ESS
employer satisfaction survey

QILT
quality indicators for learning and teaching

2017 Employer Satisfaction Survey

National Report

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We are also very grateful to the employers who took the time to provide valuable feedback about their experience. The ESS data will be used by institutions for continuous improvement and to assist prospective students to make informed decisions about future study.

The 2017 ESS was led by Sonia Whiteley and the project team consisted of Rebecca Bricknall, Lisa Bolton, Daniela Iarossi, Jayde Grisdale, Ashton Christiansen, Rastko Antic, Gimwah Sng, Eric Skuja, Daniel Smith, Sebastian Misson, Wendy Guo and Joe Feng.

For more information on the conduct and results of the 2017 ESS, see the Quality Indicators for Learning and Teaching (QILT) website: www.qilt.edu.au. The QILT team can be contacted by email at qilt@srcentre.com.au

Executive summary

The 2017 Employer Satisfaction Survey (ESS) represents the largest survey of its kind, reporting the views of over 4,000 employers about the attributes of recent graduates from Australian higher education institutions including universities and non-university higher education institutions (NUHEIs). Employer views of the technical skills, generic skills and work readiness of recent graduates provide assurance about the quality of Australia's higher education sector. This survey was first run in 2016, with over 3,000 employers responding, and the 2017 survey continues to build on this strong beginning.

4,348

Number of survey responses from supervisors

The ESS has three design features. First, the ESS is the first national survey in Australia that directly links the experiences of graduates to the views of their direct supervisors. Second, the ESS is undertaken on a systematic basis by asking employed graduates who participate in the Graduate Outcome Survey (GOS) to provide contact information for their supervisor who is then invited to complete the ESS. This enables understanding of the limitations and bias associated with the survey methodology. By way of comparison, many other employer surveys are not conducted on a systematic basis and report the perceptions of executives who may have had little or no direct experience with graduates. Third, the ESS is large enough to provide comparisons by broad field of education, employment characteristics, occupation, demographic group and institution. Other employer surveys only provide a limited view of the sector as whole.

Basic national results

In 2017, the overall satisfaction with graduates as rated by their direct supervisors was 84 per cent.

Employer satisfaction with other graduate attributes was as follows:

- 93 per cent satisfaction with foundation skills – general literacy, numeracy and communication skills and the ability to investigate and integrate knowledge.
- 90 per cent satisfaction with adaptive skills – the ability to adapt and apply skills/knowledge and work independently.
- 86 per cent satisfaction with collaborative skills – teamwork and interpersonal skills.
- 93 per cent satisfaction with technical skills – application of professional and technical knowledge and standards.
- 85 per cent satisfaction with employability skills – the ability to perform and innovate in the workplace.

Overall, these results suggest employers remain highly satisfied with graduates from Australia's higher education system.

As shown by Table 1, there was a slight fall in overall satisfaction of employers from 2016 to 2017 of around one percentage point, though it remained at 84 per cent in rounded terms. On the other hand, satisfaction with all other graduate attributes increased in 2017. Note the changes in overall satisfaction and satisfaction with all other graduate attributes were not statistically significant due to the relatively small number of responses from employers, as demonstrated by the presentation of confidence intervals.

84%

Supervisors expressing overall satisfaction with their graduate

Results by course, demographic, labour market characteristics and institution

Supervisors were more satisfied with graduates from vocationally oriented courses. Supervisors' overall satisfaction with Engineering, Health, Architecture and Building, and Education graduates was 90 per cent, 89 per cent, 87 per cent and 85 per cent respectively. On the other hand, employer satisfaction, while still high, appears lower for graduates with more generalist degrees such as Agriculture, Environmental and related studies, Management and Commerce both with 80 per cent satisfaction and Creative Arts, Natural and Physical Sciences, and Society and Culture at 81 per cent.

Results for overall employer satisfaction confirm findings from the 2017 Graduate Outcomes Survey that employers seem to prefer graduates with vocationally oriented degrees over those with generalist degrees since the former have higher employment outcomes immediately upon graduation. Nevertheless, findings from the 2017 Graduate Outcomes Survey – Longitudinal (GOS-L) show graduates with generalist degrees do appear to catch up over time in terms of employment outcomes, at least three years after graduation.

Supervisors expressed higher levels of overall satisfaction with younger graduates aged 30 years or under, 85 per cent, in comparison with graduates aged over 30, 82 per cent.

Employers of graduates working in professional occupations, reported significantly higher overall satisfaction 87 per cent, compared with those of graduates working in all other occupations.

This report combines results from the 2016 and 2017 Employer Satisfaction Surveys providing over 6,800 employer responses to publish results at institution level for Australia's universities. Overall employer satisfaction is consistently high ranging from 91 per cent to 77 per cent across Australia's universities. The Employer Satisfaction Survey demonstrates there is differentiation across universities. For example, 91 per cent of direct supervisors rated graduates from James Cook University favourably and this was significantly higher than direct supervisors' satisfaction with five other universities.

Table 1 **Employer satisfaction, 2016 and 2017 (%)**

	Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
2016	92.0	(91.2, 92.8)	88.4	(87.4, 89.4)	84.6	(83.5, 85.7)	92.2	(91.4, 93.0)	83.8	(82.7, 84.9)	84.3	(83.2, 85.4)
2017	93.4	(92.8, 94.0)	90.1	(89.3, 90.9)	85.9	(85.0, 86.8)	93.3	(92.6, 94.0)	85.0	(84.1, 85.9)	83.6	(82.7, 84.5)

Other employer surveys of Australian higher education graduates are much smaller in scale, lack transparency in methodology and rely on the views of persons who may have had little or no direct contact with graduates. For example, the *QS Graduate Employability Rankings* are based on the views of approximately 700–900 employers while the *Times Higher Education Global University Employability Ranking* collects the views of 150 managing directors and recruitment managers.

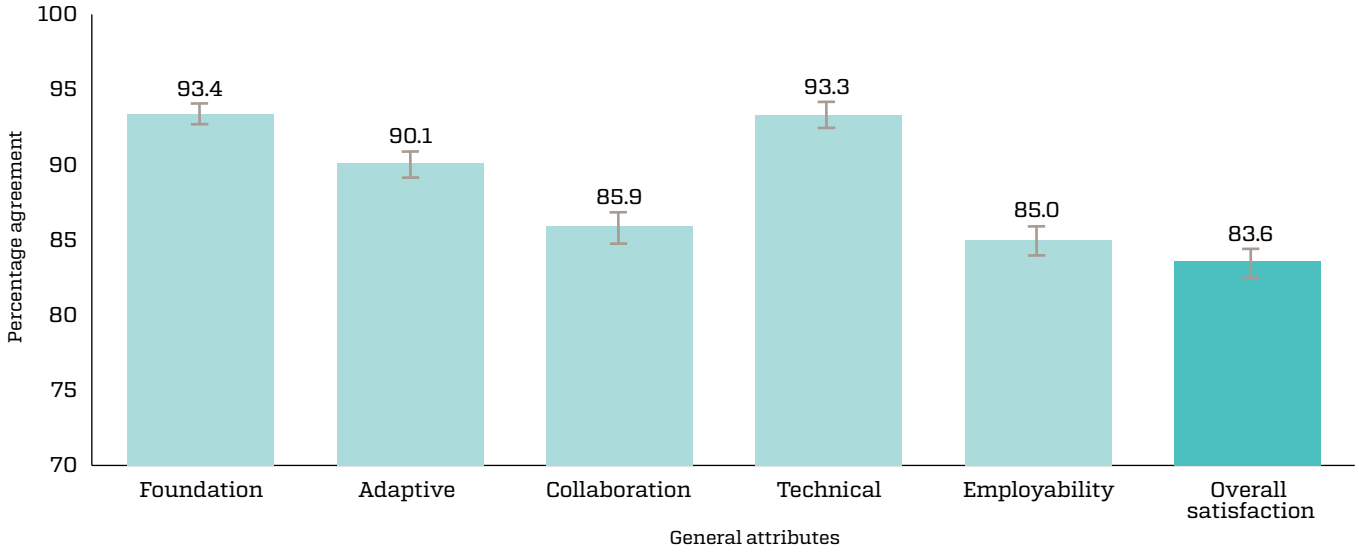
Skills relevance and utilisation

Overall, graduates tended to view their qualification as less important for their current employment than their supervisor. While a little over half of graduates, 56 per cent, considered their qualification to be 'very important' or 'important' to their current job, around 64 per cent, of supervisors indicated the graduate's qualification was 'very important' or 'important'.

Health and Education qualifications were rated by supervisors as being more important for graduates' current position, which is consistent with earlier findings showing higher employer satisfaction with graduates with more vocationally oriented qualifications. These qualifications may be a requirement for employment. 79 per cent of supervisors of Health graduates and Education graduates thought that qualifications were important for current employment. Supervisors of Information technology, Creative Arts, and Management and Commerce graduates were least likely to think that the qualification was important for current employment, 45 per cent, 48 per cent and 48 per cent respectively.

Supervisors of graduates working in professional occupations were more likely to state that the qualification was important for current employment, 75 per cent. This finding is not surprising as, of all the occupational groups, the qualifications related to professional employment are most likely to translate directly to a specific job or role, especially where qualifications are a requirement for employment.

Figure 1 **Employer satisfaction with graduate attributes and overall satisfaction**



Overall, 93 per cent of supervisors, reported that the qualification prepared the graduate 'very well' or 'well' for their current employment. This represents an increase of one percentage point from 2016, though remaining at 93 per cent in rounded terms. Overall, there appears to be a strong relationship between skills and knowledge acquired by higher education graduates and the requirements of their jobs after graduation. This result affirms the value of higher education qualifications for employment.

93%

Supervisors reporting the qualification prepared the graduate 'very well' or 'well' for current employment

Methodology

The 2017 ESS 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).

The population frame for the ESS comprised 97,481 graduates, domestic and international, who responded in the 2016 GOS they were employed. Of these, 9.022 employed graduates provided sufficient contact details to approach supervisors, yielding a supervisor referral rate of 9.3 per cent. While this is an improvement on the 7.7 per cent achieved in 2016, there appears to be a continuing reluctance among graduates to pass on their supervisor contact details.

A total of 4,348 valid survey responses from direct supervisors were collected across all study levels, representing a supervisor response rate of 48.2 per cent.

Supervisors of Engineering and Education graduates and graduates working in professional occupations were overrepresented in the ESS compared with the proportion of graduates who had responded to the Graduate Outcomes Survey. Supervisors of Engineering and Education graduates and graduates in professional occupation rated overall satisfaction more highly and this is expected to lead to an upward bias in reported employer satisfaction in the 2017 ESS.

On the other hand, supervisors of older graduates were overrepresented in the ESS. Supervisors rated overall satisfaction of these graduates lower than average and this is expected to lead to a downward bias in reported employer satisfaction in the 2017 ESS.

Graduates who did not provide supervisor contact details rated their foundation skills at 82 per cent. While still high, this was lower than for graduates who supplied their supervisor contact details, 88 per cent, and the supervisor satisfaction rating of foundation skills of 93 per cent. It would appear graduates who were more positive about the skills they had acquired would be more comfortable having their supervisor participate in the ESS. This is expected to lead to upward bias in reported levels of employer satisfaction in the 2017 ESS.

Notwithstanding potential upward bias in reported employer satisfaction, ratings of attributes across graduates who are willing or not willing to provider supervisor contact details are of broadly similar magnitude suggesting that results from the 2017 ESS provide evidence of the likely high quality of graduates from the Australian higher education system. Establishment of the Quality Indicators for Learning and Teaching (QILT) brand allied with efforts to promote the QILT surveys and the ESS among companies that are known employers of graduates are expected to continue to improve responses and the robustness and validity of results from the ESS over time.

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1 Introduction

The 2017 Employer Satisfaction Survey (ESS) represents the largest survey ever undertaken of employer views of the attributes of recent graduates from Australian higher education institutions. As such, it measures key outcomes providing assurance about the quality of Australia's higher education sector. The ESS has been included as part of the Quality Indicators for Learning and Teaching (QILT) survey suite. The QILT are independently and centrally administered by the Social Research Centre on behalf of the Australian Government Department of Education and Training.

The impetus for a national survey of graduate employers is grounded in the Australian Government's desire to improve the range and quality of higher education performance indicators in Australia. Since graduate employment is usually one of the main objectives of completing a higher education qualification, employer views of the readiness of graduates to enter the workplace forms a key component of the quality matrix. The ESS is the first national survey of its kind in Australia that directly links the experiences of graduates to the views of their direct supervisors. Employed graduates who participate in the Graduate Outcome Survey (GOS) are asked to provide contact information for their supervisor who are then invited to complete the ESS. This report describes results from that survey of employer views of the technical skills, generic skills and work readiness of recent graduates from Australian higher education institutions.

The QILT surveys are conducted on a consistent basis using population frames constructed from the Higher Education Information Management System (HEIMS) data collection. The surveys are based on the student life cycle starting with the Student Experience Survey measuring the experiences of commencing and later year students through to the Graduate Outcomes Survey and Employer Satisfaction Survey measuring graduate outcomes and entry to the workforce and the GOS Longitudinal which measures graduate outcomes three years after course completion.

The vocational nature of Australian higher education is reflected in the long tradition of accreditation of courses by professional bodies and organisations, and a strong focus on the employment outcomes of graduates. While employer preferences for graduates are revealed by employment outcomes, in the past less attention has been paid to employers' qualitative assessment of graduates. In part, this reflects the many methodological challenges associated with measuring employer satisfaction with graduates.

A major dilemma in designing employer surveys of graduates lies in constructing robust population and sample frames while seeking to garner a sufficient number of responses. The present survey uses all graduate respondents, domestic and international, to the Graduate Outcomes Survey (GOS), which in turn is based on Higher Education Information Management System (HEIMS) data collection, to gather the contact details of direct supervisors. One of the advantages of measuring employer satisfaction on a systematic basis is that it enables understanding of the limitations and bias associated with the survey methodology. Further details of the methodology and pattern of responses and possible bias are presented below in Section 4.

