

Beyond Graduation 2014

**A report of graduates' work and study outcomes
three years after course completion**

Acknowledgements

David Carroll (Senior Research Associate) was the principal author of this report and the Project Director of the 2014 Beyond Graduation Survey. The data collection fieldwork was managed by Bharat Balasubramanian (Senior Research Associate). Darren Matthews (Research Team Leader) oversaw the data cleaning and auditing process.

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1. Introduction

Welcome to *Beyond Graduation 2014*, the sixth annual report into the activities, outcomes and experiences of Australian higher education graduates in the years after the completion of their studies. This report is based on the 2014 Beyond Graduation Survey, conducted by Graduate Careers Australia (GCA) in association with 40 Australian higher education institutions, who assisted GCA in recontacting their graduates three years after course completion (see Table A1).

Graduates who completed a course of study at an Australian higher education institution in 2010 and provided a response to the 2011 Australian Graduate Survey (AGS) were invited to complete an online survey about their experiences since they completed their original course of study. A total of 18,024 usable responses to the BGS were received; a substantial increase (45.5 per cent) over the 2013 survey, and equal to a response rate of 19.7 per cent. This increase is likely due to the participation of four additional institutions in the 2014 BGS, and an effective response maximisation strategy that incorporated lessons from previous survey administrations. Following an initial email invitation, sent either by GCA or graduates' 'home' institutions, up to three reminder emails were sent to non-responders during the five-week fieldwork period. A gift card lottery was used as an incentive for completing the survey within the specified time.

The secured responses were found to be representative of the broader graduate population in terms of sex ratio, age structure, and broad field of education. As such, the survey data were analysed without corrective weighting.

The BGS questionnaire addressed graduates' employment and further study activities as at 30 April 2014, and gave them the opportunity to give a retrospective assessment of their higher education course experience. Data on graduates' personal characteristics and activities in 2011 were imputed into the data file from the 2011 AGS.

The focus of this report is on Australian domestic bachelor degree graduates, who represent the largest single group of BGS respondents. Key results for Australian postgraduates are presented in Section 5. The demographic and enrolment characteristics of bachelor degree and postgraduate respondents are presented in Table A2.

2. Graduate Destinations

At the time of the 2011 AGS, 76.7 per cent of male graduates and 70.4 per cent of female graduates in the BGS sample reported themselves as being available for full-time employment—that is, in or seeking full-time employment (see Table 1). By 2014, the percentage of male graduates available for full-time employment had increased to 84.1 per cent, which reflects a decrease in the proportions in both full-time study and part-time work. The percentage of female graduates available for full-time employment increased to 75.0 per cent by 2014, which mainly reflects a substantial decrease in the proportion in further full-time study. Female graduates were notably and consistently more likely than males to be in part-time employment with no desire to secure full-time work, or to be unavailable for further study or any employment.

Table 1. Main activity of bachelor graduates, by sex, 2011 and 2014 (% , n)

	Available for full-time employment (see Table 2)	In full-time study	In part-time or casual employment, not seeking full-time employment	Not working, seeking part-time or casual employment only	Unavailable for full-time study or any employment	TOTAL	TOTAL n
Males							
2011	76.7	14.9	5.4	0.0	2.9	100	3,086
2014	84.1	9.9	3.8	0.2	1.9	100	3,127
Females							
2011	70.4	16.8	9.4	0.0	3.4	100	6,008
2014	75.0	10.5	10.2	0.7	3.6	100	6,108
Total							
2011	72.5	16.2	8.0	0.0	3.3	100	9,094
2014	78.1	10.3	8.0	0.6	3.0	100	9,235

Of the graduates who were available for full-time employment, the proportion who had secured full-time work increased considerably within three years of course completion (see Table 2). At the time of the 2011 AGS, 76.0 per cent of both male and female graduates in our sample were in full-time employment. By 2014, this had increased to 90.5 per cent and 88.4 per cent respectively. This was necessarily accompanied by a general decline in the proportion of graduates in the full-time labour market who were in part-time employment or unemployed.

Table 2. Bachelor graduates available for full-time employment, by sex, 2011 and 2014 (% , n)

	In full-time employment	Seeking full-time employment, working part time or casual	Seeking full-time employment, not working	Total seeking full-time employment	TOTAL	TOTAL n
Males						
2011	76.0	14.5	9.5	24.0	100	2,367
2014	90.5	4.4	5.2	9.6	100	2,630
Females						
2011	76.0	16.5	7.5	24.0	100	4,229
2014	88.4	6.9	4.7	11.6	100	4,578
Total						
2011	76.0	15.8	8.2	24.0	100	6,596
2014	89.2	6.0	4.9	10.9	100	7,208

Full-time employment rates are presented by field of education in Table 3. Graduates from the fields of engineering and related technologies, and health enjoyed particularly strong employment rates shortly after course completion, while those from natural and physical sciences, and creative arts recorded relatively low employment rates at that time. Three years after course completion, while employment rates have increased across all fields of education, the fields of natural and physical sciences, and creative arts remained those with the lowest full-time employment rates. These results are broadly consistent across the sexes; however, male natural and physical science graduates enjoyed higher full-time employment rates than their female counterparts shortly after course completion. This is likely due, at least in part, to male graduates being over-represented in science majors with

relatively strong employment rates, such as geology and mathematics. It is important to note that the results presented in Table 3 do not necessarily reflect the proportion of graduates in jobs that are related to their respective courses of study. This is addressed later in Figure 2, which examines graduates in educationally-relevant jobs.

Full-time employment rates from the last five BGS rounds are presented in Figure 1, to provide data on trends in bachelor degree graduate employment, both immediately after course completion and three years after (denoted with '3ya'). This figure clearly shows a weakening of the labour market, which is not restricted to recent course completers. The downturn in employment was more pronounced for recent course completers, however.

Table 3. Bachelor graduates working full time as a proportion of those available for full-time employment, by sex and broad field of education, 2011 and 2014 (% , n)

	2011		2014	
	%	n	%	n
Males				
Natural and physical sciences	71.6	190	82.2	225
Information technology	80.8	203	96.7	215
Engineering and related technologies	84.8	401	93.6	436
Architecture and building	80.0	85	90.7	97
Agriculture and environmental studies	78.9	38	88.9	45
Health	92.1	228	94.5	236
Education	71.1	90	89.2	93
Management and commerce	73.3	577	94.1	610
Society and culture	71.6	409	85.9	491
Creative arts	47.9	146	81.3	182
TOTAL	76.0	2,367	90.5	2,630
Females				
Natural and physical sciences	60.3	282	82.6	356
Information technology	78.0	41	88.6	44
Engineering and related technologies	88.3	103	91.2	113
Architecture and building	73.1	67	90.4	73
Agriculture and environmental studies	69.6	69	90.8	76
Health	89.0	1,018	93.1	957
Education	73.1	476	89.1	478
Management and commerce	79.2	763	94.6	828
Society and culture	72.2	1,021	84.3	1,216
Creative arts	59.4	389	80.5	437
TOTAL	76.0	4,229	88.4	4,578
Total				
Natural and physical sciences	64.8	472	82.4	581
Information technology	80.3	244	95.4	259
Engineering and related technologies	85.5	504	93.1	549
Architecture and building	77.0	152	90.6	170
Agriculture and environmental studies	72.9	107	90.1	121
Health	89.6	1,246	93.4	1,193
Education	72.8	566	89.1	571
Management and commerce	76.6	1,340	94.4	1,438
Society and culture	72.0	1,430	84.8	1,707
Creative arts	56.3	535	80.8	619
TOTAL	76.0	6,596	89.2	7,208



Figure 1. Full-time employment rates for bachelor graduates, by sex, 2007 to 2011, and 2010 to 2014 (%)

2.1. Industries of employment

The industries employing recent bachelor degree graduates did not change markedly in the years after course completion (see Table 4). Full-time employed males were most likely to be employed in the professional, scientific and technical services sector, followed by the healthcare and social assistance, public administration and safety, financial and insurance services, and education and training sectors. These five sectors accounted for 68.3 and 69.0 per cent of all full-time employed males in 2011 and 2014, respectively. Around three quarters of full-time employed females were concentrated in four industries: health care, professional services, education and training, and public administration. They were most likely to be employed in health care in both periods; however the proportion employed in this sector fell from 31.0 per cent in 2011 to 26.2 per cent in 2014. Meanwhile, the proportion employed in education increased from 16.0 to 19.8. While the results presented in this table suggest that many graduates change sectors within three years of course completion, the movement of graduates into and out of the full-time labour force is also likely to be a contributing factor.

