Acknowledgements

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The institution-wide evaluation was made possible through the collaboration, commitment, and support of stakeholders across and beyond Macquarie University. Our thanks to the PACE Faculty teams, PACE Academic Directors and PACE unit convenors who collaboratively designed the evaluation and participated in it, including through workshops and interviews. Our thanks are also extended to the Faculty Learning & Teaching staff, the Learning Innovation Hub, and the Office of Business Intelligence and Reporting who provided access to institutional data and supported the integration of PACE evaluation data into existing university systems/processes.

Our sincere thanks go particularly to the PACE students and partners who generously gave their time to complete the evaluation surveys and participate in interviews, sharing their experiences of the PACE program.

The PACE Research and Evaluation Team gratefully acknowledges the contributions of staff who had a role in data collection and analysis: Kate Lloyd, Marie Johnsen, Susan Barnes, Diana McConachy, Lucy Corrigan, Anna Rowe, Nicola Myton, and Chandrama Acharya. We also acknowledge the support of Lindie Clark, Academic and Programs Director of PACE, throughout this project.

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Executive Summary

The Professional and Community Engagement (PACE) program is a university-wide work integrated learning (WIL) program that was initiated at Macquarie University in 2008, as part of a fundamental overhaul of Macquarie’s undergraduate curriculum. Underpinned by principles of reciprocity and collaboration, PACE’s strategic vision is to connect all undergraduate students, partners and University staff in mutually beneficial learning and relationships that contribute to social impact and innovation.

The PACE Evaluation aimed to assess the impact of the program for students, partners, the University, and the community more broadly, as well as support quality assurance for program improvement and development. The report is structured around five high level evaluation questions:

1. How much did the PACE program do?
2. How effectively is PACE being implemented?
3. What are the critical program components and barriers?
4. To what extent does PACE contribute to outcomes for students, partners, the University, and the wider community?
5. Who benefits most from PACE and in what circumstances?

A multiphase, mixed methods approach was used to generate knowledge about not only whether PACE is effective, but also explain the reasons why, explore any contextual factors that may be influencing program success, and identify areas to enhance the PACE program.

This report includes PACE program data (2016-2018), the PACE Student Survey (Session 2 2017-Session 3 2018/19), Partner Survey (Session 2 2018, Session 1/2 2019), PACE Staff Workshops and interviews (Session 2 2018-Session 1 2019), Graduate Outcomes Surveys (2016-2018) and purposeful case studies (2018). The primary audience for this report is internal stakeholders at Macquarie University. However, given the scale of the project, the evaluation design and implementation may also of interest to the wider WIL community.

Evaluation Question 1: How much did the PACE program do?

The institution-wide implementation of the PACE program is unprecedented in the Australian university WIL context. Program data from 2016-2018 demonstrates that the PACE program is providing the scope, scale and diversity of experiences required to support all students to undertake a professional experience as part of their undergraduate degree. From 2016-2018 there were 22,669 enrolments into the PACE program, with data suggesting that a relatively large proportion of students (42%) enrol in more than one PACE unit over the course of their degree. Overall, 4972 unique PACE activities were undertaken, including 294 PACE International activities. The largest proportion of PACE students undertook University-based placements (44%), followed by internships (29%).
Evaluation Question 2: How effectively is PACE being implemented?

There is clear evidence that PACE plays an important role in providing undergraduates with discipline-related professional experiences and that students and partners are highly satisfied with the PACE program and their overall experience.

Although professional and community engagement processes varied across the program, within Faculties and even within PACE units, there was strong evidence that PACE activities were being implemented effectively in terms of partnership development, PACE activity design, allocation, induction, preparation and supervision/partner contact.

PACE units and activities are being undertaken within an academically rigorous framework to develop the capacity and capabilities of students. PACE units are providing students with opportunities to apply theory to practice in a professional setting, whilst being provided with academic support.

PROGRAM EXPERIENCE

Excelling | Program relevance
---|---
There is clear evidence that the PACE program is relevant, from the perspective of students, partners and University stakeholders. Most students had previous work experience; however, only 35 per cent had done most or all their professional experiences in an area of professional interest. The most important goals for students when undertaking PACE were to gain professional experience, skills or knowledge (87%), sharpen analytical skills (84%), and to develop and/or apply discipline specific knowledge or skills (83%). Partners’ motivations for participating in PACE were to gain support for organisational projects, build connections with Macquarie University and access discipline knowledge and/or expertise.

Strong | Student and partner satisfaction
---|---
There is strong evidence that students and partners were highly satisfied with PACE. Students agreed that it was valuable to do PACE as part of their degree (87%) and that PACE had enhanced their experience at Macquarie University (80%). However, a small proportion of students (14%) were either unsatisfied with PACE or did not value the experience. The majority of these students were an internal enrolment, did not find their own activity, did the activity as part of a group, and completed a large PACE unit. Partners were also satisfied with the outcomes achieved by the students (93%) and the majority of partners agreed that they would recommend engaging with a PACE student (93%).

Excelling | Program support
---|---
PACE is excelling in terms of providing personalised and bespoke program support to students and partners. Students who had contact with the PACE team reported that the support was helpful, particularly in terms of explaining the program, providing emotional support, accessing information about unit requirements, and applying for PACE activities (e.g. resumes and interviews).

Reasonable | Monitoring
---|---
There is some evidence that PACE teams and unit convenors were monitoring PACE activities, however in most cases it occurred reactively. There were also limited resources and a lack of clarity about who was responsible for the ongoing monitoring of PACE activities. This is an area that needs improvement.
There is strong evidence that PACE is providing students and partners with timely and effective information about PACE. The majority of students and partners agreed that processes and systems were easy to use. However, limited access to central marketing support and student management information, and difficulties with student systems/enrolment timeframes provide ongoing challenges.

**PROFESSIONAL AND COMMUNITY ENGAGEMENT**

**Strong Partnership development and management**

There is strong evidence that PACE has effectively sourced, developed and managed a wide range of partnerships to provide students with high-quality PACE activities. Sourcing and developing partnerships based on reciprocity required significant time and in many cases was ‘invisible’ work, which could be limited by other challenges, such as external systems and administration.

**Strong Activity design and allocation**

There is strong evidence that the PACE activity design and allocation process is generating a range of professional opportunities for all undergraduate students. Overall, 80 per cent of students reported that PACE provided them with an opportunity to develop discipline specific knowledge/skills, reflective practice, an ability to work as a team member, awareness of ethical principles, as well as to gain professional experience and make a positive contribution to the community. The majority of students also agreed (80%) that there was an opportunity for them to apply the skills, knowledge or theories they had learnt at university. However, almost a third of students did not agree that their PACE activity was in an area of professional interest. The majority of partners (>85%) agreed that the process for connecting with students was simple, that the PACE activity was achievable in the time frame, that the activity had clear goals/tasks, and that they understood the activity’s connection with the student’s university studies.

**Strong Preparation and induction**

There is strong evidence that PACE effectively prepares students and partners for PACE activities. Most students reported that they received an induction (78%) and that it had prepared them well (68%). Most students (78%) also agreed that the partner organisation was prepared for their PACE activity. The most common suggestions for preparation improvements from students related to having clearer information about activity objectives, roles, and responsibilities.

Partners agreed that students were prepared for the activity (84%). They also agreed to a moderate or great extent that students had the required knowledge and skills (93%) and were motivated to engage and learn (94%).

**Excelling Supervision and/or partner contact**

PACE is excelling in terms of student supervision and/or partner contact. Students agreed they had received adequate support from their supervisor (85%) and that their supervisor made constructive suggestions for improving their work (79%). Partners reported that they had provided students with regular feedback (88%) and the investment of time was worthwhile (88%).
LEARNING AND TEACHING

**Strong Learner experience of PACE**

There is strong evidence that students regard the learning and teaching in PACE units highly. In response to the items which are a Learning and Teaching Unit Evaluation requirement at Macquarie University, 8 out of 10 items were rated in the highest category (≥4 out of 5). Accordingly, 89 per cent of students agreed they would recommend the PACE unit to other students. The lowest rated items were the reflection component of the unit and the debriefing (both 3.8 out of 5). Students provided several suggestions for unit improvements in regard to assessments, unit content being aligned to the PACE activity and/or discipline, and improving unit workload.

**Excelling Academic support**

PACE is excelling in terms of academic support. Eighty-seven per cent of students agreed that the academic staff were helpful. Students also commented that they appreciated the support provided by unit convenors and tutors; quite a few noted it to be the best they had received at University.

**Evaluation Question 3: What are the critical program components and barriers?**

The evaluation findings identified the following critical program components:

- **PACE processes** such as partner preparation, activity matching, induction, and learning and teaching. These have a significant impact on students’ overall experience and their perception of the impact of PACE on their employability, career readiness and citizenship.

- **Faculty-based PACE teams** with central support to provide personalised and bespoke support to students, partners and unit convenors. The central team focuses on programmatic processes and systems.

- **Professional experience embedded in curriculum** to provide students with an opportunity to apply theory to practice supported by a rigorous academic framework.

- **Recognition of the workload** for unit convenors and PACE teams. This workload includes convening a PACE unit, establishing partnerships and developing PACE activities.

- **Faculty integration** to ensure relevance across disciplines and Faculties. Critical aspects of Faculty integration were ongoing discussions and collaborations across the different Faculty levels, promotion of the benefits of the program, engagement of non-PACE staff to champion the program, and PACE unit convenors being engaged in the program. However, integration into daily Faculty operations is an ongoing process and several barriers were also identified.

- **Leadership and governance** to embed PACE within Faculties and the broader University environment. However, the program structure also contributed to barriers in terms the accountability and quality assurance of PACE units. For example, although Senate-endorsed criteria for PACE units provide a quality framework for approving PACE units, the PACE program lacks official oversight or authority over the way in which PACE units are delivered.

The main barriers to program implementation, all of which were outside the immediate scope of the PACE program, were the need for:

- **A University-wide coordinated approach** to professional practice and employability initiatives, which are embedded throughout an undergraduate degree. Questions were raised about how PACE’s role and the role of other areas of the University in terms of student employability, professional skill development and accountability for graduate employment outcomes could be better coordinated.

- **A coordinated strategic approach to partnership management** across the University to capitalise on the strong partnership base that PACE has established and provide students with ongoing professional opportunities, as well as build research and corporate engagement/collaborations.

- **Reconfiguration of resources** to reduce program costs, while continuing to provide high-quality experiences to students and partners.
• **Co-ordinated communications and systems.** As PACE is a University-wide program linked to degree programming, communication needs to be coordinated across different parts of the University and beyond PACE teams in order to promote PACE, increase student awareness of the PACE program, and ensure that there is consistent messaging across the University.

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### Evaluation Question 4: To what extent does PACE contribute to outcomes for students, partners, the University, and the wider community?

Overall, there is strong evidence that PACE is positively contributing to outcomes for students, partners, the University and the wider community.

#### Strong Career readiness

There is strong evidence that PACE is having a positive impact on students’ career readiness, with statistically significant increases in professional practice and commencement confidence. Students also agreed that PACE had improved their employability (77%). At the end of PACE students rated their professional practice competencies highly. For example, 95 per cent reported that their ability to communicate appropriately with people from different levels of management and their ability to take responsibility and be accountable for professional practice, actions and decisions was good or very good. However, they were least confident that they would be able to obtain work relevant to their studies (63% quite/very confident).

Four months after course completion, graduates reported that PACE had helped them (very much, a lot or somewhat) to plan or make decisions about their career (69%) and feel more confident seeking work (65%), and that PACE had contributed to their ability to get a satisfying job in an area of professional interest (63%). Twelve months after course completion, graduates reported (a lot, moderately, or a little) that PACE had helped them to plan or make decisions about their career (78%), feel more confident seeking work (74%), and that PACE had contributed to their ability to get a satisfying job in an area of professional interest (70%).

Given the short-term nature of the PACE program – one compulsory unit completed as part of a 3-5 year undergraduate degree – it is positive to see that a large majority of students rated the impact of PACE positively, both four and twelve months after course completion.

The majority of partners reported that students were, to a moderate or great extent, ready to commence in their field/disciple (86%). The vast majority also agreed that PACE had helped to prepare the student/s for their future transition to graduate employment (91%).

#### Strong Professional networks

There is strong evidence that PACE is enhancing students’ professional networks with statistically significant increases in job seeking confidence, including professional networks. However, compared to other professional skill domains, at the end of PACE a smaller proportion of students agreed that they felt confident using their professional network to seek work (68%) or that they were actively using their
At the end of PACE, 61 per cent of students agreed that PACE had enhanced their networks.

PACE is having a substantial impact on students’ citizenship with statistically significant increases in their citizenship competencies, such as their ability to evaluate their personal practices and their ability to address social, environmental or sustainability issues in their field of study or profession. At the end of PACE students were most confident in this domain with over 80 per cent of students agreeing with each citizenship item. A high proportion of students also reported that PACE had provided them with opportunities to develop their citizenship competencies. In turn, student’s rating of the overall impact of PACE on their citizenship competencies was slightly higher than that of career readiness competencies.

There is strong evidence that PACE is having a positive impact on graduate employment. From 2016-2018 graduates who completed PACE were significantly more likely to be in full-time employment (PACE 76%, non-PACE 67%), in their first full-time job (PACE 76%, non-PACE 26%) and in overall employment (PACE 88%, non-PACE 85%) four months after course completion, compared to graduates who had not completed a PACE unit. Twelve months after course completion PACE graduates were also significantly more likely to be in full-time employment (PACE 86%, non-PACE 77%) and overall employment (PACE 95%, non-PACE 90%) from 2016-2018.

In some case students were directly employed by their PACE partner (13% at the end of PACE, 7% four months after course completion and 10% twelve months after course completion). Whilst not all organisations had the capacity to directly employ students, many partners were committed to providing ongoing professional support, mentoring and networking opportunities to the students they had hosted.

Twelve months after course completion PACE graduates were also significantly more likely than non-PACE graduates to report that their employment was related to their degree (PACE 67%, non-PACE 42%) and that their qualification had prepared them for employment (PACE 68%, non-PACE 49%) from 2016-2018.

There is strong evidence that PACE is contributing to mutually beneficial outcomes for partners and the community more broadly. Partners reported to a great or moderate extent that students were supporting key projects (84%) and producing a range of tangible outputs. Students were also providing critical support to community organisations and working directly with local communities.

Partners also reported to a great or moderate extent that PACE had provided them with an opportunity to make a positive community impact (85%), to give back to the industry/profession (81%) and to engage with the university sector (80%). To a lesser extent partners reported that access to current disciplinary or professional knowledge (57%), professional development opportunities for the supervisor (55%), and access to potential future employees (64%) were a benefit of the PACE program.

There is strong evidence that PACE is contributing to widespread outcomes for the University. Macquarie University is seen as a leader in the WIL sector, and PACE as a differentiator that has increased its profile and reputation. Other reported benefits for the university included increasing academic/staff engagement in the University, and student engagement in their studies. PACE is seen as a unique interface which connects University, industry and community. This has had multiple benefits and great potential in terms of student recruitment, research collaborations and corporate partnerships.
Evaluation Question 5: Who benefits most from PACE and in what circumstances?

At an aggregate level, students reported positive changes in their professional practice, commencement confidence, job seeking and active citizenship. However, there were a number of differences in student self-reported outcomes and satisfaction when comparing student groups and different types of PACE experiences:

- The magnitude of outcome changes (comparing student’s reflection of their competencies at the start of PACE to the end of PACE) in terms of Professional Practice, Commencement Confidence, Active Citizenship and Job Seeking was significantly greater for students who completed a PACE internship compared to students who did a University-based placement. At the end of PACE, students who did a PACE internship also rated themselves more highly across all outcome domains compared to students who did a University-based placement. This means that students who completed a PACE internship reported the greatest changes as a result of PACE and were also more confident in their capabilities at the end of the program.

- PACE students who did an internship also rated the Impact on Active Citizenship, Impact on Career Readiness, Student Satisfaction and employability item/s significantly higher that students who did a university-based placement. There were no differences between these two groups, however, in students’ rating of the of PACE unit.

- Students who completed a small PACE unit (<40 enrolments) reported significantly greater outcome changes in terms of Job Seeking compared to students who completed a large unit. Student who completed a small PACE unit also rated the Student Satisfaction and Learner Experience of PACE items significantly higher, as well as Impact on Career Readiness, Impact on Citizenship and Employability.

- At the end of PACE, students who did a PACE International activity rated the Professional Practice and Active Citizenship items significantly higher than students who did not, as well as the Impact on Career Readiness, Employability and Student Satisfaction item/s. However, students who did not do a PACE International Activity rated the Learner Experience of PACE items significantly higher than PACE International students.

- At the end of PACE, domestic students rated the Professional Practice and Active Citizenship items significantly higher than international students.

- At the end of PACE, students with a high GPA rated the Commencement Readiness items significantly higher than students with a medium GPA.

- At the end of PACE, students who had previous work experience rated the Job Seeking and Active Citizenship items significantly higher than students who had no previous work experience.

- Students who were not mature age reported significantly greater changes in Commencement Readiness and Professional Practice compared to mature age students.

In terms of employment outcomes, there were several differences in full-time graduate employment trends when comparing PACE experiences and groups, as well as with the non-PACE cohort. The most substantial of these is that graduates who did multiple PACE units were significantly more likely to be in full-time employment four months after course completion (83%) compared to students who did one PACE unit (72%), as well as the non-PACE cohort (67%). Graduates who did multiple PACE units were also significantly more likely to be in full-time employment twelve months after course completion (90%) compared to students who did one PACE unit (83%), as well as the non-PACE cohort (77%).

For the aggregate 2016-2018 period a higher proportion of graduates with a disability, graduates from Non-English-Speaking Backgrounds, graduates from low socio-economic status backgrounds, and international graduates who did a PACE unit were in full-time employment compared to the respective non-PACE cohorts. Lastly, although a higher proportion of graduates who did a PACE internship were in full-time employment compared to those who did University-based placements, the differences were not statistically significant. Therefore, whilst the type of PACE activity had a significant impact on student reported outcomes, the results suggest that these differences did not impact graduate employment outcomes. However, graduates who had either PACE experience (internship or university-based placements) were significantly more likely to be in full-time employment compared to the non-PACE cohort for the 2016-2018 period.
Conclusions and Recommendations

The institution-wide implementation of the PACE program is unprecedented in the Australian university WIL context. This report provides evidence that PACE is having a substantial impact on student/graduate outcomes and engagement, which is a significant result for the University. A key strength of the program is its established long-term partnerships with industry and community, which has multiple benefits and great potential for the broader University.

The following recommendations have been developed from the evaluation findings. Aligned with the collaborative evaluation approach, they are intentionally broad so they can be discussed and refined by PACE and University stakeholders.

RECOMMENDATIONS FOR PACE PROGRAM DELIVERY

1. **Develop strategies to further increase students’ career readiness and professional networks**, including opportunities for students to undertake a PACE activity in an area of professional interest, connecting students with a supervisor/mentor in the same disciplinary area and greater alignment of unit content to the PACE activity and/or discipline.

2. **Continue to provide a range of PACE activities**, including local, regional, and international, to sustain the growth of the program. Strategies to increase internship opportunities, which are having a particularly positive impact on student reported outcomes and experience, should be explored.

3. **Continue to work closely with partners** to ensure that PACE activities provide mutually beneficial outcomes for partner organisations, students and the community more broadly.

4. **Develop strategies and/or resources to better prepare students and partners for their PACE experience**, including developing PACE activities with clear objectives, roles and responsibilities. Opportunities for students to connect with past PACE students could provide another layer of support. Student preparation also involves other areas of the University, such as the Careers and Employment Service in many PACE units, and this should be broadened and strengthened.

5. **Establish proactive monitoring processes** for PACE activities, including clarifying expectations, roles and responsibilities for each party (unit convenors, PACE staff, students and partners).

6. **Establish consistent and regular unit review processes** to support quality assurance of PACE units. Unit reviews should involve the relevant PACE stakeholders and be incorporated into existing Faculty/University processes. This includes ensuring that activity sourcing, activity/unit workload, reflection and debriefing processes, induction and unit size are considered. When relevant exploring ways to enhance the connection between PACE International activities and the curriculum, learning and teaching within PACE units should also be considered, as mechanisms to further support students who undertake research activities with external partners.

7. **Consider mechanisms to ensure that all student groups are benefiting from the PACE program**, specifically external students, student who completed a large PACE unit, mature age students, international students and students who had no previous work/professional experiences.

BROADER RECOMMENDATIONS

8. **Promote and leverage the outcomes of the PACE program** as a differentiator for Macquarie University in regard to student recruitment, as well as strengthening the University’s reputation in the wider community.

9. **Develop a University-wide coordinated approach to professional practice and employability** which builds upon the success of the PACE program. This should include opportunities for students to develop their professional capabilities and undertake work-integrated and practice-based learning experiences throughout their undergraduate degree.

10. **Develop a University-wide strategic approach to industry and community partnerships**. This should recognise the workload and resources required to build sustainable relationships based on reciprocity and seek to leverage PACE partnerships for the purposes of corporate engagement, multidisciplinary partnerships and research collaborations.

11. **Coordinate University communication, systems and processes** to increase student awareness of the PACE program, ensure students know early in their degree that PACE is a requirement, and enrol early in PACE units.

12. **Support the continued integration of PACE within Faculties** to ensure that the program is relevant across disciplines, efficiently delivered at scale, and sustainable into the future. This includes the recognition of workload associated with delivering PACE units and where possible the involvement and engagement of a wide variety of academics.
LESSONS FOR EVALUATING WORK-INTEGRATED LEARNING PROGRAMS

The PACE Evaluation has provided a unique opportunity to examine the processes and outcomes of a university-wide work-integrated learning (WIL) program. The following recommendations have been developed to support future WIL evaluations.

13. **Collaboration, commitment and buy-in is key.** Involving multiple and diverse academic and professional stakeholders at all stages of evaluation design and implementation is critical to ensure that there is ongoing engagement and buy-in for the evaluation, and commitment to using the evaluation findings for program improvement.

14. **Develop a program Theory of Change and evaluation criteria.** Have a clear understanding of the context (program and university), purpose of the evaluation, nature of the program, the program components being evaluated, and how success, impact and quality is defined and measured, before determining the methods.

15. **Measure program processes and outcomes.** This is necessary to not only generate knowledge about program effectiveness, but also explain the reasons why, explore any contextual factors that may be influencing program success, and identify areas for program enhancement.

16. **Prioritise evaluation objectives and questions.** Be realistic about the resources required to design and implement a formal program evaluation and use prioritise evaluation objectives and questions to ensure that data collection is manageable and sustainable.

17. **Use a mixed method design.** This is vital to capture data from students, partners, and University stakeholders and can be a useful strategy to engage different stakeholders. For example, complement quantitative metrics on graduate employment outcomes with rich and detailed stories of impact collected through qualitative methods.

18. **Provide timely access to data to support ongoing quality assurance.** Utilising analytic tools such as dashboards can provide near real time access to data. This provides multiple benefits and supports a learning culture whereby program stakeholders continuously use evaluation data to inform practice and make decisions to improve program effectiveness and implementation.

19. **Embed data collection within university systems, program processes and/or learning and teaching.** This is important to ensure that data collection is sustainable and not seen as an add-on to program delivery. It can also be a useful strategy for engaging stakeholders and enhancing curriculum.
# Table of contents

**Executive Summary** .............................................................................................................................................................................i  
**Table of contents** ............................................................................................................................................................................. xi  
**Chapter 1: Evaluating the PACE Program** .............................................................................................................................................. 1  
  1.1 The Professional and Community Engagement (PACE) program ....................................................................................................................... 2  
  1.2 Program implementation ............................................................................................................................................................................ 2  
  1.3 Evaluating the PACE Program ........................................................................................................................................................................ 3  
  1.4 Evaluation Objectives Phase 2 ................................................................................................................................................................. 4  
  1.5 Evaluation Questions ..................................................................................................................................................................................... 5  
  1.6 Evaluation Approach ..................................................................................................................................................................................... 5  
  1.7 Report Structure ......................................................................................................................................................................................... 6  
**Chapter 2: Evaluation Methodology** .......................................................................................................................................................... 7  
  2.1 Data collection, analysis and reporting ..................................................................................................................................................... 8  
  2.2 Interpreting the results: What does success look like? ..................................................................................................................................... 26  
**Chapter 3: How much did the PACE program do?** ................................................................................................................................................ 29  
  Chapter overview ......................................................................................................................................................................................... 30  
  3.1 Student enrolments in PACE units ......................................................................................................................................................... 30  
  3.2 PACE activities (unique) ............................................................................................................................................................................. 35  
  3.3 Student enrolments in PACE activities .................................................................................................................................................. 37  
  3.4 Summary and recommendations ............................................................................................................................................................. 38  
**Chapter 4: How effectively is PACE being implemented?** ........................................................................................................................................... 39  
  Chapter overview ......................................................................................................................................................................................... 40  
  4.1 Program experience .................................................................................................................................................................................... 41  
  4.2 Professional and community engagement ............................................................................................................................................ 54  
  4.3 Learning and Teaching .......................................................................................................................................................................... 70  
  4.4 Summary and recommendations ............................................................................................................................................................. 74  
**Chapter 5: What are the critical program components and barriers?** .............................................................................................................. 75  
  Chapter overview ......................................................................................................................................................................................... 76  
  5.1 Critical program components .................................................................................................................................................................. 76  
  5.2 Program barriers ....................................................................................................................................................................................... 80  
  5.3 Summary and recommendations ............................................................................................................................................................. 82  
**Chapter 6: To what extent does PACE contribute to outcomes for students, partners, the University and the wider community?** ..................................................................................................................... 83  
  Chapter overview ......................................................................................................................................................................................... 84  
  6.1 Student outcomes ....................................................................................................................................................................................... 85  
  6.2 Graduate employment outcomes ............................................................................................................................................................ 97  
  6.3 Partner and community outcomes .......................................................................................................................................................... 122  
  6.4 University outcomes ............................................................................................................................................................................ 126
Summary and recommendations.........................................................................................................132

Chapter 7: Who benefits from PACE and in what circumstances? .................................................. 133

Chapter overview...................................................................................................................................... 134
7.1 Differences in PACE experiences.........................................................................................................135
7.2 Differences in student groups .............................................................................................................142
7.3 Summary and recommendations........................................................................................................ 149

Chapter 8: Conclusions and Recommendations..............................................................................150
8.1 Recommendations for PACE program delivery..................................................................................151
8.2 Broader recommendations...................................................................................................................151
8.3 Lessons for evaluating Work-Integrated Learning programs............................................................152
References..........................................................................................................................................................153
List of Tables......................................................................................................................................................154
List of Figures....................................................................................................................................................156
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>ADP</td>
<td>Academic Director of PACE</td>
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<tr>
<td>AMIS</td>
<td>Academic Management Information System</td>
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<td>ARC</td>
<td>Australian Research Council</td>
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<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
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<td>EQ</td>
<td>Evaluation Question</td>
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<tr>
<td>FBE</td>
<td>Faculty of Business and Economics (from 2019, Macquarie Business School, MQBS)</td>
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<tr>
<td>FMHS</td>
<td>Faculty of Medicine and Health Science (from 2020, Faculty of Medicine, Health and Human Sciences)</td>
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<td>FoA</td>
<td>Faculty of Arts</td>
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<td>FOE</td>
<td>Field of Education</td>
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<tr>
<td>FoHS</td>
<td>Faculty of Human Sciences (disestablished in 2020)</td>
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<td>FPM</td>
<td>Faculty PACE Manager</td>
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<td>FSE</td>
<td>Faculty of Science and Engineering</td>
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<tr>
<td>FT</td>
<td>Full Time (usually referring to employment)</td>
</tr>
<tr>
<td>GDS</td>
<td>Graduate Destination Survey (redesigned in 2016 to become the GOS)</td>
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<td>GOS</td>
<td>Graduate Outcomes Survey (4 months after course completion)</td>
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<td>GPA</td>
<td>Grade Point Average (referred to as WAM in 2019 onwards)</td>
</tr>
<tr>
<td>MQ</td>
<td>Macquarie University</td>
</tr>
<tr>
<td>MQBS</td>
<td>Macquarie Business School (formerly Faculty of Business and Economics, FBE)</td>
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<tr>
<td>MQGDS</td>
<td>Macquarie University Graduate Destination Survey (12 months after course completion)</td>
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<tr>
<td>MRes</td>
<td>Master of Research</td>
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<tr>
<td>MSC</td>
<td>Most Significant Change</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
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<tr>
<td>NESB</td>
<td>Non English Speaking Background</td>
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<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
</tr>
<tr>
<td>PACE</td>
<td>Professional and Community Engagement</td>
</tr>
<tr>
<td>PACE I</td>
<td>PACE International</td>
</tr>
<tr>
<td>SEIFA</td>
<td>Socio-Economic Indexes For Areas</td>
</tr>
<tr>
<td>SES</td>
<td>Socio-economic status</td>
</tr>
<tr>
<td>SID</td>
<td>Student Identification Number</td>
</tr>
<tr>
<td>SONIA</td>
<td>System used to manage and record PACE activity and student placement information</td>
</tr>
<tr>
<td>T1, T2, T3</td>
<td>T1 outcomes data collected in the Pre Student Survey at the beginning of PACE. T2 outcomes data collected in the Post Student Survey at the end of PACE, asking students to reflect to the beginning of PACE. T3 outcomes data collected in the Post Student Survey at the end of PACE.</td>
</tr>
<tr>
<td>TEDS</td>
<td>Teaching Evaluation for Development Service</td>
</tr>
<tr>
<td>UC</td>
<td>Unit convenor</td>
</tr>
<tr>
<td>WAM</td>
<td>Weighted Average Mark (previously GPA)</td>
</tr>
<tr>
<td>WIL</td>
<td>Work Integrated Learning</td>
</tr>
</tbody>
</table>
## Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>this value and higher</td>
</tr>
<tr>
<td>&lt;</td>
<td>less than</td>
</tr>
<tr>
<td>&gt;</td>
<td>greater than</td>
</tr>
<tr>
<td>Academic Senate</td>
<td>The principal academic governance body in the University which has certain powers delegated to it by Macquarie University Council.</td>
</tr>
<tr>
<td>Broad Field of Education</td>
<td>The Field of Education Code is a classification system (split in to three levels) used by higher education providers to classify courses of study, specialisations and units of study. Field of education groupings of courses and specialisations are on the basis of similarity of potential professions, rather than similarity of content, while units of study are coded on the basis of a likeness in terms of their subject matter.</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>One of the six Broad Fields of Education used in the GOS and MQGDS</td>
</tr>
<tr>
<td>Domestic student</td>
<td>Includes: Australian citizens, New Zealand citizens, Permanent Residency visa holders, and Humanitarian visa holders</td>
</tr>
<tr>
<td>Full-time Employment Rate</td>
<td>The proportion of graduates who were employed full-time four months after completing their course, as a percentage of those graduates who were available for full-time employment (QILT, n.d.).</td>
</tr>
<tr>
<td>Graduate Outcomes Survey</td>
<td>Survey administered nationally four months after course completion</td>
</tr>
<tr>
<td>Health</td>
<td>One of the six Broad Fields of Education used in the GOS and MQGDS</td>
</tr>
<tr>
<td>iLearn</td>
<td>The online learning system at Macquarie University</td>
</tr>
<tr>
<td>Information Technology</td>
<td>One of the six Broad Fields of Education used in the GOS and MQGDS</td>
</tr>
<tr>
<td>Internal student</td>
<td>Student that attends an internal mode of offering. This indicates that classes (e.g. lectures, tutorials) are conducted on campus.</td>
</tr>
<tr>
<td>International student</td>
<td>A person (whether within or outside Australia) who holds a student visa as defined by the ESOS Act, but does not include students of a kind prescribed in the ESOS Regulations. Also known as ‘Overseas student’.</td>
</tr>
<tr>
<td>Internship</td>
<td>PACE activity type. These activities involve one of the following: 1. Extended internship e.g. Co-op or cadetship 2. Structured internship with a minimum of 40 hours 3. Semi-structured internship: placements that occur in, or mostly in the workplace. 4. Formal practicum/professional placement: closely structured and supervised placements that are required for accreditation/licensing in the degree program</td>
</tr>
<tr>
<td>Management and Commerce</td>
<td>One of the six Broad Fields of Education used in the GOS and MQGDS</td>
</tr>
<tr>
<td>Mature Age Student</td>
<td>A student who is 21 years old or over on 1 March of the academic year they commence their study.</td>
</tr>
</tbody>
</table>
Mentoring is a PACE activity type. These activities involve one of the following:
1. Peer Assisted Learning at Macquarie University
2. Other Forms of Student Mentoring and/or Service

The number of responses to the survey question/s being discussed.

Natural and Physical Sciences

One of the six Broad Fields of Education used in the GOS and MQGDS

Overall Employment rate

The proportion of graduates who were in any kind of employment (including full-time, part-time or casual work), as a percentage of those graduates who were available for employment (QILT, n.d.).

p=
P-value (measure of statistical significance)

PACE activity

An experiential learning activity, undertaken as part of a PACE unit, that is approved by the University and carried out in conjunction with an external organisation or by an internal University partner. Includes internships, placements, professional experience, practicums, industry projects, fieldwork, mentoring, community development projects, and research and evaluation projects. A PACE Activity can be undertaken full-time or part-time, paid or unpaid.

PACE Hub

The central PACE team. This includes the following teams: PACE International, PACE Program Support, Business Applications and Systems, Research & Evaluation, Internships & Co-op (until 2020), Director’s office.

PACE International

The PACE team that facilities, manages and supports international PACE activities.

PACE unit

A unit accredited by Academic Senate that provides students with an opportunity to apply their academic studies to real life through practical experience. Activities undertaken in a PACE unit can include community development projects, field trips and internships organised with a range of partner organisations in the community, business and government sectors in Australia and overseas.

PACEwise

An iLearn module that provides students with all the essential information and resources on how to make the most of their PACE experience.

Partner

An organisation engaged in a mutually beneficial relationship with PACE through providing supervision and/or guidance to PACE student(s) during their PACE activity.

Partner Survey

Survey administered to a random sample of PACE partners after a PACE activity.

Remunerated

Student received financial compensation for their time from the Partner. Does not include food or travel stipends, or grants.

Salesforce

A partner relationship management tool which streamlines, tracks and enables effective management of external partnerships across the University.

Senate PACE Criteria

The Criteria that Academic Senate has determined that all PACE units and activities must meet

Session

A session is a period of study, just like a school term or semester. At Macquarie, we have four sessions: Session 1 (February – June), Winter Vacation (July), Session 2 (August – November) and Session 3 (December – February).

Society and Culture

One of the six Broad Fields of Education used in the GOS and MQGDS

Student Survey

Pre-post test survey that students who completed a PACE unit were invited to complete before and after completing their PACE activity.
Tier
There are three partnership tiers within PACE:
Tier 1: Strategic PACE Partners that have a deep engagement with PACE, usually across multiple disciplines and/or faculties
Tier 2: Organisations that have successfully hosted students more than once
Tier 3: Organisations that have typically engaged with PACE on a ‘one-off’ basis and have not yet explored furthering or deepening their relationship with PACE

Typology
The type of activity undertaken during the PACE unit categorised into three broad categories: Internship, University-Based Placement, and Mentoring

Unit
Subject, Unit of study

Unit convenor
A member of academic staff responsible for convening a unit.

University-based activities
PACE activity type. These activities involve one of the following:
1. Remote or virtual placement experiences: students undertake an activity for a partner but do not spend any time or only a very small amount of time (e.g. 1-2 short visits) in an actual workplace;
2. Industry Panels/Projects: partners visit campus to interact with large groups of students on projects that address challenges within an industry or sector. Students work in groups and present their solutions to the partner.
Chapter 1: Evaluating the PACE Program

This Chapter provides background and contextual information about the PACE program and outlines the aims and objectives of the PACE Evaluation.
1.1 The Professional and Community Engagement (PACE) program

Professional and Community Engagement (PACE) is a University-wide work integrated learning (WIL) program that was initiated at Macquarie University in 2008, as part of a fundamental overhaul of Macquarie's undergraduate curriculum. Underpinned by principles of reciprocity and collaboration, PACE's strategic vision is to connect all undergraduate students, partners and University staff in mutually beneficial learning and relationships that contribute to social impact and innovation. The PACE program is guided by nine principles: ethical practice, partnership and reciprocity, social responsibility, sound pedagogy, recognition of and respect for diverse ways of doing, being and knowing, whole person learning, knowledge generation and dissemination, transparency, and equity of access to resources. Pedagogically, the focus "is on 'learning by doing', with a strong emphasis on reflection and the practical application of knowledge" (Sachs and Clark, 2017: 93).

PACE has been strategically framed as a key driver of the University's broader institutional priorities. Program objectives are aligned with Macquarie University's 10-year strategic plan, A Framing of Futures, in which PACE is identified as a signature program that 'distinguishes this University' and embodies its first strategic priority: Creating a Culture of Transformative Learning in a Research-Enriched Environment (Macquarie University, 2012). PACE was also a central feature of the University's Learning and Teaching Strategic Framework 2015-2020 and strongly aligns with the Student Success Strategic Framework (2019). PACE's Strategic Plan (2017-21) identifies three strategic outcomes for the program:

1. Students have enhanced employability and active citizenship outcomes and a positive experience of PACE;
2. Macquarie University has strong engagement with and contributes to the capacity of its PACE partner organisations; and
3. PACE contributes to Macquarie University being recognised for its culture of transformative learning in a research-enriched environment.

In 2017 PACE was recognized with the Australian Award for University Teaching for Programs that Enhance Student Learning in the category of Educational Partnerships. It also won the 2017 Australian Financial Review Higher Education Award for Employability.

1.2 Program implementation

The institution-wide scope and scale of PACE and its fundamentally collaborative and distributed nature distinguishes the program in the Australian higher education sector. It also necessitated a planned, coordinated and thoroughly systematic approach to program implementation – pedagogical, cultural, organizational and financial (Sachs and Clark, 2017). As such, the implementation of the PACE program was phased over five years to ensure quality, scalability, and sustainability across the University. In 2012, some 20% of Macquarie undergraduates participated in PACE. Thereafter, the proportion of students involved in the program grew in 20 per cent increments (40% of undergraduates in 2013, 60% in 2014, etc.). From 2016 all new undergraduates were required to undertake a PACE unit as part of their undergraduate degree, consisting of coursework curriculum and an experiential work-integrated learning (WIL) opportunity (referred to as a PACE activity). This staged approach to implementation was matched by a phased increase in the University's resource investment in PACE: growing from AUD$1 million in 2010 to almost AUD$8 million by 2017. Although substantial savings were achieved in the PACE budgets of the following 2 years as part of University-wide budget tightening, the University's annual investment in PACE in 2019 still exceeded AUD$7 million.