One disadvantage of a systematic approach to survey collection is that the ensuing methodology can make it difficult to achieve an adequate number of responses for reporting purposes. In the present survey, this manifests itself through the low graduate referral rate and reluctance of graduates to pass on contact details of their direct supervisor. Collection of over 4,000 employer responses, however, does permit reporting of employer satisfaction while discriminating against key course, demographic, labour market characteristics and institution.

A key distinguishing feature of the present survey is that it measures the experiences of direct supervisors of graduates. This is unlike other employer surveys that report the perceptions of executives with little or no direct experience with graduates.

2 Results

2.1 Employer satisfaction by course, demographic, labour market characteristics and institution

The 2017 Employer Satisfaction Survey confirms the findings of the 2016 survey and earlier 2013–14 pilot survey that supervisors rate their graduates highly. In 2017, overall satisfaction with graduates as rated by direct supervisors was 84 per cent. Overall satisfaction reports the proportion of supervisors giving responses 'Very likely to consider' or 'Likely to consider' to the item, 'Based on your experience with this graduate, how likely are you to consider hiring another graduate from the same course and institution, if you had a relevant vacancy?' Overall, these results suggest employers are highly satisfied with graduates from Australia's higher education system.

Employers were also requested to report their satisfaction with graduates across five graduate attribute domains or scales:

- Foundation skills – general literacy, numeracy and communication skills and the ability to investigate and integrate knowledge.
- Adaptive skills – the ability to adapt and apply skills/knowledge and work independently.
- Collaborative skills – teamwork and interpersonal skills.
- Technical skills – application of professional and technical knowledge and standards.
- Employability skills – ability to perform and innovate in the workplace.

Figure 2 **Employer satisfaction with graduate attributes and overall satisfaction, 2017 (%)**

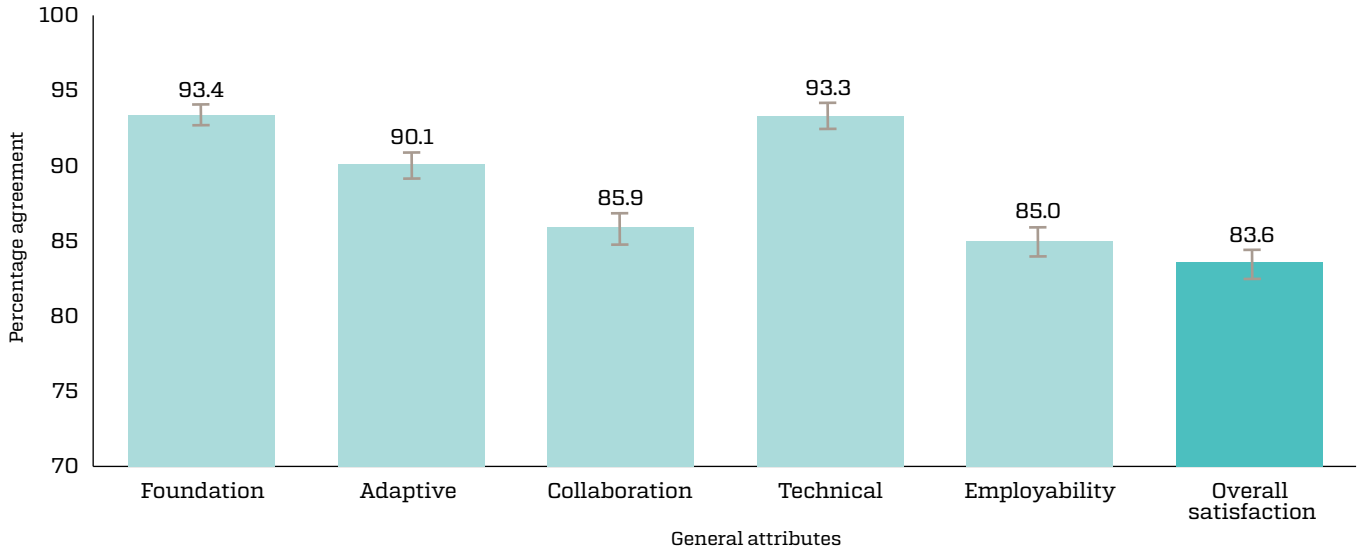


Table 2 **Employer satisfaction, 2016 and 2017 (%)**

	Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
2016	92.0	(91.2, 92.8)	88.4	(87.4, 89.4)	84.6	(83.5, 85.7)	92.2	(91.4, 93.0)	83.8	(82.7, 84.9)	84.3	(83.2, 85.4)
2017	93.4	(92.8, 94.0)	90.1	(89.3, 90.9)	85.9	(85.0, 86.8)	93.3	(92.6, 94.0)	85.0	(84.1, 85.9)	83.6	(82.7, 84.5)

As shown by Table 2, there was a slight fall in overall satisfaction of employers of around one percentage point from 2016 to 2017, though it remained at 84 per cent in rounded terms. On the other hand, satisfaction with all other graduate attributes increased in 2017 by around one percentage point in each case. Note the changes in overall satisfaction and satisfaction with all other graduate attributes were not statistically significant due to the relatively small number of responses from employers, as demonstrated by the presentation of confidence intervals.

Turning to results of employer satisfaction by field of education, it appears supervisors were more satisfied with graduates from more vocationally oriented courses. For example, supervisors' overall satisfaction with Engineering, Health, Architecture and Building and Education graduates was 90 per cent, 89 per cent, 87 per cent and 85 per cent respectively, as shown by Figure 3. On the other hand, employer satisfaction, while still high, appears lower for graduates with more generalist degrees such as Management and Commerce with 80 per cent, and Natural and Physical Sciences and Society and Culture at 81 per cent. Differences in employer satisfaction between vocational and generalist courses appear significant. For example, employer satisfaction with Engineering and Health graduates was significantly higher than with Society and Culture or Management and Commerce graduates, as demonstrated by the presentation of confidence intervals in Figure 3. This indicates the ESS instrument is capable of discriminating across fields of education.

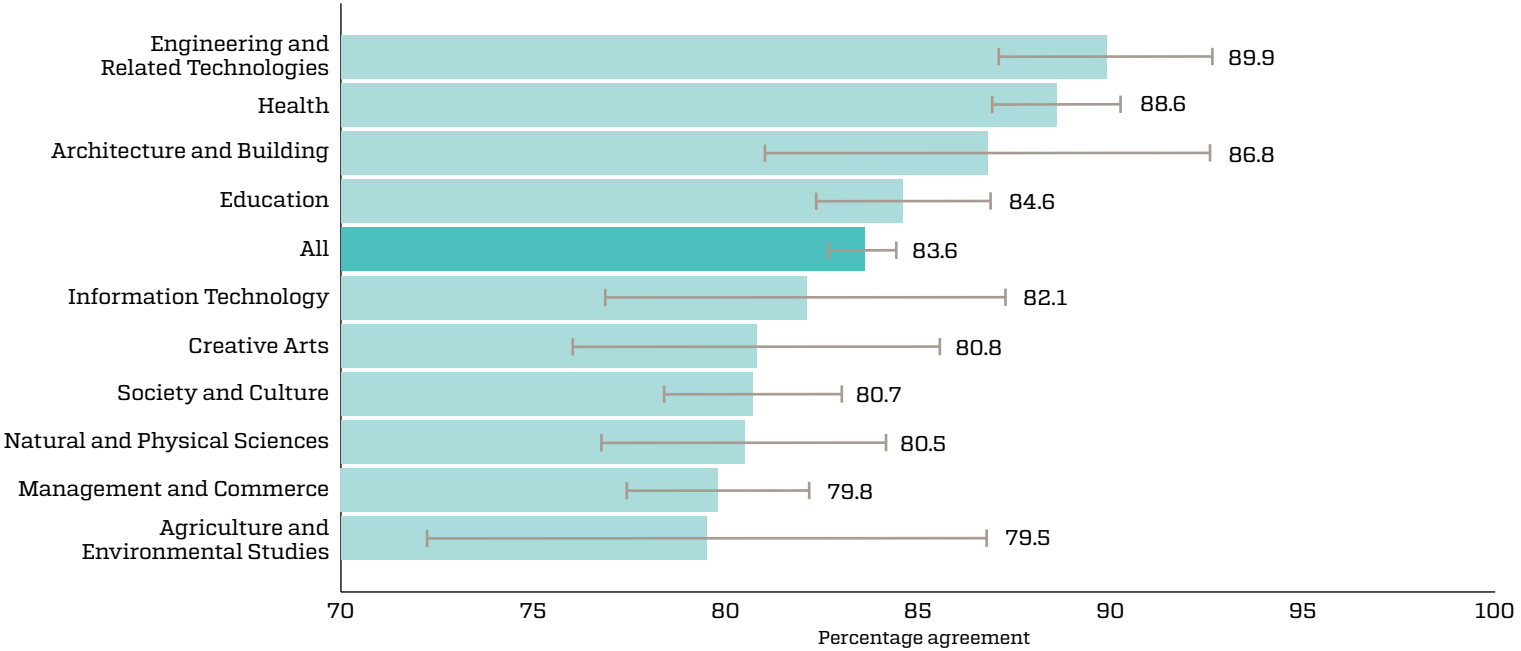
Results for overall employer satisfaction appear consistent with findings from the 2017 Graduate Outcomes Survey (GOS). That is, employers seem to prefer graduates with vocationally oriented degrees over those with generalist degrees. Immediately upon graduation, graduates from vocationally oriented courses achieve higher employment outcomes and higher employer satisfaction. It is important to place this finding in the context of findings from the 2017 Graduate Outcomes Survey – Longitudinal (GOS-L) that graduates with generalist degrees do appear to catch up over time in terms of employment outcomes, at least three years after graduation.

Table 3 **Employer satisfaction by broad field of education, 2017**

	Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Natural and Physical Sciences	94.6	(92.4, 96.8)	89.3	(86.3, 92.3)	88.0	(84.9, 91.1)	94.5	(92.3, 96.7)	85.7	(82.3, 89.1)	80.5	(76.8, 84.2)
Information Technology	95.1	(92.1, 98.1)	91.1	(87.1, 95.1)	90.4	(86.2, 94.6)	95.5	(92.5, 98.5)	85.7	(80.6, 90.8)	82.1	(76.9, 87.3)
Engineering and Related Technologies	95.6	(93.7, 97.5)	90.8	(88.1, 93.5)	88.7	(85.7, 91.7)	95.7	(93.8, 97.6)	85.0	(81.6, 88.4)	89.9	(87.1, 92.7)
Architecture and Building	91.4	(86.6, 96.2)	91.3	(86.5, 96.1)	88.0	(82.4, 93.6)	91.3	(86.5, 96.1)	81.5	(74.8, 88.2)	86.8	(81.0, 92.6)
Agriculture and Environmental Studies	94.2	(90.1, 98.3)	91.8	(86.9, 96.7)	88.0	(82.1, 93.9)	94.0	(89.7, 98.3)	85.0	(78.4, 91.6)	79.5	(72.2, 86.8)
Health	93.6	(92.3, 94.9)	88.8	(87.0, 90.6)	86.3	(84.4, 88.2)	94.6	(93.3, 95.9)	84.3	(82.2, 86.4)	88.6	(86.9, 90.3)
Education	92.4	(90.7, 94.1)	89.2	(87.2, 91.2)	82.4	(79.9, 84.9)	92.1	(90.3, 93.9)	84.5	(82.1, 86.9)	84.6	(82.3, 86.9)
Management and Commerce	92.5	(91.0, 94.0)	91.0	(89.3, 92.7)	84.7	(82.6, 86.8)	91.7	(90.0, 93.4)	86.1	(84.0, 88.2)	79.8	(77.4, 82.2)
Society and Culture	93.9	(92.5, 95.3)	92.0	(90.4, 93.6)	86.2	(84.2, 88.2)	93.6	(92.2, 95.0)	86.4	(84.4, 88.4)	80.7	(78.4, 83.0)
Creative Arts	92.3	(89.0, 95.6)	88.1	(84.1, 92.1)	89.0	(85.2, 92.8)	91.1	(87.6, 94.6)	85.7	(81.3, 90.1)	80.8	(76.0, 85.6)
Total	**93.4**	**(92.8, 94.0)**	**90.1**	**(89.3, 90.9)**	**85.9**	**(85.0, 86.8)**	**93.3**	**(92.6, 94.0)**	**85.0**	**(84.1, 85.9)**	**83.6**	**(82.7, 84.5)**

Employer satisfaction with different graduate attributes varies across fields of education as shown in Table 3. For example, employer satisfaction with Engineering graduates is higher than or equal to the average across all graduate attributes. Similarly, employers are highly satisfied with Agriculture and Society and Culture graduates across all graduate attributes though overall satisfaction is below average for both of these groups. Conversely, education graduates are rated above average by employers in terms of overall satisfaction, but below average in terms of all other graduate attributes. There appears to be greater variation in employer satisfaction with collaboration skills, varying by 8 percentage points across different fields of education. On the other hand, employer satisfaction with foundation, adaptive and technical skills appears broadly similar, varying by around 4 percentage points across graduates from different fields of education.

Figure 3 **Overall satisfaction by broad field of education, 2017 (%)**



90%

Highest employer satisfaction – Engineering

80%

Lowest employer satisfaction – Agriculture

University graduates reported higher employer satisfaction, 84 per cent, than graduates from non-university higher education institutions, 81 per cent. However, the difference in employer satisfaction across type of institution was not significant, as shown by Figure 4 and Table 4.

Supervisors also expressed higher levels of overall satisfaction with graduates that studied internally, 84 per cent, in comparison with graduates that studied externally, 81 per cent, though this difference was not significant, as shown by Figure 4 and Table 4. Supervisors also rated all internal graduates' skills more highly than those of external graduates, in particular with regards to collaborative skills which has a difference of 10 percentage points, as shown by Table 4. This difference may be related to similar issues identified in the Student Experience Survey where students studying externally rated their engagement in learning activities, which involve collaboration with other students, lower than did internal students.

