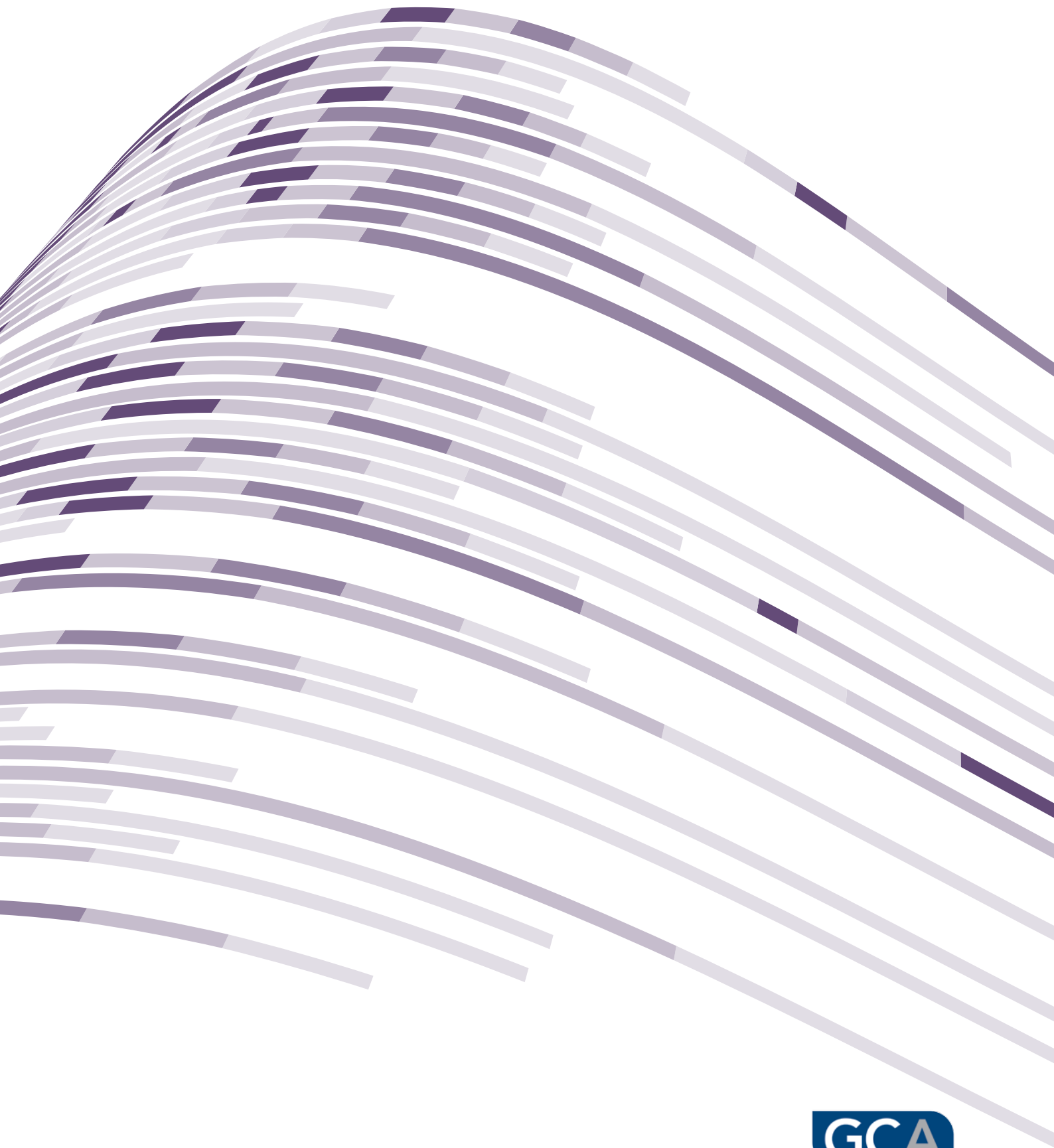


POSTGRADUATE RESEARCH EXPERIENCE 2015

A report on the perceptions of recent
higher degree research graduates



Postgraduate Research Experience 2015

A REPORT ON THE PERCEPTIONS OF RECENT
HIGHER DEGREE RESEARCH GRADUATES





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1.0

INTRODUCTION

“In the PREQ ... respondents are asked to rate the extent to which they agree or disagree with 28 Likert-type items ...”

Welcome to *Postgraduate Research Experience 2015*, the 16th and, with the conclusion of the Australian Graduate Survey (AGS) project, final edition of the annual report into the research experience perceptions of doctoral and masters graduates who completed a research degree from an Australian higher education institution and subsequently provided a response to the Postgraduate Research Experience Questionnaire (PREQ) component of the AGS. This report is based on the responses of graduates who completed their degree requirements in 2014 and provided a valid response to the 2015 PREQ. In the PREQ, which is administered approximately four months after course

completion, respondents are asked to rate the extent to which they agree or disagree with 28 Likert-type items constituting six summated rating scales and a single-item overall satisfaction indicator. The qualities of the postgraduate research experience measured by the PREQ are summarised in Table 1.

Like the other reports of the 2015 AGS, only essential content has been included in order to provide a more accessible report that can be comprehended at a glance. A range of supplementary tables and figures that present PREQ results in much more detail are available for download from [here](#). These are denoted by letters instead of numbers throughout this report.

Table 1: Qualities of the postgraduate research experience measured by PREQ

Title	Focus	Items
Supervision	the accessibility and quality research degree supervision	6
Intellectual Climate	the learning community and conditions provided by the institution	5
Skill Development	the extent of generic analytical and communication skill development	5
Infrastructure	the quality of learning infrastructures such as space, equipment and finance	5
Thesis Examination	whether the examination process was timely, fair and satisfactory	3
Goals and Expectations	the clarity of learning structures, requirements and standards	3
Overall Satisfaction	overall satisfaction with the recently completed degree	1

2.0

INTERPRETING PREQ RESULTS

By convention, PREQ item and scale statistics are reported using a -100, -50, 0, 50 and 100 reporting metric that corresponds to the five-point response format. The PREQ response format also includes a *does not apply* category, which graduates can mark if they feel that a particular item is not relevant to their postgraduate research experience. Responses in this category are excluded from the calculation of item and scale statistics. In addition, mean percentage agreement and mean percentage broad agreement scores are presented throughout this report. Mean percentage agreement scores reflect the distribution of responses in the *agree* and *strongly agree* response categories and can therefore be interpreted as the proportion of responses that fall within these categories. Mean percentage broad agreement scores reflect the mean distribution of responses in the *neither agree nor disagree*, *agree* and *strongly agree* response categories and may be interpreted accordingly.

While the PREQ is conducted as part of a national graduate census, the extent of non-response to the survey means that it is reasonable to consider the secured responses to be a sample of the overall higher degree research graduate population. As has been recommended in previous editions of this report, differences in PREQ scores of five points or more may be considered to be of practical interest because they represent a difference of at least a fifth of a standard deviation. It is important to bear this in mind when interpreting the results presented in this report and in the supplementary tables and figures.

As the PREQ is a complex instrument with a long history¹, a detailed discussion of its properties is beyond the scope of this summary report. Readers are directed to pre-2010 editions of *Postgraduate Research Experience*, which contain a detailed overview of the PREQ (e.g. GCA & ACER, 2010).

“... it is reasonable to consider the secured responses to be a sample of the overall higher degree research graduate population.”

¹ The PREQ was developed in 1999 by the then Graduate Careers Council of Australia.

3.0

PREQ RESPONDENT CHARACTERISTICS

“... 5,083 surveys were returned, representing a national PREQ response rate of 61.9 per cent.”

AGS questionnaires containing the PREQ were distributed to 8,216 higher degree research graduates and 5,083 surveys were returned, representing a national PREQ response rate of 61.9 per cent. This was down from 63.4 per cent in 2014, but remained soundly above the 50 per cent target response rate of the AGS. A total of 75 cases were excluded during data cleaning due to not having a valid major field of education, qualification level, or at least one valid scale score, yielding an analysis sample of 5,008 graduates.

A total of 41 higher education providers participated in the 2015 survey. Institutional PREQ response rates (presented in Table A) ranged from 30.4 per cent to 100.0 per cent, with a median institutional response rate of 64.7 per cent.