PACE activities involve a wide range of local, regional, and international partners and vary in length, location and the sourcing and sector distribution of partners. Activities may be disciplinary or interdisciplinary. PACE activities are also offered in several different formats which include structured internships, formal practicums, remote or virtual projects, on-campus industry projects, and peer-assisted learning or other forms of mentoring.

PACE's organisational structure was purposefully designed to maximise Faculty engagement, foster cross-institutional collaboration and innovation, and ensure effective, efficient, and coordinated program delivery. A hub and spoke structure was adopted with teams of dedicated PACE staff embedded in each of the University’s five Faculties, all supported by a central Hub (Figure 1). Based on a model of distributed leadership, each Faculty-based PACE team is led by an Academic Director of PACE (ADP) and a Faculty PACE Manager and comprises a number of Faculty PACE Officers. These teams work collaboratively with industry partners, students, and Faculty-based Unit Conveners to develop and deliver PACE activities (Clark, 2017).
1.3 Evaluating the PACE Program

The PACE Evaluation is a priority project to assess the impact of the program for students, partners, the community more broadly and the University, as well as support quality assurance and enhancement for program improvement and development. A phased approach has been used to design and implement the evaluation commencing in 2014. The first phase involved developing a high-level Theory of Change in collaboration with key University stakeholders through a range of workshops and in-depth interviews. The process created a shared vision of what the program was hoping to achieve for students, partners, the University and the wider community. With such an ambitious scope, and a broader University focus on demonstrating student employability, the first phase of the ensuing evaluation project focused on:

- Developing a Graduate Employability Framework (Figure 2);
- Measuring the impact of PACE on graduate employment outcomes, comparing PACE to non-PACE cohorts, using data collected from the 2013-16 Graduate Destinations Survey (GDS) and Graduate Outcomes Survey (GOS); and
- Analysis of historical program data collected through AMIS (student information) and SONIA (PACE activity and partner data) from 2011-2015.

In 2017, a dedicated internal evaluation team were employed to build upon the Theory of Change project, with a specific focus on developing and upscaling evaluation data collection across the program.
**Long term outcome:** Increased Macquarie graduate employability

Employability is defined as: “Students and graduates can discern, acquire, adapt and continually enhance the skills, understandings and personal attributes that make them more likely to find and create meaningful paid and unpaid work that benefits themselves, the workforce, the community and the economy” (Oliver, 2015: 59).

### Domains

- **STUDENT EMPLOYABILITY**
- **REPUTATION OF MACQUARIE GRADUATES**
- **REPUTATION OF MACQUARIE WITH EMPLOYERS**

### Outcome areas

- Engaged & active citizenship
- Career readiness
- Expanded networks
- Successful student activities
- Successful graduate employment
- Macquarie has more, deeper & multifaceted relationships with industries & community
- Increased industry, community & University interconnectivity

### Ultimate outcome: Macquarie graduates are life-long learners who contribute to social change and innovation

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**1.4 Evaluation Objectives Phase 2**

Most published evaluations of WIL programs have focused on measuring student outcomes, with few evaluations exploring outcomes and process, institution-wide approaches or partner and community benefits (Rowe, Nay, Lloyd, Myton & Krusharr, 2018). Given the scope, scale and diversity of the PACE program a holistic evaluation approach was needed to simultaneously assess program processes and outcomes for students/graduates, but also for other internal and external program stakeholders. This was important as PACE wanted to generate knowledge about not only whether PACE was effective, but also explain the reasons why, explore any contextual factors that may be influencing program success, and identify areas to enhance the PACE program. Considering the commitment to using the evaluation data for internal quality assurance purposes and the PACE program life stage (Figure 3), a formative evaluation was designed to:

- Ensure that PACE was accountable to internal and external stakeholders by producing credible evidence on outcomes for students, partners, the University, and the broader community;
- Establish collaborative and reflective learning processes that were used to continuously enhance and develop the PACE program; and
- Develop sustainable evaluation activities by embedding data collection tools and processes into PACE program delivery.

---

Figure 2. PACE Employability Framework
1.5 Evaluation Questions

Phase 2 of the evaluation seeks to answer the following high-level questions:

1. How much did the PACE program do (i.e. program outputs)?
2. How effectively is PACE being implemented (i.e. program processes)?
3. What are the critical program components and barriers?
4. To what extent does PACE contribute to outcomes (intended and unintended) for students, partners, the University, and the wider community?
5. Who benefits most from PACE and in what circumstances (i.e. difference in student groups and/or types of experiences)?

1.6 Evaluation Approach

Three main evaluation approaches were used to guide the development of the evaluation plan, methodology, data collection, analysis, and reporting (Figure 4).

Collaborative and utilisation focused: Collaborative evaluation studies value community knowledge through co-design, shared decision making and group ownership between evaluators and program stakeholders (Cousins, Donohue, & Bloom, 1996; King & Stevahn, 2002). Involvement of key stakeholders through all stages of an evaluation creates a shared commitment to the utilisation of evaluation results for program and strategic decision making (King & Stevahn, 2002; Patton, 2008).

As the evaluation focused on using data for internal quality improvement purposes, the evaluation team actively involved the stakeholders who had the responsibility to apply the evaluation findings in each stage of
the evaluation design and data collection. Primarily this involved the PACE Academic and Programs Director, PACE Academic Directors (ADPs), Faculty PACE Managers (FPMs) and Faculty PACE Officers, PACE unit convenors and PACE Hub staff, as well as the stakeholders with executive authority over the program: Deputy Vice-Chancellor (Academic) and Pro Vice-Chancellor (Learning and Teaching).

**Theory-driven:** The evaluation design, including the development of data collection instruments, analysis and reporting, was based on the PACE Theory of Change. A theory driven evaluation generates knowledge about whether a program is effective by assessing the causal mechanisms between activities and outcomes (Coryn et al., 2011). The PACE evaluation combines both quantitative and qualitative methods to systematically provide evidence for cause and effect, as well as identify areas for program improvements.

**Ethical and sustainable:** Where possible evaluation data collection and processes, such as the PACE Student Survey and Digital Dashboards, were embedded within curriculum, PACE program delivery, systems, policies and procedures. This was an intentional objective of the evaluation and ensured that data collection is sustainable and not seen as an add-on to program delivery. Although this required an ongoing commitment to evaluation resources, it was a useful strategy for engaging stakeholders by providing them with timely access to evaluation data that could be used to inform learning and teaching and program implementation.

The PACE Evaluation adhered to the following guidelines:

- National Health and Medical Research Council’s (NHMRC) National Statement on Ethical Conduct in Human Research;
- NHMRC’s Values and Ethics: Guidelines for Ethical Conduct with Aboriginal and Torres Strait Islander Health Research;
- Australasian Evaluation Society’s Guidelines for the Ethical Conduct of Evaluations, and the American Evaluation Association’s Guiding Principles for Evaluators; and
- Australian Council for International Development Principles and Guidelines for Ethical Research and Evaluation in Development.

### 1.7 Report Structure

The evaluation report includes the following chapters:

- **Chapter 2** outlines the evaluation methods, data collection and analysis, as well as how the results were synthesised and interpreted.
- **Chapter 3** outlines program outputs (Evaluation Question 1), utilising program data collected from 2016-2018.
- **Chapter 4** assesses the effectiveness of PACE processes (Evaluation Question 2) by synthesising data collected from the student and partner surveys, evaluation workshops and interviews.
- **Chapter 5** explores the critical program components and barriers to program delivery (Evaluation Question 3). It presents analysis from the student survey and the main themes from the evaluation workshops and interviews. Statistical summaries for this chapter are detailed in Appendix I.
- **Chapter 6** assesses the effectiveness of the PACE program in terms outcomes for students, graduates, partners, the University and the community more broadly (Evaluation Question 4). It synthesises data from the student and partner surveys, evaluation interviews and graduate employment surveys. Statistical summaries for this chapter are detailed in Appendix J (Chapter 6 student survey summaries) and Appendix K (graduate employment statistical summaries).
- **Chapter 7** examines student outcomes and experiences further, by comparing different student groups (Equity and Diversity, International, Mature Age and No Previous Work Experience) and PACE experiences (Activity Type, PACE International, Multiple PACE units and Unit Size) (Evaluation Question 5). It presents data from the student and graduate surveys. Statistical summaries for this chapter are detailed in Appendix L.
- **Chapter 8** concludes the evaluation findings and provides recommendations for the PACE program and the broader University. It also discerns lessons for evaluating large scale WIL programs.

Throughout the text, key findings and areas for improvement are highlighted in textboxes.
Chapter 2: Evaluation Methodology

This Chapter outlines the evaluation methods, data collection and analysis, as well as how the evaluation results were synthesised and interpreted.
2.1 Data collection, analysis and reporting

A multiphase mixed methods evaluation was designed and implemented. Phase 2 of the evaluation focused on expanding the evaluation by collecting outcomes and process data from students, partners, PACE staff and University stakeholders (Figure 5). The evaluation methodology limitations and implementation lessons are discussed in detail in Appendix A.

To answer the key evaluation questions, data was collected from 2016-2019. Where possible all instruments collected data on PACE processes and outcomes (Table 1). However, there were differences in the timeframes for some data collection methods due to the need to design survey instruments, and in some cases redesign survey instruments from Phase 1 of the evaluation, while continuously collecting evaluation data and responding to internal program needs. The development of sustainable data collection systems and processes, such as the digital PACE Evaluation Dashboards, also meant that some of the evaluation methods were prioritised and others were not progressed, such as the PACE unit Review which did not progress beyond Phase 1.

The mixed methods analysis sought convergence using triangulation, and complementarity whereby the qualitative and quantitative components were used to elaborate and enhance the results (Green, Caracelli & Graham, 1989). As the aim of the evaluation was to determine the overall effectiveness of the PACE program, the report does not provide direct comparisons of Faculties or individual PACE units. Instead, differences in student groups and/or experiences are reported. The following section outlines the data collection methods, timeframes, associated samples, data analysis and reporting.

![Figure 5. Multiphase mixed methods PACE Evaluation design](Image)
### Table 1: Data collection approaches and timeframes, aligned to Evaluation Questions (EQ)

<table>
<thead>
<tr>
<th>Data Collection (timeframes)</th>
<th>EQ1</th>
<th>EQ2</th>
<th>EQ3</th>
<th>EQ4</th>
<th>EQ5</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACE operational data (2016-2018)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>PACE Student Survey (Session 2 2017-Session 3 2018/19)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Graduate Outcomes Surveys (2016-2018)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PACE Partner Survey (Session 2 2018 – Session 2 2019)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Most Significant Change (2017-18)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>PACE Staff Workshops/interviews (Session 2 2018-Session 1 2019)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purposeful mixed methods case studies (2018-19)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

#### 2.1.1 PACE OPERATIONAL DATA 2016-2018

PACE operational data was used to assess the effectiveness of program implementation and to get an understanding of the different student groups who completed PACE and the various types of PACE experiences. Student demographic data was obtained via the University’s Academic Management Information System (AMIS). Data requested included student gender, date of birth, citizenship, Indigenous status, postcode, grade point average (GPA/WAM), unit grade, unit attendance mode, year level and course information. Additional information regarding unit enrolments and unit size was obtained from the ‘Unit Enrolment Numbers Report’ in AMIS.

Information about PACE activities was obtained from the Activity Data and Student Allocation reports exported from SONIA. Data included the number of students allocated to an activity, remuneration (where applicable), activity initiation, activity type, partner organisation type/industry, partnership tiers and mode of engagement.

Program data from AMIS and SONIA was matched by students’ identification number (SID) using Excel’s VLOOKUP function. This resulted in data being available for 22,669 AMIS enrolments in a PACE unit from Session 1, 2016 - Session 3, 2018. Of those enrolments, 18,255 (81%) were matched to SONIA Activity data managed by PACE; of the remaining 19 per cent, 1 per cent of enrolments could not be matched to SONIA records and 18 per cent were managed in the Education Practicum Unit by the Department of Educational Studies (FoHS) in a separate instance of SONIA. Of the 18,574 enrolments managed by PACE, 17,591 could be allocated to the primary activity typology described below. Analysis of program data was undertaken using Excel. Note all percentages are reported to the nearest whole number. Applicable fields were also matched by SID to the Student Survey, GOS and MQGDS data files for analysis.

A number of data fields were recoded for analysis. Residential postcodes were used to categorise the socio-economic status of students’ area of primary residence using the 2016 Index of Relative Socio-economic Advantage and Disadvantage deciles (most disadvantaged 1-3, middle 4-7, most advantaged 8-10) (ABS, 2018). Students’ grade point averages (GPA) were also recoded to the following categories:

- **Low**: GPA4 0.0-1.999/GPA7 0-3.999/WAM 1-50.00
- **Middle**: GPA4 2.000-3.999/GPA7 4.000-5.999/WAM 50.01-74.99
- **High**: GPA4 4.000/GPA7 6.000-7.000/WAM 75-100

As noted earlier, PACE activities are offered in several different formats which include structured or semi-structured internships, formal practicum, remote or virtual projects, industry projects, peer assisted learning, or other forms of mentoring. The PACE activity typology used by Unit Conveners to code different activity types was recoded into the following primary categories for the purposes of analysis:

- **Internships**: Extended Internships, Structured Internships, Semi-structured Internships and Formal Practicum/Professional Placement;
- **University-based activities**: Remote or Virtual Professional Experience and Industry Panels/Projects; and
- **Mentoring**: Peer Assisted Learning & Other Forms of Student Mentoring and/or Service.
The activity data presented in this report uses these primary categories. Activity data is presented at both the University-wide level and at Faculty level based on the Faculty teaching the unit. There are three units that are taught at University level rather than through Faculties and these are labelled as “Other” when a Faculty breakdown is presented. Student enrolments in PACE units offered by the Department of Educational Studies are managed separately by the Education Practicum Unit and the analysis by activity type presented in Chapter 3 of this report does not include those students.

2.1.2 PACE STUDENT SURVEY (SESSION 2 2017- SESSION 3 2018/19)

The PACE Research and Evaluation team designed an online survey (see Appendix B) to capture student’s perceptions and feedback on their PACE experience, including processes and outcomes. The PACE Student Survey is a self-reported pre-test post-test, which measures student motivations, previous employment experience, perceptions of their PACE experience, and the impact of PACE across career readiness, active citizenship and networking outcomes. It also incorporated the Learner Experience of PACE items which are a Learning and Teaching Unit Evaluation requirement at Macquarie University.

The pre survey (completed at the start of a PACE unit) and the post survey (completed at the end of a PACE unit) included Likert five-point scales and open-ended qualitative items. The survey was initially designed and implemented in Phase 1 of the evaluation. It was subsequently redesigned and piloted in Session 2 2017 with further changes made before upscaling data collection in 2018. Appendix B provides an overview of the survey items and updates made after each session. Significant changes in 2018 included:

- Adding and/or updating the process and outcome items to ensure they were aligned to the PACE evaluation criteria.
- Asking students to rate their skill level, awareness and confidence in terms of the outcome items at three time points. In 2017 students were asked to rate themselves at the beginning of the PACE unit (T1), and again in the post survey (T3). In Session 1 2018 (S3 2017/18 for PACE International students) the post survey was updated to also ask students to reflect on their ability at the beginning (T2), as well as the end of the Unit (T3). The reflection component (T2) was added because preliminary analysis of the 2017 data showed that students were rating their knowledge, skills and confidence highly at the start of PACE, meaning there was little variability in the post survey items.

PACE unit convenors (excluding Education units) elected to distribute an online survey link (using Qualtrics) to students in the first 1-4 weeks of Session and again at the end of the PACE unit. PACE International also distributed a Pre-Departure and Re-Entry Student Survey which incorporated the relevant evaluation items. Table 2 outlines the survey response rates for the data collected from Session 2 2017 to Session 3 2018/19, including students who completed a PACE International activity and excluding education units. Overall, 3290 students from 60 unique PACE units completed the survey. This was a 30 per cent response rate of all student enrolments and a 37 per cent rate of student enrolments for the units who participated in the survey. Of those students, 2660 completed a pre survey, 1834 completed a post survey and 1205 completed both surveys (i.e. a matched sample). Participation and response rates varied within Faculties and across individual PACE units (Appendix C).

1 Does not include Education students who completed a PACE International Survey.
### Table 2. PACE Student Survey Response Rate (Session 2 2017-Session 3 2018/19)

<table>
<thead>
<tr>
<th>Faculties</th>
<th>Overall PACE</th>
<th>FoA</th>
<th>MQBS</th>
<th>FoHS</th>
<th>FSE</th>
<th>FoMHS</th>
<th>Other</th>
<th>Not enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of PACE units</td>
<td>69</td>
<td>26</td>
<td>15</td>
<td>5</td>
<td>19</td>
<td>1</td>
<td>3</td>
<td>n/a</td>
</tr>
<tr>
<td>No. of units participating in the survey (% of all faculty units)</td>
<td>60** (87%)</td>
<td>25 (96%)</td>
<td>8 (53%)</td>
<td>5** (100%)</td>
<td>19 (100%)</td>
<td>1 (100%)</td>
<td>3 (100%)</td>
<td>n/a</td>
</tr>
<tr>
<td>No. of overall enrolments</td>
<td>10790##</td>
<td>2654</td>
<td>5254</td>
<td>1346</td>
<td>1325</td>
<td>71</td>
<td>140</td>
<td>n/a</td>
</tr>
<tr>
<td>Total no. of individual students who completed any survey – pre, post, or both (% all faculty enrolments)</td>
<td>3290* (30%)</td>
<td>1192 (45%)</td>
<td>426 (8%)</td>
<td>917** (68%)</td>
<td>627 (47%)</td>
<td>33 (46%)</td>
<td>76 (54%)</td>
<td>16</td>
</tr>
<tr>
<td>No. of students who completed a pre survey</td>
<td>2660#</td>
<td>916</td>
<td>328</td>
<td>815</td>
<td>492</td>
<td>28</td>
<td>97</td>
<td>14</td>
</tr>
<tr>
<td>No. of students who completed a post survey</td>
<td>1835*</td>
<td>738</td>
<td>203</td>
<td>454</td>
<td>369</td>
<td>10</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>Matched sample (% of individual students who completed any survey)</td>
<td>1203# (37%)</td>
<td>462 (40%)</td>
<td>104 (25%)</td>
<td>351 (38%)</td>
<td>234 (37%)</td>
<td>5 (15%)</td>
<td>39 (35%)</td>
<td>7</td>
</tr>
</tbody>
</table>

* Includes 3 students with missing data (i.e. could not be allocated to a faculty)

** Excluding education units. However, the FoHS number of individual students includes 7 students from an additional 4 education units who completed PACE International activities and completed PACE International surveys

# Includes 1 student with missing data

## The number of student enrolments for the 60 units who participated in the student survey was 8908
Within the overall sample (n=3290), 426 students completed a PACE International Activity (Table 3). This included students who completed either a pre survey (n=301), post survey (n=300) or both (matched sample n=175). During the timeframe 468 students completed a PACE International Activity, so this was a 91 per cent survey response rate. PACE International students were enrolled in 34 unique PACE units, including Education practicums, or completed PACE International on a co-curricular basis (Appendix B).

Table 3. PACE International Student Survey Response Rate (Session 2 2017-Session 3 2018/19)

<table>
<thead>
<tr>
<th>Faculties</th>
<th>Overall</th>
<th>FoA</th>
<th>MQBS</th>
<th>FoHS</th>
<th>FSE</th>
<th>FoMHS</th>
<th>Other</th>
<th>Not enrolled*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total no. of individual students who completed a survey (% overall PACE faculty sample)</td>
<td>426 (13%)</td>
<td>235 (20%)</td>
<td>13 (3%)</td>
<td>56** (6%)</td>
<td>44 (7%)</td>
<td>3 (9%)</td>
<td>60 (79%)</td>
<td>15 (94%)</td>
</tr>
<tr>
<td>No. of students who completed a pre survey</td>
<td>301</td>
<td>176</td>
<td>4</td>
<td>34</td>
<td>20</td>
<td>3</td>
<td>51</td>
<td>13</td>
</tr>
<tr>
<td>No. of students who completed a post survey</td>
<td>300</td>
<td>156</td>
<td>13</td>
<td>46</td>
<td>40</td>
<td>1</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Matched sample (% of total sample)</td>
<td>174 (41%)</td>
<td>97 (41%)</td>
<td>4 (31%)</td>
<td>23 (41%)</td>
<td>16 (36%)</td>
<td>1 (33%)</td>
<td>26 (43%)</td>
<td>7 (47%)</td>
</tr>
</tbody>
</table>

* Co-curricular students
** Includes 7 Education practicum students

Table 4 provides an overview of student demographics, PACE units and the PACE activities for the survey sample compared to all PACE student enrolments for the same period. This data includes students who completed a PACE International activity and excludes education units except where a student completed a PACE International activity through an education unit.

The majority of students who completed the student survey were female (57%), domestic students (87%), resided in a high socio-economic status (SES) area (65%), and held a middle range GPA (81%). Most students were enrolled in a large PACE unit (70%) and completed an internship as their PACE activity (60%). Interestingly, a third of students who completed the survey had undertaken more than one PACE unit as part of their undergraduate degree.

Overall, the survey sample is comparable to all student enrolments in terms of gender, Indigenous students, mature age students, socio-economic status, unit status and attendance, student GPA and the proportion of students who completed more than one PACE unit. The survey sample has a slight over representation of domestic students and students who were awarded either a high distinction or distinction grade for the PACE unit. There was also an under representation of students who completed a large PACE unit and a university-based activity. This makes sense as only half of the MQBS PACE units participated in the survey, meaning that data was not collected for some of the large PACE units in that Faculty which offer university-based activities.
Table 4. PACE Student Survey sample compared to overall PACE student enrolments from Session 2 2017 to Session 3 2018.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Response options</th>
<th>Overall PACE</th>
<th>% of overall PACE total</th>
<th>Number of student responses</th>
<th>% of total student responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Female</td>
<td>5640</td>
<td>52%</td>
<td>1889</td>
<td>57%</td>
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<tr>
<td></td>
<td>Male</td>
<td>5150</td>
<td>48%</td>
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<td>5%</td>
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<tr>
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<td>Yes</td>
<td></td>
<td>2082</td>
<td>19%</td>
<td>268</td>
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<td>No</td>
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<td>8708</td>
<td>81%</td>
<td>2851</td>
<td>87%</td>
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<td>% of overall PACE total</td>
<td>Number of student responses</td>
<td>% of total student responses</td>
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<td>&lt;1%</td>
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<td>3%</td>
<td>257</td>
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<td><strong>Student completed more than one PACE unit</strong></td>
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<td>61%</td>
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<tr>
<td>Total</td>
<td>10790</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Calculated using student residential postcodes and the 2016 Census data. Records with PO Boxes, students with international postcodes and students with no recorded postcode were recorded as "Missing data"  
**21 years or over on the date of degree commencement  
***Students who withdrew after financial census date but before academic census date.
For analysis, the PACE Student Survey data was exported from Qualtrics into Excel. The pre and post surveys were linked using student IDs and Excel’s VLOOKUP function. Program data (AMIS and SONIA) was then linked to the survey using the student IDs and Excel’s VLOOKUP function. The data was then imported and analysed using the statistical software package SPSS. Descriptive statistics (frequencies, percentages and means) were generated for the overall sample and at a Faculty level. All percentages are reported to the nearest whole number.

Changes to the survey meant that response rates varied for each survey item. There was also a certain degree of missing data; for example, where students did not complete each item or did not finish the survey. Each section specifies the data that is included, and Appendix B outlines which items were included for each session. Missing data is not included in the percentages or the sample size; therefore, all figures that display multiple items include the sample size for each item.

In terms of statistical analysis, we wanted to determine if there were any changes in outcomes for students over time, as well as identify differences among student groups and/or PACE experiences. To reduce the survey items for statistical analysis an exploratory factor analysis was conducted using Principal Component Analysis. To generate factor components, an iterative process was used to remove items based on low factor loadings (<0.60) and cross loadings. Mean factor scores were then computed for each new component when a student had responded to at least one item.

Four components were created from the outcome items (Table 5). These components are labelled and are referred to in the report as Professional Practice, Job Seeking, Commencement Readiness and Active Citizenship. Mean factor scores for each component were generated for:

- All students who completed the pre survey at the beginning of the PACE unit (T1).
- All students who completed the post survey at the end of the PACE unit (T3).
- Students who completed the reflection component in the post survey, which asked students to reflect on their ability at the beginning of PACE (T2). Note that the T2 items were added in S1 2018 for the overall sample and S3 2017/18 for PACE International students.

Change scores, quantifying the magnitude of the change from T2 to T3, were also generated for Professional Practice, Job Seeking, Commencement Readiness and Active Citizenship.
<table>
<thead>
<tr>
<th>Scale</th>
<th>Student Survey Item</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>T1</td>
</tr>
<tr>
<td><strong>Professional Practice</strong></td>
<td>Effectively manage multiple &amp; different priorities to achieve a range of professional goals</td>
<td>0.752</td>
</tr>
<tr>
<td></td>
<td>Take responsibility &amp; be accountable for professional practice, actions &amp; decisions</td>
<td>0.782</td>
</tr>
<tr>
<td></td>
<td>Identify the expectations employers have of new graduates</td>
<td>0.673</td>
</tr>
<tr>
<td></td>
<td>Communicate appropriately with people from different levels of management or leadership</td>
<td>0.806</td>
</tr>
<tr>
<td></td>
<td>Recognise ethical practice in a professional setting</td>
<td>0.754</td>
</tr>
<tr>
<td><strong>Job Seeking</strong></td>
<td>Confidence seeking work in an area I want to be employed in</td>
<td>0.754</td>
</tr>
<tr>
<td></td>
<td>Confident using professional networks to seek work</td>
<td>0.875</td>
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<tr>
<td></td>
<td>Actively use professional networks to seek work</td>
<td>0.854</td>
</tr>
<tr>
<td><strong>Commencement Readiness</strong></td>
<td>Confident to obtain work relevant to studies</td>
<td>0.781</td>
</tr>
<tr>
<td></td>
<td>Confident to be ready to commence work in field or discipline</td>
<td>0.847</td>
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<tr>
<td></td>
<td>Confident to make a meaningful contribution to the community</td>
<td>0.835</td>
</tr>
<tr>
<td></td>
<td>Confident to apply knowledge to solve real-life problems</td>
<td>0.869</td>
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<tr>
<td><strong>Active Citizenship</strong></td>
<td>Offer unique &amp; novel ideas that add new knowledge &amp; insights into a problem or situation</td>
<td>0.601</td>
</tr>
<tr>
<td></td>
<td>Able to evaluate personal practices, strengths &amp; weaknesses in a professional setting</td>
<td>0.640</td>
</tr>
<tr>
<td></td>
<td>Learn from and collaborate with people from diverse cultures, races, ages, gender &amp; lifestyles</td>
<td>0.691</td>
</tr>
<tr>
<td></td>
<td>Critical &amp; reflective understanding of rights &amp; responsibilities as a member of a global community</td>
<td>0.790</td>
</tr>
<tr>
<td></td>
<td>Address social, environmental or sustainability issues in my field of study or profession</td>
<td>0.766</td>
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</tbody>
</table>

Two components were created from the post survey items that asked students to rate the impact of PACE on their skills, awareness and knowledge (Table 6). Factor scores were computed for all students who completed a post survey. The components were labelled and are referred to in the report as Impact on Career Readiness and Impact on Citizenship.

Finally, two components were created from the process items in the post survey (Table 7). Factor scores were computed for all students who completed a post survey. The Student Satisfaction component contains items related to overall student experience. The other component was created from the items which were a Learning and Teaching Unit Evaluation requirement at Macquarie University. This component has been labelled and referred in the report as Learner Experience of PACE.
Table 6. PACE impact variable scales and associated items

<table>
<thead>
<tr>
<th>Scale</th>
<th>Student Survey Item</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on Career Readiness</td>
<td>Develop discipline specific knowledge, skills &amp; abilities</td>
<td>0.755</td>
</tr>
<tr>
<td></td>
<td>Gaining professional experience, skills or knowledge</td>
<td>0.849</td>
</tr>
<tr>
<td></td>
<td>Exploring possible career options</td>
<td>0.873</td>
</tr>
<tr>
<td></td>
<td>Expanding my professional networks</td>
<td>0.851</td>
</tr>
<tr>
<td></td>
<td>Clarifying career goals</td>
<td>0.849</td>
</tr>
<tr>
<td>Impact on Citizenship</td>
<td>Develop ability to work as a team member</td>
<td>0.751</td>
</tr>
<tr>
<td></td>
<td>Develop awareness of ethical principles &amp; issues</td>
<td>0.845</td>
</tr>
<tr>
<td></td>
<td>Develop awareness of environmental, sustainability or social issues</td>
<td>0.851</td>
</tr>
<tr>
<td></td>
<td>Making a positive contribution to the community</td>
<td>0.832</td>
</tr>
</tbody>
</table>

Table 7. Student experience variable scales and associated items

<table>
<thead>
<tr>
<th>Scale</th>
<th>Student Survey Item</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Satisfaction</td>
<td>It is valuable for students to do PACE as part of their degree</td>
<td>0.895</td>
</tr>
<tr>
<td></td>
<td>PACE has enhanced my experience at MQ</td>
<td>0.910</td>
</tr>
<tr>
<td></td>
<td>Overall satisfaction with experience</td>
<td>0.819</td>
</tr>
<tr>
<td>Learner Experience of PACE</td>
<td>The unit learning outcomes were clear to me</td>
<td>0.802</td>
</tr>
<tr>
<td></td>
<td>The unit assessment criteria were clearly defined</td>
<td>0.788</td>
</tr>
<tr>
<td></td>
<td>The grading standard/grading descriptors were clear to me</td>
<td>0.788</td>
</tr>
<tr>
<td></td>
<td>This unit challenged me intellectually</td>
<td>0.698</td>
</tr>
<tr>
<td></td>
<td>I received feedback on my work in time to make effective use of it in my learning</td>
<td>0.805</td>
</tr>
<tr>
<td></td>
<td>Overall the feedback I received helped me to improve my performance in this unit</td>
<td>0.835</td>
</tr>
<tr>
<td></td>
<td>I found the academic staff to be helpful</td>
<td>0.804</td>
</tr>
<tr>
<td></td>
<td>The amount of work required of me in this unit was reasonable</td>
<td>0.652</td>
</tr>
<tr>
<td></td>
<td>The reflection component was beneficial to my overall learning in the unit</td>
<td>0.742</td>
</tr>
<tr>
<td></td>
<td>The debriefing process was beneficial to my overall learning</td>
<td>0.792</td>
</tr>
</tbody>
</table>

Nonparametric statistical tests were undertaken (n=>100) to explore:

- **Chapter 5:** Relationships between PACE processes, Student Satisfaction and Impact on Career Readiness and Impact on Citizenship (Spearman’s Rho correlations 2-tailed). This analysis included all students who completed a post survey.

- **Chapter 6:** Differences in students’ self-reported outcomes (Wilcoxon test 2-tailed) for Professional Practice, Job Seeking, Commencement Readiness and Active Citizenship.
  
  o Comparisons were made for T1 vs T3. This analysis included all students who completed a pre and post survey from S2 2017 to S3 2018/19 (n=1203).
Comparisons were also made for T2 vs T3. This analysis included all students (n=1124) who completed a post survey from S3 2017/18 for PACE International students and S1 2018 for all PACE students.

- **Chapter 7:** Differences in outcomes comparing different student groups and PACE experiences (Table 8).
  - A two-samples test (Wilcoxon two-sample paired signed-rank test) was used for each PACE experience and student group to determine if the self-reported changes (T2 vs T3) in student’s Professional Practice, Job Seeking, Commencement Confidence and Active Citizenship were statistically significant. This analysis included all students who completed a post survey from S1 2018 onwards (S3 2017/18 for PACE International students).
  - A Mann-Whitney (2-tailed test comparing two groups) or Kruskal-Wallis test (comparing more than two groups) looking to see if there were any differences in the magnitude of outcome changes from T2 to T3 when comparing student groups or PACE experiences. This analysis included all students who completed a post survey from S1 2018 onwards (S3 2017/18 for PACE International students).
  - A Mann-Whitney (2-tailed test comparing two groups) or Kruskal-Wallis test (comparing more than two groups) to determine whether there were any differences in students’ rating of the Professional Practice, Job Seeking, Commencement Readiness and Active Citizenship items at the end of PACE (T3). This analysis included all students who completed a post survey.
  - A Mann-Whitney (2-tailed test comparing two groups) or Kruskal-Wallis test (comparing more than two groups) to determine if there were any differences in student’s rating of the Impact on Career Readiness, Impact on Citizenship, Student Satisfaction, Learner Experience of PACE, employability item/s. This analysis included all students who completed a post survey.

Statistically significant results (p<0.05) and effect sizes (where relevant) are included in this report.

<table>
<thead>
<tr>
<th>Table 8. Student Groups and PACE Experiences included in the statistical analysis of the PACE Student Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Groups</strong></td>
</tr>
<tr>
<td>International/Domestic</td>
</tr>
<tr>
<td>Mature Age</td>
</tr>
<tr>
<td>Socio-economic indicator</td>
</tr>
<tr>
<td>Students with previous/no previous work experience</td>
</tr>
<tr>
<td>GPA</td>
</tr>
</tbody>
</table>

2.1.3 GRADUATE EMPLOYMENT DATA (2016-2018)

The aim of the PACE program is to contribute to student’s career readiness, active and engaged citizenship and enhanced professional networks, all of which in turn enhance their employability. Thus, whilst not a direct aim of the program, we wanted to explore whether PACE was also having an impact on graduate employment trends. It is important to recognise that a range of contextual factors outside the influence of the PACE program can impact graduate employment, such as the overall state of the labour market and segments within it, the strong tendency for employers to hire Go8 graduates over those from other universities (Jackson, 2013) and graduate demographics (i.e. SES, gender, age or cultural background). However, the staged implementation of the PACE program from 2012 provided a unique opportunity to compare employment outcomes for two distinct cohorts of graduates: students who completed a PACE unit as part of their undergraduate degree and students who did not complete a PACE unit. This analysis will only be feasible whilst there are graduating students who commenced their degree prior to 2016, when PACE became a requirement of all undergraduate degrees (i.e. the PACE cohort will eventually be 100% of graduates).

The evaluation utilised annual data collected via the Graduate Outcomes Survey (GOS) (QILT, nd) and Macquarie University’s Graduate Destination Survey (MQGDS). The GOS is completed by undergraduate students four months after course completion and the MQGDS is completed by undergraduate and postgraduate students 12 months after course completion. Both surveys contain information about graduate employment trends and they also include PACE specific questions to assess the impact of PACE on graduate employability (the first round of GOS data collection with these additional questions commenced in 2018).
To conduct this analysis, a list of graduates who completed a PACE unit from 2015-18 was exported from AMIS. The PACE activity typology, exported from SONIA, was then matched by student IDs using the Excel VLOOKUP function. If a student had completed more than one PACE unit, the following hierarchy was applied:

- If a student completed an internship at any time, they were allocated internship as the typology;
- If they did not complete an internship, they were allocated the typology of the most recent PACE activity.

The PACE graduate file was then provided to Macquarie University’s Analytics team who matched the file to graduates who completed the GOS and MQGDS. Analytics then provided the PACE Research and Evaluation team with Excel pivot tables, which were used for analysis. This employment analysis included all Bachelor or Honours level undergraduate domestic students who were in disciplines where the PACE activity was distinct from a non-PACE unit (i.e. education and early childhood programs were excluded).

The Research and Evaluation team applied the following GOS filters to the sample:

- Undergraduate students (E310=9 Bachelor Honours and 10 Bachelor Pass- excluding Advanced Diploma);
- Domestic students (E942=0 domestic graduates). Note that international students were included in the analysis of the PACE impact items;
- Exclusion of education and early childhood students (AREA= All excluding 13 Teacher education) on the basis that there is no substantive difference between the learning experience that students completing those units have had compared to the non-PACE cohort; and
- Outcomes of individual graduates (Analysis=1).

After applying the filters, 4339 undergraduate students (73% of the overall MQ respondents) from 2016-2018 were included in the GOS evaluation sample, which included 3179 PACE students and 1160 students who did not complete a PACE unit (Table 9). Appendix D provides a breakdown of the 2016-2018 sample by Faculty and Broad Field of Education.

<table>
<thead>
<tr>
<th>Table 9. 2016-2018 GOS Sample (eligible undergraduate domestic graduates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOS Year</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2016-2018</td>
</tr>
</tbody>
</table>

For the MQGDS data, the following filters were applied:

- Undergraduate students (Broad Level of Study=undergraduate & Detailed Level of Study = Bachelor Honours & Bachelor Pass);
- Faculty (Owning Faculty Fee Setting = Faculty of Arts (FoA), Faculty of Business and Economics (FBE, renamed as MQBS), Faculty of Science and Engineering (FSE) and Faculty of Human Sciences (FoHS);
- Domestic students (Citizenship indication= Domestic). Note that the analysis of the PACE specific impact items included international students; and
- Excluding education and early childhood students (Broad FOE= excluding education), on the basis that there is no substantive difference between the learning experience that students completing those units have had compared to the non-PACE cohort.
The application of these filters reduced the overall MQGDS sample population (aggregate 2016-2018) to 2752 eligible graduates, 2036 (74%) were PACE students and 716 (26%) were non-PACE students (Table 10). Appendix E provides a breakdown of the 2016-2018 sample by Faculty and Broad Field of Education.

| Table 10. 2016-2018 MQGDS Sample (eligible undergraduate domestic graduates) |
|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| MQGDS  | MQ population | MQ respondent s | MQ response rate | PACE respondent s (%) | MQ filtered | PACE filtered | Non-PACE filtered |
| 2016    | 5231          | 1098             | 20.9%            | 692 (63.0%)        | 827           | 509 (61.5%) | 318 (38.5%)      |
| 2017    | 5389          | 1274             | 23.6%            | 938 (73.6%)        | 952           | 715 (75.1%) | 237 (24.9%)      |
| 2018    | 5951          | 1377             | 23.1%            | 1044 (75.8%)       | 973           | 812 (83.5%) | 161 (16.5%)      |
| 2016-2018 | 16,571        | 3749             | 22.6%            | 2874 (71.3%)       | 2752          | 2036 (74.0%) | 716 (26.0%)      |

Statistical analysis was undertaken for both the GOS and MQGDS using Binomial Proportion Tests (2 tailed z test with a 0.05 significance level), comparing employment data (Table 11) for students who completed a PACE unit as part of their degree to students who did not (Chapter 6). The data was analysed for the whole PACE/non-PACE sample for the 2016-2018 aggregate period and on a year by year basis. Analysis was also undertaken comparing the employment outcomes of PACE/non-PACE cohorts for each faculty and broad field of education; however, small sample sizes restricted statistical analysis. The study area sample sizes, aggregate and year by year, were too small to test if there were any differences between the PACE/non-PACE cohorts.

