2.6 EDUCATIONAL ATTAINMENT

In 2018, 39.7 per cent of 25–34 years old had a Bachelor-level qualification or higher, up from 31.9 per cent in 2008.

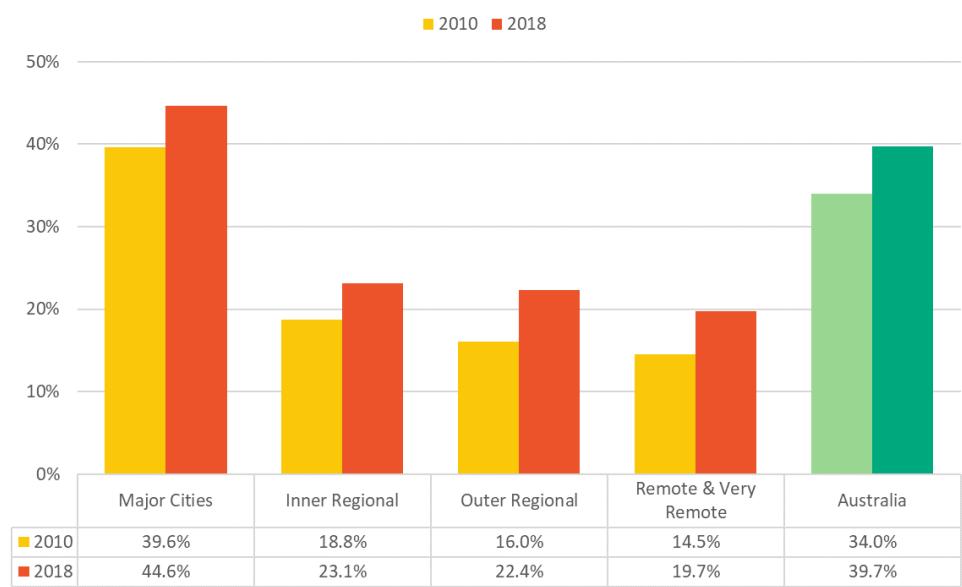
Figure 58: Proportion of people aged 25–34 years old with a Bachelor degree or higher



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

However, the 2018 national outcome masks wide variances in attainment levels across geographic areas. People in major cities are twice as likely to hold a university degree as those in regional and remote areas. In 2018, educational attainment rates at major cities were around 45 per cent compared to less than 23 per cent outside major cities (Figure 59).

Figure 59: Proportion of people aged 25–34 years old with a Bachelor degree or higher, by degree of remoteness

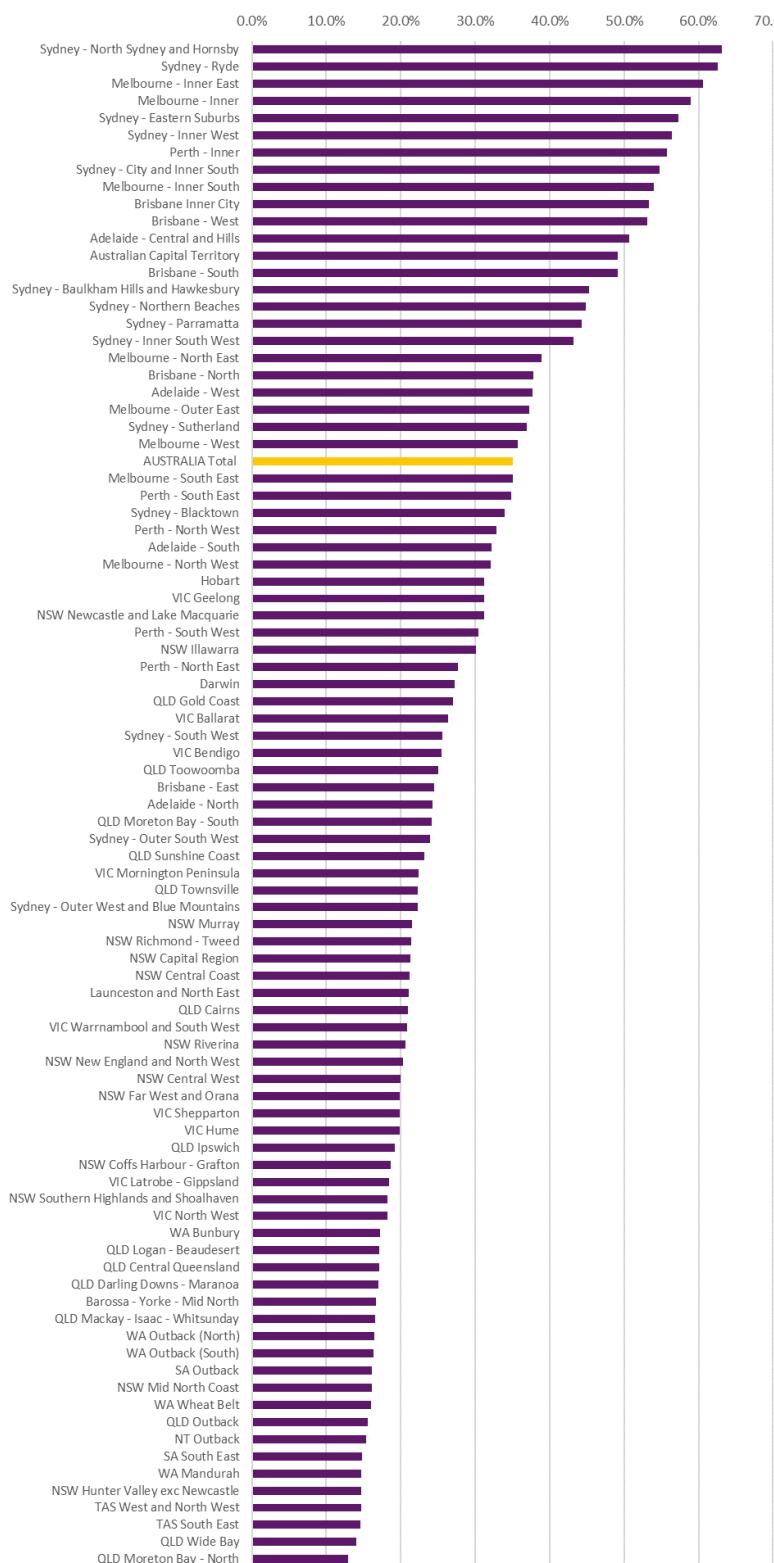


Source: ABS, *Education and Work, Australia*, Cat. No. 6227.0, various years.

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 60 shows that 63 of the 88 Statistical Area Level 4 regions had attainment levels below the nationwide average of 35 per cent in 2016.

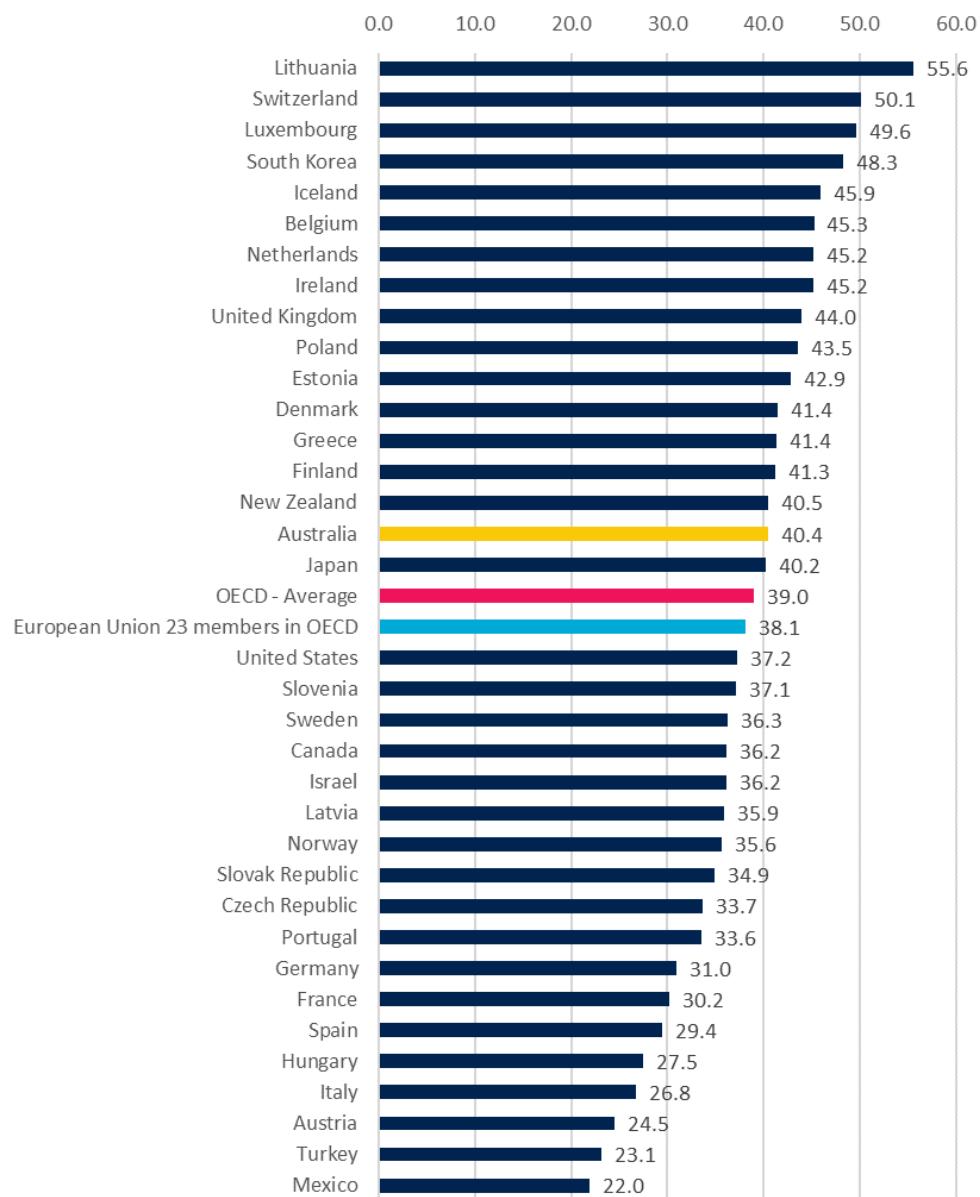
According to the latest *OECD 2018 Education at a Glance*, in 2017 the proportion of people aged 25 to 34 years old with a Bachelor degree or higher was 40.4 per cent in Australia, marginally higher than the OECD average of 39 per cent (Figure 61). Australia ranked 16th out of 35 OECD countries, behind Switzerland, South Korea, UK, Denmark and New Zealand.

Figure 60: 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 61: Proportion of people aged 25–34 years old with a Bachelor degree or higher, by OECD countries, 2017



Source: OECD Statistics accessed on 26 October 2018.

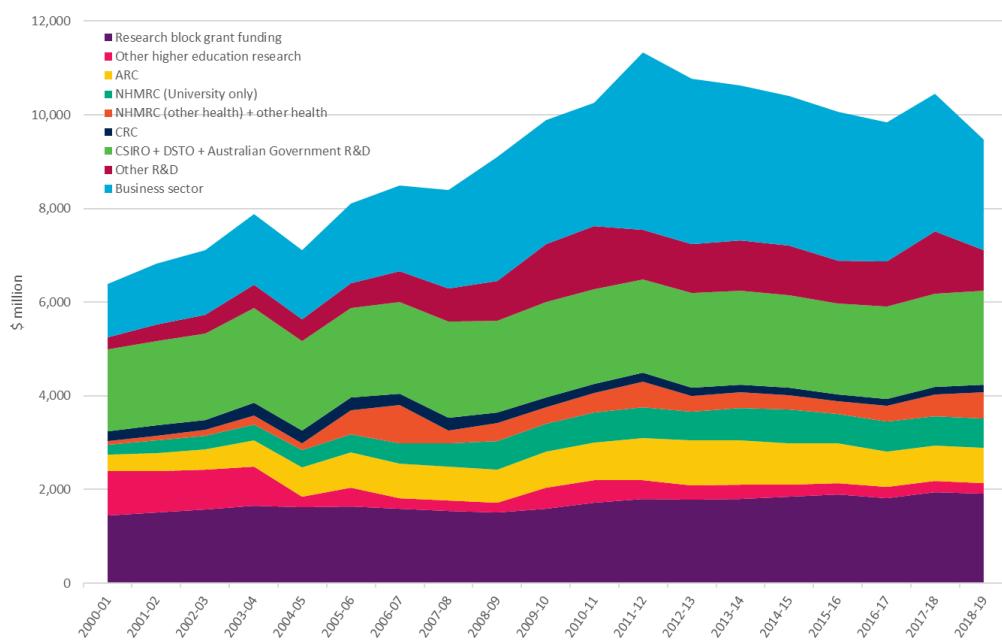
3 SCIENCE, RESEARCH AND INNOVATION

3.1 AUSTRALIAN GOVERNMENT SUPPORT FOR SCIENCE, RESEARCH AND INNOVATION

The total amount of Government spending on science, research and innovation (SRI) has increased—in real terms—from \$6.4 billion in 2000–01 to a peak of \$11.3 billion in 2011–12 before declining to an estimated \$10.4 billion in 2017–18 and \$9.5 billion in 2018–19, the lowest level since 2009–10 (Figure 62).

Total Government funding for university research—including research block grants and competitive grants (ARC and NHMRC)—increased by 19 per cent in real terms, from around \$3 billion in 2000–01 to an estimated \$3.5 billion in 2018–19. Over the same period, support to encourage innovation in business has more than doubled from around \$1.1 billion in 2000–01 to almost \$2.4 billion a year in 2018–19.

Figure 62: Australian Government support for science, research and innovation, in 2017 dollars



Source: Department of Industry, Innovation and Science 2018, *2018–19 SRI Budget Tables*.