2.2. Occupations

While the industries employing graduates did not change greatly in the years immediately after course completion, the occupations held by graduates did tend to vary. As shown in Table 5, the proportion of graduates of both sexes employed in managerial roles increased notably, as did the proportion employed in professional roles, with the latter result especially true for females. This was necessarily accompanied by a general decline in the proportion of graduates in 'lower-skilled' occupations. By 2014, male graduates were more likely than their female counterparts to be employed in a managerial capacity, while female graduates were marginally more likely to be employed in professional roles. Females remained notably more likely than males to be employed in clerical or administrative roles three years after course completion; however, fewer than one in ten female graduates were so employed by this stage.

Table 4. Employing industries, bachelor graduates in full-time employment, by sex, 2011 and 2014 (% , n)

	Males		Females		Total	
	2011	2014	2011	2014	2011	2014
Agriculture, forestry and fishing	0.5	0.5	0.3	0.2	0.4	0.3
Mining	4.7	5.0	1.9	2.1	2.9	3.1
Manufacturing	4.4	4.9	1.9	2.6	2.8	3.5
Electricity, gas and water supply	1.9	2.1	0.7	0.8	1.1	1.2
Construction	4.3	2.9	1.0	1.3	2.2	1.9
Wholesale trade	0.6	1.2	0.6	0.8	0.6	0.9
Retail trade	3.2	1.9	4.6	2.6	4.1	2.3
Accommodation and food services	1.1	0.7	1.5	0.8	1.4	0.7
Transport, postal and warehousing	2.6	2.3	1.0	1.0	1.6	1.5
Information media and telecommunications	3.4	3.5	2.0	3.3	2.5	3.3
Financial and insurance services	9.3	9.1	3.6	3.9	5.6	5.8
Rental, hiring and real estate services	1.0	1.2	0.8	0.9	0.9	1.0
Professional, scientific and technical services	26.5	26.3	18.6	17.6	21.4	20.7
Administrative and support services	1.3	1.1	2.0	1.6	1.7	1.4
Public administration and safety	11.5	13.6	9.3	10.9	10.1	11.9
Education and training	8.2	9.8	16.0	19.8	13.2	16.1
Health care and social assistance	12.8	10.2	31.0	26.2	24.5	20.4
Arts and recreation services	1.6	1.7	1.7	1.3	1.7	1.5
Other services	1.1	1.9	1.7	2.4	1.5	2.2
TOTAL	100	100	100	100	100	100
TOTAL n	1,778	2,201	3,185	3,832	4,963	6,033

Table 5. Broad occupation types, bachelor graduates in full-time employment, by sex, 2011 and 2014 (% , n)

	Males		Females		Total	
	2011	2014	2011	2014	2011	2014
Managers	8.0	13.1	5.0	9.8	6.1	11.0
Professionals	70.3	72.2	69.8	73.5	70.0	73.0
Technicians and trades workers	5.0	3.7	2.4	2.2	3.3	2.7
Community and personal service workers	3.0	3.0	6.3	3.7	5.1	3.5
Clerical and administrative workers	9.6	6.5	13.3	9.6	12.0	8.4
Other occupations	4.2	1.6	3.1	1.2	3.5	1.3
TOTAL	100	100	100	100	100	100
TOTAL n	1,760	2,185	3,166	3,820	4,926	6,005

2.3. Importance of qualification

Being in full-time employment, even if in a managerial or professional capacity, does not necessarily mean that a graduate is in a job related to his or her course of study. To investigate this potential gap between employment and *relevant* employment, graduates were asked to rate the importance of the qualification they completed in 2010 to their main paid job using a five-point response format with categories labelled ‘formal requirement’, ‘important’, ‘somewhat important’, ‘not important’ and ‘don’t know’. The relative proportions of graduates who considered the qualification they completed in 2010 to be a formal requirement or important to their main paid jobs in 2011 and 2014 are given in Figure 2, stratified by field of education. Graduates who were unsure (don’t know) are excluded from the figures.

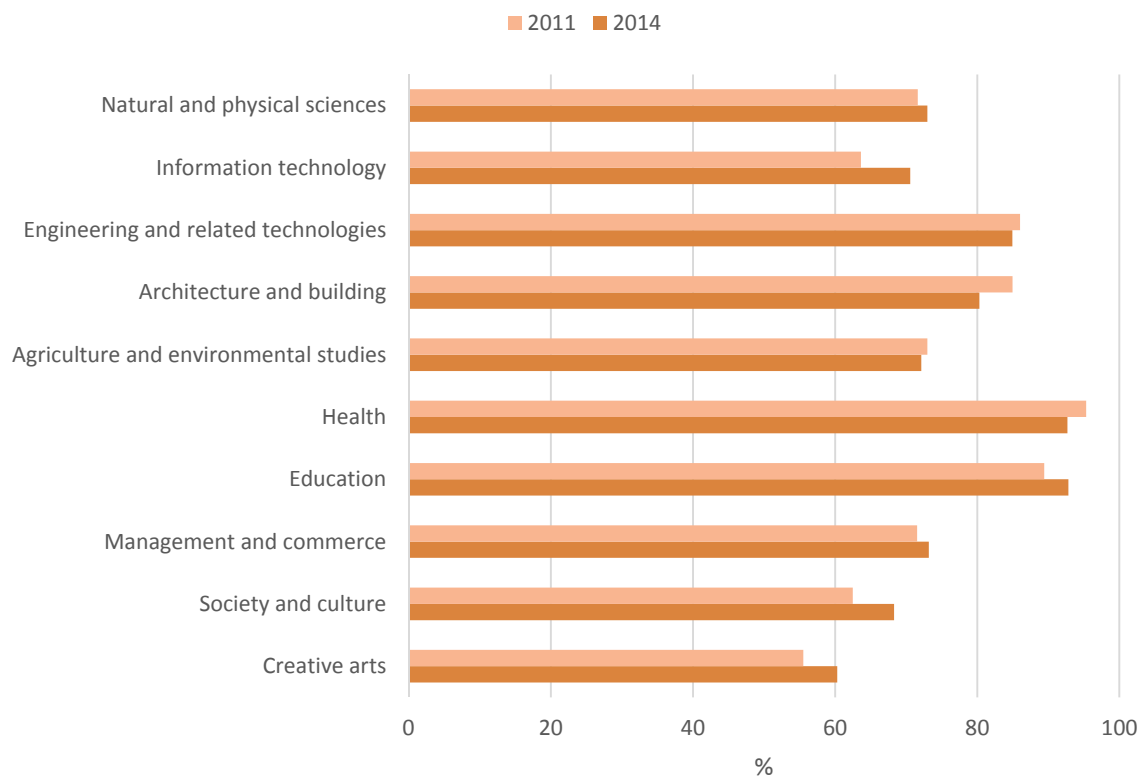


Figure 2. Qualification important to main paid job, bachelor graduates in full-time employment, by broad field of education, 2011 and 2014 (%)

There is considerable variation across fields of education in terms of the proportion of graduates who believed that their qualification was important to their main paid job. Graduates from the fields of health and education were consistently the most likely to be in a job for which their qualification is important. Creative arts graduates were consistently the least likely to be in a relevant job. The fields of information technology, society and culture, creative arts, and education saw the largest increase in graduates employed in relevant jobs between 2011 and 2014. Four fields experienced negative growth in relation to the proportion of full-time employed graduates in relevant work: architecture and building, health, engineering and related technologies, and agriculture and environmental studies; however, aside from agriculture, these fell from a high water mark. Overall, the proportion of graduates in relevant jobs increased by only 0.2 percentage points between 2011 and 2014—along with the negative growth in educationally-relevant employment observed in relation to the above-mentioned fields, this may be further evidence of a weakening graduate labour market, suggested by the results presented in Figure 1.