The following additional PACE items were also included in the analysis of the GOS (from 2018) and the MQGDS for PACE students only:

- To what extent did the PACE experience:
  - Help you in planning or making decisions about your career?
  - Help you feel more confident seeking work?
  - Contribute to your ability to get a satisfying job in an area that interests you?
  - Contribute to you being engaged in the community?
  - Enhance your professional networks? (GOS only)

In addition, the GOS (2018) and MQGDS asked students if they were currently employed or engaged with their PACE partner organisation.

---

*The Field of Education Code is a classification system (split in to three levels) used by higher education providers to classify courses of study, specialisations and units of study. Field of education groupings of courses and specialisations are on the basis of similarity of potential professions, rather than similarity of content, while units of study are coded on the basis of a likeness in terms of their subject matter.*
### Table 11. GOS and MQGDS employment indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall employment rate</td>
<td>Employed graduates (including in full-time, part-time or casual employment), as a proportion of those available for employment. This includes graduates who are in full time of part time study.</td>
</tr>
<tr>
<td></td>
<td>Available for employment included employed full-time, employed part-time, unemployed and seeking full-time work, unemployed and seeking part-time work, unemployed and waiting to start work</td>
</tr>
<tr>
<td>Full-time employment rate</td>
<td>This includes graduates who were usually or actually in paid work for at least 35 hours per week in the week before the survey as a proportion of those who were available for full-time work. This includes graduates who are in full time or part time study</td>
</tr>
<tr>
<td></td>
<td>Available for full time employment (working at least 35 hours and looking for FT work)</td>
</tr>
</tbody>
</table>

MQGDS: To what extent was your employment related to your qualification?

MQGDS: Overall, how well did your qualification prepare you for your job?

Differences in student groups and PACE experiences (Table 12) were also explored for employment outcomes (Chapter 7). Descriptive data and statistically significant results (p<0.05) are presented in this report.

### Table 12. Student Groups and PACE Experiences used to analyse the GOS and MQGDS

<table>
<thead>
<tr>
<th>Student Groups</th>
<th>PACE Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>International/Domestic</td>
<td>Faculty</td>
</tr>
<tr>
<td>Aboriginal and/or Torres Strait Islander</td>
<td>Activity Typology (Internships, University-based placements &amp; Mentoring)</td>
</tr>
<tr>
<td>Socio-economic indicator (GOS only)</td>
<td>Multiple PACE units</td>
</tr>
<tr>
<td>Disability</td>
<td>Broad Field of Education</td>
</tr>
<tr>
<td>Non-English Speaking Background</td>
<td></td>
</tr>
<tr>
<td>Employed in first full-time job</td>
<td></td>
</tr>
</tbody>
</table>
2.1.4 PACE PARTNER SURVEY (S2 2018, S1 AND S2, 2019)

The PACE Research and Evaluation team collaboratively designed an online survey, the PACE Partner Survey (Appendix F), to capture partner’s perceptions and feedback on their PACE experience, including processes and outcomes (student and partner). The survey measures partners’ overall satisfaction with the PACE program, motivations and outcomes, student competencies, and partners’ experiences of program processes. A random sample of partners, stratified by Faculty, activity typology and partnership tiers, was invited to complete the survey at the end of Session 2 2018 and Sessions 1 and 2 2019. Of the 1327 partners sampled, 352 completed the survey. This was a 27 per cent survey response rate of the partners sampled and 19 per cent of all PACE partners during that timeframe. Table 13 displays the Faculty and overall response rates.

<table>
<thead>
<tr>
<th>Sample</th>
<th>All PACE partners</th>
<th>Partner sample population*</th>
<th>Partner responses**</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FoA</td>
<td>749</td>
<td>548</td>
<td>135</td>
<td>25%</td>
</tr>
<tr>
<td>MQBS</td>
<td>360</td>
<td>62</td>
<td>21</td>
<td>34%</td>
</tr>
<tr>
<td>FSE</td>
<td>316</td>
<td>244</td>
<td>71</td>
<td>29%</td>
</tr>
<tr>
<td>FoHS</td>
<td>47</td>
<td>219</td>
<td>76</td>
<td>35%</td>
</tr>
<tr>
<td>FoMHS</td>
<td>266</td>
<td>225</td>
<td>45</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>95</td>
<td>29</td>
<td>4</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>1833</td>
<td>1327</td>
<td>352</td>
<td>27%</td>
</tr>
</tbody>
</table>

*Number of partners who were invited to participate in the evaluation  
**Number of partners who consented to participate in the evaluation and provided at least one response

Table 14 provides an overview of the partner survey sample. A third of partners were employed with a company, 40 per cent were from a medium size organisation and the majority were classified as either a Tier 1 (39%) or Tier 3 partner (38%). The majority of partners hosted one student during the survey period (61%) and coordinated and supervised (66%) an internship (81%). Interestingly, one third of the PACE activities in the evaluation sample had either a research or evaluation focus. Analysis of the Partner Survey focused on descriptive statistics (frequencies, means and percentages). All percentages were rounded to the nearest whole number.

---

3 There are three partnership tiers within PACE:  
Tier 1: Strategic PACE Partners that have a deep engagement with PACE, usually across multiple disciplines and/or faculties  
Tier 2: Organisations that have successfully hosted students more than once  
Tier 3: Organisations that have typically engaged with PACE on a ‘one-off’ basis and have not yet explored furthering or deepening their relationship with PACE
<table>
<thead>
<tr>
<th>Variable</th>
<th>Response options</th>
<th>Number of partner responses</th>
<th>% of total partner survey responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organisational size</strong></td>
<td>Large (100+)</td>
<td>61</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Medium (15-100)</td>
<td>142</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Small (&lt;15)</td>
<td>70</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>79</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>352</td>
<td></td>
</tr>
<tr>
<td><strong>Organisation type</strong></td>
<td>Company/Other</td>
<td>129</td>
<td>37%</td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td>52</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>NGO</td>
<td>74</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Sole trader</td>
<td>8</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Other public sector</td>
<td>87</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>352</td>
<td></td>
</tr>
<tr>
<td><strong>Partnership tier</strong></td>
<td>Tier 1</td>
<td>136</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Tier 2</td>
<td>47</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Tier 3</td>
<td>135</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>34</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>352</td>
<td></td>
</tr>
<tr>
<td><strong>Group activity</strong></td>
<td>Yes</td>
<td>138</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>214</td>
<td>61%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>352</td>
<td></td>
</tr>
<tr>
<td><strong>Role in engaging the student</strong></td>
<td>Coordinated &amp; supervision</td>
<td>233</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>Coordination only</td>
<td>44</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Supervision only</td>
<td>75</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>352</td>
<td></td>
</tr>
<tr>
<td><strong>Length of engagement with PACE</strong></td>
<td>First time</td>
<td>143</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>1-2 years</td>
<td>65</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>More than 2 years</td>
<td>104</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>I'm not sure</td>
<td>17</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>23</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>352</td>
<td></td>
</tr>
</tbody>
</table>
2.1.5 MOST SIGNIFICANT CHANGE

Most significant change (MSC) involves collecting qualitative stories of change from program participants and then discussing with organisational stakeholders what changes/stories they value most and why. This happens by filtering stories up through different organisational levels (Dart & Davies, 2003). The MSC technique was piloted with PACE International partners and staff from 2017-18. The pilot involved collecting MSC stories from PACE partners, staff, and students (via the PACE student survey). The PACE International team then selected the most significant stories for inclusion in the evaluation report. Additional MSC stories were also collected in the PACE staff workshops, the PACE Student Survey and PACE Partner Survey.

2.1.6 PACE STAFF EVALUATION WORKSHOPS

Evaluation workshops were facilitated with PACE direct delivery teams (Faculty-based and PACE International) during Session 2 2018 and Session 1 2019. The purpose of the workshops was to explore PACE staff perceptions of the PACE program (what was working well and areas for program improvements) and the impact on student, partner, and community outcomes. Overall, the workshops involved 25 PACE staff members. An additional four individual face to face interviews were also undertaken with the PACE Academic Directors in each faculty (Table 15).
2.1.7 PURPOSEFUL CASE STUDIES

Mixed methods purposeful case studies were undertaken to explore evaluation findings, program outcomes, and processes in depth, with the aim to get a greater understanding of contextual factors that may influence, impact, or impede program effectiveness. The following focus areas were selected by the PACE leadership team as strategic priority areas for the evaluation:

- PACE’s contribution to research;
- Longer term impact of PACE – for students and partners;
- Equity and diversity; and
- University-based activities (on-campus engagements).

The case studies utilised the following data sources:

- PACE Operational data (AMIS and SONIA);
- PACE Student and Partner Surveys;
- Document review and/or incorporation of data collected through other PACE projects (i.e. PACE story bank, research projects, PACE prizes, previously collected individual case studies); and
- Interviews with relevant stakeholders (i.e. students, partners, PACE staff and other University stakeholders), as outlined in Table 16.

<table>
<thead>
<tr>
<th>Participants</th>
<th>No. of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>13</td>
</tr>
<tr>
<td>Partners</td>
<td>7</td>
</tr>
<tr>
<td>PACE unit convenors</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
</tr>
</tbody>
</table>

2.1.8 QUALITATIVE ANALYSIS

Qualitative data from the Student and Partner Surveys, MSC and Case Studies was imported into QSR NVivo. The process and outcomes evaluation framework (Appendix G) was used as the coding framework. The main themes are discussed in the report and, where appropriate, quotations and case studies are used to illustrate key findings. Throughout the report qualitative comments are attributed to PACE students, PACE partners and University staff (including Faculty PACE teams, Academic Directors of PACE in each Faculty, and unit convenors).
2.2 Interpreting the results: What does success look like?

Evaluation process and outcomes frameworks were developed to guide data collection, analysis and reporting (Appendix G). The framework outlines the criteria (critical success factors), indicators (how we will know if the program has been successful), and key data sources. Several key activities were undertaken to develop the evaluation framework and associated rubrics. These included:

- Review of program documentation, for example PACE Theory of Change, and Academic Senate Criteria for PACE units and activities (Macquarie University, 2019);
- Review of literature exploring student employability and citizenship models, theories and conceptualisations, and work integrated learning quality frameworks; and
- Consultation and workshops with key program stakeholders.

A workshop with the PACE leadership team was also conducted in 2018 to develop evaluation rubrics. A rubric is a tool that outlines the criteria and standards for rating program performance (Davidson, 2005). It supports evaluation reporting as it moves from the descriptive to interpreting data in order to make evaluation judgements and conclusions about program success and areas for improvement. Drawing from stakeholder feedback in the workshop, rubrics were developed for the process and outcomes framework. Each rubric has two levels of standards to synthesise the quantitative data:

- Level 1 (higher rating) for criteria that are within the direct sphere of influence of the PACE program; and
- Level 2 (modest rating) for criteria that can be influenced by factors outside the control of the PACE program.

The standards for the Learner Experience of PACE items were drawn from the existing University student evaluation rating system and the qualitative standards and descriptors were applied to all criteria.

The standards were applied to each criterion and then program performance was rated as being:

- Needs review: Poor program performance, with significant program adaptations & changes required
- Reasonable: Reasonably good program performance, might need a number of improvements but nothing serious
- Strong: Very good or strong program performance on most aspects, with minor improvements required
- Excelling: Clear example of excellent program performance, with minimal program improvements required

When there were mixed findings within a criterion, for example across different survey items and/or qualitative data, the standard with the largest proportion of evidence was used to allocate the rating.
### 2.2.1 PACE PROCESS FRAMEWORK AND RUBRIC

A process evaluation explores how well a program is being implemented by examining outputs (how much did we do?) and program activities/processes (how well did we do it?) to inform program improvements, design and decisions. This is important as it identifies any program delivery issues that might affect the achievement of short and long-term outcomes. The process framework identified the critical implementation success factors required for the PACE program to be successful (Appendix G). The process framework and associated rubric (Table 17) are used to answer the second evaluation question: How effectively is PACE being implemented (i.e. scope, scale, diversity, learning & teaching quality, process & systems)?

#### Table 17. PACE Evaluation Process Rubric- How effectively is the PACE program being implemented?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Needs review</th>
<th>Reasonable</th>
<th>Strong</th>
<th>Excelling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Program relevance</td>
<td>&lt;60% of students &amp; partners rated each relevant quantitative survey item positively. A mix of positive and negative feedback from students, partners &amp; staff skewed towards the negative.</td>
<td>61-74% of students rated each relevant quantitative survey item positively. A mix of positive and negative feedback from students, partners &amp; staff skewed towards the positive.</td>
<td>75-84% of students/partners rated each relevant quantitative survey item positively. Positive feedback from the majority of students, partners &amp; staff with a few negative comments.</td>
<td>&gt;85% students/partners rated each relevant quantitative survey item positively. Substantial positive feedback from students, partners, &amp; staff with very few to no negative comments.</td>
</tr>
<tr>
<td>• Program satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Program support &amp; monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Activity design &amp; allocation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Academic support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level 2:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Communication &amp; systems</td>
<td>&lt;50% of students &amp; partners rated each relevant quantitative survey item positively. A mix of positive and negative feedback from students, partners &amp; staff skewed towards the negative.</td>
<td>51-59% of students rated each relevant quantitative survey item positively. A mix of positive and negative feedback from students, partners &amp; staff skewed towards the positive.</td>
<td>60-69% of students/partners rated each relevant quantitative survey item positively. Positive feedback from the majority of students, partners &amp; staff with a few negative comments.</td>
<td>&gt;70% students/partners rated each relevant quantitative survey item positively. Substantial positive feedback from students, partners, &amp; staff with very few to no negative comments.</td>
</tr>
<tr>
<td>• Preparation &amp; induction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Supervision &amp;/or partner contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PACE unit</strong></td>
<td>&lt;3.0</td>
<td>≥3.0, &lt;3.5</td>
<td>≥3.5, &lt;4.0</td>
<td>≥4.0</td>
</tr>
<tr>
<td><strong>Partnership management</strong></td>
<td>A mix of positive and negative feedback from students, partners &amp; staff skewed towards the negative.</td>
<td>A mix of positive and negative feedback from students, partners &amp; staff skewed towards the positive.</td>
<td>Positive feedback from the majority of students, partners &amp; staff with a few negative comments.</td>
<td>Substantial positive feedback from students, partners, &amp; staff with very few to no negative comments.</td>
</tr>
</tbody>
</table>
2.2.2 PACE OUTCOMES FRAMEWORK AND RUBRIC

An outcomes evaluation seeks to understand the impact a program is having on the knowledge, attitudes and behaviour of a target population. The outcomes framework outlines the critical outcomes that the PACE program is trying to achieve for students, partners, the University and community more broadly (Appendix G). The outcomes framework and associated rubric (Table 18) are used to answer the fourth evaluation question: To what extent does PACE contribute to outcomes (intended and unintended) for students, partners, the University and the wider community?

### Table 18. PACE Evaluation Outcome Rubric- To what extent does PACE contribute to outcomes for students, partners, the University and the wider community?

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Needs review</th>
<th>Reasonable</th>
<th>Strong</th>
<th>Excelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career readiness</td>
<td>&lt;64% of students &amp; partners rated each relevant quantitative survey item positively. No significant improvements</td>
<td>65-74% of students rated each relevant quantitative survey item positively. Significant improvements across some items</td>
<td>75-84% of students/partners rated each relevant quantitative survey item positively. Significant improvements across most items</td>
<td>&gt;85% students/partners rated each relevant quantitative survey item positively. Significant improvements across all items</td>
</tr>
<tr>
<td>Partner outcomes</td>
<td>Few to no students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>Some students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>The majority of students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>Students, partners &amp; staff provide many examples of outcomes and benefits which are linked directly to the program.</td>
</tr>
<tr>
<td>Active &amp; Engaged Citizenship</td>
<td>&lt;50% of students &amp; partners rated each relevant quantitative survey item positively. No significant improvements</td>
<td>50-59% of students rated each relevant quantitative survey item positively. Significant improvements across some items</td>
<td>60-69% of students/partners rated each relevant quantitative survey item positively. Significant improvements across most items</td>
<td>&gt;70% students/partners rated each relevant quantitative survey item positively. Significant improvements across all items</td>
</tr>
<tr>
<td>Professional networks</td>
<td>Few to no students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>Some students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>The majority of students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>Students, partners &amp; staff provide many examples of outcomes and benefits which are linked directly to the program.</td>
</tr>
<tr>
<td>Community outcomes</td>
<td>No significant differences</td>
<td>Significant difference across some items</td>
<td>Significant differences across most items</td>
<td>Significant differences across all items</td>
</tr>
<tr>
<td>Graduate Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Outcomes</td>
<td>Few to no students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>Some students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>The majority of students, partners &amp; staff provide examples of outcomes and benefits which are linked directly to the program.</td>
<td>Students, partners &amp; staff provide many examples of outcomes and benefits which are linked directly to the program.</td>
</tr>
</tbody>
</table>
Chapter 3: How much did the PACE program do?

This Chapter answers Evaluation Question 1 using the following program data from 2016-2018:

- Student enrolments in PACE units
- Student engagements in unique PACE activities
- Student enrolments in PACE activities
Chapter overview

The institution-wide implementation of the PACE program is unprecedented in the Australian university work integrated learning context. Program data from 2016-2018 demonstrates that the PACE program is providing the scope, scale and diversity of experiences required to support all students to undertake a professional experience as part of their undergraduate degree.

Evaluation Question 1: How much did the PACE program do?

- **22,669 ENROLMENTS** in PACE units from 2016-2018
- **4972 PACE ACTIVITIES** completed in 2016-2018
- **54% OF PACE STUDENTS** undertook a university-based activity in 2016-2018
- **246 PACE INTERNATIONAL** activities completed in 2016-2018
- **36% OF PACE STUDENTS** undertook an internship in 2016-2018
- **42% OF STUDENTS** enrolled in more than one PACE unit in 2016-2018
- **42% OF STUDENTS** enrolled in more than one PACE unit in 2016-2018

3.1 Student enrolments in PACE units

From 2016-2018 there were 22,669 enrolments into the PACE program. Enrolments across the three years have increased steadily, reflecting the staged implementation of the program. In 2016 there were 6,667 student enrolments into a PACE unit; this increased to 7,700 in 2017 and 8,302 in 2018. Across the three years the largest proportion of enrolments has been from MQBS (44%), followed by FoHS (26%, including the education practicum PACE units) and then Faculty of Arts (19%) (Figure 6). Enrolments for each Faculty and each PACE unit are presented in Appendix H1.

![Figure 6. 2016-2018 PACE Student Enrolments across Faculties, Number (% of all enrolments)](image_url)
As shown in Table 19, from 2016-2018, 9617 students (42%) completed more than one PACE unit. After removing Education Units, which engage students in multiple practicums, the proportion remained high, with 34 per cent of students completing more than one PACE unit (n=6297/18574). With increasing student enrolments, the number of overall PACE units has also increased from 67 units in 2016 to 76 units in 2018.

In addition, a total of 871 students (including students enrolled in Education Units) participated in the PACE International program from 2016 to 2018, engaging with community development and professional engagement partners in 41 different countries. There has been a steady increase over time in the number of students participating in the International program with 237 students participating in 2016 and 377 students in 2018 (a 59% increase over a two-year period). The most popular country for PACE International student engagement was India with 115 students (17%). Other popular countries included the Philippines (101 students, 12%), Vietnam (84 students, 10%), Peru (81 students, 9%) and Fiji (60 students, 7%). For further detail about PACE International enrolments and activities, please refer to Appendix H3-5.

Table 20 summarises the demographic profile of PACE student enrolments, including PACE International and education students. From 2016-2018, the majority of PACE enrolments were female (57%), domestic students (83%) and students who resided in high SES areas (66%). Over 1 in 4 were mature age students (29%), and the vast majority of student enrolments were internal students (94%). Most PACE students also had a medium GPA (85%).

Figures 7-10 present the number of PACE student enrolments by equity and diversity groups for each Faculty. From 2016-2018, the majority of Aboriginal and/or Torres Strait Islander student PACE enrolments were in FoA (35%), while the vast majority of international student enrolments were in MQBS (83%). Enrolments of students from low socio-economic status areas were fairly evenly spread across the Faculties, with most being in MQBS (43%), followed by those in education practicum PACE units (22%) and then FoA (16%).
Table 19. PACE Student Enrolments by Faculty from 2016-2018, Number (% of all yearly enrolments)

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Category</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>All MQ</td>
<td>Enrolments</td>
<td>6667 (100%)</td>
<td>7700 (100%)</td>
<td>8302 (100%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>2617</td>
<td>3737</td>
<td>3263</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>67</td>
<td>77</td>
<td>76</td>
</tr>
<tr>
<td>FoA</td>
<td>Enrolments</td>
<td>1233 (18%)</td>
<td>1434 (19%)</td>
<td>1662 (20%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>462 (18%)</td>
<td>686 (18%)</td>
<td>715 (22%)</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>22</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>MQBS</td>
<td>Enrolments</td>
<td>3126 (47%)</td>
<td>3297 (43%)</td>
<td>3507 (42%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>953 (36%)</td>
<td>1215 (33%)</td>
<td>1176 (36%)</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>13</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>FoHS</td>
<td>Enrolments</td>
<td>500 (8%)</td>
<td>663 (9%)</td>
<td>743 (9%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>115 (4%)</td>
<td>184 (5%)</td>
<td>124 (4%)</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Education</td>
<td>Enrolments</td>
<td>1154 (17%)</td>
<td>1517 (20%)</td>
<td>1424 (17%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>917 (35%)</td>
<td>1418 (38%)</td>
<td>985 (30%)</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>8</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>FoMHS</td>
<td>Enrolments</td>
<td>-</td>
<td>25 (&lt;1%)</td>
<td>46 (&lt;10%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>-</td>
<td>1 (&lt;1%)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>FSE</td>
<td>Enrolments</td>
<td>624 (9%)</td>
<td>721 (9%)</td>
<td>823 (10%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>156 (6%)</td>
<td>206 (6%)</td>
<td>226 (7%)</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>19</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>Other</td>
<td>Enrolments</td>
<td>30 (&lt;1%)</td>
<td>43 (&lt;1%)</td>
<td>97 (1%)</td>
</tr>
<tr>
<td></td>
<td>Students who completed multiple PACE units*</td>
<td>14 (&lt;1%)</td>
<td>27 (&lt;1%)</td>
<td>37 (1%)</td>
</tr>
<tr>
<td></td>
<td>No. of active units</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

* A student is considered to complete multiple PACE units when they are enrolled in more than one unique PACE unit. Multiple attempts at the same unit are not included in this number.
<table>
<thead>
<tr>
<th>Demographic</th>
<th>Category</th>
<th>2016-2018</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>9684 (43%)</td>
<td>2825 (42%)</td>
<td>3209 (42%)</td>
<td>3650 (44%)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>12985 (57%)</td>
<td>3842 (58%)</td>
<td>4491 (58%)</td>
<td>4652 (56%)</td>
</tr>
<tr>
<td>International Student*</td>
<td>Yes</td>
<td>3934 (17%)</td>
<td>1207 (18%)</td>
<td>1357 (18%)</td>
<td>1370 (16%)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>18735 (83%)</td>
<td>5460 (82%)</td>
<td>6343 (82%)</td>
<td>6932 (84%)</td>
</tr>
<tr>
<td>Indigenous</td>
<td>Indigenous</td>
<td>133 (&lt;1%)</td>
<td>35 (&lt;1%)</td>
<td>46 (&lt;1%)</td>
<td>52 (&lt;1%)</td>
</tr>
<tr>
<td></td>
<td>Non-Indigenous</td>
<td>22536 (99%)</td>
<td>6588 (99%)</td>
<td>7654 (99%)</td>
<td>8250 (99%)</td>
</tr>
<tr>
<td>Socio-Economic Status (SES)</td>
<td>Low</td>
<td>2191 (10%)</td>
<td>655 (10%)</td>
<td>702 (9%)</td>
<td>824 (10%)</td>
</tr>
<tr>
<td></td>
<td>Mid</td>
<td>4793 (21%)</td>
<td>1427 (21%)</td>
<td>1629 (21%)</td>
<td>1737 (21%)</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>14967 (66%)</td>
<td>4320 (65%)</td>
<td>5120 (66%)</td>
<td>5527 (67%)</td>
</tr>
<tr>
<td></td>
<td>Unknown</td>
<td>718 (3%)</td>
<td>255 (4%)</td>
<td>249 (3%)</td>
<td>214 (3%)</td>
</tr>
<tr>
<td>Mature Age Student</td>
<td>Yes</td>
<td>6491 (29%)</td>
<td>1897 (28%)</td>
<td>2224 (29%)</td>
<td>2370 (29%)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>16178 (71%)</td>
<td>4770 (72%)</td>
<td>5476 (71%)</td>
<td>5932 (71%)</td>
</tr>
<tr>
<td>Unit Attendance</td>
<td>Internal</td>
<td>21320 (94%)</td>
<td>6236 (94%)</td>
<td>7235 (94%)</td>
<td>7849 (95%)</td>
</tr>
<tr>
<td></td>
<td>External</td>
<td>1349 (6%)</td>
<td>431 (6%)</td>
<td>465 (6%)</td>
<td>453 (5%)</td>
</tr>
<tr>
<td>Unit grade</td>
<td>High Distinction</td>
<td>1403 (6%)</td>
<td>401 (6%)</td>
<td>486 (6%)</td>
<td>516 (6%)</td>
</tr>
<tr>
<td></td>
<td>Distinction</td>
<td>5700 (25%)</td>
<td>1692 (25%)</td>
<td>1956 (25%)</td>
<td>2052 (25%)</td>
</tr>
<tr>
<td></td>
<td>Credit</td>
<td>7355 (33%)</td>
<td>2178 (33%)</td>
<td>2506 (33%)</td>
<td>2671 (32%)</td>
</tr>
<tr>
<td></td>
<td>Pass</td>
<td>3421 (15%)</td>
<td>1006 (15%)</td>
<td>1192 (16%)</td>
<td>1223 (15%)</td>
</tr>
<tr>
<td></td>
<td>Satisfactory</td>
<td>3602 (16%)</td>
<td>1142 (17%)</td>
<td>1219 (16%)</td>
<td>1241 (15%)</td>
</tr>
<tr>
<td></td>
<td>Incomplete</td>
<td>299 (1%)</td>
<td>49 (1%)</td>
<td>111 (1%)</td>
<td>139 (2%)</td>
</tr>
<tr>
<td></td>
<td>Withdrawal</td>
<td>177 (1%)</td>
<td>49 (1%)</td>
<td>69 (1%)</td>
<td>59 (0.1%)</td>
</tr>
<tr>
<td></td>
<td>Fail</td>
<td>509 (2%)</td>
<td>150 (2%)</td>
<td>161 (2%)</td>
<td>198 (2%)</td>
</tr>
<tr>
<td></td>
<td>Enrolled</td>
<td>203 (1%)</td>
<td>-</td>
<td>-</td>
<td>203 (3%)</td>
</tr>
<tr>
<td>GPA Category</td>
<td>Low</td>
<td>2893 (13%)</td>
<td>844 (13%)</td>
<td>937 (12%)</td>
<td>1112 (13%)</td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td>19167 (85%)</td>
<td>5724 (86%)</td>
<td>6595 (86%)</td>
<td>6848 (823%)</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>531 (2%)</td>
<td>84 (1%)</td>
<td>147 (2%)</td>
<td>310 (4%)</td>
</tr>
<tr>
<td></td>
<td>Missing</td>
<td>68 (&lt;1%)</td>
<td>15 (&lt;1%)</td>
<td>21 (&lt;1%)</td>
<td>32 (&lt;1%)</td>
</tr>
</tbody>
</table>
Figure 7. 2016-2018 PACE Enrolments by Faculty: Indigenous Students

Figure 8. 2016-2018 PACE Enrolments by Faculty: International Students

Figure 9. 2016-2018 PACE Enrolments by Faculty: Low SES

Figure 10. 2016-2018 PACE Enrolments by Faculty: Mature Age Students
3.2 PACE activities (unique)

The data in the following section was extracted from SONIA and presents a summary of PACE activities that had a unique identifier and at least one student. It excludes Education Units (practicums). These figures are less than the total PACE student enrolments as a substantial proportion of activities have more than one student allocated to them. Some students (approximately 5%) undertook their activity with PACE International, and those activities are included separately in the relevant tables.

Overall, from 2016-2018, 4972 unique PACE activities were completed (Table 21). The largest number of activities were in FoA (43%), with the bulk of the remaining activities evenly spread across MQBS, FoHS and FSE. FoMHS, with only 1 PACE unit, hosted 1-2 per cent of activities. In addition, 246 PACE activities were completed with an international partner.

Although the majority (66%) of activities were allocated to an individual student, 28 per cent of activities had 2-10 students (Figure 11). The largest allocation of students to a unique activity was over 300 students, which occurred once in each of 2016, 2017 and 2018, all in MQBS. This data indicates the importance of utilising group activities to accommodate increased student enrolments as the program reached full implementation.

### Table 21. Unique PACE Activities from 2016-2018 overall and by faculty N (% of year total), excluding education

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PACE Total</td>
<td>18574*</td>
<td>4972</td>
<td>1497</td>
<td>1637</td>
<td>1838</td>
</tr>
<tr>
<td>FoA</td>
<td>4329</td>
<td>2143 (43%)</td>
<td>720 (48%)</td>
<td>686 (41%)</td>
<td>737 (40%)</td>
</tr>
<tr>
<td>MQBS</td>
<td>9930</td>
<td>865 (17%)</td>
<td>289 (19%)</td>
<td>297 (18%)</td>
<td>279 (15%)</td>
</tr>
<tr>
<td>FoHS</td>
<td>1906</td>
<td>894 (18%)</td>
<td>242 (16%)</td>
<td>308 (19%)</td>
<td>344 (19%)</td>
</tr>
<tr>
<td>FoMHS</td>
<td>71</td>
<td>45 (1%)</td>
<td>-</td>
<td>18 (1%)</td>
<td>27 (2%)</td>
</tr>
<tr>
<td>FSE</td>
<td>2168</td>
<td>736 (15%)</td>
<td>201 (13%)</td>
<td>234 (14%)</td>
<td>301 (16%)</td>
</tr>
<tr>
<td>Other</td>
<td>170</td>
<td>43 (1%)</td>
<td>-</td>
<td>-</td>
<td>43 (2.3%)</td>
</tr>
<tr>
<td>PACE International</td>
<td>N/A</td>
<td>246 (5%)</td>
<td>45 (3%)</td>
<td>94 (6%)</td>
<td>107 (6%)</td>
</tr>
</tbody>
</table>

*Excludes 4095 enrolments into Education Units

From 2016-2018, the majority of unique activities that could be classified were internships (82%); the remainder were university-based activities (9%) and mentoring (3%), while 6 per cent were unable to be classified using this system (Table 22).

Table 22 below summarises the key characteristics of the unique activities for each year for the overall PACE program. Just under half of the activities were initiated by students (46%), with the remainder by partners (20%) and staff (27%), while 7 per cent had unknown initiation. Just under a quarter of all activities were reported by partners to offer remuneration over and above the reimbursement of travel or expenses (Table 22).
Figure 11. No. of Students Allocated to a Unique Activity from 2016-2018

| Table 22. Characteristics of unique PACE activities from 2016-2018 (% of yearly totals), excluding education |
|---------------------------------|-----------------|-------|-------|-------|-------|
| Activity                        | Category        | 2016-2018 | 2016 | 2017 | 2018 |
| **Primary Typology**            | Internship      | 4087 (82%) | 1171 (78%) | 1420 (87%) | 1496 (81%) |
|                                 | University-based| 469 (9%)  | 120 (8%)  | 160 (10%)  | 189 (10%)  |
|                                 | Mentoring       | 138 (3%)  | 18 (1%)  | 24 (1%)  | 96 (5%) |
|                                 | Missing data    | 278 (6%) | 188 (13%) | 33 (2%)  | 57 (3%) |
| **Remunerated**                 | Yes             | 990 (20%) | 290 (19%) | 334 (20%) | 366 (19.9%) |
|                                 | No              | 3469 (70%) | 1083 (72%) | 1174 (72%) | 1212 (66%) |
|                                 | Unknown         | 513 (10%) | 124 (8%) | 129 (8%) | 260 (14%) |
| **Activity Initiation**         | Student         | 2286 (46%) | 697 (47%) | 733 (45%) | 856 (47%) |
|                                 | Partner         | 973 (20%) | 452 (30%) | 452 (28%) | 421 (23%) |
|                                 | Staff           | 1358 (27%) | 453 (30%) | 460 (28%) | 445 (24%) |
|                                 | Other           | 29 (1%) | 3 (<1%) | 20 (1%) | 6 (<1%) |
|                                 | Missing data    | 326 (7%) | 107 (7%) | 112 (7%) | 107 (6%) |

Table 23 summarises the unique activity data from 2016-2018 for each Faculty. With respect to the activity typology, FoA provided the largest proportion of internships (47%), MQBS provided the largest proportion of University-based activities (67%) and FoHS provided the majority of mentoring activities (67%). The vast majority of student-initiated activities were in FoA (66%), followed by FSE (15%). The majority of remunerated activities were also in FoA (65%), followed by FSE (15%) and MQBS (17%). The majority of partner-initiated activities (40%) were in FoHS, with the other large Faculties accounting for around 20% each.
Table 23. Characteristics of the Unique PACE Activities from 2016-2018 by Faculty (% of total for each row), excluding education

<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Category</th>
<th>FoA Total</th>
<th>MQBS Total</th>
<th>FoHS Total</th>
<th>FoMH Total</th>
<th>FSE Total</th>
<th>Other Total</th>
<th>PACE Int Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Typology</td>
<td>Internship</td>
<td>4087</td>
<td>1902 (47%)</td>
<td>539 (13%)</td>
<td>779 (19%)</td>
<td>45 (1%)</td>
<td>584 (14%)</td>
<td>42 (1%)</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>469</td>
<td>94 (20%)</td>
<td>320 (88%)</td>
<td>10 (2%)</td>
<td>-</td>
<td>41 (9%)</td>
<td>1 (&lt;1%)</td>
</tr>
<tr>
<td></td>
<td>Mentoring</td>
<td>138</td>
<td>9 (67%)</td>
<td>1 (1%)</td>
<td>92 (67%)</td>
<td>-</td>
<td>36 (26%)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>278</td>
<td>138 (50%)</td>
<td>5 (2%)</td>
<td>13 (5%)</td>
<td>-</td>
<td>75 (27%)</td>
<td>-</td>
</tr>
<tr>
<td>Remunerated</td>
<td>Yes</td>
<td>990</td>
<td>643 (65%)</td>
<td>164 (17%)</td>
<td>26 (3%)</td>
<td>-</td>
<td>148 (15%)</td>
<td>4 (&lt;1%)</td>
</tr>
<tr>
<td>Activity Initiation</td>
<td>Student</td>
<td>2286</td>
<td>1515 (66%)</td>
<td>210 (9%)</td>
<td>208 (9%)</td>
<td>-</td>
<td>299 (13%)</td>
<td>35 (2%)</td>
</tr>
<tr>
<td></td>
<td>Partner</td>
<td>973</td>
<td>174 (18%)</td>
<td>176 (18%)</td>
<td>388 (40%)</td>
<td>22 (2%)</td>
<td>204 (21%)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>1358</td>
<td>389 (29%)</td>
<td>431 (32%)</td>
<td>285 (21%)</td>
<td>23 (2%)</td>
<td>213 (16%)</td>
<td>8 (1%)</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>355</td>
<td>65 (18%)</td>
<td>48 (14%)</td>
<td>13 (4%)</td>
<td>-</td>
<td>20 (6%)</td>
<td>-</td>
</tr>
</tbody>
</table>

3.3 Student enrolments in PACE activities

This section examines the number of PACE student enrolments, accessed through AMIS, engaged in the different types of PACE activities offered from 2016-2018. In total, there were 18,574 student enrolments in PACE activities from 2016-2018, excluding education enrolments and including PACE International (Table 24).

From 2016-2018 the largest proportion of PACE students were undertaking University-based activities (54%) followed by internships (36%). A comparison of data across the three years (Table 24) highlights that the proportion of students undertaking university-based activities increased from 2016 (48%) to 2018 (57%), whilst the proportion of student enrolments in internships remained relatively consistent across all years (33-39%). If the PACE units offered by the Department of Educational Studies were included the proportion of students doing a PACE internship would rise significantly as all PACE units offered in the disciplines of Education and Early Childhood are formal practicums/professional placements. Again, this demonstrates the strategic significance of utilising different modes of work-integrated learning to accommodate increasing student enrolments in the PACE program.

Key Finding:
As the program reached full implementation, different modes of work-integrated learning were used to accommodate increasing student enrolments.
### Table 24. PACE Student Enrolments in different types of activity, 2016-2018 (% of yearly totals), excluding education

<table>
<thead>
<tr>
<th>Typology</th>
<th>2016-2018</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship</td>
<td>6638 (36%)</td>
<td>1928 (35%)</td>
<td>2437 (39%)</td>
<td>2273 (33%)</td>
</tr>
<tr>
<td>University-based activities</td>
<td>10,028 (54%)</td>
<td>2629 (48%)</td>
<td>3489 (56%)</td>
<td>3910 (57%)</td>
</tr>
<tr>
<td>Mentoring</td>
<td>925 (5%)</td>
<td>379 (7%)</td>
<td>115 (2%)</td>
<td>431 (6%)</td>
</tr>
<tr>
<td>Missing data</td>
<td>983 (5%)</td>
<td>577 (10%)</td>
<td>142 (3%)</td>
<td>264 (5%)</td>
</tr>
<tr>
<td>Total</td>
<td>18574</td>
<td>5513</td>
<td>6183</td>
<td>6878</td>
</tr>
</tbody>
</table>

Table 25 summarises the student enrolment and activity data from 2016-2018 for each Faculty, including PACE International. In all Faculties except MQBS the majority of PACE activities undertaken were internships. In contrast, in MQBS the majority (88%) were university-based activities.