Employers appear less satisfied with postgraduate coursework graduates, 82 per cent than with undergraduates, 84 per cent, and postgraduate research graduates, 87 per cent. However, differences in overall satisfaction by level of course were relatively minor and not significant, as shown by Figure 4. Supervisors rated postgraduate coursework graduates lower than undergraduates on all graduate attributes with the exception of adaptive skills, as shown by Table 4. Similarly, employers rated undergraduates lower than postgraduate research graduates on most graduate attributes with the exception of collaborative skills.

Figure 4 **Overall satisfaction by type of institution and course characteristics, 2017 (%)**

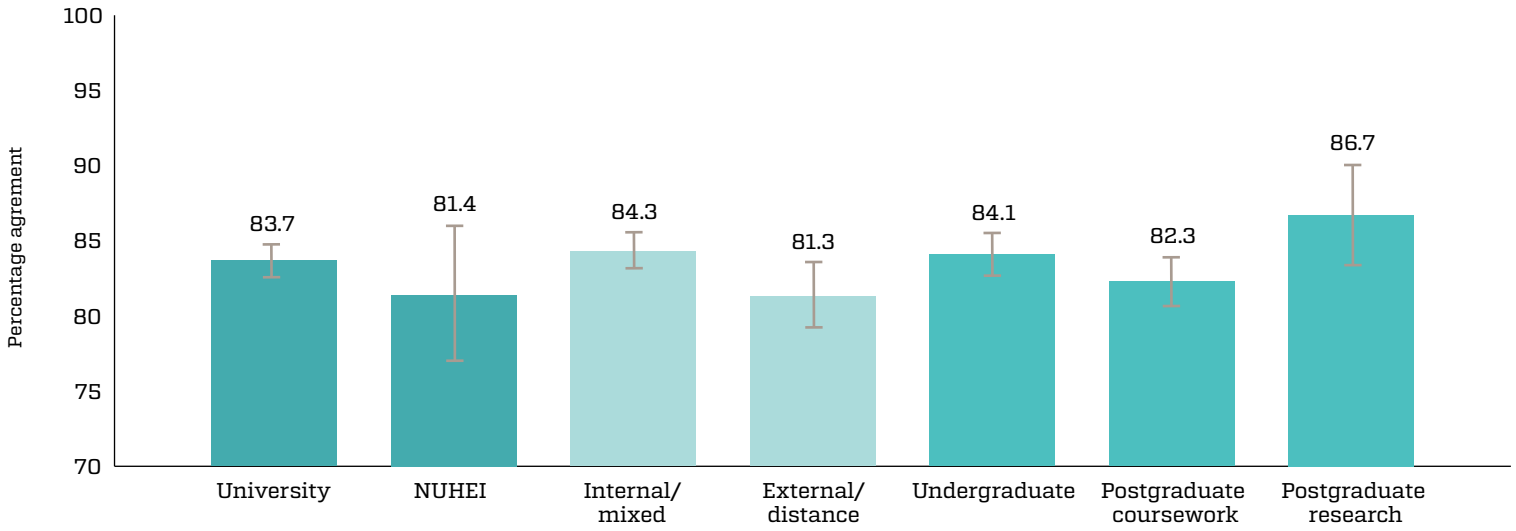


Table 4 **Employer satisfaction by type of institution and course characteristics, 2017 (%)**

		Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
		%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Type of institution	University	93.4	(92.7, 94.1)	90.2	(89.4, 91.0)	86.2	(85.3, 87.1)	93.5	(92.8, 94.2)	85.3	(84.3, 86.3)	83.7	(82.7, 84.7)
	NUHEI	92.9	(90.2, 95.6)	89.5	(86.2, 92.8)	80.4	(76.2, 84.6)	89.3	(86.0, 92.6)	81.3	(77.1, 85.5)	81.4	(77.3, 85.5)
Mode	Internal	93.9	(93.2, 94.6)	90.4	(89.5, 91.3)	88.3	(87.3, 89.3)	93.9	(93.2, 94.6)	86.1	(85.0, 87.2)	84.3	(83.2, 85.4)
	External	91.7	(90.3, 93.1)	89.3	(87.7, 90.9)	78.8	(76.7, 80.9)	91.4	(90.0, 92.8)	81.9	(79.9, 83.9)	81.3	(79.3, 83.3)
Course level	Undergraduate	94.1	(93.3, 94.9)	89.0	(87.8, 90.2)	89.7	(88.6, 90.8)	94.0	(93.1, 94.9)	85.9	(84.6, 87.2)	84.1	(82.8, 85.4)
	Postgraduate coursework	91.7	(90.6, 92.8)	90.5	(89.3, 91.7)	81	(79.4, 82.6)	91.8	(90.7, 92.9)	83.6	(82.1, 85.1)	82.3	(80.8, 83.8)
	Postgraduate research	97.1	(95.6, 98.6)	95.2	(93.3, 97.1)	87.2	(84.2, 90.2)	96.4	(94.7, 98.1)	87.1	(84.0, 90.2)	86.7	(83.7, 89.7)
Total		**93.4**	**(92.8, 94.0)**	**90.1**	**(89.3, 90.9)**	**85.9**	**(85.0, 86.8)**	**93.3**	**(92.6, 94.0)**	**85.0**	**(84.1, 85.9)**	**83.6**	**(82.7, 84.5)**

Employers appear more satisfied with female graduates, 85 per cent, than with male graduates, 82 per cent, though this difference was not significant as shown by Figure 5. While male graduates generally received higher ratings than female graduates with other graduate attributes, other than technical skills, once again these differences were not significant, as shown by Table 5. Supervisors rated most skills of younger graduates other than adaptive skills higher than those over 30 years of age, in particular collaborative skills which differed by 8 percentage points.

While employers reported lower overall satisfaction with graduates from a non-English speaking background, graduates with a stated disability and non-Indigenous graduates, these differences were not significant due to the relatively small numbers of responses for graduates in these groups.

Employers reported higher overall satisfaction with graduates working in professional occupations, 87 per cent. This is consistent with higher education qualifications being more relevant for working in those occupations, as shown later when discussing graduate and employer views of skills relevance and utilisation. Employer satisfaction with graduates working in all other occupations was significantly lower, as shown by Figure 6. In general, employers rated the collaborative skills of graduates employed in managerial roles lower than those in other occupational categories but these differences were not significant except for the 'other' category which attracted a very high rating of 93 per cent, as shown by Table 6.

Figure 5 **Overall satisfaction by demographic group, 2017 (%)**

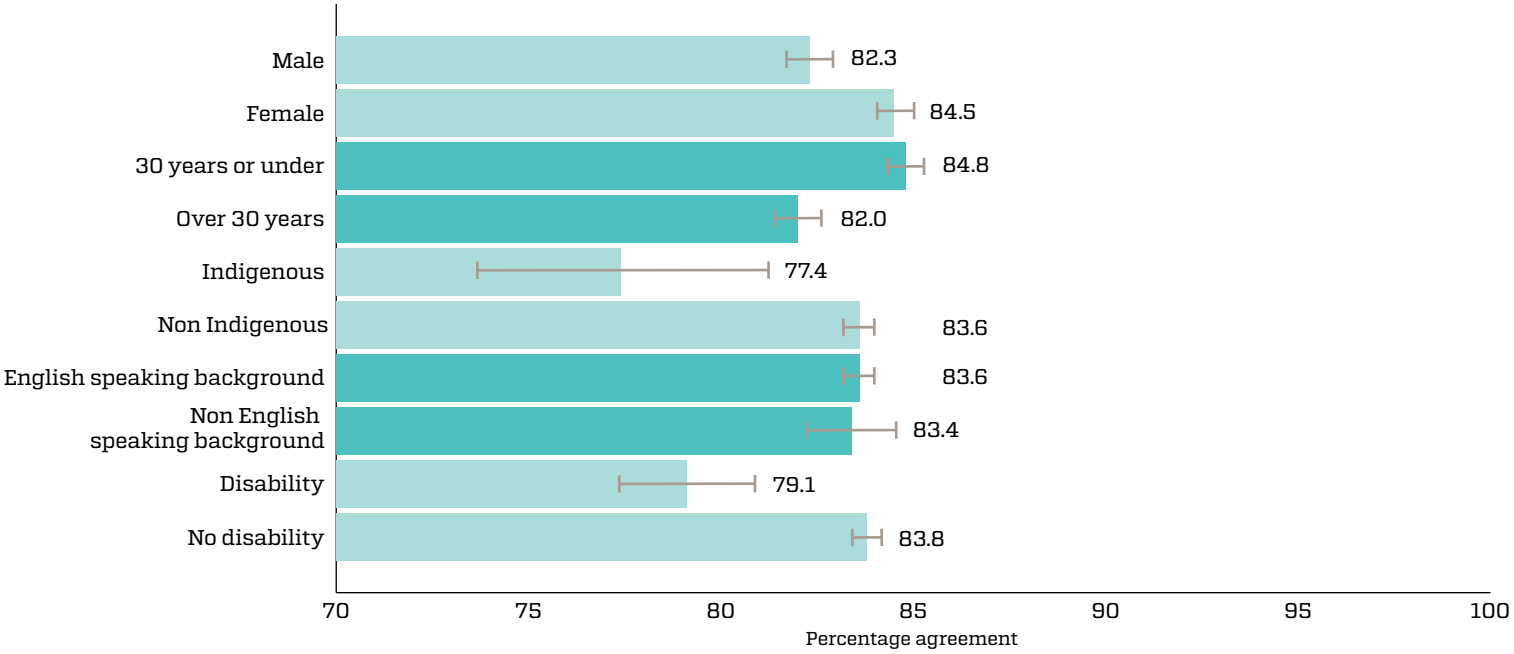
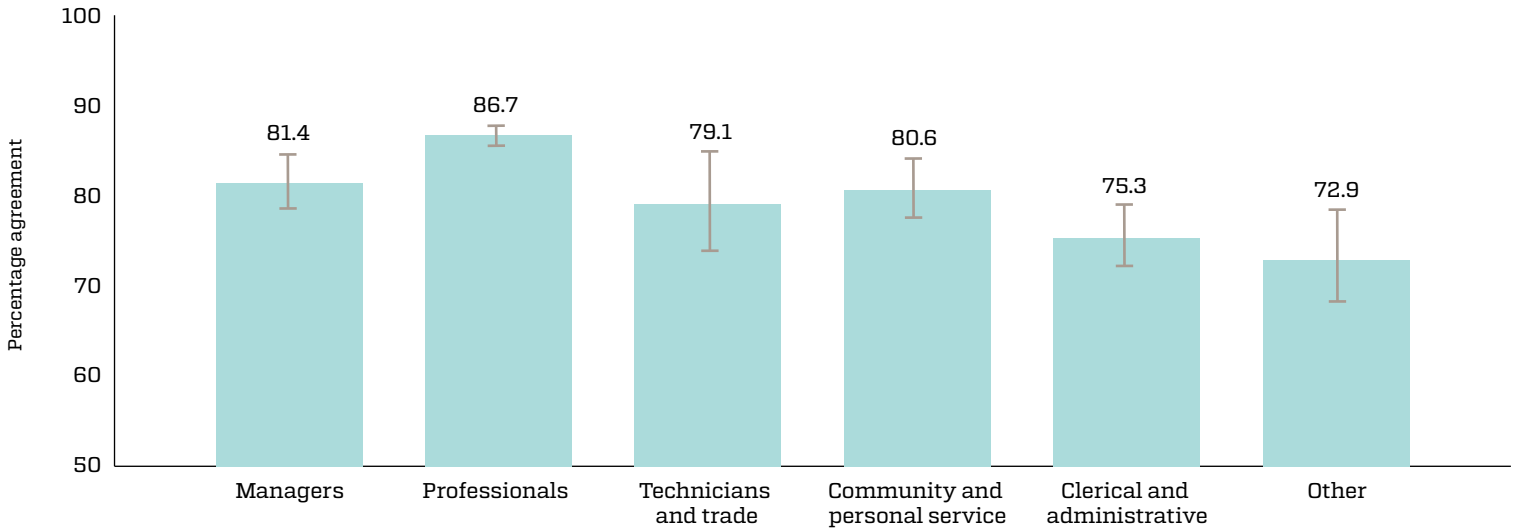


Figure 6 **Overall satisfaction by occupation, 2017 (%)**



Although employers' overall satisfaction with graduates working full-time, 84 per cent, was higher than with graduates who worked part-time, 83 per cent, this difference was not significant, as shown by Figure 7. Employers' overall satisfaction with graduates who had been working with them for between three months and one year was higher, 86 per cent, than graduates who had been working with them for less than three months or for one year or more, both with 82 per cent, though in general, differences in employer satisfaction between these groups were not significant, as shown by Table 6.

