

Postgraduate Research Experience (PREQ) Summary Report

2012

Prepared June 2012

James Cook University

Office of
Corporate
Planning &
Performance
and
Graduate
Research
School

Executive Summary

- In accordance with the Student Experience of Research Education (SERE) Policy for Research Higher Degree Candidates, JCU has several methods of systematically capturing the experiences of research higher degree candidates of their research education.
 - Every year recent graduates (graduands) are invited to complete Postgraduate Research Experience Questionnaire (PREQ) which is part of the nation-wide Australian Graduate Survey owned by Graduate Careers Australia
 - In even numbered years, all research higher degree candidates are invited to undertake an on-line survey based on the PREQ. Individual research higher degree candidates, their schools or advisors are not identified through this process.
 - In odd numbered years, research higher degree candidates are invited to participate in focus groups conducted by an expert consultant independent of the Graduate Research School. Individual research higher degree candidates or their advisors will not be identified through this process.
- The administration of SERE surveys is undertaken by the Graduate Research School. The analysis of the surveys is a joint effort by the Office of Corporate Planning and Performance and the Graduate Research School.
- This report summarises the results of surveys of: (1) surveys of JCU graduands (generally 2010-2012 to increase sample sizes) compared with the national PREQ survey of graduands for 2012; and (2) the results of the 2012 internal PREQ survey of continuing HDR candidates.
- **JCU graduands:**
 - Statistical comparisons between the 2010 – 2012 JCU PREQ data and the 2012 sector averages reveal that JCU graduands mostly had satisfaction levels that were similar to or better than the 2012 sector average, although the results were less positive than in 2008-2011.
 - Significant exceptions to the overall positive result for 2012 were: satisfaction of HDR candidates in the Faculty of Arts Education and Social Science (FAESS) with: (1) intellectual climate and infrastructure, and (2) external students with the thesis examination process. These FAESS results were also significantly less than the corresponding JCU means. In addition, there were marginal concerns about: (1) the overall satisfaction of FAESS HDR candidates as well as the satisfaction with the thesis examination process of: (1) candidates from Medicine Health and Molecular Sciences, and (2) candidates from an English speaking background.
 - The time series of overall satisfaction of JCU graduands from 2006-2012 compared to the sector average showed an overall decline in the JCU mean from 2008 to 2013. This decline was not statistically significant and the national mean was always within the error bars of the JCU results. None-the-less, this results are of concern in the light of parallel declines in the summary results.
- **2012 JCU HDR candidates: Internal PREQ**
 - Statistical comparisons between the 2012 JCU internal PREQ data and the 2012 sector averages reveal that: (1) HDR candidates generally had satisfaction levels that were similar to or better than the 2012 sector averages for graduands, and (2) that there were few (mostly positive) differences between the internal results for 2010 and 2012.
 - **2012 JCU HDR candidates: Additional questions.**
 - **Research takes advantage of tropical location**
 - (a) The proportion of HDR candidates whose research takes advantage of JCU's tropical location was 59% overall and significantly higher in the science and medical disciplines than in the non-science disciplines. There was no significant difference between the results for 2010 and 2012
 - (b) The levels of satisfaction of HDR candidates, whose research takes advantage of JCU's tropical location, is significantly higher than those for candidates whose research does not, with respect to supervision, intellectual climate, infrastructure and overall satisfaction.

Access to library resources

- (a) Overall 78 % of JCU HDR candidates are satisfied with their access to library resources. Satisfaction was relatively even across faculties and disciplines and the patterns changed little between 2010 and 2012.
- (b) Satisfaction with access to library resources was positively associated with the levels of all the dimensions of the satisfaction of HDR candidates. The differences were most marked with respect to intellectual climate.