### Table 25. Proportion of PACE Student Enrolments in different types of activity, 2016-2018 by Faculty (% of faculty totals), excluding education

<table>
<thead>
<tr>
<th>Faculty</th>
<th>FoA</th>
<th>MQBS</th>
<th>FoHS</th>
<th>FoMHS</th>
<th>FSE</th>
<th>Other</th>
<th>Typology Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internship</td>
<td>2936 (68%)</td>
<td>725 (7%)</td>
<td>1576 (83%)</td>
<td>66 (100%)</td>
<td>1184 (55%)</td>
<td>151 (89%)</td>
<td>6638</td>
</tr>
<tr>
<td>University-based activities</td>
<td>909 (21%)</td>
<td>8779 (88%)</td>
<td>49 (3%)</td>
<td>-</td>
<td>290 (13%)</td>
<td>1 (&lt;1%)</td>
<td>10,028</td>
</tr>
<tr>
<td>Mentoring</td>
<td>33 (&lt;1%)</td>
<td>354 (4%)</td>
<td>243 (13%)</td>
<td>-</td>
<td>295 (14%)</td>
<td>-</td>
<td>925</td>
</tr>
<tr>
<td>Unknown/Other</td>
<td>451 (10%)</td>
<td>72 (&lt;1%)</td>
<td>38 (2%)</td>
<td>5 (7%)</td>
<td>399 (18%)</td>
<td>18 (10%)</td>
<td>983</td>
</tr>
<tr>
<td>Faculty Total</td>
<td>4329</td>
<td>9930</td>
<td>1906</td>
<td>71</td>
<td>2168</td>
<td>170</td>
<td>18574</td>
</tr>
</tbody>
</table>

#### 3.4 Summary and recommendations

Since full implementation in 2016, the PACE program has continued to grow, delivering 4972 unique activities over the period 2016-2018. This analysis shows that the PACE program is providing the scope, scale and diversity of experiences required to support all students to undertake a professional experience as part of their undergraduate degree. Recommendations based on this analysis:

- **Continue to provide a range of PACE activities**, utilising diverse modes of work-integrated learning, to enable all students to undertake a professional experience as part of their undergraduate degree.
Chapter 4: How effectively is PACE being implemented?

This chapter assesses the effectiveness of PACE processes (Evaluation Question 2) by synthesising data collected from the student and partner surveys, evaluation workshops and interviews. It is structured around the following process evaluation criteria:

- Program experience (relevance, program satisfaction, program support and monitoring, communication, and systems)
- Professional & community engagement (partnership development and management, activity design and allocation, preparation and induction, and supervision/partner contact)
- Learning and teaching (learner experience of PACE and academic support)

Data for each sub-criterion was synthesised and then the PACE Evaluation Data Rubric standards were applied to rate the performance of the PACE program.
Chapter overview

There is clear evidence that PACE plays an important role in providing undergraduates with professional experiences and that students and partners are highly satisfied with the program and their overall experience. Although professional and community engagement processes varied across the program, within Faculties and even within PACE units, there was strong evidence that PACE activities were being implemented effectively in terms of partnerships, PACE activity design, allocation, induction, preparation and supervision/partner contact. PACE units and activities are being undertaken within an academically rigorous framework to develop the capacity and capabilities of students. PACE units are providing students with an opportunity to apply theory to practice in a professional setting, whilst being provided with valued academic support.

Evaluation Question 2: How effectively is PACE being implemented?

<table>
<thead>
<tr>
<th>PROGRAM EXPERIENCE</th>
<th>PROFESSIONAL &amp; COMMUNITY EXPERIENCE</th>
<th>LEARNING &amp; TEACHING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• PACE is relevant for both students and partners.</td>
<td>• PACE has effectively sourced and managed a wide range of partnerships. Partnerships require ongoing time and commitment.</td>
<td>• PACE units and activities are being undertaken within an academically rigorous framework to develop the capacity and capabilities of students.</td>
</tr>
<tr>
<td>• Students and partners are highly satisfied with their PACE experiences. Only a small proportion (14%) were unsatisfied.</td>
<td>• PACE is providing students opportunities to develop career readiness and active citizenship.</td>
<td>• In response to the items which were a Learning and Teaching Unit Evaluation requirement at Macquarie University, 8 out of 10 were rated in the highest category.</td>
</tr>
<tr>
<td>• PACE excels at providing personalised and bespoke program support to students and partners.</td>
<td>• PACE is providing an opportunity for students to apply the skills, knowledge or theories they had learnt at university.</td>
<td>• Students rated the reflection and debriefing components of the PACE unit the lowest.</td>
</tr>
<tr>
<td>• Some evidence that PACE teams and unit convenors are monitoring activities, however this mainly occurs reactively, which needs improvement.</td>
<td>• Most PACE activities were in an area of professional interest to students, however some students felt that this was an area for program improvement.</td>
<td>• Students agreed that the support they received from academic staff was helpful.</td>
</tr>
<tr>
<td>• PACE provides students and partners with timely and effective information. However, ongoing challenges with Macquarie student systems need addressing.</td>
<td>• Students and partners are effectively prepared for the PACE Activity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Students were highly satisfied with the support they received from their supervisor in the partner organisation.</td>
<td></td>
</tr>
</tbody>
</table>
4.1 Program experience

This section reports data for the program experience criterion, which includes program relevance, student and partner satisfaction, program support and communication/systems.

4.1.1 PROGRAM RELEVANCE

The evaluation explored the relevance of the PACE program from the perspective of students, partners and university staff. The Student Survey asked students a range of questions at the start of PACE (in the Pre-PACE Student Survey) to explore their graduation hopes, their previous professional experiences, and goals for the PACE unit. Figure 12 suggests that the vast majority of students (87%) participating in PACE hoped to progress into full-time employment upon graduation. The majority (83%) also hoped to make a difference in the community. A smaller, but substantial, proportion reported that they wanted to continue studying either through coursework (54%) or research (33%).

![Figure 12. Student Survey (Pre)- What are you hoping to do when you graduate? (% Yes)](image)

- Full-time job (n=2065): 87%
- Make a difference in the community (n=1202): 83%
- Further coursework study (n=1465): 54%
- Part-time job (n=1205): 49%
- Further study-research (1230): 33%
- Continue current employment (n=1092): 26%

**Key Finding:**
Although most students had more than one work experience before PACE, few had experiences in an area of professional interest.

Of the students (n=2834) who responded, 67 per cent had more than one prior work experience before the PACE activity, 19 per cent had one experience and 14 per cent had no previous work experience. Of those who had prior work experience, however, as shown in Figure 13, only 36 per cent had most or all of their experience/s in the same professional area that they would like to work in the future.

---

4 Total percentage exceeds 100% because students were asked Yes/No/Unsure for each item. The sample sizes for each item also differ due to changes in the survey.
Students were also asked to rate a range of career readiness and active citizenship dimensions on a five-point scale, ranging from ‘Not at all important’ to ‘Extremely important’ in terms of what they were hoping to achieve through the PACE experience. The items most frequently rated as very or extremely important were related to career readiness (Figure 14):

- Gaining professional experience, skills or knowledge (87%);
- Developing and/or applying discipline specific knowledge or skills (83%);
- Sharpening analytical skills (84%); and
- Exploring possible career options (79%).

The active citizenship items most frequently rated as very or extremely important were:

- Develop ability to work as a team member (75%)
- To make a positive contribution to the community (74%)

When students were asked to describe what they hoped to achieve in their PACE unit, career readiness was also the main theme, as demonstrated by the comments below.

“Industry specific experience. Applying knowledge and skills learnt throughout degree to real world circumstances. Work in a setting of interest to me. Use skills learnt through my degree to help people. Meet people with similar interests to me.” (PACE student)

“Hoping to learn more about a possible field to work in in my future. Many of the placements address social issues I am passionate about and would love to work in once I graduate. So, just looking to gain a hands-on deeper insight into social issues and possible pathways that I would love to go down in the future.” (PACE student)

“I’m hoping to learn how my degree can be applied in different workplaces and how I can use this to decide on what I want to do in the future.” (PACE student)
In the evaluation interviews and workshops, University staff (members of PACE teams, unit convenors and ADPs) (n=29) were also asked if there was a need for work-integrated learning (WIL) opportunities and the PACE program. Overall, there was consensus that WIL programs, such as PACE, were required in response to the 'changing world of work'. As such, PACE was supporting students by providing them with an opportunity to:

- Develop and apply professional and soft skills;
- Increase their understanding of how they apply knowledge gained through university studies to a specific industry; and
- Increase their understanding of traditional and non-traditional career pathways across different industries.

Many staff reported that they believed these opportunities should be provided to students throughout their degree, rather than waiting until the end of their degree to gain these experiences through the PACE unit.

“...work integrated learning is important in terms of helping them [students] to see the potential, transfer or apply themselves to whatever opportunities will come their way and which they wish to seek, and for their success ultimately...it should actually be about helping students articulate...what it is they have and where they're going to go.” (University staff)

“...[what] you realise with the students is that they don't have a lot of those professional skill sets. They don't realise what a goal is and how to achieve a goal and how to make a work plan. They're often coming from quite a narrow skill set in that respect in terms of professional skills.” (University staff)

“A lot of the students have a limited idea of what it is that they can potentially do. So even just broadening it out beyond these constrained ideas that they have, that's often a transformation we see.” (University staff)
As the foundation of PACE is based on reciprocity and mutually beneficial outcomes, the evaluation also explored the relevance of the program from a partner perspective. The partner survey asked partners what their motivations were for participating in the program and 303 partners responded (86%). The main themes to emerge from their responses were:

- Gaining support for organisational projects;
- Providing professional opportunities and industry insights for students, to support them to become job ready;
- Access to fresh ideas and insights, the latest discipline knowledge and/or specialist skills;
- Opportunities for mentoring and/or professional development for organisational staff through the supervision of PACE students;
- Involvement of students in research to “encourage a future generation of scholars”;
- Using PACE as a talent or employment pipeline; and
- Developing and maintaining connections with the University.

“Develop ideas that would benefit our company but cannot be prioritized at this time, explore new and upcoming technologies, talent acquisition, mentoring opportunities for staff.” (PACE partner)

“Opportunity to bring fresh thinking to our work from the student and progress projects. Also the research focus helps our organisation stay current.” (PACE partner)

“Offer graduates an opportunity to gain real life experience in a professional environment. Provide experience to existing staff in project management and work coordination, reporting & tracking etc.” (PACE partner)

### 4.1.2 STUDENT AND PARTNER SATISFACTION

<table>
<thead>
<tr>
<th>Rubric Rating</th>
<th>Strong</th>
</tr>
</thead>
</table>

Students’ and partners’ overall satisfaction with PACE was explored as an indicator of effective program processes. At the end of PACE, the majority of students (81%) were satisfied or very satisfied with their overall PACE experience (Figure 15). A small proportion of students (8%) reported that they were unsatisfied with the PACE program.

![Figure 15. Student Survey (Post) – Please rate your overall satisfaction with your PACE experience (n=1587)](image-url)
In addition, the vast majority of students (Figure 16) agreed that it was valuable for students to do PACE as part of their degree (87%), and that PACE had enhanced their experience at Macquarie University (80%).

The post survey concludes with an open-ended question asking students to provide any additional comments about PACE that they would like to make. Of those comments 208 (n=1824) were coded as examples of students being highly satisfied with their experience.

"PACE unit is such a helpful unit for me to finish my university since it not only synthesised the whole process of my major but also give me a chance to experience my major in real life." (PACE student)

"The PACE unit is a highly beneficial unit especially for those completing it in their final semester as it illustrates a solid professional business understanding and how to apply them practically. It is a great unit that prepares the students for the workplace, which can often seem daunting for those who don’t have practical experience." (PACE student)

"Overall it was an enriching experience for my academic, professional and social development which taught me a lot and made me consider a lot of new pathways that I had not considered previously." (PACE student)

"This was one of the best classes I did in my degree. I believe every student should have to do a class like this relevant to their faculty.... I feel much more prepared to apply the skills I learnt and how to adapt them for jobs and applications in the future. All the topics were valuable to my learning and development as a graduating student." (PACE student)

These findings show high levels of student satisfaction with the PACE program. We also wanted to explore the characteristics of the students who were dissatisfied with PACE and who disagreed that PACE was
valuable or had enhanced their experience at Macquarie. Selecting the students who had a mean score of \(<3\) on the Student Satisfaction variable (see 2.2.2 for detail) filtered the sample to 233 \(^5\) out of 1594 students who were the most unsatisfied with their overall PACE experience. The results suggest that students who did not find their own activity, did the activity as part of a group or who completed a large PACE unit were most dissatisfied with their PACE experience.

- 89% did not find their own activity (n=190/213)
- 88% did the activity as part of a group (n=137/156)
- 82% completed a large PACE unit (n=183/224)

Half of the unsatisfied students (51%, n=145/224) were awarded either a distinction or high distinction suggesting that grade allocation did not influence students being unsatisfied with PACE. There was also a similar proportion of students who completed an internship (48%, n=107/221) compared to students who completed a university-based activity (42%, n=92/221). There appeared not to be a pattern in terms of PACE units, with responses from students in 40 Units across all Faculties.

In responses to open-ended questions in the post-survey, a smaller proportion (n=44/1834) of comments were coded as being indicators of a negative student experience. The reasons most commonly cited for having a negative experience were:

- Unit content: group assignments, wanting more engaging sessions, workload and academic support;
- Partner interaction: dissatisfaction with supervision or the partner being under-prepared, a lack of training or resources, or students wanting more workplace involvement; and
- Some students (n=22) reported that they were disappointed with their PACE experience. Reasons for this included feeling like they did not learn any new knowledge, that they already had experience in the workforce and that the activity did not relate to their degree. A small number (n=9) did not agree that PACE should be compulsory and felt like the experience was a waste of time/money.

“Did not learn as much as I expected to in regards to industry experience and understanding how our skills could be applied in a real-world setting.” (PACE student)

“PACE is really generally not helpful for people who have been in the workplace for an extended period.” (PACE student)

“It was compulsory but a waste of time. I got no practical experience relevant to that degree and I am following the other half of my double degree so it doesn’t matter but if I were planning to follow this degree this experience would not have helped.” (PACE student)

“I don’t know that I agree with all students needing to complete a PACE unit. I enjoyed my PACE activity, but I don’t see it making any difference to [my] career or approach to work.” (PACE student)

“Instead, no training was provided (despite requesting for it), no budget was given (despite it being implying and alluded to that our project should get access to high quality resources) and little support was given throughout.” (PACE student)

The PACE program holds partnership and reciprocity as one of its core principles, and therefore it was important to understand the extent to which PACE partners were satisfied with their experiences. Overall, PACE partners who completed the partner survey were highly satisfied with their experience. The large majority of partners (93%) were somewhat or extremely satisfied with the outcomes achieved by the student(s) during the activity (Figure 17). A similarly large majority (93%, n=254/345) agreed somewhat or strongly that they would recommend engaging with a Macquarie University PACE student; only 5 partners disagreed with this statement.

\(^5\) Noting there is missing data across each category where students did not record their Student ID or unit of enrolment, typology or unit information was unable to be matched.
The following comments from partners illustrate their satisfaction with the PACE program:

“The PACE program is a fantastic initiative to engage with. It has been beneficial for both the students and our organisation. A great experience!” (PACE partner)

“Working with Macquarie University is always a pleasure and the students are some of the best we have had at (organisation) and we would wish them well on their educational journey.” (PACE partner)

“PACE students are a positive resource for the community sector and bring enthusiasm, professionalism and support where needed.” (PACE partner)

“The reciprocity of engaging with students on PACE activities is not only inspirational but provides a real sense of satisfaction in seeing the level of confidence that students develop, as well as the pride students take in achieving personal and professional goals.” (PACE partner)

The vast majority of partners (93%) somewhat or strongly agreed that they would recommend engaging a Macquarie University PACE student. Indeed, the majority of partners (84%) also reported that they would like to continue engaging with PACE students in the future.

Of the 54 partners who responded ‘no’ or ‘unsure’, 42 explained why they may not engage in the future. The main reasons were:

- Time and resource constraints on coordination and supervision;
- The student was already known/employed by organisation;
- Uncertainty about finding a good student fit.
- Decision being dependent on having a suitable project;
- The quality of students, time investment or students not being reliable; and
- Activity timeframes being too short.

Key Finding:
PACE partners were highly satisfied with their experience, and the vast majority would recommend engaging a Macquarie University PACE student.
“Would like to see more students put forward to be considered in future, as quality of the student wasn’t to a very high standard and the return on investment was small.” (PACE partner)

“I’m not sure only because the time while the student is involved is too short. It’s very difficult to train a person that is then leaving after only few weeks.” (PACE partner)

“Whilst the work produced was of very high standard, the supervision and support to achieve this is very labour and time intensive and difficult to manage with a heavy clinical load.” (PACE partner)

4.1.3 PROGRAM SUPPORT

Rubric Rating  | Excelling
---|---

The PACE program aims to provide wrap-around support to students and partners to ensure there are mutually shared benefits and learning outcomes. This section presents the data from the student and partner survey and evaluation workshops/interviews.

The student and partner surveys contained several items to assess the effectiveness of program support. As shown in Figure 18, 74 per cent of students agreed that any issues that arose were adequately addressed. In addition, 75 per cent of partners (n=131/174) agreed that they were able to get assistance with problems from the University. It should be noted that only half the partners surveyed responded to this question; 21 per cent (n=36/174) were neutral and 4 per cent (n=7/174) disagreed. In terms of direct program support, 55 per cent of students (n=484/1507) reported they had had direct contact with the PACE team. The majority of those students (86%) agreed that the PACE team was helpful (Figure 18).

Figure 18. Student Survey (Post) – How strongly do you agree or disagree with the following statements?

- 26% Strongly agree
- 48% Agree
- 17% Neutral
- 4% Disagree
- 3% Strongly disagree

Issues that arose during the PACE Activity/Project were adequately addressed (n=1014)

- 5% Strongly agree
- 4% Agree
- 17% Neutral
- 3% Disagree
- 3% Strongly disagree

I found the PACE Team to be helpful (n=479)

- 41% Strongly agree
- 45% Agree
- 10% Neutral
- 12% Disagree
- 4% Strongly disagree
Individualised support provided by PACE teams and unit convenors, to both students and partners, was identified as a critical program facilitator in the open-ended comments of the Student Survey and student interviews. Specifically, students reported that they felt supported by the PACE team in terms of:

- Explaining the PACE program, answering questions and concerns;
- Providing emotional support; and
- Providing information about unit/assessment requirements and support to apply for PACE activities (e.g. resume and job interviews).

"Firstly, I would like to appreciate PACE team for helping me to contact with the placement supervisor since I found it was difficult to find a placement for my degree. Also, PACE activity gave some advice for choosing the placement, and they asked me for the preference quite patiently, which encouraged me to engage the activity as the program support." (PACE student)

"The PACE Support Team were great, extremely kind, patient and always willing to offer assistance. They really made the entire PACE experience an enjoyable one." (PACE student)

"I greatly appreciate the support of the PACE team throughout and especially prior to starting the unit. A member of the PACE team was able to take the time and thoroughly explain the requirements of the unit." (PACE student)

In evaluation workshops, PACE teams reported that individualised wrap-around support (i.e. personalised, bespoke and flexible support, depending on student circumstances) was critical, particularly because PACE was commonly the first time that students had participated in a professional experience. As such, PACE teams reported that some students felt overwhelmed by the information and/or confused about their degree and/or program requirements, and therefore needed more direct support from the PACE teams.

### 4.1.4 MONITORING

**Rubric Rating**

Reasonable

Monitoring mechanisms implemented once the PACE activity commenced were discussed in the evaluation workshops and interviews. The findings suggest that the monitoring of PACE activities for partners and students varied amongst Faculties and units. Proactive monitoring strategies reported to be working well included:

- Debriefing sessions/workshops at the end of the session involving the PACE teams and unit convenors;
- Recording risks and issues;
- Sending a mid-session email to students;
- Use of iLearn [online learning system] by students as a platform to discuss any issues; and
- Use of supervisor (partner) reports at the end of the session.

"It may not be a direct conversation that they’ve [unit convenors] had with students, but a lot of them use the kind of iLearn post as a mechanism to keep track of what the students are up to and whether there have been any problems. Then, depending on the nature of the problem, if it’s a problem that they feel that we can help the student with, then they’ll often come to us and ask for help." (University staff)

"I try to, because what I want to know is, before I reach out to them, that partner, again, I want to find out what actually happened. Did the student actually complete the project? Was it a good outcome? Was the partner responsive? We’ve already had some feedback from [unit convenor] about particular partners, so that we can reengage with them and mention things that went on and maybe make it a better experience for everybody next time." (University staff)
In most cases, however, the monitoring of an activity occurred reactively and there was a lack of clarity about who was responsible, and to what extent, for ongoing monitoring once an activity had been organised (i.e. PACE teams or unit convenors). PACE teams reported challenges with monitoring activities due to limited resources and monitoring student-initiated activities was viewed as especially complex, as the PACE team did not always have direct contact or a relationship with the partner.

“In the improve side of things, I would love the team to be able to have a touch point during the placement. That’s very difficult at the moment just in terms of juggling resources and all the other demands that we have, but that would help elicit any early issues or red flags that need to be dealt with during the placement rather than getting it through the debriefing process, so there are a couple of examples.” (University staff)

In the evaluation interviews some students suggested they would appreciate a check-in during the activity, having access to a range of people who could offer support if a challenge arose (i.e. peer mentor, academic support or counsellor) or having regular opportunities to discuss activity-related issues and possible solutions during the unit (e.g. in class discussions or tutorials).

“I think it worked out okay for me, but I think that it would be good to kind of have like a check-in maybe after the first week or something to make sure that the students feel like they know what their projects or tasks are going to be for that timeframe and whether they’re actually going to be able to achieve that.” (PACE student)

4.1.5 SYSTEMS AND COMMUNICATION

Rubric Rating Strong

Being a university-wide program, systems and communication are critical to the effectiveness of PACE. This section explores the effectiveness of communication and systems; the latter both those managed by PACE as well as broader university systems that support the program. It presents data from the student and partner surveys, the evaluation workshops and interviews.

The majority of partners agreed they had received sufficient information about the PACE program (80%) and they had a clear understanding of what was expected of them as a PACE partner (83%) (Figure 19).

In addition, the majority of students agreed that PACE systems and processes were easy to use (76%) and that information about PACE was easy to find (73%) (Figure 20). However, around 10 per cent disagreed with both statements and a further 15 per cent responded ‘neutral’.

In evaluation workshops, University staff identified a number of challenges around University systems and processes, external to the PACE program, which they reported took up much of the teams’ time and resources. These included:

- Limited access to central marketing support;
- A lack of access to student management information (i.e. student numbers and projections); and
- Ongoing difficulties with student systems/enrolment timeframes.

Key finding:

PACE is effectively communicating with students and partners. However broader University system and processes provided ongoing challenges and barriers.

Area for improvement:

In most cases, activity monitoring occurred reactively and there was a lack of clarity about who was responsible, and to what extent, once an activity had been organised (i.e. PACE teams or unit convenors).
Figure 19. Partner Survey - How strongly do you agree or disagree with the following statements?

- I understood what was expected of me as a partner (n=313)
  - 83% Agree
  - 13% Neutral
  - 4% Disagree

- I had access to sufficient information about PACE (n=310)
  - 80% Agree
  - 17% Neutral
  - 3% Disagree

Figure 20. Student Survey (Post) - How strongly do you agree or disagree with the following statements?

- PACE systems & processes were easy to use (n=1076)
  - 52% Strongly agree
  - 24% Agree
  - 23% Neutral

- Information about PACE was easy to find (n=1074)
  - 50% Strongly agree
  - 23% Agree
  - 15% Neutral
A significant concern expressed by PACE teams was that students can enrol in PACE right up until the standard unit enrolment date. This can have a negative impact on being able to efficiently allocate students to appropriate activities, as establishing some activities requires a significant lead time. However, PACE teams were confident that the introduction of Salesforce (a partner relationship management tool) and PACEwise (an iLearn unit available to all students) would streamline some of the administrative pressure on teams, specifically around partner management and student communication.

“They [the Faculty PACE Officers] basically do administration and relationship management, and it’s from start to end. But at times, when difficulties with working the systems or the processes aren’t as efficient, it can take the front-line team away from the relationship building piece more than it should.” (University staff)

“Trying to get information, management information, from other areas is really difficult. Simple things like student numbers or student projections, that’s something I’d like to look at in the future in terms of our pipeline and changes that are coming through. Are our student numbers dropping, increasing, what areas? It’s really difficult to get that information.” (University staff)

“I think every year we’ve seen an increase in the way that things are getting worked out and it’s becoming much easier in terms of the process stuff. That seems to be getting easier and there’s a lot of support from PACE Hub around the different processes.” (University staff)

In terms of communication, PACE teams identified a variety of strategies that they were using to communicate with students. These included student emails, Faculty newsletters, informal Faculty BBQs, PACEwise, drop-in clinics, orientation week and promotion of PACE in students’ classes (e.g. handing out marketing materials). The following Most Significant Change story from a PACE staff member illustrates the importance of raising student awareness of PACE opportunities, which in turn can provide a pathway for successful graduate outcomes.

“Paving the journey for PACE students”
PACE Staff Most Significant Change Story

During the lead up to Session 2 2018, our PACE team held a PACE BBQ that aimed to educate and encourage students to participate in an internship during their time at Macquarie University. Partnering with one of the student societies, we were able to engage with large numbers of business students and build meaningful connections with future PACE students. During the BBQ I met a student who had the impression that MQBS PACE internships were too competitive to apply for. I encouraged her to attend the PACE Internship Workshop being held the following week to help her understand how our internship programs work within the Faculty and to give her an opportunity to hear from past interns.

After this workshop, the student asked if I could assist her with her internship application. On the strength of her application she was interviewed, then offered a Marketing HR internship. When I contacted the student a few months later she was in full-time employment (HR Coordinator) with the partner. She attributed her success to our meeting at the BBQ and her subsequent internship experience.

Why is this significant to you?

This example is just one of the success stories heard from students each session about how the PACE team and the PACE program contribute to students’ success and their employability journey. It also illustrates how diverse and hands-on our roles as Faculty PACE Officers can be and highlights the importance of building close relationships with students and industry partners.
However, communication with students to increase their awareness of the PACE program was also identified as an area for improvement by students and University staff. Several barriers were identified, including:

- Students not knowing they were required to complete a PACE unit until towards the end of their degree and/or issues when there were changes to a student's degree;
- Students not accessing their student emails and, in turn, not being aware of and missing out on PACE opportunities (e.g. promoted internships);
- Students doing PACE but not being aware they were enrolled in a PACE unit, or even what a PACE unit was or involved; and
- Students hearing about PACE during Orientation week and then not again until the end of their degree.

“"The administration for PACE program had a few issues. Due to a glitch in my study plan (i.e having been at MQ for 4 years but changed degrees in 2015) I received emails about PACE at the beginning of last year (as the uni must have thought I was a 3rd year psych student when I wasn't) which meant this year I did not receive the emails and missed out on opportunities." (PACE student)

“We have a whole lot of information that we provide to students through email, through some resources, through our PACE Wiki which will now be on iLearn and then we run drop-in clinics for students for information sessions to give them information about finding your own placement, and provide resources for that. But they still don't - a lot of them still really don't know what PACE is and how it works." (PACE staff)

Students and university staff suggested a variety of strategies to address the communication barriers, including:

- Using case studies narrated by other students;
- Having student intern representatives going to classes to promote the value of the program;
- Having PACE introductory modules available to student's early in their degree;
- Disseminating an email about PACE requirements whenever a new enrolment starts;
- Having non-PACE academics promote the program during non-PACE units;
- Integrating communication with the Careers website; and
- Promoting PACE during student outreach events.

“"Some of the students they have never heard about it before, so maybe we could raise some more attention to get some more awareness, especially to the international students because if they start to recognise the value of the PACE programs itself I think there would be a lot more international students applying because getting an internship is a struggle for international students in the first place.” (University staff)

“What I believe, what my opinion is that when a student gets into uni they should also have access to see all those emails about the internships and all the opportunities so they actually know what is going on, as honestly I didn’t know what was going on as well until my last semester...so I think that when a student is in their second year, the lecturers, the professors, they should talk to the students about it, send different opportunities about it via their student emails. I think that would be a great privilege for everyone out there so that they know what is going on out there.” (PACE student)
4.2 Professional and community engagement

This section reports the findings for the professional and community engagement criterion, which included partnership development and management, PACE activity design and allocation, preparation and induction and supervision and/or partner contact.

4.2.1 PARTNERSHIP DEVELOPMENT AND MANAGEMENT

PACE units and activities must demonstrate community engagement; that is, entering into a partnership of mutually shared benefit between a Macquarie University student and a government, non-government, public or private entity. The partner can be from within the University, based locally (in Sydney), elsewhere in Australia, or overseas.

Key strategies for partnership development and management were discussed during the evaluation interviews and workshops, including:

- Providing partners with a range of ways to be involved in the program. For example, offering university-based activities as an alternative model for partner engagement, whereby partners interact with larger groups of students on campus, negating the time and space commitment of an internship model;
- Utilising partners for a variety of opportunities. For example, community organisations may require support from students across a variety of disciplines and Faculties;
- Providing partners with personalised support, including partner visits. Such visits provide an opportunity to explain the program, scope the environment in which the student would be placed, support the supervisor, and support PACE teams to continue to strengthen and build relationships with the partner organisation;
- Utilising on-campus partners to supervise students who require additional support and who may not be able to participate in externally based activities;
- Providing central support from the PACE Hub to develop consistent partner resources (i.e. what is PACE, and roles and responsibilities of supervisors);
- Capitalising on PACE unit convenors’ relationships with industry and community organisations; and
- Having a coordinated approach with PACE teams and unit convenors, to ensure the provision of quality PACE activities that are relevant to a unit’s learning outcomes, discipline and student’s professional interests, as well as aligned to the needs of the partner organisation.

“It helps us [partner visits]. It’s nice to meet organisations who host students on a repeated basis, because it’s nice then to be able to tell the students a bit more about it, how their office is, what it’s like.” (University staff)

“Especially for smaller ones [organisations] who can’t hire a person who will look after interns. So, they probably come back because of the support they get from us.” (University staff)

The sourcing and management of partners varied across the program, within Faculties and even within PACE units. Examples of different modes of engagement with partners included:

- PACE teams being responsible for all stages of partnership development and management;
- PACE teams being the first point of contact, triaging enquiries and questions to unit convenors and/or debriefing with unit convenors at the end of the session;
- PACE unit convenors being the main point of contact, sourcing partners, developing activities and providing ongoing support, with limited involvement of PACE teams; or
- PACE teams and unit convenors having limited contact with the partner, specifically when students were organising their own activity.
“Each unit convenor has a very different approach to how they run their unit, what level of support they expect to receive, how they want to engage with industry partners, it’s all very different.” (University staff)

“This is always a bit of a mixed-bag for us, because on one hand we do have partners that we go to regularly and we have those good stories. But on the other hand, half of the partners aren’t people that we have relationships with. So it’s challenging to make friends with someone to get the paperwork completed so that the student can go on placement; it’s like a different type of engagement.” (University staff)

Some PACE teams believed unit convenors should be the main point of contact with partners, as they hold the requisite discipline knowledge and expertise. However, PACE teams and unit convenors also acknowledged that there was a heavy workload and responsibility associated with sourcing and developing partnerships. Some new unit convenors had spent significant amounts of time finding and managing partners as they were unclear about the roles of unit convenors and PACE teams in this.

“To me ideally it should be the unit convenor [doing the partner liaison], because the unit convenor is the one who is the expert in that discipline, and the person who knows the student who has studied that discipline, what skills and what abilities the student has to contribute to that organisation.” (University staff)

PACE teams also highlighted that sourcing, developing and managing partnerships was ‘invisible work’. Most teams reported they spent time managing partners’ expectations, by communicating the academic requirements of the program and completing administrative tasks on behalf of partners, to ensure the latter were not overburdened. The time available for this work was limited by other challenges, including issues related to external systems and administration described in the previous section of the report (Section 4.1.4).

“Yes, I mean it’s enough that they’re taking a student on. I think sometimes too we underestimate that that can actually be quite an imposition for them, even though it’s something that they might have instigated themselves or agreed to. It actually is a lot of work”. (University staff)

“All too often, we hear people ringing up, saying, I’ve got an awesome opportunity. The student is going to be so lucky to work for us for no money, so they can do something for me. There’s a fundamental misunderstanding of what PACE is, and the constant challenge of having to, on a cultural level, educate community members about what this is. This is essentially - it’s a Unit. It’s an outcomes-based academic Unit. It’s not - we’re not a recruitment agency. So it’s a challenge.” (University staff)

The management of cross-Faculty partnerships and activities was identified both as an opportunity and a challenge by PACE teams. Collaborations across Faculties occurred informally, mainly to ensure that all students had access to an activity or when there were critical changes, for example, in partners or unit convenors. Cross-Faculty activities were reported as resource intensive. This was due to each unit and/or Faculty having different modes of engagement and timeframes, resulting in partners having different PACE experiences, depending which Faculty and/or unit they were engaged with. An example was provided where a long-standing partner had wanted to connect with students in another Faculty. Disappointed when opportunities were not available, the partner felt their time had been wasted, which negatively impacted on the original relationship. One suggestion to mitigate some of the challenges was to have a central person providing oversight and management of cross-Faculty activities.

“Or the other way that I’ve seen it happening since I’ve started is the various staff members and the teams talk through opportunities or ideas, and then suddenly someone twigs that, ah, actually this could be a collaborative project or a multidisciplinary project from students with different backgrounds, and it could actually work really well. So again, it really relies on conversations and relationships within the Faculty teams to think of those types of collaborative opportunities.” (University staff)
**4.2.2 ACTIVITY DESIGN AND ALLOCATION**

**Rubric Rating**  
Strong

Students and University staff reported that one of the most critical aspects of the program was providing students with access to activities which were aligned to their professional, personal or degree interests. A unit convenor noted the “most successful student placements are when technical skills and work skills are merged well and the opportunity to demonstrate this has been provided.”

As with partnership development and management, the activity design process varied across and within Faculties and units, and was highly dependent on the Faculty, unit convenor or partner preference and/or specific student requirements. In the evaluation workshops and interviews, PACE teams reported that it was critical to work collaboratively with unit convenors and partners to ensure alignment between partner expectations/needs and University requirements.

Effective activity design mechanisms that were identified included:

- Working closely with partners to understand their requirements/organisational needs in order to set realistic and structured goals given the short timeframes of activities. Some Faculties used partner workshops to design activities and facilitate partner engagement within the University and with other partners;
- Working closely with unit convenors to understand the unit/academic needs; and
- Attending student presentations at the end of a unit to relate how the activity linked back to student learning and what worked/did not work from a student’s perspective.

“In terms of outcomes for the students, it would be something to investigate whether it's feasible to do more of this, because if you're thinking about students that will have to go to a workplace working in multidisciplinary teams, that could be a way to get them exposure to that. But it is difficult to set up, and they're not easy.” (University staff)

“Very close contact with all of the convenors around the activities and making sure that the activities fit with the sorts of things they’ve got in mind. We’ve got very good relationships with all the convenors and we always have a debriefing session with the convenors at the end of the year to take on board any changes that they think need to happen.” (University staff)

“Designing the activity, we spend - that’s where we spend most of our time apart from with partners anyway, to actually design the activity and designing the detail. It’s the understanding what their needs are, understanding how their organisation works, understand their constraints and their capacities. Understanding the personnel, understanding details about how they work in terms of their timing, what they can provide, how they're going to provide it, where they're going to provide it, getting the right level of detail. We go back and forth and back and forth and back and forth to hone that so it’s correct before it even gets anywhere near going through the approval process.” (University staff)

In addition, each PACE team provided personalised support to students when designing activities. Some specific student groups that required more ‘bespoke one-on-one support’ were:

- Students with special needs whose individual circumstances needed to be clearly understood in order to match activities accordingly. As noted previously, the use of on-campus partners was a strategy being implemented across all Faculties to ensure students were able to undertake an activity and meet their degree requirements;
- Mature age students who may already have extensive work experience and be seeking exemption from undertaking a PACE unit. PACE teams worked with these students to link their activity to other things that the student may be doing, such as volunteering. Another strategy was to link these students with former mature alumni for them to discuss the benefits of the experience and “foster a willingness to engage”;
• Students not comfortable seeking their own placements, who want to enrol in units where the activities are already sourced; and
• Students with other work and/or study commitments, who required flexible activity timeframes or early commencement.

The flexibility of the program was valued by students, positively contributing to their ability to participate.

"The flexibility of PACE internships was what made this valuable. It allows students to form their own practical applications based off previous theoretical knowledge." (PACE student)

"Being an external student and working full time it was quite difficult to manage the workload. I was lucky enough to find an activity that was flexible with my hours. I found completing the assignments was always challenging with my time constraints however, at the end of the day, I managed to complete the work." (PACE student)

Activity allocation occurred in a variety of ways across Faculties, within Faculties and within individual units. Again, it was highly dependent on the Faculty, unit convenor or partner preference and/or specific student requirements. For example, students could apply through PageUp (HR software platform), submit an Expression of Interest, preference a selection of options or apply directly. PACE teams and partners reported that the student application process was critical as it allowed partners to ensure that a student was the right fit and/or had the right skills. It also provided students with ‘real life’ employment application experiences. In some instances, the PACE teams, partners, or unit convenors would review applications and interview students. In other cases, the unit convenors were not involved in the activity design or allocation process.

"They were all really good applications. But, yeah, we decided to try and treat it like a job application. So we wanted people to send us a CV and also a cover letter saying why they think they’re good for this opportunity or why they want this particular opportunity." (PACE partner)

"That’s why I view the application process as essential. Them doing that CV and cover letter at the very beginning rather than just enrolling and finding a placement which I know a lot of our units do, and they do it well, but particularly for these kinds of students. I think that setting up the placement as achievable but prestigious is really important for self-esteem when the student gets the placement because then they go, oh my gosh, I got it, I’m so excited." (University staff)

A student-initiated model was also used across several Faculties. A benefit of this model was that students proactively sought an activity aligned with their interests. However, it also involved additional time as PACE teams worked closely with students to support them identify and apply for opportunities (i.e. development of a range of resources, pre-enrolment on iLearn sites and workshops), as well as ensuring the activity and/or partner organisation met the unit and other requirements. PACE teams reported challenges associated with contacting partners sourced by students to arrange for them to complete the administrative requirements within the timeframes and, in some instances, this had resulted in activities not progressing. Staff identified that it was critical to have a clear set of activity criteria for students and partners to ensure the activity was a good fit.