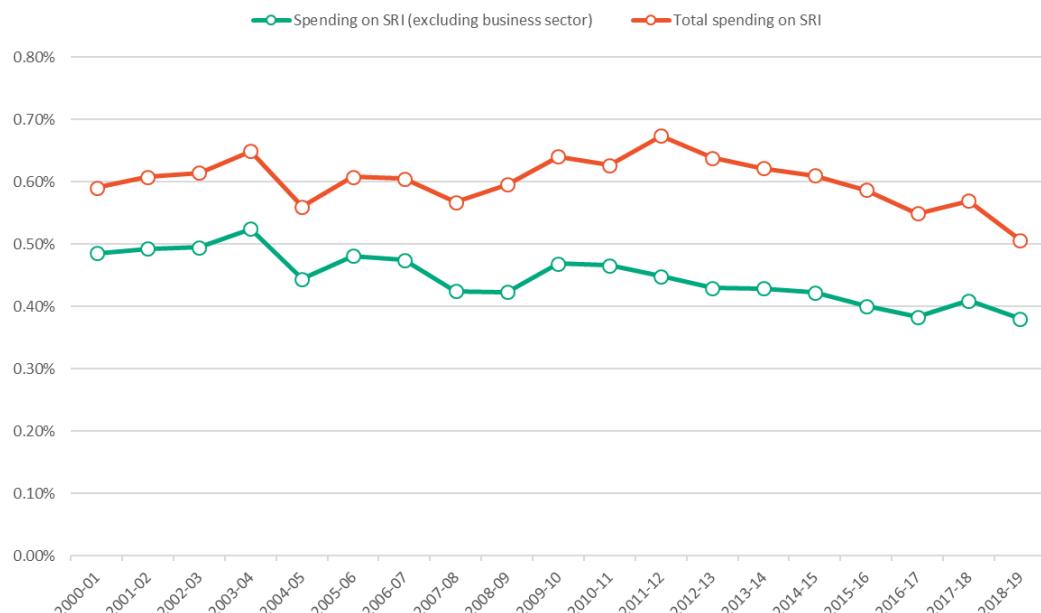
Note: The drop in 'Other higher education research funding' between 2003 and 2004 is due to a change in the methodology for estimating 'Other research and research training support sourced from the Australian Government' in the SRI Budget Tables. Funds estimated as being for research purposes prior to 2004 were also counted as being for teaching purposes and were required to fund the Commonwealth Grant Scheme which was introduced following the 2002 Review of Higher Education. From 2004, these funds were no longer provided for research purposes.

Despite the growth in investment, Figure 63 shows that total government investment in SRI 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 0.51 per cent of GDP in 2018–19.

A greater share of Government investment has been directed towards business in recent years, with around a quarter to a third of the investment focusing on business innovation. Around 97 per cent of this business innovation spending occurred through the Research and Development (R&D) Tax Incentive in 2018–19.

When spending on business innovation is excluded, the direct support for SRI has declined from around 0.5 to less than 0.4 per cent of GDP between 2000–01 and 2018–19.

Figure 63: Australian Government support for SRI, per cent of GDP



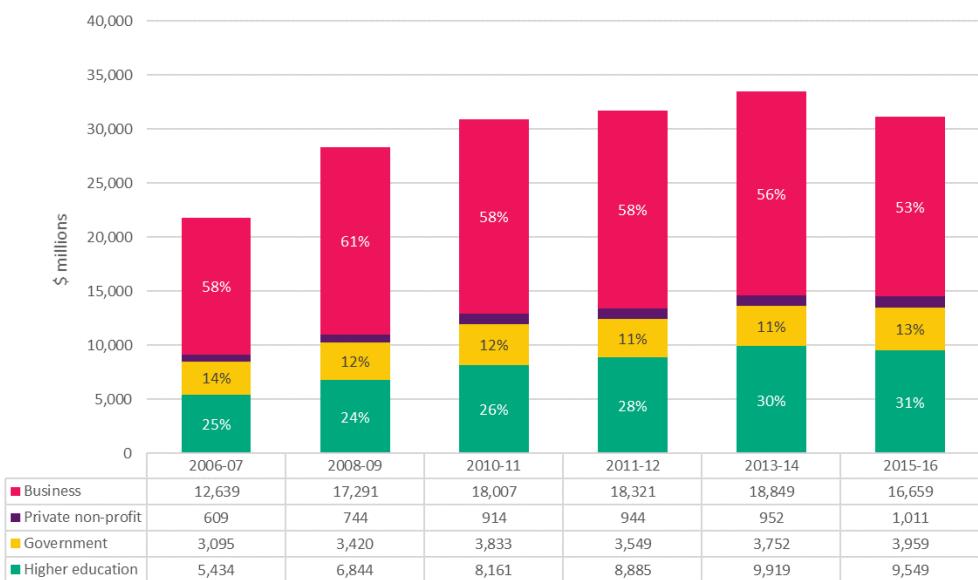
Source: Department of Industry, Innovation and Science 2018, *2018–19 SRI Budget Tables*.

3.2 BUSINESS AND HIGHER EDUCATION SECTOR EXPENDITURE ON R&D

Despite the significant growth in Government incentives to encourage business R&D, Australia's business expenditure on R&D (BERD) is going backwards. The latest ABS data shows that BERD declined by 12 per cent between 2013–14 and 2015–16, or \$2.2 billion (from \$18.8 billion to \$16.7 billion). This is the first time BERD has declined in almost two decades.

Figure 64 also shows that while 61 per cent of Australia's gross expenditure on R&D (GERD) was contributed by business sector in 2008–09, this proportion had declined to 53 per cent by 2015–16. On the contrary, the higher education sector has increased its contribution to the nation's research effort, from 24 per cent in 2008–09 to 31 per cent in 2015–16.

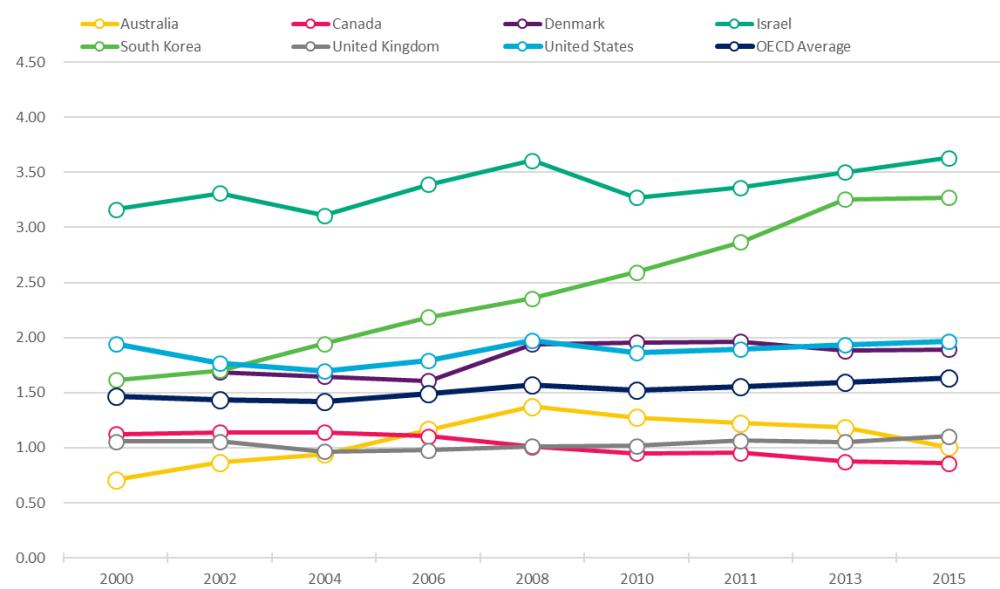
Figure 64: Composition of Australia's gross expenditure on R&D (GERD), in nominal dollars



Source: ABS 2017, *Research and Experimental Development, Businesses, Australia, 2015-16*, Cat. No. 8104.0.

Figure 65 shows that Australia's BERD as a percentage of GDP was one per cent in 2015, below OECD average of 1.6 per cent and significantly behind innovation leaders—Israel (3.6 per cent), South Korea (3.3 per cent), the US (2 per cent) and Denmark (1.9 per cent).

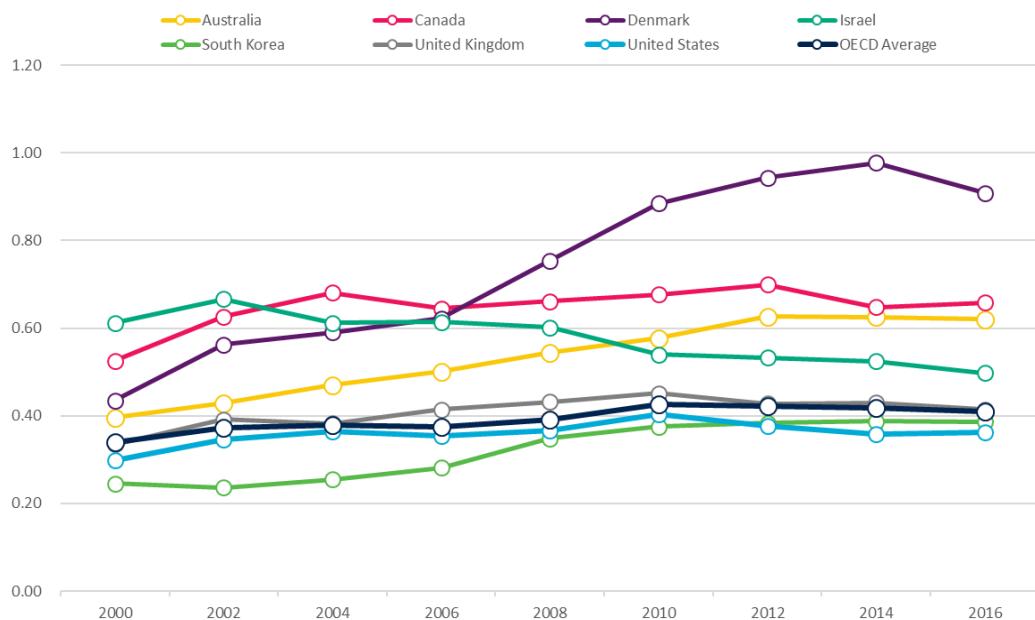
Figure 65: Business expenditure on R&D (BERD) as a percentage of GDP, by country



Source: OECD. Stat accessed on 22 November 2018.

Figure 66 shows that Australia's higher education sector expenditure on R&D (HERD) as a percentage of GDP was 0.6 per cent in 2016, increasing from 0.4 per cent in 2000. Australia's HERD was higher than the OECD average of 0.4 per cent but remains below Denmark (0.9 per cent) and Canada (0.7 per cent).

Figure 66: Higher education expenditure on R&D (HERD) as a percentage of GDP, by country



Source: OECD. Stat accessed on 22 November 2018.

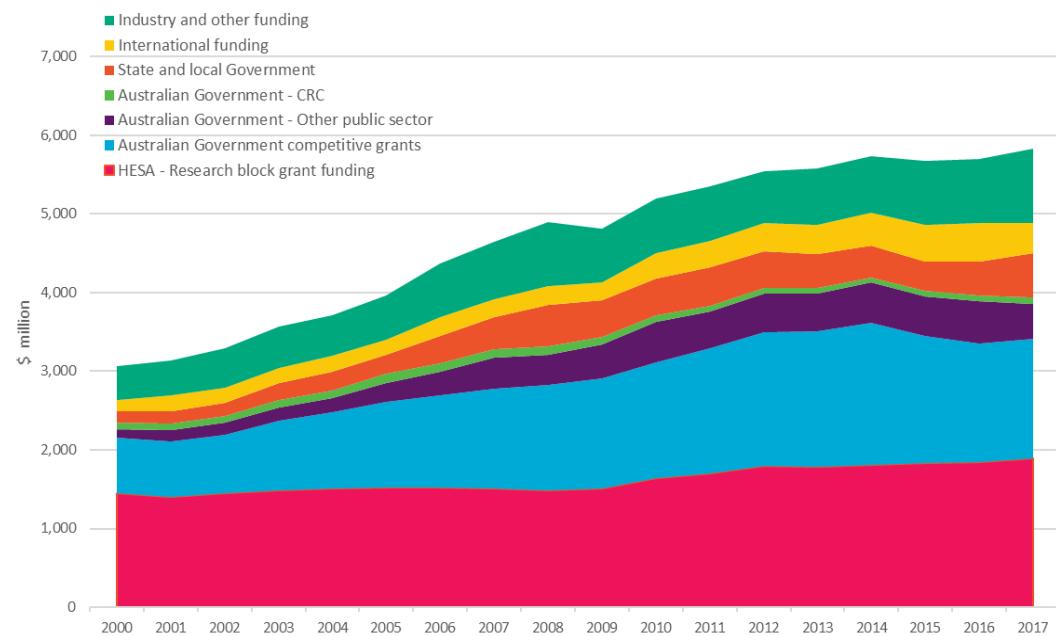
3.3 SOURCES OF UNIVERSITY RESEARCH INCOME

Since 2000, total research income received by universities has increased by 90 per cent—in real terms—to \$5.8 billion in 2017. There are large differences in how the various components of this income have grown.

While income from Australian Government competitive grants (for example from the ARC and NHMRC) has more than doubled from \$708 million in 2000 to \$1.5 billion in 2017, income from research block grants only increased by 31 per cent since 2000 to \$1.9 billion in 2017. Although 'Australian Government–Other public sector' income accounts for only \$433 million of total research income in 2017, it has nearly quadrupled since 2008.

Research income from non-Australian government sources has increased by 165 per cent—in real terms—from \$715 million in 2000 to \$1.9 billion in 2017.

Figure 67: Sources of university research income, in 2017 dollars



Source: DET 2018, *Higher Education Research Data Collection—Research Income Data, 2004–2017* and DET 2018, *Research Block Grants Allocations, 2001–2019*.

Notes:

- a. Research block grant funding is as defined under the *Higher Education Support Act (HESA) 2003*.