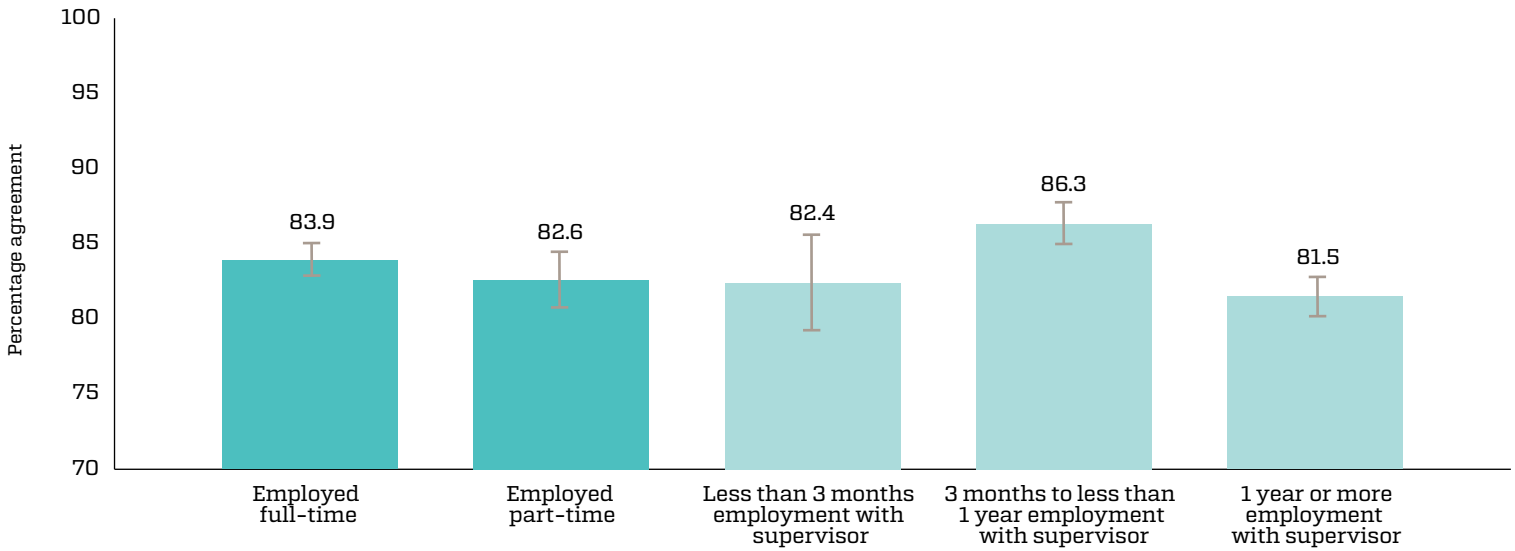
Table 5 **Employer satisfaction by demographic characteristics, 2017 (%)**

		Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
		%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Gender	Male	93.9	(93.0, 94.8)	91.4	(90.3, 92.5)	86.1	(84.7, 87.5)	92.9	(91.9, 93.9)	85.8	(84.4, 87.2)	82.3	(80.8, 83.8)
	Female	93.0	(92.1, 93.9)	89.2	(88.1, 90.3)	85.7	(84.5, 86.9)	93.6	(92.8, 94.4)	84.4	(83.1, 85.7)	84.5	(83.3, 85.7)
Age	30 years or under	94.3	(93.5, 95.1)	89.5	(88.4, 90.6)	89.4	(88.3, 90.5)	94.3	(93.5, 95.1)	86.3	(85.1, 87.5)	84.8	(83.6, 86.0)
	Over 30 years	92.2	(91.2, 93.2)	90.8	(89.7, 91.9)	81.4	(79.9, 82.9)	92.0	(90.9, 93.1)	83.4	(81.9, 84.9)	82.0	(80.5, 83.5)
Indigenous	Indigenous	92.5	(86.5, 98.5)	96.0	(91.4, 100.0)	82.4	(73.6, 91.2)	92.2	(86.0, 98.4)	82.0	(73.1, 90.9)	77.4	(67.9, 86.9)
	Not Indigenous	93.4	(92.8, 94.0)	90.1	(89.3, 90.9)	85.9	(85.0, 86.8)	93.3	(92.6, 94.0)	85.0	(84.1, 85.9)	83.6	(82.6, 84.6)
Home language	English	93.3	(92.6, 94.0)	89.9	(89.1, 90.7)	85.1	(84.1, 86.1)	93.0	(92.3, 93.7)	84.6	(83.6, 85.6)	83.6	(82.6, 84.6)
	Language other than English	94.0	(92.1, 95.9)	91.9	(89.7, 94.1)	92.0	(89.9, 94.1)	95.5	(93.8, 97.2)	88.6	(86.1, 91.1)	83.4	(80.5, 86.3)
Disability	Reported disability	91.6	(88.6, 94.6)	86.6	(82.9, 90.3)	86.0	(82.2, 89.8)	91.0	(87.8, 94.2)	82.6	(78.4, 86.8)	79.1	(74.7, 83.5)
	No disability	93.5	(92.9, 94.1)	90.3	(89.5, 91.1)	85.9	(85.0, 86.8)	93.4	(92.7, 94.1)	85.1	(84.1, 86.1)	83.8	(82.8, 84.8)
Total		**93.4**	**(92.8, 94.0)**	**90.1**	**(89.3, 90.9)**	**85.9**	**(85.0, 86.8)**	**93.3**	**(92.6, 94.0)**	**85.0**	**(84.1, 85.9)**	**83.6**	**(82.7, 84.5)**

Table 6 **Employer satisfaction by labour market characteristics, 2017 (%)**

		Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
		%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Occupation	Managers	93.7	(91.8, 95.6)	92.8	(90.7, 94.9)	82.8	(79.7, 85.9)	92.3	(90.1, 94.5)	85.0	(82.1, 87.9)	81.4	(78.3, 84.5)
	Professionals	93.3	(92.5, 94.1)	89.4	(88.4, 90.4)	85.3	(84.1, 86.5)	93.6	(92.8, 94.4)	83.6	(82.4, 84.8)	86.7	(85.6, 87.8)
	Technicians and trades workers	91.6	(87.8, 95.4)	88.5	(84.0, 93.0)	85.5	(80.6, 90.4)	91.9	(88.1, 95.7)	83.1	(77.7, 88.5)	79.1	(73.4, 84.8)
	Community and personal service workers	92.7	(90.4, 95.0)	88.6	(85.8, 91.4)	87.1	(84.2, 90.0)	91.0	(88.5, 93.5)	87.9	(85.1, 90.7)	80.6	(77.2, 84.0)
	Clerical and administrative workers	94.1	(92.2, 96.0)	92.5	(90.3, 94.7)	88.1	(85.4, 90.8)	93.7	(91.6, 95.8)	88.0	(85.2, 90.8)	75.3	(71.8, 78.8)
	Other workers	93.8	(91.0, 96.6)	93.0	(89.9, 96.1)	93.2	(90.3, 96.1)	95.4	(92.8, 98.0)	93.0	(89.9, 96.1)	72.9	(67.7, 78.1)
Employment status	Employed full-time	93.0	(92.2, 93.8)	89.9	(89.0, 90.8)	84.8	(83.7, 85.9)	93.0	(92.2, 93.8)	84.1	(83.0, 85.2)	83.9	(82.8, 85.0)
	Employed part-time	94.4	(93.3, 95.5)	90.6	(89.1, 92.1)	88.8	(87.2, 90.4)	94.0	(92.8, 95.2)	87.5	(85.8, 89.2)	82.6	(80.7, 84.5)
Duration of job with current employer	Less than 3 months	92.0	(89.8, 94.2)	88.3	(85.7, 90.9)	88.8	(86.2, 91.4)	92.9	(90.8, 95.0)	84.7	(81.7, 87.7)	82.4	(79.3, 85.5)
	3 months to < 1 year	93.9	(93.0, 94.8)	89.2	(88.0, 90.4)	88.9	(87.6, 90.2)	94.0	(93.0, 95.0)	85.3	(83.9, 86.7)	86.3	(84.9, 87.7)
	1 year or more	93.2	(92.3, 94.1)	91.3	(90.2, 92.4)	82.6	(81.2, 84.0)	92.8	(91.8, 93.8)	84.8	(83.4, 86.2)	81.5	(80.1, 82.9)
Total		**93.4**	**(92.8, 94.0)**	**90.1**	**(89.3, 90.9)**	**85.9**	**(85.0, 86.8)**	**93.3**	**(92.6, 94.0)**	**85.0**	**(84.1, 85.9)**	**83.6**	**(82.7, 84.5)**

Figure 7 **Overall satisfaction by employment characteristics, 2017 (%)**



2.2 Employer satisfaction by institution

This report combines results from the 2016 and 2017 Employer Satisfaction Surveys to publish results for Table A and B universities at institution level as shown in Figure 8 and Table 7. This follows the approach shown on the QILT website where results are pooled across surveys to increase the number of responses and confidence intervals are published to improve the robustness and validity of data. The number of employer responses in the 2016 and 2017 surveys across institutions is shown in Appendix 3. There are 6,800 employer responses across universities, ranging from over 400 responses for Deakin University down to 35 responses for Bond University. The QILT reports and website do not publish results where there are fewer than 25 survey responses. For this reason, results for individual non-university higher education institution (NUHEIs) are not shown as the number of employer responses is too small.

Figure 8 demonstrates that employer satisfaction is consistently high across Australia's Table A and B universities, with overall satisfaction ranging from 91 per cent to 77 per cent across universities. While employer satisfaction appears broadly similar across most institutions, the publication of confidence intervals demonstrates there is differentiation in employer satisfaction among some institutions. For example, 91 per cent of direct supervisors rated graduates from James Cook University favourably and this was significantly higher than direct supervisors' satisfaction with five other universities.

The results shown in Figure 8 and Table 7 demonstrate the ESS has the capacity to discriminate across universities. Other employer surveys of higher education graduates are much smaller in scale, lack transparency in methodology and rely on the views of persons who may have had little or no direct contact with graduates such as Chief Executive Officers or human resource managers. For example, the *QS Graduate Employability Rankings* are based on the views of approximately 700–900 employers, publishing rankings of universities based on a series of employment indicators including employer reputation. Similarly, the *Times Higher Education Global University Employability Ranking* collects the views of 150 managing directors and recruitment managers to publish rankings of universities by the perceived employability of graduates.

Employer satisfaction is consistently high across Australia's universities ranging from 91% to 77%

Figure 8 **Overall satisfaction by institution (universities only), 2016 and 2017 (%)**

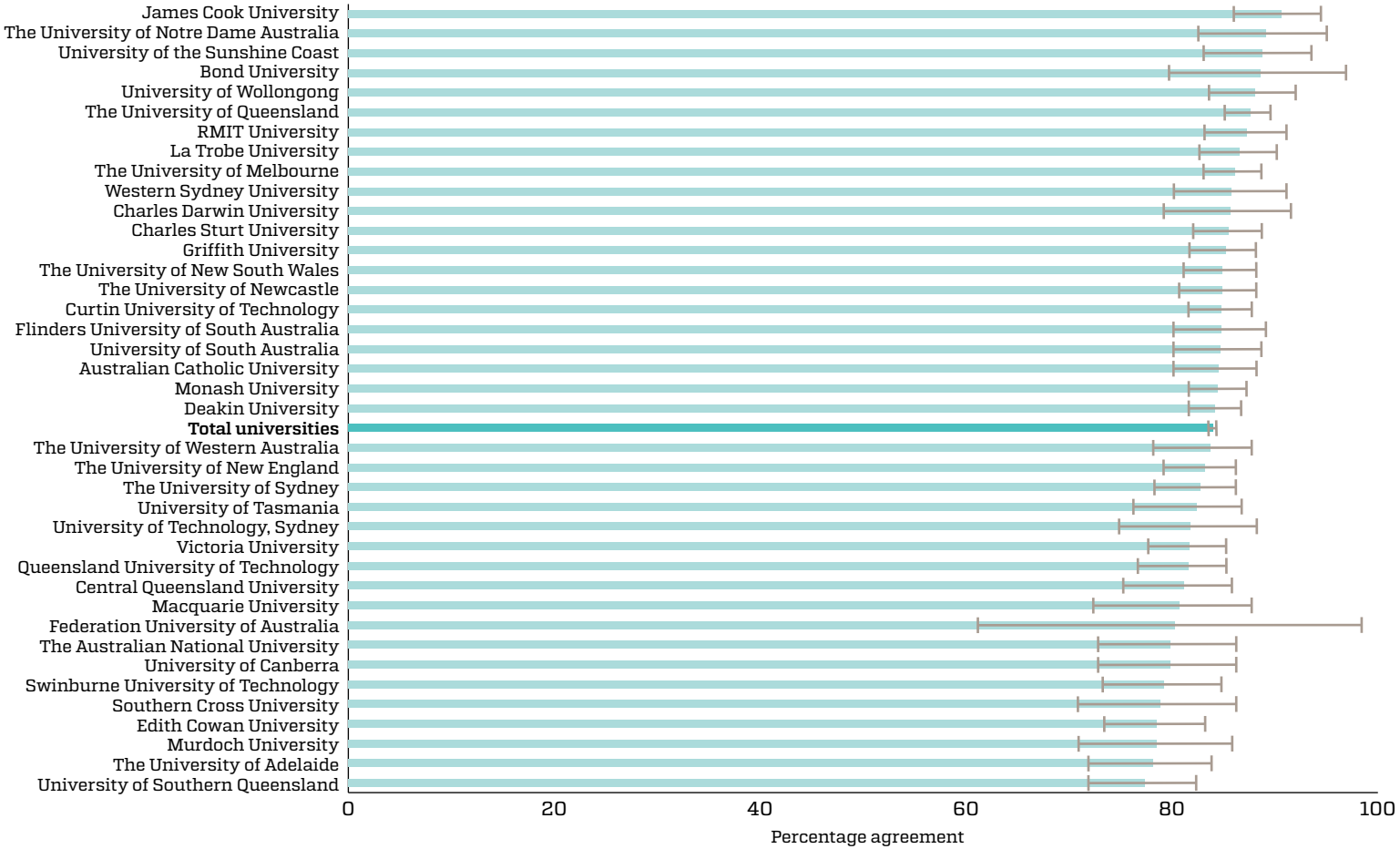


Table 7 **Employer satisfaction by institution (universities only), 2016 and 2017**

	Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
Australian Catholic University	92.7	(89.5, 95.9)	89.1	(85.3, 93.0)	84.3	(79.7, 88.9)	91.4	(87.9, 94.9)	81.9	(77.0, 86.7)	84.5	(80.1, 89.0)
Bond University	88.6	(79.5, 97.7)	81.8	(70.4, 93.2)	87.9	(78.3, 97.5)	91.2	(82.9, 99.4)	88.2	(78.9, 97.6)	88.6	(79.5, 97.7)
Central Queensland University	91.1	(87.5, 94.6)	87.6	(83.5, 91.7)	84.4	(79.9, 88.8)	93.2	(90.0, 96.3)	81.1	(76.3, 86.0)	81.2	(76.4, 86.0)
Charles Darwin University	86.3	(79.6, 93.0)	88.2	(82.0, 94.3)	82.9	(75.7, 90.1)	89.5	(83.6, 95.3)	82.9	(75.7, 90.1)	85.7	(79.1, 92.4)
Charles Sturt University	93.8	(91.4, 96.3)	90.9	(88.0, 93.9)	83.6	(79.8, 87.4)	93.4	(90.8, 95.9)	85.7	(82.0, 89.3)	85.5	(81.8, 89.1)
Curtin University	92.5	(90.0, 95.0)	91.2	(88.5, 94.0)	87.7	(84.5, 90.8)	93.5	(91.1, 95.9)	85.8	(82.4, 89.2)	84.8	(81.5, 88.2)
Deakin University	92.5	(90.3, 94.7)	90	(87.5, 92.5)	84.8	(81.9, 87.8)	93.2	(91.1, 95.4)	85.3	(82.3, 88.3)	84.2	(81.3, 87.2)
Edith Cowan University	93.9	(90.8, 97.0)	89.5	(85.5, 93.5)	88.3	(84.1, 92.5)	93.9	(90.8, 97.0)	83.9	(79.1, 88.6)	78.5	(73.2, 83.8)
Federation University Australia	94	(89.2, 98.9)	96.9	(93.3, 100.0)	84.8	(77.5, 92.2)	98.5	(96.0, 100.0)	93.9	(89.0, 98.8)	80.3	(72.4, 88.2)
Flinders University	90.7	(86.9, 94.5)	87.7	(83.3, 92.0)	84.9	(80.2, 89.6)	91	(87.2, 94.8)	83.3	(78.3, 88.4)	84.8	(80.1, 89.5)
Griffith University	94	(91.6, 96.3)	90.9	(88.0, 93.8)	86.9	(83.6, 90.3)	93.4	(90.9, 95.9)	85.1	(81.5, 88.7)	85.2	(81.7, 88.7)
James Cook University	93.7	(89.9, 97.5)	89.8	(85.0, 94.6)	90.8	(86.2, 95.4)	95.4	(92.0, 98.7)	88	(82.8, 93.2)	90.6	(85.9, 95.3)
La Trobe University	94.8	(92.1, 97.6)	92.4	(89.0, 95.7)	86.4	(82.0, 90.8)	94.6	(91.7, 97.5)	84	(79.2, 88.7)	86.6	(82.3, 90.9)
Macquarie University	95.8	(93.1, 98.6)	91.9	(88.0, 95.8)	83.3	(78.1, 88.6)	94.1	(90.8, 97.5)	84.8	(79.7, 90.0)	80.7	(75.3, 86.1)
Monash University	94.6	(92.6, 96.6)	91.1	(88.6, 93.6)	85.4	(82.3, 88.5)	93.6	(91.5, 95.8)	86.1	(83.0, 89.2)	84.4	(81.3, 87.6)
Murdoch University	97.5	(94.6, 100.0)	86.8	(80.4, 93.3)	85.3	(78.5, 92.1)	94.7	(90.3, 99.0)	81.9	(74.4, 89.5)	78.5	(70.8, 86.2)
Queensland University of Technology	92	(89.1, 94.8)	88.6	(85.2, 92.0)	84.7	(80.8, 88.6)	88.4	(84.9, 91.8)	84.4	(80.5, 88.4)	81.6	(77.5, 85.7)
RMIT University	94.7	(91.9, 97.6)	90	(86.2, 93.8)	93.4	(90.2, 96.6)	95.7	(93.1, 98.3)	90.8	(87.1, 94.5)	87.3	(83.1, 91.5)
Southern Cross University	90.5	(84.9, 96.2)	87.3	(80.7, 93.9)	86.7	(80.1, 93.2)	91.9	(86.6, 97.2)	80.8	(73.1, 88.5)	78.9	(70.8, 86.9)
Swinburne University of Technology	92.4	(88.5, 96.2)	92.2	(88.3, 96.1)	88.3	(83.6, 93.0)	93.8	(90.2, 97.3)	89.5	(85.0, 94.1)	79.2	(73.3, 85.1)
The Australian National University	91.7	(87.0, 96.4)	87.5	(81.6, 93.4)	78	(70.8, 85.2)	89.8	(84.4, 95.1)	76.7	(69.3, 84.1)	79.8	(72.9, 86.7)
The University of Adelaide	94.9	(91.6, 98.3)	92.4	(88.4, 96.5)	87.3	(82.2, 92.4)	96.6	(93.8, 99.4)	88.6	(83.7, 93.5)	78.2	(71.9, 84.4)

	Foundation		Adaptive		Collaborative		Technical		Employability		Overall satisfaction	
	%	CI	%	CI	%	CI	%	CI	%	CI	%	CI
The University of Melbourne	93.1	(90.9, 95.3)	89.9	(87.2, 92.6)	82.7	(79.3, 86.0)	92.6	(90.3, 95.0)	85	(81.8, 88.2)	86.1	(83.2, 89.1)
The University of New England	87.9	(83.6, 92.2)	86.3	(81.7, 90.9)	76.6	(71.0, 82.3)	89.6	(85.5, 93.7)	80.3	(74.8, 85.7)	83.2	(78.3, 88.2)
The University of New South Wales	91.8	(88.8, 94.8)	91.1	(87.9, 94.2)	84.6	(80.7, 88.6)	91	(87.9, 94.2)	84.5	(80.5, 88.6)	84.9	(81.0, 88.8)
The University of Newcastle	94.3	(91.6, 96.9)	93.1	(90.2, 96.0)	87.7	(83.9, 91.5)	96.1	(93.9, 98.3)	84.7	(80.5, 88.8)	84.9	(80.7, 89.0)
The University of Notre Dame Australia	92.6	(87.4, 97.9)	93.9	(89.0, 98.8)	88.1	(81.5, 94.7)	92.4	(87.0, 97.9)	88.1	(81.5, 94.7)	89.1	(82.5, 95.6)
The University of Queensland	93.8	(91.8, 95.8)	88.4	(85.6, 91.1)	85.6	(82.7, 88.6)	94.8	(92.9, 96.7)	84.2	(81.0, 87.3)	87.6	(84.9, 90.3)
The University of Sydney	90.9	(88.0, 93.9)	85	(81.3, 88.8)	88.9	(85.7, 92.2)	93.9	(91.4, 96.4)	82.1	(78.0, 86.2)	82.8	(78.9, 86.7)
The University of Western Australia	95.6	(92.6, 98.5)	90.1	(85.7, 94.4)	84.4	(79.3, 89.6)	89.3	(84.8, 93.8)	80.9	(75.2, 86.6)	83.7	(78.4, 89.0)
Torrens University Australia	n/a	n/a	n/a	n/a	n/a	n/a)	n/a	n/a	n/a	n/a	n/a	n/a
University of Canberra	87.5	(81.6, 93.4)	83	(76.3, 89.6)	84.1	(77.6, 90.6)	88.4	(82.6, 94.1)	76.2	(68.5, 83.9)	79.8	(72.7, 86.9)
University of Divinity	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
University of South Australia	94.3	(91.4, 97.2)	89.3	(85.3, 93.2)	84	(79.4, 88.7)	93.4	(90.2, 96.6)	86.1	(81.6, 90.5)	84.7	(80.3, 89.2)
University of Southern Queensland	91.3	(87.5, 95.1)	85.4	(80.5, 90.3)	82	(76.6, 87.4)	94.4	(91.2, 97.6)	84.1	(78.9, 89.2)	77.4	(71.7, 83.1)
University of Tasmania	92.3	(89.1, 95.4)	87.7	(83.7, 91.7)	83.3	(78.8, 87.9)	91.4	(88.0, 94.8)	84.4	(79.9, 88.8)	82.4	(77.9, 86.9)
University of Technology Sydney	93.9	(90.5, 97.4)	89.2	(84.7, 93.7)	87.3	(82.4, 92.2)	93.8	(90.3, 97.3)	86.3	(81.2, 91.4)	81.8	(76.3, 87.4)
University of the Sunshine Coast	94.3	(90.1, 98.4)	94.1	(89.9, 98.4)	89.5	(84.0, 95.0)	95.2	(91.4, 99.1)	89.2	(83.5, 94.8)	88.8	(83.2, 94.3)
University of Wollongong	90.9	(86.8, 95.1)	85.6	(80.4, 90.8)	88.1	(83.3, 92.9)	91.9	(87.9, 96.0)	84.2	(78.6, 89.7)	88.1	(83.4, 92.7)
Victoria University	88.4	(82.6, 94.1)	85.9	(79.6, 92.2)	88.2	(82.4, 94.0)	92.8	(88.0, 97.5)	89.2	(83.5, 94.8)	81.7	(74.6, 88.8)
Western Sydney University	93.5	(89.6, 97.4)	88	(82.8, 93.2)	88.7	(83.6, 93.8)	92.2	(87.9, 96.6)	81.6	(75.2, 87.9)	85.8	(80.2, 91.5)
All	**92.8**	**(92.3, 93.3)**	**89.5**	**(88.9, 90.1)**	**85.6**	**(84.9, 86.3)**	**93**	**(92.5, 93.5)**	**84.6**	**(83.9, 85.4)**	**84**	**(83.2, 84.7)**

2.3 Skills relevance and utilisation

Concerns have been expressed that the demand driven funding system may be leading to an oversupply of higher education graduates. This oversupply can manifest itself in the 'overeducation' of graduates where they may not be fully utilising their skills or qualifications in their present position. There is a considerable literature on qualification related underemployment.[1] The Employer Satisfaction Survey provides valuable evidence on employers' perceptions on the relevance and utilisation of higher education graduates' skills and qualifications. It will be important to monitor these assessments over time.

Overall, graduates tended to view their qualification as less important for their current employment than did their supervisors, as shown by Table 8. Over half of the graduates, 56 per cent, considered their qualification to be 'very important' or 'important' to their current job. Just over one in ten graduates, 11 per cent, felt that it was 'not at all important'. On the other hand, around 64 per cent of supervisors indicated that the qualification was 'very important' or 'important' and only 7 per cent indicated that it was 'not at all important' for the current job. Given that a little over half of the graduates had been employed for less than one year after completing their qualification, their relative lack of work experience may explain why they did not fully comprehend the extent to which their qualification is important for their job.

Education and Health qualifications were rated by graduates and supervisors as being significantly more important for their current position than other fields of education, which is consistent with earlier findings showing higher employer satisfaction with graduates with more vocationally oriented qualifications. These qualifications may be a requirement for employment. For example, 75 per cent of graduates and 79 per cent of supervisors thought that Education qualifications were important for current employment, as shown by Table 9. Similarly, 73 per cent of graduates and 79 per cent of supervisors thought that Health qualifications were important for current employment. Supervisors of Information Technology with 45 per cent, Management and Commerce, and Creative Arts graduates, both at 48 per cent, were least likely to think that the qualification was important for current employment.

Graduates and supervisors of those working in professional occupations were most likely to state that the qualification was important for the job at 69 per cent and 75 per cent respectively. This is consistent with the ABS classification of occupations where managerial and professional jobs are defined at Skill Level 1 being commensurate with qualifications at bachelor level or higher. Graduates and supervisors working in lower skill level jobs, that is, technicians and trade workers and below, were unsurprisingly much less likely to state that the qualification was important for the job.

Graduates and their supervisors were also asked to indicate the extent to which the recent qualification prepared the graduate for their job. A high proportion of graduates and supervisors, 88 per cent and 93 per cent respectively, thought the qualification prepared the graduate for the job, as shown in Table 11. The proportion of supervisors who thought the qualification prepared the graduate for the job increased by one percentage point from 2016, though remaining at 93 per cent in rounded terms. Overall, there appears to be a strong relationship between skills and knowledge acquired by higher education graduates and the requirements of their jobs after graduation. This result strongly affirms the value of higher education qualifications in terms of preparation for work.

1 For example, see Mavromaras, K., McGuinness, S., & O'Leary, N. (2009). Job mismatches and labour market outcomes, 1–26. Retrieved from http://www.econstor.eu/handle/10419/50157 on the match between graduates and their jobs

Table 8 **Importance of qualification for current employment, 2017**

	Graduates		Supervisors	
	%	**CI**	**%**	**CI**
Very important	37.0	(35.8, 38.2)	41.2	(40.0, 42.4)
Important	19.3	(18.3, 20.3)	22.6	(21.6, 23.6)
Fairly important	17.3	(16.4, 18.2)	16.6	(15.7, 17.5)
Not that important	15.3	(14.4, 16.2)	12.4	(11.6, 13.2)
Not at all important	11.1	(10.3, 11.9)	7.1	(6.5, 7.7)
Total	**100.0**		**100.0**	

Table 9 **Importance of qualification for current employment by broad field of education, 2017***

	Graduates		Supervisors	
	%	**CI**	**%**	**CI**
Natural and Physical Sciences	50.2	(45.6, 54.8)	60.2	(55.7, 64.7)
Information Technology	41.0	(34.5, 47.5)	45.2	(38.6, 51.8)
Engineering and Related Technologies	59.6	(55.1, 64.1)	70.9	(66.8, 75.0)
Architecture and Building	61.7	(53.5, 69.9)	75.0	(67.6, 82.4)
Agriculture and Environmental Studies	46.6	(37.9, 55.3)	62.5	(54.0, 71.0)
Health	72.6	(70.2, 75.0)	78.9	(76.7, 81.1)
Education	74.9	(72.2, 77.6)	78.5	(75.9, 81.1)
Management and Commerce	40.2	(37.4, 43.0)	47.6	(44.7, 50.5)
Society and Culture	48.1	(45.3, 50.9)	57.2	(54.4, 60.0)
Creative Arts	42.4	(36.5, 48.3)	47.6	(41.6, 53.6)
Total	**56.3**	**(55.1, 57.5)**	**63.8**	**(62.6, 65.0)**
Standard deviation (percentage points)	**12.2**		**12.4**	

*Refers to the percentage of graduates and supervisors rating the qualification as 'very important' or 'important' for current employment.