It is important, however, to emphasise that graduates in non-relevant jobs (by the definition employed here) are not necessarily in unrewarding jobs or even jobs that are not in line with their own career goals. It simply means that they are employed in jobs that are not closely related to the degree they completed in 2010. While some graduates may take longer than others to secure work in their chosen field, others may develop a career in a different, potentially unrelated field. The nature of these non-relevant jobs is examined in Table 6, in which broad occupation types are cross-tabulated with graduates' perceptions of the importance of their qualification to their main paid job. It is worthy of

note that 30.9 per cent of graduates who indicated that their qualification was not important to their main paid employment in 2011 were employed in managerial or professional roles. By 2014, this figure had reached 52.7 per cent. This finding goes some way to dispel the myth that graduates working in jobs unrelated to their field of study must necessarily be trapped in unskilled jobs; however, this is certainly true for some.

Table 6. Aggregated occupation type, by importance of qualification to main paid job, bachelor graduates in full-time employment, 2011 and 2014 (% , n)

	Important		Somewhat important		Not important		Total	
	2011	2014	2011	2014	2011	2014	2011	2014
Managerial/professional	85.6	90.4	59.5	71.8	30.9	52.7	76.3	84.2
Other	14.4	9.6	40.5	28.2	69.1	47.3	23.7	15.8
TOTAL	100	100	100	100	100	100	100	100
TOTAL n	3,701	4,600	551	738	560	617	4,812	5,955

2.4. Average weekly working hours

Average weekly working hours for full-time employed bachelor degree graduates in 2011 and 2014 are presented in Table 7, split by field of education and sex. At an overall level, males tended to work longer hours, although much variation in working hours was observed between different fields of education. Three years after course completion, male graduates from the field of architecture and building tended to work the longest hours, on average, out of any graduate cohort (44.9 hours), followed closely by male management and commerce graduates (44.3 hours). In spite of the general shift towards more highly-skilled occupations between 2011 and 2014 (see Table 5), average weekly working hours increased by just 1.5 hours for male graduates and 1.4 hours for female graduates over this period. The largest increase was observed for male education graduates, who saw their average weekly working hours increase by 3.0 hours between the two survey periods, followed by female creative arts graduates (2.8 hours).

Table 7. Average weekly working hours for full-time employed bachelor graduates, by broad field of education and sex, 2011 and 2014 (hours)

	Males		Females		Total	
	2011	2014	2011	2014	2011	2014
Natural and physical sciences	42.3	42.8	38.9	40.7	40.4	41.5
Information technology	39.6	40.8	39.4	39.5	39.6	40.6
Engineering and related technologies	41.7	43.4	41.8	42.9	41.8	43.3
Architecture and building	42.9	44.9	39.1	40.8	41.4	43.1
Agriculture and environmental studies	40.8	43.0	40.2	40.3	40.4	41.3
Health	42.3	41.8	40.5	40.8	40.9	41.0
Education	39.5	42.5	39.9	41.2	39.9	41.4
Management and commerce	42.2	44.3	39.8	41.5	40.8	42.7
Society and culture	40.4	42.5	39.0	40.8	39.4	41.3
Creative arts	40.2	40.4	37.7	40.5	38.3	40.5
TOTAL	41.4	42.9	39.7	41.0	40.3	41.7
TOTAL n	1,781	2,183	3,166	3,786	4,947	5,969

2.5. Employment seeking behaviour

In addition to their current employment, full-time employed bachelor degree graduates were asked whether they were actively seeking other employment at the time of the survey (see Figure 3). As may be expected, these figures broadly mirror those presented in Figure 2 concerning whether graduates believed that their qualification was important to their main paid job. Four fields saw a greater proportion of graduates seeking other employment three years after course completion than immediately afterwards. These were health, architecture and building, engineering and related technologies, and information technology. Importantly, as shown in Figure 2, three of these fields (health, architecture and engineering) recorded negative growth in terms of the proportion of full-time employed graduates in relevant jobs over the three-year period under study.

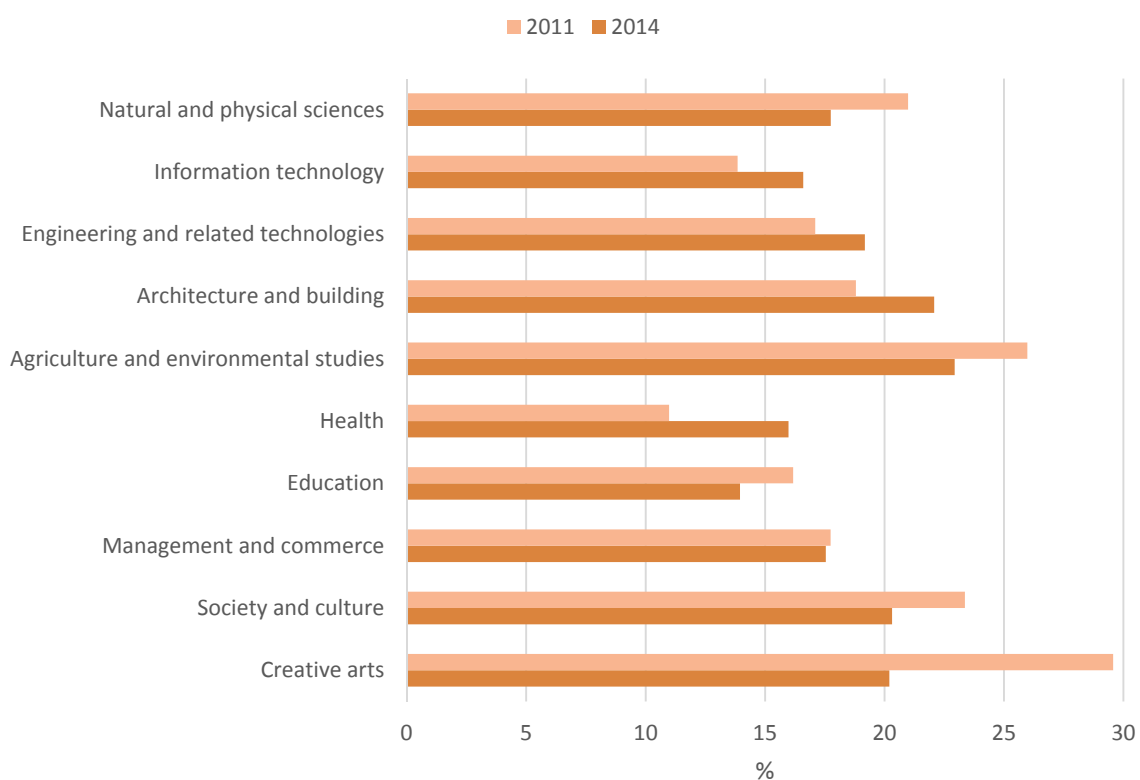


Figure 3. Graduates seeking alternative work, bachelor graduates in full-time employment, by broad field of education, 2011 and 2014 (%)

2.6. Interstate mobility

The interstate mobility of graduates in the full-time workforce is investigated in Table 8. The large percentage figures on the diagonal indicates that the majority of graduates are working in the same state or territory in 2014 as they were in 2011. Graduates who began their post-study careers in an Australian state tended to be less mobile than those who were initially employed in the Northern Territory or the Australian Capital Territory, with Tasmania and South Australia the states with the greatest outward migration. Graduates employed in the Northern Territory shortly after course completion were the most likely to move interstate within three years, with one-third having done so by the time of the 2014 BGS.