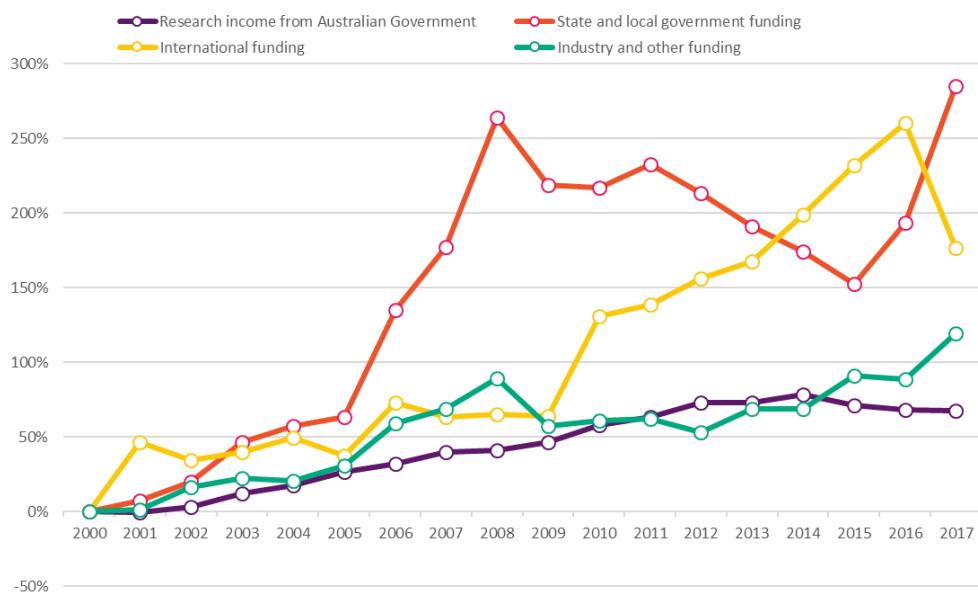
- b. All other categories of research income are defined using the HERDC specifications. There are minor clarifications of the definitions in some years but the concepts behind the classification remain largely unchanged.

- 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 68 shows total university research income sourced from the Australian Government increased by 68 per cent in real terms, from \$2.3 billion in 2000 to \$3.9 billion in 2017. It constituted 67.5 per cent of universities' total research income in 2017.

The next largest source of research income is 'Industry and other funding', representing 16.2 per cent of universities' total research funding in 2017 (\$943 million). It has more than doubled in real terms since 2000. Income sourced from state and local government and from overseas sources have almost quadrupled and tripled respectively over the same period (albeit from a low base).

Figure 68: Growth in sources of funding for university research since 2000, in 2017 dollars



Source: See Figure 67.

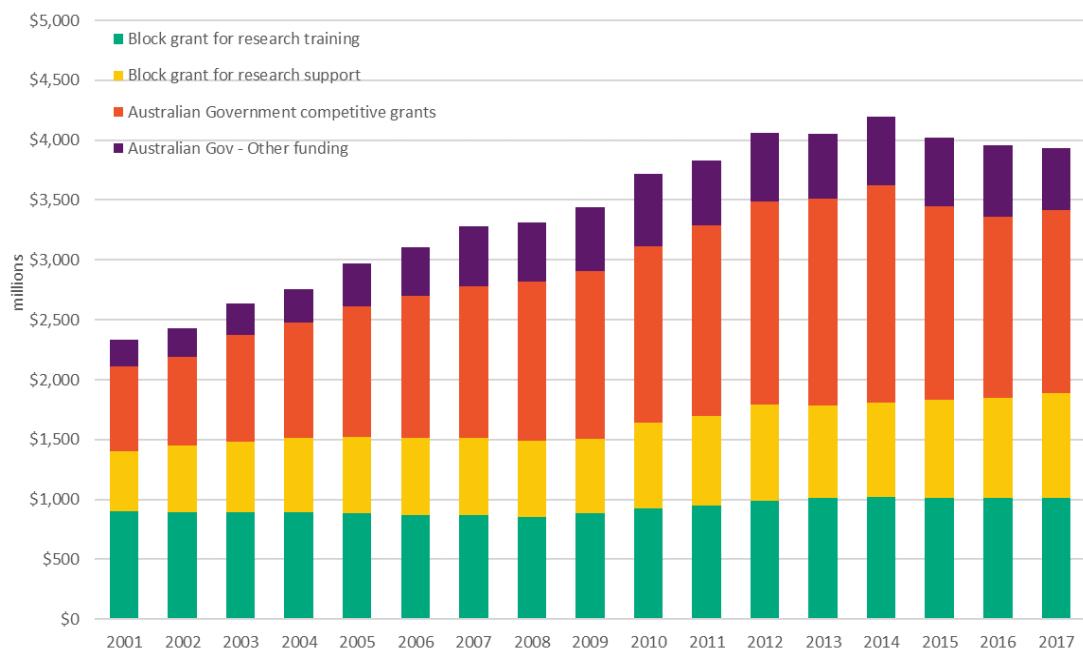
Note: Research income from Australian Government includes research block grant funding plus all HERDC income sourced from the Australian Government.

3.4 CHANGING COMPOSITION OF AUSTRALIAN GOVERNMENT FUNDING FOR UNIVERSITY RESEARCH

While the real value of total research income sourced from Australian Government increased by 68 per cent between 2001 and 2017, most of the growth has occurred in Australian Government competitive grants from \$708 million in 2001 to around \$1.5 billion in 2017—an increase of 116 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 \$504 million in 2001 to \$878 million in 2017. However, block grant funding for research training only increased by 12 per cent over the same period, from \$900 million in 2001 to just over \$1 billion in 2017.

In 2017, 39 per cent of total university research income from the Australian Government was competitive grants, 48 per cent was research block grant funding—research support and research training—and the remaining 13 per cent was made up of other government funding, including Cooperative Research Centres (CRC).

Figure 69: Composition of research income sourced from Australian Government, in 2017 dollars



Source: DET 2018, *Higher Education Research Data Collection–Research Income Data, 2004–2017* and DET 2018, *Research Block Grants Allocations, 2001–2019*.

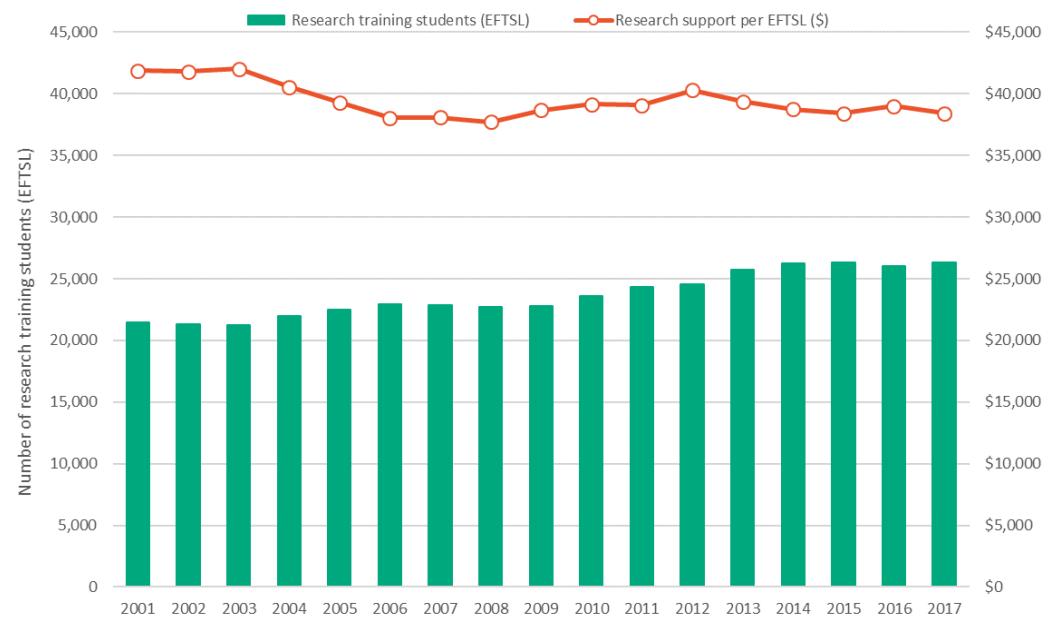
Note: Block grant for research training includes the former Research Training Scheme, the Australian Postgraduate Awards and International Postgraduate Research Scholarships. Block grant for research support includes the former Research Infrastructure Block Grant, Joint Research Engagement Scheme and 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.

3.5 GOVERNMENT FUNDING TO SUPPORT RESEARCH TRAINING

Figure 70 shows the number of research training students increased by 23 per cent, from around 21,450 in 2001 to 26,320 students in 2017. However, government funding to support the training of Australia's future researchers only increased 12 per cent in real terms over the same period. As such research training funding per student has declined by 8 per cent, from \$41,890 in 2001 to \$38,410 in 2017.

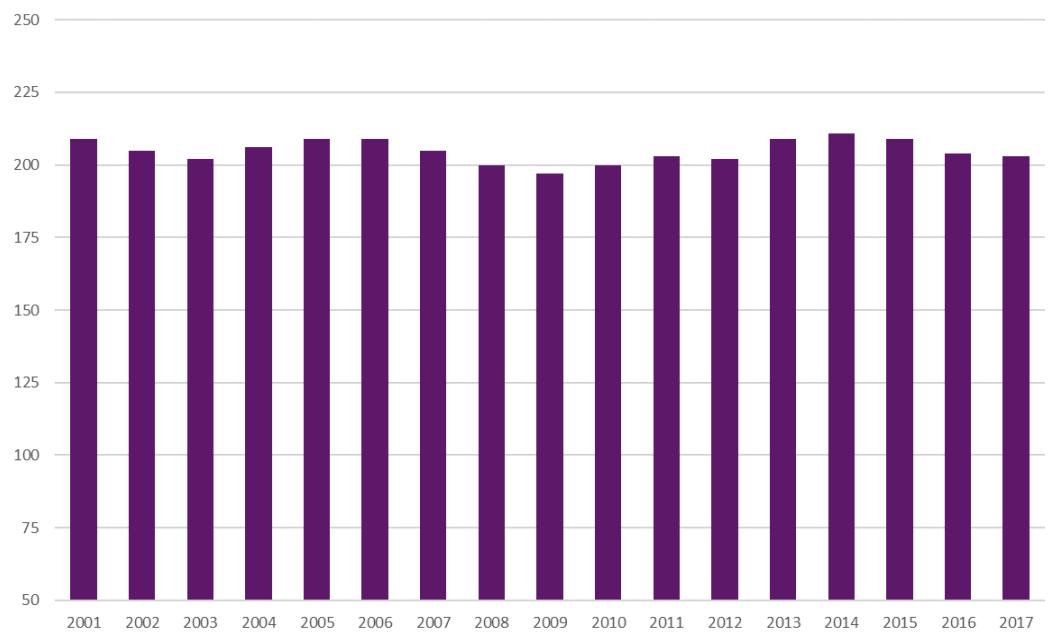
Despite the growth in the number of research training students, the share of research training students as a share of working age population has remained relatively unchanged—at just over 200 per 100,000 population aged 25–64 years old (Figure 71).

Figure 70: Research training funding per student, in 2017 dollars



Source: DET 2018, *Research Block Grants Allocations, 2001–2019* and *uCube*.

Figure 71: Number of research training students per 100,000 population aged 25–64 years



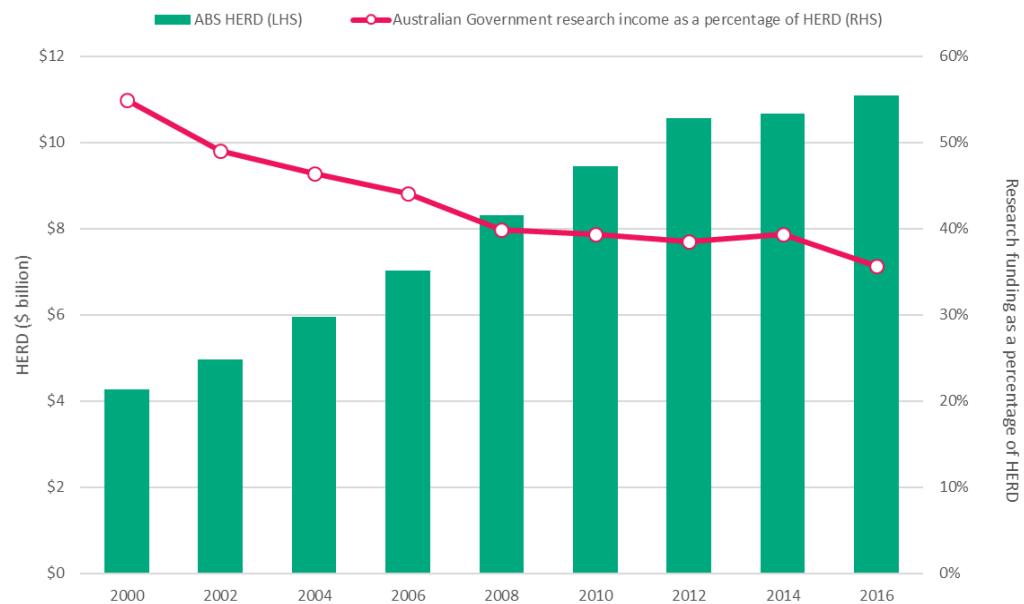
Source: DET, *uCube*; ABS 2015, *Australian Historical Population Statistics, 2014*, Cat. No. 3105.0.65.001 and ABS, *Australian Demographic Statistics*, June (various years).

3.6 UNIVERSITY SPENDING ON RESEARCH AND DEVELOPMENT

According to the ABS, university expenditure on research and development (HERD) has increased by 159 per cent in real terms, from around \$4.3 billion in 2000 to almost \$11.1 billion in 2016.

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 35.7 per cent in 2016.

Figure 72: HERD compared to research income sourced from Australian Government, in 2017 dollars



Source: ABS 2018, *Research and Experimental Development, Higher Education Organisations, Australia, 2016*, Cat. No. 8111.0; DET 2018, *Higher Education Research Data Collection—Research Income Data, 2004–2017* and DET 2018, *Research Block Grants Allocations, 2001–2019*.