"The student-initiated model isn’t simply sending students off. It is actually working quite closely with students to actually equip them to be able to apply for something confidently." (University staff)

"Then sometimes you may have a student initiated [activity], you’ve got the form, you create an activity statement based on that information. You communicate with the partner, the partner doesn’t come back, you communicate again with the partner, the partner doesn’t come back, you communicate again, you communicate with the student, you communicate with the partner, you communicate with the student. It all falls over and the student’s really disappointed and now has to come and get allocated, gets allocated and pulls out because [the activity] doesn’t match what they wanted to do because they were going to set up a student initiated one." (University staff)
The allocation of students into university-based activities was also managed in a variety of ways. Students could be grouped into streams (depending on interests or discipline), randomly allocated, allocated based on tutorial times, or on predetermined criteria such as GPA. Although decision-making as to the appropriate allocation mechanism sometimes involved the PACE teams, it was mainly the unit convenors who were responsible for determining the preferred process. Most teams reported they were acutely aware of equity issues (such as being sure that not only ‘high achievers’ accessed the ‘best’ experiences). Strategies to mitigate these inequities included the use of group activities to strategically mix groups, as well as ongoing communications with partners to manage their expectations.

Results from the Student Survey suggest that, overall, students were satisfied with the activity design and allocation process. As shown in Figure 21, a large majority of respondents agreed/strongly agreed:

- There was an opportunity for them to apply the skills, knowledge or theories they had learnt at university (86%);
- The activity was matched to their knowledge and skill set (82%); and
- The activity was achievable in the time frames (80%).

**Key finding:**
The vast majority of students reported that they had opportunity to apply the skills, knowledge or theories they had learnt at university in their PACE activity.

A smaller majority agreed/strongly agreed that:

- It was clear what was expected during the PACE activity (78%), with 14 per cent disagreeing with this item; and
- The activity was in an area of professional interest (70%), with 13 per cent disagreeing with this item.

**Area for improvement:**
Fewer students agreed that it was clear what was expected during the PACE activity and that their activity was in an area of professional interest.
Students who responded to the survey also agreed that PACE had provided them with an opportunity to develop across a range of career readiness and active citizenship dimensions (Figure 22). The largest proportion of students reported that there was an opportunity for them to:

- Develop ability to work as a team member (94%);
- Gain professional experience, skills and knowledge (92%); and
- Develop discipline specific knowledge, skills and abilities (91%).

These were also the items that students rated as most important at the start of PACE.

A smaller majority of students reported that there was an opportunity for them to:

- Clarify career goals (79%);
- Expand professional networks (79%); and
- Explore possible career option (77%).

Overall, students reported that they were provided with more opportunity to develop across the active and engaged citizenship domains (4 out of 5 items >80% of students selected ‘Yes’) compared to career readiness (2 out of 5 items >80% of students selected ‘Yes’).
When asked to provide any additional comments on the PACE activity, 120 comments (6%, n=1834) were provided about the activity design and/or matching process. Of those, 19 (16%) were positive with students reporting that when this process worked well, they felt grateful for the opportunity and experience:

“My placement was aligned with my post graduate ambitions; I am grateful to the Unit for allowing this particular placement as it was not an obvious allocation.” (PACE student)

“I was very lucky to have scored the exact position I had hoped for and received the necessary support and help from Faculty staff that secured this position from the outset.” (PACE student)

The remaining 101 comments (84%) were students providing suggestions on how the activity design and/or matching process could be improved. The greatest proportion of students’ comments related to wanting a better match between their degree, the specific unit, and their skills or career interests. Some students noted they were required to undertake activities that they did not have the skills for and were not adequately supported by partners to develop those skills.

“I feel like the potential for PACE is enormous and should not be wasted with work for a client that does not match the work completed in our courses. A better student to client matching algorithm should be used alongside a more balanced workload.” (PACE student)

“The data organisation and analysis was new to us and we had not received enough information to complete the work. Our supervisor assumed we had seen this type of thing before, so we struggled to replicate exactly what she wanted.” (PACE student)

Some students reported that they would like to access a wider range of partners and activities, have greater choice about the activities they undertook, and receive more information about the application and allocation process. University staff also noted that some students could be disappointed by random allocation into activities, and that the challenges of matching students with activities were increasing as unit enrolments grew. Communicating with students about the transferable skills they would develop and apply, regardless of the specific activities, was a strategy used by some staff to increase student engagement.

“I would encourage better promotion of the PACE activities which you can apply to via Macquarie Uni. When I discussed what I was doing with some other students who participated in the same unit, they were unaware that you could apply and some of the big opportunities available.” (PACE student)

“Greater clarity about what PACE involves prior to the semester starting and more information available about finding your own placement such as more information sessions.” (PACE student)

In addition, some students wanted more information about the specific activity they were undertaking, or to be allocated to an activity that was achievable in scope/tasks. Other students felt there had been insufficient work for them to do.

“It would definitely be of advantage to have better communication with the partner company/organisation beforehand and set clear expectations for the students and the cooperation in general; it was hard and stressful (especially at the beginning) dealing with two very different sets of requirements, and not knowing what is being expected of you.” (PACE student)

Finally, a small number of students also wanted more time to either find, select or preference activities, and to be able to complete the administration requirements earlier.
"The activity could have been improved if we had been assigned our PACE Activity earlier than week 4 - I felt that it was a struggle to get my hours." (PACE student)

"Before being enrolled in the unit I found it very hard to find out information/cut off dates for the unit and feel as though it’s not very well explained how you need to express interest before you are able to enrol in the unit. I also spoke to others about this who found the same problems and made sure to let my friends who plan on doing the unit in the future know about the process of having to express interest so they didn’t miss out as they didn’t know this either." (PACE student)

Feedback was also sought from partners in the partner survey about the placement of students. A strong majority of partners agreed the process for connecting with students was simple (91%), the activity had clear goals and tasks (86%) and was achievable in the timeframe (87%) and they understood the connection between the activity and the student’s studies (88%) (Figure 23). Furthermore, 86 per cent of partners (n=279/325) reported the activity was mutually beneficial to the organisation and to the student, while 13 per cent (n=43/325) felt the activity was of greater benefit to the student.

The survey asked partners what the main challenges were that they faced and what would improve the experience in the future. Over half the partners (n=197, 61%) provided feedback. Of those, 50 partners responded that they had no feedback as they were satisfied with their overall PACE experience.

"There really weren’t any challenges. We loved having [PACE student] and it was a very smooth process." (PACE partner)

"No challenges. PACE was a well organised activity. I was kept in the loop by teaching staff. Students were mostly enthusiastic." (PACE partner)

"The program ran really smoothly, thanks to the expert guidance provided by [PACE unit convenor]. I wouldn’t say there were any major challenges from our perspective." (PACE partner)
In terms of improvements some partners offered comments about the activity design and/or allocation process, noting that the allocation of student to activity had not been a good match. They felt this had impacted negatively on the student’s engagement and suggested the use of an Expression of Interest process or interview process prior to allocation to ensure positive student engagement and interest in the activity and organisation. As noted earlier, these processes are already used in some, but not all, PACE units. Partners also noted that having a clearer understanding of University requirements from the start of the design process would be beneficial, with some reporting that balancing what they wanted to achieve against what the student, unit and University required was difficult.

“The student indicated early on that our organization wasn’t her first choice and that she had hoped to work somewhere more clinical/practical. We were able to frame her goals into something meaningful, but this mismatch did ‘hang’ over the experience in terms of her enthusiasm for the work. While she did an excellent job and is clearly very smart, it may have been better to match her with somewhere she really wanted to be.” (PACE partner)

“So the two things that I really, that I really felt that needed some work is possibly the idea of being able to advertise our organisation independently and having the kids go to where they want to go to.” (PACE partner)

“The focus was on the student meeting the Uni module requirements - we originally set goals that were meaningful to both the student and the workplace; they were rich and robust, requiring accountability on the part of the student to achieve the objectives set. But the Uni then provided the student with information that suggested much lesser and more superficial/task oriented objectives, which the student wanted and that left me feeling that this was all about the student meeting academic requirements and not about the student learning how to make a valuable contribution to the workplace. We pay our interns, so this was a paid position for 2 days a week. The individual did a good job, but I was disappointed that the University set a low benchmark for the outcomes.” (PACE Partner)

Partners also suggested that longer activities, blocks of time with students and refined scope of activities would be beneficial to ensure there was enough time for students to complete activity tasks. Further, a University staff member identified the need for a framework to support partners to develop a meaningful and achievable activity with clear sets of tasks for the student.

“Having students placed for a 10 day block would be more beneficial in a business sense rather than students who visit once a week for 10 weeks. It is difficult to engage students with continuity when their attendance is staggered.” (PACE partner)

One of the main challenges was that the project assigned to the market research intern was too lengthy in its scope to complete in the time of her internship. I will be evaluating future projects for interns and ensuring that they are provided with projects that are realistic and achievable. (PACE partner)

“They’ve got to think through structuring something quite carefully, so that there’s clear goal posts and things like that through the placement process. A lot of people just sort of think that they can come up with a vague idea and then hope for the best … but students have a better experience when there is that structure behind what they’re doing.” (University staff)

Finally, PACE teams reported that the main barriers when designing and allocating activities were broader University timeframes and administrative requirements. For example, as noted earlier, students were able to enrol in a PACE unit using the standard unit cut off dates. This created high volume workload for PACE teams who needed to find appropriate activities for students after the session had commenced. Some units were effectively using waivers and pre enrolment requirements to ensure that activities were organised prior to enrolment into the unit.
4.2.3 PREPARATION AND INDUCTION

Rubric Rating: Strong

Induction is a core component of the PACE unit criteria, meaning all students are required to receive an induction, from the Unit and the partner organisation, to support them to prepare for the PACE activity. This includes review of stakeholder expectations, Macquarie’s administrative requirements (and those of the partner, e.g. WHS, Working With Children Check, if appropriate), relevant preparation for activities and overview of the Unit (e.g. that which might be discipline-specific and/or non-discipline-specific).

In the evaluation interviews and workshops there was consensus that many students required support and preparation around professional skills and etiquette prior to participating in their PACE activity. Support was offered in the following ways through either the induction or preparation process:

- Unit convenors provided preparation and guidance in the Unit on (e.g. how to communicate goals to supervisors, professional etiquette, how to ‘expect the unexpected’);
- PACE teams attended lectures to explain PACE, professional etiquette and activity requirements. It was reported that unit convenors appreciated this support; and
- PACE teams operated as connectors to other University services (e.g. Careers).

“We usually go to the first or second class of session for every Unit and that’s really useful, because then we get to say, don’t forget to do your student undertaking. Don’t forget to put in your working with children check, all those really important things. Don’t forget to dress appropriately when you go out there, those sorts of things are really - are what we do.” (PACE staff)

“Guest lecturers / speakers - bringing in past students who were previously enrolled in PACE and giving pointers to the students about what worked out for them.” (PACE student)

The majority of students who responded to the survey confirmed that they had received an induction (78%, n=792/1025). Twelve per cent (n=117) were unsure and 10 per cent (n=106) reported that they had not. Figure 24 shows that the most frequently received induction activities were an overview of responsibilities and tasks (87%), how to manage issues (76%) and a work-readiness briefing (63%). A smaller proportion of students reported that they had received a workplace/site induction (57%), an overview of work, health, and safety (46%) and formal training.
Students who completed the survey also reported that they sought other sources of support to prepare for their PACE activity (Figure 25). The most frequently accessed were Unit staff (45%), friends/family (34%) and the PACE teams (31%). Only 9 per cent of students reported accessing the Macquarie University’s Careers and Employment Service.

![Figure 25: Student Survey (Post)- Did you access any of the following to prepare for the PACE activity (% Yes)](image)

Students were asked to rate how well the induction and/or training they received prepared them for their PACE activity/project. Overall, 68 per cent of students felt very/fairly well prepared, 25 per cent felt adequately prepared and 7 per cent felt poorly/very poorly prepared (Figure 26).

![Figure 26. Student Survey (Post) – How well did the induction and/or training you received prepare you for the PACE activity? (n=1436)](image)

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6 Total percentage exceeds 100% because students could select more than one option
A similar proportion of students (64%, n=1089/1711) agreed that the activity was close to what they expected, 27 per cent (n=467/1711) said it partially met their expectations and 9 per cent (n=155/1711) reported that it did not meet their expectations. Students who responded No/Partially were asked to explain how the activity differed from their expectations. Of the 155 students who provided comments, 45 (29%) reported the experience was more positive than they had expected:

“Well I thought I’d be doing more theoretical tasks, but I found out it was more hands on, and I had more responsibilities than expected. Which was a good thing.” (PACE student)

“Much more dynamic than I expected with a lot of responsibility to work autonomously and think on my feet.” (PACE student)

However, the other 110 students (71%) provided comments that were coded as negative, variously noting that activities were less practical than expected, more like university assignments, not relevant to their degree and/or skill set, or they had not felt supported by the partner organisation.

“IT did not appropriately integrate skills that I have learnt through my degree specifically. It moreover used information I have gathered through outside work and experience and I found that disappointing because they were not the skills I felt I needed to develop.” (PACE student)

“I was expecting it to be a more structured environment and working system. Hence, it involved a lot of independent work at home. It didn’t feel like an internship, it felt more like a huge major assessment task for uni.” (PACE student)

From a partner perspective, the majority (84% n=264/316) agreed that the student(s) seemed prepared for the PACE experience. Furthermore, most partners reported that the students had ‘to a great extent’ the knowledge and skills to undertake the activity (64%) and the motivation to engage and learn (84%) (Figure 27).

![Figure 27. Partner Survey (Post): Perceived student preparedness](image-url)
However, when asked about the main challenges a small number of partners (n=10/158) reported that some students lacked preparation, necessary skills, motivation and/or professionalism.

“Some of the students were difficult to get in contact with, although I can understand this given they have other commitments (e.g., preparations for exams, assignments, part-time work).” (PACE partner)

“Students did not come and work in the office - while we are all about flexible working - it shows not much motivation/interest... previous students have been far more engaging and motivated - and we have employed 2 students from the program.” (PACE partner)

Overall, 294 students (16%, n=1834) provided comments about what was working well in terms of induction and preparation. Students reported that information about the organisation, culture, guidelines, policies and procedures, activities engaged in by previous students at the organisation, formal and skills based training (i.e. IT and software), initial meetings and/or briefings with supervisors (one on one or in groups) and an overview of activity tasks, timelines & plans, were more helpful in supporting them to prepare for the PACE activity.

“The induction describes the organisation in details and what are their core working values and set of rules. This prepares me for my PACE activity as I know what is expected of me and how to behave accordingly. We also got to hear stories from current employees from different sections of the company and this was really useful in establishing a diversity within the company and the work it does. The induction also gives instruction on dress code, which I think was particularly important because it is my first time working for a corporation and it is useful to know how formal it is to dress every day. (PACE student)

“My induction was perfect despite being a virtual internship. My supervisors gave me a lot of information via email and on the phone, which really helped me to start my project feeling welcomed into the organisation + confident!” (PACE student)

“We were given a plan for the placement, which told us what we needed to do and the deadlines for each task. This helped to plan our time so that each task could be done effectively.” (PACE student)

An equal proportion of students (16%, n=293/1834) provided suggestions on how the induction and/or preparation process could be improved. The most common suggestions related to having clearer information about activity objectives, roles, and responsibilities. Some students also wanted more specific induction about the activity and/or organisation, and skills-based information, such as project planning, time management, research methodologies, report writing, and the specific technical skills required of them for the activity.

“Very little information was provided regarding the actual project. The industry partner was not forthcoming with details, and I do not think this was adequately followed up with by Unit staff/faculty PACE staff.” (PACE student)

“In our particular project, the instructions particularly with regards to what the client wanted meant that the direction of the project was a little vague at the start. It would be a good idea in future if it is possible for the client to have a better understanding of what they would like so that we can better accommodate for those needs.” (PACE student)

In addition, some students reported they would like more information and support around the following:

- How to have challenging conversations with their supervisor, for example, what to do if something goes wrong or the partner is not providing adequate support;
• How to deal with stress, for example, use of coping skills and dealing with concerns about entering a workplace and/or juggling PACE, study, and other commitments;
• Professional etiquette, such as how to dress, write emails and communicate with partners; and
• An overview of the specific activity requirements and who students can seek support from during the activity.

Other specific suggestions included:
• Frequently asked questions for students about the organisation;
• Strategies for early commencers to receive induction information for the PACE activity;
• A checklist of information and resources for students to consult/consider before commencing the activity, including information on associated risks;
• Skills based training and support development, if required, for the activity;
• Simulations and role-playing activities; and
• Past PACE students sharing their experiences, for example, in workshops or through peer mentoring.

“A workshop of prior PACE student’s experiences would be beneficial to allow students to ask questions directly of other students.” (PACE Student)

“The description provided focused on a lot of positives and never really warned of the negatives (e.g. stress and mental fatigue) of doing the tasks involved.” (PACE Student)

In regard to partner preparation, 81 per cent of students (n=835/1031) who responded agreed that the partner organisation was prepared for the activity; however, 11 per cent (n=117) did not and the remaining 8 per cent were neutral. Reasons for this included not being organised for the activity (i.e. students did not have access to equipment or enough work) and the partner not having enough time or motivation to support the students.

“Preparation needs to be revised. Some organisations are not on the same page as PACE regarding what is acceptable and safe as well as what roles should be.” (PACE student)

“I feel that my partner organisation was very much unprepared for my activity. It was made clear from the senior leadership of the organisation that they were not happy with having structured projects to be completed by MQ students. I feel very disappointed in the lack of communication between the organisation and myself in preparation for the placement. Similarly, the clear disregard and disinterest from the supervising staff for my presence and attempts to participate within their organisation was disheartening. I would be very apprehensive in considering any further PACE organised placements in the future due to this poor experience.” (PACE student)

Finally, when asked what the main challenges were a small number of partners (n=18/208) reported they would like more information about how the student’s Unit learning goals were connected to the activity, activity timeframes/ hours, other University timeframes (i.e. exams, Unit commitments) and general expectations around the supervision of students. Partners felt this information would assist them to prepare as PACE partners, as would guidance around how to effectively induct and onboard students.

“Not sure if I am supposed to stay more connected after the PACE guest lecture activity - happy to do it again and stay more connected throughout the semester.” (PACE partner)

“A clear understanding of what the hours requirement was for the student and what the university timetable was for semesters and exams so we could plan the days better from the start.” (PACE partner)

“It would have need great to understand what the student was hoping to achieve/learn/experience from the placement to sway the activity towards that where possible.” (PACE partner)
As outlined in the PACE criteria, a minimum 20 per cent of the total workload for a PACE unit should be spent on the actual PACE activity (i.e. the experiential component). Although the level of contact with the partner organisation will vary depending on the nature of the activity, all activities must be supervised by a representative of the partner organisation. This section of the report presents data from the student and partner surveys to explore what is working well and where supervision/partner contact can be improved.

As shown in Figure 28, a large majority of students strongly agreed/somewhat agreed they had received adequate support from their supervisor (85%) and constructive suggestions for improving their work (80%); and that they had contributed to worthwhile outcomes for the organisation (84%).

Key finding:
PACE students reported high levels of satisfaction with supervisor support.

Overall, 25 students (n=1834) described the most helpful aspects of supervision as being:

- Receiving detailed steps and tasks;
- Meeting regularly with the supervising partner;
- Feeling integrated and engaged with the workplace;
- Having the opportunity to learn about other areas of the organisation; and
- Working autonomously with responsibility and open communication about the workload.

Some students also reported that having dual wrap-around academic support, as well as supervision from the partner, was critical.

7 Students who selected N/A for each item n=23-66 were removed from this data


“What happened is, what moved me is like, whenever there used to be a big meeting and all, every day we used to have a follow up at around (before) lunch and also around 4pm or something, and the best part is the supervisor used to call all the interns as well along with the big managers and everything and we could be a part of it. And there used to be conference calls and stuff and then they used to actually (everyone used to) talk about their problems and someone used to come up with a solution. We got a chance to share our views and ideas about it as well.” (PACE student)

“It was really helpful having [unit convenor] in class every week to discuss any issues that arose, and to answer questions. It helped validate that we were on the right track with our research. The lectures were really helpful and definitely were tailored to what we had to achieve in our PACE project. We had a lot of information and assistance if an issue were to arise within the group, and [unit convenor] would come around to each group and discuss progress.” (PACE student)

“I enjoyed being mentored and receiving feedback from my supervisor and co-workers. It was a highly insightful experience that encouraged me to connect more and go beyond my comfort zone.” (PACE student)

The following Most Significant Change story from a PACE staff member illustrates the important role that supervisors have in supporting and encouraging students during their PACE activity.

“**It’s the small things that make a difference.**”

**PACE Staff Most Significant Change Story**

It isn’t always the grand gestures or the large noticeable actions that a make difference to a student or partner’s outcome with PACE. It is often the largely unnoticeable behaviours that can make a change.

Sitting students in the same place in an office every week, so that new staff think that they work there makes that student feel like part of a team. Having a senior staff member explain a project to a student, so they can understand and appreciate how their individual tasks fits in, is critical and their contribution is valued. Providing students with measurable and achievable targets and goals, so their sense of confidence grows. Allowing students a measure of autonomy so they can realise what they do know, how they can develop and step up.

Finding partners generous enough to nurture and guide, provide some mentorship or simply be grateful for the additional support is valuable to ensuring all students can find a place.

**Why is this significant to you?**

The newsworthy, ordinary, daily gestures of kindness are what makes a difference to people’s lives. The spectacular job offer will be in the minority, but the references and the networks, the words of advice I hope are in the majority and will go a long way to helping the average, ordinary student discover their value, their competence.

A slightly larger number of students (n=82/1834) offered suggestions to improve supervision and/or contact with partners. These were evenly spread across the different types of PACE activities and included:

- More supervision, feedback on tasks/performance and regular meetings or contact with supervising partners;
- Having a supervisor with expertise or experience in the same disciplinary area, to facilitate further skill development;
- Access to a student mentor who had undertaken a PACE activity;
- More general-level support from the supervisor, although some students saw this as an opportunity for self-direction and autonomy;
- Wrap-around academic support;
• Access to networking opportunities and other areas of the organisation; and
• Support for students in how to elicit feedback from the supervisor throughout the activity.

“My supervisor knew nothing about statistical data analysis, so dealing with her and getting meaningful feedback was hard and she was the one who would use my work to write a report. I didn’t feel like I knew how I could improve.” (PACE student)

“My supervisor was a very busy man and therefore did not have much time to invest in me. The time that we spent together was really helpful but it was rare that he could spend time with me. If he had more time and effort for me, it would have been an incredible internship, but he delegated me off to his team members who got me to do their work for them, which was sometimes highly unstimulating.” (PACE student)

“More focused support from the supervisor would have helped, he was very busy so we didn’t have much support from him at all. However this did help to develop our independence and innovation skills. More time spent training with our supervisor and less with just myself and the other student.” (PACE student)

A large majority of partners (88%, n=245/280) reported they had provided student(s) with regular feedback on their performance and that the investment of their time had been worthwhile (88%, n=246/281). Only 8 partners disagreed with these statements. When asked about the main challenges, a small number of partners (n=3/158) suggested that having access to the supervisor report at the start of the session and being provided with more guidance on supervision requirements and boundaries would improve the supervision process.

“More information from the university about supervision and feedback expectations- i.e. needing to sign off on students’ hours of attendance, provide a final report/evaluation.” (PACE partner)

“I would like to know what the official course of action is when an intern is not engaged or not sufficiently skilled for the work involved. Is it appropriate for the supervisor to fire them? (PACE partner)”

### 4.3 Learning and Teaching

This section summarises students’ feedback on the PACE unit, collected through the Learner Experience of PACE items, specifically in terms of the PACE unit content and academic support.

#### 4.3.1 LEARNER EXPERIENCE OF PACE

The Learner Experience of PACE items, which are a Learning and Teaching Unit Evaluation requirement at Macquarie University, asked students to rate the learning and teaching components of the Unit on a five-point scale from Strongly Disagree-Strongly Agree. Items on reflection and debriefing were added to align to the PACE unit Criteria. Overall, students rated the learner experience of PACE unit highly, with the mean score for 8 out of 10 items in the highest TEDS rating category (>=4) (Figure 29).

The largest proportion of students strongly agreed/somewhat agreed that the support from academic staff was helpful (87%), the Unit outcomes were clear (83%) and assessment criteria were clearly defined (80%). The lowest rated items were the reflection component of the Unit (69% strongly agreed/somewhat agreed) and the debriefing process (67% strongly agreed/somewhat agreed). Aligned with these results, a large majority of students (89%) would recommend the PACE unit to other students. Overall, 209 comments (11%, n=1834) in the Student Survey were provided about

**Key finding:**
The largest proportion of students strongly agreed/somewhat agreed that the support from academic staff was helpful and a large majority of students (89%) would recommend the PACE unit to other students.
the PACE unit (i.e. comments related to Unit content, assessments and/or grading). Of those, 60 were coded as being positive and 149 were suggestions for improvements. The comments below demonstrate the high levels of satisfaction most students had with the Unit.

“This was one of the best classes I did in my degree. I believe every student should have to do a class like this relevant to their faculty. The experience I got in the PACE activity and in assessments like the cover letter and elevator pitch are incredibly beneficial. I feel much more prepared to apply the skills I learnt and how to adapt them for jobs and applications in the future. All the topics were valuable to my learning and development as a graduating student.” (PACE student)

“Very in-depth lectures giving detailed instructions on how to put together our communications plans for our client, as well as adequate feedback on our work prior to meeting with the client.” (PACE student)

“The subject I found very interesting and enjoyable. I enjoyed lectures and tutorials they made sense and were very informative and practical. I liked them a lot!” (PACE student)

This PACE unit was absolutely great and definitely the most organised Unit and classes I’ve been to. The team that prepared this Unit is to be commended because it is amazing to be able to complete a Unit that is very well organised and always ready for the following week.

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Figure 29. Student Survey (Post) - Learner Experience of PACE
PACE units covered a variety of content, from discipline-specific information to more generic professional practice. As such, there was mixed feedback on the professional content of Units, with some students wanting more career guidance and industry information, whilst others felt the content was too generic. Some students reported that they wanted the Unit content to align more directly to the activity and/or discipline.

“*My only recommendation is that more should be taught about the type of jobs we could be looking for/job titles that we can get with just an undergrad degree. Just more knowledge in the types of jobs we can do or how we can integrate what we have studied with other courses/jobs.*” (PACE student)

“*See I don’t know. It just - yeah it just felt like it was repeating stuff that we had already - I mean some of them were interesting like networking. We hadn’t really talked about networking before.*” (PACE student)

Some common themes emerged regarding Unit assessment and grading, specifically:
- Students had concerns over group marking and wanted more accountability for group members who do not actively participate in the Unit or activity;
- Students wanted the PACE activity/student performance to be recognised as an assessment. Currently in most Units, student participation in the activity is graded based on their post-activity reflection; and
- Some students were also required to produce a product for the partner (not graded) and a separate report for assessment purposes, which they felt doubled their workload.

“There is no accountability for students and no consequences for students if they do not do work. So this can lead to students not doing work and increasing the workload for other students which is really unfair and unreasonable to expect of some students.” (PACE student)

“Would have preferred the placement to be worth more weighting to the Unit, rather than having a reflection and report worth a lot.” (PACE Student)

Some students also expressed concern regarding Unit and activity workload. This was particularly pertinent for students who were studying full-time and/or working. Some students suggested their performance in other Units was negatively impacted by their participation in PACE. They offered the following improvements:
- Reducing university workload to ensure more time for PACE activities;
- Reducing total activity hours;
- Have Unit credit points reflect the workload;
- Spreading the Unit and/or activity over two sessions; and
- Reducing the number of assessments.

“*Those that submit a final report to the organisation have effectively double the work of other students, having to then also provide a separate report for MQ University. It would be more beneficial in future for these students to just submit the report that was finalised with the organisation (as evidence of work completed etc), and to thereafter provide a smaller sub-report entailing an in-depth reflection, and a discussion of barriers/issues/mitigation strategies etc.*” (PACE student)

“100 hours is a lot if you are already studying fulltime, on top of the coursework for this Unit which was quite stressful. A future recommendation would be to cap the internship at 75 or 80 hours and put more emphasis on students sharing their findings and perhaps having supervisors complete a formal evaluation form which goes towards the student’s overall grade for the Unit. There is definitely a disparity between the coursework for this Unit and the work we actually do in our internship.” (PACE student)
Both students and unit convenors also raised concerns around the challenges faced when there were internal and external students in the same PACE unit. These included communication modes between internal and external students, having students remotely participate (or not) in end of session presentations, challenges with mature age external students working with younger students, and external students not appearing to willingly engage with internal/group work.

4.3.2 ACADEMIC SUPPORT

As noted above the highest rated Learner Experience of PACE item (4.4 out of 5, 87% strongly agreed/somewhat agreed) was support from academic staff (convenors, tutors, and lecturers). Students surveyed were also asked if they had any comments about the Unit. In response to that item 71 comments were received about academic support; 52 were positive comments and 19 were suggestions for improvement. Most students who provided a comment appreciated the academic support provided by unit convenors and tutors; quite a few noted it to be the best they had received at Macquarie University:

“Really fantastic teaching staff. The Unit constantly reference learning outcomes and graduate capabilities so that we would understand how what we were learning was relevant. Links to our future careers were also explained throughout which kept us engaged and focused.” (PACE student)

“It’s a very well-run Unit with a lot of really useful information. I really appreciated that the teaching staff were interested in the progress of the students every step of the way, and the detailed feedback we were given for each assignment was quite unlike any other Unit I’ve done at Macquarie. Overall, there was a lot of support which I really appreciate and am thankful for.” (PACE student)

“The guidance and assistance given by the unit convenor was the most helpful part of the Unit. This included suggestions to assist with research, and general knowledge provided in relation to the topic. I also found that the structure of the Unit inclusive of tutorial work, lectures and assessment tasks was especially beneficial in helping my team and I produce a professional end product as required by the Unit.” (PACE student)

In terms of suggestions for improvements, the 19 students providing such comments were evenly spread across Faculties. Suggestions included:

- Increased interactions with unit convenors, tutors, and other academics within the department;
- More feedback and willingness to help and support student learning;
- Acknowledgement from academic staff of student contribution (e.g. during class discussions);
- More structured communication channels and quicker responses from academic staff; and
- Formal opportunities to provide feedback on academic support and Unit.

“The lecturer and tutors need to be more helpful, as they did not know what they wanted from the project, it was confusing and a lot to manage.” (PACE student)

“Although the content was interesting and made me think in ways I hadn’t before, I sometimes felt like my contributions (i.e. weekly discussions) were often unacknowledged, which in turn made me less interested and motivated to complete them.” (PACE student)
There is clear evidence that the PACE program is relevant to students, partners, and University stakeholders, particularly in terms of providing opportunities for students to enhance their career readiness. Students and University staff reported that one of the most critical aspects of the program was providing students with access to activities that were aligned to their professional, personal or degree interests. Whilst the vast majority of students reported that PACE had provided them with the opportunity to apply the skills, knowledge or theories they had learnt at university in their PACE activity, a smaller majority of students agreed that it was clear what was expected during the PACE activity and that their activity was in an area of professional interest.

There is strong evidence that students and partners are highly satisfied with the PACE program and their overall experience, and that the program is providing personalised and bespoke program support to students and partners. However, the monitoring of PACE activities varied amongst Faculties and units and in most cases was occurring reactively. There was also a lack of clarity about who was responsible, and to what extent, for ongoing monitoring of an activity.

Lastly, there is evidence to suggest that PACE is excelling in terms of providing students and partners with information about PACE and establishing processes and systems that are easy to use. However, other university systems and processes such as limited access to central marketing support and student management information, and ongoing difficulties with student systems/enrolment timeframes, provided ongoing challenges.

Based on these findings, the following recommendations have been identified:

- **Develop strategies to further increase student’s career readiness and professional networks.** Including more opportunities for students to undertake a PACE activity in an area of professional interest, connecting students with a supervisor/mentor in the same disciplinary area and better alignment of unit content to the PACE activity and/or discipline.

- **Develop strategies and/or resources to better prepare students and partners for their PACE experience,** including developing PACE activities with clear objectives, roles, and responsibilities. Opportunities for students to connect with past PACE students could provide another layer of support. Student preparation also involves other areas of the University, such as the Careers and Employment Service in many PACE units, and this should be broadened and strengthened.

- **Establish proactive monitoring processes** for PACE activities, including clarifying expectations, roles, and responsibilities for each party (unit convenors, PACE staff, students and partners).

- **Coordinate University communication, systems, and processes** to increase student awareness of the PACE program, ensure students know early in their degree that PACE is a requirement and enrol early in PACE units.

- **Develop a strategic approach to industry and community partnerships across the University.** This should recognise the workload and resources required to build sustainable relationships based on reciprocity and seek to leverage PACE partnerships for the purposes of corporate engagement, multidisciplinary partnerships, and research collaborations.

- **Establish consistent and regular unit review processes** to support quality assurance of PACE units. Unit reviews should involve the relevant PACE stakeholders and be incorporated into existing Faculty/University processes. This includes ensuring that activity sourcing, activity/unit workload, reflection and debriefing processes, induction and unit size are considered.
Chapter 5: What are the critical program components and barriers?

This chapter explores the critical program components and barriers to program delivery (Evaluation Question 3). It presents analysis from the Student Survey and the main themes from the evaluation workshops and interviews. Statistical summaries for this chapter are detailed in Appendix I.
Chapter overview

Drawing on the analysis of Student Survey data and interviews and workshops with University stakeholders, several program components were identified that are critical to ensuring that the PACE program is effective and sustainable at scale. The main barriers to program implementation were also identified, though it is worth noting that these were all outside the immediate scope of the PACE program.

<table>
<thead>
<tr>
<th>Evaluation Question 3: What are the critical program components and barriers?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CRITICAL PROGRAM COMPONENTS</strong></td>
</tr>
<tr>
<td>• Partner preparation, activity matching, induction</td>
</tr>
<tr>
<td>• Quality of learning and teaching in the PACE unit</td>
</tr>
<tr>
<td>• Faculty-based PACE teams with central support</td>
</tr>
<tr>
<td>• Professional experience embedded in curriculum</td>
</tr>
<tr>
<td>• Recognition of workload for University staff</td>
</tr>
<tr>
<td>• Faculty integration to ensure the PACE program is relevant across disciplines and Faculties</td>
</tr>
<tr>
<td>• Leadership and governance to embed PACE within the Faculties and the broader University environment</td>
</tr>
<tr>
<td><strong>BARRIERS</strong></td>
</tr>
<tr>
<td>• The need for a University-wide coordinated approach to professional practice and employability initiatives</td>
</tr>
<tr>
<td>• The need for a University-wide coordinated strategic approach to partnership management to capitalise on the strong partnership base that PACE has established and provide students with ongoing professional opportunities, as well as build research and corporate engagement/collaborations</td>
</tr>
<tr>
<td>• Reconfiguration of resources to sustain and grow the program</td>
</tr>
<tr>
<td>• The need for University-wide co-ordinated communication and systems, to increase student’s awareness of PACE</td>
</tr>
</tbody>
</table>

5.1 Critical program components

5.1.1 RELATIONSHIPS BETWEEN PACE PROCESSES, THE IMPACT OF PACE AND STUDENT SATISFACTION

Analysis was undertaken using data from the post Student Survey to see if there were relationships between PACE processes (i.e. partner preparation, activity in an area of professional interest, student induction) and student’s rating of the Student Satisfaction, Learner Experience of PACE, Impact on Career Readiness, Impact on Citizenship and employability item/s.

Significant relationships were found between all PACE processes and student’s rating of the Impact on Career Readiness, Impact on Citizenship and employability item/s (Table 26). The strongest relationships (large associations) were between Student Satisfaction and the impact on employability (n=918) and Impact on Career Readiness (n=1540) items.
Table 26. Student Survey (Post): Significant correlations between PACE processes and student’s rating of the impact of PACE on their employability, career readiness & citizenship

<table>
<thead>
<tr>
<th>PACE Processes</th>
<th>Employability</th>
<th>Impact on Citizenship</th>
<th>Impact on Career Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner preparation</td>
<td>0.25**</td>
<td>0.29**</td>
<td>0.36**</td>
</tr>
<tr>
<td></td>
<td>n=883</td>
<td>n=915</td>
<td>n=917</td>
</tr>
<tr>
<td>Activity in an area of professional interest</td>
<td>0.30**</td>
<td>0.30**</td>
<td>0.44**</td>
</tr>
<tr>
<td></td>
<td>n=914</td>
<td>n=1540</td>
<td>n=1545</td>
</tr>
<tr>
<td>Induction preparation</td>
<td>-0.33**</td>
<td>-0.35**</td>
<td>-0.41**</td>
</tr>
<tr>
<td></td>
<td>n=715</td>
<td>n=1295</td>
<td>n=1298</td>
</tr>
<tr>
<td>Student Satisfaction</td>
<td>0.72**</td>
<td>0.46**</td>
<td>0.54**</td>
</tr>
<tr>
<td></td>
<td>n=918</td>
<td>n=1535</td>
<td>n=1540</td>
</tr>
<tr>
<td>Learner Experience of PACE</td>
<td>0.35**</td>
<td>0.38**</td>
<td>0.38**</td>
</tr>
<tr>
<td></td>
<td>n=793</td>
<td>n=1364</td>
<td>n=1368</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed)

Analysis was undertaken to see if there were any significant relationships between PACE processes and student’s rating of the Student Satisfaction items. Significant relationships (medium associations) were found between all PACE processes and student’s rating of the Student Satisfaction items (Table 27). The strongest relationship (medium association) was between Student Satisfaction and the Learner Experience of PACE items.

Table 27. Student Survey (Post): Significant correlations between PACE process and Student Satisfaction items

<table>
<thead>
<tr>
<th>PACE Processes</th>
<th>N</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learner experience of PACE unit</td>
<td>1409</td>
<td>0.42**</td>
</tr>
<tr>
<td>Induction preparation</td>
<td>1336</td>
<td>-0.40**</td>
</tr>
<tr>
<td>Activity in an area of professional interest</td>
<td>1589</td>
<td>0.35**</td>
</tr>
<tr>
<td>Partner preparation</td>
<td>940</td>
<td>0.31**</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

These findings suggest that program processes such as the learning and teaching in the PACE unit, student induction, activity matching in an area of professional interest and partner preparation are critical program components, as they influence student satisfaction and student’s perception of the impact of PACE. Appendix I provides details on the statistical analysis undertaken.

**Key finding:**
Student satisfaction and perception of the impact of PACE are influenced by program processes such as the learning and teaching in the PACE unit, student induction, activity matching in an area of professional interest and partner preparation. These are critical program components.
5.1.2 FACULTY TEAMS AND CENTRAL SUPPORT

There was consensus across the program that having Faculty-based PACE teams with central support was a critical program component. Faculty-based teams provided personalised and bespoke support to students, partners and unit convenors, while the central team focused on developing processes and systems to support effective and efficient delivery across the PACE program.