Table 8. Interstate mobility of bachelor graduates in full-time employment, 2011 and 2014 (% , n)

State of 2011 job	State of 2014 job									TOTAL n
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	TOTAL	
NSW	92.0	3.4	1.3	0.2	0.9	0.0	0.5	1.6	100	815
Vic.	4.0	90.8	1.3	0.5	1.3	0.3	0.8	1.1	100	1,022
Qld	4.3	3.1	89.2	0.2	1.7	0.3	0.3	0.9	100	583
SA	1.1	7.9	2.2	83.1	2.2	1.1	1.1	1.1	100	89
WA	1.1	2.1	0.9	0.2	94.2	0.0	0.6	0.9	100	534
Tas.	5.9	5.9	7.8	0.0	0.0	80.4	0.0	0.0	100	51
NT	2.5	2.5	7.5	7.5	2.5	0.0	72.5	5.0	100	40
ACT	12.8	7.8	5.6	1.7	1.7	0.6	3.3	66.7	100	180

2.7. Graduates in part-time employment

Because the vast majority of employed graduates were in full-time employment at the time of the survey, this report has thus far focused predominantly on full-time employed graduates. In order to present a comprehensive picture of graduate employment three years after course completion, the activities of part-time employed bachelor degree graduates are discussed in this section.

As shown in Table 9, graduates employed part time immediately after course completion were typically in 'lower-skilled' occupations, with only around four-in-ten employed in managerial or professional roles. By contrast, over three-quarters of full-time employed graduates were employed in managerial or professional roles immediately after course completion (see Table 5). Three years later, 54.8 and 63.1 per cent of part-time employed males and females, respectively, held professional roles; however part-time employed graduates were still less likely than their full-time employed counterparts to hold a managerial position.

Table 9. Broad occupation types, by sex, bachelor graduates in part-time employment, 2011 and 2014 (% , n)

	Males		Females		Total	
	2011	2014	2011	2014	2011	2014
Managers	3.2	5.5	3.2	3.0	3.2	3.5
Professionals	36.5	54.8	36.0	63.1	36.1	61.4
Technicians and trades workers	5.4	7.4	3.8	3.8	4.3	4.6
Community and personal service workers	13.1	7.7	16.1	9.4	15.3	9.1
Clerical and administrative workers	12.5	10.5	13.9	12.4	13.5	12.0
Other occupations	29.4	14.1	27.0	8.1	27.6	9.4
TOTAL	100	100	100	100	100	100
TOTAL n	784	325	1,952	1,231	2,736	1,556

2.8. Graduates in further study

For many graduates, the completion of a course of study in 2010 did not represent the end of their tertiary education. As shown in Figure 4, 26.7 per cent of male bachelor degree graduates and 26.4 per cent of female bachelor degree graduates were engaged in some type of further study at the time of the 2011 AGS. At this point in time, graduates were more likely to be undertaking full-time study, with 19.4 per cent of male graduates and 19.3 per cent of female graduates so engaged—equivalent

to 72.5 and 73.3 per cent of all further study enrolments for males and females, respectively.¹ Three years later, the total proportion of graduates in further study had increased slightly, with 28.9 per cent of male graduates and 29.7 per cent of female graduates studying at the time of the 2014 BGS. Part-time study constituted a far greater share of the total at this point in time—around half of all graduates in further study three years after course completion were enrolled part time. This is a logical finding, given that graduates three years after completing their original degrees would be more likely to be balancing study with other commitments, such as family and employment.



Figure 4. Graduates in further study, bachelor graduates, by sex, 2011 and 2014 (%)

Examining this further, it can be seen that the majority of bachelor degree graduates who were in further study three years after course completion were undertaking postgraduate study (see Figure 5). Graduates originally from the fields of information technology, and agriculture and environmental studies were the most likely to be studying for another undergraduate degree at the time of the 2014 BGS. Graduates from the fields of architecture and building, and society and culture were the most likely to be undertaking a postgraduate course of study. More than one-fifth of management and commerce graduates were studying some other type of award course.

The BGS also investigated whether graduates had completed another course of study in the three years since course completion (see Table 10). Bachelor degree graduates from the society and culture field were the most likely to have done so, with 46.6 per cent indicating that they had completed another qualification since 2011. On the other hand, graduates from the fields of engineering and related technologies, and education were the least likely to have completed another qualification (18.0 per cent and 18.6 per cent, respectively). Regarding those bachelor degree graduates who had completed another qualification, those from the natural and physical sciences, and agriculture and environmental studies fields were the most likely to have completed another undergraduate degree; architecture and building graduates were the most likely to have completed a postgraduate degree;

¹ These figures may not reconcile with those presented in Table 1 due to different calculation methods.

and graduates from the field of information technology the most likely to have completed some other type of award course.

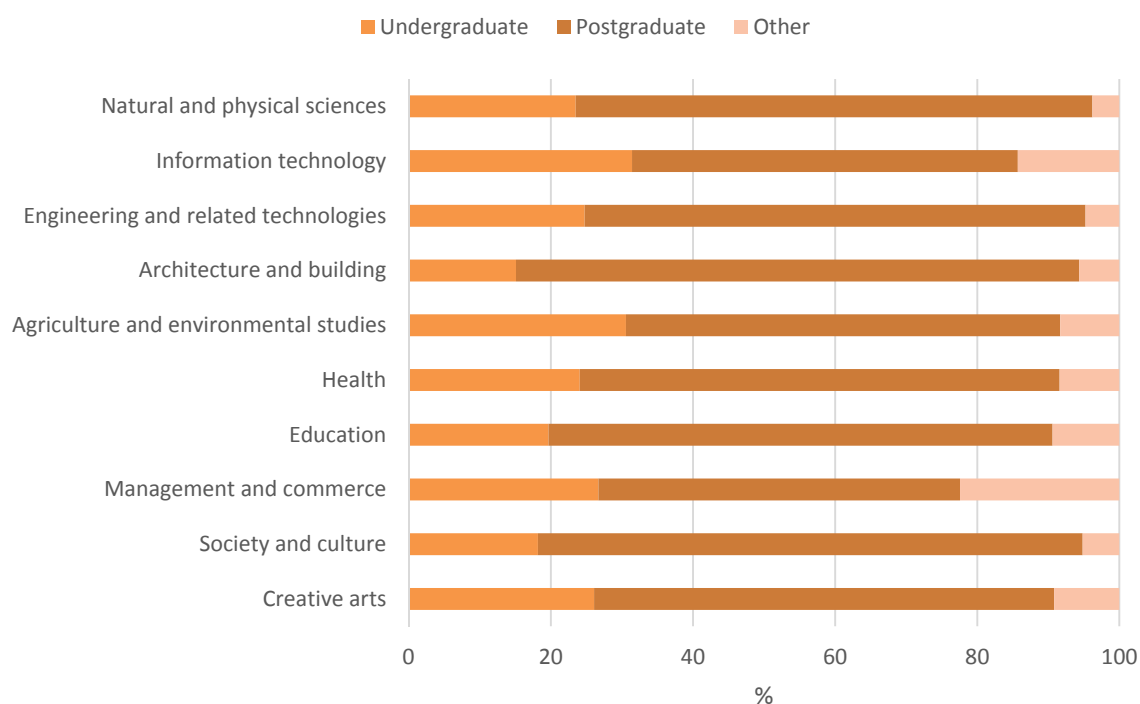


Figure 5. Level of further study, bachelor graduates, by broad field of education, 2014 (%)

Table 10. Completion of other qualification between 2011 and 2014, by degree level (% , n)