The distribution of PREQ respondents across key demographic and contextual groups is presented in Table 2, stratified by qualification level. These figures show that nearly three-quarters of respondents (74.3 per cent) graduated from four broad fields of education: society and culture (24.4 per cent), natural and physical sciences (22.5 per cent), health (13.9 per cent), and engineering and related technologies (13.5 per cent). Two-thirds of respondents (66.2 per cent) funded their research studies through an Australian Postgraduate Award (APA) or via the Research Training Scheme (RTS), while a further 29.5 per cent paid domestic or international fees. Just 4.3 per cent of respondents funded their studies through the HECS system. In all, 74.7 per cent of respondents studied full time, with full-time

attendance more common amongst research doctoral respondents (76.7 per cent). The majority of respondents studied internally (77.1 per cent), while similar proportions studied either externally or through mixed-mode study (12.7 per cent and 10.2 per cent, respectively). These response patterns are generally similar to those observed in previous recent surveys.

The demographic composition of the PREQ sample was also consistent with recent surveys. Females accounted for 51.4 per cent of respondents, and 68.2 per cent of respondents were aged 40 years or under. In total, 27.5 per cent of respondents had completed their studies as international students, and 38.4 per cent of all respondents reported being from a non-English speaking background. Only 2.5 per cent of respondents identified themselves as having a disability. A large majority of respondents had undertaken paid work in their final year of study (67.8 per cent); this was relatively more common amongst research masters respondents (74.5 per cent). Following course completion, 52.6 per cent and 25.9 per cent of respondents were employed full time and part time, respectively, whereas 21.5 per cent were not in paid work at the time of the survey. Research doctoral respondents were more likely than research masters respondents to be in full-time work, whereas the reverse was true for part-time work and no work. A detailed investigation into the labour market outcomes of recent higher degree research graduates is presented in the *Postgraduate Destinations 2015* report (GCA, 2016).

Table 2: 2015 PREQ respondent characteristics

		Research masters		Research doctorate		All research graduates	
		n	%	n	%	n	%
Broad Field of Education	Natural and Physical Sciences	95	14.5	1,034	23.7	1,129	22.5
	Information Technology	17	2.6	150	3.4	167	3.3
	Engineering and Related Technologies	85	13.0	592	13.6	677	13.5
	Architecture and Building	10	1.5	72	1.7	82	1.6
	Agriculture, Environmental and Related Studies	20	3.1	121	2.8	141	2.8
	Health	111	17.0	586	13.5	697	13.9
	Education	53	8.1	235	5.4	288	5.8
	Management and Commerce	34	5.2	276	6.3	310	6.2
	Society and Culture	124	19.0	1,100	25.3	1,224	24.4
	Creative Arts	104	15.9	188	4.3	292	5.8
Means of financing study	HECS paid upfront	3	0.5	18	0.4	21	0.4
	HECS deferred some or all	55	8.5	136	3.2	191	3.9
	International fee-paying student	110	17.1	1,011	23.6	1,121	22.7
	Australian fee-paying student	64	9.9	272	6.3	336	6.8
	APA or RTS research student	412	64.0	2,855	66.5	3,267	66.2
Main attendance type	Mainly full time	398	61.1	3,336	76.7	3,734	74.7
	Mainly part time	253	38.9	1,011	23.3	1,264	25.3
Main attendance mode	Internal (on-campus)	438	67.3	3,412	78.6	3,850	77.1
	External (distance)	117	18.0	515	11.9	632	12.7
	Mixed mode (internal and external)	96	14.7	413	9.5	509	10.2
Sex	Male	302	46.2	2,127	48.8	2,429	48.5
	Female	351	53.8	2,225	51.1	2,576	51.4
	Unknown	0	0.0	3	0.1	3	0.1
Graduate age	40 or under	436	66.8	2,977	68.4	3,413	68.2
	Over 40	217	33.2	1,375	31.6	1,592	31.8
Permanent resident of Australia	Yes	523	80.2	3,103	71.3	3,626	72.5
	No	129	19.8	1,249	28.7	1,378	27.5
Main language spoken at home	English	449	71.5	2,553	60.1	3,002	61.6
	Other	179	28.5	1,692	39.9	1,871	38.4
Disability identification	Yes	24	3.7	102	2.4	126	2.5
	No	627	96.3	4,235	97.6	4,862	97.5
Paid work during your final year	Yes	485	74.5	2,896	66.8	3,381	67.8
	No	166	25.5	1,440	33.2	1,606	32.2
Paid work status	In full-time work	277	42.9	2,333	54.0	2,610	52.6
	In part-time work	198	30.7	1,088	25.2	1,286	25.9
	Not working	170	26.4	897	20.8	1,067	21.5

4.0

NATIONAL TRENDS IN POSTGRADUATE RESEARCH EXPERIENCE

“There is considerable variation in mean scale scores and agreement percentages.”

Summary statistics for each PREQ scale are presented in Table 3. For each scale, the number of valid scores (n), means (X), medians (M) and standard deviations (s) are presented for scale scores, based on the -100 to 100 reporting metric described in Section 2, and mean agreement figures.

There is considerable variation in mean scale scores and agreement percentages. Mean scale scores range from highs of 75.3 and 72.3 for Skill Development, and Goals and Expectations, respectively, to a low of 39.8 for Intellectual Climate. The same maxima and minima are observed when mean agreement percentages are considered. Because the PREQ scales represent different aspects of the postgraduate research experience, it is inadvisable to make

direct comparisons across the scales. It is interesting, however, to note the qualities of the research experience with which graduates expressed less agreement than others. It is also of value to note the standard deviation figure, as this illustrates the spread of scores from the mean. A smaller standard deviation indicates that scores are grouped tightly around the mean, while a larger standard deviation indicates that there is a wide dispersion of scores. These standard deviation figures tend to be fairly consistent over time, and are largest for the Overall Satisfaction, Thesis Examination and Intellectual Climate scales. Conversely, the Skill Development, and Goals and Expectations scales tend to be the most consistent.

Table 3: 2015 PREQ scale descriptive statistics

	Scale score				Mean agreement		
	n	X	M	s	X	M	s
Supervision	4,970	58.7	66.7	44.2	81.7	100.0	29.7
Intellectual Climate	4,765	39.8	50.0	45.7	68.0	80.0	35.0
Skill Development	4,934	75.3	87.5	31.2	93.6	100.0	18.6
Infrastructure	4,698	55.0	60.0	39.6	80.2	100.0	28.2
Thesis Examination	4,984	58.3	66.7	46.0	83.2	100.0	29.9
Goals and Expectations	4,979	72.3	83.3	34.4	93.4	100.0	20.3
Overall Satisfaction	4,978	62.6	50.0	46.5	87.7	100.0	32.9

Trends in mean percentage agreement scores for the years 2002 to 2015 are shown in Figure 1. All scales have exhibited an upward trend over the past five years; however the increases were fairly modest. The largest upward shift over this half decade was 3.2 percentage points observed for Supervision. Increases of a similar magnitude were observed for Intellectual Climate and Infrastructure (each 3.0 percentage points), and Thesis Examination (2.8 percentage points). It is probable that the steep upward trends observed for some scales between 2005 and 2006 are related

to changes in the format and administration of the AGS, and do not necessarily reflect genuine improvements in practice.

Descriptive statistics and response category percentages for the 28 Likert-type items underpinning the seven PREQ scales are presented for all respondents in Table 4. This table presents, for each item, the number of responses (n), mean (X), median (M), standard deviation (s), mean percentage agreement (PA), mean percentage broad agreement (BA), the distribution of responses across the six response categories (strongly disagree (SD),

disagree (D), neither agree nor disagree (U), agree (A), strongly agree (SA) and not applicable (NA)), and the percentage of unplanned missing data (UP). Response category percentages may not sum precisely to 100 due to rounding errors.

In addition, item mean percentage agreement figures are presented in Figure 2 to visually illustrate the variation in the items comprising each scale and the mean agreement to the discrete phenomenon tapped by each scale. The items have been sorted within their respective scales by mean percentage agreement.