“I think every year we’ve seen an increase in the way that things are getting worked out and it’s becoming much easier in terms of the process stuff. That seems to be getting easier and there’s a lot of support from PACE hub around the different processes.” (University Staff)

“Yeah. This is just a general reflection...I see the great benefit of having faculty-based teams that understand how their faculty works, but also to have that central resource to back up what they do. So I think that mixture of centralized and in the field...” (University Staff)

5.1.3 FACULTY INTEGRATION

Faculty integration was also reported to be a critical program component of PACE in order for the program to be relevant across disciplines and Faculties, to be efficiently delivered at scale and to be sustainable into the future. Critical aspects of Faculty integration were ongoing discussions and collaborations across the different Faculty levels, promotion of the benefits of the program, engagement of non-PACE academics to champion the program; and PACE unit convenors who were engaged in the program.

“It is critical. It’s critical not just from a support and resourcing perspective, but from an integration perspective. To use the expression, “knowing who’s who in the zoo”. Being at the coal face. Understanding the context of that Faculty, what are their needs? Of the students, of the partners, of the Faculty itself strategically, sort of contributing in meaningful ways, aligning yourself in a way that is productive for the Faculty on every level, whether it’s strategically or student and everything in between.” (University staff)

“If it’s embedded into the curriculum, it’s got to be embedded into the Faculties that deliver curriculum. So I don’t know that having one way of doing PACE would work.” (University staff)

Integration into daily Faculty operations was an ongoing process and while University staff acknowledged an overall commitment to the program by the University, they also identified ongoing barriers to integration. These included PACE representatives and/or unit convenors not being involved in strategic meetings and decisions (Faculty-led and/or on behalf of the Faculties), a lack of understanding about the operational aspects of the program, and key University staff, including some PACE unit convenors, not being advocates for the program. Some University staff suggested it would be beneficial to involve more academics in the PACE program to ensure greater buy-in and understanding, which in turn would support integration of the program within Faculties.

“The other thing is, and to be frank, there are some departments and unit convenors who are not advocates of the program, and see it as a challenge and threat and, as a result, may undermine and try to confound, try to confine - confound - opportunities that we try to create or even the governance of the Unit might be undermined, and I see that. I see that every session.” (University staff)

“There’s a package. There’s a range, I guess. Some unit convenors that are very engaged and that chose perhaps to - I have in my mind a couple of unit convenors that chose to teach a PACE unit because they could see a potential for them there. There are some other convenors that are pushed into it, and some other convenors in some departments it’s like a rotating thing.” (University staff)
5.1.4 PROFESSIONAL EXPERIENCES EMBEDDED IN CURRICULUM

Having PACE activities embedded within curriculum and, more specifically discipline-specific curriculum, was a critical component of PACE as it provided students with opportunity to meaningfully connect theory learnt through university studies, into a ‘real-life’ professional experience.

“THAT’S WHY WE BUILD CURRICULUM ABOUT, AROUND PACE, BECAUSE IT’S NOT JUST ABOUT GOING TO AN ORGANISATION AND COMPLETING HOURS, IT’S ABOUT HOW DO I RELATE THIS MODULE THAT IT’S ASKING ME TO THINK ABOUT THE ENVIRONMENT WITH MY EXPERIENCE, AND WITH THE THEORY I’VE LEARNED IN MY DEGREE.” (UNIVERSITY STAFF)

“I THINK THE CURRICULUM DELIVERED THROUGH THE PACE UNIT IS QUITE IMPORTANT. IT’S WHAT SUPPORTS THE STUDENTS, WHAT MAKES THE STUDENT MAKE THAT CONNECTION BETWEEN, OKAY, HOW DOES THIS RELATE TO MY PLACEMENT, HOW DOES WHAT I’VE LEARNED AT UNI CONNECT. IT’S THE CURRICULUM THAT TO ME IS IMPORTANT AS WELL.” (UNIVERSITY STAFF)

5.1.5 RECOGNITION OF WORKLOAD

University staff reported that it was critical to recognise the workload associated with convening a PACE unit. There were examples provided where additional workload (e.g. partner development and management) was accounted for in Faculty workload models. However, other examples described unit convenors considering not continuing convening PACE units due to the time impact on other priorities such as research. Further clarification about the roles and responsibilities of unit convenors and PACE teams with regards to all stages of the PACE program would be beneficial to understanding workload, and to ensure the program was operating as efficiently as possible.

“IN THIS FACULTY, WE’VE CREATED RESOURCES, SO, AN APPENDIX [TO THE WORKLOAD MODEL] THAT IDENTIFIES THESE ARE THE TYPES OF TASKS OR AREAS OR PIECES OF WORK THAT A CONVENOR MIGHT DO THAT WOULD JUSTIFY GETTING ADDITIONAL WORKLOAD AS A PACE UNIT CONVENOR. SO, IT’S APPROVING ACTIVITY STATEMENTS, IT’S GOING TO PARTNER VISITS, IT’S DEVELOPING PARTNERS, IT’S MONITORING ONSITE THAT DOESN’T GET PICKED UP UNDER FIELDWORK ALLOCATION, IT’S ALL THAT SORT OF STUFF, ATTENDING PACE WORKPLACE SAFETY, RISK WORKSHOPS, SO ON AND SO FORTH. EVEN THOUGH, WE PROVIDE THAT INFORMATION TO THEM, IT GETS LOST BECAUSE AGAIN, DIFFERENT PEOPLE.” (UNIVERSITY STAFF)

5.1.6 GOVERNANCE AND LEADERSHIP

University staff reported that leadership and governance across PACE was a strength of the program, particularly working in complex Faculty and the broader University environments. However, the program structure also contributed to barriers in terms of Faculty integration, program accountability and the quality assurance of PACE units. For example, although Senate-endorsed PACE criteria provided a quality framework for approving PACE units, the PACE program continues to lack official oversight or authority regarding the way in which PACE units are delivered. In some Faculties, oversight was achieved through the Unit approval and review process, however this was inconsistent across and within Faculties and departments. Suggestions for improvement included having consistent unit review processes that incorporate PACE units across the University, using PACE academics as unit moderators and fostering unit convenor buy-in and engagement. Some University staff reported that the lack of oversight had created inconsistencies across the program, which in turn resulted in students and partners having varied PACE experiences.

“ULTIMATELY [THEY] CHOOSE WHETHER OR NOT THEY WANT TO LISTEN TO US. THEY CAN CHOOSE TO IGNORE WHAT WE SAY. WE’RE THERE TO SUPPORT THEM, BUT WE CANNOT TELL THEM, YOU NEED TO CHANGE THE WAY YOU DELIVER THIS UNIT BECAUSE STUDENTS ARE VERY UNHAPPY. IT’S JUST THE UNIT CONVENOR IS THE ONE WHO HAS THE DECISION MAKING.” (UNIVERSITY STAFF)

“I THINK IT’S OUR ROLE JUST TO ENSURE THAT PACE IS A QUALITY PROGRAM. BUT IT’S A CHALLENGE. WE DON’T HAVE THE DECISION POWER TO ENFORCE THINGS, SO WE CAN PROMOTE, WE CAN ENCOURAGE PEOPLE, WE CAN WORK WITH, BUT
we don’t have, yes, we are not heads of department that we say, show me your Unit, this is what you have to do. We’re consultants, we’re supporters.” (University staff)

5.2 Program barriers

5.2.1 UNIVERSITY-WIDE COORDINATION OF PROFESSIONAL AND EMPLOYABILITY INITIATIVES

The need for a University-wide coordinated approach to professional practice and employability initiatives was identified as both an opportunity and a barrier. In the evaluation interviews and workshops there was consensus that, despite most students being in their final year of undergraduate study, they still required support and preparation around professional skills and etiquette prior to entering the workforce.

Despite agreement that professional support was required, a lack of clarity and inconsistencies were highlighted around who was responsible for providing this support and when it should be offered. For example, PACE teams reported that it was too late to effectively provide support when the student enrolled in a PACE unit. Although students could be directed to other services at this time (e.g. Careers), they may not take this up. As a result, PACE teams were ‘plugging the gap’ and providing advice around careers and professional preparation.

“I have talked about this before as well, that by the time a student gets to the point of PACE there’s not a lot that we can do to have them more prepared...So there is that big question mark around who - at what point does PACE come into that journey and there’s all these other elements at the University that play a role in preparing students to that point. So, I think sometimes there’s a bit of a perception that we’re supposed to be kind of all things to all people and do every single element of having that student ready...I’m actually not entirely sure that that is our role. Like it’s part of the role but we only get them at that certain point.” (University staff)

Although PACE was reported to be playing a critical role in connecting students to industry and community partners, and providing them with an opportunity to integrate theory to practice at the end of their degree, questions were raised about PACE’s role and the role of other University initiatives and their impact on student employability and employment outcomes. For example, internships were offered to undergraduate students through other University initiatives, potentially confusing both partners and students who may not know they also needed to enrol in a PACE unit. The need for these initiatives to be coordinated and integrated into a student’s experience from the beginning of their undergraduate degree at Macquarie University was highlighted by university staff.

“I wish I had had something like that when I was studying in university. PACE was about translating knowledge or theory into what does this mean in reality. That’s amazing for students because that really transformed the way you learn, that really opens your eyes and, this is what it means...When we started focusing more on employability, we forgot a bit about how, what amazing it was just to think about PACE is about engaging with reality, and connecting knowledge, theory to practice.” (University staff)

“If you read students’ narratives from when they say PACE made a transformation, it’s all about it opened my eyes to different ways of understanding, learning, connecting to people, even to new career paths, but it’s not that PACE got me a job. It’s not what they will remember of PACE.” (University staff)

5.2.2 UNIVERSITY-WIDE PARTNERSHIP MANAGEMENT

Evaluation findings highlight the need for a coordinated strategic approach to partnership management to support the integration of professional and work integrated learning experiences across the University. This should include strategies to capitalise on the strong partnership base that PACE has grown, recognition of the contribution and value of industry/University collaborations, the coordination of internship and professional opportunities for partners across different departments, as well as undergraduate and postgraduate degrees, and recognition of the workload required to source, build and maintain industry and community partnerships.
I think what sits with that is there is a lack of understanding of what successful partner engagement is.... so what can we offer them so we have a sustainable model or we have a long term relationship, or we don’t have this high attrition rate of partners. Or if that is the model how do we make it so it’s not this stressful process of trying to get people involved. There’s just a lack of understanding of what it takes. (University staff)

5.2.3 SUSTAINABLE PROGRAM GROWTH, SCOPE, SCALE AND DIVERSITY

University staff who were interviewed and participated in workshops acknowledged the significant investment made to date to develop and sustain a recognised, University-wide work-integrated learning program. Examples were given to demonstrate that PACE has been proactive in seeking ways to streamline program efficiencies in the current higher education financial climate, including IT management and integration within Faculties. However, staff also expressed concerns about the need to reconfigure resources to further reduce program costs, while continuing to provide high-quality services and experiences to students and partners, a challenge given the growing number of students participating in PACE. In some instances, increasing student numbers may have a significant impact on the types of experiences that PACE is able to offer students and partners. These concerns were compounded by a perceived lack of understanding of the role, breadth and scope PACE in terms of student and partner engagement and relationship building within the Faculties, as well as the flow-on impact on other University systems and processes for efficient service delivery.

“So in terms of barriers in the current budgetary environment, resource constrained, this is a big issue. So we’re looking at all of the things, all these great things, but the big overarching consideration is how do we maintain that level and improve those things...Do more with less....when so much of what we do is very - it’s very time intensive. It’s very bespoke. It’s very service oriented, both the students and with partners. So it’s a real challenge, and that’s - we understand that for other Faculties, too, we know that that part of the constraints and the way they operate is a result of that.” (University staff)

“We value the partners and the relationship so much and what do we do in the future if we’re not resourced to be able to continue that? It would be - the outcomes would be very different I think for partners, for students...” (University staff)

5.2.4 COORDINATED COMMUNICATION & PROMOTION OF PACE

As discussed previously, there is a need for increased student awareness of the PACE program, to ensure that all students know early in their degree that PACE is a requirement. As PACE is a University-wide program linked to degree programming, this communication needs to be coordinated across different University departments and beyond PACE teams. University staff suggested an integrated student system that clearly explains to students when they will be required to do PACE, and the opportunities available as part of their degree.
5.3 Summary and recommendations

Based on these findings, to ensure the PACE program is both effective and sustainable, the following recommendations have been developed:

- **Establish consistent and regular unit review processes** to support quality assurance of PACE units. Unit reviews should involve the relevant PACE stakeholders and where possible be incorporated into existing University processes. This includes ensuring that activity/unit workload, reflection and debriefing processes are considered and exploring ways to enhance the connection between PACE International activities and the curriculum, learning and teaching within PACE units.

- **Develop a University-wide coordinated approach to professional practice and employability** which builds upon the success of the PACE program. This should include opportunities for students to develop their professional capabilities and undertake work-integrated and practice-based learning experiences throughout their undergraduate degree.

- **Develop a University-wide strategic approach to industry and community partnerships.** This should recognise the workload and resources required to build sustainable relationships based on reciprocity and seek to leverage PACE partnerships for the purposes of corporate engagement, multidisciplinary partnerships, and research collaborations.

- **Coordinate University communication, systems, and processes** to increase student awareness of the PACE program, ensure students know early in their degree that PACE is a requirement and enrol early in PACE units.

- **Support the continued integration of PACE within Faculties** to ensure that the program is relevant across disciplines, efficiently delivered at scale, and sustainable into the future. This includes the recognition of workload associated with delivering PACE units and where possible the involvement and engagement of a wide variety of academics.
Chapter 6: To what extent does PACE contribute to outcomes for students, partners, the University, and the wider community?

This chapter assesses the effectiveness of the PACE program in terms outcomes for students, graduates, partners, the University and the community (Evaluation Question 4). It synthesises data from the student and partner surveys, evaluation interviews and graduate employment surveys. This chapter is structured around the following evaluation criteria:

- Student Outcomes
- Graduate Employment Outcomes
- Partner and Community Outcomes
- University Outcomes
Chapter overview

There is strong evidence that PACE is positively contributing to outcomes for students, partners, the University and the wider community.

Evaluation Question 4: To what extent does PACE contribute to outcomes for students, partners, the University, and the wider community?

STUDENT OUTCOMES
• There is strong evidence that PACE increased students’ professional practice, job seeking, commencement confidence and active citizenship.
• PACE is impacting some of students’ most important goals, e.g. gaining professional experience and developing discipline specific knowledge and skills.
• A substantial proportion of students agreed that PACE had improved their employability. Partners agreed that PACE helped to prepare student/s for their future transition to employment and that students were ready to commence in their field or discipline.
• A substantial proportion of students agreed that PACE had a positive impact across all active citizenship and career dimensions. However, students rated the impact of PACE on their citizenship slightly higher than career readiness.

GRADUATE EMPLOYMENT OUTCOMES
• There is strong evidence to suggest that PACE is contributing to graduates entering full-time work, their first full-time job and overall graduate employment.
• From 2016-2018, 77 per cent of graduates who completed a PACE unit were in full-time employment four months after course completion, compared to 67 per cent of students who did not do PACE.
• 86 per cent of graduates who completed a PACE unit were in full-time employment twelve months after course completion, compared to 77 per cent of the non-PACE cohort.
• PACE graduates were more likely to agree that their qualifications had prepared them for employment and that their qualification was related to their degree.

PARTNER & COMMUNITY OUTCOMES
• There is strong evidence that PACE is contributing to mutually beneficial outcomes for partners and the community more broadly.
• Students are providing critical support for key projects and are producing a range of tangible outputs.
• Partners also reported that a benefit of PACE to them was being able to make a positive community impact, engage with the University and give back to the industry and profession.
• Some students were providing critical support to community organisations and working directly with local communities.

UNIVERSITY OUTCOMES
• There is strong evidence that PACE is having a substantial impact on student and graduate outcomes and is contributing to industry and community initiatives, which in turn is a significant outcome for the University.
• Macquarie University is seen as a leader in work-integrated learning, which is seen as an important differentiator in terms of student marketing and recruitment, as well as the University’s reputation in the wider community.
• PACE was also viewed as a crucial interface between the University, industry and community.
6.1 Student outcomes

To determine whether PACE is having a positive impact on students’ career readiness and professional networks, the Student Survey included a range of self-reported outcome items (as outlined in 2.1.2). The desired outcome items are asked at the beginning of the PACE unit (T1) and in the post survey which asked students to reflect on their competencies at the start of PACE (T2) and then at the end of PACE (T3).

Data is reported in the following sub-sections for the four outcomes components:

- Professional Practice (scale from 1= Very Poor to 5 Very Good) (Figure 30)
- Job Seeking (scale from Strongly 1= Disagree to 5= Strongly Agree) (Figure 31)
- Commencement Confidence (scale from 1= Not at all confident to 5=Very confident) (Figure 32).
- Active Citizenship (scale from Strongly 1= Disagree to 5= Strongly Agree) (Figure 34)

Appendix J provides details on the statistical analysis and findings for the Student Survey.

6.1.1 CAREER-READINESS AND NETWORKS

Figure 30 displays the percentage of students who rated each Professional Practice item as either Good or Very Good at T1, T2 and T3. At the start of PACE (T1) a large percentage of student’s (75-93%) rated their professional practice as being either Good or Very Good across all items. However, on reflection (T2) student’s perception of their capabilities at the start of PACE decreased (50-77%), suggesting that students overestimated their competencies at the start of PACE. This is an example of the Dunning Kruger Effect, in which people are essentially unaware of what they do not know and therefore initially overestimate their abilities (Dunning, 2011). At the end of PACE (T3) self-assessment of capability increased to 82-95 per cent across all outcome items.

In comparison, students were less confident across all Seeking Work items (Figure 31). At the start of PACE (T1) less than half of students (48%) agreed that they felt confident using their professional networks to seek work and only a third (36%) were actively using their networks. At the end of PACE (T3) a larger percentage of students agreed with each item (56%-77%). At the end of PACE students were most confident seeking work in an area they wanted to be employed (77%), whereas they were least likely (56%) to be actively using their professional networks to seek work.

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8 For Figures 30-32 and Figure 34 the T1 vs T3 statistical analysis includes all students who completed a pre and post survey (n=1203). However, the sample sizes differ for individual survey items due to changes in the survey and missing data. For example, some T1/T3 survey items were included for the whole data collection timeframe, whilst some were added in 2018.
Figure 30. Student Survey- Changes in Professional Practice individual outcome items comparing Pre Survey Baseline (T1), Post Survey Reflection (T2) and Post Survey End of PACE (T3): % Good/Very Good

Figure 31. Student Survey- Changes in Job Seeking individual outcome items comparing Pre Survey Baseline (T1), Post Survey Reflection (T2) and Post Survey End of PACE (T3): % Somewhat Agree/Strongly Agree
Students were also asked about their Commencement Confidence (Figure 32). At the start of PACE (T1) over half of students (57-70\%) rated themselves as ‘Quite or Very Confident’ across all items. On reflection at the end of PACE (T2) students rated their initial confidence much lower across all items (34%-50\%), again suggesting that the baseline ratings were overestimated. At the end of PACE (T3) students were more confident across all items (63-77\%). At the end of PACE students were most confident that that could apply their knowledge to solve real-life problems (77\%) and least confident that they would obtain work relevant to their studies (63\%).

We wanted to determine if the outcome changes were statistically significant (Appendix J). In summary:

- Students rated the Professional Practice (n=1001), Job Seeking (n=983) and Commencement Confidence (n=1017) items significantly higher at the end of PACE (T3) compared to the start of PACE (T1), with small to medium effect sizes (Appendix J, Table J1).

- Students also rated the Professional Practice, Job Seeking and Commencement Confidence items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium to large effect sizes (Appendix J, Table J2). For example, at the end of PACE:
  - 77 per cent of students (n=529/689) rated their professional practice competencies more positively;
  - 69 per cent of students (n=462/674) felt more confident seeking work and using their networks; and
  - 65 per cent of students (n=315/482) were more confident commencing work and applying their knowledge after university.

**Key finding:**
Students reported statistically significant changes in their professional practice, job seeking and commencement confidence.
These findings were statistically significant across all Faculties (Appendix J, Tables J3-6). At the end of PACE, students rated the Professional Practice items (4.3 out of 5 on the mean factor score) items highest and the Job Seeking items the lowest (3.8 out of 5 on the mean factor score).

The survey also asked students what the most significant change had been for them as a result of PACE and the reasons why this was significant. One of the main themes to emerge related to professional confidence and opportunities (i.e. confidence to ask for help, push boundaries, work in a culturally appropriate way, undertake a professional task, work in a professional setting and take initiative, as well as confidence in seeking employment).

“I realised that I would be able to use the skills that I have developed in my history degree in a whole range of careers that are much broader than the humanities or academia. It was a liberating feeling knowing that I could still use my skills and talents to be useful team member with a company”. (PACE student)

“Realised what I could offer as a mentor and the benefits such a career (i.e. counselling etc) can have”. (PACE student)

The development of professional skills was another key theme, including skills in public speaking, analytics, communication, leadership, time management, and life and interpersonal skills (e.g. effective collaboration, dealing with conflict).

“I feel clearer about my future goals in science and education. I may have even gained my current job from the experience I gained. When commencing this Unit, I only saw it as a way to help the community and to gain fulfilment, but I didn’t fully realise how many great skills I would learn and that it would impact my career this much. One particular skill I improved on was my presentation skills, and I had the chance to present to quite a large audience at the chemistry magic show (At MQ Open Day)”. (PACE student)

Many students also reported that PACE had provided them with an opportunity to test a career pathway, had opened their eyes to new career opportunities or had changed their career and/or study plans.

“Completing PACE opened my eyes to a number of potential employment areas that I hadn’t previously considered. I am now considering a career in the Not-For-Profit sector and have a particular interest in rural and remote communities. Completing PACE challenged me but also gave me the confidence to use the skills I’ve learned through my studies. Putting subjects into practice finally made all the years of study feel worthwhile!” (PACE student)

“I changed from wanting to do a forensic masters to wanting to do a clinical masters. This is a big decision that will shape the fields I can work in.” (PACE student)

Finally, an unexpected outcome to emerge from the most significant change stories was the impact of PACE on student's personal growth and confidence. As described below a few students felt that participating in PACE had relieved their anxiety about entering the workforce and made then feel more capable and confident in their personal and also professional capabilities. In turn, this had a significant impact on their overall mental health and wellbeing.

“I overcame my anxiety…thus landing me a job at my organisation. It also encouraged me to be more out there & take risks, as I wanted to take a risk in the beginning of this placement & not be so scared. This has showed that being involved & unafraid can do so much good for you both personally & job-wise.” (PACE student)
"I learnt that I can overcome work stress when I apply myself and find drive. And that I do have the capability to lead my other team mates when getting a task done. Previously when it comes to work I've been fairly timid and individual work load focused." (PACE student)

Despite these positive results, when students were asked to describe the impact that PACE had on their work or study plans a small number of students (n=120/1228) reported that PACE had no impact or a negative impact. The most commonly noted reason was that the PACE activity was not relevant to the student’s career or had no bearing on their future work/study plans. Other reasons included the fact that the student was already in the workforce, that the PACE unit had not provided hoped-for career direction, or the Unit was no different to other Units the students has completed.

"There has been no significant change since doing this PACE unit. It really felt like any other Unit as we were not involved in off campus things." (PACE student)

"Lucky for me I have work lined up. However, if I didn’t it wouldn’t have had a positive effect. I could argue it could have a negative affect because I was partnered with an organisation which does not align to my interests/career." (PACE student)

PACE partners were also asked to rate student(s)’ career readiness competencies (Figure 33). Overall partners rated student(s)’ career readiness highly, with 86 per cent reporting that the student(s) were ready to commence in their field or discipline to a great or moderate extent. In addition, the vast majority of partners rated student(s)’ professional competencies highly (>85% moderate or great extent) across all items.

**Key finding:** Partners rated student(s)’ career readiness highly, with 86 per cent reporting that the student(s) were ready to commence in their field or discipline to a great or moderate extent.

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### Figure 33. Partner Survey – partner rating of student career readiness competencies (n=288)

<table>
<thead>
<tr>
<th>Competency</th>
<th>Great Extent</th>
<th>Moderate Extent</th>
<th>Small Extent</th>
<th>Not at All</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good teamwork and collaboration skills</td>
<td>73%</td>
<td>18%</td>
<td>3%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Flexibility and ability to work in dynamic or ambiguous environments</td>
<td>68%</td>
<td>23%</td>
<td>5%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Ability to apply ethical practice in a professional setting</td>
<td>68%</td>
<td>18%</td>
<td>10%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Effective communication with people of different cultural backgrounds and authority levels</td>
<td>65%</td>
<td>23%</td>
<td>5%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Overall readiness to commence in the field or discipline.</td>
<td>60%</td>
<td>26%</td>
<td>5%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Capacity to effectively manage multiple and different priorities to achieve a range of professional goals</td>
<td>58%</td>
<td>27%</td>
<td>4%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>
6.1.2 ACTIVE AND ENGAGED CITIZENSHIP

Rubric Rating
Excelling

Figure 34 displays the percentage of students who agreed or strongly agreed with each active and engaged citizenship item. At the start of PACE (T1) a large percentage of student’s (74-95%) agreed with each item, however, on reflection at the end of PACE (T2) students’ perception of their citizenship capabilities at the start of PACE decreased (60-70%) suggesting that students’ initial baseline ratings were overestimated. At the end of PACE (T3) a larger percentage of students (82-95%) agreed with each item.

We wanted to determine if the outcome changes were statistically significant (Appendix J). In summary:

- Students rated the Active Citizenship items (n=772) significantly higher at the end of PACE (T3) compared to the start of PACE (T1), with a small effect size (Appendix J, Table J1).

- Students also rated the Active Citizenship items significantly higher at the end of PACE (T3) compared to their reflection on their capabilities at the start of PACE (T2), with medium effect size (Appendix J, Table J2). For example, at the end of PACE, 71 per cent of students rated their citizenship skills and abilities more positively. The findings were statistically significant across all Faculties (Appendix J, Tables 3-6).

The survey also asked students what the most significant change had been for them as a result of PACE and the reasons why this was significant. A number of themes emerged that demonstrate the impact PACE has on students’ citizenship such as:

- Increased awareness of social justice, environmental and sustainability issues;
• The development of cross-cultural awareness, skills, and communication, especially for students who did a PACE International activity;
• Improved teamwork and collaboration skills;
• Increased understanding and knowledge of ethical principles and practice; and
• Enhanced reflection skills and learning.

“Definitely working together as a group, learning to talk and learning to structurally break down a major work into smaller more specific sections. This aspect of learning and approaching work has been drastically improved for me.” (PACE student)

“Cross-cultural experience, working in different professional settings and learning a new skill set to cope with different work contexts. Experiencing a different culture and living in a developing country. The people I met had the biggest impact on my personal life, comparing different ways of life and social context.” (PACE student)

“The most significant change in my professional development was my level of maturity when dealing with fragile situations and my understanding of ethical practice in these types of situations. This was significant for me as I feel that this was the best way to prepare for a future career in psychology or working with disadvantaged children as these are issues I will have to deal with every day if I end up in that career path.” (PACE student)

Students also reported that as a result of PACE they felt inspired and motivated to be involved in community initiatives and had a greater understanding of how they can use their university knowledge and skills to contribute to broader social change. For some this meant considering a change in career direction such as working at a community-based or humanitarian programs/organisation.

“The most significant change that has resulted from participating in PACE would be the realisation that I underestimated the skills and knowledge that I actually had and could then use within the workplace and help the organisation’s fight for justice. This has been the most significant change, as it has led me to a job with this organisation and also another job with a marketing company who were co-volunteers for the organisation as well.” (PACE student)

“I was fairly involved in women’s rights issues in Australia, but I never realized how deeply entrenched these issues are in a religious cultural environment. I am planning on working/contributing my time in the future to strive to achieve gender equality in developing countries. I am unsure if I want to pursue this as a full-time career, but I am definitely planning on working on it in my spare time/pro bono.” (PACE student)

“Personal development - I have gained a greater insight into the Community organisation, what they do and how they manage their prerogations on a daily basis. Personal development - I was given the opportunity to work alongside very caring and passionate individuals. The experience overall opened my eyes to some of the issues our greater community deal with such as homelessness, drug and alcohol abuse along with sexual and domestic violence towards women. This has given me a drive towards working with community organisations on a regular basis to help tackle some of the issues and support women throughout the community.” (PACE student)

### 6.1.3 IMPACT OF PACE

Data from partners, students, and graduates about the impact of PACE on students’ overall employability, career readiness, citizenship and networks were collected via:
• Partner Survey
• PACE Student Survey (all students who completed a post survey from S2 2017 to S3 2018/19),

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9 The rubric was not applied to this section as the findings have been integrated into the relevant career-readiness and networks and active and engaged citizenship sections.
• 2018 Graduate Outcomes Survey (GOS, administered four months after course completion)
• 2016-2018 Macquarie Graduate Destination Survey (MQGDS, administered 12 months after course completion)

As the Student Survey, 2018 GOS and MQGDS 2016-2018 data sets are not matched (i.e. different students have completed each survey) a direct comparison of the impact items is not possible.

Overall, a large majority of partners reported that PACE had positively contributed to student’s employability. At the end of PACE, 91 per cent (n=263/288) of partners agreed that the PACE activity had helped to prepare the student/s for their future transition to employment. A similarly high proportion of partners (89%, n=135/151) who supervised a student undertaking a research focused PACE activity agreed that the activity had helped the student to engage in further research.

![Figure 35. Student Survey (Post)- PACE has improved my employability (n=918)](image)

The majority of students agreed (77%) that PACE had improved their overall employability (Figure 35). Overall, the majority of students agreed that PACE had a positive impact on their career readiness and active citizenship (Figure 36). Students were most likely to agree that PACE had helped them to:

- Develop ability to work as a team member (83%)
- Develop awareness of ethical principles and issues (81%)
- Gain professional experience, skills or knowledge (77%)
- Develop discipline specific knowledge, skills and abilities (77%)

These results suggest that PACE is impacting some of students’ most important goals that they identified at the start of their PACE unit (Section 4.1.1). In particular, gaining professional experience and developing discipline specific knowledge and skills, which were rated as the two most important goals at the start of PACE.

The lowest rated outcome items in the post-survey were:

**Key Findings:**
At the end of PACE, 91 per cent of partners agreed that the PACE activity had helped to prepare the student/s for their future transition to employment.

**Key Findings:**
The majority of students agreed (77%) that PACE had improved their overall employability. PACE also had a positive impact on some of students’ most important goals at the start of their PACE unit, such as gaining professional experience and developing discipline specific knowledge and skills.
• Expanding professional networks (61%)
• Clarifying career goals (64%)

These were also the items that the largest proportion of students reported that they did not have an opportunity to develop through PACE (Section 4.1.1).

Overall, looking at the aggregate Impact of Career Readiness and Impact of Citizenship mean scores generated through the factor analysis, students rated the impact of PACE on their citizenship (4.0 out of 5.0) slightly more highly than career readiness (3.8 out of 5.0). This aligns with the earlier finding that indicated that students were provided with more opportunity to develop across the active and engaged citizenship domains (4 out of 5 items >80% of students selected ‘Yes’) compared to career readiness (2 out of 5 items >80% of students selected ‘Yes’).

These findings suggest that PACE is providing students with an opportunity to develop citizenship competencies and in turn is having a substantial impact on students’ citizenship awareness, knowledge, and community engagement. This is a positive outcome for the program as there is evidence that employers highly regard citizenship competencies when recruiting graduates. However, it also highlights an area for program improvement in terms of developing further strategies to increase students’ career readiness and professional networks.

**Key Finding:**
PACE has a significant impact on students’ active citizenship competencies.

**Area for improvement:**
Providing students with further opportunities to expand professional networks and clarify career goals.

**Area for improvement:**
Developing strategies to increase students’ career readiness and professional networks.

Figure 36. Student Survey (Post)- Impact of PACE on active citizenship & career readiness individual items (% Agreed/Strongly Agreed)
From 2018 the GOS\textsuperscript{10} contained five items asking graduates who completed a PACE unit to rate the impact of the program in terms of career decisions, community engagement, job seeking, obtaining employment and professional networks. This sample includes domestic and international students. Overall, 1266 graduates who had undertaken a PACE unit completed the impact items in the GOS. This was a 78 per cent response rate (n=1266/1616) of the eligible PACE graduates after applying the specified filters.\textsuperscript{11}

As shown in Figure 37, approximately 2 in 3 graduates reported that PACE had (% very much/a lot/somewhat):

- Helped them in planning or making decisions about their career (69%)
- Contributed to their engagement in the community (67%)
- Contributed to their ability to get a satisfying job in an area of interest (63%)
- Helped them feel more confident seeking work (65%)
- Enhanced their professional network (56%)

Between 18-25 per cent of graduates reported that PACE no impact across each of the items.

![Figure 37. GOS 2018 PACE items domestic and international undergraduates- To what extent did PACE....](image)

The MQGDS 2016-2018 also included four items\textsuperscript{12} asking graduates who completed a PACE unit to rate the impact of the program in terms of career decisions, community engagement, job seeking and obtaining employment. Overall, 884 graduates who had undertaken a PACE unit completed the impact items. This was

\textsuperscript{10} GOS filters: Undergraduate students (Broad Level of Study=undergraduate & Detailed Level of Study = Bachelor Honours & Bachelor Pass), Faculty (Owning Faculty Fee Setting = FoA, FBE/MQBS, FSE, FoHS & FoMHS), Domestic and international students (Citizenship indicator= All), Excluding education and early childhood students (Broad FOE= excluding education), Outcomes of individual graduates (Analysis=1), Missing data (removed item not asked and item skipped).

\textsuperscript{11} Note that the sample range for individual items varies due to missing data.

\textsuperscript{12} MQGDS filters: Undergraduate students (Broad Level of Study=undergraduate & Detailed Level of Study = Bachelor Honours & Bachelor Pass), Faculty (Owning Faculty Fee Setting = FoA, FBE/MQBS, FSE, FoHS & FoMHS), Domestic and international students (Citizenship indicator= All), Excluding education and early childhood students (Broad FOE= excluding education) and Missing data (removed item skipped/not asked)
a 37 per cent response rate (n=884/2393) of the eligible PACE graduates after applying the specified filters. Note that the response rate is relatively low as many graduates who did a PACE unit (n=1515) did not select that they had (whether or not they actually did) and, therefore, these items were not displayed in the survey. As shown in Figure 38 approximately 3 out of 4 graduates reported that PACE had (% a lot/moderately/a little):

- Helped them feel more confident seeking work (74%)
- Helped them in planning or making decisions about their career (78%)
- Contributed to their engagement in the community (73%)
- Contributed to their ability to get a satisfying job in an area of interest (70%)

Approximately 20-25 per cent of graduates reported no impact for each item.

**Key Finding:**
Given the short-term nature of the PACE program – one compulsory Unit completed as part of a 3-5 year undergraduate degree – it is positive to see that a large majority of students rated the impact of PACE positively four and twelve months after course completion.

Approximately 20-25 per cent of graduates reported no impact for each item.

*Figure 38. MQGDS 2016-2018 PACE items domestics and international undergraduates: To what extent did PACE...*
In 2016 a Bachelor of Health student was nearing the completion of her degree and enrolled in the PACE unit HLTH300 (Health Placement). In this Unit students complete a self-contained project during an internship, such as researching and writing a report on a specific health-related issue. As far as possible, internships are arranged in accordance with each student’s background, skills, experience, professional and academic interests, and career aspirations.

This student was confident that she wanted to work with children with additional needs but lacked clear direction on how to build this passion into a career. Although she has been working casually in a retail management job, she did not have any direct professional experience in the disability sector. She responded to an internship advertised by the Faculty of Human Sciences team for an opportunity to work with children with disabilities and was allocated to a small organisation that provided early intervention services for children with learning-related difficulties. The objective of the PACE activity was to create a procedure manual which contained all the relevant documents, policies, procedures, and practice guides to facilitate and run social skills groups.

Through the activity the student developed her professional communication skills and the ability to adopt communication styles depending on the audience and context, for example adapting terminologies when talking to parents of children. The student was able to observe the program and see the benefits first-hand, thus realising that this was the career path that she wanted to pursue after graduation. Her supervisor could also see that her potential and by the third week of the internship the student was offered the option of completing an online training that would make her eligible to be a therapist. She was also approached by her supervisor to run a workshop while another staff member was away. This culminated in the student being offered employment and starting paid work with the organisation on the day that she handed in her final version of the procedure manual, developed as part of the PACE activity. This then led to two years of post-graduate employment, where she also supervised PACE students from a variety of disciplines, such as psychology, linguistics and health.

The graduate is now completing her Master of Teaching (Secondary). Her current career goal as a result of the experience, which stemmed from the PACE activity, is to work within the NSW Department of Education to advocate and develop more equitable policies and procedures for the disability sector.

“If it hadn’t been for PACE, I would never have known about the disability industry. PACE introduced me to an entire career path that I never even knew was an option. To this day, I highly value my placement experience and I’m extremely grateful for the variety of opportunities that I gained as a result...PACE can be described as nothing short of life changing, as it defined my career and I am extremely fortunate to continue working with PACE to create these moments for future students.” (PACE graduate)

When asked about what factors made the experience so successful, the PACE activity being in an area of professional interest was key. As was being able to engage in a variety of activities which weren’t a direct component of the internship. For example, being able to observe how therapists interacted with a variety of different children and seeing first-hand how the organisation worked, such as the relationship between administrative staff and clinical teams and between staff and clients. The following quote from the graduate summarises the critical role that PACE had in facilitating the application of university theory and knowledge into a ‘real world’ setting and the long-term impact of the program on the student’s employability:

“I truly believe in the magic of PACE and the ability to connect the world of students, stakeholders and the wider community for the benefit of all. I love that the very nature of PACE is to ensure a mutually beneficial relationship between people and the places they live and work, to improve relationships, professional experience and overall increase the employability of graduates. In an evolving workforce where who you know can get you further than what you know, creating connections and networks while studying is absolutely critical...The skills that students learn in their PACE units – these are experiences and skillsets that you cannot gain from sitting in any number of lecture theatres or attending any number of tutorial classes. These opportunities allow for students to start networking in their area of study – to connect with like-minded, passionate individuals and organisations who can support their dreams and open doors that no university degree alone could offer.” (PACE graduate)
The aim of the PACE program is to contribute to student’s career readiness, active and engaged citizenship and enhanced professional networks, and in doing so to enhance their employability. So, whilst not a direct aim of the program, we wanted to explore whether PACE was also having an impact on graduate employment trends. It is important to recognise that a range of contextual factors, outside the influence of the PACE program, can impact graduate employment, such as trends in the labour market, employer bias towards Go8 graduates (Jackson, 2013) and graduate demographics (e.g. socio-economic status, gender, age or cultural background). That said, the staged implementation of the PACE program from 2012 provided a unique opportunity to compare employment outcomes for two distinct cohorts of graduates: students who completed a PACE unit as part of their undergraduate degree and students who did not complete a PACE unit. This analysis will only be feasible whilst there are graduating students who commenced their degree prior to 2016, when PACE became a requirement of all undergraduate degrees (i.e. the PACE cohort will eventually be 100% of graduates).