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

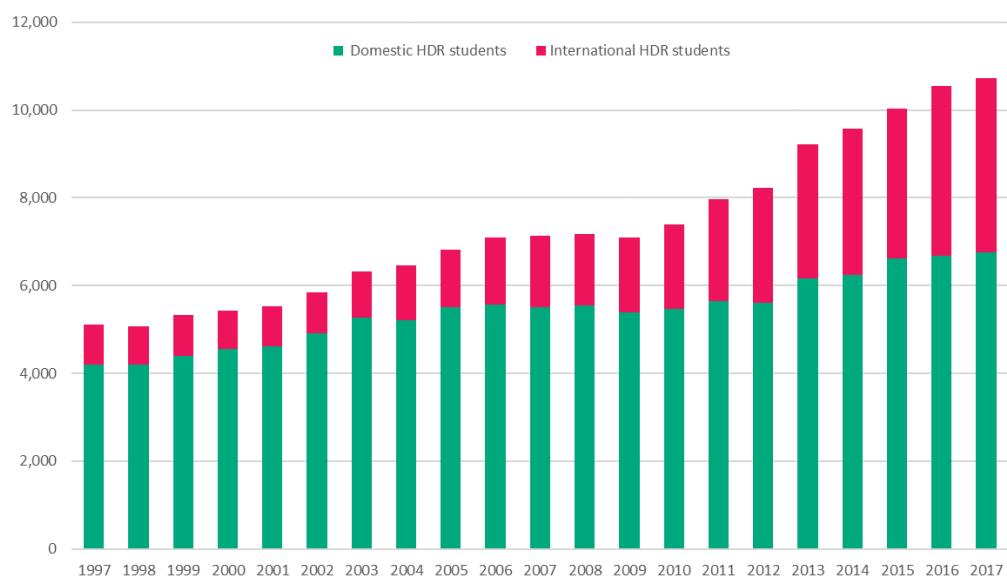
3.7 RESEARCH OUTCOMES

3.7.1 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 a HDR qualification has increased by around 61 per cent, from 4,200 completions in 1997 to 6,770 in 2017. Over the same period, the number of international HDR completions has more than quadrupled, from 930 to 3,950 completions.

Figure 73: Higher degree by research completions

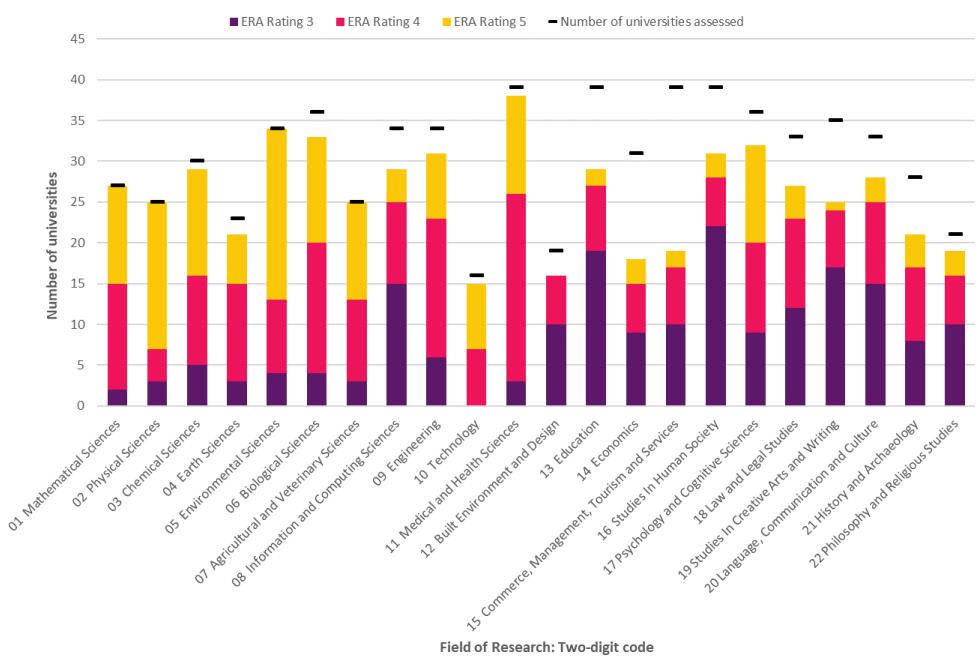


Source: DET, Selected Higher Education Statistics—Student Data: Award Course Completions, various years.

3.7.2 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 were performing at, or above, world standard in 2018.

Figure 74: Universities at or above world standard by ERA rating—two-digit field of research code—2018

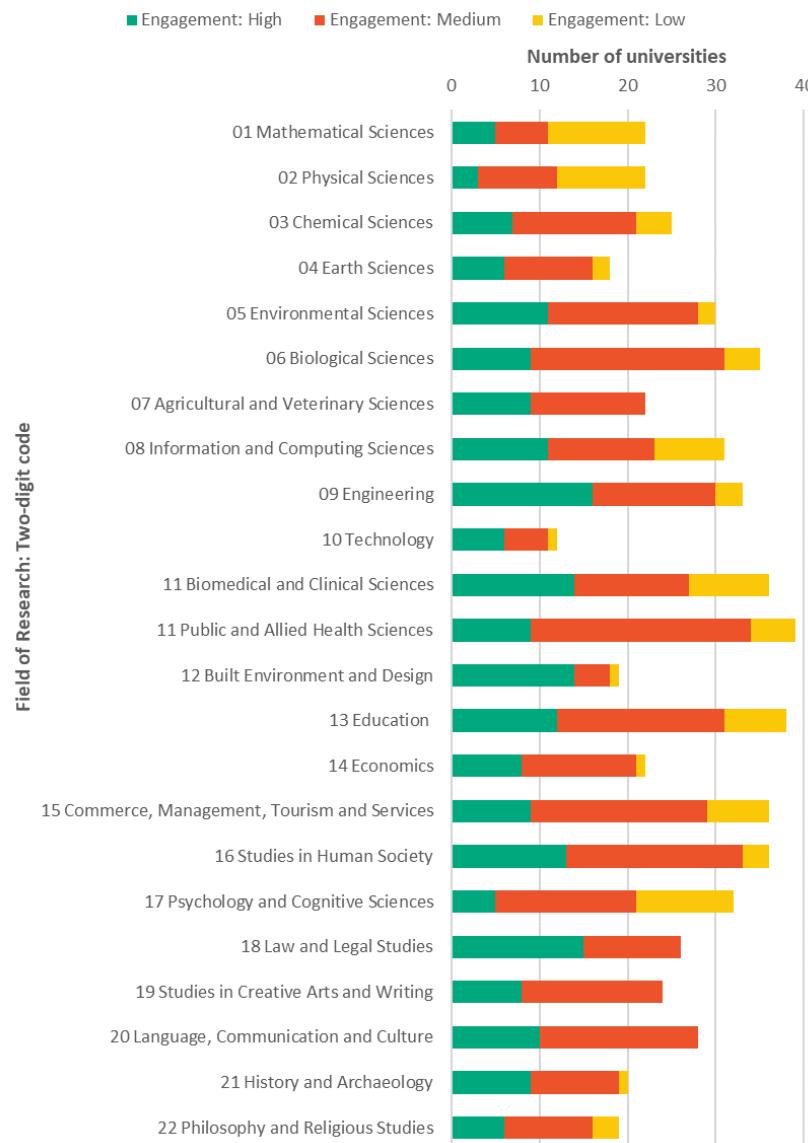


Source: ARC 2019, State of Australian University Research 2018–19: ERA National Report.

The inaugural ARC 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 2018.⁹

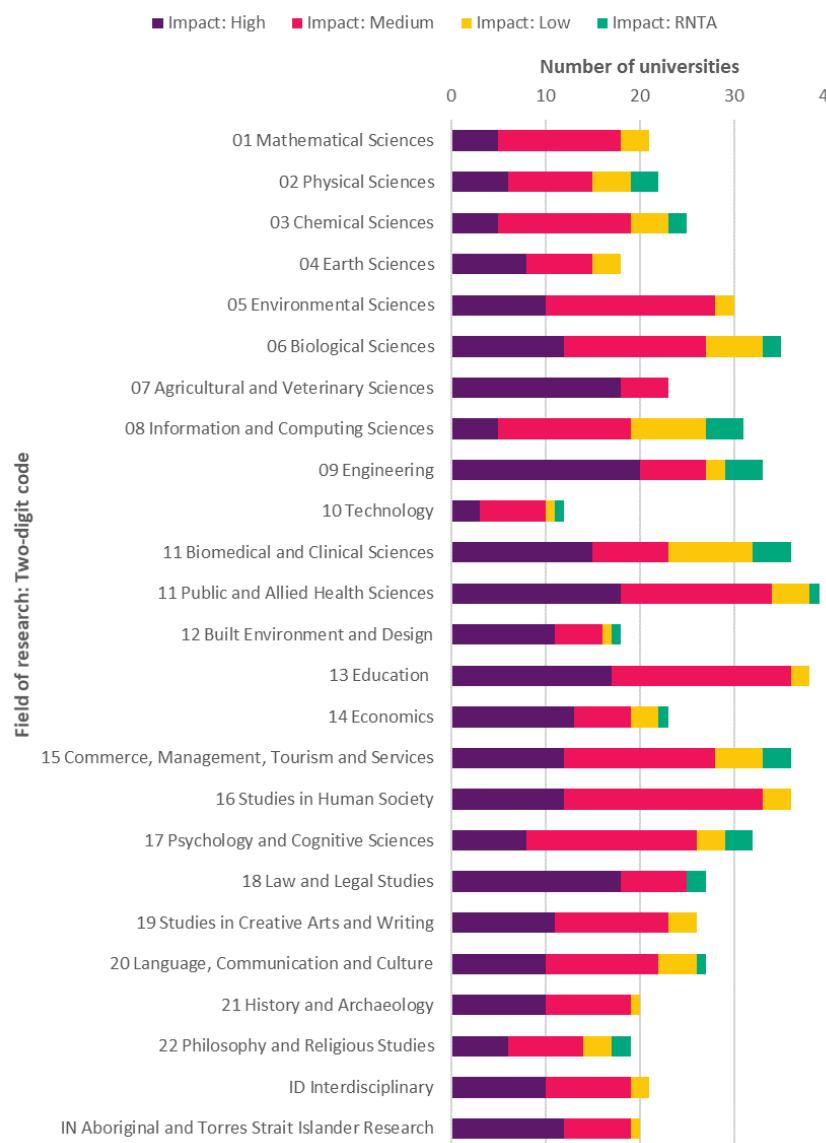
Figure 75: Ratings for research engagement by two-digit FOR, interdisciplinary and Aboriginal and Torres Strait Islander research, 2018



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

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

Figure 76: Ratings for research impact by two-digit FOR, interdisciplinary and Aboriginal and Torres Strait Islander research, 2018



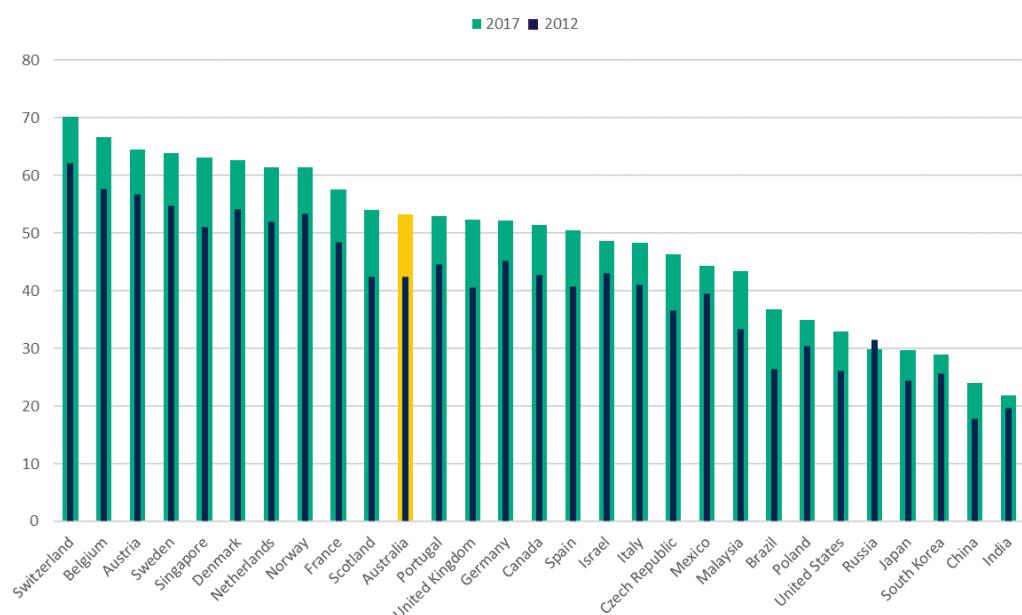
Source: ARC 2019, *Engagement and Impact Assessment 2018–19: National Report*.

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.

3.7.3 INTERNATIONAL RESEARCH COLLABORATION

The level of research collaboration with other countries is recognised as an important contributor to a nation's research performance. Figure 77 shows most countries have increased their international collaborations over the past five years. While Australia is geographically isolated, our rate of international collaboration is above that of the UK, Canada and the US. In 2017, 53 per cent Australia's Web of Science documents are co-authored with international researchers, compared to 42 per cent in 2012.

Figure 77: Percentage of Web of Science documents with international collaborators, 2012 and 2017



Source: Thomson Reuters, *Incites™ Database*, extracted on 26 November 2018.

3.7.4 UNIVERSITY-INDUSTRY COLLABORATION

The OECD indicators reported in Table 6 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.¹⁰ 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*'.¹¹

Table 6: Selected OECD metrics for engagement between business and higher education institutions

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

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

¹⁰ 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

¹¹ Ibid, p.7

4 INTERNATIONAL RANKING

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 8th in 2019, the first time Australia ranked above the 10th position since 2015.

In 2019, Australia ranked 4th 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 12th based on the resources available to its universities. Australia’s ranking for resources is dragged down by Australia’s low (37 out of 50 countries) government expenditure on tertiary education institutions as a percentage of GDP.