Figure 1: 2002 to 2015 PREQ scale mean percentage agreement scores

Table 4: 2015 PREQ item descriptive statistics and response category percentages

Scale	Label	Item	Descriptive statistics						Response category percentages						Missing data
			n	X	M	s	PA	BA	SD	D	U	A	SA	NA	
Supervision	PREQ01	Supervision was available when I needed it	4,979	67.6	100.0	48.6	87.7	92.6	2.9	4.4	4.9	29.9	57.8	0.1	0.2
	PREQ07	My supervisor/s made a real effort to understand difficulties I faced	4,938	62.7	100.0	52.7	83.0	91.4	3.9	4.7	8.2	27.9	54.7	0.6	0.3
	PREQ13	My supervisor/s provided additional information relevant to my topic	4,942	60.5	50.0	50.5	83.4	91.9	3.3	4.7	8.4	34.2	48.6	0.7	0.2
	PREQ17	I was given good guidance in topic selection and refinement	4,905	49.1	50.0	53.6	76.0	88.6	3.8	7.4	12.5	38.2	36.9	1.2	0.3
	PREQ21	My supervisor/s provided helpful feedback on my progress	4,952	66.2	100.0	49.7	86.4	92.6	3.3	4.0	6.3	29.6	56.5	0.3	0.2
	PREQ24	I received good guidance in my literature search	4,931	45.5	50.0	52.9	73.6	88.5	3.8	7.7	14.8	40.5	32.5	0.7	0.3
Intellectual Climate	PREQ05	The department provided opportunities for social contact with other postgraduate students	4,829	50.2	50.0	50.3	76.5	90.3	2.5	7.2	13.7	40.2	35.8	0.4	0.2
	PREQ09	I was integrated into the department's community	4,785	36.8	50.0	56.9	65.2	84.0	4.9	10.8	18.6	36.0	29.0	0.8	0.2
	PREQ16	The department provided opportunities for me to become involved in the broader research culture	4,854	37.3	50.0	56.4	66.4	84.2	4.8	10.9	17.7	37.5	28.6	0.4	0.1
	PREQ22	A good seminar program for postgraduate students was provided	4,804	41.6	50.0	53.7	69.5	87.3	3.9	8.8	17.6	38.8	30.0	0.9	0.3
	PREQ23	The research ambience in the department or faculty stimulated my work	4,754	33.4	50.0	57.6	62.5	82.9	5.5	11.4	20.2	34.9	26.6	1.4	0.2
Skill Development	PREQ06	My research further developed my problem-solving skills	4,937	78.2	100.0	35.2	94.7	98.0	1.1	0.9	3.3	29.9	64.6	0.2	0.2
	PREQ10	I learned to develop my ideas and present them in my written work	4,954	76.3	100.0	35.3	94.8	98.0	1.1	0.9	3.1	34.0	60.8	0.1	0.2
	PREQ14	My research sharpened my analytic skills	4,941	80.0	100.0	34.4	95.6	98.2	1.2	0.6	2.6	28.0	67.5	0.1	0.2
	PREQ20	Doing my research helped me to develop my ability to plan my own work	4,923	73.7	100.0	38.2	92.7	97.4	1.4	1.1	4.7	33.8	58.6	0.4	0.2
	PREQ26	As a result of my research, I feel confident about tackling unfamiliar problems	4,920	68.4	100.0	39.7	90.2	97.1	1.4	1.5	6.8	39.3	50.5	0.5	0.2
Infrastructure	PREQ03	I had access to a suitable working space	4,721	63.5	100.0	50.1	85.1	91.9	3.0	5.0	6.6	31.5	52.4	1.5	0.3
	PREQ08	I had good access to the technical support I needed	4,862	52.0	50.0	49.5	78.1	91.0	2.3	6.7	12.7	40.5	37.4	0.4	0.2
	PREQ12	I was able to organise good access to necessary equipment	4,637	59.5	50.0	44.5	84.5	94.7	1.8	3.3	9.7	41.2	40.7	3.2	0.3
	PREQ18	I had good access to computing facilities and services	4,740	58.4	50.0	47.8	82.8	92.8	2.3	4.8	9.8	38.8	43.5	0.8	0.2
	PREQ27	There was appropriate financial support for research activities	4,771	40.6	50.0	58.2	70.0	84.2	5.7	9.8	13.8	36.8	32.6	1.4	0.4
Thesis Examination	PREQ02	The thesis examination process was fair	4,974	69.2	100.0	44.2	90.0	95.0	2.4	2.6	5.0	34.2	55.7	0.2	0.1
	PREQ15	I was satisfied with the thesis examination process	4,960	60.8	50.0	51.0	85.3	91.1	3.7	5.3	5.8	36.2	48.9	0.2	0.3
	PREQ25	The examination of my thesis was completed in a reasonable time	4,950	44.9	50.0	63.1	74.2	82.8	8.3	8.8	8.6	33.0	41.0	0.3	0.4
Goals and Expectations	PREQ04	I developed an understanding of the standard of work expected	4,966	72.8	100.0	38.3	93.5	96.9	1.4	1.6	3.4	36.8	56.4	0.3	0.2
	PREQ11	I understood the required standard for the thesis	4,965	73.7	100.0	38.7	93.7	96.6	1.5	1.9	2.9	35.1	58.4	0.2	0.1
	PREQ19	I understood the requirements of thesis examination	4,941	70.5	100.0	39.0	93.1	96.6	1.5	1.9	3.5	40.1	52.7	0.3	0.5
Overall Satisfaction	PREQ28	Overall, I was satisfied with the quality of my higher degree research experience	4,978	62.6	50.0	46.5	87.7	93.7	2.9	3.4	6.0	40.9	46.8	0.0	0.0

Research graduates tend to agree least with the statements represented by items PREQ23 ('The research ambience in the department or faculty stimulated my work'), PREQ09 ('I was integrated into the department's community') and PREQ16 ('The department provided opportunities for me to become involved in the broader research culture'). These items, all components of the Intellectual Climate scale, relate to the forms of research support provided by academic departments that are intended to help students integrate their work into the broader research community. Conversely, the highest item mean percentage agreement figures are observed for PREQ14 ('My research sharpened my analytic skills'), PREQ06 ('My research further developed my problem-solving skills'), and PREQ10 ('I learned to develop my ideas and present them in my written work') all three of which reflect graduates' perceptions of their own skill development. These items also exhibited the least variation between respondents. Interestingly, the most variation was observed for PREQ25 ('The examination of my thesis was completed in a reasonable time'). Near-identical results were obtained from previous recent surveys. Together, these results suggest that, while graduates generally have a positive view of their postgraduate research experience as an exercise in skill development, many did not feel a part of the research community during their time at university.

Multi-year trends for each item are presented in Figures A to G, with each figure corresponding to a PREQ scale. It is important to keep in mind that the measurement provided by these individual items is not as reliable as that provided by the summated rating scales.

The PREQ distinguishes between two distinct forms of missing data: not applicable responses (NA), where graduates select the *does not apply* category on the response format if they feel that a particular item is not relevant to their own postgraduate research experience, and unplanned missing data (UP), which are due to simple item-level non-response (see Table 4). The highest level of NA response was observed for PREQ12 ('I was able to organise good access to necessary equipment'), whereas the lowest level of NA response was recorded for PREQ28 ('Overall, I was satisfied with the quality of my higher degree research experience'). This finding is logical: while research graduates from many disciplines would not have required the use of specialised equipment to undertake their research, every graduate could comment on their overall experience. Levels of UP missing data were very low across all 28 items, ranging from 0.0 per cent (PREQ28) to just 0.5 per cent (PREQ19).