The results of the PACE Student Survey indicate that the majority of students were undertaking casual (71%, n=2010/2834) or part-time work (45%, 1274/2834) whilst completing their undergraduate degree; however, only a third had work experience in an area of professional interest. Therefore, we were particularly interested in exploring whether PACE was contributing to students securing full-time employment, as well as the impact for students transitioning to their first full-time job. We were also interested in determining if there were any differences in overall employment when comparing the PACE and non-PACE cohorts. It should be noted that the graduate employment surveys do not collect data on what type of employment graduates may have been undertaking prior to graduation. This is a significant limitation of the overall employment data, as we cannot determine if there were any changes in employment after graduation (i.e. graduates may still be employed in the same casual/part-time job that they were working in whilst studying).

As outlined in Chapter 2, the employment analysis included all Bachelor or Honours level undergraduate domestic students who were in disciplines where the PACE activity was distinct from a non-PACE unit (i.e. exclusion of education and early childhood programs). The data is presented for the whole PACE/non-PACE sample for the 2016-2018 aggregate period and on a year by year basis. Analysis was also undertaken comparing the employment outcomes of PACE/non-PACE cohorts for each Faculty and broad field of education (FoE) however small sample sizes restricted statistical analysis. The study area sample sizes, aggregate and year by year, were too small to test if there were any differences between the PACE/non-PACE cohorts. Appendix K provides a summary of the statistical analysis and findings.

### 6.2.1 GOS: GRADUATE EMPLOYMENT OUTCOMES (4 MONTHS)

**GOS: FULL-TIME GRADUATE EMPLOYMENT**

Statistical analysis was undertaken to determine if there were any differences in employment trends for students who completed PACE as part of their degree compared with students who did not complete PACE four months after course completion.

Figure 39 presents the GOS data on the percentage of graduates in full-time employment year by year from 2016-2018 for PACE, non-PACE, Macquarie University (MQ) and the national undergraduate sample. It also compares these results with data analysed in Phase 1 of the evaluation by an independent evaluation consultant (Hill 2016) using the 2013-15 Graduate Destination Survey (GDS), which was redesigned in 2016 to become the GOS.

The GOS results show that students who did PACE as part of their undergraduate degree were more likely to be in full-time employment than students who did not do PACE, across all years. For example, in 2016 when the PACE (n=784) and non-PACE (n=406) sample sizes were most comparable in size, 73.6 per cent of PACE graduates were in full-time employment 4 months after course completion compared to 67.7 per cent of non-PACE graduates.

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**Key Finding:**

Across all years the proportion of students who did PACE in full-time employment four months after course completion was higher than that of Macquarie students who did not do PACE, and higher than the national average.

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13 The Field of Education Code is a classification system (split in to three levels) used by higher education providers to classify courses of study, specialisations and units of study. Field of education groupings of courses and specialisations are on the basis of similarity of potential professions, rather than similarity of content, while units of study are coded on the basis of a likeness in terms of their subject matter.
graduates. The results were statistically significant in 2017, 2018 and for the aggregated 2016-2018 period (Table 28, see also Appendix K1). The difference between PACE and non-PACE was not significant in 2016. Across all years, PACE students were also more likely to be in full-time employment compared to the Macquarie University and national undergraduate sample. The decreasing difference over time between the PACE and the overall MQ cohort can be explained by the staged implementation of the PACE program. For example, in 2018 the majority (87%) of the graduates who were available for full-time work had completed a PACE unit.

The GOS results are consistent with the GDS analysis conducted by Hill (2016), which showed that for 2013-2015 eligible graduates seeking full-time employment who completed a PACE unit were more likely to be in full-time employment compared to students who did not, as well as the overall MQ and National undergraduate sample. The variation between the PACE and non-PACE cohorts was statistically significant (p<0.05) for the aggregated period from 2013-2015 and in 2013 (Hill 2016), however were not significant in 2014 and 2015.

Figure 39. GDS 2013-2015 and GOS 2016-2018 - % of domestic undergraduate graduates in FT employment 4 months after course completion
### Table 28. GOS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment as a proportion of those available for full-time work

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>73.6%</td>
<td>458</td>
<td>622</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>67.7%</td>
<td>149</td>
<td>220</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>72.1%</td>
<td>607</td>
<td>842</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>77.6%***</td>
<td>640</td>
<td>825</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>66.2%</td>
<td>147</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>75.2%</td>
<td>787</td>
<td>1,047</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>76.2%**</td>
<td>825</td>
<td>1,082</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>68.5%</td>
<td>113</td>
<td>165</td>
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<td></td>
<td>MQ Overall</td>
<td>75.2%</td>
<td>938</td>
<td>1,247</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>76.0%***</td>
<td>1,923</td>
<td>2,529</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>67.4%</td>
<td>409</td>
<td>607</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>74.4%</td>
<td>2,332</td>
<td>3,136</td>
</tr>
</tbody>
</table>

*p<0.05. ** p<0.01. ***p<0.001

Full-time employment trends for the PACE and non-PACE cohorts from 2016-2018 were compared across the Broad Areas of Education (GOS filter BroadFOE, Appendix K, Table K1). Figure 40 presents the percentage of graduates in full-time employment for the aggregate period. Overall, graduates who did a PACE unit in the Society and Culture (77% PACE, 65% non-PACE), Creative Arts (70% PACE, 61% non-PACE) and Information Technology (78% PACE, 59% non-PACE) fields were more likely to be full-time employment compared to graduates who did not do a PACE unit. However, non-PACE students in Natural and Physical Science (66% PACE, 67% non-PACE) and Health (65% PACE, 69% non-PACE) were more likely to be in full-time employment.

The sample sizes for the Broad Field of Education permitted statistical testing to compare PACE/non-PACE graduates for Society and Culture (aggregate period and year by year) and Natural and Physical Sciences (aggregate period 2016-2018). The results suggest that PACE was particularly effective for graduates in the Society and Culture field, where PACE graduates were significantly more likely to be in full-time employment across all years and for the aggregate period:

- **2016**: PACE 74 per cent (n=177/238) compared to non-PACE 67 per cent (n= 73/109)
- **2017**: PACE 78 per cent (n=366/471) compared to non-PACE 65 per cent (n=83/127)
- **2018**: PACE 77 per cent (n=508/657) compared to non-PACE 64 per cent (n=68/106)
- **2016-2018**: PACE 77 per cent (n=1051/1366) compared to non-PACE 65 per cent (n=224/342).

---

14 Engineering and Related Technologies, Architecture and Building, and Agriculture, Environmental and Related Studies were not included in the figure as all graduates had completed a PACE unit (i.e. the PACE/non-PACE comparison was not possible).

15 Statistical testing was not undertaken Creative Arts, Management and Commerce, Health or Information Technology due to small samples (n<100)
Figure 40. GOS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 4 months after course completion by Broad Field of Education
As Society and Culture was a large proportion of the overall eligible GOS sample (54%, 2349/4339) we wanted to test if removing this cohort of graduates would impact the full-time employment findings. After doing so, the results show that graduates who completed a PACE unit were still more likely to be in full-time employment four months after course completion compared to non-PACE and the MQ overall sample in 2016, 2017 and 2016-2018, however more non-PACE graduates were in full-time employment in 2018 (Table 29). The findings were statistically significant in 2016 and for the aggregate 2016-2018 period.

Table 29. GOS 2016-2018: PACE/Non-PACE full-time employment domestic undergraduate comparison: Excluding Society and Culture from the sample

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>73.2%</td>
<td>281</td>
<td>384</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>68.5%</td>
<td>76</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>72.1%</td>
<td>357</td>
<td>495</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>77.4%*</td>
<td>274</td>
<td>354</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>67.4%</td>
<td>64</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>75.3%</td>
<td>338</td>
<td>449</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>74.6%</td>
<td>317</td>
<td>425</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>76.3%</td>
<td>45</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>74.8%</td>
<td>362</td>
<td>484</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>75.0%</td>
<td>872</td>
<td>1,163</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>69.8%</td>
<td>185</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>74.0%</td>
<td>1057</td>
<td>1428</td>
</tr>
</tbody>
</table>

*p<0.05. ** p<0.01. ***p<0.001

The PACE and non-PACE comparison for each Faculty for the aggregate 2016-2018 period confirm the Society and Culture findings. As shown in Figure 41 for the aggregate 2016-2018 period, graduates who did a Faculty of Arts, Faculty of Science and Engineering or a Faculty of Business and Economics PACE unit were more likely to be in full-time employment compared to students in the same Faculties who did not. The proportion of PACE and non-PACE were the same in the Faculty of Human Sciences. These results were statistically significant for Faculty of Arts graduates; however, the results were not statistically significant for Faculty of Science and Engineering or Faculty of Business and Economics graduates.

---

16 Statistical testing was not undertaken for 2017 and 2018 due to the small non-PACE sample (n<100).
17 GOS filter Owning Faculty-Fee Setting, excluding Faculty of Medical Health and Sciences as all graduates completed a PACE unit.
18 Statistical testing was not undertaken for the Faculty of Human Sciences due to the small non-PACE sample size (n<100)
Figure 41. GOS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 4 months after course completion by MQ Faculty
GOS: FIRST FULL-TIME JOB

The analysis examined if there were any differences in the proportion of graduates who were in their first full-time job, as a proportion of all graduates who were in full-time employment. Across all years and for the aggregate period from 2016-2018 there was a higher proportion of PACE graduates who were in their first full-time job compared to non-PACE graduates (Table 30) (for further details, refer to Appendix K2). These results were statistically significant for all years and the aggregate period, suggesting that PACE was providing students who had not previously undertaken full-time work with a pathway into graduate employment. The number of graduates in their first full-time job was too small to breakdown the results by Broad FOE or Faculty.

Table 30. GOS 2016-2018: PACE/Non-PACE first full-time job domestic undergraduate comparison

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>First FT Job %</th>
<th>No of graduates in first FT job</th>
<th>No of graduates in FT employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 PACE</td>
<td>39.3%*</td>
<td>180</td>
<td>458</td>
<td></td>
</tr>
<tr>
<td>2016 Non-PACE</td>
<td>28.2%</td>
<td>42</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>2017 PACE</td>
<td>40.2%***</td>
<td>257</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td>2017 Non-PACE</td>
<td>25.2%</td>
<td>37</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>2018 PACE</td>
<td>41.1%***</td>
<td>339</td>
<td>825</td>
<td></td>
</tr>
<tr>
<td>2018 Non-PACE</td>
<td>24.8%</td>
<td>28</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>2016-2018 PACE</td>
<td>40.4%***</td>
<td>776</td>
<td>1923</td>
<td></td>
</tr>
<tr>
<td>2016-2018 Non-PACE</td>
<td>26.2%</td>
<td>107</td>
<td>408</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05. ** p<0.01. ***p<0.001

GOS: OVERALL GRADUATE EMPLOYMENT (INCLUDING IN FULL-TIME, PART-TIME OR CASUAL EMPLOYMENT)

The GOS also collects data on overall employment trends four months after course completion. This includes graduates in full-time, part-time, casual employment and full-time or part-time study, as a proportion of those available for employment (employed full-time, employed part-time, unemployed and seeking full-time work, unemployed and seeking part-time work, unemployed and waiting to start work).

The results indicate that students who did PACE as part of their undergraduate degree were more likely to be in overall employment than students who did not do PACE in 2016, 2017 and for the aggregate period from 2016-2018 (Table 31), with the same proportion in employment in 2018.

The variation between the PACE and non-PACE graduates was statistically significant in 2017 and for the aggregate 2016-2018 period (Appendix K3). The difference between the PACE and non-PACE cohorts was not significant in 2016 or 2018.

Key Finding:
The GOS results suggest that PACE provides students who had not previously undertaken full-time work with a pathway into graduate employment.

Key Finding:
Overall, students who did PACE were more likely to be in overall employment than students who did not do PACE; this finding was statistically significant in 2017 and for the aggregate 2016-2018 period.
### Table 31. GOS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in any job as a proportion of those available for overall employment

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>Overall Employed %</th>
<th>No. of graduates working in any job</th>
<th>No. of graduates available for Overall Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>86.9%</td>
<td>629</td>
<td>724</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>84.2%</td>
<td>288</td>
<td>342</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>86.0%</td>
<td>917</td>
<td>1,066</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>88.4%*</td>
<td>876</td>
<td>991</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>84.0%</td>
<td>299</td>
<td>356</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>87.2%</td>
<td>1,175</td>
<td>1,347</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>88.0%</td>
<td>1,126</td>
<td>1,280</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>88.1%</td>
<td>237</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>88.0%</td>
<td>1,363</td>
<td>1,549</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>87.8%*</td>
<td>2,631</td>
<td>2,995</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>85.2%</td>
<td>824</td>
<td>967</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>87.2%</td>
<td>3,455</td>
<td>3,962</td>
</tr>
</tbody>
</table>

*p<0.05. ** p<0.01. ***p<0.001

Overall employment trends for the PACE and non-PACE cohorts from 2016-2018 were compared across the Broad Areas of Education (GOS filter BroadFOE). Figure 42 presents the percentage of graduates in overall employment for the aggregate period. Graduates who did a PACE unit in the Society and Culture (88% PACE, 83% non-PACE), Creative Arts (86% PACE, 85% non-PACE) and Information Technology (88% PACE, 80% non-PACE) fields were more likely to be any type of employment compared to graduates who did not do a PACE unit. However, graduates in Natural and Physical Science (85% PACE, 86% non-PACE) and Health (80% PACE, 88% non-PACE) were more likely to be in overall employment. In Management and Commerce, the same proportion of graduates (89%) were in overall employment. The differences between the PACE and non-PACE graduates in the Society and Culture field were statistically significant. The variation between PACE and non-PACE graduates for Health and Natural and Physical Sciences was not statistically significant.

---

19 Engineering and Related Technologies, Architecture and Building, and Agriculture, Environmental and Related Studies were not included in the figure as all graduates had completed a PACE unit (i.e. the PACE/non-PACE comparison was not possible).

20 Statistical testing was not undertaken for Creative Arts, Management and Commerce, Health or Information Technology due to small samples.
Figure 42. GOS aggregate 2016-2018 sample - % of domestic undergraduates in overall employment 4 months after course completion by Broad Field of Education

Figure 43 displays the data comparing the PACE and non-PACE comparison for each Faculty (GOS filter Owning Faculty-Fee Setting) for the aggregate 2016-2018 period. Graduates who did a Faculty of Arts, Faculty of Science and Engineering or a Faculty of Business and Economics PACE unit were more likely to be in full-time employment compared to graduates who did not. However non-PACE graduates in the Faculty of Human Science were more likely to be in overall employment. The difference between PACE and non-PACE graduates were not statistically significant for any faculty.

Excludes Faculty of Medical Health and Sciences as all graduates completed a PACE unit.
6.2.2 MQGDS: GRADUATE EMPLOYMENT OUTCOMES (12 MONTHS)

MQGDS: FULL-TIME GRADUATE EMPLOYMENT

Statistical analysis was undertaken to determine if there were any differences in graduate employment trends for students who completed PACE as part of their degree compared with students who did not complete PACE 12 months after course completion.

Figure 44 presents the year by year data from 2016-2018 of graduates who were employed full-time, as a proportion of those available for full-time work, 12 months after course completion. It compares full-time employment trends for the overall Macquarie University sample, undergraduates who did PACE, and undergraduates who did not do PACE. The results are consistent with the GOS data (previous section) and suggest that graduates who did PACE as part of their undergraduate degree were more likely to be full-time employment one year after course completion, compared to graduates who did not do PACE, across all years. These results were statistically significant in 2016, 2018 and aggregated 2016-2018 (Table 32, see Appendix K4 for further details), however not in 2017.

PACE students were also more likely to be in full-time employment compared to the eligible MQ undergraduate cohort across all years. The decreasing difference between the PACE and MQ sample can be explained by the staged implementation of the PACE program. For example, in 2018 the majority (88%) of the graduates who were available for full-time work had completed a PACE unit (see Table 32 for sample sizes).

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**Key Finding:**
Graduates who did PACE are more likely to be in full time employment 12 months after course completion than graduates who did not do PACE.
Figure 44. MQGDS 2016-2018: % of domestic undergraduates in FT employment 12 months after course completion

Table 32. MQGDS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment as a proportion of those available for full-time work

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>84.8%**</td>
<td>334</td>
<td>394</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>74.6%</td>
<td>132</td>
<td>177</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>81.6%</td>
<td>466</td>
<td>571</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>87.6%</td>
<td>496</td>
<td>566</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>85.4%</td>
<td>111</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>87.2%</td>
<td>607</td>
<td>696</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>84.0%***</td>
<td>542</td>
<td>645</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>69.4%</td>
<td>59</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>82.3%</td>
<td>601</td>
<td>730</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>85.5%***</td>
<td>1,372</td>
<td>1,605</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>77.0%</td>
<td>302</td>
<td>392</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>83.8%</td>
<td>1,674</td>
<td>1,997</td>
</tr>
</tbody>
</table>

*p<0.05. ** p<0.01. ***p<0.001
Full-time employment trends for the PACE and non-PACE cohorts from 2016-2018 were compared across the Broad Areas of Education (MQGDS filter BroadFOE)\textsuperscript{22}. Overall, graduates who did a PACE unit in the Society and Culture (83% PACE, 75% non-PACE), Management and Commerce (91% PACE, 78% non-PACE), Health (83% PACE, 74% non-PACE) and Natural and Physical Sciences (83% PACE, 79% non-PACE) fields were more likely to be full-time employment compared to graduates who did not do a PACE unit (Figure 45). However, non-PACE graduates in Information Technology (87% PACE, 88% non-PACE) were more likely to be in full-time employment. For the aggregate period 2016-2018 the variation between PACE and non-PACE graduates was statistically significant for Society and Culture, however, were not significant for Natural and Physical Sciences\textsuperscript{23}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure45.png}
\caption{MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 12 months after course completion by Broad Field of Education}
\end{figure}

\textsuperscript{22} Engineering and Related Technologies, Architecture and Building, and Agriculture, Environmental and Related Studies and Creative Arts were not included in the figure as all graduates had completed a PACE unit (i.e. the PACE/non-PACE comparison was not possible) or the samples were too small (n<10).

\textsuperscript{23} Statistical testing was not undertaken for Management and Commerce, Information Technology or Health due to small samples.
As was the case with the 2016-2018 GOS, Society and Culture graduates were a large proportion of the overall eligible MQGDS sample (50%, 1384/2752). As such, we wanted to test if removing this cohort of graduates from the sample would impact the full-time employment findings. The results show that excluding Society and Culture had limited impact on the findings (Table 33). Graduates who completed a PACE unit were still more likely to be in full-time employment twelve months after course completion compared to non-PACE and the overall MQ sample across all years and the aggregate 2016-2018 period. The findings remained statistically significant in 2016\textsuperscript{24} and the 2016-2018 aggregate period (Appendix K4).

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 PACE</td>
<td>86.0%**</td>
<td>228</td>
<td>265</td>
<td></td>
</tr>
<tr>
<td>2016 Non-PACE</td>
<td>75.6%</td>
<td>93</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>2016 MQ Overall</td>
<td>82.7%</td>
<td>321</td>
<td>388</td>
<td></td>
</tr>
<tr>
<td>2017 PACE</td>
<td>91.3%</td>
<td>221</td>
<td>242</td>
<td></td>
</tr>
<tr>
<td>2017 Non-PACE</td>
<td>89.1%</td>
<td>49</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>2017 MQ Overall</td>
<td>90.9%</td>
<td>270</td>
<td>297</td>
<td></td>
</tr>
<tr>
<td>2018 PACE</td>
<td>86.7%</td>
<td>235</td>
<td>271</td>
<td></td>
</tr>
<tr>
<td>2018 Non-PACE</td>
<td>73.8%</td>
<td>31</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>2018 MQ Overall</td>
<td>84.9%</td>
<td>266</td>
<td>313</td>
<td></td>
</tr>
<tr>
<td>2016-2018 PACE</td>
<td>87.9%***</td>
<td>684</td>
<td>778</td>
<td></td>
</tr>
<tr>
<td>2016-2018 Non-PACE</td>
<td>78.6%</td>
<td>173</td>
<td>220</td>
<td></td>
</tr>
<tr>
<td>2016-2018 MQ Overall</td>
<td>85.9%</td>
<td>857</td>
<td>998</td>
<td></td>
</tr>
</tbody>
</table>

\*p<0.05. \**p<0.01. \***p<0.001

The PACE and non-PACE comparison for each Faculty (MQGDS filter Owning Faculty-Fee Setting) was also undertaken. As shown in Figure 46, for the aggregate 2016-2018 period, graduates who completed a PACE unit across all Faculties were more likely to be in full-time employment compared to graduates who did not do PACE (Appendix K4). The results were statistically significant for Faculty of Business and Economics graduates\textsuperscript{25}, however were not significant for Faculty of Arts.

\textsuperscript{24} Statistical testing was not undertaken for 2017 or 2018 due to the small non-PACE sample.

\textsuperscript{25} Statistical testing was not undertaken for Faculty of Human Science or Faculty of Science and Engineering due to small samples.
Figure 46. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in full-time employment 12 months after course completion by MQ Faculty
MQGDS: FIRST FULL-TIME JOB

The analysis examined if there were any differences in the proportion of graduates who were in their first full-time job, as a proportion of all graduates who were in full-time employment. Table 34 presents the results for the PACE/Non-PACE cohorts and shows that a higher proportion of PACE graduates were in their first full-time job, compared to non-PACE graduates in 2017, 2018 and the aggregated 2016-2018 period. However, a higher proportion of non-PACE graduates were in their first full-time job in 2016.

These results were statistically significant in 2017\(^{26}\) (Appendix K5). The differences between PACE and non-PACE graduates were not significant in 2016 or the aggregate 2016-2018 period. The number of graduates in their first full-time job was too small to breakdown the results by Broad FOE or Faculty.

### Table 34. MQGDS 2016-2018: PACE/Non-PACE first full-time job domestic undergraduate comparison

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>First FT Job %</th>
<th>No of graduates in first FT job</th>
<th>No of graduates in FT employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>49.4%</td>
<td>165</td>
<td>334</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>50.8%</td>
<td>67</td>
<td>132</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>51.6(^{**})%</td>
<td>256</td>
<td>496</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>36.9%</td>
<td>41</td>
<td>111</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>52.0%</td>
<td>282</td>
<td>542</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>49.2%</td>
<td>29</td>
<td>59</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>51.2%</td>
<td>703</td>
<td>1,372</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>45.4%</td>
<td>137</td>
<td>302</td>
</tr>
</tbody>
</table>

*p<0.05. **p<0.01. ***p<0.001

MQGDS: OVERALL GRADUATE EMPLOYMENT (INCLUDING IN FULL-TIME, PART-TIME OR CASUAL EMPLOYMENT)

Figure 47 presents the percentage of graduates in overall employment on a yearly basis from 2016-2018, as a proportion of those available for employment, twelve months after course completion. It compares employment trends for the overall Macquarie University sample, undergraduates who did PACE, and undergraduates who did not do PACE. The results suggest that, across all years, graduates who did PACE as part of their undergraduate degree were more likely to be in overall employment than graduates who did not do PACE, one year after course completion. The variation between the PACE and non-PACE graduates was statistically significant in 2017 and aggregate from 2016-2018 (see Table 35 for sample sizes and Appendix K6 for further details), however was not significant in 2016 or 2018.

**Key Finding:**

Across all years, graduates who did PACE were more likely to be in overall employment 12 months after course completion than graduates who did not do PACE.

\(^{26}\) Statistical testing was not undertaken for 2018 due to the small non-PACE sample.
Figure 47. MQGDS 2016-2018: % of domestic undergraduates in overall employment 12 months after course completion

Table 35. MQGDS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates of in any job as a proportion of those available for overall employment

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>PACE/Non-PACE</th>
<th>Overall Employed %</th>
<th>No. of graduates working in any job</th>
<th>No. of graduates available for Overall Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>92.3%</td>
<td>420</td>
<td>455</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>88.5%</td>
<td>215</td>
<td>243</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>91.0%</td>
<td>635</td>
<td>698</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>95.2%***</td>
<td>592</td>
<td>622</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>91.0%</td>
<td>151</td>
<td>166</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>94.3%</td>
<td>743</td>
<td>788</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>94.6%</td>
<td>664</td>
<td>702</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>92.8%</td>
<td>103</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>94.3%</td>
<td>767</td>
<td>813</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>94.2%**</td>
<td>1,676</td>
<td>1,779</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>90.2%</td>
<td>469</td>
<td>520</td>
</tr>
<tr>
<td></td>
<td>MQ Overall</td>
<td>93.3%</td>
<td>2145</td>
<td>2299</td>
</tr>
</tbody>
</table>

*p<0.05. ** p<0.01. ***p<0.001
Overall employment trends for the PACE and non-PACE cohorts from 2016-2018 were compared across the Broad Areas of Education (MQGDS filter BroadFOE)\textsuperscript{27}. Overall graduates who did a PACE unit in the Management and Commerce (94% PACE, 87% non-PACE), Society and Culture (94% PACE, 90% non-PACE) and Natural and Physical Sciences (93% PACE, 91% non-PACE) fields were more likely to be any type of employment compared to graduates who did not do a PACE unit (Figure 48). However, non-PACE graduates in Information Technology (92% PACE, 94% non-PACE) and Health (93% PACE, 96% non-PACE) were more likely to be in overall employment. The difference between PACE and non-PACE graduates were statistically significant for Society and Culture graduates, however they were not significant for Health and Natural and Physical Sciences significant (Please see Appendix K6 for further details)\textsuperscript{28}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure48.png}
\caption{MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in overall employment 12 months after course completion by Broad Field of Education}
\end{figure}

\textsuperscript{27} Creative Arts, Agriculture, Environmental and Related Studies, Engineering and Related Technologies or Architecture and Building were not included in the figure as all graduates had completed a PACE unit (i.e. the PACE/non-PACE comparison was not possible) or the sample was too small (n<10).

\textsuperscript{28} Statistical testing was not undertaken for Management and Commerce, Information Technology or Health due to small samples.
Figure 49 displays the aggregate 2016-2018 overall employment data for each Faculty (GOS filter Owning Faculty-Fee Setting\(^{29}\)). Graduates who did a Faculty of Arts, Faculty of Science and Engineering or a Faculty of Business and Economics PACE unit were more likely to be in full-time employment compared to students who did not. Slightly fewer PACE graduates in the Faculty of Human Sciences were in overall employment. The variation between the PACE and non-PACE cohorts was statistically significant for the Faculty of Arts and Faculty of Business and Economics\(^{30}\) (Appendix K6), however was not significant for the Faculty of Science and Engineering.

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\(^{29}\) Excludes Faculty of Medical Health and Sciences as all graduates completed a PACE unit.

\(^{30}\) Note that statistical testing was not undertaken for Faculty of Human Sciences due to the small non-PACE sample.
EMPLOYMENT RELATED TO DEGREE: MQGDS

The MQGDS contains an item asking graduates to what extent their employment was related to their qualification. Figure 50 shows the percentage of graduates who responded Fairly/Very Much to the item from 2016-2018. The findings suggest that a substantially higher proportion of graduates who did PACE were more likely to report that their employment was related to their qualification than graduates who did not do PACE. These results were statistically significant for 2016, 2017 and for the 2016-2018 aggregated sample (Appendix K7). The difference was not significant in 2018.

When the Culture and Society broad Field of Education cohort (n=617/1261) was removed from the 2016-2018 aggregate analysis, the results were unchanged - with 68 per cent of PACE graduates (n=319/469) and 47 per cent of non-PACE graduates (n=83/175) reporting that their employment was related to their qualification fairly or very much (Appendix K, Table K2). This difference remained statistically significant suggesting that PACE was having a substantial impact across the whole sample.

The data for the PACE and non-PACE cohorts from 2016-2018 was also compared across the Broad Areas of Education (MQGDS filter BroadFOE). Figure 51 presents the findings for the fields where a PACE/non-PACE comparison was available, or the sample size was n>10. Overall a higher proportion of PACE graduates across all the broad field of education categories rated that their employment was related to their qualification fairly/very much, compared to non-PACE. The difference between PACE and non-PACE graduates were statistically significant for Society and Culture.

Key Finding:
Graduates who did PACE were more likely to report that their employment was related to their qualification than graduates who did not do PACE.

![Figure 50. MQGDS 2016-2018 Domestic undergraduate responses (% Fairly/Very Much)- To what extent was your employment related to your qualification?](image)

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31 Statistical testing was not undertaken for 2018 due to the small non-PACE sample size).
32 Statistical testing was not undertaken for Management and Commerce, Health or Natural and Physical Sciences due to small samples.
A comparison for the 2016-2018 aggregate PACE/non-PACE Faculty cohorts was also undertaken (Figure 52). Looking at the aggregate data from 2016-2018 a higher proportion of PACE graduates across all faculties reported that their employment was related to their degree compared to non-PACE graduates. The differences were statistically significant for Faculty of Arts.\(^{33}\) PACE unit (Appendix K7).

\(^{33}\) Statistical testing was not undertaken for Faculty of Business and Economics, Faculty of Human Sciences or Faculty of Science and Engineering.
Finally, the MQGDS contains an item asking graduates to what extent their qualification prepared them for their job. Again, statistical analysis was undertaken for the eligible sample who responded to this item (n=2209) to determine if there were any variation in the responses comparing the PACE and non-PACE cohorts on a year by year basis and aggregate 2016-2018. Figure 53 presents the percentage of graduates who responded Very Well/Well to the item from 2016-2018. Again, findings suggest that a substantially higher proportion of graduates who did PACE reported that their qualification had prepared them for their job. These results were statistically significant across all years and for the 2016-2018 aggregated sample (Appendix K8).

The data for the PACE and non-PACE cohorts from 2016-2018 was also compared across the Broad Areas of Education (MQGDS filter BroadFOE). Figure 54 presents the findings for the fields where a PACE/non-PACE comparison was available, or the sample size was n>10. Overall a higher proportion of PACE graduates across all the broad fields of education categories rated that their qualification had helped to prepare them for their job well/very well. Statistical testing was undertaken for Society and Culture and Natural and Physical Sciences The variation between PACE and non-PACE for Society and Culture was statistically significant (Appendix K8), however it was not significant for Natural and Physical Sciences

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Key Finding:
Graduates who did PACE were more likely to report that their qualification prepared them for their job than graduates who did not do PACE.

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34 Statistical testing was not undertaken for Information and Technology, Management and Commerce or Health due to small samples.
Figure 53. MQGDS 2016-2018 Domestic undergraduate responses (% Well/Very Well) - Overall how well did your qualification prepare you for your job?

<table>
<thead>
<tr>
<th>Year</th>
<th>PACE (n=432)</th>
<th>Non-PACE (n=273)</th>
<th>PACE (n=559)</th>
<th>Non-PACE (n=190)</th>
<th>PACE (n=639)</th>
<th>Non-PACE (n=116)</th>
<th>PACE (n=1630)</th>
<th>Non-PACE (n=579)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>68%</td>
<td>53%</td>
<td>70%</td>
<td>46%</td>
<td>67%</td>
<td>45%</td>
<td>68%</td>
<td>49%</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 54. MQGDS 2016-2018 Domestic undergraduate responses (% Well/Very Well) by Broad Field of Education - Overall how well did your qualification prepare you for your job?

<table>
<thead>
<tr>
<th>Broad Field of Education</th>
<th>PACE (n)</th>
<th>Non-PACE (n)</th>
<th>% of domestic undergraduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and Technology</td>
<td>84</td>
<td>16</td>
<td>78%</td>
</tr>
<tr>
<td>Health</td>
<td>45</td>
<td>70</td>
<td>52%</td>
</tr>
<tr>
<td>Natural And Physical Sciences</td>
<td>227</td>
<td>150</td>
<td>65%</td>
</tr>
<tr>
<td>Society and Culture</td>
<td>858</td>
<td>260</td>
<td>66%</td>
</tr>
<tr>
<td>Management And Commerce</td>
<td>315</td>
<td>76</td>
<td>77%</td>
</tr>
<tr>
<td>Non-PACE (n)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-PACE (n)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When the Society and Culture broad field of education cohort (n=1118/2209) is removed from the 2016-2018 aggregate analysis the results were unchanged, with 70 per cent of PACE graduates (n=540/772) and 51 per cent of non-PACE graduates (n=162/319) reporting that their qualification had prepared them for their job (Appendix K, Table K3). This variation between the PACE and non-PACE cohorts remained statistically significant suggesting that PACE was having a substantial impact across the whole sample.

Lastly, Faculty comparison for the 2016-2018 aggregate PACE/non-PACE cohorts was undertaken (Figure 55). Looking at the aggregate data from 2016-2018 a higher proportion of PACE graduates across all faculties reported that their qualification had helped them to prepare for their job compared to non-PACE graduates. The differences were statistically significant for Faculty of Arts and the Faculty of Science and Engineering, although not for the Faculty of Business and Economics.\textsuperscript{35}

<table>
<thead>
<tr>
<th>Faculty</th>
<th>PACE (n)</th>
<th>Non-PACE (n)</th>
<th>% of domestic undergraduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>FoA</td>
<td>386</td>
<td>214</td>
<td>64%</td>
</tr>
<tr>
<td>Non-PACE</td>
<td>41%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FoCS</td>
<td>703</td>
<td>145</td>
<td>72%</td>
</tr>
<tr>
<td>Non-PACE</td>
<td>69%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FoHs</td>
<td>284</td>
<td>82</td>
<td>67%</td>
</tr>
<tr>
<td>Non-PACE</td>
<td>37%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSE</td>
<td>257</td>
<td>138</td>
<td>65%</td>
</tr>
<tr>
<td>Non-PACE</td>
<td>51%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 55. MQGDS 2016-2018 Domestic undergraduate responses (% Well/Very Well) by Faculty – Overall how well did your qualification prepare you for your job?

### 6.2.3 GRADUATE EMPLOYMENT WITH PACE PARTNERS

Anecdotally, University stakeholders reported that in some cases PACE activities were directly leading to employment opportunities for students with their PACE partner. Therefore, we wanted to collect longitudinal data to explore whether PACE was contributing to ongoing engagements with PACE partners, including through employment, volunteering, professional references and networks. This section presents data from the PACE Partner Survey (2018-19), PACE Student Survey (2017-18), GOS 2018 and MQGDS 2016-2018.

As discussed earlier there are a range of factors outside the scope of the PACE program that impact graduate employment outcomes. In light of this, firstly we wanted to get a greater understanding of whether PACE partners have the capacity or resources to employ graduate students. Results from the partner survey suggest that just over one third of partners (39%, n=126/322) had the resources or capacity to employ graduate students, with 31 partners (10%) reporting that the student was already employed with the organisation. Of those partners who said they had the resources or capacity to employ the student, 25 per cent reported that they were going to offer the student employment. Similarly, 65 per cent (n=210/322) of partners reported they had the resources or capacity to provide volunteer opportunities for graduate students, with 15 partners (5%) reporting that the student was already volunteering with the organisation.

\textsuperscript{35} Statistical testing was not undertaken for the Faculty of Human Sciences due to the small sample.
Regardless of whether they had the resources or capacity to provide employment or volunteer opportunities for graduate students, a substantial majority of partners (75%) reported that they were going to provide a reference to the student/s, 66 per cent planned to stay in contact with the student/s and 44 per cent indicated that they would connect the student with other professionals, workplaces or opportunities (Figure 56).

Therefore, whilst not all organisations had the capacity to directly employ students, many partners were committed to providing ongoing professional support, mentoring and networking opportunities to students, as evidenced by partners comments below.

“**We have set up meetings for the student with industry professionals and made suggestions for potential employment.**” (PACE partner)

“One student has been employed by us for a small block of hours to continue her work. I have also already provided a reference for another and stayed in contact with all about future volunteer opportunities at the [organisation].” (PACE partner)

“**Students have remained in contact since their participation. I have agreed to be a referee for several students and have pointed out further employment opportunities to consider. I am willing to supervise post graduate studies in a relevant domain.**” (PACE partner)

“We have no capacity to offer employment at this time but there are often employment opportunities within other parts of the business. We have stayed in touch with one of the students for networking and info sharing purposes. Happy to provide a reference for the students involved.” (PACE partner)

The PACE Student Survey asks students at the end of PACE if they were going to remain connected with their PACE partner. As shown in Figure 57, more than 1 in 10 students had been offered employment and a further 13 per cent had been recommended for a paid position at the PACE organisation. In addition, 24 per cent were going to continue to volunteer with the partner and 40 percent had been provided with a reference.
Four months after course completion (2018 GOS data), 100 graduates (7%) who completed a PACE unit reported that they were employed with their PACE partner. Employment with the PACE partner was spread relatively evenly across the Faculty of Human Sciences (n=43), Faculty of Arts (n=31) and Faculty of Business and Economics (n=22). A further 7 per cent of graduates were employed at a similar organisation to the PACE partner. A smaller proportion of graduates (3%) continued to volunteer with the PACE partner four months after course completion.

Twelve months after course completion (MQGDS 2016-2018 data), 10 per cent of graduates who completed a PACE unit reported that they were employed by the partner organisation. Again, employment was spread evenly across the faculties (Faculty of Human Sciences n=30, Faculty of Arts n=25, Faculty of Business and Economics n=25 and Faculty of Science and Engineering n=13). In addition, 3 per cent continued to volunteer at the partner organisation.

In the survey students provided examples of being employed or interviewed by the PACE partner. They reported the value of using the PACE experience as an advantage to secure further opportunities either through job interviews, their resume or through professional networks/industry connections developed through the PACE activity and partner organisation.

“I have been offered to interview with my sponsor which is very exciting and has impacted my future work plans because it would be a better choice for me than my current opportunities.” (PACE student)

“I got a job the day of the presentation. I had an interview on the day and got a call after a few hours. I told them about the project and they were delighted [with] my understanding of the difference between University and Workplace environment and learnings. Knowing about the dynamic of both and showing my soft skills gave me a competitive advantage.” (PACE student)

“I have been invited back to continue my work with my supervisors and in return they have offered to make me a co-author of their study if it gets published which is hugely exciting and fantastic for my resume. I am beyond grateful for this opportunity.” (PACE student)

“I have secured a number of interviews in the weeks following the semester based on my research area within a Big 4 company: it has been very formative in this regard and has potentially shaped my career.” (PACE student)
The following Most Significant Change story from a PACE Staff member demonstrates the impact that PACE can have in providing a pathway for students into graduate employment.

