GOS
graduate outcomes survey

QILT
quality indicators for learning and teaching

2017 Graduate Outcomes Survey

National Report

JANUARY 2018

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For more information on the conduct and results of the QILT survey program see the Quality Indicators for Learning and Teaching (QILT) website. The QILT team can be contacted by email at qilt@srcentre.com.au

Executive summary

The 2017 GOS was primarily conducted as a national online survey among 97 higher education institutions including all 41 Table A and B universities and 56 Non-University Higher Education Institutions (NUHEIs). A total of 120,747 valid survey responses were collected across all study levels, representing a response rate of 45.0 per cent, which is an increase from 39.7 per cent achieved in 2016. Graduate employment outcomes are reported consistent with the Australian Bureau of Statistics (ABS) standard model of labour force statistics. See Appendix 2 for details.

71.8%
undergraduates in full-time employment

86.5%
undergraduates employed overall

National results

In 2017, 71.8 per cent of undergraduates were in full-time employment four months after completing their degree, up from 70.9 per cent in the previous year. This continues the steady improvement in the full-time employment rate of graduates in recent years from the low point of 68.1 per cent in 2014. This is consistent with a modest improvement in the overall labour market over the period.

The overall employment rate for undergraduates was 86.5 per cent which is consistent with the rate in 2016 of 86.4 per cent, indicating that there has been a shift towards full-time employment among undergraduates in 2017.

Table 1 **Graduate employment and study outcomes, by study level, 2016 and 2017**

	Undergraduate		Postgraduate coursework		Postgraduate research	
	2016	2017	2016	2017	2016	2017
In full-time employment (as a proportion of those available for full-time work) (%)	70.9	71.8	85.1	86.1	80.1	80.4
Overall employed (as a proportion of those available for any work) (%)	86.4	86.5	92.4	92.6	90.3	90.6
Labour force participation rate (%)	92.0	92.0	95.7	95.8	93.0	94.3
Median salary, employed full-time ($)	57,900	60,000	80,000	81,000	85,000	87,800
In full-time study (%)	21.8	20.7	7.3	6.6	6.8	6.2

Notwithstanding the shift to full-time employment among undergraduates in 2017, over the longer term there has been a pronounced trend towards part-time employment among graduates, in part, reflecting trends among the wider workforce. Between 2008, the latest peak of the graduate labour market, and 2017, the proportion of employed graduates working part-time increased 17.1 percentage points to 37.9 per cent. For the overall workforce, the proportion employed increased 3.4 percentage points to 28.4 per cent. In 2017, male graduates were far more likely to be employed part-time than the overall male workforce, with part-time employment at 32.2 per cent for male graduates compared with 18.7 per cent for employed males overall. For females, graduates remain somewhat less likely to be employed part-time than the overall workforce, with part-time employment rates of 41.1 per cent for graduates and 47.0 per cent for the overall workforce in 2017.

Further study, on average, continues to confer additional benefits in the labour market, particularly for postgraduate coursework graduates. The proportion of postgraduate coursework graduates in full-time employment in 2017 was 86.1 per cent, up from 85.1 per cent in 2016, and mirroring the increase for undergraduates. In addition, overall employment remained relatively consistent with 92.6 per cent in 2017, which is a small increase of 0.2 percentage points on the previous year. The labour force participation rate for this cohort increased slightly to 95.8 per cent.

Labour market outcomes for postgraduate research graduates were also more positive than for bachelor graduates with 80.4 per cent in full-time employment, an increase of 0.3 percentage points over the previous year. The overall employment rate for postgraduate research graduates also increased 0.3 percentage points to 90.6 per cent while their labour force participation rate of 94.3 per cent represents an increase of 1.3 percentage points from 2016.

Since the Global Financial Crisis (GFC) graduates have taken longer to gain a foothold in the labour market. For example, the full-time employment rate among undergraduates has fallen from 85.2 per cent in 2008 to 71.8 per cent in 2017. Similarly, the full-time employment rate among postgraduate coursework graduates has fallen from 90.1 per cent in 2008 to 86.1 per cent in 2017 and among postgraduate research graduates it has fallen from 87.6 per cent to 80.4 per cent over the same period. The 2017 Graduate Outcomes Survey-Longitudinal (GOS-L) shows that graduates do succeed over time with many more graduates in work three years after graduation. In 2014, 67.5 per cent of graduates were in full-time employment immediately upon graduation. Three years later in 2017, 89.3 per cent of the same cohort of graduates had found full-time work.

Undergraduates from more vocationally oriented study areas tend to have greater success in the labour market immediately upon graduation. In 2017, Medicine, Pharmacy, Dentistry and Rehabilitation undergraduates had the highest rates of full-time employment at 95.9 per cent, 95.2 per cent, 86.8 per cent and 85.7 per cent respectively. However, it should be noted that some study areas traditionally have high employment rates immediately upon graduation arising from professional registration requirements.

Conversely, graduates with more generalist degrees can take longer to gain a foothold in the labour market immediately upon graduation. Study areas with the lowest rates of full-time employment in 2017 were Creative arts, Science and mathematics, Communications, and Psychology of 53.2 per cent, 59.0 per cent, 60.3 per cent and 60.6 per cent respectively. Similar patterns in overall employment and labour force participation rates are observed by study area.

Figure A **Full-time employment rate**

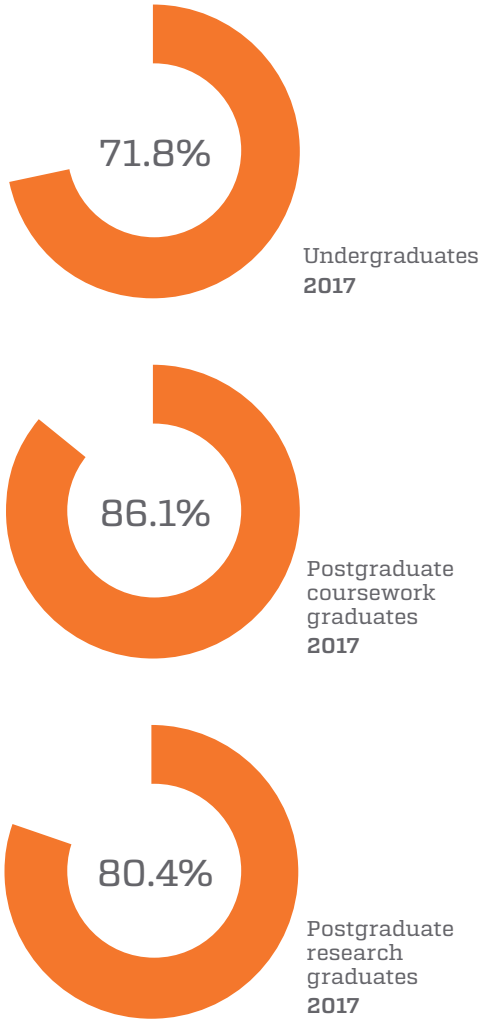
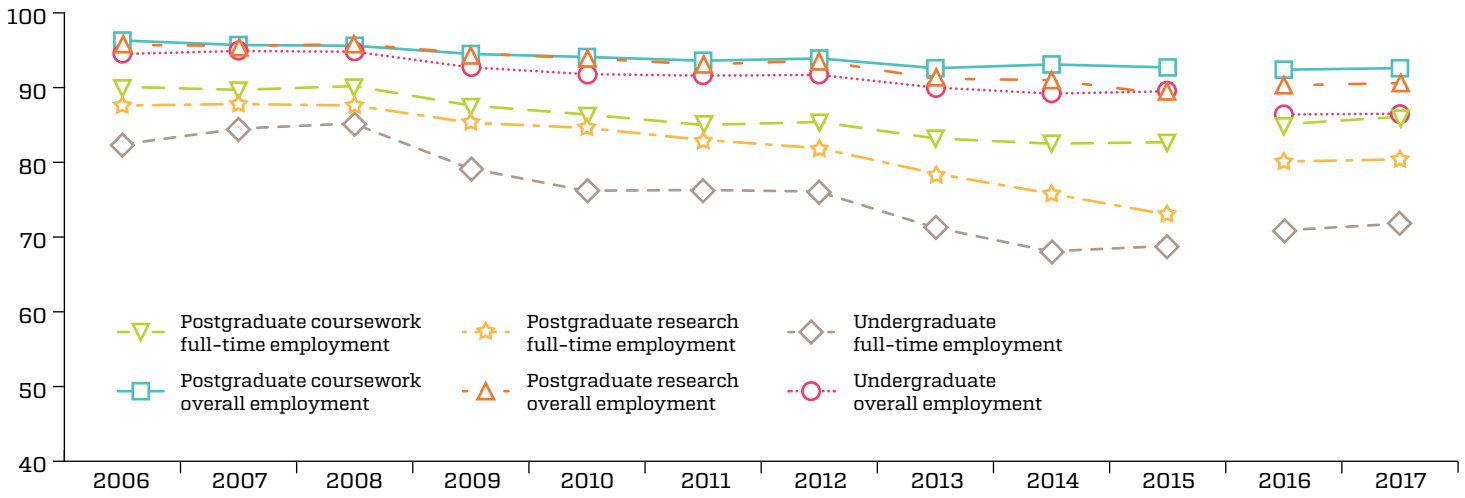


Figure 1 **Full-time and overall employment rates, by study level, 2007–2017 (%)**



As noted above, the 2017 Graduate Outcomes Survey-Longitudinal (GOS-L) shows three years after graduation, many more graduates are in employment. This is especially the case among graduates with more generalist degrees. For example, study areas with the lowest full-time employment rate immediately upon graduation in 2014 included Creative arts and Science and mathematics at 45.8 per cent and 48.0 per cent respectively. Three years later, their full-time employment rates had increased appreciably to 79.4 per cent and 83.5 per cent respectively.

The 2017 GOS report publishes estimates by socio-economic status (SES) for the first time. In 2017, 73.6 per cent of undergraduates from a high SES background were employed full-time in comparison with 71.1 per cent and 70.3 per cent of undergraduates from a medium SES and low SES background respectively. Similar patterns were evident for overall employment. On the other hand, undergraduates from a low SES background had a higher labour force participation rate of 92.9 per cent in comparison with 92.2 per cent and 91.5 per cent for those from a medium SES and high SES background respectively.

In 2017, 72.2 per cent of university undergraduates were in full-time employment immediately upon graduation and 86.7 per cent in overall employment. By way of comparison, 58.4 per cent of non-university higher education institution (NUHEIs) undergraduates were in full-time employment and 80.8 per cent in overall employment. However, it is important to note these comparisons of employment outcomes by sector take no account of the different characteristics of students, such as the different proportions of graduates in each sector by study area or level of education.

In 2017, postgraduate coursework graduates in Medicine, Pharmacy, Nursing and Rehabilitation graduates had the highest rates of full-time employment at 95.9 per cent, 95.3 per cent,

93.7 per cent and 93.2 per cent respectively. At the postgraduate research level in 2017 Nursing had the highest rate of full-time employment at 97.6 per cent followed by Law and paralegal studies at 94.9 per cent. However, while some postgraduate study areas have weaker employment outcomes than others, the gap in employment outcomes is narrower at postgraduate level than at undergraduate level.

Skills utilisation

In 2017, 37.9 per cent of employed undergraduates were working part-time, which is a slight decrease from 38.4 per cent in 2016. The rate of underemployed part-time employment, as measured by the proportion of employed undergraduates seeking more hours of work, declined from 20.5 per cent in 2016 to 19.7 per cent in 2017. The main reasons that undergraduates were underemployed part-time workers in 2017 were because they were studying, 21.4 per cent, because there are no suitable jobs in their area of expertise, 19.6 per cent, or because there are no jobs with a suitable number of hours, 16.8 per cent. On the other hand, the majority, 53.7 per cent, of undergraduates that were fully employed in part-time employment i.e. were not seeking more hours of work, was because they were engaged in further study.

Notwithstanding the fall in undergraduate underemployment over the last year, over the longer term there has been a significant rise in graduate underemployment, in part, reflecting trends among the wider workforce. Between 2008 and 2017, the proportion of graduates who were underemployed working part-time and seeking more hours of work increased by 10.8 percentage points to 19.7 per cent. For the overall workforce, underemployment as a proportion of total employment increased from 6.8 per cent in 2008 to 9.2 per cent in 2017, an increase of 2.8 percentage points. As noted earlier, this suggests that since the GFC it has been increasingly difficult for graduates to establish themselves in the labour market with evidence from the 2017 Graduate Outcomes Survey-Longitudinal showing that many more graduates succeed in gaining full-time employment three years after graduation.

The proportion of undergraduates working in managerial and professional occupations is one measure of skills utilisation. These occupations are defined by the ABS as being commensurate with requiring bachelor level or higher qualifications. In 2017, four months after graduation, 72.2 per cent of undergraduates employed full-time were working in managerial or professional occupations, down slightly from 72.3 per cent in 2016. Undergraduates employed part-time were less likely to be employed in managerial and professional occupations as 59.7 per cent of all employed undergraduates were working in these occupations four months after graduation, which is a slight increase from 59.1 per cent in 2016. In 2017, 87.2 per cent of postgraduate coursework graduates and 93.9 per cent of postgraduate research graduates employed full-time were working in managerial and professional occupations

Graduates were also asked to indicate whether or not they believed that they were working in a job that allowed them to fully use their skills or education. This provides a benchmark of the underutilisation of skills, and as such, it will be important to monitor changes in this measure over time. In 2017, 28.2 per cent of undergraduates employed full-time indicated they were working in a job that did not allow them to fully use their skills or education, down from 29.1 per cent in 2016. Among postgraduate coursework graduates employed full-time in 2017, similarly 28.1 per cent reported they were not fully using their skills or education in their current position with that proportion falling to 25.2 per cent among postgraduate research graduates. However, among all employed graduates 41.1 per cent of undergraduates,

In 2017, 37.9 per cent of employed undergraduates were working part-time, down from 38.4 per cent in 2016

30.9 per cent of postgraduate coursework graduates and 29.9 per cent of postgraduate research graduates reported that they were not fully using their skills or education in their current position.

Consistent with the results for 2016, in 2017 around one quarter, 25.2 per cent, of undergraduates who reported they were not fully utilising their skills or education, stated that this was because there were no suitable jobs in their area of expertise, with a further 15.5 per cent saying this was because there were no suitable jobs in their local area. Graduates employed part-time were more likely to state that they did not use their skills or education in their current job because they were engaging in further study. 23.7 per cent of all employed graduates stated this reason in comparison with 8.4 per cent of graduates employed full-time. Among employed postgraduates reporting they were not fully utilising their skills or education, postgraduate research graduates continue to be much more likely to indicate this was due to there being no suitable jobs in their area of expertise at 38.9 per cent while 25.5 per cent of postgraduate coursework graduates indicated that this was the case.

Employed undergraduates with a degree in Psychology were most likely to report that their skills and education were not being fully used in their current job at 66.4 per cent followed by Tourism, hospitality, personal services, sport and recreation graduates, 62.3 per cent, Science and mathematics graduates, 59.6 per cent, and Humanities, culture and social sciences undergraduates, 57.5 per cent, as shown by Table 13. Between a quarter and one fifth of graduates in each of these four study areas said that the main reason their skills were not fully utilised was because there were no suitable jobs in their area of expertise.

Among postgraduate coursework graduates employed in 2017, Tourism, hospitality, personal services, sport and recreation, Communications, Creative arts, and Agriculture and environmental studies were most likely to report that they were not using their skills or education in their current job, at 51.0 per cent, 44.8 per cent, 40.5 per cent and 40.1 per cent respectively. Postgraduate research graduates in Veterinary science, Creative arts, and Humanities, culture and social sciences were most likely to report that they were not using their skills or education in their current position, at 50.0 per cent, 44.8 per cent, and 39.0 per cent respectively.

Salaries

Further study generally leads to improved salary outcomes in addition to improved employment outcomes. The median salary of undergraduates employed full-time in 2017 was $60,000 per year while for postgraduate coursework graduates it was $81,000 and for postgraduate research graduates it was $87,800, as shown in Table 1. Reporting of graduate salaries in the 2017 GOS includes all graduates employed full-time.

The median undergraduate salary level increased by $2,100 or by 3.6 per cent to $60,000 in 2017. The corresponding increase for the postgraduate coursework median salary level was $1,000 or 1.3 per cent to $81,000 and for the postgraduate research median salary level it was $2,800 or 3.3 per cent to $87,800.

Female undergraduates continue to earn less than male undergraduates in 2017, $59,000 compared with $60,100 respectively, a difference of $1,100. This equates to a gender pay gap of 1.9 per cent, narrowing from 6.4 per cent in 2016. This is the lowest recorded gender gap in undergraduate salaries reported in 40 years of data. The gender gap in graduate salaries was more marked at the postgraduate coursework level with a difference of around $15,000, or 19.7 per cent while the difference at the postgraduate research level was less at $3,600 or 4.4 per cent.

60k

Median salary employed full-time – undergraduates

81k

Median salary employed full-time – postgraduate coursework graduates

87.8k

Median salary employed full-time – postgraduate research graduates

The gender gap in salaries is explained, in part, by the fact that females are more likely to graduate from study areas which receive lower levels of remuneration. However, it is also the case that at the undergraduate level females earn less overall than their male counterparts within most study areas. Engineering and Communications were the exceptions where female undergraduate median salaries are higher than or equal to their male counterparts. This demonstrates that beyond subject choice, the gender gap in median graduate salaries persists due to a range of other factors such as occupation, age, experience, personal factors and possible inequalities within workplaces.

Overall, Indigenous undergraduates, undergraduates whose home language was English, older undergraduates and those who had studied externally had higher salaries than their counterparts. There were marginal differences in the salary levels of undergraduates by socio-economic status. Both undergraduates from a high SES and low SES background had a median salary of $60,000 in comparison with $59,600 for undergraduates from a medium SES background.

Further study

In 2017, 20.7 per cent of undergraduates were engaged in further full-time study, four months after graduation. Health was the most popular area for further full-time study following an undergraduate degree, with 28.7 per cent of those proceeding to further study selecting this area. Both postgraduate coursework and postgraduate research graduates were much less likely than those who had completed an undergraduate program to move into further study after completing their qualification, at 6.6 per cent and 6.2 per cent respectively.

Satisfaction

Overall satisfaction among undergraduates remained high in 2017 at 79.4 per cent, representing a slight drop from 80.6 per cent in 2016. Generic skills also dropped slightly from 82.1 per cent in 2016 to 81.5 per cent in 2017. However, satisfaction with the quality of teaching remained relatively low, unchanged at 63.0 per cent.

International benchmarking with the UK's National Survey of Student Experience (NSS) shows that while student and graduate satisfaction has been trending upwards in both the UK and Australia in recent years, interestingly between 2016 and 2017 overall satisfaction declined by 2 percentage points in the UK and by 1.2 percentage points in Australia.

Postgraduate coursework graduates' overall satisfaction declined slightly from 82.5 per cent in 2016 to 81.9 per cent in 2017. Satisfaction with good teaching increased from 68.3 per cent to 69.0 per cent while satisfaction with generic skills was relatively unchanged at 78.2 per cent compared with 78.3 per cent in 2016.

In 2017, postgraduate research graduates overall satisfaction declined by 1.1 percentage points to 84.4 per cent, just as it did for undergraduates and postgraduate coursework graduates. However, postgraduate research graduates' satisfaction with all other aspects of their degree, including supervision, intellectual climate, skills development, infrastructure, thesis examination and goals and expectations, which all increased in 2017.

20.7 per cent of undergraduates were engaged in further full-time study

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1 Introduction

The 2017 Graduate Outcomes Survey (GOS) measures the destinations and satisfaction of recent higher education graduates. As such, it measures key outcomes providing assurance about the quality of Australia's higher education sector. Graduate employment outcomes are reported consistent with the Australian Bureau of Statistics (ABS) standard model of labour force statistics. See Appendix 2 for details. The GOS has been included as part of the Quality Indicators for Learning and Teaching (QILT) survey suite. The QILT surveys are independently and centrally administered by the Social Research Centre on behalf of the Australian Government Department of Education and Training.

Beginning in 2016, the GOS has replaced the Australian Graduate Survey (AGS) and its associated suite of surveys and publications previously administered by Graduate Careers Australia. The GOS, in replacing the Graduate Destination Survey (GDS), continues the long tradition established since 1974 of measuring the labour market experience and destinations of recent higher education graduates. The GOS also encompasses the Course Experience Questionnaire (CEQ), measuring graduate satisfaction with coursework experience since 1993, and the Postgraduate Research Experience Questionnaire (PREQ), measuring satisfaction with postgraduate research experience since 1999.

As in 2016, the 2017 GOS was primarily conducted as a national online survey among 97 higher education institutions including all 41 Table A and B universities and 56 Non-University Higher Education Institutions (NUHEIs). A total of 120,747 valid survey responses were collected across all study levels, representing a response rate of 45.0 per cent, which is an increase from 39.7 per cent in 2016. Further information on survey methodology and response rates is included in Appendix 1. All data presented in the main body of the report refer to all institutions. Data for universities and NUHEIs are presented in Appendix 6.

2 Undergraduate employment

At the undergraduate level, the full-time employment rate measured by the 2017 GOS was 71.8 per cent, a slight improvement of 0.9 percentage points on the 70.9 per cent recorded in 2016. This continues the steady improvement in the graduate full-time employment rate in recent years since the low point of 68.1 per cent in 2014. The increase in the full-time employment rate is consistent with a modest improvement in the overall labour market over the period. The overall employment rate was essentially steady at 86.4 per cent in 2016 and 86.5 per cent in 2017, and the labour force participation rate remained unchanged at 92.0 per cent. Labour market outcomes at the broad level remain generally similar for males and females as shown by Table 2, with females being slightly more likely than males to be employed full-time by around one percentage point, narrowing from 1.4 percentage points in 2016.

Employment outcomes by sector are shown in Tables F and K in Appendix 6. In 2017, 72.2 per cent of university undergraduates were in full-time employment immediately upon graduation, an increase of one percentage point from 2016 and 86.7 per cent in overall employment. By way of comparison, 58.4 per cent of non-university higher education institution (NUHEIs) undergraduates were in full-time employment, which represents a decrease of 4.6 percentage points from 2016, and 80.8 per cent were in overall employment, a decrease of 2.3 percentage points from 2016.

However, it is important to note that these comparisons of employment outcomes by sector do not take into account the different characteristics of students, such as the different proportions of graduates by study area or level of education in each sector. For further information on the destinations of university and NUHEIs graduates, see Appendix 6.

Table 2 **Undergraduate employment outcomes, 2016 and 2017 (%)**

	2016			2017		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Full-time employment	70.1	71.5	70.9	71.2	72.1	71.8
Overall employment	83.3	88.1	86.4	84.2	87.7	86.5
Labour force participation rate	91.1	92.5	92.0	91.6	92.3	92.0

2.1 Employment outcomes by study area

Consistent with 2016, in 2017 graduates from more vocationally oriented study areas had greater success in the labour market immediately upon graduation. In 2017, Medicine, Pharmacy, Dentistry and Rehabilitation undergraduates had the highest rates of full-time employment at 95.9 per cent, 95.2 per cent, 86.8 per cent and 85.7 per cent respectively. However, it should be noted that some study areas traditionally have high employment rates immediately upon graduation arising from professional registration requirements. Medicine, Pharmacy, Rehabilitation and Dentistry undergraduates also had the highest rates of overall employment, while Rehabilitation, Nursing, Teacher education, and Business and management undergraduates had the highest labour force participation rates, as shown in Table 3.

Conversely, graduates with more generalist degrees can take longer to gain a foothold in the labour market immediately upon graduation. Study areas with the lowest rates of full-time employment in 2017 were Creative arts, Science and mathematics, Psychology and Communications which had full-time employment rates of 53.2 per cent, 59.0 per cent, 60.3 per cent and 60.6 per cent respectively. The areas with the lowest proportion of graduates employed were Creative Arts, Science and mathematics, Computing and information systems and Humanities, culture and social sciences all of which had overall employment rates under 84 per cent. The study area with the lowest labour force participation rate was Science and mathematics, which remained at around 82 per cent in both 2016 and 2017.

The 2017 Graduate Outcomes Survey-Longitudinal (GOS-L) shows that three years after graduation, many more graduates find work and this is especially the case among graduates with more generalist degrees. For example, study areas with the lowest full-time employment rates immediately upon graduation in 2014 included Creative arts, and Science and mathematics at 45.8 per cent and 48.0 per cent respectively. Three years later, their full-time employment rate had increased appreciably to 79.4 per cent and 83.5 per cent respectively. The standard deviation between the highest performing study area and the lowest was around 14.5 percentage points at the time of the 2014 AGS. However, this gap narrows markedly to 4.8 percentage points three years later in the 2017 GOS-L.

Note that there can be considerable variation in employment outcomes within each study area. Undergraduate outcomes are presented at more detailed level for 45 study areas in Appendix 6.

2.2 Employment outcomes by demographic group

As was the case in 2016, older undergraduates and undergraduates that studied externally were more likely to be in full-time employment in 2017, with rates of 74.0 per cent and 80.3 per cent respectively, as shown by Table 4. This may be associated with these graduates being more likely to have an ongoing relationship with an employer while studying. Older graduates were 2.7 percentage points more likely to employed full-time than graduates aged 30 or younger, but are less likely to be working in any form of employment, or to be participating in the labour force. Graduates who completed their studies externally were 9.8 percentage points more likely to be employed full-time than those who had completed internal or mixed mode studies, and were also 4.2 per cent more likely to be employed and also slightly more likely to participate in the labour force.

Figure B **Undergraduate study areas full-time employment**

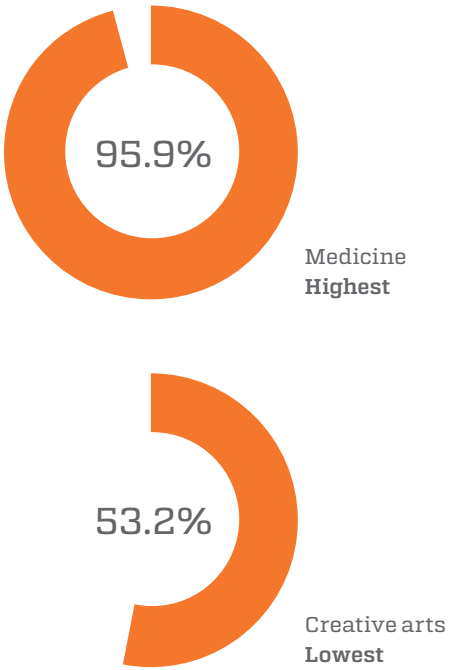


Table 3 **Undergraduate employment outcomes by study area, 2016 and 2017 (%)**

	Full-time employment		Total employment		Labour force participation rate	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	61.0	59.0	81.5	80.6	82.3	82.1
Computing and information systems	72.5	73.3	82.5	82.1	94.4	93.2
Engineering	76.4	79.4	83.9	86.5	95.1	94.3
Architecture and built environment	75.2	75.2	85.8	87.2	94.6	93.7
Agriculture and environmental studies	59.8	66.3	84.2	84.2	93.0	92.5
Health services and support	70.9	72.7	90.1	89.9	93.6	93.2
Medicine	98.2	95.9	97.4	95.9	95.2	94.0
Nursing	82.5	79.3	93.3	91.7	97.7	97.7
Pharmacy	96.3	95.2	96.0	95.8	94.9	95.5
Dentistry	82.3	86.8	94.1	95.7	97.7	94.9
Veterinary science	89.8	81.4	89.4	87.5	88.3	88.9
Rehabilitation	84.0	85.7	95.2	95.8	97.4	98.0
Teacher education	80.3	81.7	94.3	93.0	95.8	96.3
Business and management	75.5	76.5	87.1	87.2	96.1	96.3
Humanities, culture and social sciences	61.8	62.2	83.5	83.6	88.4	88.6
Social work	66.7	70.9	85.5	86.1	94.2	94.5
Psychology	60.8	60.3	85.0	84.8	87.0	87.1
Law and paralegal studies	72.6	74.8	84.3	85.3	95.0	94.2
Creative arts	55.0	53.2	81.4	80.0	90.3	90.0
Communications	60.7	60.6	83.0	84.6	93.6	93.6
Tourism, hospitality, personal services, sport and recreation	68.1	62.9	92.5	86.8	94.6	94.0
All study areas*	**70.9**	**71.8**	**86.4**	**86.5**	**92.0**	**92.0**
Standard deviation (percentage points (pp))	**12.2**	**11.8**	**5.3**	**5.1**	**3.9**	**3.8**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

77.5 per cent of Indigenous undergraduates were in full-time employment and 88.8 per cent in overall employment in 2017, compared with equivalent rates for non-Indigenous undergraduates of 71.7 per cent and 86.4 per cent respectively. In contrast, undergraduates with a reported disability had a full-time employment rate of 61.5 per cent, which was 10.9 percentage points lower than the 72.4 per cent for undergraduates who reported no disability. Similarly, those whose home language was other than English had a substantially lower rate of full-time employment in 2017 of 53.9 per cent, in comparison with the 72.3 per cent for undergraduates whose home language was English. This represents a difference of 18.4 percentages points compared with a difference of 16.5 percentage points between these groups in 2016.

In 2017, graduates from higher SES categories performed better in all employment areas, with 73.6 per cent of high SES undergraduates employed full-time compared with 71.1 per cent of those in medium SES and 70.3 per cent in the low SES category. The pattern is similar in terms of overall employment, with high, medium and low SES graduates recording overall employment rates of 87.3, 86.7 and 85.0 per cent respectively. Interestingly, this pattern is reversed in terms of labour force participation, with a higher proportion (92.9 per cent) of low SES graduates participating in the labour force than medium or high SES graduates (92.2 and 91.5 per cent respectively).

Interestingly, in 2017 the labour force outcomes of graduates from regional or remote areas were higher than for those from metropolitan areas. Regional/remote graduates' full-time employment rate was 75.5 per cent compared with 70.6 per cent for metropolitan graduates, a difference of 4.9 percentage points. Similarly, 88.6 per cent of regional/remote graduates were employed overall, compared with 86.0 per cent for metropolitan areas. Those in regional/remote areas were also slightly more likely to participate in the labour force, with a participation rate of 92.5 per cent compared with 92.0 per cent for metropolitan areas.