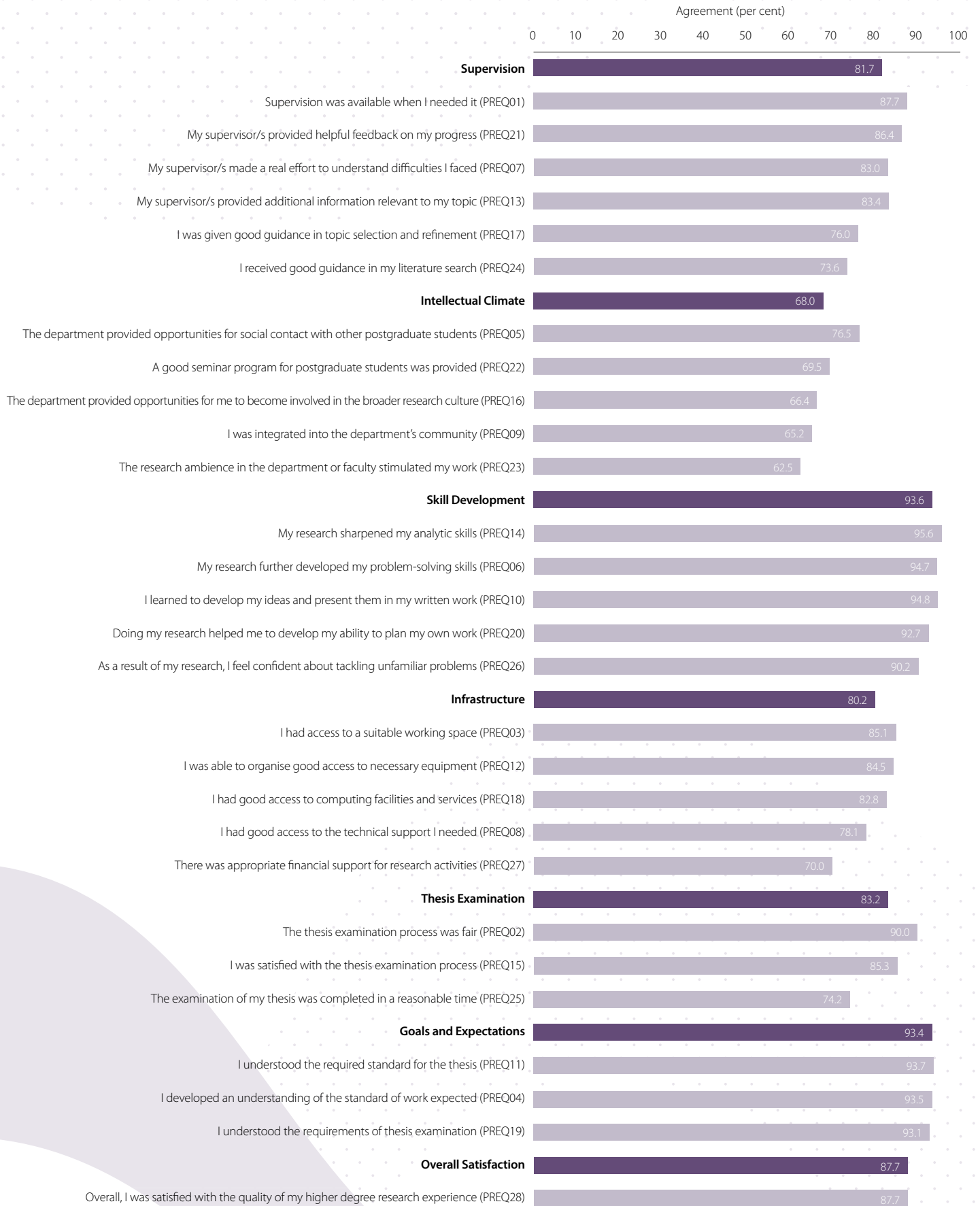


Figure 2: 2015 PREQ scale and item mean percentage agreement scores

5.0

THE INFLUENCE OF
COURSE CHARACTERISTICS

This section presents PREQ scale descriptive statistics stratified on the basis of different course characteristics, including qualification level, broad field of education (BFOE), detailed field of education (DFOE) and attendance type. Additional stratifications by means of financing study and attendance mode are presented in Tables B and C, respectively.

As noted earlier, it is not advisable to make direct comparisons across the scales, as each reflects a different quality of the postgraduate research experience. The point of reference for each mean percentage agreement figure is either the corresponding figure for another contextual group or for the whole sample.

Mean percentage agreement figures over the period 2002 to 2015 are presented in Table 5, stratified by qualification level. With the exception of scores on the Supervision scale in 2002, 2004 and 2010, research doctoral graduates have higher levels of mean agreement than research masters graduates across all PREQ scales. This result may be attributable to the more extensive and deeper nature of the doctoral research experience.

Table 5: 2002 to 2015 PREQ scale mean percentage agreement scores by qualification level

		2002		2003		2004		2005		2006		2007		2008	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Research masters	Supervision	70.7	618	71.8	671	72.8	703	72.1	611	75.6	702	74.2	747	74.3	660
	Intellectual Climate	51.0	539	49.7	612	51.8	643	52.6	561	58.5	648	58.1	694	57.3	616
	Skill Development	87.8	624	85.2	665	87.5	699	89.0	600	87.4	694	87.8	748	89.9	658
	Infrastructure	61.7	503	60.6	583	61.9	605	63.0	529	67.9	628	68.1	656	68.6	577
	Thesis Examination	73.7	633	72.2	661	74.5	708	75.2	606	76.3	686	76.9	743	78.2	655
	Goals and Expectations	82.2	632	84.0	668	86.3	708	85.0	610	85.7	698	86.5	746	85.9	662
	Overall Satisfaction	78.8	619	78.3	667	80.2	702	78.0	609	81.0	696	80.6	753	80.0	660
Research doctorate	Supervision	70.5	1,658	73.1	1,899	72.8	2,336	74.2	2,387	76.3	2,521	77.2	2,866	77.0	2,968
	Intellectual Climate	56.3	1,545	58.6	1,791	59.2	2,206	59.6	2,247	64.3	2,380	63.6	2,713	64.4	2,824
	Skill Development	90.6	1,689	91.1	1,892	92.1	2,325	91.1	2,359	92.2	2,506	92.6	2,852	93.8	2,947
	Infrastructure	68.1	1,484	69.4	1,747	70.3	2,147	71.3	2,206	74.0	2,338	75.4	2,670	76.7	2,774
	Thesis Examination	76.1	1,714	75.9	1,904	77.3	2,348	80.5	2,388	81.2	2,523	81.5	2,875	81.4	2,951
	Goals and Expectations	90.2	1,729	91.2	1,907	91.2	2,348	91.3	2,393	92.7	2,532	93.3	2,883	93.0	2,970
	Overall Satisfaction	81.8	1,696	83.5	1,890	84.8	2,339	84.7	2,378	85.7	2,511	87.0	2,873	86.8	2,952
		2009		2010		2011		2012		2013		2014		2015	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Research masters	Supervision	75.5	733	77.8	614	76.8	653	78.2	750	79.7	743	78.3	719	79.0	645
	Intellectual Climate	59.6	676	61.6	569	61.3	618	62.0	706	64.0	694	62.9	674	64.4	610
	Skill Development	89.6	728	90.0	607	89.6	647	91.9	741	91.1	736	90.6	713	90.6	640
	Infrastructure	70.1	639	72.9	550	71.1	571	74.0	681	76.5	666	73.9	650	75.4	584
	Thesis Examination	76.5	722	77.5	614	77.7	650	79.1	749	79.3	739	78.0	720	81.4	648
	Goals and Expectations	87.1	728	89.8	613	88.9	649	89.0	753	89.7	741	90.0	718	89.9	647
	Overall Satisfaction	80.2	731	81.1	614	82.0	651	83.4	751	84.0	743	82.2	725	82.0	651
Research doctorate	Supervision	77.2	3,231	77.5	3,242	78.8	3,450	79.5	3,935	81.3	4,066	81.6	4,457	82.1	4,325
	Intellectual Climate	63.9	3,052	64.2	3,079	65.7	3,284	66.4	3,751	68.5	3,876	68.2	4,273	68.5	4,155
	Skill Development	93.2	3,204	93.2	3,218	93.8	3,416	94.2	3,915	94.1	4,035	94.2	4,429	94.0	4,294
	Infrastructure	77.3	3,033	76.5	3,025	78.2	3,235	78.5	3,713	79.6	3,850	80.6	4,217	80.9	4,114
	Thesis Examination	80.9	3,228	81.7	3,245	80.9	3,451	82.5	3,939	82.6	4,086	83.3	4,476	83.5	4,336
	Goals and Expectations	93.0	3,236	93.2	3,242	92.9	3,449	93.6	3,939	93.9	4,073	94.3	4,470	94.0	4,332
	Overall Satisfaction	86.4	3,227	85.5	3,235	87.0	3,442	86.7	3,930	87.2	4,076	87.6	4,468	88.5	4,327

Mean percentage agreement figures across the ten BFOE from the 2015 PREQ are presented in Table 6, stratified by qualification level. It is clear from this table that mean percentage agreement levels for each scale vary considerably by BFOE and qualification level. While research doctoral graduates tend to be more positive about their postgraduate research experience than research masters graduates at the overall level, there are numerous exceptions when these figures are examined by BFOE. Research masters graduates from the fields of information technology, and architecture and building exhibited higher levels of mean agreement

on five scales. Moreover, research masters graduates from the engineering and related technologies field had higher mean percentage agreement scores than research doctoral graduates on four PREQ scales. Research doctoral graduates from the fields of natural and physical sciences, agriculture, environmental and related studies, health, and education recorded higher levels of mean agreement than research masters graduates on every scale bar one (for which agreements levels were equivalent). These results are presented graphically in Figures H to Q, and it should be noted that some differences are marginal.