Table 7: Top 10 university systems and their measures for resources and output, 2019

	Overall ranking		Resource measure		Output measure	
	Rank	Score	Rank	Score	Rank	Score
United States	1	100.0	8	91.5	1	100.0
Switzerland	1	88.6	1	100.0	3	66.0
United Kingdom	3	84.5	13	73.0	2	72.1
Sweden	4	82.9	2	96.7	7	63.2
Denmark	5	82.5	4	93.7	5	64.9
Canada	6	81.9	5	93.5	6	63.5
Singapore	7	81.3	3	94.4	12	56.7
Australia	8	80.9	12	78.3	4	65.7
Finland	9	80.4	10	86.9	10	58.8
Netherlands	10	80.2	11	82.3	8	60.6

Source: Universitas21 2019, *Ranking of National Higher Education Systems 2019*.

- Notes:
- a. The 2019 report presents the results for the eighth 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.
 - b. 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.
 - c. 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 nine Australian universities are ranked in the Top 200 universities and over half of Australia's 39 universities are in the Top 500.

Table 8: Australian universities performance in different university ranking systems

	Times Higher Education World University Rankings		Academic Ranking of World Universities (SHJT)		QS World University Rankings	
	2018	2019	2017	2018	2018	2019
Top 100	6	6	6	6	7	7
Top 200	8	9	10	9	9	9
Top 400	24	24	21	21	20	22
Top 500	n.a.	n.a.	23	23	22	25

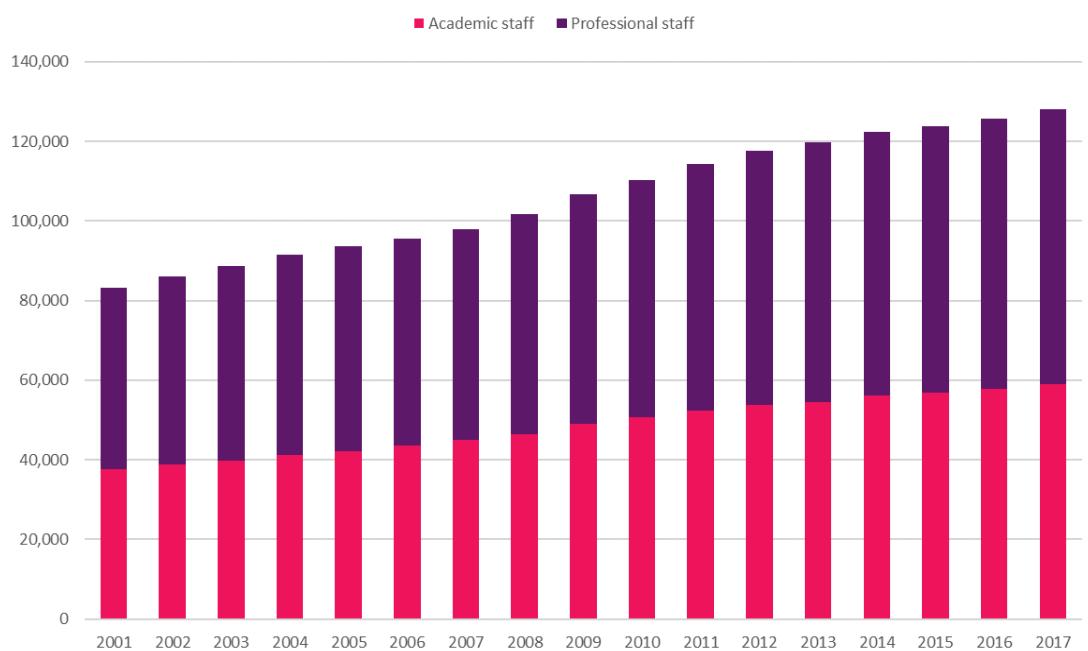
Source: The Times Higher Education *World University Rankings* (various years); Shanghai Jiao Tong University *Academic Ranking of Work Universities* (various years); QS *World University Rankings* (various years).

5 UNIVERSITY WORKFORCE

In 2017, Australia's 39 comprehensive universities employed 128,188 full-time equivalent (FTE) staff. Total FTE staff count has grown by 26 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 26 per cent.

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

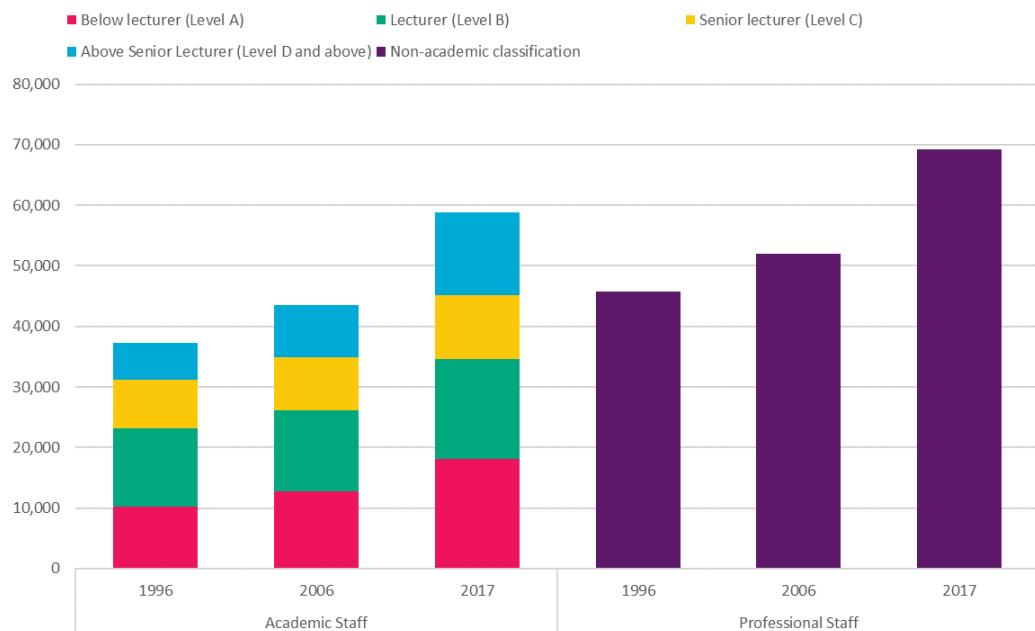
Figure 78: Full-time equivalence (FTE) staff count, academic and professional, including casual staff



Source: DET, *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 59 per cent—from 8,630 to 13,690 in 2017—and academic staff at Level A grew by 43 per cent—from 12,690 to 18,130 in 2017. Over the same period, academic staff at Level B and Level C increased by around 20 per cent respectively (Figure 79).

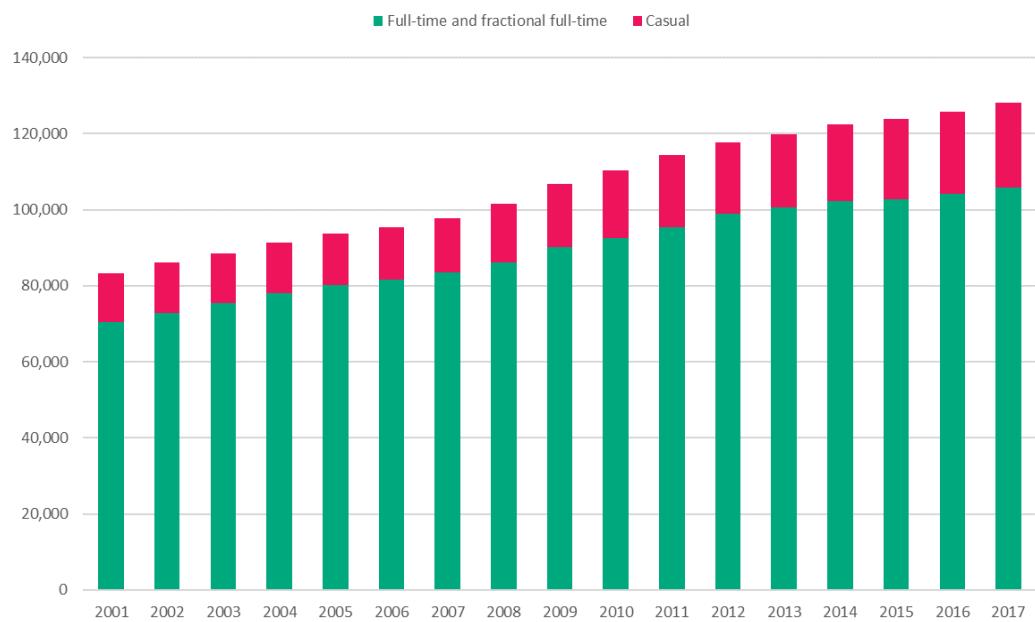
Figure 79: FTE staff count, by duties classification, including casual staff



Source: DET, *uCube*.

Casual staff FTE has increased from 13,910 in 2006 to 22,370 in 2017; while full-time and fractional full-time staff FTE rose by 30 per cent, from 81,580 to 105,820. Over the same period, the proportion of casual staff has increased from 15 per cent in 2006 to 21 per cent in 2017.

Figure 80: FTE staff count, by work contract

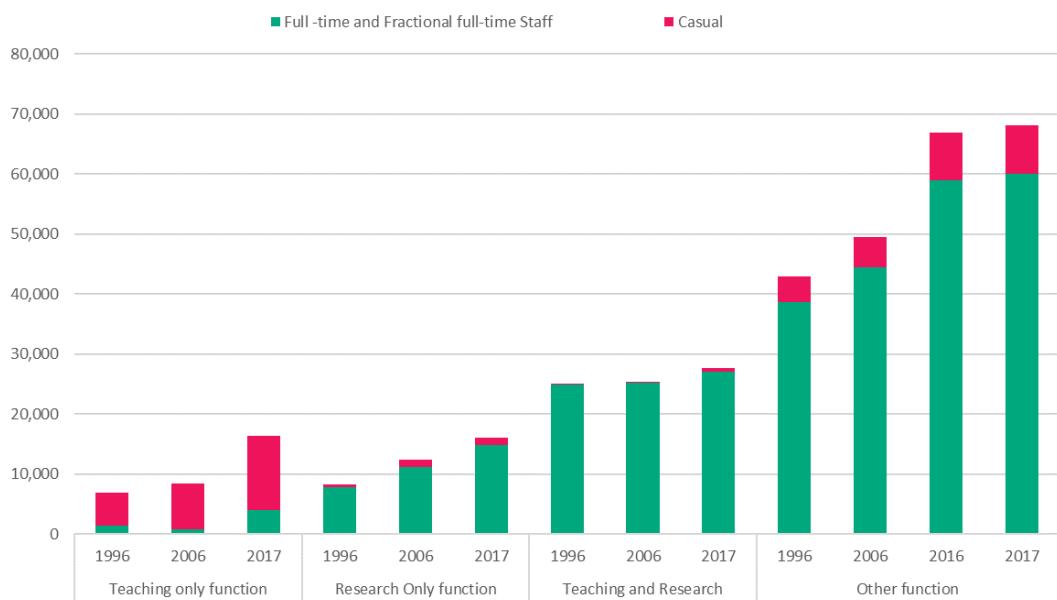


Source: DET, *uCube*.

Figure 81 shows that casual staff are employed primarily to support teaching.

In 2017, 76 per cent of staff with a teaching-only function are casual staff. This proportion has declined from 90 per cent in 2006, indicating that increasingly more full-time and fractional full-time staff were employed in a teaching-only function. The number of full-time and fractional full-time staff in teaching-only function has increased by almost 400 per cent, from 830 in 2006 to 3,970 in 2017.

Figure 81: FTE staff count, by function and work contract



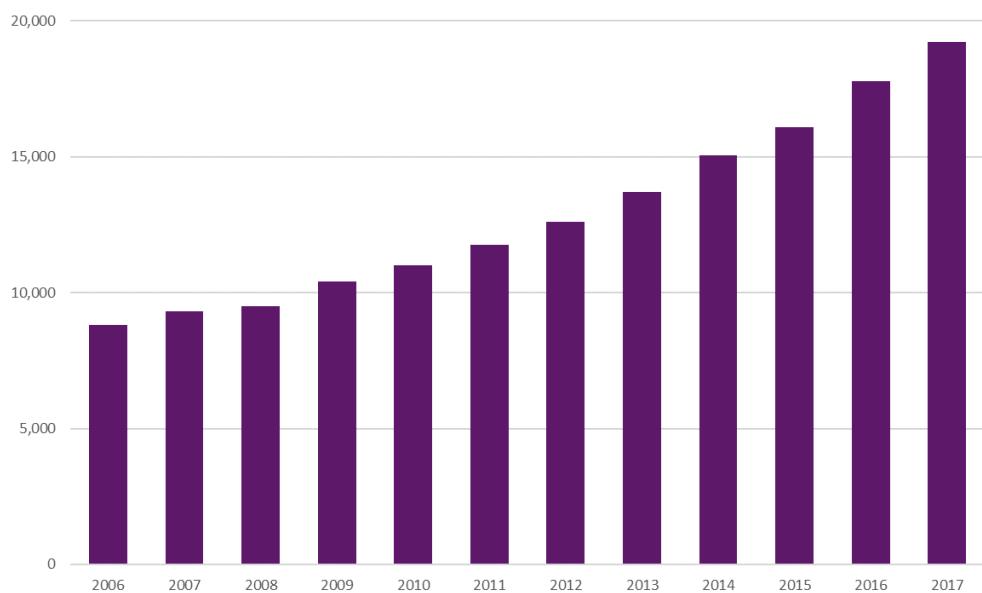
Source: DET, *uCube*.