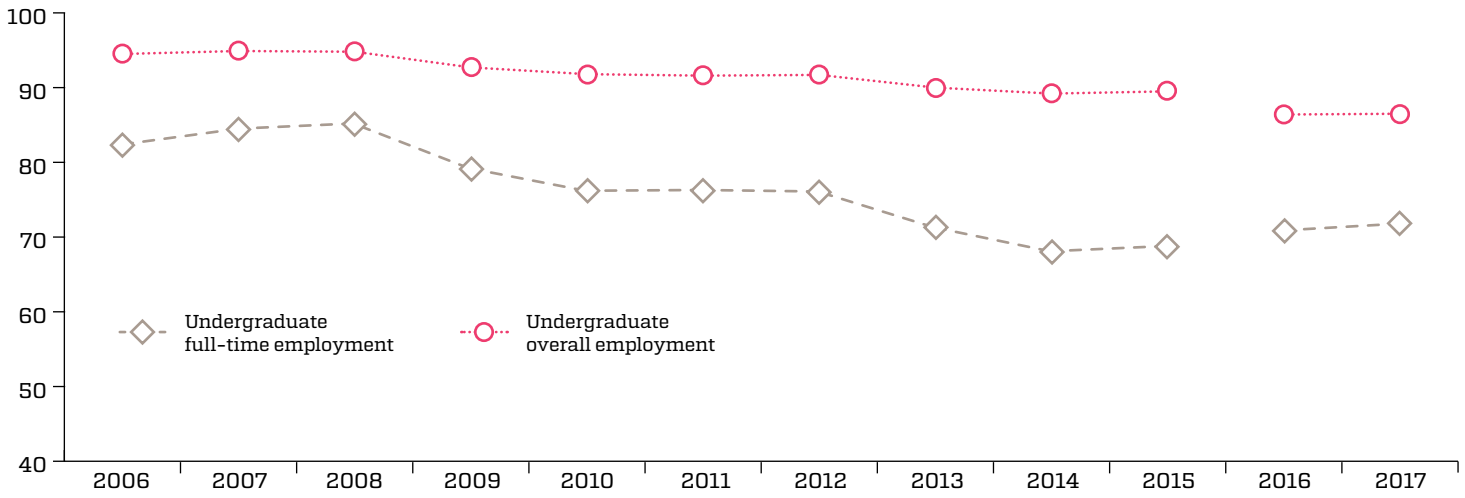
Socio-economic status and location measures

The 2017 GOS publishes for the first time estimates for two additional demographic groups – socio-economic status (SES) and location. Estimates for both of these groups are derived from geocoded measures based on the location of where students are 'from', that is, their permanent home address at the commencement of study. These measures therefore only relate to domestic students with a recorded address.

The socio-economic status (SES) of higher education graduates is categorised as high, medium or low, as defined by the Australian Bureau of Statistics (ABS) Socio-Economic Indexes of Areas (SEIFA) Index of Education and Occupation. This index reflects the educational and occupational level of communities. Geocoding is calculated at the ABS Statistical Area 1 level, or postcode level when this detail is not available. Within the population as a whole, the top 25% of the population aged 15–64 are classified as high SES based on where they live; the middle 50% of the population are classified as medium SES; and the bottom 25% of the population as low SES.

Location is a measure based on the ABS 2011 Australian Statistical Geography Standard (ASGS) classification of remoteness. The GOS classifies higher education graduates as being either from regional/remote or metropolitan areas. The combined regional/remote category includes graduates from Inner regional, Outer regional, Remote and Very remote areas as defined by the ASGS. Geocoding is calculated at the postcode level. However, postcodes can be mapped to multiple remoteness categories. For example, a postcode may be classified as 75 per cent regional/remote and 25 per cent metropolitan. These proportions are then used to estimate the number of graduates from metropolitan or regional/remote areas that meet the survey characteristics in question.

Figure 2 **Undergraduate full-time and overall employment, 2007–2017 (%)**



2.3 Employment over time

Since the Global Financial Crisis (GFC), graduates have taken longer to establish a foothold in the labour market. The full-time employment rate for undergraduates peaked at 85.2 per cent in 2008 and fell by 17.1 percentage points to 68.1 per cent in 2014, as measured by the previous AGS. Since 2014, there has been a moderate improvement in undergraduate employment, with the full-time employment rate increasing to 68.8 per cent in 2015, as measured by the AGS, and 70.9 per cent in 2016 and 71.8 per cent in 2017, as measured by the GOS. This is consistent with a modest improvement in general labour market conditions, with the overall unemployment rate falling from 5.7 per cent in May 2016 to 5.5 per cent in May 2017[1]

The 2017 Graduate Outcomes Survey-Longitudinal (GOS-L) shows that graduates do succeed over time, with many more graduates in work three years after graduation. In 2014, 67.5 per cent of graduates were in full-time employment immediately upon graduation. Three years later in 2017, 89.3 per cent of the same cohort of graduates had found full-time work, which represents an improvement of 21.8 percentage points. Employment outcomes over time by study area are presented in Appendix 6.

1 ABS, Labour Force, 6202.0, seasonally adjusted data.

Table 4 **Undergraduate employment outcomes by demographic group, 2016 and 2017 (%)**

		Full-time employment (%)		Overall employment (%)		Labour force participation rate (%)	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	70.5	71.3	86.4	86.5	92.3	92.4
	Over 30 years	73.2	74.0	86.1	86.3	90.3	90.1
Indigenous	Indigenous	74.5	77.5	86.0	88.8	90.1	91.0
	Non Indigenous	70.9	71.7	86.4	86.4	92.0	92.0
Home language	English	71.5	72.3	86.8	86.9	92.1	92.1
	Language other than English	55.0	53.9	73.6	71.6	89.5	88.1
Disability	Reported disability	60.9	61.5	79.5	78.7	87.0	86.5
	No disability	71.5	72.4	86.8	86.9	92.3	92.4
Study mode	Internal and mixed mode	69.7	70.5	85.8	86.0	91.8	91.8
	External	81.0	80.3	91.0	90.2	93.8	93.5
Socio-economic status	High	72.2	73.6	87.3	87.3	91.5	91.5
	Medium	70.1	71.1	86.6	86.7	92.3	92.2
	Low	69.4	70.3	84.7	85.0	91.9	92.9
Location	Metro	69.3	70.6	86.0	86.0	92.0	92.0
	Regional/remote	75.2	75.5	88.3	88.6	91.8	92.5
Total undergraduate		**70.9**	**71.8**	**86.4**	**86.5**	**92.0**	**92.0**

2.4 Part-time employment

In 2017, 37.9 per cent of employed undergraduates were working part-time, which is a slight decrease from 38.4 per cent in 2016, as shown by Table 5. More than half of all employed undergraduates in the study areas of Psychology, Creative Arts, and Science and mathematics were working part-time. There is frequent commentary to the effect that part-time jobs are 'inferior' in some senses to full-time jobs, and especially in the context of graduates entering the labour market. However, undergraduates may have bona fide reasons for working part-time, for example, combining further study with part-time employment (data on reasons for working part-time are shown in Table 6 below). The rate of underemployed and fully employed part-time workers, as measured by the proportion of part-time employees seeking more hours of work or not seeking more hours of work, as a proportion of all employed graduates, are shown below in Table 5.

Overall, in 2017 more employed undergraduates 19.7 per cent, were underemployed part-time workers immediately upon graduation, than were fully employed part-time workers, 14.2 per cent. The rate of underemployed part-time employment was slightly lower than the 20.5 per cent recorded in 2016. Female undergraduates were more likely to be employed part-time at 41.1 per cent compared with 32.2 per cent for males, and are also more likely to be fully employed part-time workers than male undergraduates, 16.3 per cent compared with 10.1 per cent. Undergraduates with the highest rates of underemployed part-time employment seeking more hours of work were in the study areas of Creative arts, Communications, Psychology, and Tourism, hospitality, personal services, sport and recreation, at 32.0 per cent, 28.1 per cent, 27.6 per cent and 26.7 per cent respectively.

Graduates work in part-time employment for a range of personal and labour market related reasons and these are shown in Table 6. Consistent with 2016, the main reasons that undergraduates were underemployed part-time workers was because they were studying, 21.4 per cent, because there were no suitable jobs in their area of expertise, 19.6 per cent, because there were no jobs with a suitable number of hours, 16.8 per cent, or no suitable jobs in their local area, 11.6 per cent. On the other hand, the majority, 53.7 per cent, of undergraduates who were fully employed part-time workers were engaged in further study.

In general, those seeking more hours were more likely to cite labour force reasons for working part-time, 52.3 per cent compared with only 7.3 percent compared with those who were not seeking more hours. In contrast, those not seeking more hours were much more likely to cite personal reasons, with most of those indicating that studying was the main reason. Females not seeking more work were 13.1 percentage points more likely than males to cite caring for children as the main reason for working part-time and were also less likely than males to cite studying as the main reason, by 20.2 percentage points.

Figure C **Employed undergraduates working in part-time employment**

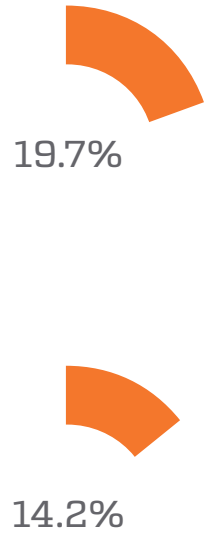


Table 5 **Part-time employment, by study area and gender, as a proportion of all employed graduates, 2017 (%)**

Study area	Total employed part-time*			Seeking more hours			Not seeking more hours		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Science and mathematics	50.4	56.2	53.9	24.3	26.9	25.8	19.8	24.0	22.3
Computing and information systems	22.4	20.3	22.0	13.3	12.0	13.0	5.3	6.0	5.4
Engineering	17.7	19.8	18.0	9.8	10.3	9.9	5.6	8.0	6.0
Architecture and built environment	25.8	36.0	30.5	12.2	18.7	15.2	9.8	12.6	11.0
Agriculture and environmental studies	28.0	41.9	36.2	16.8	24.6	21.4	7.2	12.1	10.1
Health services and support	43.6	44.6	44.3	25.3	24.5	24.8	15.1	16.3	16.0
Medicine	5.9	8.7	7.5	1.5	3.9	2.9	3.6	3.9	3.8
Nursing	31.2	45.0	43.5	18.4	15.3	15.6	9.2	25.0	23.4
Pharmacy	9.4	8.1	8.5	3.1	2.6	2.7	5.2	4.4	4.6
Dentistry	29.2	38.5	36.0	22.2	23.1	22.8	5.6	12.3	10.5
Veterinary science	27.8	29.5	29.2	11.1	13.4	13.1	16.7	14.3	14.6
Rehabilitation	18.9	21.7	21.0	7.7	12.7	11.5	9.4	7.4	7.9
Teacher education	24.1	31.0	29.9	14.7	16.6	16.3	7.5	10.6	10.1
Business and management	21.1	24.6	23.0	13.8	14.4	14.2	5.1	7.8	6.5
Humanities, culture and social sciences	47.0	51.2	49.9	24.6	26.5	25.9	16.7	19.7	18.8
Social work	32.2	35.1	34.7	21.9	18.9	19.3	6.8	13.1	12.3
Psychology	58.0	59.4	59.1	26.8	27.7	27.6	23.1	26.6	25.9
Law and paralegal studies	22.0	26.1	24.6	13.7	14.6	14.3	4.9	9.3	7.7
Creative arts	54.5	59.2	57.6	32.2	31.9	32.0	14.1	18.9	17.4
Communications	48.0	41.3	43.5	34.3	25.2	28.1	8.8	10.5	10.0
Tourism, hospitality, personal services, sport and recreation	52.2	43.6	47.6	37.8	16.8	26.7	11.1	17.8	14.7
All study areas**	**32.2**	**41.1**	**37.9**	**18.2**	**20.5**	**19.7**	**10.1**	**16.3**	**14.2**

* Includes graduates employed part-time where preference for additional hours is unknown

**Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table 6 **Main reason for working part-time, of those employed part-time, by preference for more hours, 2017 (%)**

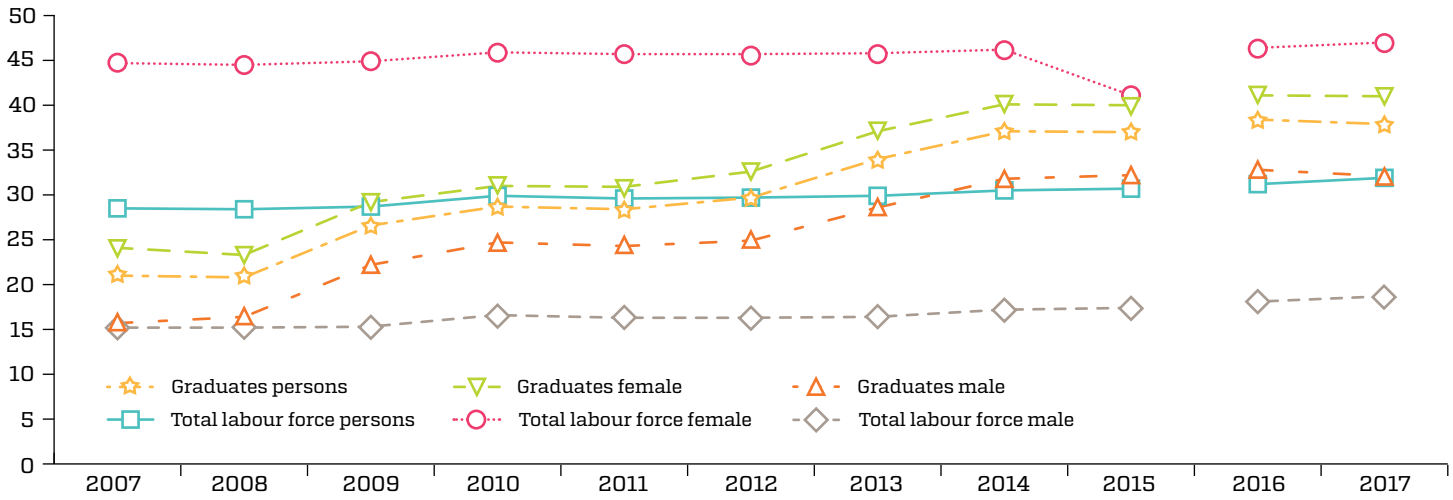
	Seeking more hours			Not seeking more hours		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Studying	22.9	20.7	21.4	68.8	48.6	53.7
Short-term illness or injury	0.6	0.8	0.7	0.7	0.4	0.5
Long-term health condition or disability	0.5	0.8	0.7	1.0	1.4	1.3
Caring for children	1.1	3.1	2.5	2.0	15.1	11.8
Caring for family member with a health condition or disability	0.7	0.9	0.8	0.5	1.1	0.9
Subtotal – personal factors	**25.8**	**26.3**	**26.1**	**73.0**	**66.6**	**68.2**
No suitable jobs in my area of expertise	18.9	19.9	19.6	3.0	2.6	2.7
No suitable jobs in my local area	11.6	11.5	11.6	1.5	1.7	1.7
Considered to be too young by employers	2.4	2.3	2.3	0.4	0.4	0.4
Considered too old by employers	1.8	2.0	2.0	0.5	0.4	0.4
No jobs with a suitable number of hours	17.7	16.3	16.8	2.3	2.1	2.1
Subtotal – labour market factors	**52.4**	**52.0**	**52.3**	**7.7**	**7.2**	**7.3**
Other	21.6	21.7	21.7	19.3	26.1	24.4
Total	**100**	**100**	**100**	**100**	**100**	**100**

2.4.1 Part-time employment and graduate underemployment

It has been a feature of the Australian labour market since the Global Financial Crisis (GFC) that part-time employment growth has been stronger than full-time employment growth. Over the ten years to 2017, part-time employment grew at around twice the rate of full-time employment across the workforce as a whole, with increases of 27.1 per cent and 13.5 per cent respectively. This section explores the impact of this trend on recent higher education graduates, by comparing data from the Graduate Outcomes Survey, and its predecessor the Australian Graduate Survey, with data from the ABS Labour Force Survey (LFS).

Figure 3 demonstrates the increase in part-time work as a proportion of all employment. Although this trend is clear for the overall workforce, it is much more pronounced for recent graduates, to the extent that, since 2012, it is now more common for graduates to be employed part-time than for the workforce as a whole. Between 2008, the latest peak of the graduate labour market, and 2017, the proportion of employed graduates working part-time increased 17.1 percentage points to 37.9 per cent. For the overall workforce, the proportion employed part-time increased 3.4 percentage points to 28.4 per cent.

Figure 3 **Part-time employment as a proportion of total employment, recent graduates and total labour force, by gender, 2007 to 2017 (%)**

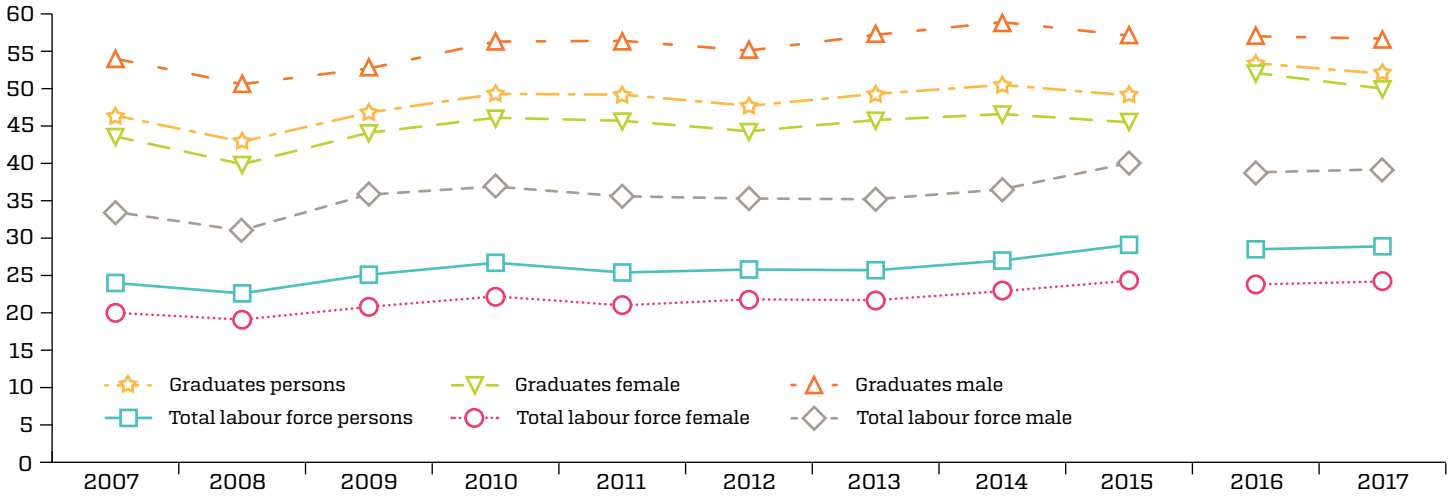


The trend towards increased rates of part-time employment has been evident for both males and females, among both graduates and the overall workforce. Among both cohorts females are more likely to be working part-time than males, although the gender disparity in this regard is far narrower among graduates than for the overall workforce. In 2017, male graduates were far more likely to be employed part-time than the overall male workforce, with part-time employment at 32.2 per cent for male graduates compared with 18.7 per cent for employed males overall. For females, graduates remain somewhat less likely to be employed part-time than the overall female workforce, with part-time employment rates of 41.1 per cent for graduates and 47.0 for the overall workforce in 2017.

There are a variety of reasons why people might be employed on a part-time basis (the previous section 3.4 explored reasons that employed graduates work part-time). It is therefore important to consider what proportion of those employed part-time can be considered as underemployed, who would prefer to work a greater number of hours than they currently do.

As shown in Figure 4, underemployment as a proportion of all part-time employment has increased significantly since the GFC. For the overall workforce, underemployment increased from a low point in 2008 of 22.6 per cent of all part-time employment, to 28.9 per cent in 2017. Underemployment as a proportion of part-time employment increased for recent graduates over the same period, from 42.9 per cent to 52.3 per cent.

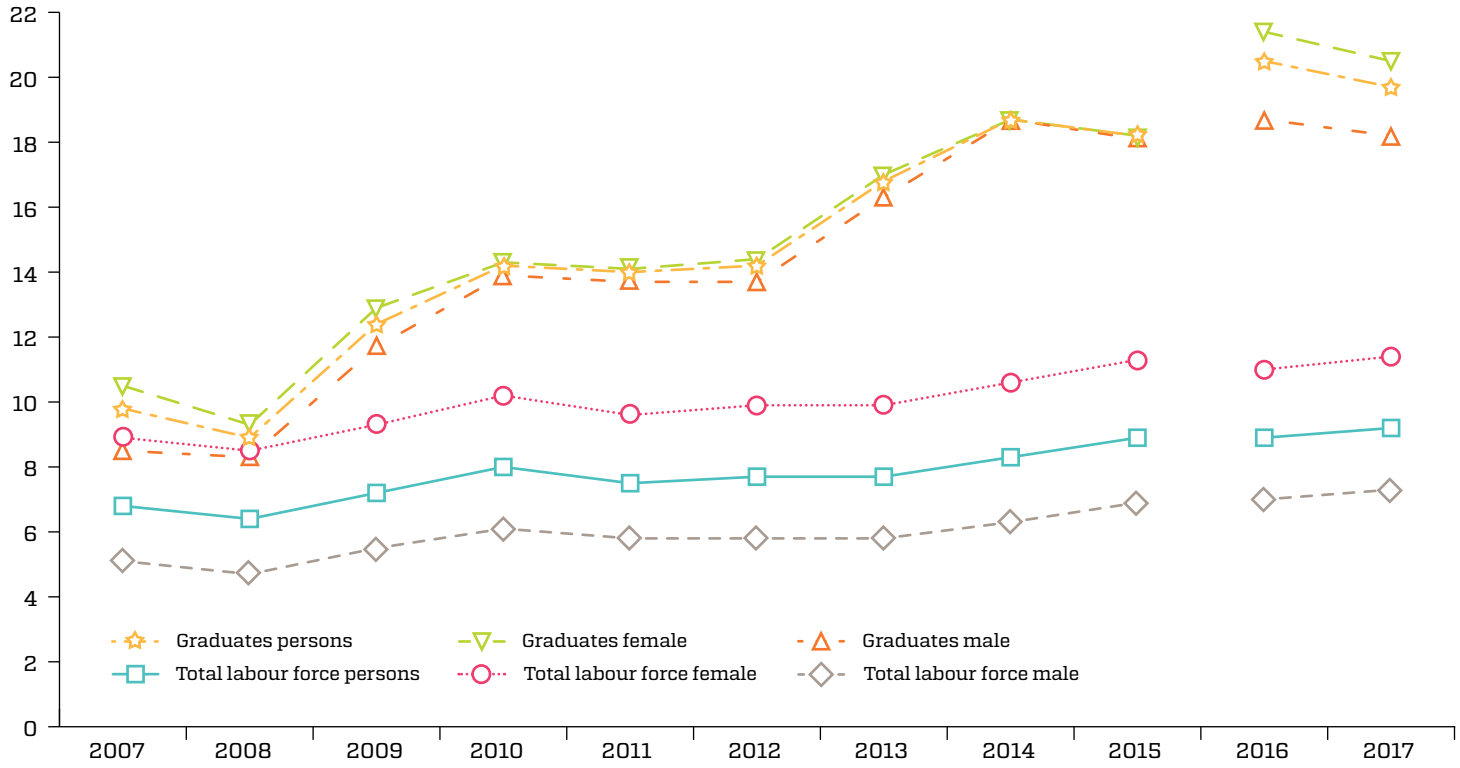
Figure 4 **Underemployment as a proportion of all part-time employment, recent graduates and total labour force, by gender, 2007 to 2017 (%)**



This demonstrates the recent trends towards increasing rates of part-time work cannot be entirely explained by changing personal preferences, but rather reflect at least, in part, the relatively weak state of the labour market over the past decade.

The combination of an increased prevalence of part-time employment and a higher rate of non voluntary part-time employment has resulted in a growing proportion of the total workforce who can be considered underemployed. Again, while this trend is evident for the overall workforce, recent graduates have experienced faster growth in underemployment, as shown in Figure 5.

Figure 5 **Underemployment as a proportion of total employment, recent graduates and total labour force, by gender, 2007 to 2017 (%)**



For the overall workforce, underemployment as a proportion of total employed increased from 6.8 per cent in 2008 to 9.2 per cent in 2017, an increase of 2.8 percentage points. Similar increases in underemployment as a proportion of all employment were observed for both males (up 2.6 percentage points) and females (up 2.9 percentage points) in the overall workforce.

For recent graduates, the increase in underemployment has been much greater. Between 2008 and 2017 the proportion of employed graduates who were underemployed more than doubled, rising 10.8 percentage points to 19.7 per cent. In other words, employed recent graduates are now twice as likely to be underemployed as the overall workforce. Although both male and female graduates have been affected, the impact has been somewhat worse for female graduates, with underemployment increasing 11.2 percentage points to 20.5 per cent, compared with an increase of 9.9 percentage points to 18.2 per cent for males.

The increasing incidence of underemployment among recent graduates highlights that since the GFC it has been increasingly difficult for graduates to establish themselves in the labour market. However, results from the 2017 Graduate Outcomes Survey – Longitudinal demonstrate that graduates do succeed over time in the labour market. For example, in 2014 four months after graduation, the full-time employment rate for undergraduates was 67.5 per cent. Three years later, almost nine in ten graduates, 89.3 per cent, were successful in finding full-time employment.

Note on data sources

Data on graduate outcomes is from the Australian Graduate Survey (AGS) for 2007 to 2015 and the Graduate Outcomes Survey (GOS) for 2016 and 2017. Caution should be used when directly comparing the two series due to changes in survey methodology.

Data on the general labour force is from the ABS Labour Force Survey (LFS) cat. no. 6202.0, tables 1 and 22. Annualised figures are calculated as the average of the seasonally adjusted data for the twelve months to June of that year (overall labour market) or the four quarters to May of that year (underemployment).

The AGS, GOS and LFS all define part-time employment as being less than 35 hours of employment per week. GOS and the LFS define a person as underemployed if they are employed part-time but express a desire to work more hours. The AGS defines a person as underemployed if they are employed part-time but are looking for full-time employment.

2.5 Occupation level

The distribution of undergraduates in full-time and overall employment by occupation is shown in Table 7. Managerial and professional occupations, at Skill Level 1 in the ANZSCO classification, have a level of skill commensurate with a bachelor degree or higher.[2] In 2017, four months after graduation, 72.2 per cent of graduates employed full-time were working in managerial or professional occupations, down slightly from 72.3 per cent recorded in 2016. Graduates employed part-time were less likely to be employed in managerial and professional occupations with 59.7 per cent of all employed undergraduates working in these occupations four months after graduation a slight increase from 59.1 per cent in 2016. The proportion of male and female undergraduates working in managerial or professional occupations immediately upon graduation does not differ markedly. However, males are somewhat more likely to be working in managerial positions with 9.3 per cent of those employed full-time compared with 6.8 per cent of females.

The distribution of employed undergraduates across occupations by study area is shown in Table 8. Undergraduates with more vocationally oriented degrees, for example Medicine, Pharmacy, Rehabilitation, Teacher education or Nursing graduates, were more likely to be working in managerial or professional occupations. In 2017, four months after completing their degree, over 86 per cent of employed graduates from each of these study areas were working in these occupations. On the other hand, undergraduates with more generalist degrees were less likely to be working in managerial or professional occupations. For example, only 32.6 per cent of Tourism, hospitality, personal services, sport and recreation, 40.1 per cent of Psychology graduates, 42.5 per cent of Humanities, culture and social science graduates, and 44.0 per cent of Agriculture and environmental studies graduates who were employed were working in managerial or professional occupations.

72.2%

percentage of undergraduates employed full-time working in managerial or professional occupations

2 Occupations at Skill Level 1 have a level of skill commensurate with a bachelor degree or higher qualification. At least five years of relevant experience may substitute for the formal qualification. In some instances relevant experience and/or on-the-job training may be required in addition to the formal qualification. ABS, Australian and New Zealand Standard Classification of Occupations (ANZSCO), 1220.0, 2013.

Table 7 **Undergraduate employment outcomes by occupation, 2017 (%)**

	Employed full-time (%)			Overall employed (%)		
Occupation group	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Managers	9.3	6.8	7.8	7.7	5.4	6.2
Professionals	62.1	65.9	64.4	51.7	54.5	53.5
Technicians and trades workers	6.2	2.2	3.7	6.0	2.4	3.6
Community and personal service workers	7.1	8.4	7.9	11.2	13.3	12.6
Clerical and administrative workers	8.0	11.6	10.2	8.0	11.4	10.2
All other occupations	7.3	5.2	6.0	15.6	13.0	13.9
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 8 **Undergraduate employment by occupation and study area, 2017 (%)**

Study area	Occupation group						
	Managers	Professionals	Technicians & trade	Community & personal service	Clerical & administrative	All other occupations	All employed
Science and mathematics	4.6	40.8	8.3	13.9	10.4	22.1	100
Computing and information systems	6.4	65.4	11.5	3.5	4.9	8.3	100
Engineering	6.4	68.3	8.0	3.5	3.8	10.0	100
Architecture and built environment	9.8	40.4	18.4	6.5	12.2	12.7	100
Agriculture and environmental studies	8.3	35.7	11.2	9.2	10.6	24.9	100
Health services and support	3.8	44.0	2.2	27.1	8.1	14.7	100
Medicine	0.3	92.4	1.0	1.8	1.7	2.9	100
Nursing	0.7	85.3	0.4	10.0	1.1	2.4	100
Pharmacy	0.6	91.7	1.4	1.4	1.7	3.3	100
Dentistry	0.4	50.8	0.0	46.6	1.1	1.1	100
Veterinary science	1.9	59.5	17.1	5.1	3.5	12.8	100
Rehabilitation	1.2	88.2	0.1	5.8	1.4	3.3	100
Teacher education	2.8	84.6	0.4	6.2	1.7	4.3	100
Business and management	13.5	47.7	1.6	6.4	17.3	13.6	100
Humanities, culture and social sciences	7.4	35.1	2.0	18.0	16.7	20.8	100
Social work	4.5	53.6	1.7	27.4	6.1	6.8	100
Psychology	6.0	34.1	1.9	21.6	14.9	21.5	100
Law and paralegal studies	5.8	44.1	1.0	11.8	27.4	10.0	100
Creative arts	4.8	42.5	4.5	15.2	7.6	25.3	100
Communications	7.4	42.1	3.9	11.7	13.2	21.7	100
Tourism, hospitality, personal services, sport and recreation	17.6	15.0	2.7	33.2	9.6	21.9	100
All study areas*	**6.2**	**53.5**	**3.6**	**12.6**	**10.2**	**13.9**	**100**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

2.6 Skills formation and utilisation

Of undergraduates who were employed full-time, 58.1 per cent felt that their qualification was 'very important' or 'important' for their current employment, as shown by Table 9. Part-time graduates were less likely to report that their qualification was 'very important' or 'important for their current employment, with fewer than half of all employed graduates reporting that this was the case.