Since aggregations at the BFOE level hide much of the detail that is of interest to individual schools, faculties and academic departments, mean percentage agreement figures for the 30 largest NFOE for research masters and research doctoral graduates are presented in Tables 7 and 8, respectively. Both tables are sorted in descending order of response numbers. These 30 NFOE account for 80.9 per cent of all research masters respondents and 83.4 per cent of all research doctoral respondents.

Table 6: PREQ scale mean percentage agreement scores by broad field of education

		Natural and Physical Sciences	Information Technology	Engineering and Related Technologies	Architecture and Building	Agriculture, Environmental and Related Studies	Health	Education	Management and Commerce	Society and Culture	Creative Arts
Research masters	Supervision	72.6	85.3	81.8	88.3	71.1	77.5	84.7	85.3	78.3	79.6
	Intellectual Climate	69.2	75.9	73.4	64.4	48.2	60.8	62.7	62.1	65.0	58.2
	Skill Development	84.9	94.1	94.8	100.0	94.8	89.7	91.4	87.6	92.7	89.0
	Infrastructure	79.0	85.0	84.4	79.4	70.3	74.2	71.0	76.0	71.8	70.1
	Thesis Examination	78.6	76.5	88.2	96.7	66.7	81.3	85.3	85.3	76.5	83.0
	Goals and Expectations	89.0	88.2	97.5	100.0	88.3	89.9	86.5	94.1	86.2	88.5
	Overall Satisfaction	77.9	88.2	88.2	100.0	60.0	82.9	86.5	82.4	81.3	79.8
Research doctorate	Supervision	80.3	85.1	81.6	82.0	83.9	82.3	87.4	82.5	82.5	80.6
	Intellectual Climate	72.1	69.5	74.5	68.9	67.1	68.1	69.7	71.0	62.9	58.3
	Skill Development	95.3	92.2	93.5	94.9	97.5	94.4	94.3	92.3	93.1	94.3
	Infrastructure	84.3	83.8	84.6	80.2	82.2	80.9	81.5	83.2	75.9	69.4
	Thesis Examination	82.6	85.2	86.1	81.0	87.5	84.2	85.3	86.2	82.0	77.0
	Goals and Expectations	94.2	94.3	94.5	96.8	97.1	93.5	95.8	93.7	93.3	90.6
	Overall Satisfaction	90.5	87.3	89.1	88.9	88.1	88.5	91.5	88.3	87.3	81.2

Table 7: 2015 PREQ mean percentage agreement scores for the 30 largest narrow fields of education for research masters graduates

	n	Supervision	Intellectual Climate	Skill Development	Infrastructure	Thesis Examination	Goals and Expectations	Overall Satisfaction
Visual Arts and Crafts	47	73.8	54.3	85.2	66.1	79.4	84.4	70.2
Studies in Human Society	43	79.8	71.3	93.0	70.9	69.8	84.5	86.0
Performing Arts	31	87.5	60.2	90.3	73.1	81.7	92.5	93.5
Biological Sciences	27	75.3	73.8	90.4	83.8	84.0	95.1	74.1
Teacher Education	26	88.0	57.9	90.4	75.5	82.7	84.0	88.0
Language and Literature	24	79.2	65.9	92.2	71.3	76.4	83.3	75.0
Other Natural and Physical Sciences	24	78.3	72.1	86.7	80.0	76.4	90.3	87.5
Medical Studies	22	77.4	69.8	85.7	78.8	84.8	86.4	81.8
Civil Engineering	19	80.7	74.2	94.4	78.6	91.2	98.2	84.2
Other Health	18	87.1	73.1	97.6	87.5	80.4	98.0	94.4
Electrical and Electronic Engineering and Technology	16	91.7	82.5	96.3	91.3	89.6	97.9	100.0
Physics and Astronomy	16	54.4	56.0	73.8	64.7	60.4	70.8	62.5
Nursing	15	75.0	48.8	82.1	64.2	73.8	85.7	80.0
Communication and Media Studies	14	78.6	55.4	91.4	69.1	83.3	85.7	78.6
Philosophy and Religious Studies	14	89.7	69.2	98.5	70.8	82.1	94.9	92.9
Curriculum and Education Studies	14	75.2	67.7	88.6	66.7	83.3	81.0	78.6
Process and Resources Engineering	14	86.9	72.9	94.3	92.9	85.7	97.6	85.7
Engineering and Related Technologies, n.e.c.	14	75.2	73.2	97.1	80.0	88.1	97.6	92.9
Business and Management	13	92.3	55.8	89.2	81.4	94.9	100.0	92.3
Rehabilitation Therapies	13	74.4	46.7	80.0	50.0	69.2	84.6	84.6
Public Health	13	76.7	33.8	93.8	63.5	79.5	89.7	84.6
Health, n.e.c.	12	83.3	76.7	88.3	88.3	80.6	94.4	75.0
Other Society and Culture	11	77.3	54.5	84.0	72.7	78.8	90.9	72.7
Mechanical and Industrial Engineering and Technology	11	65.2	50.0	87.3	72.7	84.8	92.4	72.7
Accounting	10	80.0	68.0	88.0	84.4	66.7	93.3	70.0
Architecture and Urban Environment	10	88.3	64.4	100.0	79.4	96.7	100.0	100.0
Chemical Sciences	10	93.3	80.0	100.0	88.0	93.3	100.0	100.0
Behavioural Science	9	44.4	44.4	82.2	70.6	77.8	74.1	44.4
Political Science and Policy Studies	9	83.3	80.0	97.5	80.0	83.3	96.3	87.5
Agriculture	9	60.4	25.0	93.3	62.5	74.1	81.5	44.4

Table 8: 2015 PREQ mean percentage agreement scores for the 30 largest narrow fields of education for doctorate graduates

	n	Supervision	Intellectual Climate	Skill Development	Infrastructure	Thesis Examination	Goals and Expectations	Overall Satisfaction
Biological Sciences	421	80.6	72.4	95.7	83.0	82.0	94.7	90.7
Behavioural Science	256	79.8	58.8	92.8	78.1	82.0	93.3	84.6
Studies in Human Society	253	83.4	61.6	92.0	71.8	83.3	93.5	88.1
Medical Studies	202	79.5	69.2	93.2	82.1	81.4	93.0	86.5
Other Natural and Physical Sciences	192	79.2	71.4	94.7	84.6	86.5	96.1	89.5
Other Society and Culture	169	82.9	65.7	93.7	79.5	82.3	92.8	89.3
Chemical Sciences	148	79.2	69.8	95.0	81.3	77.7	92.1	91.2
Process and Resources Engineering	138	79.7	76.2	92.9	83.3	85.8	94.1	89.8
Electrical and Electronic Engineering and Technology	130	82.1	70.0	92.0	83.0	85.1	94.2	88.5
Teacher Education	127	85.4	68.6	93.5	81.9	84.3	95.3	91.3
Business and Management	126	81.0	65.4	92.3	77.8	83.6	92.8	87.9
Civil Engineering	122	86.8	82.0	94.2	88.8	87.4	95.8	92.6
Public Health	114	80.8	66.2	93.4	83.4	87.4	95.0	91.2
Language and Literature	99	83.1	64.9	96.3	69.8	78.5	93.9	86.7
Computer Science	95	83.0	66.5	91.6	82.9	85.3	92.5	86.3
Physics and Astronomy	85	76.2	70.2	95.6	83.4	85.7	92.2	91.8
Earth Sciences	84	80.6	77.5	96.9	92.7	81.3	96.0	91.6
Mathematical Sciences	83	85.9	73.0	93.5	87.2	85.1	91.6	89.0
Communication and Media Studies	80	80.8	59.2	95.4	70.6	77.5	89.0	84.6
Philosophy and Religious Studies	80	86.8	69.9	94.5	77.9	84.2	95.4	88.6
Economics and Econometrics	77	83.1	73.1	94.2	81.8	79.8	92.6	92.2
Mechanical and Industrial Engineering and Technology	74	84.5	74.7	95.8	85.0	86.9	96.4	93.2
Curriculum and Education Studies	64	93.3	78.2	95.6	82.6	88.9	97.4	96.9
Nursing	63	85.1	72.8	95.4	84.5	84.7	94.6	88.7
Environmental Studies	62	86.1	63.8	98.3	84.7	89.2	98.9	91.5
Other Engineering and Related Technologies	61	73.3	68.0	96.3	86.0	82.0	92.3	81.7
Architecture and Urban Environment	59	83.7	68.5	96.6	80.9	80.8	97.7	89.8
Political Science and Policy Studies	57	80.5	53.8	88.2	69.6	76.0	93.0	83.9
Other Health	57	84.2	65.7	93.0	71.1	87.1	89.5	86.0
Law	52	86.0	70.9	91.7	87.0	88.1	95.5	88.5

From Table 9, it can be seen that part-time research students tend to have lower mean agreement scores than full-time research students, with the largest differences observed on the Infrastructure and

Intellectual Climate scales. Considering that part-time research students would likely spend less time on campus than their full-time counterparts, this finding is expected. It is also consistent with recent surveys.