6 SPECIAL FEATURE: INDIGENOUS STUDENTS AND STAFF

6.1 INDIGENOUS STUDENT ENROLMENTS

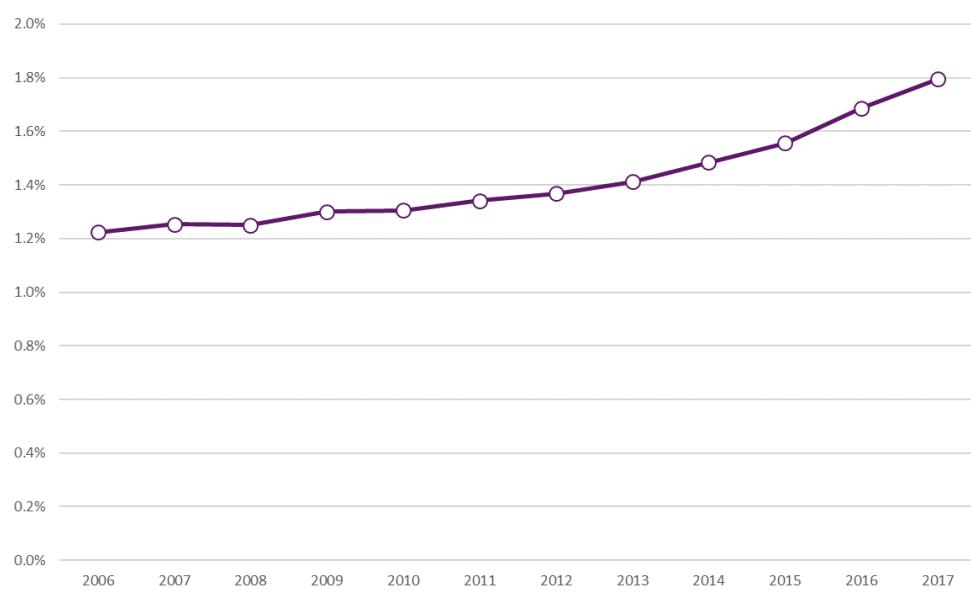
Figure 82 shows that Indigenous student enrolments have more than doubled since 2008—increasing by 102.7 per cent—from 9,490 students to 19,240 students in 2017. Despite this significant growth, Indigenous student enrolments remain well below population parity (3.1 per cent). As a proportion of all domestic enrolments, Indigenous students increased from 1.3 per cent in 2008 to 1.8 per cent in 2017 (Figure 83).

Figure 82: Indigenous student enrolments, 2006 to 2017



Source: DET 2018, *Selected Higher Education Statistics – 2017 Student Data*.

Figure 83: Share of Indigenous student enrolments, 2006 to 2017



Source: DET 2018, *Selected Higher Education Statistics – 2017 Student Data*.

Figure 84 shows annual growth in Indigenous student enrolments has more than tripled the rate of growth in non Indigenous student enrolments in recent years.

Figure 84: Annual growth in Indigenous student enrolments, 2007 to 2017

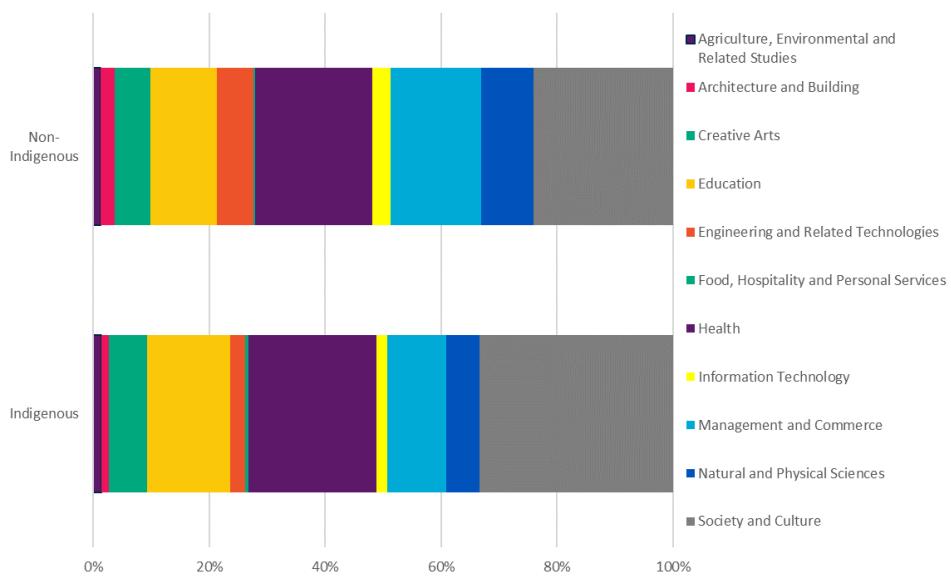


Source: DET 2018, *Selected Higher Education Statistics – 2017 Student Data*, Section 11: Equity Group.

6.1.1 FIELD OF EDUCATION

Figure 85 shows Indigenous students are more likely than non-Indigenous students to enrol in courses related to society and culture (33 per cent), health (22 per cent) and education (14 per cent) and less likely to enrol in management and commerce (10 per cent), natural and physical sciences (6 per cent) and engineering (3 per cent).

Figure 85: Enrolments by broad disciplines, 2017



Source: DET 2018, *Unpublished HEIMS data*

6.1.2 COURSE LEVEL

Indigenous enrolments in Bachelor degree courses increased by 113 per cent, from 6,352 in 2008 to 13,528 in 2017. Indigenous enrolments in enabling courses have doubled, from 871 in 2008 to 1,749 in 2017. While Indigenous student postgraduate research enrolments grew by a much more modest 50 per cent over the period—from 393 to 590—enrolment in postgraduate coursework degree have more than doubled, from 1,138 to 2,372.

Table 9: Indigenous enrolments, by course level, 2008 and 2017

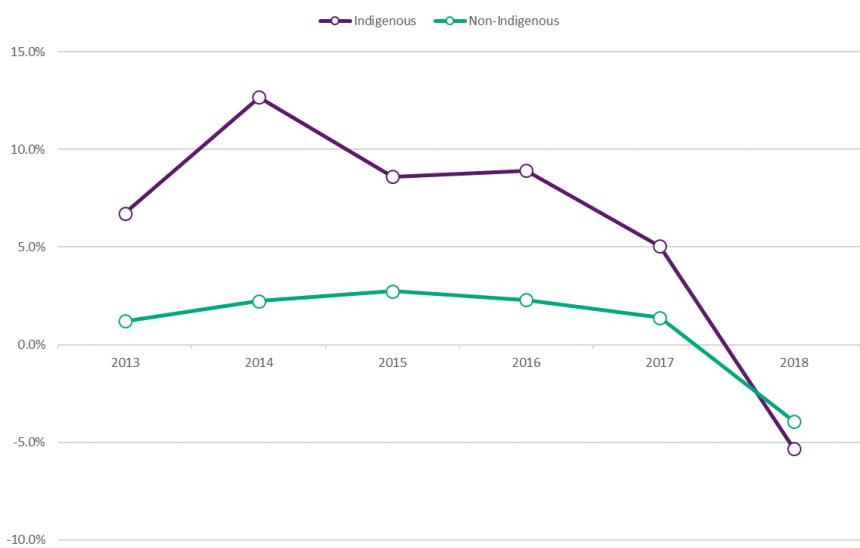
Course level	2008	2017	Growth
Postgraduate research	393	590	50%
Postgraduate coursework	1,138	2,372	108%
Bachelor	6,352	13,528	113%
Sub-bachelor	686	901	31%
Enabling	871	1,749	101%
Non-award	50	97	94%
All courses	9,490	19,237	103%

Source: DET 2018, *Visual analytics – Enrolment time-series*

6.1.3 UNDERGRADUATE APPLICATIONS

Figure 86 shows Indigenous undergraduate applications declined 5.3 per cent in 2018—from 7,252 applications in 2017 to 6,867 applications in 2018—the first drop in demand since the data series begin in 2009. The decline in Indigenous applications is also greater than the fall in demand from non-Indigenous students (-5.3 per cent compared to -3.9 per cent).

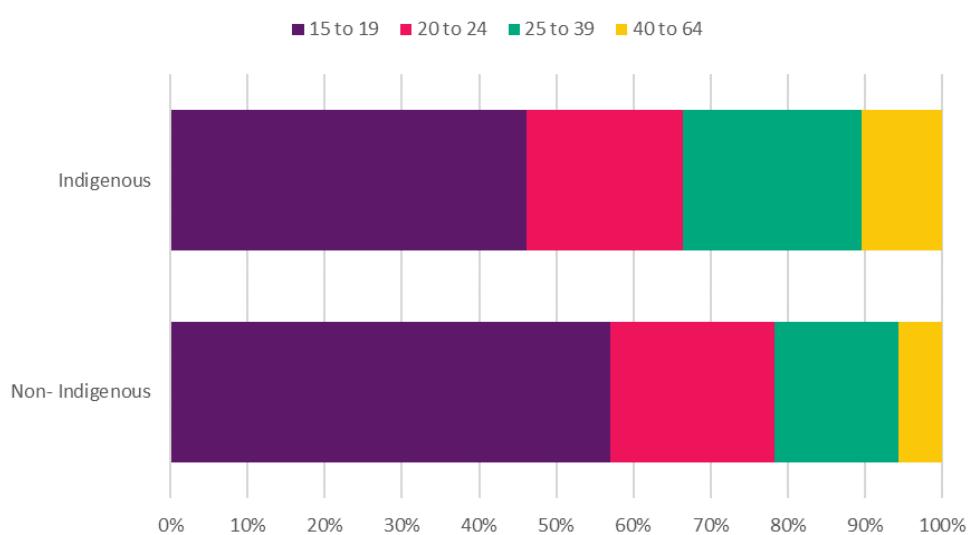
Figure 86: Annual growth in undergraduate applications, 2013 to 2018



Source: DET 2018, *Undergraduate Applications Offers and Acceptances*, unpublished data

Figure 87 shows Indigenous applicants for undergraduate courses are more likely to be older than non-Indigenous applicants. In 2018, one-third of Indigenous applicants are aged 25 or older, compared to 22 per cent for non-Indigenous applicants.

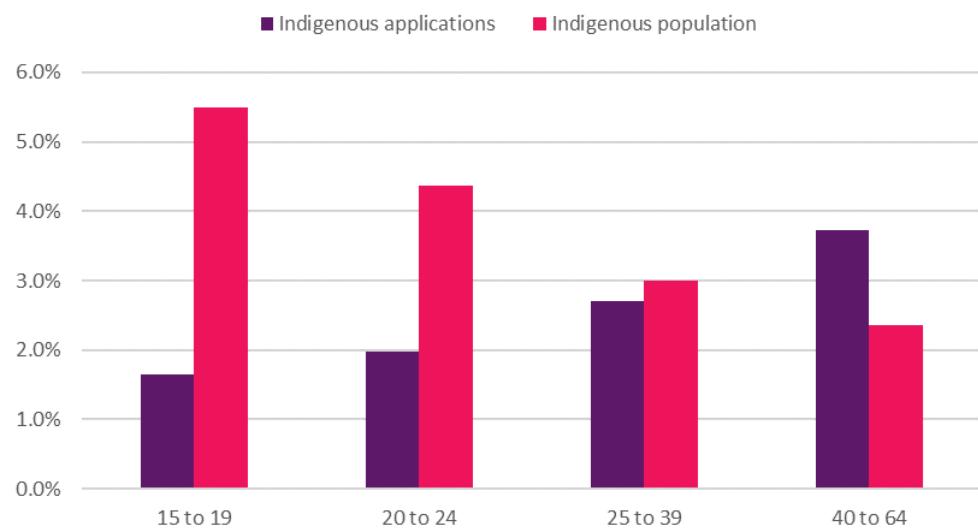
Figure 87: Share of undergraduate applications, by age, 2018



Source: DET 2018, *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 1.6 per cent of applicants aged 15–19 are Indigenous, compared with a population share of 5.5 per cent. For the 20–24 year old age group, Indigenous people are 2 per cent of applicants but 4.4 per cent of the population as a whole.

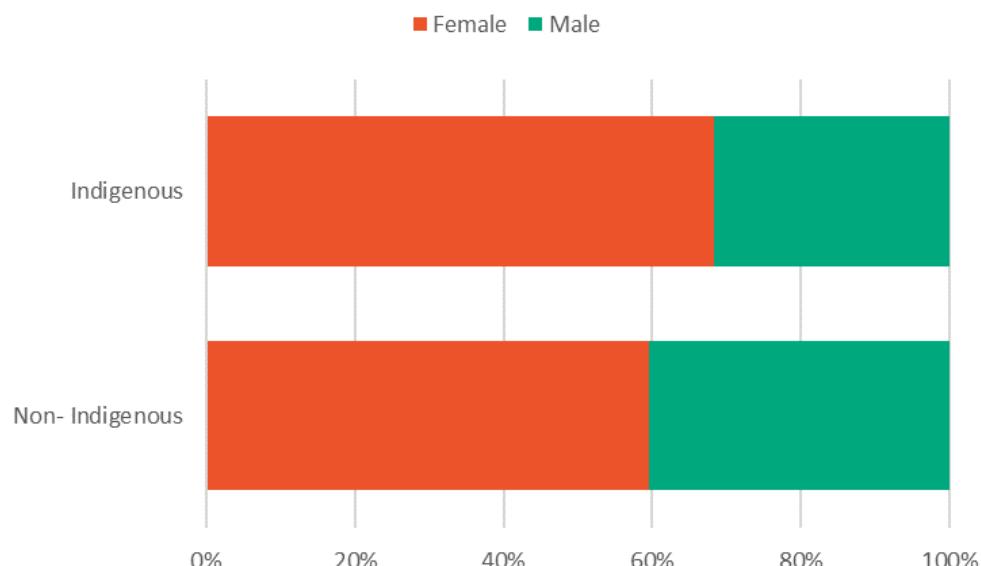
Figure 88: Share of Indigenous applications compared to share of Indigenous population, by age, 2016



Source: DET 2018, *Undergraduate Applications Offers and Acceptances*, unpublished data and ABS 2018, *Estimates of Aboriginal and Torres Strait Islander Australians*, June 2016, Cat. No. 3238.0.55.001

Indigenous undergraduate applicants are also more likely to be female compared to non-Indigenous applicants. In 2018, 68 per cent of Indigenous undergraduate applicants were female compared to 59 per cent for non-Indigenous applicants.