	Completed other qualification		Level of completed qualification				
	Yes	n	UG	PG	Other	TOTAL	TOTAL n
Natural and physical sciences	34.8	911	38.7	50.5	10.8	100	315
Information technology	23.0	269	25.8	33.9	40.3	100	62
Engineering and related tech.	18.0	551	22.2	48.5	29.3	100	99
Architecture and building	33.2	184	9.8	80.3	9.8	100	61
Agriculture and env't	37.8	148	37.5	28.6	33.9	100	56
Health	26.3	1,546	16.1	66.1	17.8	100	404
Education	18.6	671	19.5	48.8	31.7	100	123
Management and commerce	36.9	1,459	21.6	55.8	22.6	100	536
Society and culture	46.6	2,188	23.3	64.7	12.0	100	1,018
Creative arts	33.3	774	23.0	58.8	18.3	100	257
Total	33.8	8,701	23.5	59.0	17.5	100	2,931

2.9. Other activities

Bachelor degree graduates who were unavailable for full-time study or any employment at the time of the 2014 BGS were asked to indicate the activities in which they were engaged (Figure 6). Graduates were permitted to indicate more than one activity. The most common activity for female graduates who were neither available for work nor full-time study was parenting, with 50.0 per cent listing this

as an activity. Male graduates in the same situation were most likely to be travelling (41.7 per cent), which was also a relatively common activity for females (25.9 per cent).

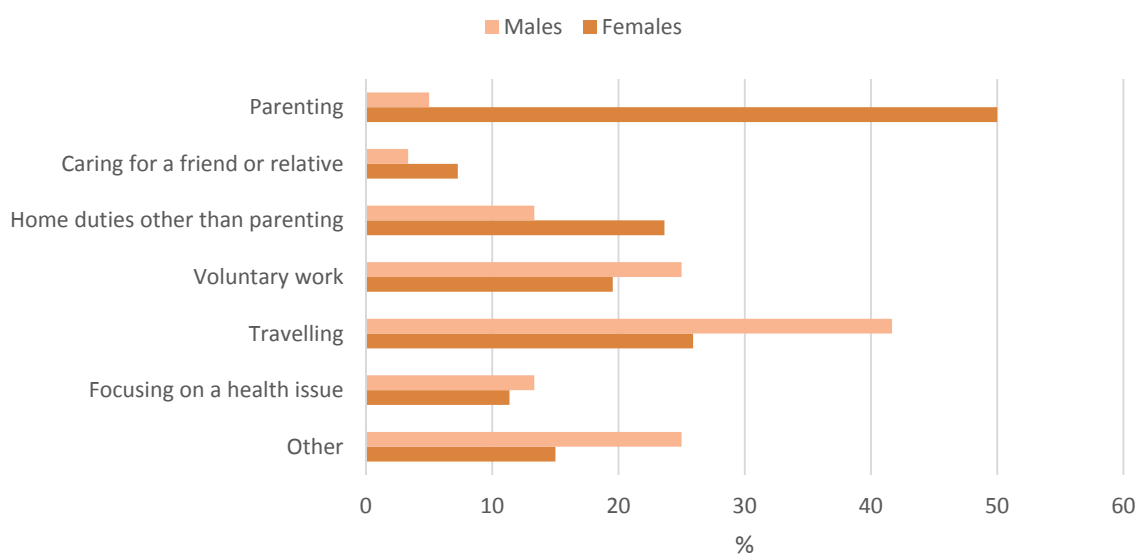


Figure 6. Activities of bachelor graduates unavailable for full-time study or any employment, by sex, 2014 (%)

3. Graduate Salaries

An overview of the median annual salaries of bachelor degree graduates in full-time employment is presented in Table 11. When interpreting these figures, it is important to bear in mind that graduate salary levels may potentially be influenced by myriad economic forces, and do not necessarily reflect the quality of graduates in terms of their academic results or employability skills. Following visual and statistical inspection of the survey data, salary values below the second percentile and above the 99th percentile were identified as outliers and excluded from the analysis.

At the overall level, full-time employed bachelor degree graduates earned a median salary of \$69,000 at the time of the 2014 BGS, an increase of 32.7 per cent since the 2011 AGS, at which point the median full-time graduate salary was \$52,000. By comparison, the level of consumer price inflation over this period was 6.8 per cent.² Graduates from the field of engineering and related technologies enjoyed the highest median salary for the period 2011 to 2014. Information technology graduates were also high earners in both periods. Creative arts graduates consistently earned the lowest median salary out of any field of education, but enjoyed the strongest percentage growth in their median salary. Education graduates saw the lowest median salary growth. Male graduates tended to out-earn female graduates, with the gap between median male and female salaries greater three years after course completion (13.8 per cent, compared with 8.9 per cent in 2011). The largest percentage wage gaps were observed for graduates from the fields of architecture and building (20.0 per cent), and natural and physical sciences (19.4 per cent). Conversely, female information technology graduates earned a median salary 9.4 per cent higher than that of their male counterparts three years after

² Australian Bureau of Statistics (2015). *Consumer Price Index, Australia* (No. 6401.0). Canberra: Author.

course completion. The smallest gap three years after course completion was observed for creative arts graduates (3.4 per cent). The male-female salary gap widened in every field of education except information technology and creative arts between 2011 and 2014. It should be noted that these aggregate results do not account for differences in occupational destinations between males and females, nor other factors that may affect earnings. As such, these figures do not necessarily imply unequal pay for equal work.

Table 11. Median salary, bachelor graduates in full-time employment, by sex and broad field of education, 2011 and 2014 (\$'000, n, %)

	2011		2014		Growth	
	\$'000	n	\$'000	n	\$'000	%
Males						
Natural and physical sciences	57.0	124	75.0	145	18.0	31.6
Information technology	55.5	142	72.5	161	17.0	30.6
Engineering and related technologies	60.0	305	80.0	332	20.0	33.3
Architecture and building	56.4	58	72.0	67	15.6	27.7
Agriculture and environmental studies	50.0	28	64.5	32	14.5	29.0
Health	55.0	192	80.0	194	25.0	45.5
Education	56.0	54	69.4	75	13.4	23.9
Management and commerce	52.8	372	72.0	473	19.2	36.4
Society and culture	53.5	257	71.0	335	17.5	32.7
Creative arts	43.5	56	60.0	104	16.5	37.9
TOTAL	55.0	1,588	74.0	1,918	19.0	34.5
Females						
Natural and physical sciences	50.0	148	62.8	236	12.8	25.6
Information technology	52.0	30	80.0	34	28.0	53.8
Engineering and related technologies	60.0	86	76.0	82	16.0	26.7
Architecture and building	50.0	41	60.0	53	10.0	20.0
Agriculture and environmental studies	48.5	36	60.0	58	11.5	23.7
Health	51.0	786	70.0	756	19.0	37.3
Education	54.2	282	65.0	349	10.8	19.9
Management and commerce	49.0	553	66.1	642	17.1	34.9
Society and culture	51.0	634	65.0	859	14.0	27.5
Creative arts	40.0	195	58.0	277	18.0	45.0
TOTAL	50.5	2,791	65.0	3,346	14.5	28.7
Total						
Natural and physical sciences	52.0	272	66.0	381	14.0	26.9
Information technology	55.0	172	75.0	195	20.0	36.4
Engineering and related technologies	60.0	391	80.0	414	20.0	33.3
Architecture and building	52.0	99	65.3	120	13.3	25.6
Agriculture and environmental studies	49.5	64	63.1	90	13.6	27.5
Health	52.0	978	70.0	950	18.0	34.6
Education	55.0	336	66.0	424	11.0	20.0
Management and commerce	50.0	925	70.0	1,115	20.0	40.0
Society and culture	52.0	891	65.1	1,194	13.1	25.2
Creative arts	42.0	251	59.0	381	17.0	40.5
TOTAL	52.0	4,379	69.0	5,264	17.0	32.7

4. Course Review

As part of the 2014 BGS, bachelor degree graduates were invited to provide an indication of their likelihood of studying the same degree at the same institution if they were given the (hypothetical) opportunity to choose whether or not to repeat the course of study that led to the qualification they completed in 2010. The five-point response format consisted of categories labelled very unlikely, unlikely, neither unlikely nor likely, likely and very likely. As shown in Figure 7, graduates who were unemployed and seeking full-time employment at the time of the survey were the least likely to want to repeat the same degree at their graduating institution, with only 39.5 per cent indicating that they were either likely or very likely to do so given the opportunity. Graduates who were working part-time whilst seeking full-time employment were similarly unlikely to want to repeat the same degree (43.8 per cent). Similar proportions of full-time employed graduates, graduates in full-time study and part-time employed graduates not seeking full-time employment indicated that they were either likely or very likely to repeat the same degree at the same institution. This result suggests that poor labour market outcomes can strongly influence graduates' perceptions of the utility of their higher education experience.