▪ Fortnightly meetings with principal supervisor

- Overall 64 % of JCU HDR candidates have fortnightly meetings with their principal supervisor; the results for 2012 were slightly but significantly lower than for 2010. Such frequent meetings were positively associated with the levels of all the dimensions of the satisfaction of HDR candidates. For example, 86% of candidates who had frequent meetings with their principal supervisors were satisfied overall compared with 58% who did not.

▪ Timely feedback on work

- Overall 73% of JCU HDR candidates considered that they received timely feedback on their work. The difference in this proportion between 2010 and 2012 was not significant. Timely feedback was positively associated with the levels of all the dimensions of the satisfaction of HDR candidates. For example, 89% of candidates who received timely feedback were satisfied overall compared with 50% who did not.

• Qualitative responses

- Qualitative responses from both the PREQ and internal surveys highlighted similar issues.
- The best aspects of their candidature were : the research, the opportunity to develop as a person and as a researcher, the research community, the support they receive from various sources and the relationship they have with their supervisor (s).
- The worst aspects of their candidature were: lack of contact with fellow students and the feeling of isolation, the processes and administrative tasks required of them. Candidates participating in the internal survey also expressed difficulty in juggling personal work commitments and seeking funding for research related activities.
- The a report detailing the statistics on which this report have been based are on the GRS website.

Summary results from JCU graduands who participated in national PREQ surveys

Table 1: Summary of statistical comparisons between the 2010 – 2012 JCU PREQ data of JCU graduands and the corresponding 2012 sector averages ,which have been taken as the standard. Green indicates a result significantly better than the sector average (JCU mean \pm s.e. does not include the standard); red significantly worse. Borderline differences are indicated by lighter shades.

	Supervision	Intellectual climate	Thesis Examination	Infra-structure	Goals & Expectations	Skill Develop.	Overall
University 2012							
University 2010-12							
AESS 2010-12 ¹							
LBCA 2010-12 ¹							
MHMS 2010-12 ¹							
S&E 2010-12 ¹							
Natural and Physical Sciences 2010-12							
Ag Envir & Res 2010-12							
Health v Management & Commerce 2010-12							
Society & Culture 2010-12							
Doctorate 2010-12							
Masters 2010-12							
Full-time 2010-12							
Part-time 2010-12							
Internal 2010-12							
External 2010-12							
Mixed Mode 2010-12							
Males 2010-12							
Females 2010-12							
≤40 years 2010-12							
>40 years 2010-12							
Australian 2010-12							
Overseas 2010-12							
ESB 2010-12							
NESB 2010-12							
Summary of the comparison of the JCU 2010-12 scores with the 2012 national standard							
Total JCU significantly better	2	6		13	3	5	2
Total JCU marginally better				4	4	8	3
Total JCU significantly worse		1	1	1			
Total JCU marginally worse			2				1

Table 2: Summary of statistical comparisons between the 2008– 2011 JCU PREQ data of JCU graduands and the 2011 corresponding sector averages, which have been taken as the standard. Green indicates a result

¹ These comparisons have been made with the corresponding overall sector averages because sector data are not available for direct comparisons with JCU Faculty data.

significantly better than the sector average (JCU mean \pm s.e. does not include the standard); red significantly worse. Borderline differences are indicated by lighter shades.

	Supervision	Intellectual climate	Thesis Examination	Infrastructure	Goals & Expectations	Skill Develop.	Overall
University 2011 only							
University 2008– 2011							
AESS 2008– 2011 ²							
LBCA 2008– 2011 ²							
MHMS 2008– 2011 ²							
S&E 2008– 2011 ²							
Natural and Physical Sciences 2008– 2011							
Ag Envir & Res 2008– 2011							
Health 2008– 2011							
Management & Commerce 2008– 2011							
Society & Culture 2008– 2011							
Doctorate 2008– 2011							
Masters 2008– 2011							
Full-time 2008– 2011							
Part-time 2008– 2011							
Internal 2008– 2011							
External 2008– 2011							
Mixed Mode 2008– 2011							
Males 2008– 2011							
Females 2008– 2011							
≤40 years 2008– 2011							
>40 years 2008– 2011							
Australian 2008– 2011							
Overseas 2008– 2011							
ESB 2008– 2011							
NESB 2008– 2011							
Summary of the comparisons of JCU 2008-11 scores with the 2011 national standard							
Total JCU significantly better	3	9	2	13	8	11	8
Total JCU marginally better	1	4		3	3	5	4
Total JCU significantly worse							
Total JCU marginally worse		1				1	