The extent to which a graduate's qualification prepared them for their current employment is shown in Table 10. Undergraduates who were employed full-time were more likely than undergraduates employed part-time to report that they were 'very well' or 'well' prepared' for employment. 77.4 per cent of undergraduates employed full-time stated they were prepared for employment, in comparison with 68.4 per cent of all employed undergraduates.

Graduates were also asked to indicate whether or not they believed that they were working in a job that allowed them to fully use their skills or education – see Appendix 3 for the derivation of this measure. This provides a benchmark of the underutilisation of skills, and as such it will be important to monitor changes in this measure over time. Of those who were employed full-time in 2017, 28.2 per cent felt that they were not fully using their skills or education in their current position, as shown by Table 11. This represents a slight decrease from 29.1 per cent in 2016. Undergraduates working part-time were more likely to report that they were not fully using their skills or education given that 41.1 per cent of undergraduates in overall employment reported that their skills and education were not fully utilised, which also represents a slight decrease of 1.0 percentage point from 2016.

In 2017, employed graduates aged 30 years or younger, were substantially more likely than older graduates to report that they were not fully utilising their skills or education in their current occupation at 42.6 per cent compared with 33.8 per cent, representing a difference of 8.8 percentage points.

Similarly, 42.0 per cent of employed internal and mixed mode undergraduates reported that their skills or education were not being fully used in comparison with 35.1 per cent of external undergraduates. This difference may be because older undergraduates are more likely to have studied externally, and are also more likely to have an ongoing relationship with an employer and be established in their career while studying.

Table 9 **Importance of qualification for undergraduates current employment, 2017 (%)**

	Employed full-time	Overall employed
Very important	43.3	36.0
Important	14.8	12.5
Fairly important	15.1	13.7
Not that important	13.3	14.3
Not at all important	13.6	23.5
Total	**100.0**	**100.0**

28.2%

percentage of undergraduates employed full-time were not fully using their skills or education in their current job. This represents a slight decrease from 29.1 per cent in 2016

Table 10 **Extent to which qualification prepared undergraduate for employment, 2017 (%)**

	Employed full-time	Overall employed
Very well	30.6	26.8
Well	46.8	41.6
Not well	8.7	8.3
Not at all	7.0	12.2
Unsure	6.9	11.2
Total	**100.0**	**100.0**

Interestingly, graduates from metropolitan areas were more likely to report that their current occupation did not fully use their skills or education than graduates from regional/remote areas, at 42.6 per cent compared with 36.6 per cent, a difference of 6 percentage points. When comparing socio-economic status, graduates from high SES areas were 4.3 percentage points more likely to report that they were not fully using their skills and education than low SES graduates, at 42.7 per cent compared with 38.4 per cent.

Employed Indigenous graduates were less likely than non-Indigenous graduates to report that their skills or education were not being fully utilised with 33.8 per cent compared with 41.2 per cent of employed non-Indigenous graduates. However, undergraduates with a reported disability were more likely to report that they were not fully using their skills or education, 44.5 per cent of these undergraduates in overall employment, in comparison with 40.9 per cent of undergraduates who reported no disability.

The main reason provided by undergraduates for working in a job in which they considered they did not fully use their skills or education is shown in Table 12. Reasons are grouped according to whether they could be considered a personal choice or labour market factor.

In general, the reasons cited for working in a job that did not fully utilise graduates' skills and education remained consistent with 2016. The most commonly cited reason was that there were no suitable jobs in their area of expertise with around a quarter, 25.2 per cent, of employed undergraduates and 27.4 percent of those employed full-time stating this was the case.

A further 15.5 per cent of employed graduates and 16.9 per cent of those employed full-time said they were not fully using their skills and education in their current position because there were no suitable jobs in their local area.

Undergraduates employed part-time were more likely to state that they did not use their skills or education in their current job because they were engaging in further study. 23.7 per cent of all employed graduates stated this reason in comparison with 8.4 per cent of graduates employed full-time.

Employed undergraduates with a degree in Psychology were most likely to report that their skills and education were not being fully used in their current job, 66.4 per cent, followed by Tourism, hospitality, personal services, sport and recreation, 62.3 per cent, Science and mathematics graduates, 59.6 per cent, and Humanities, culture and social sciences undergraduates, 57.5 per cent, as shown by Table 13. Between a quarter and one fifth of persons in each of these four study areas said that the main reason their skills were not fully utilised was because there were no suitable jobs in their area of expertise.

Table 11 **Undergraduate reporting job does not fully use my skills or education, 2017 (%)**

		Employed full-time (%)	Overall employed (%)
Gender	Male	30.1	42.5
	Female	27.1	40.3
Age	30 years or under	28.1	42.6
	Over 30 years	29.1	33.8
Indigenous	Indigenous	25.0	33.8
	Non Indigenous	28.3	41.2
Home language	English	28.3	41.1
	Language other than English	26.7	40.6
Disability	Reported disability	29.9	44.5
	No disability	28.2	40.9
Study mode	Internal and mixed mode	27.8	42.0
	External	30.8	35.1
Socio-economic status	High	28.9	42.7
	Medium	28.2	41.1
	Low	27.1	38.4
Location	Metro	29.2	42.6
	Regional/remote	25.2	36.6
Total undergraduate		**28.2**	**41.1**

Table 12 **Undergraduates main reason for working in a job that doesn't fully use my skills or education, 2017 (%)**

	Employed full-time (%)	Overall employed (%)
Studying	8.4	23.7
I'm satisfied with my current job	4.3	3.0
I have skills that are not required in my current job	3.6	2.3
Changing jobs/careers	2.5	1.9
Entry level job/career stepping stone	5.1	2.6
Caring for children or family member	1.6	1.8
Subtotal – personal factors	**25.5**	**35.3**
No suitable jobs in my area of expertise	27.4	25.2
No suitable jobs in my local area	16.9	15.5
Considered to be too young by employers	8.2	4.7
Not enough work experience	4.8	3.6
No jobs with a suitable number of hours	2.5	3.3
Cannot find a job	2.1	2.2
My job is temporary/casual	1.2	1.2
Subtotal – labour market factors	**63.1**	**55.7**
Other	11.2	9.0
Total	**100**	**100**

Table 13 **Undergraduates reporting they did not fully use their skills or education and main reason being no suitable jobs in my area of expertise, by study area, 2017 (%)**

	Extent to which skills and education not fully used		Main reason – no suitable jobs in my area of expertise*	
Study area	**Employed full-time**	**Overall employed**	**Employed full-time**	**Overall employed**
Science and mathematics	40.0	59.6	36.1	25.6
Computing and information systems	24.7	34.6	20.0	21.0
Engineering	24.3	33.7	29.8	31.0
Architecture and built environment	21.6	33.6	23.6	23.1
Agriculture and environmental studies	41.0	53.9	31.3	27.3
Health services and support	25.9	42.8	28.2	25.1
Medicine	4.7	9.9	20.0	16.7
Nursing	9.3	14.1	28.8	29.1
Pharmacy	7.8	12.7	29.2	18.6
Dentistry	2.5	6.1	25.0	14.3
Veterinary science	13.0	31.4	39.1	28.9
Rehabilitation	10.3	17.4	26.9	35.5
Teacher education	8.9	14.7	17.8	15.4
Business and management	33.7	42.7	23.7	24.8
Humanities, culture and social sciences	43.2	57.5	30.0	24.7
Social work	29.2	40.4	15.9	19.3
Psychology	53.3	66.4	23.8	19.8
Law and paralegal studies	34.9	43.2	29.8	27.5
Creative arts	40.7	52.4	36.4	33.3
Communications	39.3	54.2	24.6	27.4
Tourism, hospitality, personal services, sport and recreation	46.7	62.3	28.6	23.9
All study areas**	**28.2**	**41.1**	**27.4**	**25.2**

* As a proportion of those reporting skills and education not fully used.

**Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

3 Postgraduate employment

Further study enables postgraduates to secure improved employment outcomes. As shown in Table 14, in 2017, the full-time employment rate for postgraduate coursework graduates was 86.1 per cent, increasing modestly from 85.1 per cent in 2016. For postgraduate research graduates the full-time employment rate in 2017 was 80.4 per cent, which is a very slight increase from 80.1 per cent for postgraduate research graduates. Results for both postgraduate study levels therefore compare favourably with the 71.8 per cent full-time employment rate for undergraduates. In 2017, the overall employment rate remained broadly stable at 92.6 per cent for postgraduate coursework graduates and 90.6 per cent for postgraduate research graduates, in comparison with 86.5 per cent for undergraduates.

3.1 Employment outcomes by study area

Postgraduates in health courses generally have greater success in the labour market immediately upon graduation, though as for undergraduate level graduates, this may be associated with professional registration requirements. In 2017, postgraduate coursework Medicine, Pharmacy and Nursing graduates had the highest rate of full-time employment at 95.9 per cent, 95.3 per cent and 93.7 per cent respectively, as shown by Table 15. Consistent with 2016, at the postgraduate research level in 2017, Nursing had the highest rate of full-time employment at 97.6 per cent, followed by Law and paralegal studies at 94.9 per cent, as shown by Table 16. However, while some postgraduate study areas have weaker employment outcomes than others, the divergence in employment outcomes by study areas is narrower at postgraduate levels than at the undergraduate level. For example, in 2017 the standard deviation in full-time employment outcomes across study areas was 11.8 percentage points for undergraduates (see Table 3), compared with 7.6 percentage points for postgraduate coursework graduates and 10.3 percentage points for postgraduate research graduates.

Table 14 **Postgraduate employment outcomes, 2016 and 2017**

	2016			2017		
Postgraduate coursework	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Full-time employment (%)	86.8	84.0	85.1	87.3	85.2	86.1
Overall employed (%)	91.7	92.9	92.4	91.8	93.1	92.6
Labour force participation rate (%)	96.2	95.4	95.7	96.4	95.4	95.8
Postgraduate research						
Full-time employment (%)	80.0	80.2	80.1	80.5	80.3	80.4
Overall employed (%)	89.3	91.1	90.3	90.6	90.7	90.6
Labour force participation rate (%)	93.3	92.8	93.0	94.7	94.0	94.3

Table 15 **Postgraduate coursework employment outcomes by study area, 2016 and 2017**

	Full-time employment (%)		Overall employment (%)		Labour force participation rate (%)	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	77.3	77.8	87.9	88.5	92.3	92.7
Computing and Information Systems	80.9	85.1	85.7	89.0	96.1	94.4
Engineering	83.6	86.0	88.1	88.9	96.4	96.5
Architecture and built environment	85.4	84.8	91.4	91.4	97.7	97.2
Agriculture and environmental studies	73.9	77.5	87.2	89.1	94.3	95.5
Health services and support	84.1	85.3	93.2	93.9	96.3	96.1
Medicine	94.2	95.9	96.8	97.7	97.1	95.2
Nursing	93.6	93.7	97.9	97.2	98.3	98.3
Pharmacy	88.0	95.3	93.9	94.8	98.3	96.6
Dentistry	87.6	88.7	97.6	96.5	99.2	98.6
Veterinary science	91.9	92.1	93.9	92.2	94.3	94.7
Rehabilitation	93.5	93.2	96.9	97.1	98.7	97.6
Teacher education	82.5	83.3	93.3	93.6	95.7	96.0
Business and management	89.7	90.0	92.9	93.4	96.7	97.7
Humanities, culture and social sciences	81.6	81.6	91.3	90.0	91.4	90.6
Social work	78.6	77.9	89.2	88.8	95.0	95.4
Psychology	83.0	82.6	92.8	90.8	91.6	90.6
Law and paralegal studies	85.5	87.9	90.6	91.6	96.8	96.8
Creative arts	69.7	70.3	89.3	87.5	93.8	90.8
Communications	74.4	71.8	88.8	87.3	95.0	92.9
Tourism, hospitality, personal services, sport and recreation	80.8	74.5	93.8	91.8	92.8	98.4
All study areas*	**85.1**	**86.1**	**92.4**	**92.6**	**95.7**	**95.8**
Standard deviation (pp)	**6.8**	**7.6**	**3.5**	**3.3**	**2.3**	**2.5**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table 16 **Postgraduate research employment outcomes by study area, 2016 and 2017**

	Full-time employment (%)		Overall employment (%)		Labour force participation rate (%)	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	77.7	80.6	87.7	91.4	94.9	94.7
Computing and Information Systems	81.8	81.7	90.4	94.0	94.3	94.3
Engineering	75.5	74.3	84.2	86.1	96.2	95.7
Architecture and built environment	76.5	74.5	90.2	84.6	97.6	96.3
Agriculture and environmental studies	71.9	75.5	88.6	88.5	94.6	96.8
Health services and support	91.0	91.3	94.3	96.2	97.2	98.6
Medicine	84.8	88.1	91.7	92.5	95.5	97.1
Nursing	95.9	97.6	98.4	97.7	96.9	100.0
Pharmacy	90.9	77.1	94.1	91.9	100.0	100.0
Dentistry	n/a	n/a	n/a	n/a	n/a	n/a
Veterinary science	76.7	n/a	91.2	87.1	97.1	93.9
Rehabilitation	n/a	n/a	n/a	96.6	n/a	96.7
Teacher education	86.5	87.4	93.8	91.8	93.5	93.6
Business and management	85.0	74.5	94.7	86.7	95.4	96.5
Humanities, culture and social sciences	73.4	72.9	89.4	88.5	83.8	88.2
Social work	n/a	n/a	n/a	n/a	n/a	n/a
Psychology	81.1	88.3	92.8	94.4	95.7	96.7
Law and paralegal studies	93.0	94.9	95.9	91.7	94.2	96.0
Creative arts	81.0	70.5	91.9	89.4	89.8	90.4
Communications	67.2	82.9	84.3	96.4	89.7	93.3
Tourism, hospitality, personal services, sport and recreation	n/a	n/a	n/a	n/a	n/a	n/a
All study areas*	**80.1**	**80.4**	**90.3**	**90.6**	**93.0**	**94.3**
Standard deviation (pp)	**9.2**	**10.3**	**5.0**	**4.5**	**3.9**	**3.1**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

3.2 Employment outcomes by demographic group

As was the case in 2016, postgraduate coursework graduates were more likely to be in full-time employment in 2017 if they were aged over 30, 87.7 per cent, or had studied externally, 90.1 per cent respectively, as shown by Table 17. Once again this is likely to be because they have an ongoing relationship with an employer while studying. Similar to the pattern for undergraduates, while older postgraduate coursework graduates were 3.6 percentage points more likely to employed full-time, they are only slightly more likely to be employed overall and marginally less likely to be participating in the labour force than graduates aged 30 or younger. Postgraduate coursework graduates who completed their studies externally were 6.3 percentage points more likely to be employed full-time than those who had completed internal or mixed mode studies, 3.1 per cent more likely to be employed overall and also slightly more likely to participate in the labour force.

Of postgraduate coursework graduates who were Indigenous, 90.8 per cent were in full-time employment and 92.5 per cent in overall employment, compared with a lower full-time employment rate for non-Indigenous undergraduates of 86.0 per cent and an equal rate of 92.6 per cent in overall employment.

On the other hand, as was the case with undergraduates, postgraduate coursework graduates with a reported disability had a full-time employment rate of 72.5 per cent, which is higher than undergraduates reporting a disability with 61.5 per cent, but was 14 percentage points lower than the 86.6 per cent for postgraduate coursework graduates who reported no disability. These graduates were also less likely to be employed with 85.4 per cent compared with 92.9 per cent of those with no stated disability, and were also less likely to be participating in the labour force with 90.8 per cent compared with 96.0 per cent respectively.

Similarly, those whose home language was other than English had a substantially lower rate of full-time employment in 2017 of 74.1 per cent, which is much lower in comparison with the 86.6 per cent for postgraduate coursework graduates whose home language was English, representing a difference of 12.5 percentages points. NESB postgraduate coursework graduates were also less likely to be employed overall at 83.2 per cent, compared with 93.0 per cent for those from an English speaking background. However labour force participation was the same regardless of language background.

In 2017, as was the case for undergraduates, postgraduate coursework graduates in higher socio-economic status (SES) categories recorded slightly better employment outcomes, with 87.4 per cent of high SES postgraduate coursework graduates employed full-time compared with 85.5 per cent of those in medium SES and 84.6 per cent in the low SES category (see section 3.2 for an explanation of SES categories). The pattern is similar in terms of overall employment, with high, medium and low SES graduates recording overall employment rates of 93.1 per cent, 92.8 per cent and 92.0 per cent respectively. Interestingly, this pattern is reversed in respect to labour force participation, for which the rate is higher for low SES graduates, at 96.4 per cent, compared with medium or high SES graduates, at 95.9 and 95.5 per cent respectively.

As was the case for undergraduates, the 2017 labour force outcomes of postgraduate coursework graduates from regional or remote areas were higher than for graduates from metropolitan areas (see section 3.2 for an explanation of geographic categories). Regional/remote graduates' full-time employment rate was 88.6 per cent compared with 85.6 per cent for metropolitan graduates. Similarly, 94.6 per cent of regional/remote graduates were employed

overall compared with 92.3 per cent for metropolitan graduates. Graduates from regional/remote areas were also slightly more likely to be participating in the labour force, at 96.3 per cent compared with 95.7 per cent for graduates from metropolitan areas.

In contrast to the results at other study levels, postgraduate research graduates who were younger were more likely to be in full-time employment in 2017, 82.7 per cent, then those aged over 30, 79.1 per cent, as shown by Table 18. This rate is lower than for postgraduate coursework graduates. Younger postgraduate research graduates were also more likely to be employed and also slightly more likely to be participating in the labour force than graduates aged over 30 years.

Postgraduate research graduates who completed their studies externally were 4.4 percentage points more likely to be employed full-time than those who had completed internal or mixed mode studies. There was little difference, however, between the study modes in terms of overall employment rates, and those completing their research programs externally were slightly less likely to participate in the labour force at 92.3 per cent compared with 94.4 per cent of those completing internally or by mixed mode.

Postgraduate research graduates with a reported disability had a full-time employment rate of 72.9 per cent, which was 7.8 percentage points lower than the 80.7 per cent for those who reported no disability. These graduates were also less likely to be employed at 85.1 per cent compared with 90.8 per cent of those with no stated disability, and were also less likely to be participating in the labour force, at 88.7 per cent compared with 94.5 per cent.

Similarly, those whose home language was other than English had a substantially lower rate of full-time employment rate in 2017 of only 66.3 per cent which, in comparison with the 81.8 per cent for postgraduates research whose home language was English, representing a difference of 15.5 percentages points. Postgraduate research graduates from a non-English speaking background were also less likely to be employed, 84.1 per cent compared with 91.2 per cent for those from an English speaking background, although they are very slightly more likely to be participating in the labour force.

In contrast with undergraduates and postgraduate coursework graduates, the full-time employment rate for postgraduate research graduates was lower for those in higher SES categories, with 80.8 per cent of high SES postgraduate research graduates employed full-time compared with 81.5 per cent of those in medium SES and 81.4 per cent in the low SES category. The pattern is also different in terms of overall employment, with low SES graduates gaining a higher overall employment rate of 94.2 per cent compared with 90.5 per cent and 90.7 per cent for medium and high SES groups respectively. Interestingly, a higher proportion of low SES graduates were also participating in the labour force than medium or high SES graduates, at 96.2 per cent compared with 94.5 per cent and 93.3 per cent respectively.

As was the case for other graduates in 2017, the labour force outcomes of postgraduate research graduates from regional or remote areas were higher than for graduates from metropolitan areas. Regional/remote graduates' full-time employment rate was 83.9 per cent compared with 80.5 per cent for metropolitan graduates. Similarly, 92.5 per cent of regional/remote graduates were employed overall compared with 90.6 per cent metropolitan. Graduates from regional/remote areas were also slightly more likely to be participating in the labour force at 95.0 per cent compared with 93.8 per cent for metropolitan graduates.

Regional/remote graduates' full-time employment rate was 83.9 per cent compared with 80.5 per cent for metropolitan graduates

Table 17 **Postgraduate coursework employment outcomes by demographic group, 2016 and 2017 (%)**

		Full-time employment (%)		Overall employment (%)		Labour force participation rate (%)	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	82.6	84.1	92.0	92.3	96.3	96.5
	Over 30 years	87.1	87.7	92.8	92.8	95.2	95.2
Indigenous	Indigenous	83.7	90.8	91.9	92.5	94.9	94.5
	Non Indigenous	85.1	86.0	92.4	92.6	95.7	95.8
Home language	English	85.8	86.6	92.9	93.0	95.7	95.8
	Language other than English	71.3	74.1	82.6	83.2	94.9	95.8
Disability	Reported disability	73.8	72.5	85.3	85.4	89.2	90.8
	No disability	85.5	86.6	92.7	92.9	96.0	96.0
Study mode	Internal and mixed mode	82.9	83.8	91.4	91.5	95.5	95.4
	External	89.6	90.1	94.5	94.6	96.1	96.4
Socio-economic status	High	85.8	87.4	92.6	93.1	95.5	95.5
	Medium	84.6	85.5	92.6	92.8	96.0	95.9
	Low	84.5	84.6	91.9	92.0	96.6	96.4
Location	Metro	84.6	85.6	92.2	92.3	95.7	95.7
	Regional/remote	87.2	88.6	93.9	94.6	96.5	96.3
Total postgraduate coursework		**85.1**	**86.1**	**92.4**	**92.6**	**95.7**	**95.8**

Table 18 **Postgraduate research employment outcomes by demographic group, 2016 and 2017 (%)**

		Full-time employment (%)		Overall employment (%)		Labour force participation rate (%)	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	77.8	82.7	89.5	91.6	95.3	95.5
	Over 30 years	81.5	79.1	90.7	90.1	91.8	93.7
Indigenous	Indigenous	n/a	n/a	n/a	n/a	n/a	n/a
	Non Indigenous	80.1	80.4	90.3	90.6	93.1	94.3
Home language	English	81.3	81.8	91.2	91.2	92.9	94.2
	Language other than English	68.2	66.3	80.5	84.1	93.5	95.0
Disability	Reported disability	71.3	72.9	85.3	85.1	81.9	88.7
	No disability	80.5	80.7	90.5	90.8	93.5	94.5
Study mode	Internal and mixed mode	79.9	80.1	90.3	90.7	93.0	94.4
	External	82.6	84.5	90.6	90.3	92.9	92.3
Socio-economic status	High	82.0	80.8	91.9	90.7	92.2	93.3
	Medium	80.2	81.5	91.1	90.5	93.6	94.5
	Low	74.5	81.4	89.8	94.2	90.7	96.2
Location	Metro	80.4	80.5	91.2	90.6	92.5	93.8
	Regional/remote	81.7	83.9	92.6	92.5	93.2	95.0
Total postgraduate research		**80.1**	**80.4**	**90.3**	**90.6**	**93.0**	**94.3**

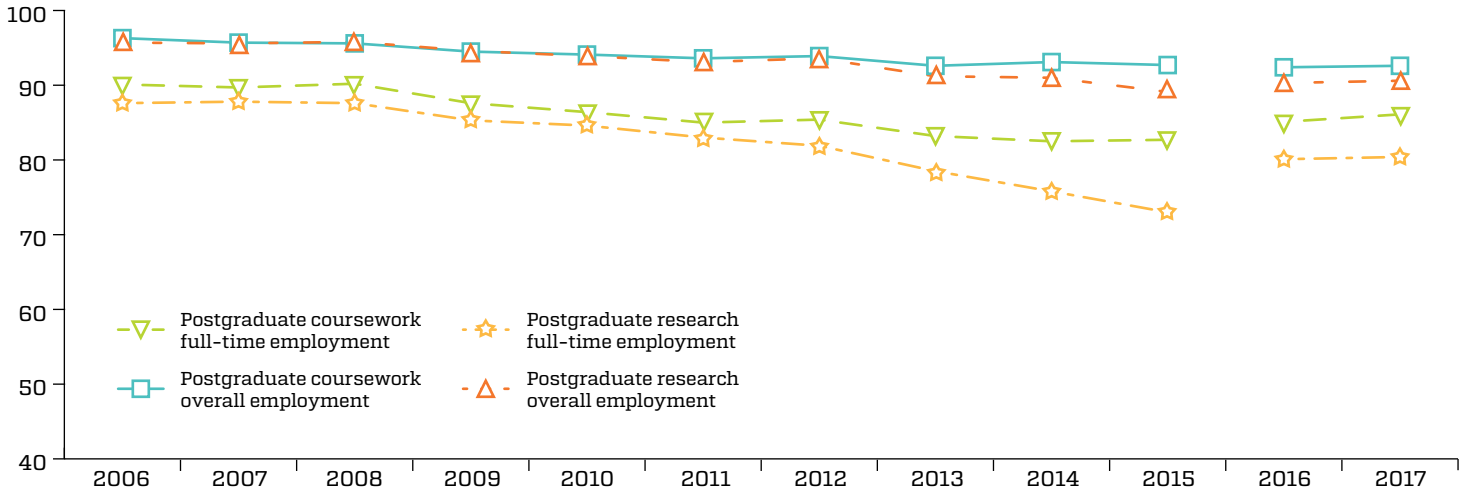
3.3 Employment over time

As is the case for undergraduates, since the Global Financial Crisis (GFC) postgraduate level graduates have taken longer to secure employment after completing their degrees, as shown by Figure 6. The full-time employment rate for postgraduate coursework graduates fell from a high of 90.2 per cent in 2008 to a low of 82.5 per cent in 2014, a decline of 7.7 percentage. Since then, some improvement has been seen in the labour market, with the full-time employment rate rising each year to reach 86.1 per cent in 2017.

Among postgraduate research graduates, the full-time employment rate fell more sharply, declining by 14.8 percentage points from a high of 87.8 per cent in 2007 to 73.0 per cent in 2015. A marked improvement observed in 2016 with full-time employment rising to 80.1 per cent, although this movement should be treated with caution given the change in survey methodology. In 2017 postgraduate research full-time employment improved very slightly to 80.4 per cent.

The Graduate Outcomes Survey – Longitudinal shows that postgraduates do succeed over time, with a higher proportion of graduates in work three years after graduation. In 2014, 82.6 per cent of postgraduate coursework graduates were in full-time employment four months after graduation. Three years later, 91.9 per cent of the same cohort of graduates had found full-time work. For postgraduate research graduates, the rate of full-time employment increased from 77.1 per cent shortly after graduation to 90.9 per cent three years later in 2017.

Figure 6 **Postgraduate full-time and overall employment, 2007–2017 (%)**



3.4 Occupation level

Managerial and professional occupations at Skill Level 1 in the ANZSCO classification, as noted above, have a level of skill commensurate with a bachelor degree or higher. Postgraduates are more likely than undergraduates to be working in managerial and professional occupations, as shown by Table 19. In 2017, 87.2 per cent of postgraduate coursework graduates and 93.9 per cent of postgraduate research graduates employed full-time were working in managerial and professional occupations, in comparison with 72.2 per cent of undergraduates working full-time.

Consistent with results from the 2016 GOS, among postgraduate coursework graduates employed full-time males were more likely to be working in managerial occupations than females at 22.5 per cent and 12.5 per cent respectively, a difference of 10.0 percentage points. On the other hand, female postgraduate coursework graduates were more likely to be working in professional occupations than males, 75.6 per cent and 63.5 per cent respectively. This pattern is much less pronounced amongst postgraduate research graduates.

Table 19 **Postgraduate employment outcomes by gender and occupation, 2017 (%)**

	Employed full-time			Overall employed		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Postgraduate coursework						
Managers	22.5	12.5	16.7	20.4	10.4	14.2
Professionals	63.5	75.6	70.5	63.5	74.8	70.5
Technicians and trades workers	2.9	0.9	1.7	2.9	1.0	1.7
Community and personal service workers	3.5	3.0	3.2	4.2	4.2	4.2
Clerical and administrative workers	5.2	6.8	6.1	5.2	7.2	6.4
All other occupations	2.5	1.2	1.7	3.8	2.5	3.0
Total postgraduate coursework	**100**	**100**	**100**	**100**	**100**	**100**
Postgraduate research						
Managers	10.6	8.5	9.5	9.2	8.0	8.5
Professionals	84.9	84.0	84.4	84.5	83.4	83.9
Technicians and trades workers	1.3	1.1	1.2	1.5	1.3	1.4
Community and personal service workers	1.0	0.9	0.9	1.6	1.3	1.4
Clerical and administrative workers	1.5	4.9	3.3	1.9	4.9	3.6
All other occupations	0.6	0.6	0.6	1.4	0.9	1.1
Total postgraduate research	**100**	**100**	**100**	**100**	**100**	**100**

3.5 Skills formation and utilisation

As was the case in 2016, postgraduate coursework graduates continue to report a lower fit between their qualification and job than other study levels, as shown by Tables 20 and 21, which is perhaps surprising given the general perception that postgraduate coursework studies are more vocationally oriented. For example, among full-time employees, 45.5 per cent of postgraduate coursework graduates stated their qualification was either 'very important' or 'important' for their current position, in comparison with 58.1 per cent of undergraduates and 59.4 per cent postgraduate research graduates. Similarly, among full-time employees, 75.9 per cent of postgraduate coursework graduates reported their qualification prepared them 'very well or 'well' for their employment in comparison with 77.4 per cent of undergraduates and 83.9 per cent of postgraduate research graduates.

Postgraduate research graduates employed full-time were less likely to report that they were not fully utilising their skills or education in their job, 25.2 per cent, in comparison with 28.2 per cent of undergraduates and 28.1 per cent of postgraduate coursework graduates, as shown by Table 22 – see Appendix 3 for the derivation of these results.