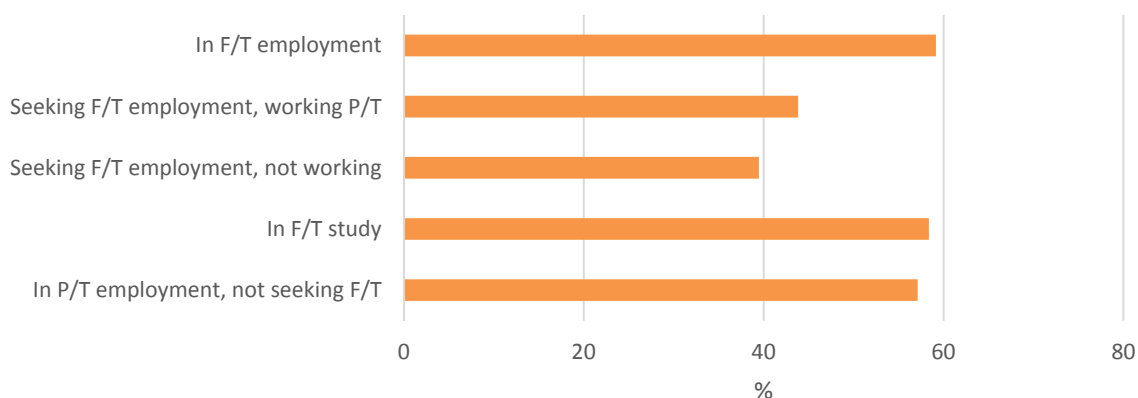


Figure 7. Likelihood of bachelor graduates studying the same degree at the same institution again if given the choice, likely/very likely, by destination category, 2014 (%)

5. Results for Postgraduates

Up to this point, this report has focused exclusively on the destinations and salaries of domestic bachelor degree graduates. The following section gives a brief overview of the destinations, salaries and experiences of individuals who completed a postgraduate degree in 2010. Postgraduates constitute around 37 per cent of responses to the 2014 BGS (see Table A2 for details of this cohort).

From Table 12, it can be seen that 89.9 per cent of male postgraduates and 78.7 per cent of female postgraduates indicated that they were available for full-time employment at the time of the 2011 AGS. Unlike bachelor degree graduates, who tended to be more likely to be available for full-time employment three years after course completion (see Table 1), there was no substantial change in

this figure between 2011 and 2014 for male postgraduates, and female postgraduates were slightly less likely to be available for the full-time labour force three years after completing their degrees.

Table 12. Main activity of postgraduates, by sex, 2011 and 2014 (% , n)

	Available for full-time employment (see Table 12)	In full-time study	In part-time or casual employment, not seeking full-time employment	Not working, seeking part-time or casual employment only	Unavailable for full-time study or any employment	TOTAL	TOTAL n
Males							
2011	89.9	2.8	4.3	0.0	2.9	100	2,110
2014	90.2	2.9	4.6	0.2	2.1	100	2,143
Females							
2011	78.7	3.5	13.6	0.0	4.2	100	3,233
2014	73.4	3.5	17.1	0.9	5.1	100	3,366
Total							
2011	83.1	3.2	9.9	0.0	3.7	100	5,343
2014	80.0	3.2	12.2	0.6	4.0	100	5,509

Table 13. Postgraduates available for full-time employment, by sex, 2011 and 2014 (% , n)

	In full-time employment	Seeking full-time employment, working part time or casual	Seeking full-time employment, not working	Total seeking full-time employment	TOTAL	TOTAL n
Males						
2011	87.2	6.0	6.7	12.7	100	1,897
2014	92.4	3.4	4.2	7.6	100	1,933
Females						
2011	85.5	8.7	5.8	14.5	100	2,543
2014	91.5	5.4	3.2	8.6	100	2,472
Total						
2011	86.3	7.5	6.2	13.7	100	4,440
2014	91.9	4.5	3.6	8.1	100	4,405

Of the postgraduates who were available for full-time employment, a considerable proportion had already secured full-time employment by the time of the 2011 AGS. As shown in Table 13, 87.2 per cent of male postgraduates and 85.5 per cent of female postgraduates were in full-time employment in 2011, which had increased to 92.4 per cent and 91.5 per cent, respectively, by 2014. Full-time employment rates tended to be higher for postgraduates than for bachelor degree graduates. It is important to note that postgraduates are typically older than bachelor degree graduates (see Table A2), and therefore tend to have more extensive work experience. This, along with their higher level of education, may contribute to their generally superior labour market outcomes.

Figure 8 shows that postgraduates, like their bachelor degree counterparts, have experienced a downward trend in full-time employment rates over the past five surveys, though to a lesser extent (*cf.* Figure 1). This suggests that, in addition to enjoying higher employment rates than bachelor degree

graduates, postgraduates are also somewhat insulated from labour-market vagaries, at least relative to individuals with bachelor degrees.

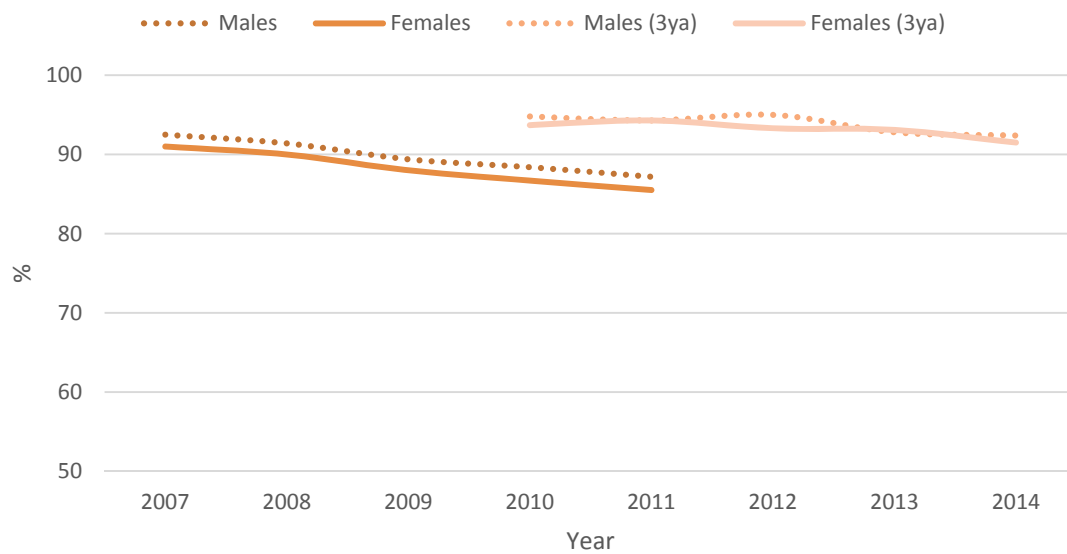


Figure 8. Full-time employment rates for postgraduates, by sex, 2007 to 2011, and 2010 to 2014 (%)

Full-time employment rates for postgraduates are presented by field of education in Table 14. As with bachelor degree graduates, there is considerable variation in employment rates across fields. Health postgraduates recorded strong employment rates in both years, and information technology postgraduates three years after course completion. Creative arts postgraduates tended to have relatively low employment rates compared with other fields, as did those from the natural and physical sciences field, and females from agriculture and environmental studies. Growth in full-time employment was less for postgraduates than bachelor degree graduates (*cf.* Table 3); however, recall that postgraduates were already more likely to be in full-time employment immediately after the completion of their studies than bachelor degree graduates.