Table 9: 2002 to 2015 PREQ scale mean percentage agreement scores by attendance type

		2002		2003		2004		2005		2006		2007		2008	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Full-time students	Supervision	70.7	1,185	73.7	1,348	73.0	1,531	74.1	1,732	76.2	1,979	76.1	2,231	76.8	2,307
	Intellectual Climate	56.3	1,124	58.3	1,303	60.0	1,501	61.4	1,685	65.1	1,919	64.7	2,182	66.4	2,261
	Skill Development	90.7	1,198	90.3	1,343	92.3	1,523	91.7	1,705	91.9	1,968	92.3	2,223	94.2	2,292
	Infrastructure	69.4	1,114	70.9	1,281	71.6	1,483	74.0	1,668	75.9	1,912	76.9	2,161	78.3	2,242
	Thesis Examination	76.1	1,211	76.3	1,347	76.6	1,534	79.9	1,728	80.3	1,975	81.4	2,229	81.2	2,286
	Goals and Expectations	89.2	1,218	90.2	1,350	90.6	1,535	91.4	1,730	91.9	1,986	92.7	2,239	92.5	2,304
	Overall Satisfaction	80.4	1,201	83.9	1,339	84.2	1,529	85.4	1,715	85.6	1,967	87.1	2,232	87.5	2,296
Part-time students	Supervision	70.4	1,083	71.6	1,183	72.7	1,433	73.4	1,215	76.1	1,233	77.7	1,304	75.9	1,300
	Intellectual Climate	53.2	951	53.9	1,065	54.5	1,280	53.6	1,075	59.5	1,099	58.5	1,148	56.6	1,159
	Skill Development	88.8	1,107	88.7	1,175	89.7	1,422	89.3	1,204	89.9	1,221	90.5	1,300	91.3	1,292
	Infrastructure	62.8	864	62.6	1,016	65.1	1,204	63.1	1,017	66.8	1,045	68.2	1,089	69.2	1,091
	Thesis Examination	75.0	1,126	73.2	1,179	76.7	1,443	78.9	1,216	80.0	1,223	79.8	1,311	80.0	1,299
	Goals and Expectations	86.9	1,133	88.1	1,186	89.5	1,442	88.3	1,222	90.0	1,233	90.7	1,312	90.1	1,307
	Overall Satisfaction	81.8	1,104	79.9	1,180	83.3	1,434	80.6	1,221	83.5	1,229	83.4	1,317	81.9	1,295
		2009		2010		2011		2012		2013		2014		2015	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Full-time students	Supervision	76.4	2,562	77.4	2,631	78.3	2,848	79.2	3,281	81.3	3,434	81.3	3,837	82.0	3,716
	Intellectual Climate	64.8	2,491	66.1	2,568	66.9	2,780	67.7	3,210	70.0	3,366	69.4	3,758	69.7	3,642
	Skill Development	92.9	2,535	93.2	2,605	93.5	2,826	94.2	3,267	94.2	3,412	94.2	3,807	94.1	3,677
	Infrastructure	78.7	2,490	78.9	2,548	79.6	2,768	80.5	3,194	81.5	3,335	82.1	3,729	81.9	3,638
	Thesis Examination	80.3	2,548	80.8	2,628	80.1	2,845	82.2	3,287	82.4	3,443	83.2	3,841	83.5	3,718
	Goals and Expectations	92.5	2,556	92.7	2,624	92.3	2,842	93.2	3,288	93.7	3,435	94.0	3,836	94.0	3,714
	Overall Satisfaction	85.8	2,556	86.1	2,621	86.4	2,839	86.7	3,281	87.5	3,437	87.3	3,831	88.5	3,713
Part-time students	Supervision	78.0	1,389	77.8	1,211	79.0	1,236	79.6	1,380	80.3	1,354	80.7	1,327	80.9	1,244
	Intellectual Climate	59.7	1,225	58.2	1,068	60.2	1,103	60.4	1,223	61.8	1,186	61.6	1,178	62.6	1,113
	Skill Development	91.9	1,384	91.7	1,206	92.5	1,218	93.0	1,365	92.2	1,338	92.3	1,323	92.2	1,247
	Infrastructure	70.5	1,169	68.7	1,015	70.6	1,019	70.5	1,176	72.6	1,163	72.1	1,127	74.1	1,051
	Thesis Examination	79.9	1,389	81.8	1,216	81.2	1,237	81.4	1,377	81.5	1,361	80.7	1,343	82.4	1,256
	Goals and Expectations	90.9	1,395	92.9	1,216	92.3	1,237	92.0	1,380	92.1	1,358	93.0	1,340	91.7	1,255
	Overall Satisfaction	84.2	1,389	82.2	1,213	85.7	1,235	84.8	1,376	84.8	1,361	85.5	1,350	85.5	1,255

6.0

THE INFLUENCE OF RESPONDENT CHARACTERISTICS

... male research graduates had higher mean percentage agreement scores than female research graduates on all seven PREQ scales ...

This section presents PREQ scale descriptive statistics for different respondent groups, including ones based on sex, age group, permanent resident status, final year work status, and labour market activity at the time of the survey.

As shown in Table 10, male research graduates had higher mean percentage agreement scores than female research graduates on all seven PREQ scales, with the largest differences recorded on the Intellectual Climate, Infrastructure, Supervision and Overall Satisfaction scales.