Of postgraduate research graduates who were employed overall, 29.9 per cent reported that their job did not fully utilise their skills or education, compared to 30.9 per cent for postgraduate coursework and a much higher 41.1 per cent for undergraduates. This may indicate that while postgraduates may be employed part-time, their work seems to be more relevant to their qualification than for undergraduates.

However, among employed graduates reporting they were not fully utilising their skills or education, postgraduate research graduates continue to be much more likely than other study levels to indicate this was due to there being no suitable jobs in their area of expertise, 38.9 per cent down from 43.7 per cent in 2016. This compares with figures of 25.2 per cent for undergraduates and 25.5 per cent for postgraduate coursework graduates, as shown by Tables 12, 23 and 24.

Of those employed in 2017, Tourism, hospitality, personal services, sport and recreation, Communications, Creative arts, and Agriculture and environmental studies postgraduate coursework graduates were more likely to report that they were not using their skills or education in their current job, at 51.0 per cent, 44.8 per cent, 40.5 per cent and 40.1 per cent respectively, as shown by Table 25. Among those with the highest proportion of graduates stating that they were not using their skills or education in their current position, those in Creative arts, Tourism, hospitality, personal services, sport and recreation and Agriculture and environmental studies were most likely to indicate that this was because there were no suitable jobs in their area of expertise at 38.1 per cent, 32.0 per cent and 29.7 per cent respectively.

Dentistry, Veterinary Science, Pharmacy and Medicine were least likely to report that their employment did not fully utilise their skills and education with 8.3 per cent, 10.1 per cent, 11.4 per cent and 11.7 per cent respectively, representing very low numbers of graduates.

Veterinary science, Creative arts, and Humanities, culture and social sciences postgraduate research graduates were most likely to report that they were not using their skills or education in their current position, at 50.0 per cent, 44.8 per cent, and 39.0 per cent respectively, as shown by Table 26. Note that while there were generally too few responses to analyse the reasons for skills under-utilisation at the postgraduate research level in detail,

both Creative arts and Humanities, culture and social science had a relatively large proportion of those not utilising their skills citing the main reason as no suitable jobs in their area of expertise, with 43.5 per cent and 37.9 per cent respectively.

Postgraduate research graduates from Law and paralegal studies and Pharmacy were least likely to report that they were not fully utilising their skills and education, at 15.0 per cent and 18.2 per cent respectively.

Table 20 **Importance of qualification for postgraduates' current employment, 2017 (%)**

	Employed full-time	Overall employed
Postgraduate coursework		
Very important	26.3	26.7
Important	19.2	18.6
Fairly important	20.2	19.1
Not that important	21.1	20.4
Not at all important	13.2	15.3
Total postgraduate coursework	**100**	**100**
Postgraduate research		
Very important	40.2	36.1
Important	19.2	19.7
Fairly important	14.9	15.3
Not that important	14.8	15.8
Not at all important	10.9	13.0
Total postgraduate research	**100**	**100**

Table 21 **Extent to which qualification prepared postgraduate for employment, 2017 (%)**

	Employed full-time	Overall employed
Postgraduate coursework		
Very well	30.9	30.5
Well	45.0	43.6
Not well	7.5	7.2
Not at all	7.5	8.7
Unsure	9.1	10.0
Total postgraduate coursework	**100**	**100**
Postgraduate research		
Very well	46.4	43.4
Well	37.5	37.3
Not well	4.3	4.8
Not at all	5.0	6.7
Unsure	6.8	7.7
Total postgraduate research	**100**	**100**

Table 22 **Postgraduates reporting job does not fully use my skills or education, 2017 (%)**

	Employed full-time	Overall employed
Undergraduate	28.2	41.1
Postgraduate coursework	28.1	30.9
Postgraduate research	25.2	29.9

Table 23 **Postgraduate coursework graduates main reason for working in a job that doesn't fully use my skills and education, 2017 (%)**

	Employed full-time (%)	Overall employed (%)
Studying	4.9	7.6
I'm satisfied with my current job	6.3	5.6
I have skills that are not required in my current job	5.9	5.1
Changing jobs/careers	2.8	2.6
Entry level job/career stepping stone	4.1	3.3
Caring for children or family member	4.1	5.7
Subtotal – personal factors	**28.1**	**29.9**
No suitable jobs in my area of expertise	25.3	25.5
No suitable jobs in my local area	19.1	18.3
Considered to be too young by employers	6.9	5.4
Not enough work experience	3.2	2.9
No jobs with a suitable number of hours	2.1	3.4
Cannot find a job	2.4	2.4
My job is temporary/casual	0.6	0.7
Subtotal – labour market factors	**59.6**	**58.6**
Other	12.3	11.7
Total	**100**	**100**

Table 24 **Postgraduate research graduates main reason for working in a job that doesn't fully use my skills and education, 2016 (%)**

	Employed full-time (%)	Overall employed (%)
Studying	2.3	4.9
I'm satisfied with my current job	6.3	5.2
I have skills that are not required in my current job	5.6	4.4
Changing jobs/careers	2.8	2.0
Entry level job/career stepping stone	2.8	2.2
Caring for children or family member	4.2	5.6
Subtotal – personal factors	**24.0**	**24.3**
No suitable jobs in my area of expertise	38.2	38.9
No suitable jobs in my local area	18.9	19.0
Considered to be too young by employers	3.3	2.1
Not enough work experience	1.4	1.7
No jobs with a suitable number of hours	1.6	2.2
Cannot find a job	2.1	1.6
My job is temporary/casual	0.4	0.2
Subtotal – labour market factors	**65.9**	**65.7**
Other	10.0	10.0
Total	**100**	**100**

Table 25 **Postgraduate coursework graduates reporting they did not fully use their skills or education and main reason being no suitable jobs in my area of expertise, by study area, 2017**

	Extent to which skills and education not fully used		Main reason – no suitable jobs in my area of expertise	
Study area	**Employed full-time**	**Overall employed**	**Employed full-time**	**Overall employed**
Science and mathematics	28.7	35.8	30.0	30.6
Computing and information systems	37.6	39.8	27.2	28.9
Engineering	35.1	37.8	27.1	30.8
Architecture and built environment	21.0	25.4	23.5	27.9
Agriculture and environmental studies	33.2	40.1	31.9	29.7
Health services and support	26.4	30.6	29.1	28.9
Medicine	8.7	11.7	28.9	27.5
Nursing	14.7	16.1	23.5	22.5
Pharmacy	11.9	11.4	12.5	11.1
Dentistry	8.6	8.3	14.3	10.0
Veterinary science	5.9	10.1	0.0	12.5
Rehabilitation	10.0	12.3	26.7	29.5
Teacher education	19.3	22.8	20.1	19.9
Business and management	37.8	39.2	24.4	24.7
Humanities, culture and social sciences	35.7	39.7	28.6	28.1
Social work	31.8	36.2	18.3	19.7
Psychology	33.2	39.3	21.4	20.5
Law and paralegal studies	26.8	29.9	29.1	29.0
Creative arts	36.7	40.5	36.8	38.1
Communications	38.4	44.8	29.2	29.2
Tourism, hospitality, personal services, sport and recreation	48.6	51.0	43.8	32.0
All study areas*	**28.1**	**30.9**	**25.3**	**25.5**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table 26 **Postgraduate research level graduates reporting occupation does not fully use skills and education, by study area, 2017 (%)**

	Extent to which skills and education not fully used	
Study area	**Employed full-time**	**Overall employed**
Science and mathematics	21.3	28.9
Computing and information systems	30.1	29.7
Engineering	22.1	26.2
Architecture and built environment	22.9	21.4
Agriculture and environmental studies	27.4	36.5
Health services and support	21.5	24.0
Medicine	17.0	21.6
Nursing	20.5	22.0
Pharmacy	11.5	18.2
Dentistry	n/a	n/a
Veterinary science	n/a	50.0
Rehabilitation	n/a	21.4
Teacher education	33.1	33.5
Business and management	27.5	28.7
Humanities, culture and social sciences	36.5	39.0
Social work	n/a	n/a
Psychology	20.3	23.8
Law and paralegal studies	11.8	15.0
Creative arts	40.2	44.8
Communications	25.0	28.0
Tourism, hospitality, personal services, sport and recreation	n/a	n/a
All study areas*	**25.2**	**29.9**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

4 Undergraduate salaries

The median salary of all undergraduates employed full-time in 2017 was $60,000 which is an increase of $2,100 or 3.6 per cent from the 2016 salary of $57,900, as shown by Table 27.

Previously, it was shown that high level undergraduate labour market outcomes are broadly similar for males and females. However, the exception is that female undergraduates continue to earn less than male undergraduates, $59,000 and $60,100 respectively. In 2016, the gender gap in undergraduate median salaries was $3,600 or 6.4 per cent, but in 2017 this gap had narrowed to $1,100 or 1.9 per cent. Previous research suggests that one of the key factors contributing to the gender gap in graduate salaries is that females tend to graduate from fields of education that achieve lower salaries e.g. humanities, whereas males tend to graduate from more highly remunerated fields e.g. engineering.[1] However, female graduates often earn less than their male graduates within the same field of education and this issue is explored below.

Undergraduates aged over 30 reported substantially higher salaries than their younger counterparts in 2017, and the median salary for older graduates was $8,600 more per year than for those aged 30 years or under. This gap was more pronounced for males aged over 30, who were earning $13,100 more than those under 30, with the difference somewhat less stark for females with those over 30 earning $7,800 more. The median salary level for external mode undergraduates was $7,300 higher per year than internal/mixed mode. The gap is, again, more pronounced for males than for females, with males who had studied externally earning $13,000 more than internal/mixed mode males, whereas female external mode graduates earned $7,500 more than internal/mixed mode females. Within these demographic groups in 2017, female external mode graduates were earning $8,000 less than external mode males, and females over 30 years of age were earning $7,900 less than males in the same age group.

In 2017, Indigenous undergraduates continued to earn more than their non-Indigenous counterparts immediately upon graduation, with median salaries of $62,600 and $60,000 respectively. On the other hand, undergraduates whose home language was other than English had a lower median salary of $56,400 per year, in comparison with $60,000 for graduates whose home language was English. The pay gap between non-English speaking background undergraduates and English speakers was $3,500 for males and $3,000 for females.

In general terms, socio-economic status does not seem to have as great an impact on the salaries of undergraduates, with median salaries for graduates from high and low SES categories equal at $60,000, with those from the medium SES category earning $400 less. High SES males earn $1,000 dollars more than low SES males, but $1,900 more than high SES females.

Interestingly, median salaries for graduates from regional/remote areas were around $400 higher than for those from metropolitan areas. Salaries for regional/remote males were around $2,600 higher than for females from the same areas, whereas males from metropolitan areas earned around $1,600 more than their female counterparts.

1 Graduate Careers Australia (2014), *An analysis of the gender wage gap in the Australian graduate labour market, 2013*

Table 27 **Undergraduate median full-time salaries by demographic group, 2016 and 2017 ($)**

		Male		Female		Total	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	59,000	60,000	55,000	57,400	56,200	58,200
	Over 30 years	70,000	73,100	63,000	65,200	65,000	66,800
Indigenous	Indigenous	55,800	64,400	60,000	62,000	59,200	62,600
	Non Indigenous	60,000	60,000	56,400	59,000	57,900	60,000
Home language	English	60,000	60,500	56,400	59,000	58,000	60,000
	Language other than English	57,500	57,000	52,900	56,000	55,000	56,400
Disability	Reported disability	58,400	60,000	57,400	59,600	57,700	60,000
	No disability	60,000	60,200	56,400	59,000	57,900	60,000
Study mode	Internal and mixed mode	59,500	60,000	55,300	57,500	57,000	58,700
	External	72,600	73,000	62,600	65,000	64,000	66,000
Socio-economic status	High	60,000	61,000	56,800	59,100	58,000	60,000
	Medium	60,000	60,000	56,000	58,700	57,500	59,600
	Low	59,500	60,000	56,400	59,000	57,400	60,000
Location	Metro	60,000	60,000	56,000	58,400	57,400	59,600
	Regional/remote	60,000	62,600	57,500	60,000	58,700	60,000
Total undergraduate		**60,000**	**60,100**	**56,400**	**59,000**	**57,900**	**60,000**

4.1 Salaries by study area

Median full-time salaries in 2017 ranged between study areas from a high of $78,300 down to $44,200, with a standard deviation of $7,500. The areas with the highest graduate salaries were Dentistry at $78,300, Medicine, $70,300, Engineering, $64,000, and Teacher education, $63,500. The areas with the lowest full-time median undergraduate salaries were Pharmacy at $44,200, Creative arts, $48,000, Communication, $50,000 and Veterinary science, $51,600. The variation in salary between study areas was more pronounced for male graduates than for female graduates.

Notwithstanding that females tend to graduate from fields of education with lower salary levels, female undergraduates within fields of education or study areas still generally earn less than their male counterparts immediately upon graduation, as shown by Table 28. In 2017, there are a few exceptions to this general rule, immediately upon graduation females in Engineering earned $1,500 more than their male counterparts, while starting salaries between males and females were equal among Communications graduates.

On the whole however, study area results demonstrate that beyond subject choice, the gender gap in median undergraduate salaries persists due to a range of other factors such as occupation, age, experience, personal factors and possible inequalities within workplaces. The study areas which exhibit the highest gaps between male and female salaries include Dentistry with a gap between male and female salaries of $19,500, Architecture and built environment, $7,800, Law and paralegal studies, $5,000, and Humanities, culture and social sciences, $4,500.[2]

Beyond subject choice, the gender gap in median undergraduate salaries persists due to a range of other factors such as occupation, age, experience, personal factors and possible inequalities within workplaces

2 Graduate Careers Australia (2014), *An analysis of the gender wage gap in the Australian graduate labour market, 2013*

Table 28 **Undergraduate median full-time salaries by study area, 2016 and 2017**

Study area	Male ($)		Female ($)		Total ($)	
	2016	2017	2016*	2017	2016	2017
Science and mathematics	60,000	59,200	54,000	56,900	55,200	57,500
Computing and Information Systems	59,500	60,000	60,000	58,000	60,000	59,900
Engineering	62,600	63,500	62,300	65,000	62,600	64,000
Architecture and built environment	59,000	60,000	50,000	52,200	55,000	56,400
Agriculture and environmental studies	57,000	57,400	53,500	55,000	55,000	55,800
Health services and support	64,000	62,600	58,200	60,500	59,500	61,300
Medicine	70,000	71,000	68,200	70,000	69,200	70,300
Nursing	60,500	62,000	58,400	60,000	58,400	60,000
Pharmacy	43,800	45,900	43,600	43,800	43,800	44,200
Dentistry	84,000	94,600	82,800	75,100	83,500	78,300
Veterinary science	n/a	n/a	50,000	50,600	50,000	51,600
Rehabilitation	60,700	62,600	59,000	60,500	60,000	61,500
Teacher education	63,600	65,000	62,600	63,400	62,900	63,500
Business and management	57,000	58,000	53,000	55,000	55,000	55,200
Humanities, culture and social sciences	57,400	59,600	54,800	55,100	55,000	57,000
Social work	60,500	63,200	60,000	62,500	60,000	62,600
Psychology	54,000	60,000	54,800	56,600	54,800	57,600
Law and paralegal studies	63,000	63,000	57,400	58,000	60,000	60,000
Creative arts	50,000	49,600	47,000	47,200	48,000	48,000
Communications	48,000	50,000	48,000	50,000	48,000	50,000
Tourism, hospitality, personal services, sport and recreation	n/a	55,000	51,400	51,800	52,200	52,200
All study areas*	**60,000**	**60,100**	**56,400**	**59,000**	**57,900**	**60,000**
Standard deviation	**8,300**	**9,600**	**8,400**	**7,400**	**8,300**	**7,500**

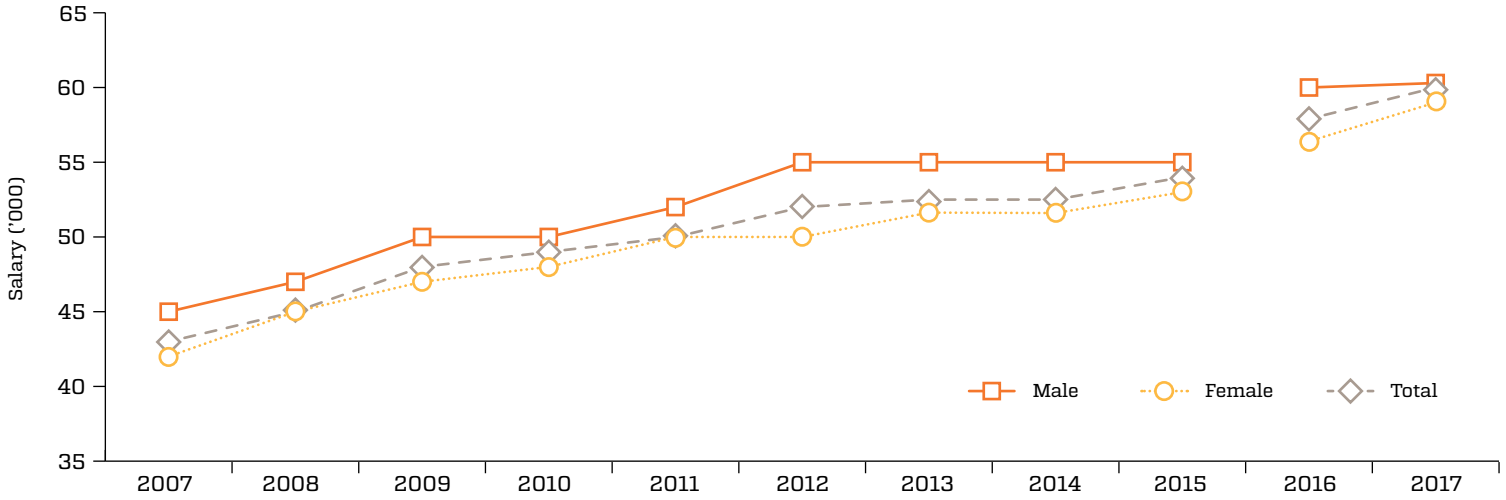
*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only

4.2 Salaries over time

Figure 7 shows the gender gap in graduate salaries has persisted over time. In 2006, female graduates earned $40,000, which was $3,000 or 6.7 per cent less than male graduates. As noted above, in 2016, the gender gap in undergraduate median salaries was $3,600 or 6.4 per cent however, in 2017 this gap had narrowed markedly to $1,100 or 1.9 per cent, the lowest reported in 40 years.

In 2017, the gender salary gap was the lowest recorded in 40 years at 1.9 per cent

Figure 7 **Undergraduate median starting salaries, 2007–2017* ($)**



*2007 to 2015 based on graduates aged less than 25 and in first full-time employment.

5 Postgraduate salaries

Further study generally leads to improved salary outcomes in addition to improved employment outcomes. In 2017, the median salary of undergraduates employed full-time was $60,000 in comparison with $81,000 earned by postgraduate coursework graduates and $87,800 earned by postgraduate research graduates, as shown by Tables 29 and 30 respectively.

In 2017, the median postgraduate coursework salary level increased by $1,000 or 1.3 per cent to $81,000. The median postgraduate research median salary level increased by $2,800 or 3.3 per cent to $87,800.

The gender gap in graduate salaries remains more marked at the postgraduate coursework level than the postgraduate research level. In 2017, the gender gap in median salaries for postgraduate coursework graduates was $15,000 or 19.7 per cent, up from $14,300 or 18.9 per cent in 2016. In comparison, the gender salary gap for postgraduate research graduates was $3,800 or 4.4 per cent, down from $5,000 or 5.7 per cent in 2016.

In 2017, demographic groups exhibited similar patterns of median salaries among postgraduate coursework and research graduates as was the case for undergraduates. For example, older and external graduates and those whose home language was English and those not reporting a disability received higher median salaries than their counterparts across postgraduate coursework and research graduates.

Generally, older postgraduate coursework graduates earned substantially more than those under 30 with a median salary of $100,000, compared with just $68,000 for younger postgraduate coursework graduates, which is closer to undergraduate median salaries of $60,000. Among older graduates, males earned more than females by $18,800 or 20.6 per cent. The gender gap for younger graduates was much lower with females earning 6.7 per cent less than males.

Postgraduate coursework graduates who had completed external studies also earned more than those who completed their studies as internal/multi-mode students, earning a median salary of $90,000, compared with $76,000 respectively. Male external graduates earned 20.5 per cent higher salaries than females in the same group, with a similar gender gap for internal/multimode graduates of 18.1 percent.

In 2017, postgraduate coursework graduates whose home language was not English earned substantially less than those from an English-speaking background, at $71,400 and $81,500 respectively. The difference in salaries between males and females was much lower for NESB graduates with a 7.1 per cent difference, compared with 20.6 per cent for those whose home language was English.

The salary differences between those with high, medium and low socio-economic status for postgraduate coursework graduates was not as pronounced as for other student groups, with high SES graduates earning $3,500 more than medium SES graduates and $4,700 more than low SES graduates. Graduates from metropolitan areas earned $1,400 more than those from regional/remote areas.

Table 29 **Postgraduate coursework median full-time salaries by demographic group, 2016 and 2017 ($)**

		Male		Female		Total	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	70,000	70,400	65,000	66,000	67,000	68,000
	Over 30 years	106,000	110,000	89,200	91,200	95,000	100,000
Indigenous	Indigenous	85,000	85,600	77,500	72,500	82,200	75,300
	Non Indigenous	90,000	91,100	75,700	76,000	80,000	81,000
Home language	English	91,300	92,000	76,000	76,300	80,400	81,500
	Language other than English	73,100	75,000	66,000	70,000	70,000	71,400
Disability	Reported disability	80,000	79,800	69,000	72,000	73,100	74,000
	No disability	90,700	91,300	76,000	76,300	80,000	81,400
Study mode	Internal and mixed mode	85,000	85,000	71,500	72,000	76,000	76,000
	External	100,000	100,000	82,500	83,000	88,000	90,000
Socio-economic status	High	96,000	95,000	77,500	77,000	83,000	83,500
	Medium	90,000	90,000	75,200	76,000	80,000	80,000
	Low	88,000	88,000	75,000	74,000	78,900	78,800
Location	Metro	92,000	91,300	76,200	75,700	81,000	81,400
	Regional/remote	89,700	90,900	75,000	76,200	79,400	80,000
Total postgraduate coursework		**90,000**	**91,000**	**75,700**	**76,000**	**80,000**	**81,000**

The gender gap in graduate salaries remains more marked at the postgraduate coursework level than the postgraduate research level

Although the differences in earnings between demographic groups were generally less pronounced for postgraduate research graduates than for postgraduate coursework graduates, the patterns of disparity were consistent. Older postgraduate research graduates, those who had completed their program externally, those from English speaking backgrounds, and those from high socio economic and metropolitan areas attracted higher median salaries than their counterparts. As for postgraduate coursework graduates, the greatest differences in salary relate to age, study mode and language background, with older graduates earning $14,000 more than younger graduates, and both external/distance and graduates whose main language at home was English earning $9,000 more than their counterparts.

Table 30 **Postgraduate research median full-time salaries by demographic group, 2016 and 2017 ($)**

		Male		Female		Total	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	80,000	80,000	76,100	79,300	78,200	80,000
	Over 30 years	97,200	94,800	90,000	93,900	93,000	94,000
Indigenous	Indigenous	n/a	n/a	n/a	n/a	n/a	n/a
	Non Indigenous	88,000	89,500	83,100	86,000	85,000	87,700
Home language	English	89,000	90,000	83,500	87,700	86,000	89,000
	Language other than English	80,000	86,000	78,100	76,800	79,200	80,000
Disability	Reported disability	n/a	n/a	80,000	89,500	80,000	82,200
	No disability	89,000	90,000	83,500	86,000	85,000	88,000
Study mode	Internal and mixed mode	87,000	89,000	82,100	85,000	85,000	87,000
	External	100,000	100,000	95,000	96,000	95,100	96,000
Socio-economic status	High	91,000	91,000	86,000	89,000	89,000	90,000
	Medium	86,300	89,500	80,000	86,000	83,000	87,700
	Low	87,800	81,000	80,000	89,300	83,500	85,000
Location	Metro	90,000	90,000	83,500	88,100	86,000	90,000
	Regional/remote	86,200	89,300	82,700	86,200	85,200	87,800
Total postgraduate research		**88,300**	**89,800**	**83,300**	**86,000**	**85,000**	**87,800**

5.1 Salaries by study area

In 2017, postgraduate coursework graduates from Business and management, Dentistry, Computing and information systems, and Engineering received the highest median salaries of $109,000, $102,200, $88,700 and $87,000 respectively, as shown by Table 31. Postgraduate research graduates from Nursing, Law and paralegal studies, Business and management, and Teacher education received the highest median salaries of $100,000, $99,000, $96,500 and $95,500 respectively, as shown by Table 32.

The variation in median salaries across study areas increase at higher education levels. The standard deviation in median salaries among undergraduates was $7,500, but was $13,500 among postgraduate coursework graduates and $16,500 among postgraduate research graduates. As was the case in 2016, this contrasts with the lower variation in full-time employment rates by study area at higher levels of education as noted above. That is, at higher education levels, variation in employment rates is being replaced by greater variation in salaries. A similar phenomenon is observed when tracking graduates over time, as shown in the 2017 Graduate Outcomes Survey – Longitudinal report. As graduates acquire greater experience in the workforce, variation in employment rates is replaced by greater variation in salaries at the study area level.

The gender gap in salaries among postgraduates persists in 2017 across most study areas. The only exceptions are at postgraduate coursework level where female Dentistry and Pharmacy graduates' median salaries are $112,000 and $67,800 in comparison with $100,000 and $62,000 for their male counterparts. Postgraduate research females also had higher median salaries than males in Health services and support, Teacher education, Psychology, and Humanities, culture and social sciences, by between $6,000 and $2,200.

Repeating the point made earlier, while some of the gender gap in postgraduate salaries is due to the tendency for females to graduate from lower paying study areas, nevertheless the gender gap in salaries persists due to a range of other factors such as occupation, age, experience, personal factors and possible inequalities within workplaces.

As graduates acquire greater experience in the workforce, variation in employment rates is replaced by greater variation in salaries at the study area level

Table 31 **Postgraduate coursework median full-time salaries by study area, 2016 and 2017 ($)**

	Male		Female		Total	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	85,100	81,000	73,200	76,000	78,700	80,000
Computing and Information Systems	88,000	91,500	75,100	78,000	85,000	88,700
Engineering	98,600	90,000	85,000	75,000	95,000	87,000
Architecture and built environment	62,000	64,000	56,400	59,300	60,000	61,100
Agriculture and environmental studies	78,300	87,200	70,000	70,000	73,100	75,000
Health services and support	95,000	93,000	76,900	81,400	80,000	85,100
Medicine	86,500	89,000	78,000	77,500	80,000	83,300
Nursing	83,000	83,500	78,900	79,300	79,300	79,300
Pharmacy	n/a	62,000	58,700	67,800	58,400	66,800
Dentistry	106,200	100,000	95,000	112,000	100,000	102,200
Veterinary science	n/a	n/a	50,100	52,200	52,100	52,200
Rehabilitation	69,700	66,600	65,000	65,000	66,800	65,200
Teacher education	75,000	79,200	73,000	73,000	73,100	74,500
Business and management	112,000	117,400	91,300	98,000	102,300	109,000
Humanities, culture and social sciences	83,000	83,500	73,900	74,000	77,000	76,500
Social work	73,100	71,900	64,900	68,000	65,400	68,900
Psychology	80,000	82,100	74,700	75,000	75,500	75,700
Law and paralegal studies	76,600	75,100	70,000	70,000	72,000	71,700
Creative arts	60,500	65,800	63,400	65,000	63,000	65,000
Communications	62,300	67,800	60,000	65,000	60,900	65,100
Tourism, hospitality, personal services, sport and recreation	n/a	n/a	n/a	n/a	72,500	65,500
All study areas*	**90,000**	**91,000**	**75,700**	**76,000**	**80,000**	**81,000**
Standard deviation (pp)	**15,200**	**14,900**	**15,800**	**13,300**	**13,200**	**13,500**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only

Table 32 **Postgraduate research median full-time salaries by study area, 2016 and 2017 ($)**

	Male		Female		Total	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	80,000	81,500	78,000	80,000	79,000	80,700
Computing and Information Systems	100,000	90,000	n/a	n/a	84,900	85,000
Engineering	85,000	87,700	82,000	83,400	85,000	87,000
Architecture and built environment	n/a	n/a	n/a	n/a	n/a	91,000
Agriculture and environmental studies	85,200	85,000	69,000	72,200	78,400	80,000
Health services and support	106,000	90,000	88,200	96,000	90,200	93,000
Medicine	91,000	100,000	85,300	90,000	87,000	92,700
Nursing	n/a	n/a	94,000	n/a	94,000	100,000
Pharmacy	n/a	n/a	n/a	n/a	80,000	n/a
Dentistry	n/a	n/a	n/a	n/a	n/a	n/a
Veterinary science	n/a	n/a	n/a	n/a	n/a	n/a
Rehabilitation	n/a	n/a	n/a	n/a	n/a	n/a
Teacher education	100,000	94,000	95,000	96,200	98,000	95,500
Business and management	100,000	99,000	95,000	95,000	100,000	96,500
Humanities, culture and social sciences	85,000	81,500	80,000	85,800	82,000	84,000
Social work	n/a	n/a	n/a	n/a	n/a	n/a
Psychology	n/a	86,300	80,000	89,500	80,000	89,000
Law and paralegal studies	n/a	n/a	n/a	n/a	99,500	99,000
Creative arts	80,000	70,000	65,200	55,000	70,000	61,000
Communications	n/a	n/a	n/a	n/a	n/a	n/a
Tourism, hospitality, personal services, sport and recreation	n/a	n/a	n/a	n/a	n/a	n/a
All study areas*	**88,300**	**89,800**	**83,300**	**86,000**	**85,000**	**87,800**
Standard deviation (pp)	**13,800**	**23,400**	**10,000**	**18,100**	**10,100**	**16,500**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

5.2 Salaries over time

Trends in median salaries of postgraduate coursework graduates among males and females are shown in Figures 8 and 9 below. They illustrate that the wider gender salary gap observed in 2017 for postgraduate coursework graduates compared with postgraduate research graduates is a long-term trend.