Table 10 **Importance of qualification for current employment, by occupation group, 2017***

	Graduates		Supervisors	
	%	CI	%	CI
Managers	42.2	(38.4, 46.0)	60.1	(56.3, 63.9)
Professionals	68.6	(67.1, 70.1)	75.3	(73.9, 76.7)
Technicians and trades workers	38.5	(31.9, 45.1)	58.5	(51.8, 65.2)
Community and personal service workers	38.9	(34.8, 43.0)	48.3	(44.1, 52.5)
Clerical and administrative workers	34.0	(30.2, 37.8)	34.2	(30.4, 38.0)
Other workers	19.1	(14.7, 23.5)	18.1	(13.8, 22.4)
Total	**56.3**	**(55.1, 57.5)**	**63.9**	(62.7, 65.1)

*Refers to the percentage of graduates and supervisors rating the qualification as 'very important' or 'important' for current employment

88%

Graduates indicating their qualification was important for their current job

93%

Supervisors indicating the graduate's qualification was important for their current job

Taken in conjunction with the findings regarding the importance of the qualification, it seems to be the case that importance could be related to domain-specific skills or knowledge whereas preparedness is a broader concept, encapsulating generic skills and potentially basic employability. Alternatively, as almost half of graduates had been employed in their current position before they completed their qualification, it is understandable that a higher education qualification could be perceived as being less important while still preparing the graduate for employment by broadening or deepening existing skills and knowledge.

In general, graduates across all fields of education were less likely than their supervisors to indicate they felt their qualification prepared them for their current job, as shown by Table 12. Agriculture, Environmental Studies 82 per cent, Architecture and Building, 83 per cent and Creative Arts graduates 84 per cent were least likely to state that their qualification prepared them for their job. Supervisors in each of these areas were more likely to state that the course had prepared the graduate well or very well for their current employment with Architecture and Building supervisors rating preparedness around 9 percentage points higher than graduates. Supervisors in Information Technology and Society and Culture also rated preparedness substantially higher than graduates by 9 and 8 percentage points respectively.

It should also be noted there was less variation across fields of education among supervisors stating the qualification prepared the graduate for current employment, 2 percentage points, than among those stating the qualification was important for the job, 12 percentage points (see Table 9). This seems to support the previous observation that while higher education qualifications may not be 'important' in the sense they are 'mandatory' or 'required', they nevertheless prepare graduates for employment very well.

Table 11 **Extent to which qualification prepared graduate for current employment, 2017**

	Graduates		Supervisors	
	%	**CI**	**%**	**CI**
Very well	44.7	(43.4, 46.0)	50.9	(49.6, 52.2)
Well	43.5	(42.2, 44.8)	42.3	(41.0, 43.6)
Not well	5.7	(5.1, 6.3)	3.1	(2.6, 3.6)
Not at all	6.1	(5.5, 6.7)	3.7	(3.2, 4.2)
Total	**100.0**		**100.0**	

Table 12 **Importance of qualification for current employment by broad field of education, 2017***

	Graduates		Supervisors	
	%	**CI**	**%**	**CI**
Natural and Physical Sciences	85.4	(82.0, 88.8)	90.1	(87.2, 93.0)
Information Technology	84.5	(79.6, 89.4)	93.0	(89.5, 96.5)
Engineering and Related Technologies	89.3	(86.4, 92.2)	94.9	(92.9, 96.9)
Architecture and Building	82.6	(75.9, 89.3)	92.0	(87.2, 96.8)
Agriculture and Environmental Studies	82.1	(75.2, 89.0)	89.0	(83.3, 94.7)
Health	90.8	(89.2, 92.4)	94.0	(92.7, 95.3)
Education	92.7	(91.0, 94.4)	95.0	(93.6, 96.4)
Management and Commerce	89.6	(87.8, 91.4)	92.7	(91.1, 94.3)
Society and Culture	84.8	(82.7, 86.9)	93.1	(91.6, 94.6)
Creative Arts	83.9	(79.4, 88.4)	89.4	(85.5, 93.3)
Food, Hospitality and Personal Services	n/a	n/a	n/a	n/a
Total	**88.2**	**(87.4, 89.0)**	**93.2**	**(92.5, 93.9)**
Standard deviation (percentage points)	**3.6**		**2.1**	

*n/a indicates suppression due to the number of responses being less than 25.

Table 13 **Extent to which qualification prepared graduate well or very well for current employment, by occupation, 2017 (%)**

	Graduates		Supervisors	
	%	CI	%	CI
Managers	89.9	(87.4, 92.4)	94.4	(92.5, 96.3)
Professionals	92.1	(91.2, 93.0)	94.9	(94.2, 95.6)
Technicians and trades workers	81.3	(75.8, 86.8)	91.0	(86.9, 95.1)
Community and personal service workers	80.2	(76.7, 83.7)	88.0	(85.1, 90.9)
Clerical and administrative workers	82.8	(79.6, 86.0)	94.0	(92.0, 96.0)
Other workers	60.0	(54.0, 66.0)	76.1	(71.0, 81.2)
Total	**88.2**	**(87.4, 89.0)**	**93.2**	**(92.5, 93.9)**

Table 13 shows that supervisors of graduates working in professional occupations were most likely, at 95 per cent, to state that the qualification had prepared the graduate well or very well for current employment. The difference in ratings of preparedness by graduates and supervisors for graduates in management and professional occupations was quite low at around 3 to 4 percentage points, whereas differences for Technicians and Trades Workers at 10 percentage points, Clerical and administrative workers with 11 percentage points and 'Other' with 16 percentage points seems to indicate that those employed in "lower" level positions were less confident in how well their course had prepared them for work compared with their immediate supervisors.

Supervisors were also offered the opportunity to provide feedback on the main ways that the qualification had prepared the graduate for employment, as shown by Table 14, and there were around 5,700 comments in eight themes. Around half of the supervisors, 53 per cent, reported on the specific skills and knowledge that were relevant to the domain or area in which the graduate was currently working. A substantial number of comments were also made that expanded on the quantitative ratings of graduate attributes including Employability skills and Adaptive skills, 30 per cent, and Technical skills, 29 per cent. Positive feedback was also provided in relation to specific attributes of the higher education institution or the course, 11 per cent, Teamwork and interpersonal skills, 10 per cent and the Personal attributes of the graduate, 8 per cent.

There were fewer comments in relation to ways in which the qualification could have better prepared the graduate for employment suggesting the majority of supervisors felt that the graduate had been well prepared for the workplace, as shown by Table 15. These observations are consistent with the very positive supervisor ratings of graduate preparation.

The greatest number of comments were again made in relation to Domain specific skills and knowledge, 38 per cent. Supervisor feedback regarding how to better prepare graduates for employment also focused on Technical skills, 33 per cent, and Employability skills, 28 per cent with 23 per cent commenting on institutional and course attributes that could have better prepared the graduate for employment.

Table 14 **Main ways that the qualification prepared the graduate for employment, 2017***

	%	CI
Domain specific skills and knowledge	52.8	(51.3, 54.3)
Employability skills	30.4	(29.0, 31.8)
Adaptive skills	30.4	(29.0, 31.8)
Technical skills	28.9	(27.6, 30.2)
Foundation skills	22.0	(20.8, 23.2)
Institutional and course attributes	11.0	(10.1, 11.9)
Teamwork and interpersonal skills	9.5	(8.6, 10.4)
Personal attributes	7.5	(6.7, 8.3)

*Does not add to 100 per cent. Supervisors were able to provide more than one comment.

Table 15 **Main ways that the qualification could have better prepared the graduate for employment, 2017***

	%	CI
Domain specific skills and knowledge	37.6	(35.5, 39.7)
Employability skills	33.1	(31.1, 35.1)
Adaptive skills	27.8	(25.9, 29.7)
Technical skills	23.3	(21.5, 25.1)
Foundation skills	8.3	(7.1, 9.5)
Institutional and course attributes	5.6	(4.6, 6.6)
Teamwork and interpersonal skills	4.7	(3.8, 5.6)
Personal attributes	3.2	(2.5, 3.9)

*Does not add to 100 per cent. Supervisors were able to provide more than one comment.

3 Methodology

3.1 Institutions and responses

The 2017 ESS 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). The population frame for the ESS comprised 97,481 graduates, domestic and international, who responded in the 2017 GOS they were employed. Of these, 9.022 employed graduates provided sufficient contact details to approach supervisors, yielding a graduate referral rate of 9.3 per cent, which is an increase compared with 7.7 per cent in 2016. Once again, there appears to be a continuing reluctance among graduates to pass on their supervisor contact details. Establishment of the QILT brand allied with efforts to promote the QILT surveys and especially the ESS among companies that are known employers of graduates may help to lift the supervisor referral rate over time. A total of 4,348 valid survey responses from direct supervisors were collected across 82 institutions and all study levels, representing a supervisor response rate of 48.2 per cent which is an increase from 44.5 per cent in 2016. Further information on survey methodology and institutional responses is included in Appendices 1 and 3.

3.2 Response bias

The tables that follow compare the course, demographic and labour market characteristics of employed graduate respondents to the GOS, with the characteristics of graduates whose supervisors responded to the ESS to detect possible bias in the ESS. That is, these tables identify the extent to which the ESS departs from being a representative survey of employers of recent graduates. Employed graduate respondents to the GOS were asked to provide contact details of their supervisors and as such represent the population frame for the ESS.

Comparison of employed graduates with supervisor responses by field of education shows that Engineering and Education graduates are overrepresented in the survey while Society and Culture, Management and Commerce and Creative Arts are underrepresented in the ESS, as shown by Table 16.

From Figure 3, supervisors of Engineering and Education graduates reported higher overall satisfaction while supervisors of Society and Culture, Management and Commerce and Creative Arts graduates reported lower overall satisfaction. Therefore, the bias in supervisor responses by field of education, all other things equal, raises reported overall satisfaction.

Table 16 **Respondents by broad field of education***

	Employed graduates			Supervisors		
	n	%	CI	n	%	CI
Natural and Physical Sciences	7,175	7.4	(7.3, 7.5)	308	7.1	(6.5, 7.7)
Information Technology	3,806	3.9	(3.8, 4.0)	155	3.6	(3.1, 4.1)
Engineering and Related Technologies	5,895	6.0	(5.9, 6.1)	322	7.4	(6.7, 8.1)
Architecture and Building	2,137	2.2	(2.1, 2.3)	94	2.2	(1.8, 2.6)
Agriculture and Environmental Studies	1,572	1.6	(1.5, 1.7)	88	2.0	(1.7, 2.3)
Health	20,028	20.5	(20.3, 20.7)	918	21.1	(20.1, 22.1)
Education	11,146	11.4	(11.2, 11.6)	659	15.2	(14.3, 16.1)
Management and Commerce	19,302	19.8	(19.6, 20.0)	773	17.8	(16.8, 18.8)
Society and Culture	20,757	21.3	(21.1, 21.5)	839	19.3	(18.3, 20.3)
Creative Arts	5,647	5.8	(5.7, 5.9)	187	4.3	(3.8, 4.8)
Total	**97,481**	**100**		**4,348**	**100**	

Total includes a small number of responses in Food, Hospitality and Personal Services. Note that total figures by broad field of education shown elsewhere in this report include Food, Hospitality and Personal Services.

Table 17 suggests there is a slight overrepresentation of non-university responses to the survey. While employers of NUHEIs graduates report lower satisfaction, since they represent a small fraction of responses, this is expected to lead to only a small downward bias in reported overall satisfaction.

There is a disproportionately higher level of response from supervisors of external graduates in the ESS by 7.6 percentage points respectively and supervisors of postgraduate coursework graduates while undergraduates are underrepresented.

Figure 4 shows that supervisors of external graduates report lower overall satisfaction so that overrepresentation of the supervisors of external graduates would lead to a downward bias in reported overall satisfaction in the 2017 ESS. There was little significant difference in reported overall satisfaction by course level. Therefore, the overrepresentation of supervisors of postgraduate coursework graduates is unlikely to materially impact on reported overall satisfaction levels in the ESS.

Table 17 **Respondents by type of institution and course characteristics, 2017**

		Employed graduates			Supervisors		
		n	%	CI	n	%	CI
Type of institution	University	92,811	95.2	(95.1, 95.3)	4,094	94.2	(93.6, 94.8)
	Non-university	4,670	4.8	(4.7, 4.9)	254	5.8	(5.2, 6.4)
Mode	Internal	79,485	81.7	(81.5, 81.9)	3,217	74.1	(73.0, 75.2)
	External	17,850	18.3	(18.1, 18.5)	1,127	25.9	(24.8, 27.0)
Course level	Undergraduate	54,714	56.1	(55.8, 56.4)	2,173	50.0	(48.8, 51.2)
	Postgraduate coursework	37,875	38.9	(38.6, 39.2)	1,821	41.9	(40.7, 43.1)
	Postgraduate research	4,892	5.0	(4.9, 5.1)	354	8.1	(7.4, 8.8)

Table 18 compares the demographic characteristics of employed graduate respondents to the GOS with the demographic characteristics of graduates whose supervisors actually responded to the ESS. Supervisors of male graduates are overrepresented in the ESS by 3.1 percentage points and they reported lower overall satisfaction, as shown by Figure 5. However, differences in employer satisfaction with male and female graduates are not significant so the overrepresentation of employers of male graduates is unlikely to materially impact on reported overall satisfaction.

Supervisors of graduates aged 30 years and over are overrepresented in the ESS. This is consistent with the overrepresentation of supervisors of postgraduate coursework graduates as shown in Table 17. Employers of older graduates reported lower overall satisfaction so the overrepresentation of older graduates is likely to lead to a downward bias in reported overall satisfaction. Note that supervisors of older graduates also reported lower satisfaction for foundation, collaborative, technical and employability skills. Therefore, this would lead to a downward bias in reported satisfaction for these graduate attributes in the ESS.