Table 10: 2002 to 2015 PREQ scale mean percentage agreement scores by sex

		2002		2003		2004		2005		2006		2007		2008	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Males	Supervision	72.0	1,103	74.0	1,254	74.9	1,475	73.9	1,495	76.9	1,560	79.1	1,671	79.4	1,745
	Intellectual Climate	56.4	1,005	57.1	1,180	59.6	1,384	60.6	1,401	63.0	1,464	65.2	1,580	65.3	1,652
	Skill Development	90.2	1,121	89.4	1,250	90.5	1,473	91.3	1,468	90.7	1,549	92.1	1,665	93.5	1,739
	Infrastructure	68.6	962	70.0	1,151	71.5	1,350	72.2	1,369	73.7	1,442	76.8	1,538	77.9	1,608
	Thesis Examination	75.2	1,139	75.1	1,254	75.9	1,489	79.3	1,487	78.8	1,548	80.9	1,677	80.2	1,743
	Goals and Expectations	88.0	1,152	89.6	1,258	90.0	1,489	89.9	1,495	90.9	1,564	92.9	1,682	92.1	1,754
	Overall Satisfaction	82.5	1,118	84.5	1,247	85.7	1,479	84.6	1,485	85.3	1,555	88.8	1,678	87.6	1,744
Females	Supervision	69.2	1,173	71.5	1,313	70.7	1,563	73.8	1,500	75.4	1,663	74.5	1,877	73.8	1,876
	Intellectual Climate	53.5	1,079	55.6	1,219	55.6	1,464	56.0	1,404	63.1	1,564	60.1	1,762	61.1	1,782
	Skill Development	89.5	1,192	89.8	1,304	91.6	1,550	90.1	1,488	91.5	1,651	91.2	1,870	92.7	1,859
	Infrastructure	64.5	1,025	64.5	1,176	65.5	1,401	67.3	1,363	71.7	1,524	71.5	1,725	72.9	1,738
	Thesis Examination	75.7	1,208	74.8	1,308	77.3	1,566	79.6	1,504	81.4	1,661	80.7	1,876	81.4	1,856
	Goals and Expectations	88.1	1,209	89.1	1,314	90.2	1,566	90.1	1,505	91.4	1,666	91.2	1,882	91.3	1,871
	Overall Satisfaction	79.6	1,197	79.9	1,306	81.8	1,561	82.1	1,499	84.2	1,652	83.0	1,883	83.6	1,861
		2009		2010		2011		2012		2013		2014		2015	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Males	Supervision	79.2	1,948	78.5	1,806	80.1	1,998	81.2	2,272	82.4	2,325	82.9	2,507	83.7	2,406
	Intellectual Climate	65.0	1,829	65.3	1,712	66.2	1,898	67.4	2,175	69.6	2,225	69.9	2,410	71.0	2,310
	Skill Development	92.8	1,935	92.1	1,790	93.1	1,983	94.6	2,253	93.4	2,309	94.1	2,489	93.8	2,389
	Infrastructure	78.2	1,820	77.8	1,687	78.8	1,862	79.2	2,154	80.2	2,205	81.9	2,363	82.3	2,277
	Thesis Examination	81.6	1,942	80.8	1,806	80.0	2,001	82.4	2,276	81.3	2,338	83.3	2,519	83.5	2,417
	Goals and Expectations	92.2	1,952	92.0	1,805	92.7	2,007	93.2	2,272	93.1	2,328	94.2	2,512	93.5	2,416
	Overall Satisfaction	87.5	1,949	86.7	1,803	88.4	1,996	87.7	2,276	88.5	2,335	88.2	2,516	89.3	2,412
Females	Supervision	74.7	2,007	76.7	2,038	76.9	2,101	77.6	2,409	79.7	2,481	79.4	2,669	79.9	2,561
	Intellectual Climate	61.4	1,890	62.4	1,924	63.9	2,000	64.1	2,278	66.1	2,342	65.1	2,537	65.2	2,452
	Skill Development	92.3	1,988	93.3	2,023	93.2	2,076	93.2	2,399	93.8	2,459	93.3	2,653	93.4	2,542
	Infrastructure	74.0	1,843	74.3	1,876	75.5	1,940	76.4	2,236	78.2	2,308	77.7	2,504	78.2	2,418
	Thesis Examination	78.8	1,999	81.3	2,041	80.7	2,096	81.6	2,408	82.8	2,484	81.9	2,677	82.9	2,564
	Goals and Expectations	91.8	2,003	93.3	2,038	91.9	2,087	92.5	2,416	93.4	2,483	93.3	2,676	93.4	2,560
	Overall Satisfaction	83.0	2,000	83.2	2,034	84.1	2,093	84.7	2,401	85.0	2,481	85.5	2,677	86.2	2,563

Examining the results from previous survey rounds, it is noteworthy that males generally record higher mean scores than females on these same four scales, the only exception being observed in relation to the Intellectual Climate scale in 2006, and this difference was only small (0.1 percentage points).

Research graduates aged 40 years and under gave higher mean percentage agreement scores than their counterparts aged over 40 years on all seven PREQ scales in 2015 (Table 11). The largest such differences were observed in relation to the Infrastructure and Intellectual Climate scales, which has been a consistent finding

in previous surveys. The differences in relation to Supervision, and Goals and Expectations are only marginal between the two age groups under examination, with less than one percentage point separating them. Differences between age groups on the Thesis Examination and Overall Satisfaction scales were similarly slight.

Table 11: 2002 to 2015 PREQ scale mean percentage agreement scores by age group

		2002		2003		2004		2005		2006		2007		2008	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
40 years and under	Supervision	70.5	1,370	72.6	1,552	70.9	1,834	72.9	1,805	74.2	1,905	75.3	2,155	75.7	2,329
	Intellectual Climate	56.6	1,289	56.4	1,493	58.6	1,773	60.1	1,745	64.9	1,842	63.8	2,095	64.2	2,265
	Skill Development	90.8	1,389	90.9	1,547	92.1	1,829	92.0	1,792	92.1	1,891	92.9	2,149	94.3	2,311
	Infrastructure	69.1	1,272	70.1	1,472	70.7	1,750	71.9	1,727	74.7	1,842	76.2	2,091	76.5	2,231
	Thesis Examination	75.6	1,393	74.8	1,546	76.5	1,837	79.7	1,801	79.9	1,887	80.8	2,147	80.7	2,304
	Goals and Expectations	87.8	1,403	89.5	1,552	89.6	1,839	89.8	1,811	90.4	1,900	92.0	2,154	91.7	2,326
	Overall Satisfaction	80.5	1,383	83.3	1,543	83.1	1,832	84.3	1,798	84.1	1,888	86.0	2,158	86.0	2,320
Over 40 years	Supervision	70.6	906	73.0	1,018	75.6	1,204	75.2	1,184	78.9	1,317	78.7	1,392	78.0	1,291
	Intellectual Climate	52.2	795	56.1	910	55.9	1,075	55.3	1,055	60.2	1,185	60.3	1,246	60.9	1,167
	Skill Development	88.3	924	87.6	1,010	89.4	1,194	88.6	1,158	89.7	1,308	89.7	1,385	90.9	1,286
	Infrastructure	61.8	715	62.2	858	64.7	1,001	66.1	1,001	69.3	1,123	69.9	1,171	72.9	1,114
	Thesis Examination	75.3	954	75.1	1,019	76.8	1,218	79.2	1,184	80.4	1,321	80.8	1,405	81.0	1,294
	Goals and Expectations	88.3	958	88.9	1,023	90.8	1,216	90.4	1,183	92.2	1,329	91.9	1,409	91.7	1,298
	Overall Satisfaction	81.8	932	80.3	1,014	84.7	1,208	82.0	1,180	85.7	1,318	85.2	1,402	84.7	1,284
		2009		2010		2011		2012		2013		2014		2015	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
40 years and under	Supervision	76.1	2,526	76.6	2,451	78.2	2,685	78.7	3,165	81.3	3,207	80.9	3,463	81.8	3,399
	Intellectual Climate	63.8	2,454	65.3	2,380	66.5	2,624	67.2	3,086	69.3	3,137	68.5	3,392	69.7	3,324
	Skill Development	93.3	2,504	93.6	2,431	93.8	2,663	94.5	3,146	94.4	3,183	94.3	3,438	94.3	3,370
	Infrastructure	77.2	2,438	77.5	2,373	79.1	2,597	79.9	3,075	81.0	3,119	81.6	3,375	81.9	3,311
	Thesis Examination	80.2	2,509	80.5	2,451	79.7	2,682	82.7	3,162	82.4	3,213	82.4	3,464	83.6	3,401
	Goals and Expectations	91.8	2,522	92.0	2,447	92.0	2,677	92.9	3,164	93.4	3,204	93.4	3,461	93.7	3,396
	Overall Satisfaction	85.4	2,521	85.2	2,444	86.6	2,671	86.3	3,158	87.7	3,209	86.8	3,465	88.1	3,396
Over 40 years	Supervision	78.4	1,424	79.2	1,387	79.1	1,409	80.5	1,504	80.5	1,599	81.6	1,704	81.5	1,568
	Intellectual Climate	61.9	1,260	61.0	1,251	61.9	1,269	62.1	1,355	64.5	1,430	65.3	1,546	64.2	1,438
	Skill Development	91.2	1,414	91.3	1,377	91.9	1,391	92.5	1,494	92.2	1,585	92.5	1,695	92.1	1,561
	Infrastructure	73.9	1,220	72.9	1,184	72.8	1,200	72.7	1,304	75.0	1,394	75.6	1,484	76.2	1,384
	Thesis Examination	80.2	1,427	82.2	1,390	81.7	1,410	80.6	1,510	81.3	1,609	82.7	1,723	82.4	1,580
	Goals and Expectations	92.2	1,428	94.1	1,390	92.9	1,412	92.8	1,512	92.9	1,607	94.4	1,718	92.9	1,580
	Overall Satisfaction	84.8	1,423	84.3	1,387	85.4	1,413	85.8	1,507	84.7	1,607	87.0	1,719	86.8	1,579

Table 12 demonstrates that research graduates who were overseas residents at the time of the survey are generally more positive about their postgraduate research experience than Australian residents, and have been since the inception of the PREQ. In 2015, the largest differences were

observed on the Intellectual Climate and Infrastructure scales. Conversely, the difference between groups on the Skill Development scale was only small in magnitude, which is also true over the long term.