In 2007, the median salary of female postgraduate coursework graduates was $57,000, which was $13,000 or 18.6 per cent less than for male graduates. By 2017, the gender gap in median salaries for postgraduate coursework graduates had widened to $15,000 or 19.7 per cent. Note that part of the growth in the gender gap as measured by the GOS in 2016 and 2017 may be linked to the expanded definition of median salaries to incorporate all graduates employed full-time. The inclusion of older and external postgraduate coursework graduates may favour male graduates who have an ongoing relationship with an employer in comparison with female graduates who have more interrupted job histories and lower salaries as a result.

The gender pay gap has been consistently narrower at the postgraduate research level. In 2007, female graduates at this received a median salary of $63,000, meaning they were earning $2000, or 3.1 per cent, less than their male counterparts. Although remaining narrow relative to postgraduate coursework graduates, the pay gap for postgraduate research has widened to $3,800 or 4.4 per cent in 2017. Once again, this increase in pay disparity may be influenced by changes to survey methodology.

Figure 8 **Postgraduate coursework level median starting salaries, 2007–2017 ($)**

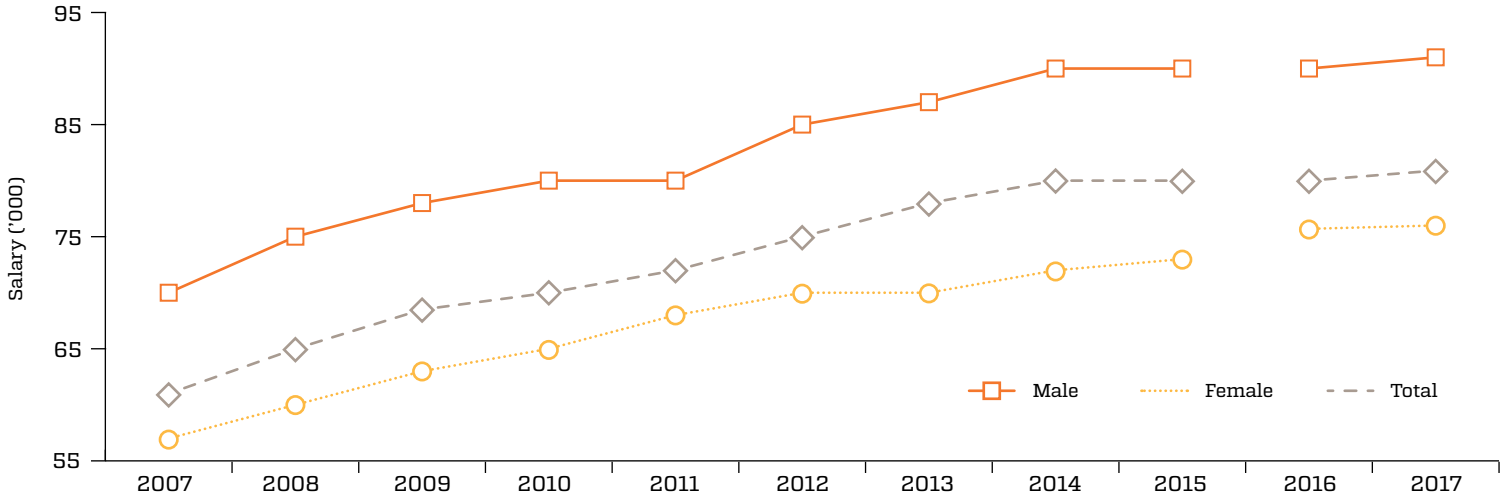
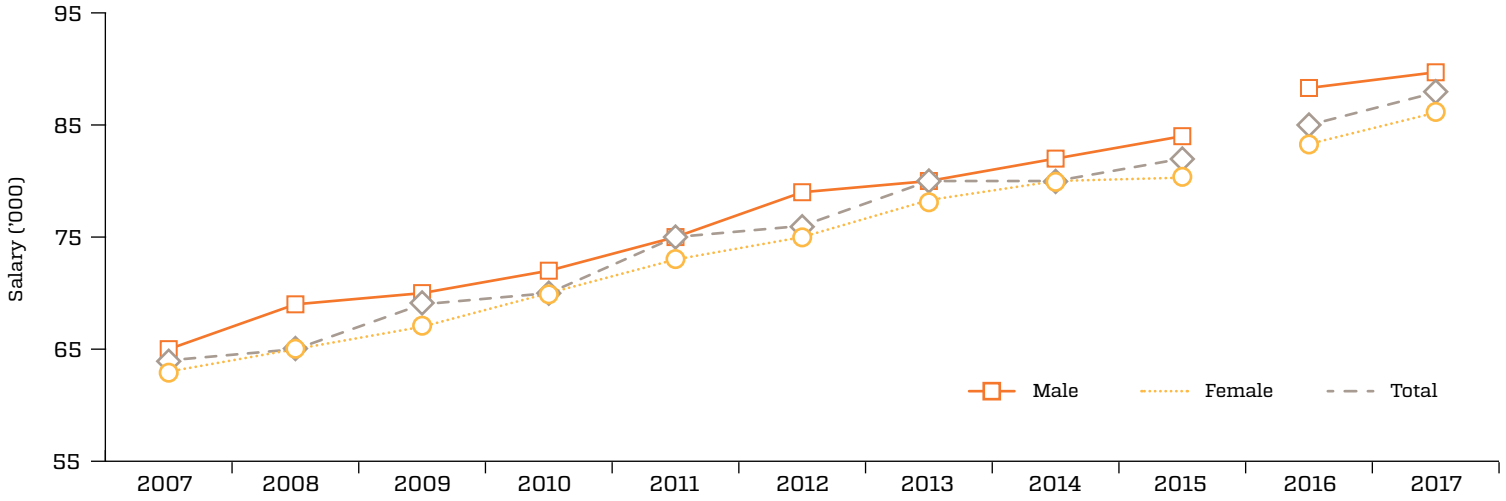


Figure 9 **Postgraduate research level median starting salaries, 2007–2017 ($)**



6 Undergraduate further study

The following section focuses on the destinations of undergraduates who were engaged in further full-time study four months after completion of their degree. In 2017, four months after graduation, 20.7 per cent of graduates were engaged in further full-time study, as shown by Table 33. This represents a slight decrease from 21.8 per cent in further study in 2016. Study areas with the highest proportion of students in full-time study in 2017 included Science and mathematics, 44.3 per cent, Psychology, 36.7 per cent, and Humanities, culture and social work, 29.4 per cent, which is consistent with 2016 results. Undergraduates who had completed degrees in study areas with a strong vocational orientation tended, not surprisingly, to be less likely to proceed on to further full-time study in 2016. These included Nursing, 3.4 per cent, Rehabilitation, 3.4 per cent, and Teacher education, 6.3 per cent.

Consistent with 2016, younger undergraduates and those that studied internally and by mixed mode were more likely to engage in further full-time study in 2017, as shown by Table 34. For example, 22.4 per cent of undergraduates aged 30 years or under went on to further full-time study, in comparison with 12.8 per cent of those aged over 30 years. 22.2 per cent of internal/mixed mode undergraduates went on to further full-time study, in comparison with 10.1 per cent of undergraduates who had studied externally. Similarly, males, undergraduates with a home language other than English and those who reported a disability were more likely to engage in further full-time study than their counterparts.

Undergraduates proceeding to further full-time study in 2017 were less likely to be in full-time employment, as shown by Table 35. The full-time employment rate for those engaging in further full-time study was 47.8 per cent in comparison with 73.3 per cent for those not engaging in further full-time study. Also, undergraduates proceeding to further full-time study had a lower overall employment rate, labour force participation rate and median full-time salary than their counterparts.

The broad field of education of undergraduates undertaking further full-time study in 2017 is shown in Table 36. Health remains the most popular area for further full-time study following an undergraduate degree, amounting to 28.7 per cent of all those proceeding to further study. Other popular areas for further study were Society and culture, 20.4 per cent, Natural and physical sciences, 13.1 per cent, and Education, 10.4 per cent.

Table 33 **Undergraduate further full-time study status in 2017, by original field of study (%)**

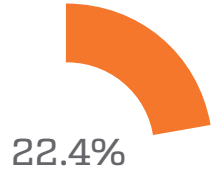
Original study area	In full-time study			Not in full-time study		
	Male	Female	Total	Male	Female	Total
Science and mathematics	44.9	43.9	44.3	55.1	56.1	55.7
Computing and information systems	12.7	9.2	12.1	87.3	90.8	87.9
Engineering	14.0	15.3	14.2	86.0	84.7	85.8
Architecture and built environment	22.9	24.2	23.5	77.1	75.8	76.5
Agriculture and environmental studies	16.7	22.0	19.8	83.3	78.0	80.2
Health services and support	28.1	23.0	24.5	71.9	77.0	75.5
Medicine	9.5	13.1	11.5	90.5	86.9	88.5
Nursing	3.4	3.3	3.4	96.6	96.7	96.6
Pharmacy	9.3	10.6	10.3	90.7	89.4	89.7
Dentistry	10.7	12.8	12.2	89.3	87.2	87.8
Veterinary science	31.3	27.9	28.4	68.8	72.1	71.6
Rehabilitation	7.0	2.3	3.4	93.0	97.7	96.6
Teacher education	9.4	5.7	6.3	90.6	94.3	93.7
Business and management	11.9	10.2	11.0	88.1	89.8	89.0
Humanities, culture and social sciences	29.9	29.1	29.4	70.1	70.9	70.6
Social work	11.0	10.3	10.4	89.0	89.7	89.6
Psychology	34.7	37.2	36.7	65.3	62.8	63.3
Law and paralegal studies	18.1	19.7	19.1	81.9	80.3	80.9
Creative arts	21.7	25.3	24.1	78.3	74.7	75.9
Communications	13.1	17.3	15.9	86.9	82.7	84.1
Tourism, hospitality, personal services, sport and recreation	28.2	19.3	23.5	71.8	80.7	76.5
All study areas*	**21.5**	**20.3**	**20.7**	**78.5**	**79.7**	**79.3**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table 34 **2017 full-time study status by demographic group (%)**

		In full-time study	Not in full-time study
All undergraduates		**20.7**	**79.3**
Gender	Male	21.5	78.5
	Female	20.3	79.7
Age	30 years or under	22.4	77.6
	Over 30 years	12.8	87.2
Indigenous	Indigenous	20.8	79.2
	Not Indigenous	20.7	79.3
Home language	English	20.6	79.4
	Language other than English	26.0	74.0
Disability	Reported disability	23.3	76.7
	No disability	20.6	79.4
Study mode	Internal and mixed mode	22.2	77.8
	External	10.1	89.9
Socio-economic status	High	22.6	77.4
	Medium	20.2	79.8
	Low	19.0	81.0
Location	Metro	21.3	78.7
	Regional/remote	19.1	80.9

Figure D **Undergraduates in further full-time study by age group**



30 years or under **2017**

Over 30 years **2017**

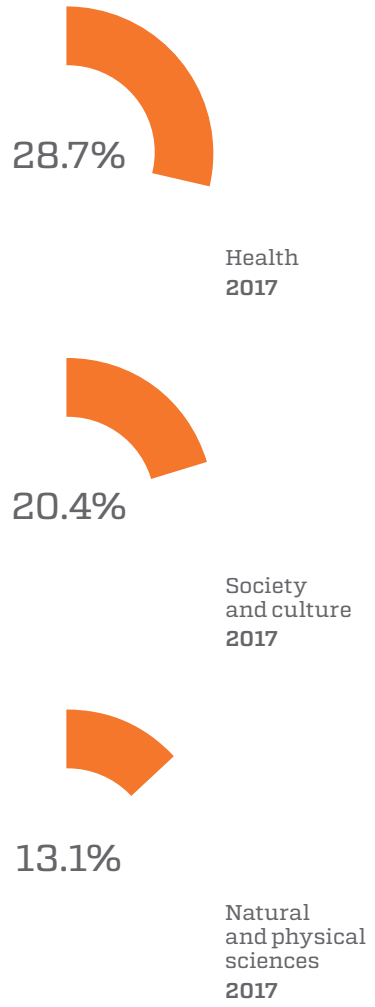
Table 35 **Labour market outcomes of undergraduates, by 2017 full-time study status**

	In full-time study			Not in full-time study		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
In full-time employment %	46.3	48.8	47.8	72.9	73.5	73.3
Overall employed %	75.4	81.2	79.1	85.5	88.6	87.5
Labour force participation rate %	71.5	75.5	74.0	97.1	96.6	96.8
Median full-time salary ($)	52,200	52,000	52,200	61,000	59,500	60,000

Table 36 **Study area of undergraduates in further full-time study in 2017 (%)**

Field of education	**Further study**
Natural and physical sciences	13.1
Information technology	2.1
Engineering and related technologies	4.6
Architecture and building	2.7
Agriculture, environmental and related studies	1.6
Health	28.7
Education	10.4
Management and commerce	6.5
Society and culture	20.4
Creative arts	7.1
Food, hospitality and personal services	n/a
Mixed field qualification	2.1
All fields	**100**

Figure E **Study area of undergraduates in further full-time study**



7 Postgraduate further study

Predictably, further full-time study is less commonplace after postgraduate studies. In 2017, 6.6 per cent of postgraduate coursework graduates and 6.2 per cent of postgraduate research graduates proceeded to further full-time study, in comparison with 20.7 per cent of undergraduates, as shown by Table 37.

In 2017, demographic groups displayed the same patterns of further study among postgraduate coursework graduates as occurred among undergraduates. Younger postgraduate coursework graduates were slightly more likely to engage in further full-time study, as were Indigenous graduates, coursework postgraduates with a home language other than English and those who reported a disability. For postgraduate research graduates, these patterns were similar but with females slightly more likely to be engaged in further study as well as those with higher socio-economic status, along with those from metropolitan areas.

Postgraduate level graduates are more likely to be combining full-time study and full-time work than their undergraduate level counterparts. In 2017, the full-time employment rate of postgraduate coursework graduates engaged in further full-time study was 79.6 per cent and for postgraduate research graduates it was 83.5 per cent in comparison with 47.8 per cent for undergraduates, as shown by Table 38. Undergraduates are more likely to combine further full-time study with part-time employment. This is shown by the overall employment rate for undergraduates in further full-time study of 79.1 per cent being much closer to the overall employment rate for postgraduate coursework graduates in further full-time study of 85.0 per cent and for postgraduate research graduates of 85.5 per cent.

Table 37 **Graduates in further full-time study in 2017, by initial postgraduate study level, by demographic profile (% of all graduates)**

		Postgraduate coursework initial study	Postgraduate research initial study
All postgraduate level graduates in further full-time study		**6.6**	**6.2**
Gender	Male	6.8	5.9
	Female	6.5	6.4
Age	30 years or under	7.6	8.2
	Over 30 years	5.9	5.2
Indigenous	Indigenous	10.0	11.5
	Not Indigenous	6.6	6.2
Home language	English	6.6	5.8
	Language other than English	8.5	10.2
Disability	Reported disability	9.4	9.7
	No disability	6.5	6.1
Study mode	Internal and mixed mode	6.9	6.3
	External	6.1	5.7
Socio-economic status	High	6.5	6.8
	Medium	6.6	6.5
	Low	7.0	4.0
Location	Metro	6.6	6.9
	Regional/remote	6.4	4.2

Table 38 **Labour market outcomes of postgraduates, by 2017 full-time study status**

	In full-time study			Not in full-time study		
Postgraduate coursework initial study	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
In full-time employment %	79.8	79.5	79.6	87.6	85.6	86.5
Overall employed %	84.4	85.5	85.0	92.2	93.5	93.0
Labour force participation rate %	81.4	82.9	82.2	97.9	96.6	97.1
Median full-time salary ($)	92,700	83,500	86,000	91,000	75,400	80,900
Postgraduate research initial study						
In full time employment %	74.4	90.0	83.5	81.4	80.3	80.8
Overall employed %	84.4	86.1	85.5	91.1	91.1	91.1
Labour force participation rate %	70.3	78.3	75.0	96.5	95.3	95.8
Median full-time salary ($)	n/a	80,000	84,500	90,000	86,500	88,000

8 Undergraduate coursework satisfaction

The Course Experience Questionnaire (CEQ), administered since 1993, invites coursework graduates four months after completing their course to express agreement or disagreement on a five point scale with statements about various aspects of their course that have been shown to influence student learning. Core questions cover teaching, generic skills and overall satisfaction. Responses to points four and five on the scale are reported in the tables below and also on the QILT website.

Between 2016 and 2017, graduate satisfaction as measured by the CEQ scales has decreased slightly or remained flat. For example, the overall satisfaction indicator for undergraduate students, which consists of one question in the CEQ and is reported as such on the QILT website, declined from 80.6 per cent in 2016 to 79.4 per cent 2017 , as shown by Table 39. Satisfaction with generic skills in 2016, like overall satisfaction, decreased slightly from 82.1 per cent to 81.5 per cent and remains high, but satisfaction with the quality of teaching in 2017 remained consistently low at 63.0 per cent.

Table 39 **Undergraduate satisfaction, 2016 and 2017 (% agreement)**

Overall satisfaction		Good teaching scale		Generic skills scale	
2016	2017	2016	2017	2016	2017
80.6	79.4	63.0	63.0	82.1	81.5

9.1 Satisfaction by study area

One of the key factors influencing CEQ scores is study area. For example, in 2017, overall satisfaction among undergraduates ranged from a high of 87.2 per cent in Rehabilitation, 85.9 per cent in Social work, and 85.4 per cent in Humanities, culture and social sciences, down to 73.6 per cent in Engineering, 74.8 per cent in Computing and information system, 75.9 per cent in Creative arts and 76.3 per cent in Architecture and built environment, as shown by Table 40. Similarly, for the good teaching scale, satisfaction ranged from 76.2 per cent in Humanities, culture and social sciences, down to 47.6 per cent in Engineering and 50.6 per cent in Medicine. For generic skills, ratings ranged from 90.5 per cent in Rehabilitation down to 77.2 per cent for Computing and information systems, 77.3 per cent in Teacher education, and 77.4 per cent in Creative arts. The variation in satisfaction across institutions and study areas indicates there is scope for improvement in the interactions between institutions and their students.

Table 40 **Undergraduate satisfaction by study area, 2016 and 2017 (% agreement)**

	Overall satisfaction		Good teaching scale		Generic skills scale	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	84.0	83.4	66.7	67.4	84.9	85.2
Computing and Information Systems	75.9	74.8	58.6	58.9	77.5	77.2
Engineering	75.4	73.6	49.1	47.6	84.0	82.4
Architecture and built environment	74.2	76.3	62.5	62.9	78.0	79.3
Agriculture and environmental studies	85.5	82.4	69.0	68.1	87.9	85.9
Health services and support	81.4	79.1	67.6	65.2	84.4	82.1
Medicine	79.4	80.7	47.4	50.6	79.1	80.5
Nursing	80.1	77.4	59.2	58.6	83.1	82.2
Pharmacy	86.6	83.4	67.5	63.4	85.1	83.6
Dentistry	77.2	78.7	60.3	62.3	82.0	83.6
Veterinary science	86.3	80.1	67.1	56.7	85.6	82.3
Rehabilitation	88.1	87.2	72.9	71.3	88.8	90.5
Teacher education	78.7	77.0	60.8	59.1	78.6	77.3
Business and management	79.0	77.8	56.6	58.3	79.4	78.7
Humanities, culture and social sciences	85.4	85.4	75.2	76.2	83.3	83.4
Social work	87.0	85.9	71.2	70.3	87.7	85.3
Psychology	80.8	81.2	63.4	63.8	84.7	84.2
Law and paralegal studies	82.6	79.8	56.4	57.3	84.7	82.8
Creative arts	74.6	75.9	70.1	73.6	77.1	77.4
Communications	80.1	77.8	70.4	68.4	80.9	80.3
Tourism, hospitality, personal services, sport and recreation	79.1	80.3	66.5	72.3	84.0	81.2
All study areas	**80.6**	**79.4**	**63.0**	**63.0**	**82.1**	**81.5**

8.2 Satisfaction by demographic group

As was the case in 2016, older undergraduates generally expressed higher satisfaction with their courses in 2017, as shown by Table 41. 83.6 per cent of undergraduates over 30 years expressed overall satisfaction with their course, in comparison with 78.7 per cent of those aged 30 years or under. Older students were also more likely to express satisfaction with teaching, 69.5 per cent, than their younger counterparts, 61.8 per cent. However, younger undergraduates were generally rated their generic skills development as highly as their older counterparts, at 81.5 per cent and 81.6 per cent respectively.

Of undergraduates studying externally, 82.4 per cent expressed overall satisfaction with their courses and 64.1 per cent were satisfied with teaching, in comparison with 79.1 per cent and 62.8 per cent respectively of undergraduates who studied internally or by mixed mode. On the other hand, undergraduates studying internally and by mixed mode reported higher development of their generic skills than did undergraduates studying externally.

Indigenous undergraduate overall satisfaction with their course was 80.4 per cent which was higher than the 79.4 per cent for non-Indigenous undergraduates. Similarly, undergraduates whose home language was other than English overall satisfaction with their courses was 81.5 per cent in comparison with 79.2 per cent for undergraduates whose home language was English. Among undergraduates reporting a disability overall satisfaction with their courses was lower than for those who had not reported a disability, at 77.0 per cent in comparison with 79.6 per cent.

On the other hand, Indigenous graduates, those reporting a disability and graduates whose home language was not English expressed higher satisfaction with the quality of their teaching, by 0.8, 2.1 and 9.0 percentage points respectively. Indigenous graduates and graduates whose language was not English gave higher ratings of generic skills.

8.3 Satisfaction over time

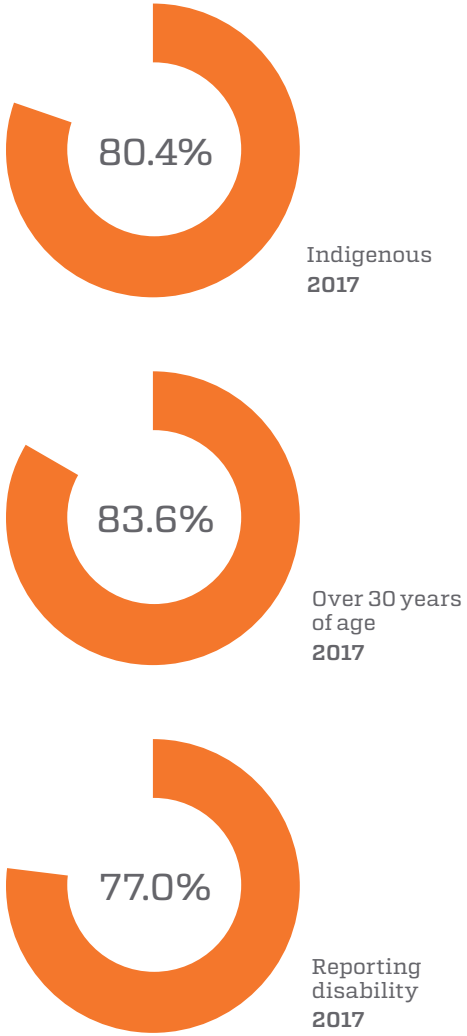
The CEQ time series collected through the AGS shown in Figure 10 indicates there has been improvement in undergraduate satisfaction over time (data are not shown prior to 2010 because of a change in survey methodology). In particular, satisfaction with the quality of teaching increased from 62.4 per cent in 2010 to 68.0 per cent in 2015. Overall satisfaction with courses has remained high, increasing from 81.2 per cent in 2010 to 83.4 per cent in 2015. Similarly, ratings of generic skills have remained high, increasing from 76.1 per cent in 2010 to 79.6 per cent in 2015.

The change in collection methodology and the way in which these scores are calculated in the GOS necessitate a break in time series between 2015 and 2016. However as noted above, over the two years of the GOS, ratings for overall satisfaction have decreased from 80.6 per cent to 79.4 per cent, and for skills development from 82.1 per cent to 81.5 per cent. Satisfaction with teaching remains substantially lower but steady at 63.0 per cent in both 2016 and 2017.

Table 41 **Undergraduate satisfaction by demographic group, 2017 (% agreement)**

		Overall satisfaction	Good teaching scale	Generic skills scale
Gender	Male	77.6	62.8	80.7
	Female	80.5	63.1	81.9
Age	30 years or under	78.7	61.8	81.5
	Over 30 years	83.6	69.5	81.6
Indigenous	Indigenous	80.4	63.8	82.3
	Not Indigenous	79.4	63.0	81.5
Home language	English	79.2	62.0	81.1
	Language other than English	81.5	71.0	84.2
Disability	Reported disability	77.0	64.9	79.4
	No disability	79.6	62.8	81.6
Study mode	Internal and mixed mode	79.1	62.8	81.7
	External	82.4	64.1	79.5
Socio-economic status	High	78.9	60.7	80.0
	Medium	79.5	62.4	81.8
	Low	78.5	62.3	81.5
Location	Metro	79.2	61.7	81.0
	Regional/remote	78.8	62.2	81.6
Total undergraduate		**79.4**	**63.0**	**81.5**

Figure F **Undergraduate overall satisfaction by demographic group**



8.4 International comparison

International benchmarking of results from the Course Experience Questionnaire (CEQ) with a similar survey from overseas shows that, in general, Australian students are less satisfied with their higher education experience than their counterparts in the United Kingdom. This appears to be a consistent trend over time, as shown in Figure 11. However, it is important to be aware that differences in results across international surveys may stem from methodological differences and different student populations rather than genuine differences in student experience and satisfaction.

Eighty-four per cent of United Kingdom final year students expressed overall satisfaction with their course, as measured by the 2017 National Survey of Student Experience (NSS). This compares with 79.4 per cent of Australian undergraduates four months after completing their course, as measured by the 2017 Course Experience Questionnaire (CEQ) as part of the GOS. It is notable that after trending upward fairly steadily over several years from 2010 onwards, satisfaction declined in both countries between 2016 and 2017, by 2 percentage points in the UK and by 1.2 percentage points in Australia.

As noted above, the decline in overall satisfaction reported in the CEQ for Australia between 2015 and 2016 should be treated with caution due to the change in methodology with the introduction of the GOS.

Figure 10 **Undergraduate satisfaction, 2010–2017 (% agreement)**

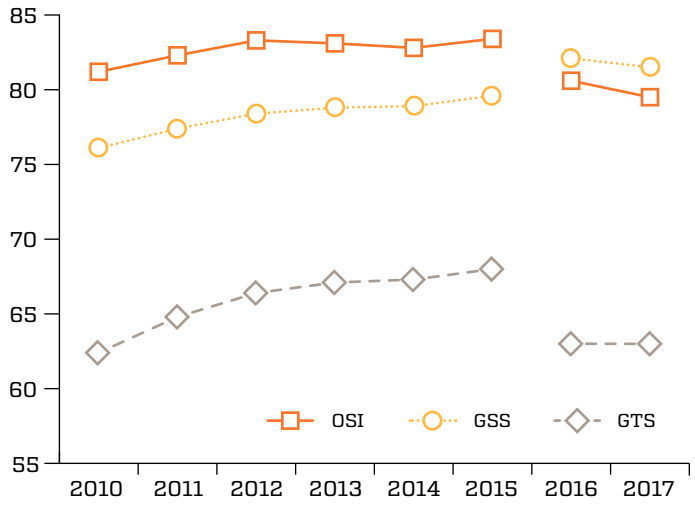
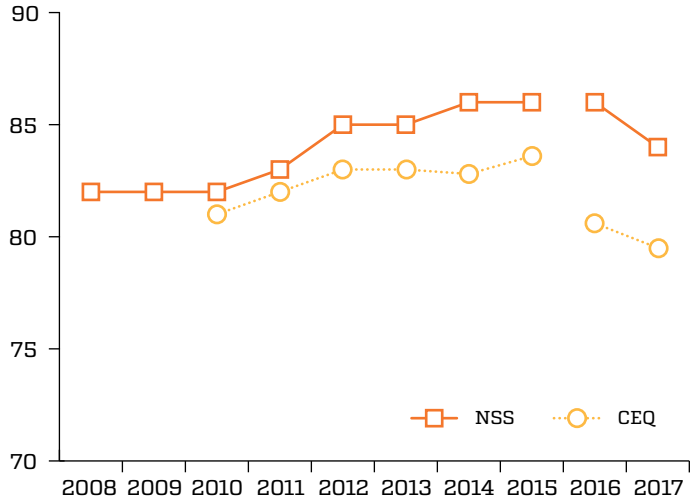


Figure 11 **Overall satisfaction of undergraduates, UK (NSS) and Australia (CEQ), 2008–2017 (% agreement)**



It is notable that after trending upward fairly steadily over several years from 2010 onwards, satisfaction declined in both countries between 2016 and 2017, by 2 percentage points in the UK and by 1.2 percentage points in Australia

9 Postgraduate coursework satisfaction

Postgraduate coursework graduates are also invited to respond to the Course Experience Questionnaire to express satisfaction with key aspects of their course. In 2017, postgraduate coursework graduates expressed higher overall satisfaction with their course, 81.9 per cent, than did undergraduates, 79.4 per cent. As for undergraduates, postgraduate coursework overall satisfaction levels showed a slight decrease between 2016 and 2017, as shown by Table 42. However, postgraduate coursework graduates expressed an increasing level of satisfaction with the quality of teaching, rising 0.7 percentage points to 69.0 per cent in 2017. This remains well above the level of undergraduate satisfaction with teaching, at 63.0 per cent. On the other hand, undergraduates in 2017 were more satisfied with their generic skills, 81.5 per cent, than postgraduate coursework graduates, for whom satisfaction remained relatively steady at 78.2 per cent.

9.1 Satisfaction by study area

In 2017, overall satisfaction among postgraduate coursework graduates ranged from a high of 87.7 per cent in Humanities, culture and social sciences, down to 74.5 per cent in Creative arts, as shown by Table 43. Graduate satisfaction with teaching ranged from 79.5 per cent, again for Humanities, culture and social sciences, down to 53.5 per cent in Medicine and for generic skills development from 85.7 per cent in Veterinary science down to 70.0 per cent in Medicine.