Figure 89: Share of undergraduate applications, by gender, 2018



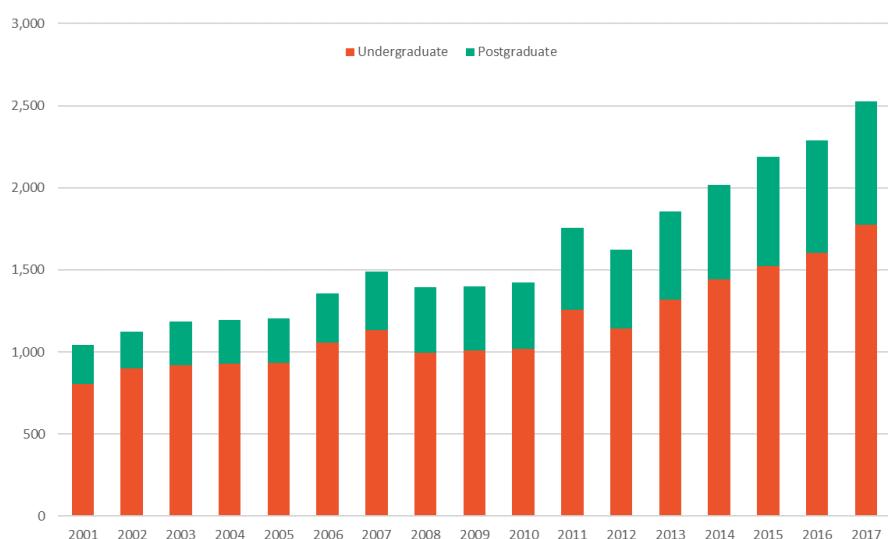
Source: DET 2018, *Undergraduate Applications Offers and Acceptances*, unpublished data

6.2 INDIGENOUS STUDENT OUTCOMES

6.2.1 AWARD COURSE COMPLETIONS

Since 2008, Indigenous award course completions have continued to increase year-on-year, consistent with the growth in Indigenous enrolments. Indigenous undergraduate completions increased by 78 per cent, from 996 in 2008 to 1,774 in 2017; while postgraduate award course completions rose 89 per cent, from 399 in 2008 to 753 in 2017.

Figure 90: Number of Indigenous award course completions, by course level

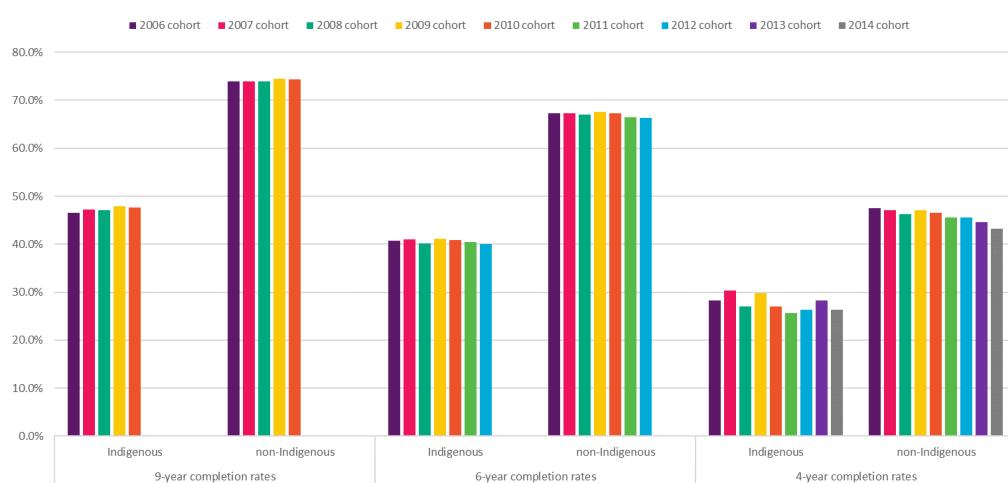


Source: DET 2018, *Selected Higher Education Statistics – 2017 Student Data*.

6.2.2 COMPLETION RATES

Bachelor degree completion rates for Indigenous students remained low compared to non-Indigenous students. Nine-year completion rates for Indigenous students remains at around 47 per cent, significantly below 74 per cent for non-Indigenous students.

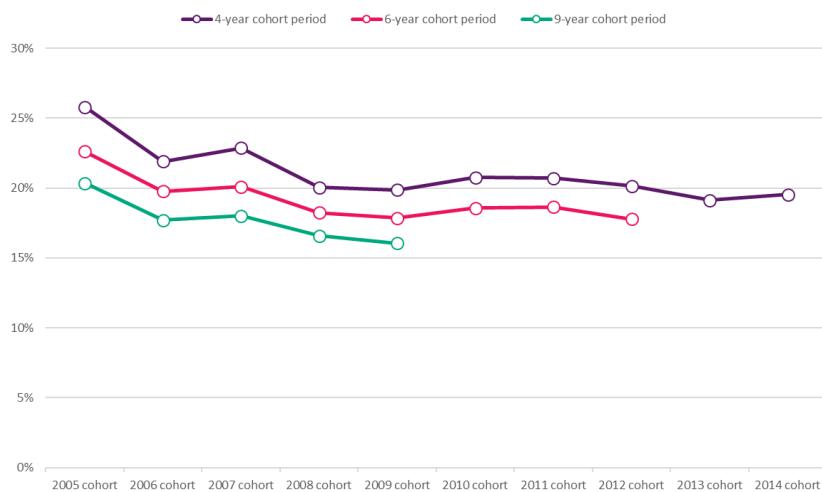
Figure 91: Completion rates—9, 6 and 4 years—of commencing Indigenous and non Indigenous Bachelor degree students



Source: DET 2018, *Completion Rates of Higher Education Students—Cohort Analysis, 2005–2017*.

On a more positive note, the proportion of commencing Indigenous Bachelor degree students that did not return after the first year of study has declined since 2005. Figure 92 shows—after 9 years—20 per cent of Indigenous students for the 2005 cohort never return, declining to 16 per cent for the Indigenous student cohort started in 2009.

Figure 92: Share of Indigenous commencing Bachelor degree students that never return—after 9, 6 and 4 years

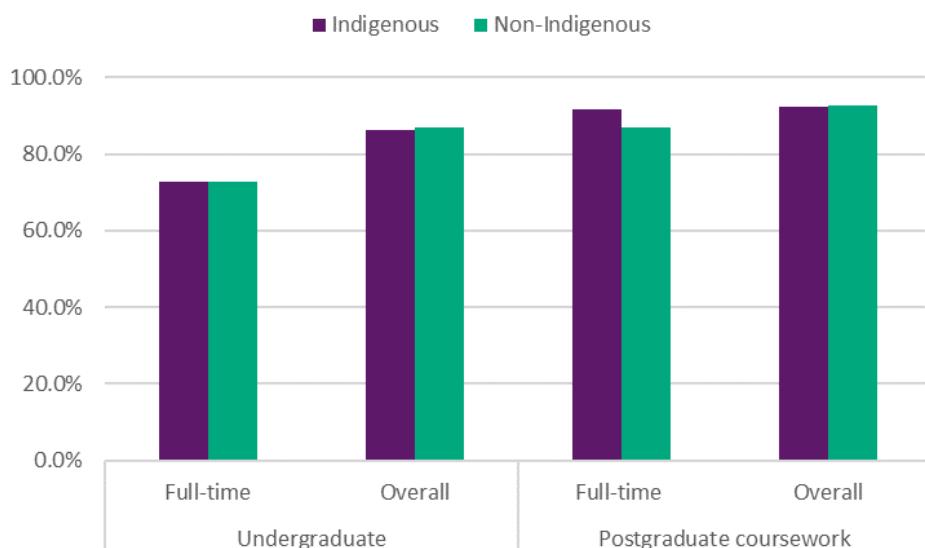


Source: DET 2018, *Completion Rates of Higher Education Students – Cohort Analysis, 2005–2017*.

6.2.3 LABOUR MARKET OUTCOMES

Indigenous graduates generally experience strong employment outcomes, comparable to non-Indigenous graduates. Figure 93 shows short-term employment outcomes—four months after completion—for Indigenous and non-Indigenous graduates in 2018. In 2018, 73 per cent of Indigenous undergraduates were in full-time employment four months after completion, similar to non-Indigenous undergraduates. For graduates with postgraduate degree, 92 per cent of Indigenous graduates were in full-time employment four months after completion, outperforming non-Indigenous graduates (87 per cent).

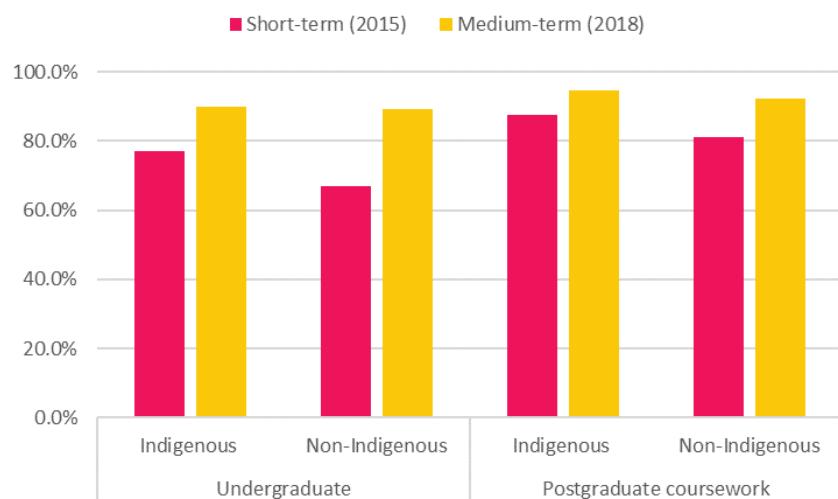
Figure 93: Short-term graduate employment outcomes, 2018



Source: SRC 2019, *2018 Graduate Outcomes Survey*.

Figure 94 shows that over the medium-term—3 years after finishing their degrees—employment outcomes for Indigenous graduates are similar to non-Indigenous graduates. While Indigenous graduates with a undergraduate degree have higher full-time employment outcomes (77 per cent) than non-Indigenous graduates (67 per cent) in the short-term, non-Indigenous graduates close this gap in full-time employment in the medium-term to trail Indigenous graduates by around one percentage point.

Figure 94: Short and medium-term full-time employment outcomes, for 2015 graduates



Source: SRC 2018, *2018 Graduate Outcomes Survey—Longitudinal*.

In 2018, Indigenous undergraduates continued to earn more than non-Indigenous undergraduates immediately upon graduation, with median full-time salaries of \$65,000 compared to \$61,000 for non-Indigenous graduates. However, non-Indigenous postgraduate coursework graduates are more likely to earn more than Indigenous graduates, with a median full-time salary difference of \$5,700 in 2017 and \$300 in 2018.

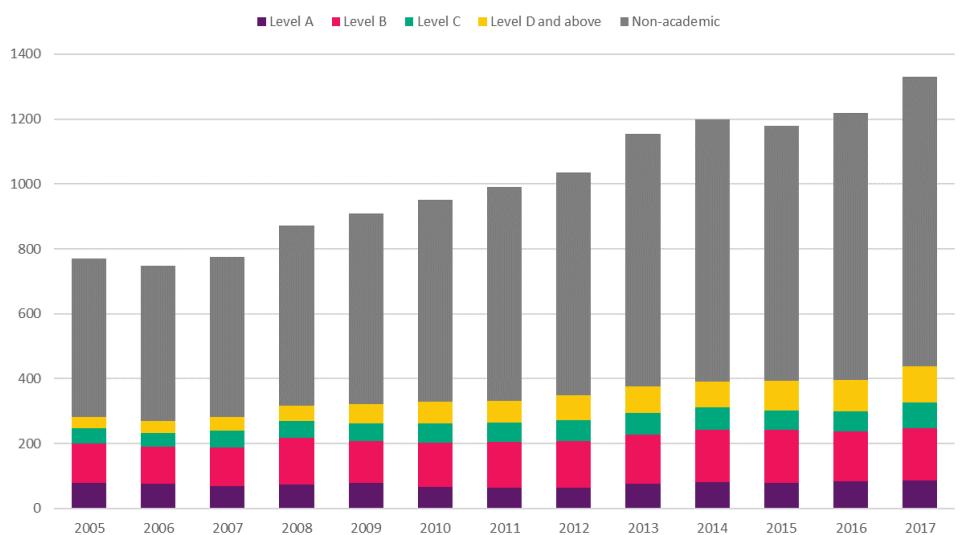
6.3 INDIGENOUS WORKFORCE¹²

6.3.1 ACADEMIC VS NON-ACADEMIC

Figure 95 shows the total number of Indigenous staff has increased by 72.6 per cent since 2005, from 771 staff to 1331 staff in 2017. Of these, around one-third are academic staff. The number of Indigenous academic staff has increased by 55 per cent over the period, from 282 in 2005 to 437 in 2017.

¹² Indigenous staff data in this section refers to staff headcount and only includes full-time and fractional full-time staff.

Figure 95: Number of Indigenous staff by duties classification, 2005 to 2017

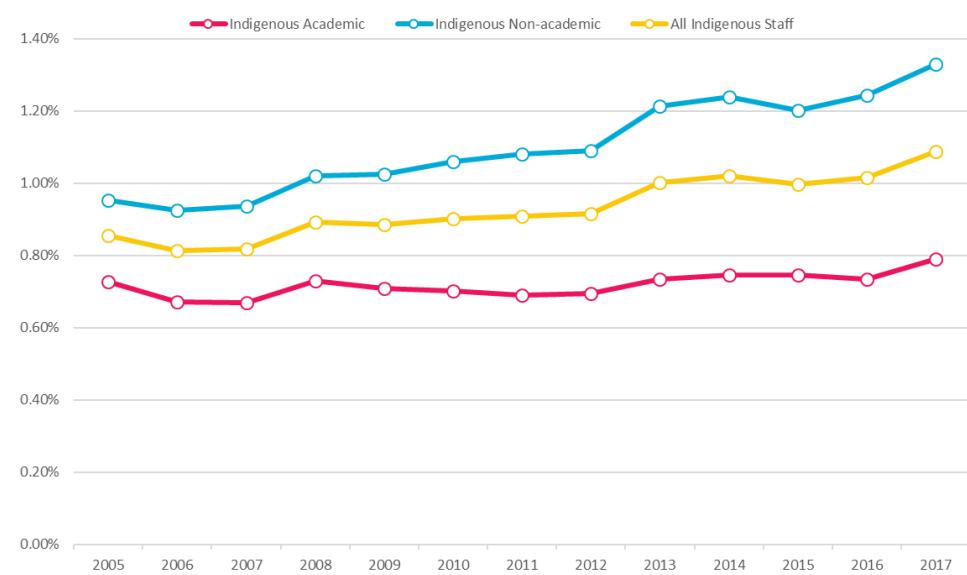


Source: DET 2018, Unpublished HEIMS data.