Table 12: 2002 to 2015 PREQ scale mean percentage agreement scores by permanent resident status

		2002		2003		2004		2005		2006		2007		2008	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Australian resident	Supervision	69.3	1,927	71.9	2,235	72.1	2,657	72.7	2,620	75.3	2,745	75.3	2,938	75.5	2,943
	Intellectual Climate	53.1	1,756	55.2	2,088	56.3	2,490	57.1	2,447	62.1	2,575	60.3	2,763	61.0	2,772
	Skill Development	89.5	1,959	89.5	2,223	90.9	2,645	90.2	2,584	91.0	2,726	91.3	2,919	92.9	2,926
	Infrastructure	64.7	1,665	66.3	2,013	67.3	2,393	68.4	2,376	71.6	2,513	72.3	2,673	73.7	2,686
	Thesis Examination	74.8	1,992	75.3	2,231	76.7	2,672	79.4	2,619	80.5	2,733	80.2	2,944	80.9	2,935
	Goals and Expectations	87.2	2,002	89.2	2,240	89.8	2,674	89.7	2,625	91.3	2,749	91.4	2,952	90.9	2,946
	Overall Satisfaction	80.2	1,955	81.1	2,225	83.0	2,660	82.6	2,614	84.4	2,732	84.7	2,950	84.4	2,925
Overseas resident	Supervision	77.6	342	78.6	330	77.5	378	81.4	375	80.8	471	82.2	661	81.5	671
	Intellectual Climate	65.3	320	63.6	311	66.2	356	66.1	358	69.0	447	72.3	630	72.5	654
	Skill Development	92.2	345	90.4	329	92.3	376	93.8	372	91.6	468	93.4	666	94.0	665
	Infrastructure	75.8	315	72.8	313	76.6	355	78.9	356	78.7	447	80.9	641	82.3	653
	Thesis Examination	79.3	346	72.7	329	76.3	380	80.3	372	78.0	469	81.9	660	80.6	657
	Goals and Expectations	93.0	350	89.8	330	92.2	378	92.8	375	90.8	474	94.3	662	95.0	672
	Overall Satisfaction	85.5	351	89.3	327	88.9	377	89.2	370	86.8	469	90.0	662	90.8	673
		2009		2010		2011		2012		2013		2014		2015	
		%	n	%	n	%	n	%	n	%	n	%	n	%	n
Australian resident	Supervision	75.9	3,163	76.0	3,061	78.0	3,179	78.0	3,601	79.2	3,528	79.7	3,740	80.0	3,595
	Intellectual Climate	61.5	2,963	62.0	2,883	63.2	3,012	63.4	3,409	64.5	3,331	64.3	3,552	64.8	3,425
	Skill Development	92.2	3,142	92.7	3,031	93.1	3,148	93.8	3,580	93.0	3,503	93.4	3,714	93.1	3,567
	Infrastructure	74.6	2,907	74.5	2,813	75.4	2,908	75.8	3,342	76.6	3,282	77.2	3,469	77.6	3,358
	Thesis Examination	79.7	3,160	80.9	3,066	80.5	3,177	81.5	3,604	81.6	3,540	81.8	3,757	82.2	3,609
	Goals and Expectations	91.6	3,167	92.6	3,062	92.0	3,177	92.2	3,612	92.4	3,535	93.3	3,750	92.6	3,603
	Overall Satisfaction	84.3	3,161	83.7	3,054	85.5	3,172	84.9	3,602	84.9	3,537	85.9	3,753	85.7	3,603
Overseas resident	Supervision	80.8	793	83.5	785	80.0	915	83.6	1,082	86.2	1,271	84.7	1,433	86.3	1,371
	Intellectual Climate	69.2	757	70.6	755	71.2	881	73.0	1,047	76.7	1,229	75.8	1,392	76.1	1,336
	Skill Development	93.8	782	93.2	784	93.0	906	94.2	1,074	95.4	1,258	94.6	1,425	94.9	1,363
	Infrastructure	81.6	758	81.3	752	83.0	889	84.1	1,050	86.3	1,224	86.1	1,395	86.6	1,336
	Thesis Examination	81.7	782	81.5	783	79.5	915	83.4	1,082	83.5	1,275	84.7	1,436	85.7	1,371
	Goals and Expectations	93.3	789	93.3	783	93.2	912	95.2	1,078	95.7	1,269	94.8	1,435	95.5	1,372
	Overall Satisfaction	89.1	789	89.3	785	88.5	912	90.4	1,077	91.7	1,272	89.2	1,437	92.9	1,371

As shown in Table 13, research doctoral graduates who were not in paid work during their final year of study tended to be more positive about their postgraduate research experience than those who were in paid work, although only the differences on the Intellectual Climate scale, and the Infrastructure scale to a lesser extent, were arguably of any practical importance. Conversely, research masters graduates who worked during their final year of study tended to be more positive about their experience, with their ratings on Intellectual Climate and Infrastructure the

two exceptions. It is interesting to note the general similarity between these results and those observed when mean percentage agreement scores are stratified by attendance type (Table 9), and a similar interpretation may apply. Research students who were engaged in paid work during their final year of study would generally have less time to spend on campus than those who were not in work—except, of course, those engaged in academic employment—which could explain their lower mean scores on the Intellectual Climate and Infrastructure Scales.

Table 13: 2015 PREQ scale mean percentage agreement scores by final year work

		Worked in final year	No work in final year
Research masters	Supervision	79.4	78.3
	Intellectual Climate	64.3	65.2
	Skill Development	91.3	88.4
	Infrastructure	74.8	77.4
	Thesis Examination	82.1	79.6
	Goals and Expectations	90.4	88.2
	Overall Satisfaction	82.6	81.3
Research doctorate	Supervision	81.4	83.5
	Intellectual Climate	66.8	71.9
	Skill Development	93.8	94.5
	Infrastructure	79.4	83.7
	Thesis Examination	82.8	85.0
	Goals and Expectations	93.5	94.9
	Overall Satisfaction	87.6	90.5
All research graduates	Supervision	81.1	83.0
	Intellectual Climate	66.5	71.2
	Skill Development	93.5	93.9
	Infrastructure	78.7	83.1
	Thesis Examination	82.7	84.4
	Goals and Expectations	93.0	94.3
	Overall Satisfaction	86.9	89.5

Research doctoral graduates who were in full-time work at the time of the survey tended to be more positive about their postgraduate research experience than those who were in part-time work or unemployed and seeking work (see Table 14). There were no substantial differences in mean percentage agreement between those in full-time work and those who were not actively participating in the labour market. Conversely, research masters graduates in part-time work tended to record higher mean percentage agreement scores than

those in other labour market states. Focusing solely on the Overall Satisfaction scale, research doctoral graduates who were in full-time work, unemployed and seeking work, or who were labour market non-participants recorded substantially higher mean percentage agreement scores than comparable research masters graduates.

It is important to note that this discussion on the influence of course and respondent characteristics on PREQ scores does not account for any interdependence between

characteristics. The differences in scores for male and female research graduates, for example, are more likely the result of differences in their enrolment characteristics than any fundamental difference between the sexes. In other words, sex may reflect a difference in PREQ scores, but it is not necessarily the cause of such. This should be kept in mind when interpreting the statistics in this report. This analytical approach was chosen to maintain consistency with earlier reports in this series.

Table 14: 2015 PREQ scale mean percentage agreement scores by labour market activity after graduation

		Working full time	Working part time	Seeking work	Not participating in labour market
Research masters	Supervision	76.7	85.2	68.2	78.6
	Intellectual Climate	60.2	69.5	55.6	69.3
	Skill Development	89.5	94.8	82.2	89.1
	Infrastructure	73.3	77.1	74.3	78.0
	Thesis Examination	81.2	82.4	78.6	82.0
	Goals and Expectations	87.5	94.9	89.0	86.5
	Overall Satisfaction	80.1	87.4	69.8	83.8
Research doctorate	Supervision	82.4	81.8	77.8	85.8
	Intellectual Climate	69.7	65.9	65.5	72.1
	Skill Development	94.4	93.7	92.3	94.7
	Infrastructure	82.2	77.7	79.0	83.3
	Thesis Examination	83.6	82.6	83.3	84.4
	Goals and Expectations	94.2	93.7	92.0	95.0
	Overall Satisfaction	89.5	87.7	83.7	90.8
All research graduates	Supervision	81.8	82.4	76.9	84.1
	Intellectual Climate	68.8	66.5	64.5	71.4
	Skill Development	93.9	93.9	91.3	93.4
	Infrastructure	81.3	77.6	78.5	82.1
	Thesis Examination	83.4	82.6	82.9	83.9
	Goals and Expectations	93.5	93.9	91.7	93.1
	Overall Satisfaction	88.5	87.7	82.4	89.1



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