Table 42 **Postgraduate coursework satisfaction, 2016 and 2017 (% agreement)**

Overall satisfaction		Good teaching scale		Generic skills scale	
2016	2017	2016	2017	2016	2017
82.5	81.9	68.3	69.0	78.3	78.2

9.2 Satisfaction by demographic group

Older postgraduate coursework graduates expressed higher overall satisfaction than their younger counterparts and were more satisfied with the teaching they received, as shown by Table 44. Younger graduates, however, were slightly more satisfied with the development of their generic skills than older graduates.

Postgraduate coursework graduates whose home language was other than English were very slightly less satisfied with their course overall, but were more satisfied with both teaching and the development of generic skills than their counterparts, by 3.7 percentage points and 8.4 percentage points respectively.

Indigenous graduates and those reporting a disability both expressed lower satisfaction with teaching and development of generic skills than did their counterparts, with the latter group rating the generic skills scale 6.1 percentage points lower than graduates without a stated disability. Graduates reporting a disability were also less satisfied with their course overall, with 76.7 per cent compared with 82.1 per cent for those without a stated disability, representing a gap of 5.4 percentage points.

Table 43 **Postgraduate coursework satisfaction by study area, 2016 and 2017 (% agreement)**

	Overall satisfaction		Good teaching scale		Generic skills scale	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	83.2	82.7	73.3	72.4	79.7	78.7
Computing and Information Systems	80.3	78.8	69.1	68.8	81.6	80.5
Engineering	76.9	78.8	59.6	62.9	80.0	82.1
Architecture and built environment	78.3	77.5	65.6	67.3	79.2	79.6
Agriculture and environmental studies	82.5	87.2	75.6	77.1	81.8	83.2
Health services and support	85.2	83.7	70.7	70.8	80.0	78.5
Medicine	77.0	77.5	54.6	53.5	73.1	70.0
Nursing	81.9	81.6	66.5	66.4	78.1	78.2
Pharmacy	86.1	76.3	71.6	63.0	85.3	72.6
Dentistry	77.3	76.9	62.1	62.6	83.6	80.8
Veterinary science	86.5	85.7	68.5	60.7	87.6	85.7
Rehabilitation	82.2	80.5	63.7	67.9	82.2	82.4
Teacher education	81.9	81.1	68.5	69.7	72.7	72.8
Business and management	83.0	83.0	66.2	67.1	80.1	80.9
Humanities, culture and social sciences	86.8	87.7	77.2	79.5	79.0	79.1
Social work	84.7	82.0	72.9	70.7	79.9	77.6
Psychology	85.9	79.6	73.8	71.5	81.8	79.1
Law and paralegal studies	81.3	79.4	66.7	68.2	73.8	72.6
Creative arts	76.5	74.5	70.8	71.2	73.0	76.4
Communications	83.2	83.9	74.5	78.4	81.3	80.3
Tourism, hospitality, personal services, sport and recreation	75.7	86.0	63.1	70.1	82.5	83.2
All study areas	**82.5**	**81.9**	**68.3**	**69.0**	**78.3**	**78.2**

Table 44 **Postgraduate coursework satisfaction by demographic group, 2017 (% agreement)**

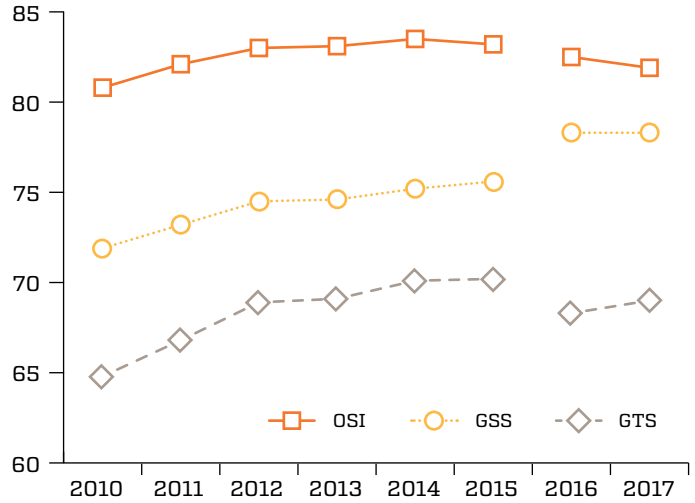
		Overall satisfaction	Good teaching scale	Generic skills scale
Gender	Male	81.3	68.8	79.2
	Female	82.3	69.2	77.6
Age	30 years or under	79.2	67.1	79.0
	Over 30 years	85.1	71.3	77.4
Indigenous	Indigenous	82.3	67.5	77.5
	Not Indigenous	81.9	69.1	78.3
Home language	English	82.0	68.2	76.3
	Language other than English	81.4	71.9	84.7
Disability	Reported disability	76.7	66.4	72.4
	No disability	82.1	69.1	78.5
Study mode	Internal and mixed mode	81.4	70.3	80.2
	External	83.3	65.6	73.0
Socio-economic status	High	81.3	66.8	74.3
	Medium	82.7	68.0	76.3
	Low	83.0	70.3	77.2
Location	Metro	82.0	67.8	75.6
	Regional/remote	82.7	67.7	75.4
Total postgraduate coursework		**81.9**	**69.0**	**78.2**

9.3 Satisfaction over time

The CEQ time series shown in Figure 12 indicates there has generally been consistently high satisfaction among postgraduate coursework graduates since 2010. Satisfaction with the quality of teaching has increased strongly over the period, from 64.8 per cent in 2010 to 70.2 per cent in 2015 as measured by the CEQ as part of the AGS. The change in collection methodology and the way in which these scores are calculated in the GOS necessitate a break in time series between 2015 and 2016. However, in the GOS from 2016, satisfaction with teaching increased from a base of 68.3 per cent in 2016 to 69.0 per cent in 2017.

Overall satisfaction with courses has remained high increasing from 80.8 per cent in 2010 to 83.2 per cent in 2015. In the GOS, this score remains high from a base of 82.5 per cent, but recording a slight dip in 2017 to 81.9 per cent. Satisfaction with generic skills has increased from 71.9 per cent in 2010 to 75.6 per cent in 2015 and has remained constant at 78.3 per cent in 2016 and 78.2 per cent in 2017 as part of the GOS.

Figure 12 **Postgraduate coursework satisfaction, 2010–2017 (% agreement)**



10 Postgraduate research satisfaction

The Postgraduate Research Experience Questionnaire (PREQ), administered since 1999, invites postgraduate research graduates four months after completing their degree to express agreement or disagreement on a five-point scale with statements about various aspects of their degree. These include overall satisfaction, supervision, intellectual climate, skills development, infrastructure, thesis examination and goals and expectations. Responses to points four and five on the scale are reported in the tables below.

In 2017, 84.4 per cent of postgraduate research graduates expressed overall satisfaction with their degree, as shown by Table 45, which shows a decrease of 1.1 percentage points from 2016, similar to both undergraduate and postgraduate coursework graduates. However, postgraduate research graduates' satisfaction with all other aspects of their degree, including supervision, intellectual climate, skills development, infrastructure, thesis examination and goals and expectations all increased in 2017.

Table 45 **Postgraduate research satisfaction, 2016 and 2017 (% agreement)**

	2016	2017
Overall satisfaction	85.5	84.4
Supervision	81.2	81.5
Intellectual climate	60.7	61.3
Skills development	94.1	94.3
Infrastructure	75.6	77.0
Thesis examination	77.9	79.4
Goals and expectations	91.2	91.6

10.1 Satisfaction by study area

In 2017, overall satisfaction among postgraduate research graduates ranged from a high of 96.6 per cent in Rehabilitation down to 76.8 per cent in Creative arts, as shown by Table 46. Similarly, for supervision, satisfaction ranged from 89.7 per cent, again in Rehabilitation, down to 75.6 per cent in Computing and information systems. Creative arts reported the lowest level of satisfaction with the intellectual climate, 44.0 per cent, ranging up to 72.5 per cent satisfaction among Nursing graduates, a 28.5 percentage point difference. Consistent with 2016, all study areas recorded over 90 per cent satisfaction with skills development in 2017.

Table 46 **Postgraduate research satisfaction by study area, 2016 and 2017 (% agreement)**

	Overall satisfaction		Supervision		Intellectual climate		Skills development		Infrastructure		Thesis examination		Goals and expectations	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	85.9	84.5	79.0	79.2	65.2	67.0	95.2	95.4	81.4	82.0	77.7	78.7	93.0	92.5
Computing and Information Systems	84.8	81.3	81.8	75.6	66.7	63.1	92.7	91.3	80.5	80.0	81.8	81.3	92.1	90.0
Engineering	86.0	86.5	80.7	83.6	65.6	68.5	93.5	94.5	84.6	82.8	81.9	82.2	91.0	93.1
Architecture and built environment	83.0	84.6	74.1	83.1	64.2	58.5	96.2	90.8	75.5	64.6	77.4	78.5	90.7	90.8
Agriculture and environmental studies	85.8	81.5	78.0	79.3	56.0	56.3	93.5	94.1	77.4	78.7	72.0	78.8	92.2	92.4
Health services and support	85.3	85.4	81.1	81.7	60.6	54.6	94.4	96.7	72.8	76.2	77.4	75.8	90.3	90.4
Medicine	87.0	84.7	80.5	76.9	66.7	60.4	95.6	94.4	80.9	79.4	79.9	80.7	93.2	92.6
Nursing	84.9	88.2	86.3	84.3	54.8	72.5	93.2	96.1	67.1	74.5	74.0	92.2	97.3	96.1
Pharmacy	81.3	79.6	84.4	83.6	67.2	67.3	95.3	92.7	73.4	87.3	75.0	81.8	95.3	90.9
Dentistry	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Veterinary science	86.0	87.5	70.0	87.5	58.0	55.0	94.0	97.5	70.0	75.0	82.0	90.0	88.0	85.0
Rehabilitation	100.0	96.6	96.4	89.7	60.7	62.1	100.0	96.6	63.0	82.8	85.7	86.2	96.4	96.6
Teacher education	86.5	84.4	86.5	85.2	57.1	56.3	92.3	92.6	67.6	73.6	80.4	78.9	91.7	91.9
Business and management	85.9	85.1	85.9	84.0	62.7	67.0	93.2	93.7	80.3	81.9	80.3	79.1	90.7	91.7
Humanities, culture and social sciences	84.7	82.9	81.5	81.6	56.7	54.1	93.7	94.2	66.9	66.3	76.3	77.3	89.9	89.9
Social work	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Psychology	84.3	84.5	81.4	81.1	50.2	56.7	92.8	94.5	77.4	76.4	76.7	81.5	87.7	91.2
Law and paralegal studies	86.4	94.9	83.3	86.4	53.3	64.4	94.9	93.2	62.7	74.6	76.7	88.1	90.0	91.5
Creative arts	84.2	76.8	82.0	80.0	55.4	44.0	95.7	91.3	59.2	60.1	71.2	68.6	85.8	85.9
Communications	78.0	82.6	78.0	85.7	37.8	52.2	92.6	90.0	57.3	68.6	72.0	82.9	89.0	90.0
Tourism, hospitality, personal services, sport and recreation	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
All study areas	**85.5**	**84.4**	**81.2**	**81.5**	**60.7**	**61.3**	**94.1**	**94.3**	**75.6**	**77.0**	**77.9**	**79.4**	**91.2**	**91.6**

10.2 Satisfaction by demographic group

Satisfaction levels of postgraduate research degree graduates varied somewhat by gender, with male graduates expressing higher satisfaction overall, and higher satisfaction with supervision, intellectual climate, infrastructure and thesis examination as shown by Table 47. Female graduates, however, expressed slightly higher satisfaction with skills development.

External postgraduate research graduates generally expressed lower satisfaction with most aspects of their degree, in particular with intellectual climate where external research graduates rated the intellectual climate 16.8 percentage points lower than internal or mixed mode graduates, at 45.6 per cent compared with 62.4 per cent. External postgraduate research graduates were also less satisfied with thesis examination by 8.6 percentage points and infrastructure by 6.9 percentage points than those who had studied by internal or mixed mode.

Graduates whose home language was other than English were in general more satisfied with most aspects of their postgraduate research experience, in particular with the intellectual climate, scoring this area 14.4 percentage points higher than those who spoke English at home. On the other hand, graduates reporting a disability were generally less satisfied with all aspects of their postgraduate research experience, particularly in relation to infrastructure and intellectual climate, by 10.5 and 8.6 percentage points respectively

Table 47 **Postgraduate research satisfaction by demographic group, 2017 (% agreement)**

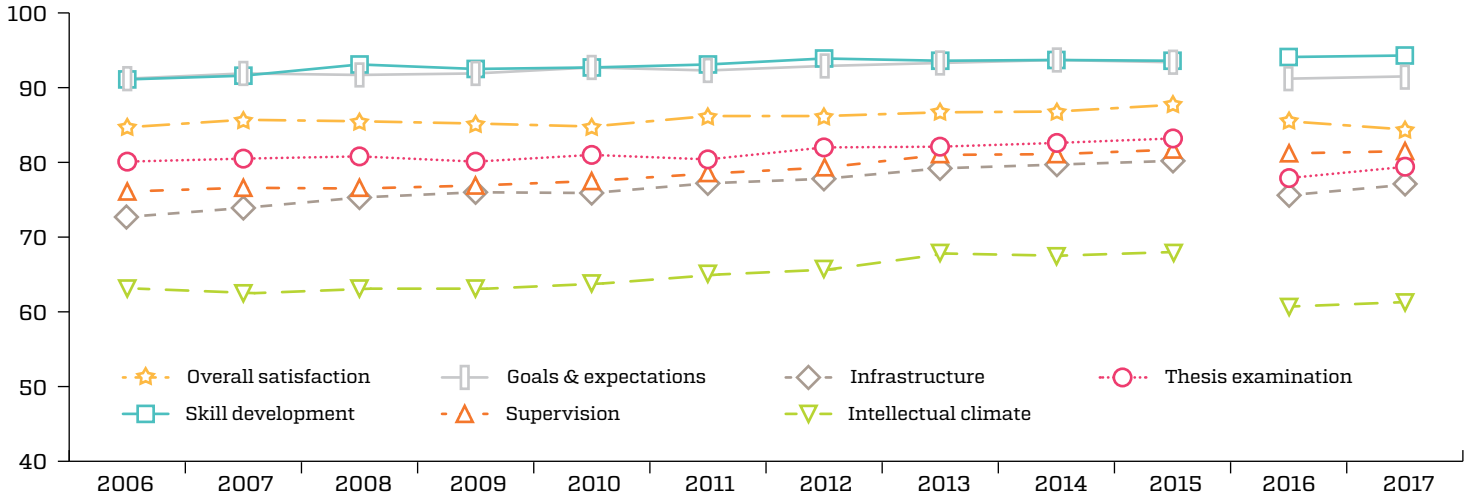
		Overall satisfaction	Supervision	Intellectual climate	Skills development	Infrastructure	Thesis examination	Goals and expectations
Gender	Male	86.1	82.8	63.6	93.8	78.9	81.6	92.0
	Female	82.8	80.3	59.1	94.7	75.2	77.2	91.2
Age	30 years or under	84.7	81.2	64.2	95.3	81.5	78.1	91.9
	Over 30 years	84.3	81.7	59.6	93.7	74.5	80.1	91.4
Indigenous	Indigenous	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Not Indigenous	84.4	81.5	61.4	94.3	77.0	79.3	91.6
Home language	English	83.8	81.0	57.7	94.0	74.5	78.2	90.7
	Language other than English	86.4	83.2	72.1	95.0	84.5	83.0	94.3
Disability	Reported disability	79.5	77.6	53.0	93.4	66.9	73.0	94.1
	No disability	84.6	81.7	61.6	94.3	77.4	79.6	91.5
Study mode	Internal and mixed mode	84.5	81.6	62.4	94.3	77.5	79.9	91.5
	External	83.2	80.6	45.6	93.2	70.6	71.3	92.3
Socio-economic status	High	83.2	80.6	55.8	93.4	72.7	77.2	89.3
	Medium	83.0	80.9	54.6	94.5	71.6	78.2	91.5
	Low	85.4	83.3	59.4	96.6	75.6	75.3	91.2
Location	Metro	82.9	80.8	56.1	94.0	73.2	77.7	90.5
	Regional/remote	85.5	81.9	53.7	94.7	69.7	75.7	89.8
Total postgraduate research		**84.4**	**81.5**	**61.3**	**94.3**	**77.0**	**79.4**	**91.6**

10.3 Satisfaction over time

The PREQ time series shown in Figure 13 indicates there was a steady improvement in satisfaction among postgraduate research graduates over time from 2007 to 2015 as measured by the AGS. Overall satisfaction remained high, increasing from 85.7 per cent in 2007 to 87.7 per cent in 2015. Satisfaction with supervision improved over the same period from 76.6 per cent to 81.7 per cent. Similarly, satisfaction with the intellectual climate improved from 62.5 per cent in 2007 to 68.0 per cent in 2015.

The move to the collection of PREQ data through the GOS represents a break in time series with all scales recording lower scores between 2015 and 2016, with the exception of skills development, which showed a slight increase of 0.5 percentage points. Since the change to the GOS, most of the scale scores have remained relatively stable. The largest increases in satisfaction were recorded in the areas of thesis examination, rising 1.5 percentage points to stand at 79.4 per cent in 2017, and infrastructure, rising 1.4 percentage points to 77.0 per cent. Notably, the only decrease was for overall satisfaction, which declined 1.1 percentage points from 85.5 per cent in 2016 to 84.4 per cent in 2017.

Figure 13 **PREQ 2007–2017 (% agreement)**



Appendix 1 Survey methodology

Operational summary

The main collection periods were November to December 2016 and May to July 2017, with a minor collection taking place in February 2017 to April 2017 to accommodate two institutions running an academic calendar of trimesters. For reporting purposes, the November and February collection period outcomes are reported together.

Table 1a **GOS 2016 collection summary**

	2015 November round[i]			2016 May			Total collection		
Project element	**University**	**NUHEIs**	**Total**	**University**	**NUHEIs**	**Total**	**University**	**NUHEIs**	**Total**
No. of participating institutions	40	32	72	40	52	92	40	56	96
No. of in-scope graduates[ii]	67,514	3,105	70,619	184,141	7,726	191,867	251,655	10,831	262,486
No. of completed surveys	24,440	1,157	25,597	75,418	3,193	78,611	99,858	4,350	104,208
Overall response rate (%)	36.2	37.3	36.2	41.0	41.3	41.0	39.7	40.2	39.7
Data collection period	4 Nov – 30 Nov[iii]			2 May – 30 May					
Data collection mode	Online			Online			Online		
Analytic unit[iv]	Course/Program			Course/Program			Course/Program		

i Includes February supplementary round outcomes
ii Excludes opt outs, disqualified or out of scope surveys
iii February data collection period took place 15 February to 14 March 2016
iv Analytic unit is course unless a course level major was provided by the institution or the student

Table 1b **GOS 2017 collection summary**

Project element	2016 November round[i]			2017 May			Total collection		
	University	NUHEIs	Total	University	NUHEIs	Total	University	NUHEIs	Total
No. of participating institutions	40	39	79	41	51	92	41	56	97
No. of in-scope graduates[ii]	68,544	4,770	73,314	186,713	8,003	194,716	255,257	12,773	268,030
No. of completed surveys	28,639	1,986	30,625	86,145	3,977	90,122	114,784	5,963	120,747
Overall response rate (%)	41.8%	41.6%	41.8%	46.1%	49.7%	46.3%	45.0%	46.7%	45.0%
Data collection period	November – December 2016 and February – April 2017			May – July 2017					
Data collection mode	Online			Online			Online		
Analytic unit[iii]	Course/Program			Course/Program			Course/Program		

i Includes February supplementary round outcomes
ii Excludes opt outs, disqualified or out of scope surveys
iii Analytic unit is course unless a course level major was provided by the institution or the student

All data included in this report was collected via an online survey that could be accessed directly by clicking the link in the email invitation or email reminders. The survey was also available via the GOS landing page on the QILT website (www.qilt.edu.au/surveys/graduate-outcomes-survey), where, after selecting the 'Start Survey' button, graduates were taken to a login page to enter the username and password provided in email correspondence. The landing page also allowed graduates access to the survey via authentication if they selected 'I don't have a password' and entered their student ID and date of birth. If the graduate was part of the 2017 sample they were sent an email with a direct link upon authenticating, and if they were not in the sample they were directed to the GOS helpdesk for further information.

Online survey presentation was informed by Australian Bureau of Statistics standards, accessibility guidelines and other relevant resources, with standard features including:

- mobile device optimisation;
- sequencing controls;
- input controls and internal logic checks;
- use of a progress bar;
- tailored error messages, as appropriate;
- no vertical scrolling required, with long statement batteries split over several screens, as necessary;
- recording panels for free text responses commensurate with level of detail required in the response;

- ‘saving’ with progression to the next screen; and
- capacity to save and return to finish off at another time, resuming at the last question completed.

A copy of the generic survey instrument (i.e. excluding any department or institution specific items) and screenshots of the survey are included in the full methodology report.

Selected institutions undertook telephone non-response for a fee for service. There were two options on offer, the first being telephone reminders which involved calling graduates who had not completed nor opted out of the survey and reminding them to go online and complete the survey. The second option was full Computer Assisted Telephone Interviewing (CATI) which involved calling graduates that had not responded or opted out and conducting the survey over the phone. Telephone activity was timed to begin two days after the survey had closed online. The data contained in this report excludes any surveys completed via Full CATI.

Survey programming

The GOS instrument was programmed into SPSS Dimensions in order to improve the ease of data capture, as well as facilitate the seamless use of follow up Computer Assisted Telephone Interviewing (CATI).

1800 and email helpdesk

The Social Research Centre established a GOS 1800 helpdesk to provide graduates an avenue to establish contact with the GOS team. This number was also available to international students (with an international dialling code), and remained operational for the duration of the fieldwork period. The helpdesk was staffed between 9:00 am and 8:30 pm on weekdays, and between 11:00 am and 5:00 pm on weekends. All out of hours callers were routed to a voicemail service, with calls returned within 24 hours.

The GOS helpdesk team was briefed on the GOS background, procedures and questionnaire to enable them to answer a wide range of queries. To further support the helpdesk, a database was made available to the team to enable them to look up caller information and survey links, as well as providing a method for logging all contacts.

All refusals and out of scopes were removed from the sample on a daily basis to avoid future contact via email or telephone. Sample contact details were updated before each reminder email for those requesting an update to their details.

Members of the GOS team were responsible for monitoring the GOS inbox and responded as appropriate to queries. The helpdesk 1800 number and email were provided in all written communications to graduates.

Incentivisation

The four-week rolling prize draw as designed to encourage early completion by offering more chances to win the earlier the survey was submitted (e.g. if the survey was completed by the end of the first prize draw then the graduate would be entered into all prize draws). There were four prize draws in total for each collection period with three $1,000 prepaid Visa gift cards, five $500 prepaid Visa gift card and ten $250 prepaid Visa gift cards to be won each week. The $1,000 Visa gift cards were drawn nationally while the $500 prepaid Visa gift cards and $250 prepaid Visa gift cards were distributed evenly across the states and territories. The prize pool for the November and May collection periods was valued at $32,000.

Invitation and follow-up reminder strategy

A multi-pronged approach was used in the GOS response maximisation effort; using email, telephone reminders, and SMS as methods of approaching and following up with graduates. Institutions had the option to provide phone numbers allowing SMS reminder (where mobile phone numbers were provided) and telephone reminder activity to be used on an as-needs basis. The November and May rounds of GOS saw a move away from a hardcopy postcard or letter follow-up with graduates, which had been used in previous GOS collections, in favour of telephone reminder activity during the online collection period amongst graduates in lower performing study areas.

Email activity and SMS

In both the November and May round of GOS, the Social Research Centre sent one email invitation, seven email reminders and one SMS over the course of the survey period.

Social media campaign

The GOS social media campaign included a QILT Facebook page, Facebook paid advertising campaign, QILT Twitter and a Twitter paid campaign. The social media campaign aimed to build a national brand within the QILT survey suite and increase awareness of the GOS.

Response rates

The 2017 GOS was primarily conducted as a national online survey among 97 higher education institutions including all 41 Table A and B universities and 56 Non-University Higher Education Institutions (NUHEIs). A total of 120,747 valid online survey responses were collected across all study levels, representing a response rate of 45.0 per cent, compared with 39.7 per cent in 2016, comprising 45.0 per cent for universities and 46.7 per cent for NUHEIs. The overall response rate for the November collection was 41.8 per cent, with an of improvement 4.5 percentage points in the May collection (46.3 per cent).

Table 2 **GOS 2017 response rates by institution, November/Feb 2016/2017 and May 2017 collections (%)**

Institution	Nov '16	May '17	Total	Institution	Nov '16	May '17	Total
Academy of Design Australia		61.5	61.5	Central Queensland University	43.2	48.6	46.2
Academy of Information Technology	45.7	67.9	54.1	Charles Darwin University	55.1	59.5	58.4
Adelaide Central School of Art		85.7	85.7	Charles Sturt University	40.7	48.5	47.0
Adelaide College of Divinity		66.7	66.7	Christian Heritage College	62.1	49.6	51.9
Australian Academy of Music and Performing Arts	41.2	57.1	47.3	College of the Arts		60.0	60.0
Australian Catholic University	47.1	46.1	46.3	Curtin University	48.2	45.3	45.8
Australian College of Applied Psychology (Navitas Institute)	53.8	58.0	57.2	Deakin University	36.3	51.1	45.3
Australian College of Christian Studies		57.1	57.1	Eastern College Australia	63.9	72.7	68.1
Australian College of Physical Education	35.0	46.2	43.2	Edith Cowan University	43.9	50.3	48.5
Australian College of Theology	49.7	57.0	54.8	Endeavour College		56.8	56.8
Australian Institute of Business	47.2	57.3	53.2	Excelsia College	61.5	68.2	65.7
Australian Institute of Management Education and Training	44.4		44.4	Federation University Australia	53.2	47.7	49.0
Australian Institute of Music	48.4		48.4	Flinders University	44.0	46.8	46.2
Australian Institute of Professional Counsellors	71.4	75.0	73.7	Griffith University	37.8	47.6	43.9
Australian School of Management	33.3	42.9	36.4	Holmes Institute	26.2	27.6	27.1
Avondale College of Higher Education		56.4	56.4	Holmesglen Institute	45.8	37.9	38.8
Bond University	35.4	44.6	38.8	Insearch	28.3		28.3
Box Hill Institute	66.7	50.0	50.8	International College of Management, Sydney	33.3	41.1	38.8
Campion College Australia		65.8	65.8	James Cook University	43.7	47.2	45.7
Canberra Institute of Technology		76.9	76.9	Jazz Music Institute		18.8	18.8

Institution	Nov '16	May '17	Total	Institution	Nov '16	May '17	Total
Kaplan Business School	52.2	38.6	47.7	Southern Cross University	50.2	52.9	52.3
Kaplan Higher Education Pty Ltd trading as Murdoch Institute of Technology	53.4	58.4	55.6	Study Group Australia	17.7	10.0	16.2
La Trobe University	40.3	40.0	40.1	Swinburne University of Technology	40.2	50.4	46.8
Le Cordon Bleu Australia	38.9	48.6	44.5	Sydney College of Divinity		66.3	66.3
Macleay College		57.7	57.7	Sydney Institute of Traditional Chinese Medicine	50.0		50.0
Macquarie University	38.0	43.4	42.5	Tabor College of Higher Education	75.0	65.3	66.7
Melbourne Institute of Technology	38.2	35.2	36.7	TAFE NSW	60.0	58.1	58.3
Melbourne Polytechnic	35.6	50.6	46.9	TAFE Queensland	37.0	53.8	45.3
MIECAT	66.7	46.7	54.9	TAFE SA	62.5	68.6	67.4
Monash University	48.0	52.7	50.9	The Australian National University	32.6	38.4	35.9
Morling College		51.3	51.3	The Cairnmillar Institute School		62.3	62.3
Murdoch University	48.9	50.6	50.1	The College of Law	38.6	40.1	39.4
Nan Tien Institute	63.6	75.0	68.4	The University of Adelaide	62.6	53.0	53.8
National Art School		68.1	68.1	The University of Melbourne	45.0	45.8	45.7
North Metropolitan TAFE		38.5	38.5	The University of Notre Dame Australia	41.8	44.7	44.1
Paramount College of Natural Medicine	72.7		72.7	The University of Queensland	43.3	51.9	48.9
Perth Bible College	100.0	72.7	81.3	The University of Sydney	38.6	44.4	44.0
Photography Studies College (Melbourne)	68.8	54.3	58.8	The University of Western Australia	37.1	41.0	39.9
Queensland University of Technology	23.1	27.5	26.1	Torrens University Australia		68.0	68.0
Raffles College of Design and Commerce	27.3	54.2	45.7	University of Canberra	48.4	46.9	47.4
RMIT University	47.1	47.4	47.4	University of Divinity	80.0	61.2	61.4
SAE Institute and Qantm College	51.3	56.0	53.6	University of New England	58.4	67.7	59.7

Institution	Nov '16	May '17	Total	Institution	Nov '16	May '17	Total
University of New South Wales	45.5	48.0	47.1	University of Wollongong	43.8	45.3	45.2
University of Newcastle	42.6	53.9	51.1	UOW College	18.6	48.4	31.1
University of South Australia	39.4	41.4	40.9	Victoria University	38.2	39.5	39.0
University of Southern Queensland	49.1	58.8	55.6	Western Sydney University	27.4	46.2	43.6
University of Tasmania	45.0	46.6	46.0	Whitehouse Institute		42.9	42.9
University of Technology Sydney	35.5	30.8	32.9	William Angliss Institute	37.8	45.8	42.7
University of the Sunshine Coast	62.8	57.7	59.2				

Data representativeness

In terms of Total Survey Error, response rates are less important that the representativeness of the respondent profile. To investigate the extent to which those who responded to the GOS are representative of the in-scope population respondent characteristics are presented alongside population parameters in the table below.

In general, a number of the sample parameters closely match the respondent profile. In terms of study level, undergraduates are slightly under-represented by 1.1 percentage points while postgraduate research graduates are slightly over-represented by 0.8 percentage points.