² These comparisons have been made with the corresponding overall sector averages because sector data are not available for direct comparisons with JCU Faculty data.

Table 3: Summary of comparisons of scores for JCU 2010-12 PREQ data from JCU graduands with the 2012 PREQ national standard and the JCU PREQ scores for 2008-11 with the 2011 PREQ national standard. Green indicates that the number of JCU scores in the relevant band has increased by ≥ 3 ; Red indicates that the number of JCU scores in the relevant band has been reduced by ≥ 3 ; a lighter shade indicates that the numbers have changed by 1 or 2.

	Supervision	Intellectual climate	Thesis Examination	Infra-structure	Goals & Expectations	Skill Develop.	Overall
Total significantly better							
Total marginally better							
Total significantly worse							
Total marginally worse							

Table 4: Statistical comparisons between the 2010 and 2012 JCU PREQ data for each faculty from JCU graduands and the corresponding overall national PREQ results for the same period. Green indicates a faculty result significantly better than the national average (faculty mean \pm s.e. does not overlap with the JCU mean \pm s.e.); red significantly worse. Borderline differences are indicated by lighter shades.

	Supervision	Intellectual climate	Thesis Examination	Infra-structure	Goals & Expectations	Skill Develop.	Overall
AESS 2010-12							
LBCA 2010-12							
MHMS 2010-12							
S&E 2010-12							

Figure 1: Time Series of overall satisfaction of JCU graduands from 2006-2012 compared to the sector average which is taken as the standard. Although the decline in the JCU mean from 2008 to 2013 is not statistically significant and the national mean is always within the error bars of the JCU results, the results are of concern in the light of the summary results in Table 3.

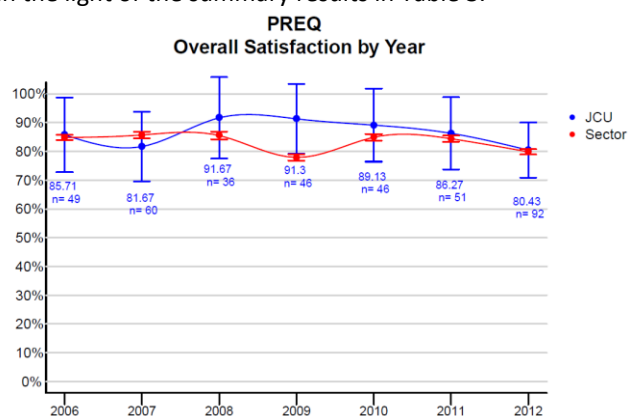


Table 5. Statistical comparisons between the 2012 JCU internal PREQ data for current HDR candidates and the 2012 external PREQ sector averages, which have been taken as the standard. Green indicates a result significantly better than the sector average (JCU mean \pm s.e. did not include the standard); red significantly worse. Borderline differences are indicated by lighter shades.

	Supervision	Intellectual climate	Infra-structure	Goals & Expectations	Skill Develop.	Overall
University						
Natural and Physical Sciences						
Ag Environ and Resources						
Health						
Management & Commerce						
Society & Culture						
Doctorate						
Masters						
Full-time						
Part-time						
Internal						
External						
Mixed Mode						
Males						
Females						
≤ 40 years						
> 40 years						
Australian						
Overseas						
Total JCU significantly better	9	2	7	1	9	1
Total JCU marginally better	1		2	1	4	
Total JCU significantly worse						
Total JCU marginally worse		2		1		

Table 6. Statistical comparisons between the 2012 and 2010 JCU internal PREQ data. Green indicates a result significantly better in 2012 than in 2010 (the standard error bars did not overlap); red significantly worse. Borderline differences are indicated by lighter shades.