In terms of the occupations held by postgraduates (see Table 15), the proportion employed in managerial roles increased between 2011 and 2014. Aside from managers, the only other broad occupational category to grow over this three-year period was clerical and administrative workers amongst female postgraduates; however, this was relatively modest (1.3 percentage points).

Table 14. Postgraduates working full time as a proportion of those available for full-time employment, by sex and broad field of education, 2011 and 2014 (% , n)

	2011		2014	
	%	n	%	n
Males				
Natural and physical sciences	79.6	108	85.2	108
Information technology	81.9	94	95.0	100
Engineering and related technologies	88.6	175	93.3	178
Architecture and building	81.0	42	88.6	44
Agriculture and environmental studies	88.9	36	91.2	34
Health	92.4	184	97.3	182
Education	83.7	203	90.3	207
Management and commerce	90.2	656	93.3	670
Society and culture	87.7	351	92.2	359
Creative arts	64.6	48	86.3	51
TOTAL	87.2	1,897	92.4	1,933
Females				
Natural and physical sciences	81.0	116	86.5	104
Information technology	79.1	43	94.6	37
Engineering and related technologies	89.2	37	89.7	39
Architecture and building	73.4	64	87.9	66
Agriculture and environmental studies	72.3	47	81.8	44
Health	92.0	525	93.9	495
Education	82.7	596	91.4	592
Management and commerce	87.7	486	94.5	473
Society and culture	86.1	541	90.2	531
Creative arts	73.9	88	82.4	91
TOTAL	85.5	2,543	91.5	2,472
Total				
Natural and physical sciences	80.4	224	85.8	212
Information technology	81.0	137	94.9	137
Engineering and related technologies	88.7	212	92.6	217
Architecture and building	76.4	106	88.2	110
Agriculture and environmental studies	79.5	83	85.9	78
Health	92.1	709	94.8	677
Education	83.0	799	91.1	799
Management and commerce	89.1	1,142	93.8	1,143
Society and culture	86.8	892	91.0	890
Creative arts	70.6	136	83.8	142
TOTAL	86.3	4,440	91.9	4,405

Table 15. Broad occupation types, postgraduates in full-time employment, by sex, 2011 and 2014 (% , n)

	Males		Females		Total	
	2011	2014	2011	2014	2011	2014
Managers	23.9	30.3	13.4	16.8	17.9	22.7
Professionals	61.7	57.9	73.9	71.1	68.6	65.3
Technicians and trades workers	3.0	2.7	1.3	1.2	2.0	1.9
Community and personal service workers	3.1	2.0	3.1	1.6	3.1	1.8
Clerical and administrative workers	6.5	6.3	7.3	8.6	7.0	7.6
Other occupations	1.8	0.9	1.0	0.7	1.4	0.7
TOTAL	100	100	100	100	100	100
TOTAL n	1,630	1,683	2,142	2,138	3,772	3,821

Full-time employed postgraduates were asked to rate the importance of the qualification they completed in 2011 to their main paid job (see Figure 9). Notably, when these figures are compared with those for bachelor degree graduates from corresponding fields in Figure 2, postgraduates were consistently less likely than bachelor degree graduates to indicate that their qualification was important to their main paid job. While postgraduates do enjoy strong full-time employment rates, these findings suggest that many do not believe themselves to be in jobs that fully utilise the specialised knowledge and skills acquired during postgraduate study. (The fact that 75.6 per cent of full-time employed postgraduates were not seeking other work at the time of the 2014 BGS suggests that this situation is not necessarily seen as a negative one by many.) Postgraduates from the education, architecture and building, natural and physical sciences, and health fields were the most likely to be in relevant full-time employment three years after the completion of their studies.

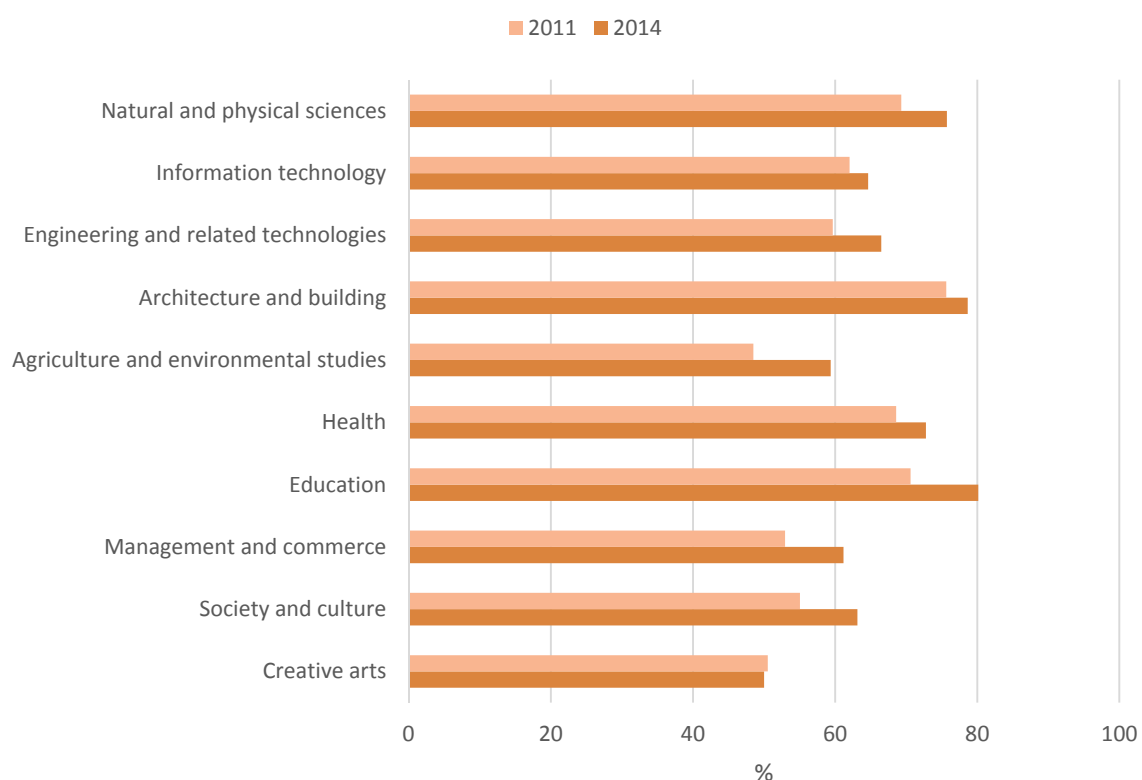


Figure 9. Qualification important to main paid job, postgraduates in full-time employment, by broad field of education, 2011 and 2014 (%)

Full-time employed postgraduates earned a median salary of \$90,000 at the time of the 2014 BGS, which represents an increase of 20.0 per cent in the three years following course completion (*cf.* 32.7 per cent for bachelor degree graduates), at which time their median salary was \$75,000 (see Table 16). Postgraduates from the field of management and commerce enjoyed the highest median salary in 2014, followed by postgraduates from the fields of engineering and related technologies, and health. Postgraduates from the architecture and building field earned the lowest median salary, but enjoyed above-average salary growth (22.4 per cent). Information technology postgraduates experienced the lowest median salary growth overall (13.3 per cent), largely due to the low salary growth of females in this field (7.6 per cent). The highest median salary earned by postgraduates of either sex in 2014 was observed for males from the management and commerce field (\$107,000),

whereas the lowest was earned by females in architecture (\$63,500). The widest gender pay gap in 2014 was also observed in relation to this field (32.3 per cent, favouring males). Female postgraduates from the engineering field earned a slightly higher median salary than their male counterparts in 2014.