Aboriginal and Torres Strait Islander status, combined course of study indicator, type of attendance, socio-economic status, study level, location and mode of attendance are particularly well-matched within the sample profile with less than 2 per cent divergence. However, there are a number of characteristics where there is a divergence of several percentage points. The largest of these are the citizenship and language spoken at home indicators where international graduates and those who speak a language other than English are under-represented by around 5.0 and 3.3 percentage points respectively. However, it should be noted that this is a marked improvement from 2016 where the difference was 6.3 and 4.6 percentage points respectively. Consistent with the SES, males are under-represented compared with female respondents, however this gender difference is less pronounced in the GOS with a 2.7 per cent divergence with males under-represented in comparison to 3.5 per cent in 2016.

As was the case with the 2016 GOS, the sample also very closely matches the in-scope survey population in terms of study area, with all but one area diverging by less than 1 percentage point as shown in Table 3. The largest difference between the sample and population remains in the Business and Management study area (with 4.1 percentage points which is a slight improvement on 2016 with 4.8 percentage points).

Work is continuing to improve representativeness and more detail is available in the relevant GOS Methodological reports published on the QILT website.

Table 3 **GOS 2017 sample and response characteristics, by respondent type**

	Sample (n)	Sample (%)	Respondents (n)	Respondents (%)
Base*	268,030	100.0	120,747	100.0
Level				
Undergraduate	157,351	58.7	69,510	57.6
Postgraduate coursework	100,004	37.3	45,474	37.7
Postgraduate research	10,675	4.0	5,763	4.8
Gender				
Male	113,170	42.3	47,803	39.6
Female	154,482	57.7	72,762	60.4
Combined course of study indicator				
Combined/double degree	15,306	5.7	7,121	5.9
Single degree	252,724	94.3	113,626	94.1
Aboriginal and Torres Strait Islander				
Indigenous	2,061	0.8	980	0.8
Non-Indigenous	265,619	99.2	119,597	99.2
Mode of attendance code				
Internal/Multi Mode	228,997	85.5	101,094	83.8
External/Distance	38,683	14.5	19,483	16.2
Type of attendance code				
Full-time	187,494	70.0	83,582	69.3
Part-time	80,077	29.9	36938	30.6

	Sample (n)	Sample (%)	Respondents (n)	Respondents (%)
Base*	268,030	100.0	120,747	100.0
Main language spoken at home				
English	213,475	79.6	100,128	82.9
Language other than English	54,555	20.4	20,619	17.1
Citizen/resident indicator				
Domestic	198,369	74.1	95,326	79.1
International	69,310	25.9	25251	20.9
Socio-economic status				
High	69,328	36.4	33,069	36.1
Medium	92,231	48.5	44,551	48.6
Low	28,761	15.1	14,020	15.3
Location				
Metropolitan	150,644	79.2	71,367	77.9
Regional/remote	39,654	20.8	20,275	22.1

* Components may not sum to base number, as records with unknown characteristics are not included in the sub-categories.

Table 4 **GOS 2017 sample and response characteristics, by study area**

	Sample (n)	Sample (%)	Respondents (n)	Respondents (%)
Science and mathematics	19865	7.4	9549	7.9
Computing and Information Systems	11395	4.3	5243	4.3
Engineering	17325	6.5	7937	6.6
Architecture and built environment	6334	2.4	2756	2.3
Agriculture and environmental studies	3740	1.4	1925	1.6
Health services and support	15995	6.0	7795	6.5
Medicine	5274	2.0	2550	2.1
Nursing	18559	6.9	8352	6.9
Pharmacy	1801	0.7	758	0.6
Dentistry	1087	0.4	516	0.4
Veterinary science	1051	0.4	548	0.5
Rehabilitation	3413	1.3	1688	1.4
Teacher education	25914	9.7	12100	10.0
Business and management	67970	25.4	25727	21.3
Humanities, culture and social sciences	21576	8.0	10528	8.7
Social work	5008	1.9	2710	2.2
Psychology	9068	3.4	5138	4.3
Law and paralegal studies	14691	5.5	6334	5.2
Creative arts	9355	3.5	4527	3.7
Communications	7705	2.9	3685	3.1
Tourism, hospitality, personal services, sport and recreation	904	0.3	381	0.3
Total	**268030**	**100**	**120747**	**100**

Appendix 2 Labour market and graduate satisfaction definitions

The 2017 Graduate Outcomes Survey (GOS) uses labour force definitions which conform to the conceptual framework of the standard labour force statistics model used by the Australian Bureau of Statistics (ABS).

Indicator/element	Definition
Employed	Graduates who were usually or actually in paid employment for one or more hours in the week before the survey (including full-time, part-time or casual employment).
Employed full-time	Graduates who were usually or actually in paid employment for at least 35 hours per week, in the week before the survey.
Available for employment	Graduates who were employed, looking for employment or waiting to start a job in the week prior to the survey.
Available for full-time employment	Graduates who were employed full-time or looking for full-time employment in the week prior to the survey.
Underemployed	Graduates who were usually or actually in paid employment for fewer than 35 hours per week, in the week before the survey, and who would prefer to work a greater number of hours.
Overall employment rate	Employed graduates (including in full-time, part-time or casual employment), as a proportion of those available for employment.
Full-time employment rate	Graduates employed full-time, as a proportion of those available for full-time work.
Labour force participation rate	Graduates available for employment, as a proportion of all graduates.
Median salary	The median annual salary of graduates employed full-time.
Full-time study rate	Graduates who reported being in full-time study, as a proportion of all graduates.
Graduate satisfaction – overall satisfaction indicator	The proportion of graduates who 'agreed' or 'strongly agreed' that they were satisfied with the overall quality of their course or research program.
Graduate satisfaction – good teaching, generic skills, supervision and intellectual climate scales	Calculated from multiple survey items, representing the proportion of graduates who were satisfied.

Examples of graduate labour market outcomes

Amy works 37 hours a week. Amy is both *available for employment* and *available for full-time employment*, as well as both *employed* and *employed full-time*. Graduate Amy is counted towards the *labour force participation rate*. Amy's salary is counted towards the *median salary figure*.

Bryan works 20 hours a week while also studying full-time, and does not want to work additional hours. Bryan is *available for employment* and *employed*, but is not *available for full-time work* or *employed full-time*. Bryan is counted towards both the *full-time study rate* and the *labour force participation rate*. Bryan's salary is not counted towards the *median salary* figure.

Crishna works 6 hours a week, but would prefer to work 40 hours per week. Crishna is both *available for employment* and *available for full-time employment*. Crishna is *employed* but not *employed full-time*, and is also *underemployed*. Graduate Crishna is counted towards the *labour force participation rate*. Crishna's salary is not counted towards the *median salary* figure.

Dilek is studying full-time and is not working or looking for work. Dilek is not *available for employment* and therefore is not counted towards the *labour force participation rate*. However, Dilek is counted towards the *full-time study rate*.

Emily is not working and is looking for full-time work. Emily is both *available for employment* and *available for full-time employment*. Emily is counted towards the *labour force participation rate*. However, Emily is neither *employed* nor *employed full-time*, and can also be referred to as *unemployed*.

Appendix 3
Self-assessed over-qualification

As the proportion of the workforce with higher education qualifications has increased, the issue of whether graduates fully utilise their skills in their employment has become a matter of public concern, both internationally and in Australia.[1] The GOS provides a measure of the subjective interpretation of over-qualification through the inclusion of the Scale of Perceived Over-Qualification (SPOQ).[2] The SPOQ has been included on the basis that it has been validated for use with higher education graduates and performed satisfactorily in the trial GOS.

The SPOQ provides an insight into over-qualification from the perspective of graduates themselves. It should be used in conjunction with information from the GOS on other aspects of graduates' potential under-employment or over-qualification, including the reasons given by graduates for working in part-time employment and the occupational profile of employed graduates.

The SPOQ provides a benchmark of the underutilisation of skills, and as such, it will be important to monitor changes in this measure over time. It is expected that this information will be used as part of continuous improvement programs of higher education institutions and practitioners, as well as in government quality assurance processes.

1 Useful surveys can be found in McGowan, M. A., & Andrews, D. (2015). Skill mismatch and public policy in OECD countries. OECD Economics Department Working Papers no. 1210; Li, I. W., & Miller, P. W. (2013). The absorption of recent graduates into the Australian labour market. The Australian Economic Review, vol. 46, no. 1, pp. 14–30, and McGuinness, S. (2006). Overeducation in the labour market. Journal of Economic Surveys, vol. 20, no. 3, pp. 387-418.

2 For development and validation of the scale, see Maynard, D. C., Joseph, T. A., & Maynard, A. M. (2006). Underemployment, job attitudes, and turnover intentions. Journal of Organizational Behaviour, 27(4), 509–536.

The SPOQ consists of the following eight questions about the extent to which employed graduates felt over qualified for their position:

1. My job requires less education than I have
2. I have more job skills than are required for this job
3. Someone with less education than myself could perform well on my job
4. My previous training is being fully utilised on this job
5. I have more knowledge than I need in order to do my job
6. My education level is above the level required to do my job
7. Someone with less work experience than myself could do my job just as well
8. I have more abilities than I need in order to do my job

Employed graduates respond on a five-point agreement scale. Each item receiving a score between 1 (strongly disagree) and 5 (strongly agree), with the response values reversed for item 7. A graduate is defined as perceiving themselves to be over-qualified, that is, they perceived themselves to be working in a job that did not allow them to fully utilise their skills or education, if they have an average scale score of 3.5 or higher.

Appendix 4
2017 GOS item summary

Item label	Response scale	Base
Screening and confirmation		
Labour force		
Thinking about last week, the week starting <daystart>, <datestart> and ending last <dayend>, <dateend>.		
Last week, did you do any work at all in a job, business or farm?	Yes/No/Permanently unable to work/ Permanently not intending to work (65+)	(All)
Last week, did you do any work without pay in a family business?	Yes/No/Permanently not intending to work (65+)	(Not working)
Did you have a job, business or farm that you were away from because of holidays, sickness or any other reason?	Yes/No/Permanently not intending to work (65+)	(Not working without pay)
At any time during the last 4 weeks have you been looking for full-time work?	Yes/No/Permanently not intending to work (65+)	(Intending to work)
Have you been looking for part-time work at any time during the last 4 weeks?	Yes/No/Permanently not intending to work (65+)	(Intending to work)
If you had found a job, could you have started last week?	Yes/No	(Looking for full-time or part time work)
You mentioned that you didn't look for work during the last 4 weeks. Was that because you were waiting to start work you had already obtained?	Yes/No	(Not looking for work)
Did you have more than 1 job or business last week?	Yes/No	(Working or away from job)
The next few questions are about the job or business in which you usually work the most hours, that is, your main job.		Has more than one job
The next few questions are about the job or business in which you usually work the most hours		Has one job
Did you work for an employer, or in your own business?	Employer/Own business / Other or Uncertain	(Working or away from job)
Are you paid a wage or salary, or some other form of payment?	Wage or Salary/Other or Uncertain	(Working for an employer)

Item label	Response scale	Base
What are your <working/payment> arrangements?	• Unpaid voluntary work • Unpaid trainee or work placement • Contractor or Subcontractor • Own business or Partnership • Commission only • Commission with retainer • In a family business without pay • Payment in kind • Paid by the piece or item produced • Wage or salary earner • Other	(Other work arrangements)
How many hours did you actually work in your **main job** last week less time off but counting any extra hours worked]?	Enter hours	(More than one job or business)
How many hours do you usually work each week in your **main job**?	Enter hours	(More than one job or business)
How many hours did you **actually** work in all your jobs last week less time off but counting any extra hours worked (*or*): <in all your jobs>?	Enter hours	(Working or away from job)
How many hours do you **usually** work each week (*or*): <in all your jobs>?	Enter hours	(Working or away from job)
Would you prefer to work more hours than you usually work (*or*): <in all your jobs>?	Yes/No/Don't know	(Working or away from job)
How many hours a week would you like to work?	Enter hours	(Prefer work more hours)
Last week, were you available to work more hours than you usually work?	Yes/No	(Prefer to work more hours)
What is your occupation in your <main job/job/business>?	Enter occupation	(Working or away from job or waiting to start work)
What are your main tasks and duties?	Enter main tasks and duties	(Working or away from job or waiting to start work)
What kind of business or service is carried out by your <employer at the place where you work/business>?	Enter business or service	(Working or away from job or waiting to start work)
What is the name of your <employer/business>?	Enter employer/business name	(Working or away from job or waiting to start work)
In what sector are you wholly or mainly employed?	Public or government/Private/Not-for-profit	(Working or away from job or waiting to start work)
Are you working in Australia?	Yes/No/Not sure	(Working or away from job)

Item label	Response scale	Base
And what is the postcode of your <employer/business>?	Enter postcode/suburb/Not sure	(Working or away from job) and (working in Australia)
In which country is your <employer/business> based?	Country list (SACC)/Other (specify)	(Working or away from job) and (working outside Australia)
Have you worked <for your employer/in your business> for 12 months or more?	Yes, more than 12 months/No, less than 12 months	(Working or away from job)
How many months have you worked <for your employer/in your business>?	Enter number of months	(Worked for employer for less than 12 months)
How many years have you worked <for your employer/in your business>?	Enter number of years	(Worked for employer for more than 12 months)
Is this your first full-time job?	Yes/No	(Usually working 35 hours or more and worked for employer for less than 12 months and not self employed)
In **Australian dollars**, how much do you usually earn in <this job/**all your jobs**>, before tax or anything else was taken out?	• Amount per hour (specify) • Amount per day (specify) • Amount each week (specify) • Amount each fortnight (specify) • Amount each month (specify) • Amount each year (specify) • No earnings • Don't know	(Working in Australia)
Sorry but the salary you entered doesn't fit within our range. Please select the best option for how much you would usually earn in <this job/**all your jobs**>, per annum before tax or anything else was taken out?	• $1 – $9,999 • $10,000 – $19,999 • $20,000 – $29,999 • $30,000 – $39,999 • $40,000 – $49,999 • $50,000 – $59,999 • $60,000 – $79,999 • $80,000 – $99,999 • $100,000 – $124,999 • $125,000 – $149,999 • $150,000 or more • Don't know	(Working in Australia and out of range salary entered)

Item label	Response scale	Base
And in **Australian dollars**, how much do you usually earn in your main job, before tax or anything else was taken out?	• Amount per hour (specify) • Amount per day (specify) • Amount each week (specify) • Amount each fortnight (specify) • Amount each month (specify) • Amount each year (specify) • No earnings • (Don't know)	(Working in Australia and more than one job)
Sorry but the salary you entered doesn't fit within our range. Please select the best option for how much you would usually earn in your main job, per annum before tax or anything else was taken out?	• $1 – $9,999 • $10,000 – $19,999 • $20,000 – $29,999 • $30,000 – $39,999 • $40,000 – $49,999 • $50,000 – $59,999 • $60,000 – $79,999 • $80,000 – $99,999 • $100,000 – $124,999 • $125,000 – $149,999 • $150,000 or more • Don't know	(Working in Australia and more than one job and out of range salary entered)
What is your gross (that is pre-tax) annual salary? You can estimate if necessary. Please select currency <Currency drop down list>	Text	(Working outside Australia)

Item label	Response scale	Base
How did you first find out about this job?	• University or college careers service • Careers fair or information session • Other university or college source (such as faculties or lecturers or student society) • Advertisement in a newspaper or other print media • Advertisement on the internet • Via resume posted on the internet • Family or friends • Approached employer directly • Approached by an employer • Employment agency • Work contacts or networks • Social media • An employer promotional event • Other (please specify___)	(Worked for employer for less than 12 months and not self employed)
The following statements are about your skills, abilities and education. • My job requires less education than I have • I have more job skills than are required for this job • Someone with less education than myself could perform well on my job • My previous training is being fully utilised on this job • I have more knowledge than I need in order to do my job • My education level is above the level required to do my job • Someone with less work experience than myself could do my job just as well • I have more abilities than I need in order to do my job	• Strongly disagree • Disagree • Neither disagree nor agree • Agree • Strongly agree	(Working or away from job)

Item label	Response scale	Base
You mentioned that you are **not** looking to work more hours. What is the **main reason** you work the number of hours you are currently working?	• No suitable job in my local area • No job with a suitable number of hours • No suitable job in my area of expertise • Considered to be too young by employers • Considered to be too old by employers • Short-term illness or injury • Long-term health condition or disability • Caring for family member with a health condition or disability • Caring for children • Studying • Other (Please specify___)	(Working less than 35 hours and not looking for more hours)
You mentioned that you are looking to work more hours. What is the **main reason** you work the number of hours you are currently working?	• No suitable job in my local area • No job with a suitable number of hours • No suitable job in my area of expertise • Considered to be too young by employers • Considered to be too old by employers • Short-term illness or injury • Long-term health condition or disability • Caring for family member with a health condition or disability • Caring for children • Studying • Other (Please specify___)	(Working less than 35 hours and looking for more hours)

Item label	Response scale	Base
Your previous responses indicated that you have **more** skills or education than are needed to do your current job. What is the **main reason** you are working in a job that doesn't use all of your skills or education?	• No suitable job in my local area • No job with a suitable number of hours • No suitable job in my area of expertise • Considered to be too young by employers • Considered to be too old by employers • Short-term illness or injury • Long-term health condition or disability • Caring for family member with a health condition or disability • Caring for children • Studying • Other (please specify___)	(Perceived overqualification for current job)
When did you begin looking for work?	Enter month and enter year	(Working and looking for work)
Further study		
Are you currently a full-time or part-time student at a TAFE, university or other educational institution?	Yes – full-time/Yes – part-time/No	(All)
What is the full title of the qualification you are currently studying?	Qualification title	(Studying)
What is your major field of education for this qualification?	• Natural and physical sciences • Information technology • Engineering and related technologies • Architecture and building • Agriculture environmental and related studies • Health • Education • Management and commerce • Society and culture • Creative arts • Food, hospitality and personal services • Mixed field qualification • Other (please specify_____)	(Studying)

Item label	Response scale	Base
What is the level of this qualification?	• Higher Doctorate • Doctorate by Research • Doctorate by Coursework • Master Degree by Research • Master Degree by Coursework • Graduate Diploma • Graduate Certificate • Bachelor (Honours) Degree • Bachelor (Pass) Degree • Advanced Diploma • Associate Degree • Diploma • Non-award course • Bridging and Enabling course	(Studying)
And the institution where you are currently studying?	Institution	(Studying)

Item label	Response scale	Base
Graduate attributes		
For each of the following skills or attributes, to what extent do you agree or disagree that your <Final Course> from <Institution> prepared you for this job? If the skill is not required in your role, you can answer 'Not applicable'. **Statements** **Foundation skills** • Oral communication skills • Written communication skills • Numeracy skills • Ability to develop relevant knowledge • Ability to develop relevant skills • Ability to solve problems • Ability to integrate knowledge • Ability to think independently about problems **Adaptive skills and attributes** • Broad general knowledge • Ability to develop innovative ideas • Ability to identify new opportunities • Ability to adapt knowledge in different contexts • Ability to apply skills in different contexts • Capacity to work independently **Teamwork and interpersonal skills** • Working well in a team • Getting on well with others in the workplace • Working collaboratively with colleagues to complete tasks • Understanding of different points of view • Ability to interact with co-workers from different or multicultural backgrounds	• Strongly disagree • Disagree • Neither disagree nor agree • Agree • Strongly agree • Not applicable	(Working or away from job)

Item label	Response scale	Base
Graduate attributes CEQ/PREQ		
The next series of questions are about your <course >. By <course> we mean the major fields of education or programs of study that made up your qualification.		(Not postgraduate by research)
Now a series of statements regarding your <FinalMajor1/FinalMajor2/FinalCourseA> <major/qualification>. • The staff put a lot of time into commenting on my work • The teaching staff normally gave me helpful feedback on how I was going • The <course> helped me develop my ability to work as a team member • The teaching staff of this <course> motivated me to do my best work • The course provided me with a broad overview of my field of knowledge • The <course> sharpened my analytic skills • My lecturers were extremely good at explaining things • The teaching staff worked hard to make their subjects interesting • The course developed my confidence to investigate new ideas • The <course> developed my problem-solving skills • The staff made a real effort to understand difficulties I might be having with my work • University stimulated my enthusiasm for further learning • The <course> improved my skills in written communication • I learned to apply principles from this course to new situations • I consider what I learned valuable for my future • As a result of my <course>, I feel confident about tackling unfamiliar problems • My course helped me to develop the ability to plan my own work • My university experience encouraged me to value perspectives other than my own • Overall, I was satisfied with the quality of this <course>	• Strongly disagree • Disagree • Neither disagree nor agree • Agree • Strongly agree • Not applicable	(Not postgraduate by research)
Please tell us about your postgraduate research experience. If you have had more than one supervisor or have studied in more than one department or faculty, please respond to the questions below in relation to your most recent supervision experience, whether by one or more supervisors. Please interpret 'thesis' and other research-related terms in the context of your own field of education.	• Strongly disagree • Disagree • Neither disagree nor agree • Agree • Strongly agree • Not applicable	(Postgraduate by research)

Item label	Response scale	Base
Please indicate the extent to which you strongly disagree, disagree, neither agree nor disagree, agree or strongly agree with each of these statements. • Supervision was available when I needed it • The thesis examination process was fair • I had access to a suitable working space • I developed an understanding of the standard of work expected • The department provided opportunities for social contact with other postgraduate students • My research further developed my problem solving skills • My supervisor(s) made a real effort to understand difficulties I faced • I had good access to the technical support I needed • I was integrated into the department's community • I learned to develop my ideas and present them in my written work • I understood the required standard for the thesis • I was able to organise good access to necessary equipment • My supervisor(s) provided additional information relevant to my topic • My research sharpened my analytical skills • I was satisfied with the thesis examination process • The department provided opportunities for me to become involved in the broader research culture • I was given good guidance in topic selection and refinement • I had good access to computing facilities and services • I understood the requirements of thesis examination • Doing my research helped me to develop my ability to plan my own work • My supervisor(s) provided helpful feedback on my progress • A good seminar program for postgraduate students was provided • The research ambience in the department or faculty stimulated my work • I received good guidance in my literature search • The examination of my thesis was completed in a reasonable time • As a result of my research, I feel confident about tackling unfamiliar problems • There was appropriate financial support for research activities • Overall, I was satisfied with the quality of my higher degree research experience		
Now, a couple of general questions about your <course>...		(All)
What were the best aspects of your <course>?	Open text	(All)
What aspects of your <course> were most in need of improvement?	Open text	(All)

Item label	Response scale	Base
Graduate preparation		
Is a <Course> or similar qualification a formal requirement for you to do your current job?	Yes No	(Working or away from job and working for employer for less than 12 months)
To what extent is it important for you to have a < Course >, or similar qualification, to be able to do your job?	Not at all important Not that important Fairly important Important Very important	(Working or away from job and working for employer for less than 12 months)
Overall, how well did your <Course > prepare you for your job?	Not at all Not well Well Very well Don't know/Unsure	(Working or away from job and working for employer for less than 12 months)
What are the main ways that <Institution > prepared you for employment in your organisation?	Text	(Working or away from job and working for employer for less than 12 months)
What are the main ways <Institution> could have better prepared you for employment in your organisation?	Text	(Working or away from job and working for employer for less than 12 months)
Contact details		
ESS bridging		

Appendix 5 Study area concordance

Study areas for Quality Indicators for Learning and Teaching (QILT) surveys, including the GOS, are defined in accordance with the Australian Bureau of Statistics' (ABS) Australian Standard Classification of Education (ASCED). The QILT website and in general this report use 21 aggregated study areas as the basis of analysis. Targets for data collection are based on 45 study areas. Concordance between these study areas and ASCED fields are listed below. Details of the fields of education are available from the ABS web site.

Study area (21)		Study area (45)		ASCED field of education
1	Science and mathematics	1	Natural & physical sciences	010000, 010300, 010301, 010303, 010500, 010501, 010503, 010599, 010700, 010701, 010703, 010705, 010707, 010709, 010711, 010713, 010799, 019900, 019999
		2	Mathematics	010100, 010101, 010103, 010199
		3	Biological sciences	010900, 010901, 010903, 010905, 010907, 010909, 010911, 010913, 010915, 010999
		4	Medical science & technology	019901, 019903, 019905, 019907, 019909
2	Computing & Information Systems	5	Computing & information systems	020000, 020100, 020101, 020103, 020105, 020107, 020109, 020111, 020113, 020115, 020117, 020119, 020199, 020300, 020301, 020303, 020305, 020307, 020399, 029900, 029901, 029999
3	Engineering	6	Engineering – other	030000, 030100, 030101, 030103, 030105, 030107, 030109, 030111, 030113, 030115, 030117, 030199, 030500, 030501, 030503, 030505, 030507, 030509, 030511, 030513, 030515, 030599, 031100, 031101, 031103, 031199, 031700, 031701, 031703, 031705, 031799, 039900, 039901, 039903, 039905, 039907, 039909, 039999
		7	Engineering – process & resources	030300, 030301, 030303, 030305, 030307, 030399
		8	Engineering – mechanical	030700, 030701, 030703, 030705, 030707, 030709, 030711, 030713, 030715, 030717, 030799
		9	Engineering – civil	030900, 030901, 030903, 030905, 030907, 030909, 030911, 030913, 030999
		10	Engineering – electrical & electronic	031300, 031301, 031303, 031305, 031307, 031309, 031311, 031313, 031315, 031317, 031399
		11	Engineering – aerospace	031500, 031501, 031503, 031505, 031507, 031599

Study area (21)		Study area (45)		ASCED field of education
4	Architecture and built environment	12	Architecture & urban environments	040000, 040100, 040101, 040103, 040105, 040107, 040199
		13	Building & construction	040300, 040301, 040303, 040305, 040307, 040309, 040311, 040313, 040315, 040317, 040319, 040321, 040323, 040325, 040327, 040329, 040399
5	Agriculture and environmental studies	14	Agriculture & forestry	050000, 050100, 050300, 050500, 050700, 059900
		15	Environmental studies	050900
6	Health services and support	16	Health services & support	060000, 060900, 060901, 060903, 060999, 061500, 061501, 061700, 061705, 061707, 061709, 061711, 061713, 061799, 061900, 061901, 061903, 061905, 061999, 069900, 069901, 069903, 069905, 069907, 069999
		17	Public health	061300, 061301, 061303, 061305, 061307, 061309, 061311, 061399
7	Medicine	18	Medicine	060100, 060101, 060103, 060105, 060107, 060109, 060111, 060113, 060115, 060117, 060119, 060199
8	Nursing	19	Nursing	060300, 060301, 060303, 060305, 060307, 060309, 060311, 060313, 060315, 060399
9	Pharmacy	20	Pharmacy	060500, 060501
10	Dentistry	21	Dentistry	060700, 060701, 060703, 060705, 060799
11	Veterinary science	22	Veterinary science	061100, 061101, 061103, 061199
12	Rehabilitation	23	Physiotherapy	061701
		24	Occupational therapy	061703
13	Teacher education	25	Teacher education – other	070000, 070100, 070107, 070109, 070111, 070113, 070115, 070117, 070199, 070300, 070301, 070303, 079900, 079999
		26	Teacher education – early childhood	070101
		27	Teacher education – primary & secondary	070103, 070105

Study area (21)		Study area (45)		ASCED field of education
14	Business and management	28	Accounting	080100, 080101
		29	Business management	080300, 080301, 080303, 080305, 080307, 080309, 080311, 080313, 080315, 080317, 080319, 080321, 080323, 080399
		30	Sales & marketing	080500, 080501, 080503, 080505, 080507, 080509, 080599
		31	Management & commerce – other	080000, 080900, 080901, 080903, 080905, 080999, 089900, 089901, 089903, 089999
		32	Banking & finance	081100, 081101, 081103, 081105, 081199
		40	Economics	091900, 091901, 091903
15	Humanities, culture and social sciences	33	Political science	090100, 090101, 090103
		34	Humanities inc history & geography	090000, 090300, 090301, 090303, 090305, 090307, 090309, 090311, 090313, 090399, 091300, 091301, 091303, 091700, 091701, 091703, 099900, 099901, 099903, 099905, 099999
		35	Language & literature	091500, 091501, 091503, 091505, 091507, 091509, 091511, 091513, 091515, 091517, 091519, 091521, 091523, 091599
16	Social work	36	Social work	090500, 090501, 090503, 090505, 090507, 090509, 090511, 090513, 090515, 090599
17	Psychology	37	Psychology	090700, 090701, 090799
18	Law and paralegal studies	38	Law	090900, 090901, 090903, 090905, 090907, 090909, 090911, 090913, 090999
		39	Justice studies & policing	091100, 091101, 091103, 091105, 091199
19	Creative arts	42	Art & design	100000, 100300, 100301, 100303, 100305, 100307, 100309, 100399, 100500, 100501, 100503, 100505, 100599, 109900, 109999
		43	Music & performing arts	100100, 100101, 100103, 100105, 100199
20	Communications	44	Communication, media & journalism	100700, 100701, 100703, 100705, 100707, 100799
21	Tourism, hospitality, personal services, sport and recreation	41	Sport & recreation	092100, 092101, 092103, 092199
		45	Tourism, hospitality & personal services	1101000, 110300, 120100, 120300, 120500, 129999

Appendix 6
Additional tables

Table A **Undergraduate employment outcomes, by 45 study areas, 2016 and 2017 (%)**

	Full-time employment		Overall employment		Labour force participation rate	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Natural & physical sciences	63.1	63.4	82.7	82.2	83.5	83.1
Mathematics	72.4	68.9	83.5	84.2	84.9	87.4
Biological sciences	53.8	53.0	79.1	79.8	81.6	81.8
Medical sciences & technology	61.8	55.8	81.0	77.9	79.2	78.9
Computing & information systems	72.5	73.1	82.6	82.0	94.4	93.2
Engineering – other	79.2	82.8	85.3	86.7	94.8	93.5
Engineering – process & resources	69.6	74.4	82.2	85.2	94.8	95.1
Engineering – mechanical	72.3	76.5	80.5	85.8	95.2	94.0
Engineering – civil	81.7	84.3	88.0	90.3	97.1	96.3
Engineering – electrical & electronic	75.4	76.1	81.0	82.9	94.5	94.4
Engineering – aerospace	68.5	70.1	80.5	86.8	92.7	94.6
Architecture & urban environments	69.3	67.6	83.1	84.4	93.5	92.8
Building & construction	91.3	91.8	95.3	94.8	98.2	95.4
Agriculture & forestry	77.1	78.9	84.4	85.8	93.3	93.1
Environmental studies	52.1	59.5	84.2	83.4	93.2	92.4
Health services & support	71.2	72.7	90.4	90.0	93.7	93.0
Public health	70.1	72.1	89.0	89.5	94.4	95.3
Medicine	98.5	96.7	97.7	96.5	95.6	94.7
Nursing	82.5	79.3	93.3	91.7	97.7	97.7
Pharmacy	96.3	95.2	96.0	95.8	94.9	95.5
Dentistry	82.3	86.8	94.1	95.7	97.7	94.9
Veterinary science	89.8	81.7	89.9	87.5	88.2	88.9
Physiotherapy	91.6	93.3	97.1	97.8	96.4	97.7
Occupational therapy	76.4	78.0	93.2	93.8	98.7	98.3