	Supervision	Intellectual climate	Infra-structure	Goals & Expectations	Skill Develop.	Overall
University						
AESS						
LBCA						
MHMS						
S&E						
Natural and Physical Sciences						
Ag Environ and Resources						
Health						
Management & Commerce						
Society & Culture						
Doctorate						
Masters						
Full-time						
Part-time						
Internal						
External						
Mixed Mode						
Males						
Females						
≤40 years						
>40 years						
Australian						
Overseas						

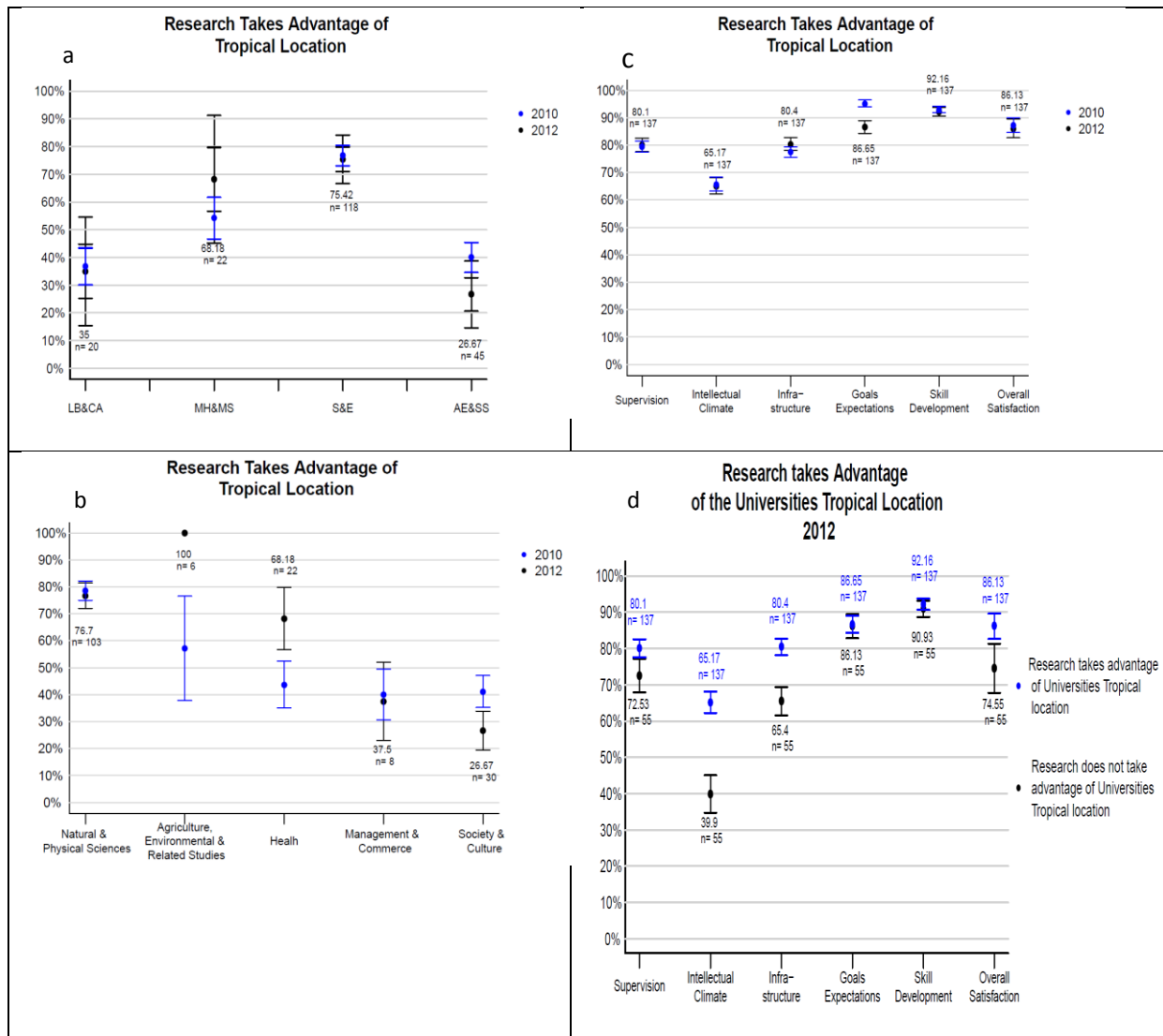
Questions added to JCU internal PREQ survey of current students. The questions are not included in the external survey.