Table 16. Median salary, postgraduates in full-time employment, by sex and broad field of education, 2011 and 2014 (\$'000, n, %)

	2011		2014		Growth	
	\$'000	n	\$'000	n	\$'000	%
Males						
Natural and physical sciences	70.0	69	87.1	70	17.1	24.4
Information technology	75.0	64	90.5	72	15.5	20.7
Engineering and related technologies	86.0	118	101.0	112	15.0	17.4
Architecture and building	72.0	33	84.0	33	12.0	16.7
Agriculture and environmental studies	75.0	27	86.0	23	11.0	14.7
Health	80.0	148	100.0	145	20.0	25.0
Education	77.5	146	84.0	161	6.5	8.4
Management and commerce	100.0	501	117.0	480	17.0	17.0
Society and culture	75.0	255	90.0	257	15.0	20.0
Creative arts	56.0	23	80.0	30	24.0	42.9
TOTAL	82.0	1,384	100.0	1,383	18.0	22.0
Females						
Natural and physical sciences	70.0	73	82.0	70	12.0	17.1
Information technology	72.5	30	78.0	29	5.5	7.6
Engineering and related technologies	75.0	25	101.6	25	26.6	35.5
Architecture and building	55.0	38	63.5	44	8.5	15.5
Agriculture and environmental studies	70.0	31	82.0	29	12.0	17.1
Health	70.0	411	90.0	365	20.0	28.6
Education	66.0	417	77.0	454	11.0	16.7
Management and commerce	80.0	358	98.0	333	18.0	22.5
Society and culture	70.1	394	81.0	377	10.9	15.5
Creative arts	57.5	60	70.0	60	12.5	21.7
TOTAL	70.0	1,837	83.0	1,786	13.0	18.6
Total						
Natural and physical sciences	70.0	142	84.5	140	14.5	20.7
Information technology	75.0	94	85.0	101	10.0	13.3
Engineering and related technologies	80.0	143	101.6	137	21.6	27.0
Architecture and building	58.0	71	71.0	77	13.0	22.4
Agriculture and environmental studies	72.0	58	84.5	52	12.5	17.4
Health	72.0	559	92.0	510	20.0	27.8
Education	69.0	563	80.0	615	11.0	15.9
Management and commerce	91.0	859	107.0	813	16.0	17.6
Society and culture	72.0	649	85.0	634	13.0	18.1
Creative arts	56.0	83	75.0	90	19.0	33.9
TOTAL	75.0	3,221	90.0	3,169	15.0	20.0

In terms of studying the same degree at the same institution again if given the (hypothetical) choice (see Figure 10), postgraduates were more likely than bachelor degree graduates to respond in the affirmative across all destination categories (*cf.* Figure 7). The difference was smallest in relation to unemployed graduates; and largest in relation to part-time employed postgraduates who were not seeking full-time work, and those in full-time employment. The pattern of results across destination categories closely echoes that observed for bachelor degree graduates.

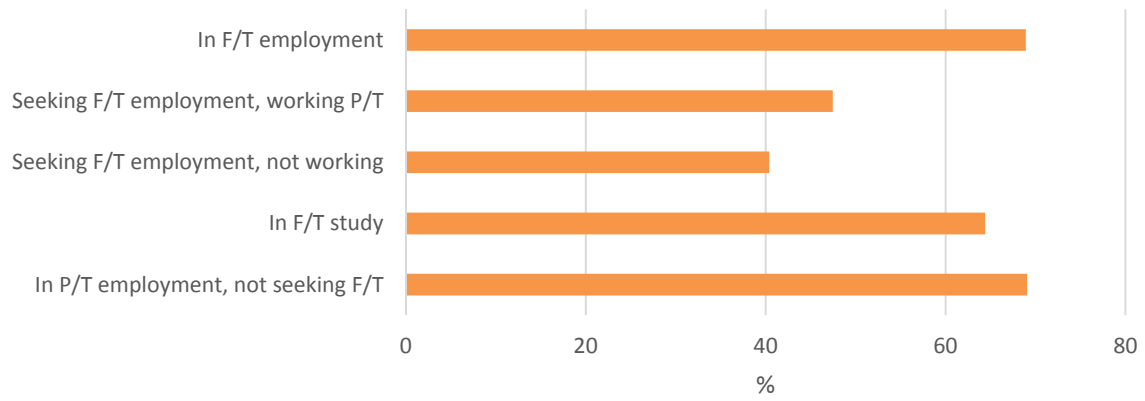


Figure 10. Likelihood of postgraduates studying the same degree at the same institution again if given the choice, likely/very likely, by destination category, 2014 (%)

Table A1. Included higher education institutions, 2014

Australian Catholic University	Murdoch University
Australian College of Physical Education	Queensland University of Technology
Australian College of Theology	RMIT
Australian National University	Southern Cross University
Avondale College	Swinburne University of Technology
Bond University	University of Ballarat
Central Queensland University	University of Canberra
Charles Darwin University	University of Melbourne
Charles Sturt University	University of New England
Christian Heritage College	University of New South Wales
Curtin University of Technology	University of Newcastle
Deakin University	University of Notre Dame, Australia
Edith Cowan University	University of Queensland
Flinders University of South Australia	University of Southern Queensland
Griffith University	University of Sydney
James Cook University	University of Tasmania
La Trobe University	University of Technology, Sydney
Macquarie University	University of the Sunshine Coast
Melbourne College of Divinity	University of Western Australia
Monash University	University of Western Sydney

Table A2. BGS respondent characteristics, 2014 (% , n)

	Bachelor degree		Postgraduate degree	
	%	n	%	n
Broad field of education				
Natural and physical sciences	10.4	981	4.9	272
Information technology	3.1	288	2.7	152
Engineering and related technologies	6.3	595	4.1	232
Architecture and building	2.2	204	2.2	124
Agriculture and environmental studies	1.6	155	1.9	105
Health	17.7	1,665	17.1	958
Education	7.5	708	18.7	1,046
Management and commerce	16.7	1,570	22.3	1,248
Society and culture	25.2	2,369	22.1	1,236
Creative arts	9.3	879	4.0	226
Means of financing study				
HECS paid upfront	18.7	1,755	10.8	598
HECS deferred some or all	73.8	6,924	33.9	1,872
International fee-paying student	1.1	99	3.2	179
Australian fee-paying student	6.5	607	42.4	2,347
APA or RTS research student	0.0	2	9.6	533
Main attendance type				
Mainly full time	86.1	8,097	39.8	2,223
Mainly part time	13.9	1,304	60.2	3,367
Main attendance mode				
Internal (on campus)	86.0	8,092	53.9	3,013
External (off campus)	7.6	712	33.3	1,862
Mixed mode (internal and external)	6.4	602	12.8	714
Sex				
Male	33.7	3,169	38.6	2,162
Female	66.3	6,241	61.4	3,435
Unknown	0.0	4	0.0	2
Age group				
Under 25	66.3	6,240	9.2	517
25 and over	33.7	3,170	90.8	5,076
Main language spoken at home				
English	86.4	8,079	85.1	4,672
Other	13.6	1,274	14.9	821
Disability identification				
Yes	3.0	286	3.5	196
No	97.0	9,106	96.5	5,387
Paid work during final year of study				
Yes	81.8	7,674	84.9	4,729
No	18.2	1,709	15.1	843



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