Table 18 **Respondents by demographic characteristics, 2017**

		Employed graduates			Supervisors		
		n	%	CI	n	%	CI
Gender	Male	37,940	39.0	(38.7, 39.3)	1,830	42.1	(40.9, 43.3)
	Female	59,386	61.0	(60.7, 61.3)	2,514	57.9	(56.7, 59.1)
Age	30 years or under	67,810	69.6	(69.4, 69.8)	2,426	55.8	(54.6, 57.0)
	Over 30 years	29,671	30.4	(30.2, 30.6)	1,922	44.2	(43.0, 45.4)
Indigenous	Indigenous	839	0.9	(0.9, 0.9)	54	1.2	(0.9, 1.5)
	Not Indigenous	96,496	99.1	(99.1, 99.1)	4,290	98.8	(98.5, 99.1)
Home language	English	84,589	86.8	(86.6, 87.0)	3,882	89.3	(88.5, 90.1)
	Language other than English	12,892	13.2	(13.0, 13.4)	466	10.7	(9.9, 11.5)
Disability	Reported disability	4,028	4.1	(4.0, 4.2)	244	5.6	(5.0, 6.2)
	No disability	93,311	95.9	(95.8, 96.0)	4,100	94.4	(93.8, 95.0)

Supervisors of graduates working in professional occupations are overrepresented in the ESS. From Figure 6 earlier, supervisors of graduates working in professional occupations reported higher overall satisfaction. All other things equal, this would lead to an upward bias in the reported overall satisfaction in the 2017 ESS.

Supervisors of graduates employed full-time are overrepresented in the ESS by 5.8 percentage points. From Figure 7 earlier, there was little significant difference in reported overall satisfaction among supervisors of graduates who worked either full-time or part-time. Supervisors of graduates who have worked in their current job for between three months and one year are over-represented in the 2017 ESS by around 2.4 percentage points.

However, satisfaction with this group was not significantly different than for those who had been employed for under three months and so their slight overrepresentation is unlikely to materially impact on reported overall satisfaction levels.

In summary, overrepresentation of supervisors of Engineering and Education graduates and graduates working in professional occupations is likely to lead to an upward bias in reported overall satisfaction. Conversely, overrepresentation of supervisors of external and older graduates is likely to lead to a downward bias in reported overall satisfaction.

Table 19 **Respondents by labour market characteristics, 2017**

		Employed graduates			Supervisors		
		n	**%**	**CI**	**n**	**%**	**CI**
Occupation	Managers	8,707	9.1	(8.9, 9.3)	446	10.3	(9.5, 11.1)
	Professionals	56,331	59.0	(58.7, 59.3)	2,717	62.6	(61.4, 63.8)
	Technicians and trades workers	2,904	3.0	(2.9, 3.1)	148	3.4	(2.9, 3.9)
	Community and personal service workers	8,909	9.3	(9.1, 9.5)	378	8.7	(8.0, 9.4)
	Clerical and administrative workers	8,313	8.7	(8.5, 8.9)	427	9.8	(9.1, 10.5)
	Other workers	10,342	10.8	(10.6, 11.0)	221	5.1	(4.6, 5.6)
	Total	**95,506**	**100.0**		**4,337**	**100.0**	
Employment status	Employed full-time	65,866	67.6	(67.4, 67.8)	3,190	73.4	(72.3, 74.5)
	Employed part-time	31,615	32.4	(32.2, 32.6)	1,158	26.6	(25.5, 27.7)
	Total	**97,481**	**100.0**		**4,348**	**100.0**	
Duration of job with current employer*	Less than 3 months	11,764	12.8	(12.6, 13.0)	436	10.0	(9.3, 10.7)
	3 months to < 1 year	36,437	39.6	(39.3, 39.9)	1,821	42.0	(40.8, 43.2)
	1 year or more	43,805	47.6	(47.3, 47.9)	2,082	48.0	(46.8, 49.2)
	Total	**92,006**	**100**		**4,339**	**100**	

*Graduates refers to duration of job with current employer while data for supervisors refers to duration of job with current supervisor.

3.3 Graduate Attributes Scale – Employer (GAS-E)

The Graduate Attributes Scale – Employer (GAS-E) was developed as part of the original 2013–14 Trial of the Employer Satisfaction Survey. The project team synthesised a number of frameworks relevant to the skills of university graduates and identified a number of general attributes. The GAS-E has been designed to assess common rather than specific graduate attributes, within a limited workplace context. The items were further tested and refined during a 2015 trial of the instrument. The five graduate attribute domains identified, as noted earlier, include:

- foundation skills
- adaptive skills
- collaborative skills
- technical skills
- employability skills.

The GAS-E forms the core of the Employer Satisfaction Survey.

Graduates responding to the GOS were asked to assess their Foundation, Adaptive and Collaborative skills. This enables assessment of the likely impact of the low graduate referral rate, one of the major continuing methodological challenges facing the current ESS, by comparing graduate self-assessment of attributes among graduates that did or did not provide supervisor contact details.

Table 20 shows that graduates who provided contact details for their supervisor rated their Foundation, Adaptive and Collaborative skills more highly than graduates who elected not to offer contact information. Even though the ratings for these groups of skills is high for both groups, it would appear that graduates who were more positive about the skills they had acquired would be more comfortable having their supervisor participate in the ESS. This could be expected to lead to upward bias in reported levels of employer satisfaction in the 2017 ESS.

For purposes of comparison, supervisor assessment of these graduate attributes is repeated in the final column. While noting the potential for upward bias in reported employer satisfaction, it is worth repeating the overall high rating of graduate attributes by both categories of graduates that did or did not provide supervisor contact details and also by supervisors. While graduates not providing supervisor contact details provided lower ratings of graduate attributes, Table 20 demonstrates this was not of a substantially lower order of magnitude. Notwithstanding potential upward bias in reported employer satisfaction, results in the 2017 ESS continues to provide evidence of the likely high quality of graduates from the Australian higher education system.

Table 20 **Graduate attributes of graduates who did and did not provide contact details**

	Graduates not providing supervisor details		Graduates providing supervisor details		Supervisors	
	%	CI	%	CI	%	CI
Foundation skills	82.0	(81.8, 82.2)	88.2	(87.6, 88.8)	93.4	(92.8, 94.0)
Adaptive skills	81.0	(80.8, 81.2)	87.2	(86.6, 87.8)	90.1	(89.3, 90.9)
Collaborative skills	73.9	(73.6, 74.2)	77.6	(76.9, 78.3)	85.9	(85.0, 86.8)

Appendices

Appendix 1 2017 ESS methodological summary

The collection periods were November 2016 to February 2017 and May to July 2017, with a minor collection taking place in February 2017 to April 2017 to accommodate institutions running a trimester academic calendar. For reporting purposes, the November and February collection period outcomes are combined.

Computer Assisted Telephone Interviewing (CATI) was the primary mode of collection for the ESS, with online collection a secondary mode. The 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.

Table 21 **ESS project overview 2017**

Project element	Total	November 2015[1]	May 2016	Total	November 2016[2]	May 2017
Number of supervisors approached[3]	6,882	2,089	4,793	9,022	3,311	5,711
Number of completed surveys	3,061	840	2,221	4,348	1,689	2,659
Supervisor response rate	44.5%	40.2%	46.3%	48.2%	51.0%	46.6%
Data collection period	2015–2016	November 2015 – February 2016[4]	May – July 2016	2015–2016	November 2015 – February 2016[5]	May – July 2016
Data collection mode	Online and CATI			Online and CATI		
Analytic unit	Supervisor			Supervisor		

1 Includes February supplementary round outcomes.
2 Includes February supplementary round outcomes
3 Excludes opt outs, disqualified and out of scope surveys
4 February data collection took place from February to April 2016
5 February data collection took place from February to April 2016

Sample collection

The collection of supervisor details occurred each round at the end of the Graduate Outcomes Survey. All graduates in employment (but not self-employed or working in a family business) were asked to provide details (name, email and/or phone number) of their current supervisor so they could be invited to take part in the ESS.

During the May 2017 ESS collection, three variations of collecting supervisor details were trialled. The first version of the ESS sample build involved seeking permission in the GOS to call the graduate to collect supervisor details over the phone. Also, a parallel version of the method to recruit supervisor details over the phone was conducted online. The third method was the original recruitment sequence which was retained to compare results. Graduates in the GOS who were working, were randomly allocated to one of the three variations. Outcomes of the recruitment methods are detailed in the 2017 ESS Methodological Report.

Survey programming

The ESS instrument was programmed into SPSS Dimensions in order to improve the ease of data capture, as well as facilitate the seamlessness between online and CATI.

The CATI ESS was administered in an identical format to the online ESS. Interviewers had an interfacing script at the front and back ends of the survey which allowed categorising of call outcomes. Once agreement to complete the survey was established, the interviewers initiated the online survey. The non-mandatory nature of the ESQ items allowed for responses to items to be skipped if requested by the supervisor.

Call procedures

Call procedures for telephone non-response follow-up for the 2017 ESS featured:

- call attempts placed over different days of the working week and times of day;
- placing a second call attempt to 'fax / modem' and 'number disconnected' outcomes (given that there are occasionally issues with internet connections and problems at the exchange);
- use of the alternative contact number(s), where provided;
- providing an automatic email containing a direct link if respondents preferred to complete online rather than complete a telephone interview; and
- interviewer team briefing and quality control.

All interviewers selected to work on the ESS attended a comprehensive briefing session, delivered by the Social Research Centre project management team. Briefings were conducted on 2 November 2016, 27 March 2017 and 23 and 30 May 2017.

The briefing covered the following aspects:

- survey context and background;
- survey procedures (sample management protocols, response rate maximisation procedures);
- privacy and confidentiality issues;
- a detailed examination of the survey questionnaire, with a focus on ensuring the uniform interpretation of questions and response frames, and addressing item-specific data quality issues;
- targeted refusal aversion techniques;
- strategies to maintain co-operation (i.e., minimise mid-survey terminations);
- approaches to get past 'gatekeepers' (i.e. receptionist);

- comprehensive practice interviewing and role play; and
- a review of key data quality issues.

Validations were undertaken by remote monitoring, in accordance with ISO 20252 procedures.

1800 and email helpdesk

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

The ESS helpdesk team was briefed on the ESS 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 regular 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 ESS team were responsible for monitoring the ESS inbox and responded as appropriate to queries.

Invitation and follow-up activity

There were two workflows for the ESS, depending on the contact information provided. If a valid email address was supplied, the supervisor would receive an email invitation to the survey on the following working day. If the contact details contained a valid phone number only, the Social Research Centre would call the supervisor in attempt to complete a CATI survey.

The email workflow included an invitation followed up by a reminder 4 working days later.

Table 22 **Email and reminder schedule**

Email invitation sent	Email reminder sent
Monday	Friday the same week
Tuesday	Following Monday
Wednesday	Following Tuesday
Thursday	Following Wednesday
Friday	Following Thursday

In the November and February collection periods supervisors entered the CATI workflow 5 days after the reminder email if they had not completed the survey. During the May collection period supervisors were entered into CATI 2 working days after non-response to the reminder email.

Response rates

The 2017 ESS was conducted as a national online or CATI survey. A total of 4,348 valid surveys were collected, representing a supervisor response rate of 48.2 per cent overall. Of the valid surveys, 2,081 were completed online and 2,267 were completed over the phone.

Appendix 2
Summary of 2017 ESQ items

Variable	Item name	Item label	Base – detail	Values
Module	**Module A: Screening and confirmation**			
		First we have a few questions about your role and <**E403**>'s role, so we can understand your relationship to <**E403**>.		
QS1	SUPERVISOR RELATIONSHIP	Just to check, do you currently supervise <**E403**>?	*(ALL)	1. Yes 2. No, but I used to be their supervisor 3. No, I have never been their supervisor (GO TO TERM)
QS2	SUPERVISOR RELATIONSHIP DURATION	And, how long have you been <**E403**>'s supervisor?	*(CURRENT OR PREVIOUS SUPERVISOR)	1. Less than 1 month 2. At least 1 month but less than 3 months 3. At least 3 months but less than 1 year 4. 1 year or more
QS5	GRADUATE'S OCCUPATION	How would you describe <**E403**>'s occupation?	*(ALL)	1. Managers and administrators hospitality, retail and service managers, specialist managers, farmers and farm managers, chief executives, general managers and legislators 2. Professionals & associate professionals legal, social and welfare professionals, ICT professionals, health professionals, education professionals, design, engineering, science and transport professionals, business, human resource and marketing professionals, arts and media professionals 3. Technicians and trade workers other technicians and trades workers, skilled animal and horticultural workers, food trades workers, electro-technology and telecommunications trades workers, construction trades workers, automotive and engineering trades workers, engineering, ICT and science technicians 4. Clerical and administrative workers other clerical and administrative workers, clerical and office support workers, numerical clerks, inquiry clerks and receptionists, general clerical workers, personal assistants and secretaries, office managers and program administrators

Variable	Item name	Item label	Base – detail	Values
Module	**Module A: Screening and confirmation**			
QS5	GRADUATE'S OCCUPATION	How would you describe <**E403**>'s occupation?	*(ALL)	5. Community and personal service workers Sports and personal service workers, protective service workers, hospitality workers, carers and aides, health and welfare support workers 6. Sales workers Sales support workers, sales assistants and salespersons, sales representatives and agents 7. Machinery operators and drivers Store person, road and rail drivers, mobile plant operators, machine and stationary plant operators 8. Labourers and related workers Food preparation assistants, farm, forestry and garden workers, Factory process workers, construction and mining labourers, cleaners and laundry workers 9. Other (describe) (TEXT BOX)
QS3	AWARENESS OF INSTITUTION	Before today, were you aware that <**E403**> completed a qualification from <**E306C**>?	*(ALL)	1. Yes 2. No
QS4	AWARENESS OF INSTITUTION	And, before today, were you aware that the qualification <**E403**> completed was a <**qualfinal**>?	*(ALL)	1. Yes 2. No
QS6	GRADUATE TASKS	What are the main tasks that they usually perform in their job?	*(ALL)	(VERBATIM RESPONSE TEXT BOX)
QS7	EMPLOYER OCCUPATION	How would you describe your **main PAID** occupation? Please roll your cursor over each option to see a full description.	*(ALL)	1. Managers and administrators Hospitality, retail and service managers, specialist managers, farmers and farm managers, chief executives, general managers and legislators 2. Professionals & associate professionals Legal, social and welfare professionals, ICT professionals, health professionals, education professionals, design, engineering, science and transport professionals, business, human resource and marketing professionals, arts and media professionals 3. Technicians and trade workers Other technicians and trades workers, skilled animal and horticultural workers, food trades workers, electro-technology and telecommunications trades workers, construction trades workers, automotive and engineering trades workers, engineering, ict and science technicians