Topic 1: *My research takes advantage of the University's tropical location.*

Comparisons of proportions who agreed for current HDR candidates in 2012 (blue) and 2010 (black):

- (a) by Faculty, (b) by aggregated field of research, and (c) for the various PREQ scales;
- (d) comparison of satisfaction levels for the various PREQ scales of 2012 current HDR candidates who agreed with those who did not.

All results are presented as means \pm standard errors.



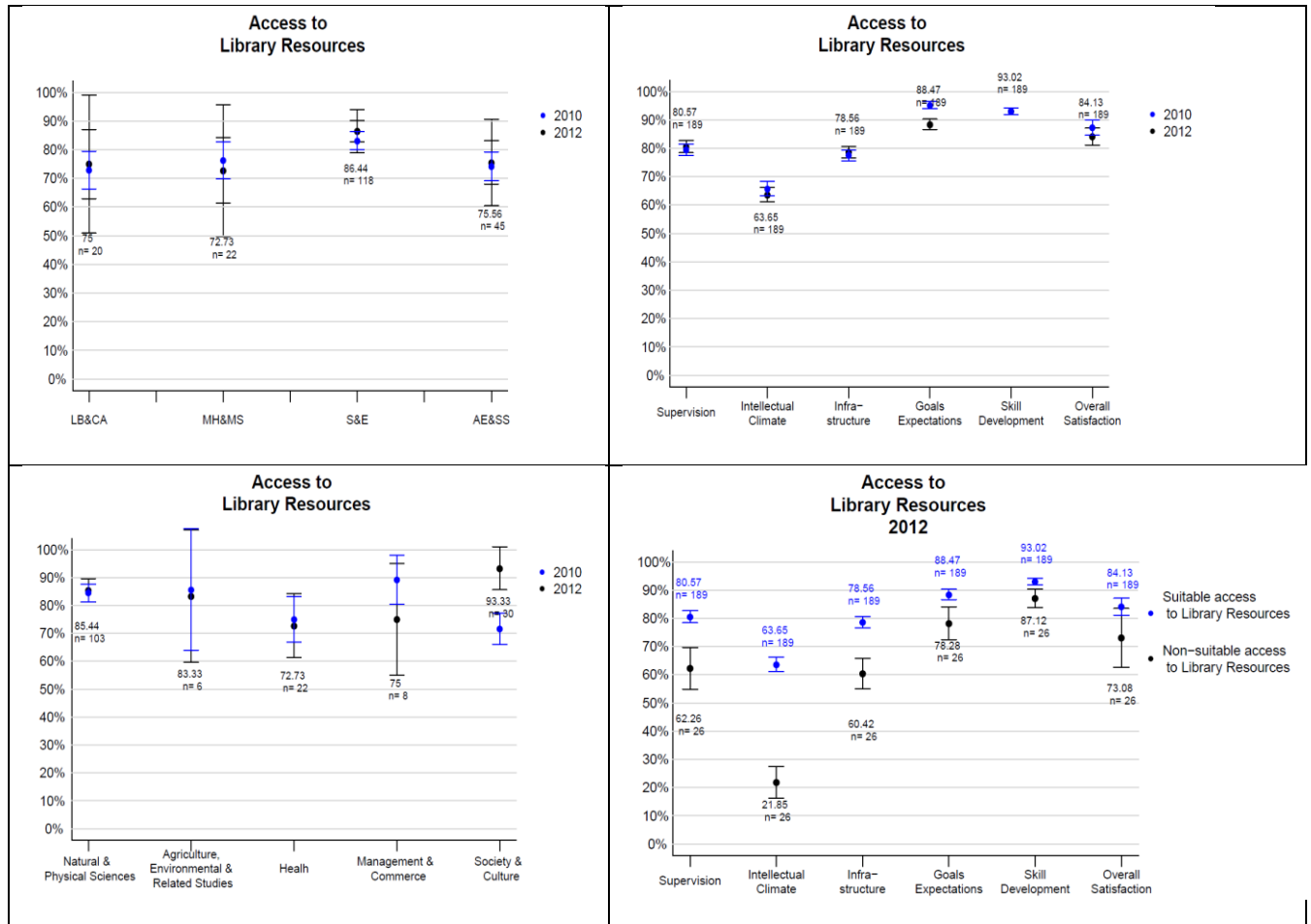
Topic 2: *I have access to all the library resources I need.*