Despite the strong growth in the total number of Indigenous staff, Figure 96 shows that the Indigenous share of academic staff only increased marginally from 0.7 per cent in 2005 to 0.8 per cent in 2017. 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 1.3 per cent in 2017.

In 2017, only 1.1 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.

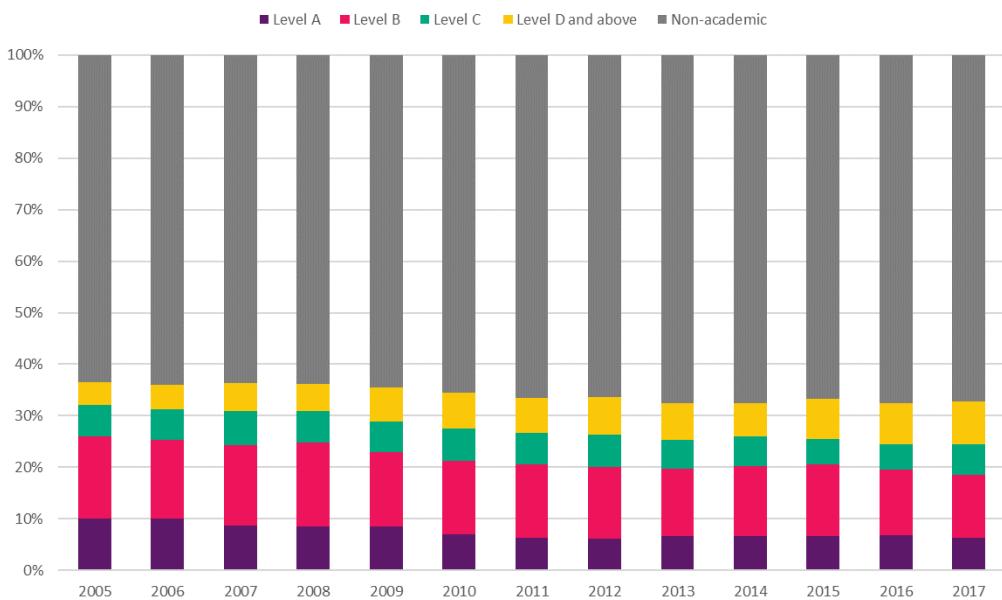
Figure 96: Share of Indigenous staff, 2005 to 2017



Source: DET 2018, Unpublished HEIMS data.

Figure 97 shows the share of Indigenous staff in non-academic roles has increased from 63.4 per cent in 2005 to 67.2 per cent in 2017, while the share of Indigenous staff in academic Level A positions has declined from 10.1 per cent to 6.4 per cent over the period. In 2017, 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 97: Proportion of Indigenous staff by duties classification



Source: DET 2018, Unpublished HEIMS data.

6.3.2 COMPARISONS TO NON-INDIGENOUS STAFF

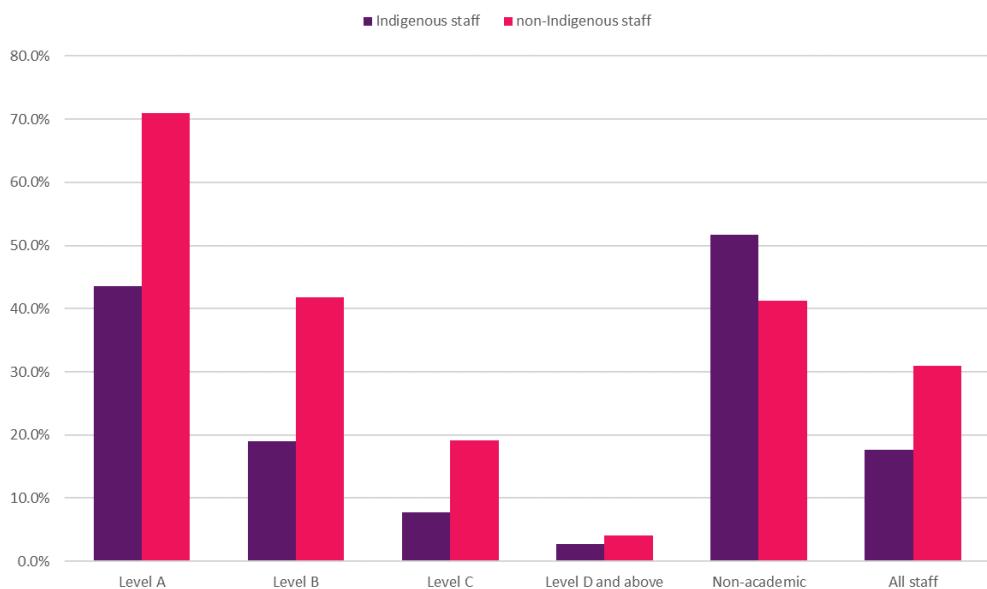
In 2017, a greater proportion of Indigenous staff were women, over 40 years old and in lower academic positions compared to non-Indigenous staff. This has remained relatively unchanged since 2005.

Age

Indigenous staff are more likely to be older than non-Indigenous staff. In 2017, only 17.6 per cent of Indigenous staff were aged under 40 compared to 31 per cent of non-Indigenous staff.

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. Nonetheless, in 2017, 51.7 per cent of Indigenous staff employed in non-academic roles were aged under 40, compared to 41.2 per cent of non-Indigenous staff.

Figure 98: Proportion of staff aged under 40 by duties classification, 2017

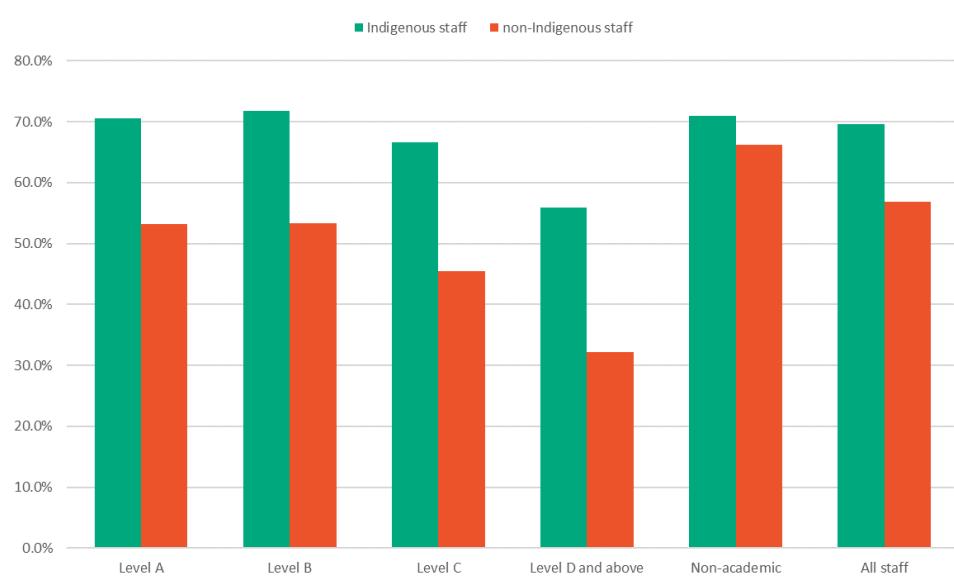


Source: DET 2018, Unpublished HEIMS data.

Gender

Indigenous staff are more likely to be female compared to non-Indigenous staff. In 2017, 69.6 per cent of Indigenous staff were female compared to 56.8 per cent of non-Indigenous staff.

Figure 99: Share of female staff by duties classification, 2017



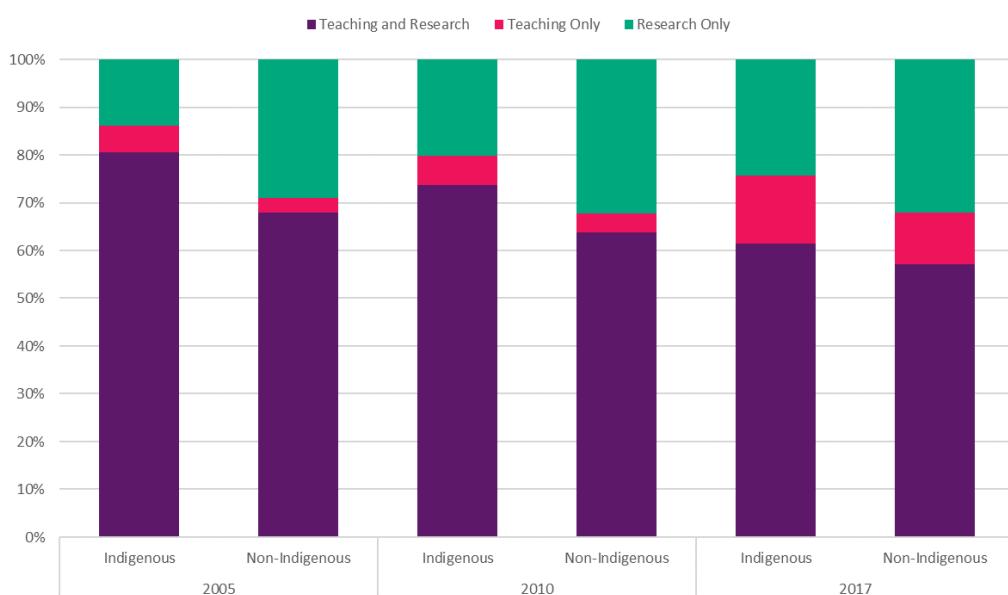
Source: DET 2018, Unpublished HEIMS data.

Academic functions

Indigenous academic staff are more likely to be employed in teaching and research and teaching-only positions and less likely to be employed in research-only functions. In 2017, most Indigenous staff were employed in teaching and research functions (61.5 per cent), declining from 80.6 per cent in 2005. The proportion of Indigenous academic staff employed in teaching-only and research-only functions increased from 5.6 per cent and 13.9 per cent respectively in 2005 to 14.2 and 24.3 per cent respectively in 2017.

This compares to only 10.8 per cent of non-Indigenous academic staff employed in teaching-only functions; 32 per cent in research-only functions and the remaining 57.2 per cent in teaching and research functions in 2017.

Figure 100: Share of staff by academic functions, 2005, 2010 and 2017



Source: DET 2018, Unpublished HEIMS data.

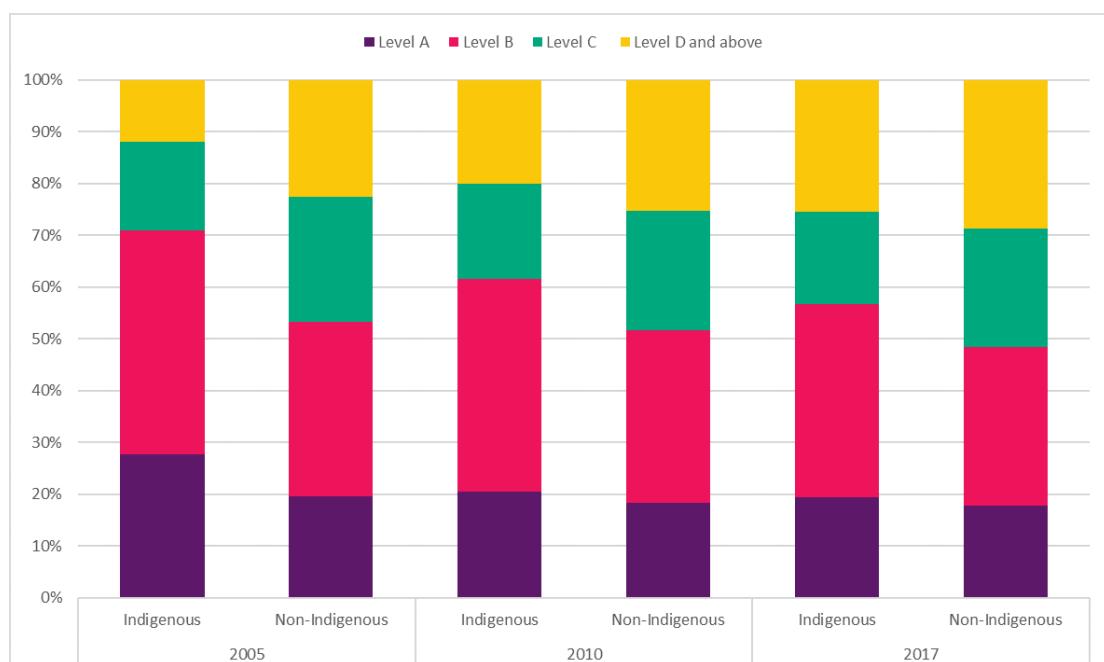
Duties classification

In 2017, Indigenous academic staff were over-represented at lower academic ranks, including levels below lecturer (Level A)—19.5 per cent, compared to 17.8 per cent for non-Indigenous staff—and lecturer (Level B)—37.3 per cent, compared to 30.5 per cent for non-Indigenous staff.

In contrast, Indigenous academic staff were proportionally under-represented at senior lecturer (Level C) (17.8 per cent, compared to 23 per cent for non-Indigenous) and above senior lecturer (Level D and above) (25.4 per cent, compared to 28.7 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 25.4 per cent in 2017.

Figure 101: Share of staff by academic duties classification, 2005, 2010 and 2017



Source: DET 2018, Unpublished HEIMS data.





UNIVERSITIES
AUSTRALIA

Universities Australia
1 Geils Court, Deakin ACT 2600
P +61 2 6285 8100
E contact@universitiesaustralia.edu.au
universitiesaustralia.edu.au