Variable	Item name	Item label	Base – detail	Values
Module	**Module A: Screening and confirmation**			
QS7	EMPLOYER OCCUPATION	How would you describe your **main PAID** occupation? Please roll your cursor over each option to see a full description.	*(ALL)	4. Clerical and administrative workers Other clerical and administrative workers, clerical and office support workers, numerical clerks, inquiry clerks and receptionists, general clerical workers, personal assistants and secretaries, office managers and program administrators 5. Community and personal service workers Sports and personal service workers, protective service workers, hospitality workers, carers and aides, health and welfare support workers 6. Sales workers Sales support workers, sales assistants and salespersons, sales representatives and agents 7. Machinery operators and drivers Store person, road and rail drivers, mobile plant operators, machine and stationary plant operators 8. Labourers and related workers food preparation assistants, farm, forestry and garden workers, factory process workers, construction and mining labourers, cleaners and laundry workers 9. Other (describe) (TEXT BOX)
QS8	EMPLOYER DUTIES	What are the main tasks that you usually perform in this job?	*(ALL)	(VERBATIM RESPONSE TEXT BOX)
Module	**Module B: Overall graduate preparation**			
Text	The next set of questions asks about the skills and attributes you think are important for recent graduates to have when coming into your organisation. Please answer them in relation to the job currently performed by <**E403**>			
QOP1	FORMAL REQUIREMENT	Is a <**qualfinal**> or similar qualification a formal requirement for <**E403**> to do their job?	*(ALL)	1. Yes 2. No
QOP2	IMPORTANCE OF QUALIFICATION	To what extent is it important for <**E403**> to have a <**qualfinal**> or similar qualification to being able to do the job well? Is it…		1. Not at all important 2. Not that important 3. Fairly important 4. Important 5. Very important

Variable	Item name	Item label	Base – detail	Values
Module	**Module B: Overall graduate preparation**			
QOP3	OVERALL PREPARATION	Overall, how well did <**E403**>'s <**qualfinal**> prepare <**him/her**> for their job?	*(ALL)	1. Not at all prepared 2. Not well prepared 3. Well prepared 4. Very well prepared 5. Don't know unsure
QOP4	OPEN (POSITIVE)	What are the MAIN ways that <**E306C**> prepared <**E403**> for employment?	*(ALL)	1. Don't know/unsure (VERBATIM RESPONSE TEXT BOX)
QOP5	OPEN (IMPROVE)	And what are the **MAIN** ways that <**E306C**> could have better prepared <**E403**> for employment?	*(ALL)	1. Don't know/unsure (VERBATIM RESPONSE TEXT BOX)
QS11	OVERALL RATING	Based on your experience with <**E403**>, how likely are you to consider hiring another <**qualfinal**> graduate from <**E30 6C**>, if you had a relevant vacancy? Would you say	*(ALL)	1. Very unlikely to consider 2. Unlikely to consider 3. Neither unlikely nor likely to consider 4. Likely to consider 5. Very likely to consider 6. Don't know/unsure
Module	**Module C: Graduate attributes scale**			
Text	The following questions ask about specific skills and attributes that may be important for employees to have in your organisation.			
GAS Stem		For each skill or attribute, to what extent do you agree or disagree that <**E403**>'s <**qualfinal**> from <**E306C**> prepared them for their job? :If the skill is not required by <**E403**> in their role, you can answer 'Not applicable'.	*(ALL)	
GAS	ADAPTIVE SKILLS AND ATTRIBUTES	9. Broad background knowledge 10. Ability to develop innovative ideas 11. Ability to identify new opportunities 12. Ability to adapt knowledge to different contexts 13. Ability to apply skills in different contexts 14. Capacity to work independently	*(ALL)	1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree 9. Not applicable

Variable	Item name	Item label	Base – detail	Values
Module	**Module C: Graduate attributes scale**			
GAS	FOUNDATION SKILLS	1. Oral communication skills 2. Written communication skills 3. Numeracy skills 4. Ability to develop relevant knowledge 5. Ability to develop relevant skills 6. Ability to solve problems 7. Ability to integrate knowledge 8. Ability to think independently about problems	*(ALL)	1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree 9. Not applicable
GAS	TEAMWORK SKILLS	15. Working well in a team 16. Getting on well with others in the workplace 17. Working collaboratively with colleagues to complete tasks 18. Understanding different points of view 19. Ability to interact with co-workers from different or multi-cultural backgrounds	*(ALL)	1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree 9. Not applicable
GAS	TECHNICAL SKILLS	20. Applying professional knowledge to job tasks 21. Using technology effectively 22. Applying technical skills in the workplace 23. Maintaining professional standards 24. Observing ethical standards 25. Using research skills to gather evidence	*(ALL)	1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree 9. Not applicable
GAS	EMPLOYABILITY SKILLS	26. Ability to work under pressure 27. Capacity to be flexible in the workplace 28. Ability to meet deadlines 29. Understanding the nature of your business or organisation 30. Demonstrating leadership skills 31. Demonstrating management skills 32. Taking responsibility for personal professional development 33. Demonstrating initiative in the workplace	*(ALL)	1. Strongly disagree 2. Disagree 3. Neither disagree nor agree 4. Agree 5. Strongly agree 9. Not applicable

Variable	Item name	Item label	Base – detail	Values
Module	**Module D: Emerging policy issues**			
Module	**Module E: Discipline specific issues**			
Module	**Module F: Close**			
Text		Thank you for your assistance with this survey. We would like to provide some feedback to participants about the outcomes of the study. We anticipate finishing the study in early 2015		
C1	RESULTS FEEDBACK	Would you like to receive a one page summary of the outcomes of the study?	*(ALL)	1. Yes 2. No
C2	SUPERVISOR EMAIL (CONFIRM)	Can we confirm that <**supemail**> is the best email address to contact you on?	*(WOULD LIKE SUMMARY)	1. Yes 2. No (ALLOW EMAIL ENTRY)
C3	SURVEY FEEDBACK	Would you like to be notified when the national data is released on the Quality Indicators for Learning and Teaching (QILT) website?	*(ALL)	1. Yes 2. No
C4	ACKNOWLEDGEMENT	Would you like your organisation to be acknowledged on the QILT website for supporting this important research? If you are unsure please select yes, as you will be able to opt out of this during our follow up with you.	*(ALL)	1. Yes 2. No
C5	FOLLOW UP	We will be in touch separately with information about how your organisation will be acknowledged on the QILT website using your confirmed email address. If you would prefer we use another email address please enter this below.	*(ALL)	1. Yes 2. No (ALLOW EMAIL ENTRY)
Text	END	Thank you for your time today and support in ensuring that graduates complete their qualifications well equipped to meet the needs of organisations like yours.		
	(TERMINATED – NOT SUPERVISOR OF GRADUATE)	Thank you for your willingness to complete the Employer Satisfaction Survey (ESS). You have indicated that you are not the supervisor of <**E403**>. If you incorrectly selected this option or your workplace still wishes to take part with another supervisory person please call The Social Research Centre's helpdesk on 1800 023 040. You can also email us at ess@srcentre.com.au.	*IF (QS1=3)	

Appendix 3 Institutional participation

The tables below show institutions that participated in the Graduate Outcomes Survey with one or more responses in the Employer Satisfaction Survey.

Table A3a **University participation**

Institution	2016	2017	Total
Australian Catholic University	73	112	185
Bond University	19	16	35
Central Queensland University	76	115	191
Charles Darwin University	39	40	79
Charles Sturt University	89	179	268
Curtin University of Technology	128	191	319
Deakin University	190	234	424
Edith Cowan University	72	101	173
Federation University Australia	11	61	72
Flinders University	47	122	169
Griffith University	115	180	295
James Cook University	59	53	112
La Trobe University	72	105	177
Macquarie University	59	90	149
Monash University	175	192	367
Murdoch University	36	47	83
Queensland University of Technology	158	102	260
RMIT University	72	106	178
Southern Cross University	28	49	77
Swinburne University of Technology	56	81	137
The Australian National University	48	50	98

Institution	2016	2017	Total
The University of Adelaide	36	86	122
The University of Melbourne	163	208	371
The University of Notre Dame Australia	30	40	70
The University of Queensland	173	233	406
The University of Sydney	175	87	262
The University of Western Australia	48	93	141
Torrens University Australia	0	5	5
University of Canberra	35	61	96
University of Divinity	7	10	17
University of New England	53	108	161
University of New South Wales	87	155	242
University of Newcastle	91	123	214
University of South Australia	82	99	181
University of Southern Queensland	60	93	153
University of Tasmania	76	123	199
University of Technology, Sydney	42	95	137
University of the Sunshine Coast	34	55	89
University of Wollongong	73	66	139
Victoria University	31	60	91
Western Sydney University	41	68	109

Table A3b **NUHEI participation**

Institution	2016	2017	Total
Adelaide College of Divinity	1	0	1
Alphacrucis College	1	0	1
Australian Academy of Music and Performing Arts	0	1	1
Australian College of Applied Psychology	9	19	28
Australian College of Theology	15	24	39
Australian Institute of Business	8	23	31
Australian Institute of Management Education and Training	0	2	2
Australian Institute of Music	0	3	3
Australian Institute of Professional Counsellors	0	1	1
Australian School of Management	0	1	1
Avondale College of Higher Education	8	16	24
Blue Mountains International Hotel Management School	3	0	3
Box Hill Institute	1	1	2
Christian Heritage College	3	5	8
College of the Arts	0	2	2
Eastern College Australia	4	5	9
Endeavour College	3	4	7
Excelsia College	2	3	5
Holmes Institute	1	2	3
Holmesglen Institute	2	3	5
Insearch	0	1	1
International College of Management, Sydney	0	5	5
Jazz Music Institute	0	1	1

Institution	2016	2017	Total
Kaplan Business School	7	15	22
Kaplan Higher Education Pty Ltd	2	20	22
Le Cordon Bleu Australia	0	2	2
Macleay College	1	3	4
Melbourne Institute of Technology	2	2	4
Melbourne Polytechnic	4	4	8
MIECAT	1	3	4
Morling College	1	2	3
Nan Tien Institute	0	1	1
National Art School	3	2	5
Perth Bible College	0	2	2
Photography Studies College (Melbourne)	1	1	2
Raffles College of Design and Commerce	0	1	1
SAE Institute and Qantm College	4	5	9
Sydney College of Divinity	0	10	10
Tabor College of Higher Education	3	5	8
TAFE NSW	5	11	16
TAFE Queensland	0	1	1
TAFE SA	2	0	2
The College of Law	1	30	31
Whitehouse Institute	0	3	3
William Angliss Institute	2	9	11

Appendix 4 Production of scores

A series of steps are taken to produce the graduate attributes scale results used in this report. A selection of the SPSS syntax used to produce these scores is presented below.

Scores for each EGAS scale are computed as the mean of the constituent item scores. A focus area score is only computed for respondents who have a valid item score for a minimum number of items in each scale.

The SPSS syntax used to generate EGAS average scores is shown in Figure 9. The recoded item scores are not retained in the analysis file.

Because the reporting metric for the 2017 ESS EGAS is 'percentage satisfied', these variables must be created for each EGAS scale. 'Percentage satisfied' results reflect the percentage of students who achieve a threshold EGAS scale score of 3.5 or greater. The SPSS syntax used to generate these variables is presented in Figure 9.

At the item level, satisfaction reflects a response in the top two categories on a five-point response scale. The SPSS syntax used to generate EGAS average scores is shown in Figure 11.

Variable	Label	Number of items required
EGFOUND	GAS-E(F) Foundational skills scale score	6 items
EGADAPT	GAS-E(A) Adaptive Scale Score	4 items
EGCOLLB	GAS-E(C) Collaboration Scale Score	3 items
EGTECH	GAS-E(T) Technical Scale Score	4 items
EGEMPLY	GAS-E(E) Employability Scale Score	6 items
EHIRE	Likelihood of hiring another graduate with the same qualification from the same institution	Single item

Figure 9 **SPSS syntax used to compute EGAS mean scores**

```
COMPUTE EGFOUNDr =MEAN.6(EGFOUND1, EGFOUND2, EGFOUND3, EGFOUND4, EGFOUND5, EGFOUND6, EGFOUND7, EGFOUND8).
COMPUTE EGADAPTr = MEAN.4(EGADAPT1, EGADAPT2, EGADAPT3, EGADAPT4, EGADAPT5, EGADAPT6).
COMPUTE EGCOLLBr = MEAN.3(EGCOLLB1, EGCOLLB2, EGCOLLB3, EGCOLLB4, EGCOLLB5).
COMPUTE EGTECHr = MEAN.4(EGTECH1, EGTECH2, EGTECH3, EGTECH4, EGTECH5, EGTECH6).
COMPUTE EGEMPLYr = MEAN.6(EGEMPLY1, EGEMPLY2, EGEMPLY3, EGEMPLY4, EGEMPLY5, EGEMPLY6, EGEMPLY7, EGEMPLY8).
```

Figure 10 **SPSS syntax used to compute EGAS scale scores**

```
IF (EGFOUNDr GE 3.5) EGFOUND=100.
IF (EGFOUNDr LT 3.5) EGFOUND=0.
IF (EGADAPTr GE 3.5) EGADAPT=100.
IF (EGADAPTr LT 3.5) EGADAPT=0.
IF (EGCOLLBr GE 3.5) EGCOLLB=100.
IF (EGCOLLBr LT 3.5) EGCOLLB=0.
IF (EGTECHr GE 3.5) EGTECH=100.
IF (EGTECHr LT 3.5) EGTECH=0.
IF (EGEMPLYr GE 3.5) EGEMPLY=100.
IF (EGEMPLYr LT 3.5) EGEMPLY=0.
```

Figure 11 **SPSS syntax used to compute item satisfaction variables**

```
RECODE EHIRE (1=0) (2=0) (3=0) (4=100) (5=100) (ELSE=SYSMIS) INTO EHIRES.
```