Comparisons of proportions who agreed for current HDR candidates in 2012 (blue) and 2010 (black):

(b) by Faculty, (b) by aggregated field of research, and (c) for the various PREQ scales;

(d) comparison of satisfaction levels for the various PREQ scales of 2012 current HDR candidates who agreed with those who did not.

All results are presented as means \pm standard errors.

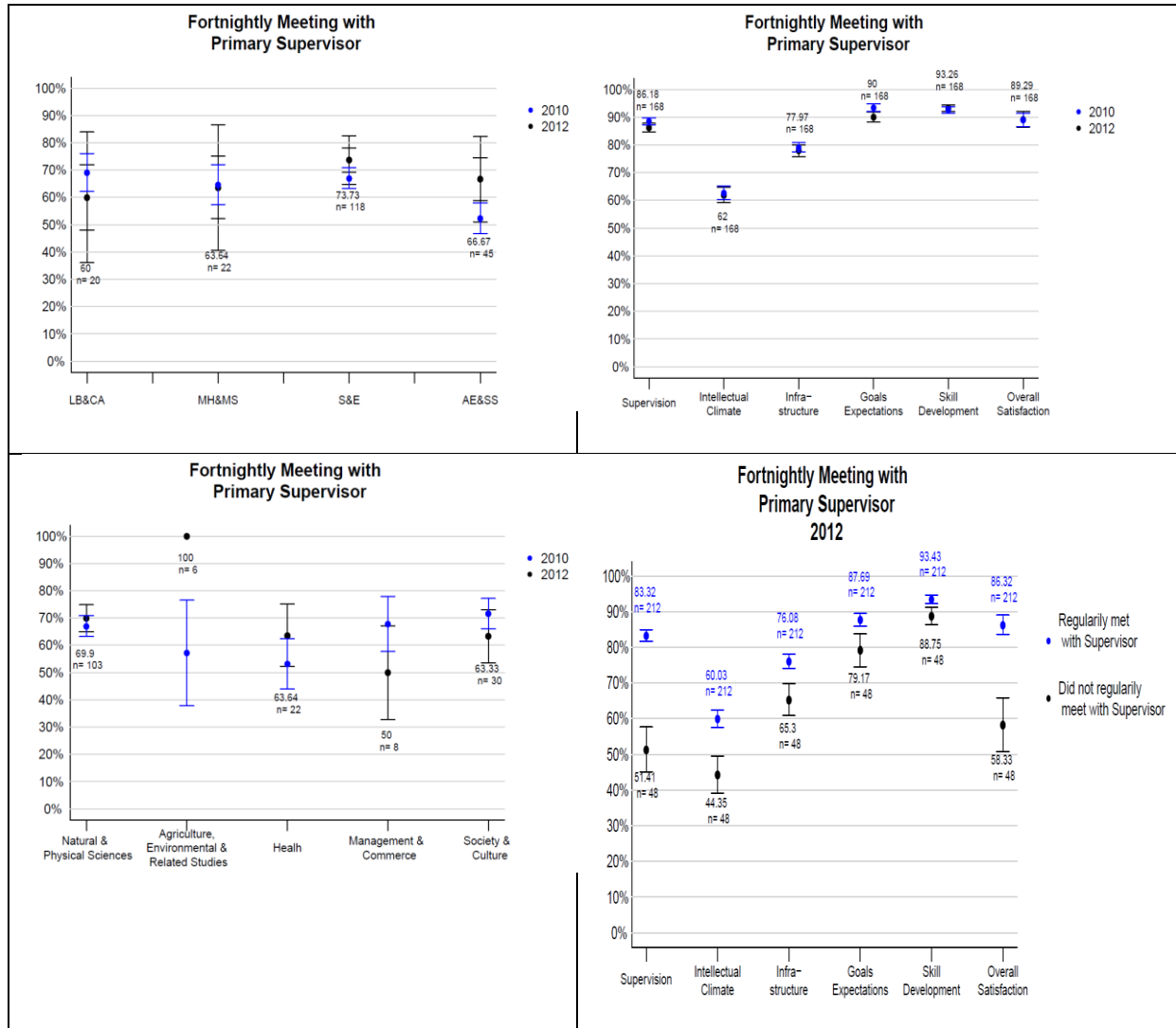


Topic 3: *I generally meet with my principal supervisor at least once a fortnight.*

Comparisons of proportions who were agreed for current HDR candidates in 2012 (blue) and 2010 (black):

- (a) by Faculty, (b) by aggregated field of research, and (c) for the various PREQ scales;
- (d) comparison of satisfaction levels for the various PREQ scales of 2012 current HDR candidates who met regularly with their principal supervisor with those who did not.

All results are presented as means \pm standard errors.