	Full-time employment		Overall employment		Labour force participation rate	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Teacher education – other	82.8	80.0	93.4	90.8	94.5	94.9
Teacher education – early childhood	81.7	83.4	95.6	93.8	95.8	96.0
Teacher education – primary & secondary	79.0	81.7	94.2	93.7	96.4	97.2
Accounting	76.2	78.0	86.4	86.1	96.5	97.2
Business management	74.6	76.2	87.5	88.6	96.5	96.3
Sales & marketing	74.2	72.9	89.5	87.9	96.7	97.4
Management & commerce – other	78.2	79.8	86.7	87.0	95.0	95.4
Banking & finance	78.1	79.2	86.0	86.1	96.1	95.4
Political science	63.9	60.1	82.9	84.5	92.0	92.0
Humanities inc history & geography	61.9	62.9	83.6	83.8	88.4	88.6
Language & literature	59.4	60.3	83.4	81.5	85.8	86.6
Social work	66.7	70.8	85.5	86.1	94.2	94.5
Psychology	60.8	60.3	85.2	84.9	87.0	87.2
Law	74.5	77.1	84.4	85.6	95.2	95.1
Justice studies & policing	63.0	65.4	83.1	84.3	93.7	90.7
Economics	72.5	73.8	84.8	84.4	95.1	94.9
Sport & recreation	70.5	60.3	95.7	86.9	94.3	93.9
Art & design	55.8	53.4	80.8	77.7	89.6	89.1
Music & performing arts	53.5	51.9	83.4	84.3	91.6	91.8
Communication, media & journalism	60.8	60.3	82.4	84.6	93.6	93.8
Tourism, hospitality & personal services	64.9	68.3	83.7	85.1	95.6	94.0
All study areas*	**70.9**	**71.8**	**86.4**	**86.5**	**92.0**	**92.0**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table B **Undergraduate occupation level, overall employed, by 45 study areas, 2017 (%)**

Study area	Occupation group						
	Managers	Professionals	Technicians & trade	Community & personal service	Clerical & administrative	All other occupations	All employed
Natural & physical sciences	4.9	49.4	7.6	11.1	9.1	17.8	100
Mathematics	4.7	64.7	4.0	9.0	8.7	9.0	100
Biological sciences	4.6	28.7	9.5	17.3	12.7	27.1	100
Medical sciences & technology	3.9	36.5	8.5	15.6	9.6	25.9	100
Computing & information systems	6.3	65.3	11.6	3.5	4.8	8.4	100
Engineering – other	7.0	64.6	11.4	4.1	3.4	9.5	100
Engineering – process & resources	5.8	67.4	4.7	2.5	5.8	14.0	100
Engineering – mechanical	6.9	67.5	8.1	3.8	2.6	11.1	100
Engineering – civil	7.2	72.9	5.6	3.1	4.3	6.9	100
Engineering – electrical & electronic	3.3	78.8	7.6	2.3	1.8	6.3	100
Engineering – aerospace	5.2	52.6	4.4	5.9	9.6	22.2	100
Architecture & urban environments	4.6	47.5	15.8	8.8	8.4	14.9	100
Building & construction	22.7	23.1	24.4	0.6	22.4	6.8	100
Agriculture & forestry	14.3	37.4	13.9	3.3	9.5	21.6	100
Environmental studies	5.1	34.8	9.8	12.2	11.2	26.9	100
Health services & support	3.5	43.7	2.0	29.3	7.2	14.3	100
Public health	4.8	50.4	2.6	14.2	11.7	16.3	100
Medicine	0.1	94.0	1.0	1.4	1.0	2.5	100
Nursing	0.7	85.3	0.4	10.0	1.1	2.4	100
Pharmacy	0.6	92.0	1.4	1.4	1.4	3.3	100
Dentistry	0.4	50.8	0.0	46.6	1.1	1.1	100
Veterinary science	2.0	60.0	17.3	4.7	3.5	12.5	100
Physiotherapy	0.8	95.3	0.0	1.5	0.8	1.7	100

Study area	Occupation group						
	Managers	Professionals	Technicians & trade	Community & personal service	Clerical & administrative	All other occupations	All employed
Occupational therapy	1.6	81.0	0.0	10.5	2.0	4.9	100
Teacher education – other	4.2	77.4	0.5	9.0	2.2	6.8	100
Teacher education – early childhood	4.9	82.3	0.2	8.7	1.0	2.8	100
Teacher education – primary & secondary	1.6	88.1	0.5	4.3	1.6	4.0	100
Accounting	8.3	63.0	0.8	2.9	16.2	8.7	100
Business management	19.1	33.5	2.3	9.4	20.1	15.6	100
Sales & marketing	14.7	45.0	1.4	6.5	12.4	20.1	100
Management & commerce – other	10.8	57.2	1.1	3.6	16.8	10.5	100
Banking & finance	6.7	62.3	1.1	4.5	17.3	8.1	100
Political science	8.1	35.2	1.7	15.4	19.8	19.8	100
Humanities inc history & geography	7.2	34.3	2.1	18.8	16.4	21.2	100
Language & literature	7.2	37.3	1.8	17.3	15.6	20.8	100
Social work	4.5	53.6	1.7	27.4	6.1	6.8	100
Psychology	5.9	34.2	1.8	21.7	15.0	21.3	100
Law	5.5	52.6	0.8	4.9	29.4	6.7	100
Justice studies & policing	6.6	11.2	2.0	37.7	20.8	21.6	100
Economics	7.8	56.2	1.4	4.7	17.6	12.3	100
Sport & recreation	12.6	15.4	3.5	37.1	8.4	23.1	100
Art & design	4.7	41.4	4.9	14.6	7.9	26.5	100
Music & performing arts	4.8	44.7	3.8	16.1	7.3	23.4	100
Communication, media & journalism	7.2	42.4	4.2	11.7	13.0	21.6	100
Tourism, hospitality & personal services	38.5	10.3	0.0	23.1	12.8	15.4	100
All study areas*	**6.2**	**53.5**	**3.6**	**12.6**	**10.2**	**13.9**	**100**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only

Table C **Undergraduate full-time employment, by study area, 2007–2017 (%)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017
Science and mathematics	75.6	78.3	68.1	63.9	65.8	62.8	55.4	51.0	49.5	61.0	59.0
Computing and information systems	83.1	84.2	80.1	73.2	77.7	74.7	70.3	67.2	67.0	72.5	73.3
Engineering	91.4	92.9	87.2	82.7	84.9	86.6	82.6	72.2	73.9	76.4	79.4
Architecture and built environment	93.0	92.1	80.9	81.3	78.5	75.2	69.9	68.6	75.4	75.2	75.2
Agriculture and environmental studies	77.3	80.4	75.8	66.2	68.1	70.7	64.4	59.9	58.1	59.8	66.3
Health services and support	85.1	85.6	78.6	75.9	76.7	75.1	70.1	67.9	67.9	70.9	72.7
Medicine	98.2	97.5	96.9	97.3	97.8	98.1	96.9	97.5	96.3	98.2	95.9
Nursing	97.5	96.6	96.4	92.6	91.4	91.6	81.9	80.1	78.7	82.5	79.3
Pharmacy	99.4	97.7	97.6	97.7	97.3	98.1	97.6	94.1	95.6	96.3	95.2
Dentistry	95.0	92.9	88.1	90.5	88.3	80.1	79.3	79.9	86.9	82.3	86.8
Veterinary science	94.0	91.8	92.1	90.6	88.4	80.8	78.8	80.7	84.9	89.8	81.4
Rehabilitation	94.1	95.3	91.6	89.9	88.9	89.3	84.5	80.9	87.4	84.0	85.7
Teacher education	80.3	82.8	78.2	74.9	74.2	74.9	70.8	70.0	71.7	80.3	81.7
Business and management	85.8	86.2	79.6	76.4	77.0	76.3	73.6	71.2	72.7	75.5	76.5
Humanities, culture and social sciences	76.2	77.2	71.9	68.0	66.7	66.8	61.1	58.4	59.3	61.8	62.2
Social work	88.5	86.4	81.6	77.6	77.4	75.3	69.9	71.6	71.2	66.7	70.9
Psychology	79.1	77.3	71.3	65.5	63.5	63.2	56.1	52.1	55.4	60.8	60.3
Law and paralegal studies	90.4	90.1	86.1	80.8	81.3	80.0	76.1	73.3	73.0	72.6	74.8
Creative arts	66.2	66.7	51.5	53.2	52.5	53.8	48.3	44.7	47.0	55.0	53.2
Communications	72.9	72.4	60.9	62.2	61.2	62.3	55.8	55.1	53.1	60.7	60.6
Tourism, hospitality, personal services, sport and recreation	76.1	75.1	63.6	55.7	60.9	60.7	70.4	55.1	57.8	68.5	62.9
All study areas	**84.5**	**85.2**	**79.2**	**76.2**	**76.3**	**76.1**	**71.3**	**68.1**	**68.8**	**70.9**	**71.8**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table D **Undergraduate overall employment, by study area, 2007–2017 (%)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017
Science and mathematics	91.8	92.1	88.0	86.1	86.8	86.8	83.8	82.6	82.1	81.5	80.6
Computing and information systems	91.9	92.3	89.8	86.7	89.2	87.1	84.7	82.6	83.2	82.5	82.1
Engineering	95.3	95.9	92.0	90.0	91.0	92.5	89.9	84.7	85.7	83.9	86.5
Architecture and built environment	97.3	96.5	90.2	93.1	90.7	90.8	87.4	89.0	89.3	85.8	87.2
Agriculture and environmental studies	92.1	94.2	90.6	86.3	87.9	88.8	86.4	86.8	84.0	84.2	84.2
Health services and support	96.2	96.5	94.4	94.0	93.9	93.2	92.3	91.4	91.9	90.1	89.9
Medicine	99.3	98.7	97.8	98.2	99.0	98.7	98.5	98.4	98.7	97.4	95.9
Nursing	99.2	98.9	98.7	97.7	97.4	97.6	95.2	95.4	95.1	93.3	91.7
Pharmacy	99.2	98.4	98.3	99.3	98.6	98.2	98.3	97.8	97.6	96.0	95.8
Dentistry	100	97.5	98.3	97.2	97.2	97.0	93.5	93.0	95.6	94.1	95.7
Veterinary science	97.6	95.5	94.8	94.7	93.1	91.3	85.8	89.4	93.0	89.4	87.5
Rehabilitation	98.3	98.3	97.5	97.6	96.0	96.4	94.8	94.1	96.1	95.2	95.8
Teacher education	96.4	96.9	96.4	95.9	95.3	95.2	94.8	94.4	94.4	94.3	93.0
Business and management	94.7	94.3	91.9	90.6	91.0	91.0	89.8	89.7	90.1	87.1	87.2
Humanities, culture and social sciences	92.1	91.6	90.5	88.5	88.6	88.3	86.6	85.4	86.6	83.5	83.6
Social work	94.7	95.4	93.6	91.3	90.6	90.1	87.8	88.7	87.7	85.5	86.1
Psychology	93.9	92.3	91.6	90.5	89.5	88.7	86.4	86.4	86.4	85.0	84.8
Law and paralegal studies	95.8	95.6	93.8	93.2	91.9	92.3	90.3	89.9	89.8	84.3	85.3
Creative arts	90.4	90.5	85.9	87.4	85.0	86.4	84.2	83.3	85.4	81.4	80.0
Communications	91.5	90.7	88.8	87.8	87.7	89.2	87.0	86.2	85.4	83.0	84.6
Tourism, hospitality, personal services, sport and recreation	94.8	92.4	92.1	89.9	89.8	89.8	94.9	88.8	92.4	89.6	86.8
All study areas	**94.9**	**94.8**	**92.7**	**91.8**	**91.6**	**91.7**	**90.0**	**89.2**	**89.5**	**86.4**	**86.5**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table E **Undergraduate median starting salaries, 2007–2017, by study area ($ '000)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017	% change 2007 to 2017
Science and mathematics	42.0	45.0	47.0	49.0	51.0	53.0	50.0	52.0	52.0	55.2	57.5	36.9
Computing and information systems	43.2	46.8	49.8	50.0	51.0	53.0	53.0	54.0	55.0	60.0	59.9	38.7
Engineering	50.0	54.0	57.0	56.0	60.0	63.0	63.8	61.6	60.0	62.6	64.0	28.0
Architecture and built environment	40.0	43.0	45.0	45.0	45.0	48.0	48.8	49.0	45.0	55.0	56.4	41.0
Agriculture and environmental studies	40.8	42.0	46.0	45.0	47.0	51.0	49.0	51.1	49.0	55.0	55.8	36.8
Health services and support	44.0	46.0	48.0	50.0	52.0	52.8	54.0	55.0	56.0	59.5	61.3	39.3
Medicine	50.0	50.0	53.5	56.0	59.0	60.0	60.0	60.7	65.0	69.2	70.3	40.6
Nursing	42.0	45.0	46.0	49.0	49.1	50.0	52.0	52.0	53.0	58.4	60.0	42.9
Pharmacy	34.0	34.0	35.0	36.0	37.0	38.8	39.0	40.0	42.0	43.8	44.2	30.0
Dentistry	68.0	70.0	70.0	75.0	80.0	80.0	80.0	75.0	80.0	83.5	78.3	15.1
Veterinary science	40.0	40.0	45.0	44.0	45.0	45.0	45.0	46.3	50.0	50.0	51.6	29.0
Rehabilitation	45.0	47.4	48.0	50.2	53.0	54.0	56.0	56.0	59.0	60.0	61.5	36.7
Teacher education	46.0	47.0	51.0	53.0	55.0	56.0	57.0	59.0	61.0	62.9	63.5	38.0
Business and management	40.0	43.0	45.0	45.0	47.0	49.0	49.5	50.0	50.0	55.0	55.2	38.0
Humanities, culture and social sciences	41.5	43.0	45.0	46.0	46.5	50.0	50.0	50.0	50.0	55.0	57.0	37.3
Social work	44.0	45.0	45.0	47.0	50.0	50.0	50.0	55.0	55.5	60.0	62.6	42.3
Psychology	42.2	43.1	45.0	47.1	47.0	49.0	50.0	49.0	50.0	54.8	57.6	36.5
Law and paralegal studies	44.8	46.0	50.0	48.0	50.0	52.0	55.0	52.9	55.0	60.0	60.0	33.9
Creative arts	35.0	36.3	37.5	38.0	40.0	40.0	40.0	40.0	40.0	48.0	48.0	37.1
Communications	35.0	38.0	40.0	39.0	40.0	41.0	42.0	43.9	45.0	48.0	50.0	42.9
Tourism, hospitality, personal services, sport and recreation	35.0	36.0	38.2	40.0	38.5	43.3	41.5	43.5	40.0	52.2	52.2	49.1
All study areas	**43.0**	**45.0**	**48.0**	**49.0**	**50.0**	**52.0**	**52.5**	**52.0**	**54.0**	**57.9**	**60.0**	**39.5**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table F **Undergraduate employment outcomes, universities only, 2016 and 2017**

	2016			2017		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Full-time employment (%)	70.4	71.7	71.2	71.6	72.6	72.2
Overall employed (%)	83.4	88.2	86.5	84.4	87.9	86.7
Labour force participation rate (%)	91.0	92.5	92.0	91.5	92.4	92.1
Median salary ($)	60,000	56,600	58,000	60,900	59,000	60,000

Table G **Undergraduate employment outcomes, by study area, universities only, 2016 and 2017 (%)**

	Full-time employment		Total employment		Labour force participation rate	
Study area	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Science and mathematics	61.1	59.0	81.5	80.6	82.3	82.1
Computing and information systems	72.7	74.0	82.8	82.3	94.4	93.4
Engineering	76.4	79.4	83.9	86.5	95.1	94.4
Architecture and built environment	75.0	75.4	85.7	87.3	94.5	93.8
Agriculture and environmental studies	59.7	66.4	84.1	84.2	93.1	92.5
Health services and support	71.0	73.1	90.2	89.8	93.7	93.2
Medicine	98.2	95.9	97.4	95.9	95.2	94.0
Nursing	82.3	79.2	93.2	91.7	97.6	97.8
Pharmacy	96.3	95.2	96.0	95.8	94.9	95.5
Dentistry	82.3	86.8	94.1	95.7	97.7	94.9
Veterinary science	89.8	81.8	89.4	87.9	88.3	88.7
Rehabilitation	84.0	85.7	95.2	95.8	97.4	98.0
Teacher education	80.3	81.6	94.3	93.2	95.7	96.3
Business and management	75.7	76.8	87.2	87.4	96.1	96.4
Humanities, culture and social sciences	61.4	61.8	83.4	83.4	88.6	89.0
Social work	67.9	71.7	86.3	86.0	94.6	94.4
Psychology	60.7	60.7	85.1	85.1	87.0	87.0
Law and paralegal studies	72.9	75.1	84.3	85.5	94.9	94.3
Creative arts	55.5	55.4	81.9	81.8	89.9	90.3
Communications	61.9	61.7	83.7	85.1	93.4	93.6
Tourism, hospitality, personal services, sport and recreation	67.9	63.1	92.1	87.4	94.4	93.7
All study areas*	**71.2**	**72.2**	**86.5**	**86.7**	**92.0**	**92.1**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table H **Undergraduate employment outcomes by demographic group, universities only, 2016 and 2017 (%)**

		Full-time employment		Overall employment		Labour force participation rate	
		2016	2017	2016	2017	2016	2017
Age	30 years or under	70.8	71.8	86.5	86.7	92.3	92.4
	Over 30 years	73.6	74.3	86.3	86.4	90.4	90.5
Indigenous	Indigenous	74.5	78.3	86.0	89.3	89.9	90.7
	Non Indigenous	71.2	72.1	86.5	86.6	92.0	92.1
Home language	English	71.8	72.8	86.9	87.1	92.0	92.2
	Language other than English	55.1	53.9	73.7	71.7	89.4	88.4
Disability	Reported disability	61.5	62.1	79.7	79.2	87.0	86.5
	No disability	71.8	72.8	86.9	87.1	92.3	92.4
Study mode	Internal	69.9	71.0	86.0	86.2	91.7	91.9
	External/distance	81.3	80.5	91.1	90.3	93.7	93.6
Socio-economic status	High	72.6	74.1	87.5	87.5	91.5	91.5
	Medium	70.4	71.6	86.7	86.9	92.3	92.2
	Low	69.7	70.8	84.8	85.3	91.8	93.0
Location	Metro	69.6	71.1	86.1	86.2	92.0	92.0
	Regional/remote	75.4	75.9	88.3	88.7	91.8	92.6
Total university undergraduate		**71.2**	**72.2**	**86.5**	**86.7**	**92.0**	**92.1**

Table I **Undergraduate occupation level, by employment type, universities only, 2017 (%)**

	Employed full-time			Overall employed		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Managers	9.3	6.8	7.7	7.7	5.4	6.2
Professionals	62.7	66.2	64.8	52.2	54.8	53.9
Technicians and trades workers	6.0	2.2	3.7	5.8	2.4	3.6
Community and personal service workers	6.9	8.3	7.7	10.9	13.2	12.4
Clerical and administrative workers	8.1	11.6	10.2	8.1	11.4	10.3
All other occupations	7.1	5.1	5.8	15.3	12.8	13.7
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table J **Undergraduate occupation level, overall employed, by study area, universities only, 2017 (%)**

Study area	Occupation group						
	Managers	Professionals	Technicians & trade	Community & personal service	Clerical & administrative	All other occupations	All employed
Science and mathematics	4.6	40.8	8.2	13.9	10.4	22.2	100
Computing and information systems	6.5	66.1	11.1	3.2	4.8	8.3	100
Engineering	6.4	68.7	7.7	3.4	3.8	9.9	100
Architecture and built environment	9.9	40.1	18.4	6.5	12.3	12.7	100
Agriculture and environmental studies	8.3	35.7	11.2	9.2	10.6	24.9	100
Health services and support	3.6	43.2	2.2	28.1	8.1	14.7	100
Medicine	0.3	92.4	1.0	1.8	1.7	2.9	100
Nursing	0.7	85.2	0.5	10.0	1.1	2.5	100
Pharmacy	0.6	91.7	1.4	1.4	1.7	3.3	100
Dentistry	0.4	50.8	0.0	46.6	1.1	1.1	100
Veterinary science	2.0	61.0	15.5	5.2	3.6	12.7	100
Rehabilitation	1.2	88.2	0.1	5.8	1.4	3.3	100
Teacher education	2.8	84.6	0.4	6.1	1.7	4.3	100
Business and management	13.4	48.3	1.6	6.1	17.3	13.2	100
Humanities, culture and social sciences	7.4	34.9	2.0	17.5	17.1	21.1	100
Social work	4.7	53.8	1.5	28.2	5.1	6.7	100
Psychology	5.9	33.7	1.9	21.7	15.0	21.8	100
Law and paralegal studies	5.7	44.4	n/a	n/a	27.5	9.7	100
Creative arts	4.9	44.1	4.1	15.0	7.9	23.9	100
Communications	7.5	43.0	3.4	11.4	13.6	21.2	100
Tourism, hospitality, personal services, sport and recreation	n/a	15.7	n/a	34.3	n/a	21.3	100
All study areas*	**6.2**	**53.9**	**3.6**	**12.4**	**10.3**	**13.7**	100

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table K **Undergraduate employment outcomes, NUHEIs only, 2016 and 2017**

	2016			2017		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Full-time employment (%)	61.5	63.9	63.0	57.9	58.8	58.4
Overall employed (%)	79.0	85.4	83.1	79.6	81.6	80.8
Labour force participation rate (%)	93.2	92.2	92.5	92.0	89.2	90.3
Median salary ($)	50,500	50,000	50,200	50,900	54,500	52,200

Table L **Undergraduate employment outcomes by study area, NUHEIs only, 2016 (%)**

	Full-time employment		Total employment		Labour force participation rate	
	2016	2017	2016	2017	2016	2017
Science and mathematics	n/a	n/a	n/a	n/a	n/a	n/a
Computing and information systems	n/a	56.4	n/a	76.5	n/a	89.5
Engineering	76.0	n/a	83.9	81.3	93.9	84.2
Architecture and built environment	n/a	n/a	88.0	n/a	100	n/a
Agriculture and environmental studies	n/a	n/a	n/a	n/a	n/a	n/a
Health services and support	68.5	63.1	89.6	91.2	91.5	92.7
Medicine	n/a	n/a	n/a	n/a	n/a	n/a
Nursing	93.2	90.2	96.6	92.9	100	94.9
Pharmacy	n/a	n/a	n/a	n/a	n/a	n/a
Dentistry	n/a	n/a	n/a	n/a	n/a	n/a
Veterinary science	n/a	66.7	n/a	75.0	n/a	100
Rehabilitation	n/a	n/a	n/a	n/a	n/a	n/a
Teacher education	82.0	82.4	93.3	88.3	97.6	97.2
Business and management	67.4	62.3	84.5	82.1	95.6	95.2
Humanities, culture and social sciences	78.4	75.0	86.8	89.7	81.2	80.0
Social work	58.1	63.3	80.1	86.7	91.8	95.3
Psychology	65.0	47.2	81.0	73.3	90.6	92.6
Law and paralegal studies	48.0	50.0	83.9	70.3	96.9	90.2
Creative arts	52.8	41.8	79.0	70.2	92.3	88.6
Communications	47.0	44.5	74.8	77.7	95.8	93.5
Tourism, hospitality, personal services, sport and recreation	n/a	n/a	n/a	n/a	n/a	n/a
All study areas*	**63.0**	**58.4**	**83.1**	**80.8**	**92.5**	**90.3**

*Where a graduate completes combined degrees across two study areas, their outcomes are included in both study areas. 'All study areas' figures count each graduate once only.

Table M **Undergraduate employment outcomes by demographic group, NUHEIs only, 2016 and 2017 (%)**

		Full-time employment		Overall employment		Labour force participation rate	
		2016	**2017**	**2016**	**2017**	**2016**	**2017**
Age	30 years or under	62.2	55.7	83.2	79.7	94.5	92.5
	Over 30 years	65.5	67.1	82.7	84.0	87.7	84.8
Indigenous	Indigenous	n/a	n/a	n/a	n/a	n/a	n/a
	Non Indigenous	62.8	58.5	83.0	80.9	92.5	90.2
Home language	English	63.1	58.5	83.3	81.1	92.6	90.5
	Language other than English	n/a	n/a	n/a	64.5	92.0	77.5
Disability	Reported disability	37.7	45.7	71.2	66.4	88.0	85.9
	No disability	64.1	59.2	83.6	81.9	92.8	90.6
Study mode	Internal	62.4	57.4	82.5	80.2	92.3	90.5
	External/distance	68.5	69.4	88.7	87.2	95.6	87.7
Socio-economic status	High	63.0	60.2	82.7	82.9	91.7	91.2
	Medium	62.4	57.3	83.4	80.5	93.0	90.5
	Low	62.2	55.9	81.7	77.2	94.6	89.9
Location	Metro	61.8	58.2	82.1	80.6	92.9	90.8
	Regional/remote	66.1	58.6	86.7	83.9	92.2	89.8
Total university undergraduate		**63.0**	**58.4**	**83.1**	**80.8**	**92.5**	**90.3**

Table N **Undergraduate occupation level, by employment type, NUHEIs only, 2017 (%)**

	Employed full-time			Overall employed		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Managers	10.9	7.9	9.1	7.4	6.2	6.7
Professionals	43.5	52.9	49.0	36.7	46.8	42.9
Technicians and trades workers	12.5	3.4	7.1	11.0	2.8	6.0
Community and personal service workers	15.7	14.4	14.9	18.0	16.0	16.8
Clerical and administrative workers	3.8	11.0	8.1	4.8	9.4	7.6
All other occupations	13.7	10.4	11.8	22.1	18.7	20.0
Total	**100**	**100**	**100**	**100**	**100**	**100**

Table 0 **Undergraduate satisfaction by study area, universities only, 2016 and 2017 (% agreement)**

	Overall satisfaction		Good teaching scale		Generic skills scale	
	2016	2017	2016	2017	2016	2017
Science and mathematics	84.0	83.4	66.7	67.3	84.9	85.2
Computing and information systems	75.9	74.5	58.2	57.5	77.5	76.9
Engineering	75.5	73.5	49.0	47.3	84.0	82.5
Architecture and built environment	73.8	76.3	62.2	62.7	77.9	79.3
Agriculture and environmental studies	85.7	82.4	69.3	68.0	88.1	85.9
Health services and support	81.7	79.2	67.4	65.1	84.3	82.3
Medicine	79.4	80.7	47.4	50.6	79.1	80.5
Nursing	79.8	77.2	58.8	58.2	83.0	82.0
Pharmacy	86.6	83.4	67.5	63.4	85.1	83.6
Dentistry	77.2	78.7	60.3	62.3	82.0	83.6
Veterinary science	86.3	79.8	67.1	55.8	85.6	82.2
Rehabilitation	88.1	87.2	72.9	71.3	88.8	90.5
Teacher education	78.2	76.7	60.0	58.4	78.3	77.0
Business and management	79.0	77.7	56.1	57.7	79.3	78.7
Humanities, culture and social sciences	85.2	85.1	74.8	75.6	83.1	83.2
Social work	87.1	85.4	70.0	69.1	87.7	84.9
Psychology	80.7	81.3	63.2	63.6	84.6	84.2
Law and paralegal studies	82.5	79.7	56.1	56.9	84.5	82.6
Creative arts	74.9	76.2	70.2	73.1	76.9	77.3
Communications	80.7	78.4	70.0	67.7	81.3	80.0
Tourism, hospitality, personal services, sport and recreation	80.9	81.0	67.3	72.8	84.2	82.4
All study areas	**80.6**	**79.4**	**62.6**	**62.4**	**82.1**	**81.5**

Table P **Undergraduate satisfaction by study area, NUHEIs only, 2016 and 2017 (% agreement)**

	Overall satisfaction		Good teaching scale		Generic skills scale	
	2016	2017	2016	2017	2016	2017
Science and mathematics	n/a	n/a	n/a	n/a	n/a	n/a
Computing and information systems	77.2	79.9	71.9	80.9	78.9	82.3
Engineering	61.3	77.9	56.7	68.7	80.6	72.1
Architecture and built environment	87.9	n/a	75.8	n/a	84.8	n/a
Agriculture and environmental studies	n/a	n/a	n/a	n/a	n/a	n/a
Health services and support	76.8	76.0	71.5	68.1	85.6	77.5
Medicine	n/a	n/a	n/a	n/a	n/a	n/a
Nursing	95.1	90.0	80.3	84.3	88.5	94.3
Pharmacy	n/a	n/a	n/a	n/a	n/a	n/a
Dentistry	n/a	n/a	n/a	n/a	n/a	n/a
Veterinary science	n/a	n/a	n/a	n/a	n/a	n/a
Rehabilitation	n/a	n/a	n/a	n/a	n/a	n/a
Teacher education	94.4	87.9	84.8	82.1	89.6	87.1
Business and management	78.1	78.6	68.5	70.8	80.2	79.1
Humanities, culture and social sciences	92.7	92.1	87.2	88.7	88.8	87.2
Social work	87.0	90.6	78.8	80.5	87.7	88.3
Psychology	84.7	74.3	72.9	70.4	88.1	82.9
Law and paralegal studies	96.2	90.9	88.9	90.9	96.3	97.0
Creative arts	72.7	74.3	69.6	76.5	78.3	78.5
Communications	71.3	69.9	75.2	77.2	75.2	84.4
Tourism, hospitality, personal services, sport and recreation	n/a	n/a	n/a	n/a	n/a	n/a
All study areas	**79.7**	**80.3**	**73.5**	**77.1**	**82.4**	**82.0**