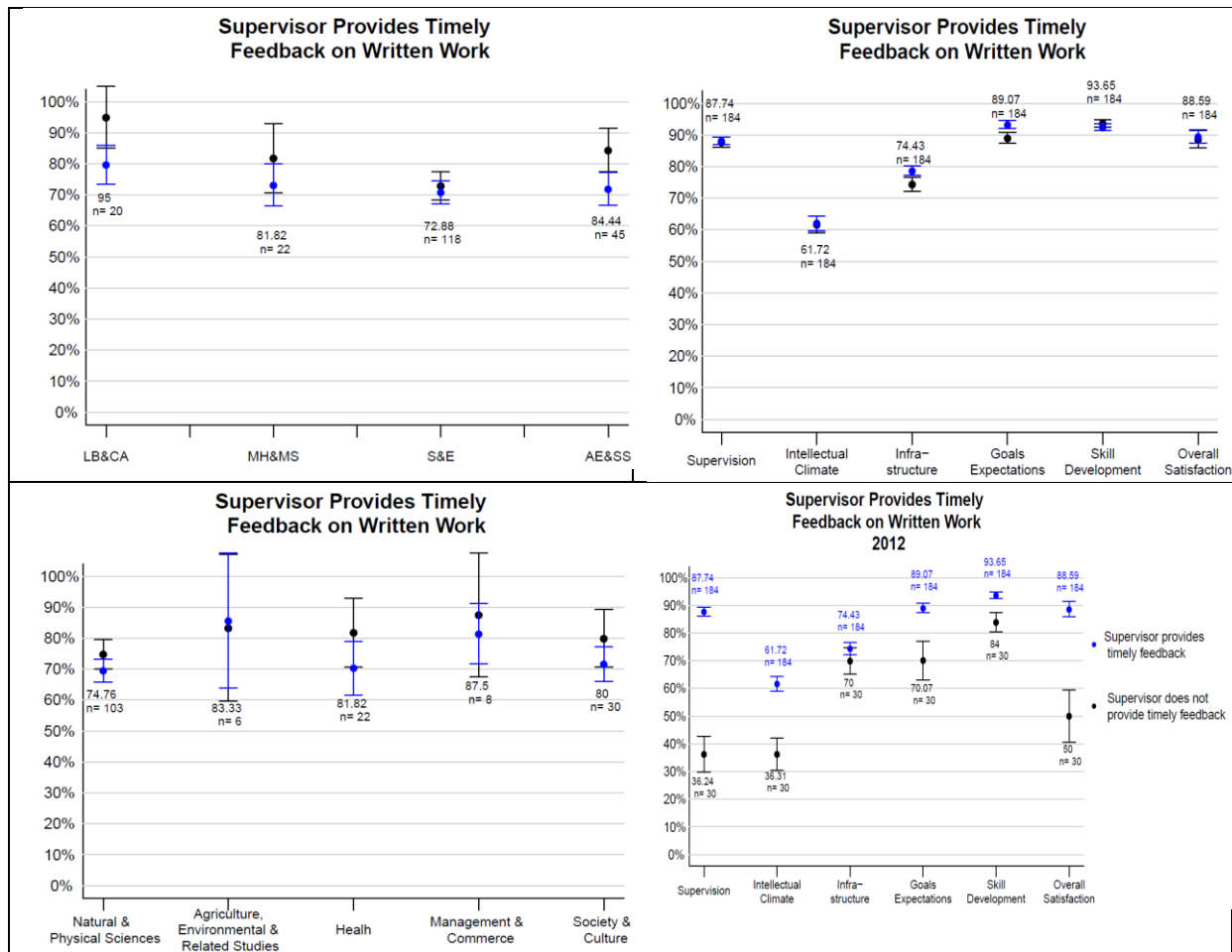


Topic 4: *My supervisor provides timely feedback on my written work.*

Comparisons of proportions of current HDR candidates who agreed that their supervisor provides timely feedback on their written work in 2012 (blue) and 2010 (black): (a) by Faculty, (b) by aggregated field of research, and (c) for the various PREQ scales;

(d) comparison of satisfaction levels for the various PREQ scales of 2012 current HDR candidates who met regularly with their principal supervisor with those who did not.

All results are presented as means \pm standard errors.



Qualitative Analysis

The qualitative analysis of the open ended questions was undertaken using word cloud technology. The size of the word is correlated with the word frequency in the respondent's answers to the open ended questions.

(a) Best aspects of course: 2012 graduands



(b) Best aspects of course: 2012 Current HDR candidates




(c) Worst aspects of course: 2012 graduands



A word cloud representing the worst aspects of the course for 2012 graduands. The words are in shades of blue. The most prominent words are 'research', 'students', 'supervisor', 'support', 'thesis', 'school', 'process', 'examination', 'access', 'needed', 'review', 'supervision', 'university', and 'work'. The words are arranged in a somewhat circular pattern, with 'research' and 'students' being the largest.

(d) Worst aspects of course: 2012 Current HDR candidates



A word cloud representing the worst aspects of the course for 2012 Current HDR candidates. The words are in shades of blue. The most prominent words are 'students', 'work', 'support', 'university', 'supervisors', 'supervision', 'study', 'phd', 'school', 'sometimes', 'paperwork', 'lack', 'jcu', 'community', 'isolation', 'field', 'feel', 'enough', 'access', and 'campus'. The words are arranged in a somewhat circular pattern, with 'students' and 'work' being the largest.