“Fast tracking a student into the Deloitte Graduate Program”
PACE Staff Most Significant Change Story

This student was studying a Bachelor of Commerce with a major in Entrepreneurship. He was initially known to the PACE team through a PACE unit that runs University-based activities. In this Unit, he undertook the ‘Big Idea Competition’ and won. After the initial PACE unit, he found out more about the program and was interested in undertaking a PACE internship. He was successful in attaining a marketing internship at Konica Minolta. The PACE team worked with him to coordinate this internship and ensured to check in and attain feedback both from himself and the partner supervisor. He was then offered a casual continuing role. At this point, the student was very well known to the PACE team and therefore, was also involved in sharing his success story at a ‘Preparing for PACE Workshop’, coordinated by the PACE Team.

He reached out directly to a Faculty PACE Officer to discuss potential opportunities as he was interested in undertaking another PACE unit. The PACE team worked with him to discuss opportunities and shortlisted him for Deloitte, where he was successful in attaining a marketing internship.

Some of the PACE team coordinated a meeting at the Deloitte office with the supervisors. The purpose of this meeting was to introduce ourselves and attain some feedback. We were advised that all the students were outstanding and that the partner really values the ongoing relationship with the PACE Team and Macquarie University. Whilst completing his internship at Deloitte, the student was selected to be interviewed for a graduate position, and he was successful! The PACE team have congratulated him on his hard work and he has been very grateful and a delight to work with.

Why is this significant to you?

I watched the student’s journey unfold over my role as a Faculty PACE Administrator and Faculty PACE Officer. Additionally, being a student myself and new to the team, it was very eye-opening to see the impact that the program can have on both students and partners.

6.3 Partner and community outcomes

Rubric Rating: Strong

Partners were asked in the survey what benefits had occurred as a result of participating in PACE. As shown in Figure 58, the main benefits reported by partners (% moderate/great extent) were:

- Making a positive community impact (85%)
- Support for organisation and key projects (84%)
- Giving back to the industry and profession (81%)
- Engaging with the university sector (80%)

These benefits align with partners’ motivations for becoming involved with the PACE program.

A small number of partners (7%, n=23/294) reported other benefits, which included access to HDR students, expanding research activities, being able to demonstrate the potential of PACE to their organisation, and raising students’ awareness of social issues.

However, the less highly rated items were:

- Professional development of the supervisor (55%)
- Access to current disciplinary/professional knowledge (57%)
- Access to potential future employees (64%)

Key Finding:
The benefits of participating in PACE identified by partners aligned closely with their motivations for being involved in the PACE program.
Partners were also asked what the most significant change had been for their organisation as a result of the PACE program. Overall, 256 partners provided comments, with the main themes being:

- Support for organisation projects and/or research projects
- Providing students with professional development opportunities, ‘helping them to be job ready’
- Access to potential employees, ‘talent nurturing and development’
- Access to new ideas and energy
- Having students ‘give back’ to the community (i.e. develop community resources, provide direct support to community members and support community events).

Figure 58. Partner Survey - Benefits of the PACE program
The following partner comments highlight some of the significant changes that have occurred for partner organisations, students, and the community more broadly, as a result of the PACE program.

“For us it was just the breath of fresh air that the students brought. Their intelligent input and advice was very beneficial to the ongoing improvement of the program.” (PACE partner)

“A better understanding of a task that was once seen as straightforward. The PACE students broke down the task and showed us impressive results with minimal guidance. We can now use this work to drive future outcomes for our company.” (PACE partner)

“The student had previously had no exposure at all to an office or professional environment. The student was able to get this exposure and observe how an office and HR team operates, and tasks which you would encounter on a daily basis in HR, as well as listening in on conversations.” (PACE partner)

“PACE interns made a real measurable impact on the lives of our clients.” (PACE partner)

Partners were also asked to describe what the students contributed during the PACE activity. A range of outputs were provided such as literature reviews, administration tasks, document analysis, assisting with community programs, data checking and analysis, developing social media strategies, editing blogs, developing websites, and providing general operational support.

Students were also asked what they felt was the main contribution they were able to make during their PACE activity. Most students reported that they contributed things such as fresh ideas, creativity and energy, the latest academic knowledge and skills, and business solutions. They reported that this, in turn, had increased the capacity of the organisation.

“We offered the business a professional workable prototype solution. Building an IOS app without Macs or any experience at all is difficult but our team pulled through and gave a product that could improve the business or lead to the next step for them.” (PACE student)

“I think it was my ability to creatively execute the ideas they could not execute themselves. For example, I have a Wacom tablet (drawing tablet) with me that allows me to digitally illustrate graphics and images for their social media page, something which their team lack the skills to do so.” (PACE student)

“Provide environmental assessment information for the organisation (Balls Head reserve) so that they can make a more informed decision as to either alter or keep the current care methods for the vegetation, vertebrates and invertebrates.” (PACE student)

Some students also felt that their main contribution was to a social or environmental cause, either through working on activities in the social sector, undertaking advocacy work or working with local communities or community members.

“One of the best things about this PACE activity is that I felt like the work I did actually made a difference and was beneficial for the organisation and for the youth they engage with. I think my work was mutually beneficial for both the organisation and myself as they do not have any in-house legal and law is not an area they focus on in their work but it is obviously an area that is important and needs attention. This was beneficial for me as I felt like I was using and applying the skills I have gained during my law degree in a space which it was needed.” (PACE student)

“Data collection, statistical analysis and evaluative reports allowed positive, sustainable changes for health education, both during and following project completion.” (PACE student)

“We are able to contribute to the community engagement and preservation of the site, be part of the passing on of indigenous culture and knowledge and through our projects comment on and further educate people on the value of indigenous knowledge and culture in the region and more broadly.” (PACE student)
The following Most Significant Change story from a PACE Staff member demonstrates the impact PACE students can have working within community organisations.

“**What is your name?**”

**PACE Staff Most Significant Change Story**

I am actually going to repeat a story that I heard from one of our PSY399 [Psychological Science: Putting Theory into Practice] alumni students that I believe is a nice example of the impact PACE has within the community and for our students.

We have a long-standing partner in PSY399 and each year they offer a placement to our students called ‘Steps to Success – Mentoring Young People’. The placement involves PSY399 students going to a government high school to work directly with a small group of disadvantaged students that have been identified by the school as being in need of mentoring and positive support.

One of the MQ students that was placed with the organisation had noticed that, week on week, there was a young man that was not really engaging with the program. He wasn’t interested in talking, paid little attention when others were speaking and didn’t take part in the different activities. He had a nickname that was a shortened version of his full name that everyone called him including the staff at the school and the PSY399 students.

[This particular] PSY399 student had tried a number of different ways to engage with the school student and at the beginning of one session he sat down and asked the school student how to pronounce his full name. The school student asked why he wanted to know, and the PSY399 student said he just really wanted to know how to say his full name. He knew his nickname but he wanted to know his full name. The school student said that no one at school had ever asked him how to pronounce his full name.

The PSY399 student learnt the school student’s full name and asked if he would like him to use that name from now on, and the school student said yes. From that week onwards, the school student started to get involved in the program. A little more each week. A respectful rapport built between the two of them, and the PSY399 student was shocked that something so small, such as asking and calling the student by his full name, made such an impact on the school student.

For the first time in a long time, the school student felt like someone cared about him and was willing to put in the time get to know him. The PSY399 student was told that the school student’s behaviour had improved in class and he continued to participate in the mentoring program.

**Why is this significant to you?**

I was moved to tears the first time I listened to the PSY399 student tell this story and that is why I have chosen to share it. It doesn’t have the impact other stories may have of students being offered jobs or an organisation changing the way they work, but it is a very personal and touching example of how a small gesture can make a big impact in a young person’s life as a direct result of PACE.
The following Most Significant Change story from a PACE International partner also illustrates the positive impact PACE students can have, not only in terms of partner organisations, but also by using their knowledge and skills to influence communities more broadly.

“Building experiential learning with PACE: By changing the way we teach and learn”
PACE Partner Most Significant Change Story: Taman Pintar, Indonesia

The project was how to make robotics simple. There are more than 2500 Indonesian students from all schools with different styles of communication, learning and methods of teaching. In the school, we want to propose that it’s not just one-way communication from 7-4pm, more than just listening.

By having PACE students there has been [a] change to our teaching. Moving away from ‘one-way communication’ to involvement, practical discussion, games, practice and interaction with students. Not just theory of learning but the training of how to make robots. Moving away from conceptual learning to hands-on experiential learning. There was a change in student interest in robotics, which has promoted expansion for further districts. The plan is to expand to 7 districts and 7 schools. PACE helped to facilitate that.

Female students from MQ PACE also encourage Indonesian female students to be interested in STEM. There has been a big change in perceptions of engineering and robotics. The spirit of motivation in students has increased. There has also been a new relationship with PACE focusing on transfer of knowledge.

Why was this significant to you?

Science teaches learning in a new way, moving from one way to two-way learning. The students in the schools will make the change in the community, change the habit.

6.4 University outcomes

There is strong evidence that PACE is having a substantial impact on student and graduate outcomes and is contributing to industry and community initiatives, which in turn is a significant outcome for the University. There was also consensus among University staff that PACE had contributed to increasing the University’s profile and reputation by being a flagship work integrated learning program which was unprecedented in the higher education sector. For example, in 2017 PACE was recognised with the Australian Award for University Teaching for Programs that Enhance Student Learning in the category of Educational Partnerships and the Australian Financial Review Higher Education Award for Employability.

Key Finding:
PACE is a flagship work integrated learning program that delivers outcomes for the University through its impact on students, graduates, and industry and community initiatives.

The fact that the University had invested in an institution-wide program was viewed as a commitment to student learning and experience. Staff reported that this was a differentiator in terms of student marketing and recruitment, as well as the University’s reputation in the wider community. The following comments highlight stakeholders’ views of the benefits of PACE on the University’s reputation and profile.
“So, there’s a huge benefit to the university in terms of the formality or the framework that is in place to support this. There’s also a huge [benefit] to the university in the fact that we’re recognised internationally as a leader in work integrated learning and elements within that, so: ethical practice for work-integrated learning, reflection from learning, research and evaluation. Let’s not overlook that. We are seen as leading the way.” (University staff)

“...I feel PACE has changed the reputation of Macquarie University. Many times I’m out doing my own life outside work, and I just talk about Macquarie University, and people know about PACE, which is quite striking, it’s like really, “you’ve heard about PACE already”? They associate PACE with something really positive, so there’s already an association, outside even our ongoing partners that PACE is something that works, and that it’s really good for students, and people - it’s becoming like a well-known program.” (University staff)

“We’re sending our students out to actually be out in the real world is sort of like, Macquarie has actually got their head screwed on. That’s actually - for the ordinary person, it’s a really good thing what we’re doing. We see the benefits for the students, but the wider community sees what we’re doing and think, yeah, sensible.” (University staff)

Some stakeholders also reported that the collaborative nature of the PACE program, specifically connections to industry and community, increased staff/academic engagement and provided professional development opportunities. Examples were provided of academics developing learning and teaching resources and supporting each other in the delivery of PACE units.

“The way in which we mentor colleagues, we create resources, we’ve developed a lot of learning and teaching resources over the years to support PACE units, ethical practice, reflection, communicating science and so on and so forth. Then working directly with convenors. Even around their workload of PACE units.” (University staff)

“...so the people who actively decide to be PACE academics are people who want to engage. People who want to engage and they want to see their disciplines in action, not just in the books, but they want to see their disciplines doing something for the world.” (University staff)

Stakeholders also reported that PACE was contributing to the ongoing engagement of students and graduates in University. It was reported that some graduates who completed a PACE unit were then becoming PACE partners. In some Units, it was snowball effect, where students had been offered a job with the PACE partner and subsequently go on to supervise PACE students themselves, as evidenced by the quote below.

“Being a PACE partner has also greatly opened my eyes to the amount of effort, thought and preparation that goes into each and every PACE unit. I have taken the aspects that I loved about my placement and used these as the foundations for how we structure current placements with our organisation. I believe that the most important opportunities I can provide for PACE students is to increase their employability, such as interview skills and professional conduct.” (PACE partner who was a previous PACE student)

As discussed earlier in the report PACE also provides students with opportunities to undertake activities with on-campus partners, connecting students with academic and professional staff in mutually beneficial relationships. It was also reported that PACE was a mechanism that could increase student engagement in their studies and the university more broadly - particularly for students who may not be having a positive university experience and/or achieving academically.

“Students who probably haven’t had a particularly positive experience with university and they’re hoping to just get through, but because of the way that they’re supported in an appropriate placement, they really find that they can do something. They get a very positive experience that would otherwise be missing in their university experience.” (University staff)
"But this internship with the scholarship kind of motivated me to study better, and I passed everything. I got my results back, I passed everything, [four Units]... But this [time], no withdraw, passed four Units, did very well in an internship. Yeah, so yes, this internship scholarship did help me to motivate to study... I did very well, got good feedback from our final presentation on the project. So I'm proud of myself. I mean, it's something I accomplished and that would boost my confidence going forward... But if you're confident in what you're doing, what you achieved before, you will tend to set a higher standard going forward." (PACE student)

PACE was viewed as a crucial interface between the University, industry and community. Stakeholders reported that PACE was particularly effective in building sustainable relationships and connecting industry and community to the University, and in some cases connecting partners with other partners.

"It was a web of relationships to really demonstrate this is what makes PACE possible, and I don’t see that web existing in any other university to the degree or in the way that it does here. Of course, overseas, there will be some exceptions like Waterloo - right - North Eastern, all the sort of ones we look to as symbols of good integration, but I think in the Australian context, we're quite unique in that regard." (University staff)

The ‘Museum of Ancient Cultures’ case study is an example of an on-campus activity which provided multiple benefits for students, partners and the University.

Key Finding:
PACE is a crucial interface between the University, industry, and community.
Case Study: Museum of Ancient Cultures: ‘Students as partners’

The Museum of Ancient Cultures is an archaeological museum at Macquarie University, which promotes ancient cultures through research and publications, learning, teaching and outreach program, displays and exhibitions and involvement in the University. In 2017, partners in the museum reached out to the PACE program as they were interested in trialling the use of student internships to support the curation of an exhibition. The Faculty of Arts PACE team recognised the unique opportunity and advertised the internships to AHIS392 (Cultural Heritage) and MHIS306 (Practicing Public History: Modern History PACE) students.

- AHIS392 introduces students to the study and management of cultural heritage, both through instruction and practical experience. Students are required to undertake an internship in the cultural heritage sector in order to learn directly from professional practitioners and to practice their skills in a real-world environment.
- MHIS306 explores and assesses the ways in which history is created, practiced and consumed in public. Students design a research project and undertake a practical task in collaboration with their convenor and external partner.

Through an application process two Bachelor of Arts students, one from each unit, were selected by the museum to lead the curation of the Animals in Culture exhibition. The aim of the exhibition was to explore animals’ key roles in the domestic, decorative, and divine spheres of the ancient world. With academic oversight from the Department of Ancient History, one student researched the ancient material from the museum and the other student curated the Indigenous artefacts from the Australian History Museum, also at Macquarie University. Key tasks involved researching artefacts, writing labels for each object and designing and planning the exhibition. The activity culminated in a public opening night which a range of Macquarie University stakeholders and museum curators/directors from other Universities attended.

Through the activity students’ confidence in their skills and knowledge increased, they gained valued professional/practical experience in a discipline specific area, were able to test their career paths and build professional networks.

“It’s the practical, hands-one experience in what you’re studying. You can go through a whole degree, get out the other end, apply for a job, get the job, and you might hate it. But you have the chance while you’re at university to do PACE. There was a chance to actually see what it’s like, see what it means to work for these places, to work for different people, to just be on a workplace, and you should take that.” (PACE student)

For another student it also reinvigorated their passion for ongoing studies:

“It solidified what I want to do. It’s very much reinvigorated my love and my passion for my studies, because you get to the end of your degree and excited to finish, but I’m also like, where do I go from here? The job market is so insecure, it’s so uncertain...I am creating things that I love, and passion will pay off. Hard work and determination will pay off.” (PACE student)

The museum also benefited through the documentation of object records, which didn’t exist prior to PACE, as well as the discovery of new objects. The exhibition also increased the profile of the museum internally and also to external stakeholders, thus also increasing the profile and reputation of Macquarie University.

“Having a project like this one really helped us to give us an excuse to bring everyone in and say, this is what the museum’s doing and we want to be a bit more dynamic and we’ve got this events program. So, it was really wonderful and les to a lot more opportunities.” (PACE partner)

Critical success factors for the activity included the student application process which ensured that the students were engaged and interested in the activity; the activity design with clear objectives, roles and responsibilities; wrap-around academic support and oversight; PACE team support for the unit convenors and partners; balanced workload between Unit and activity; discipline specific Unit content; and the opportunity for students to work as a group and with autonomy.
The results of the partner survey also show that just over one third of the partner organisations (36%, n=128/352) are interested in further connection within the University. Of those:

- 66% (n=84/128) were interested in networking with the University and 48% (n=61/128) with other organisations.
- 52% per cent were interested in hosting post-graduate internships (n=66/128)

A smaller number of partners were also interested in scholarships (14%, n=18/128) and extended paid placements (4%, n=5/128).

In addition, 88 partners (n=258) reported that they were interested in evidence-based innovation in areas in which they may not have the in-house expertise or capacity. Of those partners, 47 were interested in technology, 44 were interested in a research project or report and 30 were interested in human performance.

### 6.4.1 PACE’S CONTRIBUTION TO RESEARCH

The evaluation wanted to explore the potential pathways in which PACE could continue to develop and expand its contribution to research. Four research pathways were hypothesised:

1. Students undertaking their PACE activity working on an established research project with academics
2. Students undertaking a collaborative applied research activity for a PACE partner
3. A PACE activity/partnership (research focused or non-research) that identifies a research need which leads to a research collaboration
4. A student that through their PACE activity becomes interest in post-graduate research or uses the PACE activity to connect with an HDR supervisor (i.e. MRES).

Because research timelines typically extend beyond the length of any single PACE activity or student engagement on a research project, it is challenging to fully document and elaborate the contribution of PACE to research. Similarly, it is difficult to track when a student activity leads or contributes to a future research project, as this occurs outside the reach of the PACE program. However, there is evidence that PACE students play an important role in the research pipeline and provide additional capacity that amplifies and enhances the scope of research projects.

Overall, from 2016-2018, 10 per cent of PACE activities (n=1946/18879) were coded by unit convenors as having either a research or evaluation focus; that is, a PACE student was undertaking a collaborative applied research or evaluation activity with a PACE partner. Of those 10 per cent, 32 per cent were in Faculty of Arts units, and 26 per cent were in Faculty of Human Sciences units (Figure 59).
ESTABLISHED RESEARCH PROJECTS WITH MQ ACADEMICS AND EXTERNAL PACE PARTNERS

Of the 1946 activities (2016-2018) that had a research or evaluation focus, 696 (36%) were carried out with partners located within Macquarie University, and 1250 (64%) were carried out with partners external to Macquarie University. In the evaluation interviews several examples were provided of students undertaking their PACE activity with an established research project with Macquarie University academics, as well as academics from other institutions. Students were undertaking traditional ‘research’ activities, for example supporting ethics applications, but they were also contributing other skills from a wider range of disciplines, such as marketing and communications. Stakeholders reported that for these multidisciplinary projects to be successful they need to be well organised and it was suggested that further involvement from the Research Office would be beneficial.

In the evaluation interviews and surveys, examples were provided of students undertaking aspects of applied research projects for partners, for example literature reviews, ethics applications, data analysis and writing reports. It was reported that the outputs produced by students were valued and often used by the partner organisation. Examples of outputs included website resources, program components, social media campaigns and questionnaires. Research findings were also generally fed into existing operations and processes, providing ongoing benefits to partner organisation.

In response to the partner survey (noting that the sample includes partners internal and external to Macquarie University), over half of partners (52%, n=169/326) reported that the PACE activity had a research or innovation, development or solutions focus. The most commonly expected output from these projects was research to inform internal practice (41%, n=62/152) and a peer reviewed research paper (26%, n=39/152).

It was reported that a critical success factor for a research focused PACE unit was focusing on the process – students understanding and communicating what they are doing – rather than the end result (i.e. the outputs). It was hoped that this would inadvertently lead to longer term research collaborations and outputs as a result of scaffolding research education into the curriculum prior to HDR.

A number of challenges were reported in regard to academically supporting students in undertaking research activities with external partners. These included students working on research activities with limited research skills and experience which could pose a reputational risk, students being advised by non-research supervisors, and having limited oversight and/or control over ethical procedures within external organisations. It was suggested that it would be beneficial if the University scaffolded research ethics into all undergraduate degrees from year one, with clear guidelines about conducting research, producing research outputs, responsibilities and monitoring activities.

PACE ACTIVITY WITH A PACE PARTNER THAT THEN LEADS TO A RESEARCH COLLABORATION

In the evaluation workshops and interviews many stakeholders reported that PACE had great potential to contribute to the development of research collaborations through its established connections with industry and community organisations. A key strength of PACE was respectful industry and community engagement, through partnerships development and management, as well as the PACE activities involving students. As such, the depth of the relationship with a PACE partner was reported to be key and this required continued commitment to relationship development and management which has time and resource implications (particularly in climates of budget restriction). A critical factor for supporting this process included building partnerships that are aligned to the unit convenor/Faculty’s research interest/agenda, which could then lead to longer-term research collaboration.

In the partner survey, of the 169 partners who reported that the PACE activity had a research focus, 44 per cent reported they would engage students to conduct further research and 40 per cent reported they would work with academic staff from Macquarie University on further research.

PATHWAY INTO POST GRADUATE RESEARCH

Research-focused PACE activities provide students with an opportunity to develop and apply their research skills. In some cases, this was igniting students’ passion for research and thus leading to an interest in post graduate studies. Stakeholders also reported that the Master of Research (MRES) PACE unit was being used by students to explore research interests. In some cases, the MRES PACE unit was the first opportunity that students had to undertake research in an academic setting. Some students were also using it as an opportunity to showcase their skills to a potential higher degree research (HDR) supervisor and/or ensure that the relationship with the supervisor was the right fit. Having research-focused PACE opportunities at a
postgraduate level was considered to be an important opportunity as it allowed students to further develop their relationships with partners.

6.5 Summary and recommendations

Overall, there is strong evidence that PACE is positively impacting students’ career readiness, citizenship skills and professional networks, and strong evidence that PACE is contributing to graduates entering full-time work and overall employment. Further, there is strong evidence that PACE is contributing to mutually beneficial outcomes for partners and the community more broadly, and providing significant benefit to the University. Based on the analysis presented in this Chapter, the following recommendations have been developed to further strengthen the impact of PACE for students, graduates, partners and the University:

- **Develop strategies to increase students’ career readiness and professional networks.**
- **Continue to work closely with partners** to ensure that PACE activities provide mutually beneficial outcomes for the partner organisation, students, and the community more broadly.
- **Establish consistent and regular unit review processes** this includes mechanisms to further support students who undertake research activities with external partners.
- **Promote and leverage the outcomes of the PACE program** as a differentiator for Macquarie University in regard to student recruitment, as well as the University’s reputation in the wider community.
- **Develop a strategic approach to industry and community partnerships at University level.** This should recognise the workload and resources required to build sustainable relationships based on reciprocity and seek to leverage PACE partnerships for the purposes of corporate engagement, multidisciplinary partnerships, and research collaborations.
Chapter 7: Who benefits from PACE and in what circumstances?

This chapter addresses Evaluation Question 5 and explores if there were any differences in outcomes and experiences comparing different student groups and PACE experiences. It is structured around the following categories:

- PACE Experiences: Activity Type, PACE International, Multiple PACE units, and Unit size
- Student Outcomes for different groups: Equity and Diversity, International, Mature Age, and No Previous Work Experience
Chapter overview

At an aggregate level, students participating in PACE reported significant changes in Professional Practice, Commencement Confidence, Job Seeking and Active Citizenship. However, there were some differences when comparing different PACE experiences and different student groups. This Chapter explores these differences by comparing outcomes and experiences.

Evaluation Question 5: Who benefits from PACE and in what circumstances?

DIFFERENT PACE EXPERIENCES

- All students, regardless of the type of PACE experience, reported significant changes in their professional practice, job seeking, commencement readiness, and citizenship.
- Students who completed a PACE internship reported significantly greater outcome changes in terms of Professional Practice, Commencement Confidence, Active Citizenship, and Job Seeking, compared to students who did a university-based activity.
- There were minimal differences in full-time employment trends when comparing graduates who completed a PACE internship to graduates who did a university-based activity.
- Graduates who did multiple PACE units were significantly more likely to be in full-time employment compared to students who did one unit, as well as the non-PACE cohort, four and twelve months after course completion.
- Students who completed a small PACE unit (<40 enrolments) rated the Impact of PACE and Student Satisfaction items significantly higher than students who complete a large unit.
- At the end of PACE, students who did a PACE International Activity rated the Professional Practice and Active Citizenship items significantly higher than students who did not, as well as the Impact of PACE and Student Satisfaction items. However, PACE who did not do a PACE International activity rated the PACE unit items significantly higher.

DIFFERENT STUDENT GROUPS

- All student groups reported significant changes in their professional practice, job seeking, commencement readiness, and citizenship.
- When comparing student groups there were no significant differences in how students rated the Impact of PACE or Student Satisfaction items or the employability items.
- In terms of Learner Experience of PACE, the only significant difference was that medium and low SES students were significantly more likely to rate these items more highly than high SES students.
- Students who were not mature age reported greater changes in Commencement Readiness and Professional Practice compared to mature age students.
- At the end of PACE domestic students rated their Professional Practice and Active Citizenship significantly higher than international students.
- At the end of PACE students who had previous work experience rated the Job Seeking and Active Citizenship items significantly higher than students who had no previous experience.
- A higher proportion of graduates with a disability, from Non-English Speaking Backgrounds, low SES and international graduates who did a PACE unit were in full-time employment compared to the respective non-PACE cohorts.
Data in this section is presented from the Student Survey (post) and the Graduate Outcome Surveys, unless stated otherwise. Specifically, we compared:

- Changes in Professional Practice, Job Seeking, Commencement Confidence and Active Citizenship. First, we determined if there had been any significant changes (T2 vs T3) and then we compared the magnitude of the changes for different student groups and PACE experiences (T3<T2). This data analysis included students from S3 2017/18 for PACE International students and S1 2018 for all PACE students, when the T2 component was added.
- Students’ rating of their Professional Practice, Job Seeking, Commencement Confidence and Active Citizenship at the end of PACE (T3). This data includes all students who completed a post survey.
- Student reported Impact on Career Readiness, Impact on Citizenship and Employability at the end of PACE (T3). This data includes all students who completed a post survey.
- Students Satisfaction and Learner Experience of the PACE unit. This data includes all students who completed a post survey.

The sample sizes differ for individual survey items due to changes in the survey and missing data.

Where possible, graduate full-time employment trends, collected via the Graduate Outcomes Survey (2016-2018) and Macquarie Graduate Destination Survey (2016-2018), are also included. The employment analysis applied the filters specified in Section 2.1.3. The exception is the Non-English Speaking Background and international student sections, which included domestic/international graduates (filters GOS E942=All and MQGDS Citizenship Indicator=All). Statistical summaries for the chapter are presented in Appendix L.

7.1 Differences in PACE experiences

This section explores different PACE experiences, specifically different types of PACE activity (e.g. internship cf. University-based), PACE International activities, students who completed multiple PACE units and the impact of different unit enrolment sizes (i.e. large > 40, small < 40).

7.1.1 DIFFERENT TYPES OF PACE ACTIVITY

As student enrolments in PACE units increased, there was a need to expand different formats/types of PACE activities to ensure the program was deliverable at an institution-wide scale and met the diverse needs of specific disciplines (Sachs & Clark, 2017). Therefore, we were particularly interested in exploring if there were any significant differences in student/graduate outcomes and experiences comparing internships (extended internships, structured internships, semi-structured internships and formal practicum/professional placements) and university-based activities (remote or virtual professional experience and industry panels/projects).

At an aggregate level, all students reported statistically significant changes in their professional practice, commencement confidence, job seeking and active citizenship, comparing the end of PACE (T3) to their reflection on their capabilities at the start of PACE (T2).

- Students who completed a PACE internship rated the Professional Practice (n=553), Job Seeking (n=540), Commencement Confidence (n=364) and Active Citizenship (n=540) items significantly higher at the end of PACE (T3) compared to their reflection on the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L1).
- Students who undertook a University-based activity also rated the Professional Practice (n=237), Job Seeking (n=227), Commencement Confidence (n=203) and Active Citizenship (n=228) items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium effect sizes (Appendix L, Table L2).

The changes in outcomes (T3<T2) were statistically greater, with relatively small effect sizes, for students who did an internship compared to students who did a University-based activity (Appendix L1, Table L1-L2):

- 82 per cent of students (n=451/553) who did an internship rated their Professional Practice...
more positively, compared to 62 per cent of students (n=146/237) who did a university-based activity.

- 72 per cent of students (n=391/540) who did an internship rated their Active Citizenship more positively, compared to 54 per cent of students (n=123/228) who did a university-based activity.
- 76 per cent of students who did an internship (n=408/540) rated Job Seeking more positively, compared to 48 per cent of students who did a university-based activity (n=108/227).
- 68 per cent of students (n=247/364) who did an internship rated their Commencement Confidence more positively, compared to 51 per cent of students (n=103/203) who did a university-based activity.

At the end of PACE (T3) students who completed an internship also rated the Professional Practice, Commencement Confidence, Active Citizenship and Job Seeking items statistically higher (small effect sizes) compared to students who did a university-based activity, suggesting that they felt more confident about their career readiness and citizenship capabilities.

Students who did a PACE internship also rated the Impact on Career Readiness, Impact on Citizenship, Employability and Student Satisfaction item/s significantly higher (small effect sizes) than students who did a University-based activity (Appendix L, Table L3). There were no statistically significant differences in student rating of the Learner Experience of PACE items.

Data from the 2016-2018 GOS was used to examine full-time employment trends for domestic undergraduate students four months after course completion by broad activity type. The results indicate that there were no statistically significant differences on a year by year basis or for the aggregate 2016-2018 period when comparing graduates who did a PACE internship to those who did a University-based activity (Table 36, Appendix L2).

However, graduates who did a PACE internship were significantly more likely to be in full-time employment compared to the non-PACE cohort in 2017, 2018 and for the aggregate period 2016-2018, however not in 2016. Likewise, graduates who did a University-based activity were also statistically more likely to be in full-time employment compared to the non-PACE cohort in 2017 and for the aggregate 2016-2018 period, however not in 2016 or 2018.

Data from the 2016-2018 MQGDS was used to examine full-time employment trends for domestic undergraduate students twelve months after course completion. The results suggest that across each year graduates who completed a PACE internship were more likely to be in full-time employment compared to graduates who did a University-based activity (Table 37, Appendix L3); however, the results were not significant.

Graduates who completed a PACE internship were more likely to be in full-time employment compared to the non-PACE cohort across all years and for the aggregate 2016-2018. This difference was statistically significant in 2016 and for the 2016-2018 aggregate period, however not in 2017.

Similarly, graduates who did a University-based activity were more likely to be in full-time employment compared to the non-PACE cohort across all years. The differences were statistically significant for the aggregate 2016-2018 period, however not for 2017.

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37 Statistical analysis was not undertaken for the 2016 cohort due to sample sizes.
38 Statistical analysis was not undertaken for the 2018 cohort as the sample sizes were too small (n<100).
39 Statistical analysis was not undertaken for the 2016 and 2018 cohort and the sample sizes were too small (n<100).
### Table 36. GOS 2016-2018: Internship/University-based/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment four months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Typology</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Internships</td>
<td>74.7%</td>
<td>245</td>
<td>328</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>73.7%</td>
<td>202</td>
<td>274</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>67.7%</td>
<td>149</td>
<td>220</td>
</tr>
<tr>
<td>2017</td>
<td>Internships</td>
<td>80.3%</td>
<td>330</td>
<td>411</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>77.9%</td>
<td>159</td>
<td>204</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>66.2%</td>
<td>147</td>
<td>222</td>
</tr>
<tr>
<td>2018</td>
<td>Internships</td>
<td>77.9%</td>
<td>431</td>
<td>553</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>74.6%</td>
<td>255</td>
<td>342</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>68.5%</td>
<td>113</td>
<td>165</td>
</tr>
<tr>
<td>2016-2018</td>
<td>Internships</td>
<td>77.9%</td>
<td>1006</td>
<td>1292</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>75.1%</td>
<td>616</td>
<td>820</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>67.4%</td>
<td>409</td>
<td>607</td>
</tr>
</tbody>
</table>

### Table 37. MQGDS 2016-2018: Internship/University-based/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment 12 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Typology</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Internships</td>
<td>88.5%</td>
<td>92</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>76.7%</td>
<td>66</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>74.6%</td>
<td>132</td>
<td>177</td>
</tr>
<tr>
<td>2017</td>
<td>Internships</td>
<td>89.1%</td>
<td>236</td>
<td>265</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>88.7%</td>
<td>125</td>
<td>141</td>
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<tr>
<td></td>
<td>Non-PACE</td>
<td>85.4%</td>
<td>111</td>
<td>130</td>
</tr>
<tr>
<td>2018</td>
<td>Internships</td>
<td>86.1%</td>
<td>273</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>83.6%</td>
<td>163</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>69.4%</td>
<td>59</td>
<td>85</td>
</tr>
<tr>
<td>2016-2018</td>
<td>Internships</td>
<td>87.6%</td>
<td>601</td>
<td>686</td>
</tr>
<tr>
<td></td>
<td>University-based</td>
<td>83.9%</td>
<td>354</td>
<td>422</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>77.0%</td>
<td>302</td>
<td>392</td>
</tr>
</tbody>
</table>
7.1.2 PACE INTERNATIONAL ACTIVITIES

This section explores differences in outcomes and experiences comparing students who undertook a PACE International activity to students who did not. Students who completed a PACE International Activity rated the Professional Practice (n=174), Job Seeking (n=170), Commencement Confidence (n=119) and Active Citizenship (n=170) items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium to large effect sizes (Appendix L2, Table L4).

When comparing students who completed a PACE International activity to students who did not, PACE International students rated the Professional Practice and Active Citizenship items statistically higher (small effect sizes) at the end of PACE (T3). There were no statistically significant differences comparing Commencement Readiness or Job Seeking.

Students who completed a PACE International activity also rated the Impact on Career Readiness, Impact on Citizenship, Employability and Student Satisfaction item/s statistically higher than students who did not do a PACE International activity (Appendix L, Table L5). However, the latter rated the Learner Experience of PACE items statistically higher than students who completed a PACE International activity. All effect sizes were relatively small.

The following quotes from students, selected by the PACE International team as being the most significant, demonstrate the impact that an international experience can have on students’ career readiness and professional skill development, as well as the more expected citizenship outcomes.

“Professionally, I am far more interested and passionate about statistics than before. While I was leaning towards working in the environmental field (my other major) now I am weighing up options in bio-stats. Personally, I have developed a greater sense of understanding of other cultures and communicating with people very different from myself. My confidence has also been boosted because I believe in my abilities to apply my skills when needed, working well in a team even through stressful and challenging situations, and also to adapt to new environments.” (PACE student)

“The most important thing I learnt from PACE was self-reflection. Before arriving in India I never really set aside the time to self-reflect and was encouraged to do so during my activity. The challenges faced (change of work tasks) during the activity usually would have had more of an impact on me but reflecting helped a lot. It is something I have continued to do since I have returned home and know I will for the rest of my life.” (PACE student)

“Confidence! I now have the confidence to raise questions and make suggestions as I used to be quite shy and wouldn’t have the courage to speak up. The use of team meetings, interviews and our end presentations has aided this.” (PACE student)

7.1.3 MULTIPLE PACE UNITS

This section aims to determine if there were any differences in full-time employment for graduates who completed multiple PACE units compared to graduates who completed one PACE unit, as well as graduates who did not do PACE. Data from the 2016-2018 GOS was used to examine full-time employment trends for domestic undergraduate students four months after course completion. The results suggest that graduates who did multiple PACE units were more likely to be in full-time employment four months after course completion compared to graduates who did one PACE unit (Figure 60). These results were statistically significant in 2017, 2018 and the aggregate 2016-2018 period (Appendix L3), however not in 2016.

Graduates who did multiple PACE units were also significantly more likely to be in full-time employment compared to the non-PACE cohort in 2017, 2018 and aggregate 2016-2018 period, however the difference was not significant in 2016. There were no significant difference comparing students who did one PACE unit to non-PACE graduates in 2016, 2017 or 2018, however the difference was significant for the aggregate period 2016-2018 (Table 38).

**Key Finding:**

Graduates who did multiple PACE units were also significantly more likely to be in full-time employment compared to the non-PACE cohort in 2017, 2018 and aggregate 2016-2018.
Figure 60. GOS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 4 months after course completion, comparing multiple PACE units

Table 38. GOS 2016-2018: Multiple PACE/One PACE unit/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment four months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Multiple PACE units</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Multiple PACE</td>
<td>74.3%</td>
<td>159</td>
<td>214</td>
<td></td>
</tr>
<tr>
<td>2016 One PACE unit</td>
<td>73.3%</td>
<td>299</td>
<td>408</td>
<td></td>
</tr>
<tr>
<td>2016 Non-PACE</td>
<td>67.7%</td>
<td>149</td>
<td>220</td>
<td></td>
</tr>
<tr>
<td>2017 Multiple PACE</td>
<td>87.2%</td>
<td>273</td>
<td>313</td>
<td></td>
</tr>
<tr>
<td>2017 One PACE unit</td>
<td>71.7%</td>
<td>367</td>
<td>512</td>
<td></td>
</tr>
<tr>
<td>2017 Non-PACE</td>
<td>66.2%</td>
<td>147</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td>2018 Multiple PACE</td>
<td>83.4%</td>
<td>387</td>
<td>464</td>
<td></td>
</tr>
<tr>
<td>2018 One PACE unit</td>
<td>70.9%</td>
<td>438</td>
<td>618</td>
<td></td>
</tr>
<tr>
<td>2018 Non-PACE</td>
<td>68.5%</td>
<td>113</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>2016-2018 Multiple PACE</td>
<td>82.6%</td>
<td>819</td>
<td>991</td>
<td></td>
</tr>
<tr>
<td>2016-2018 One PACE unit</td>
<td>71.8%</td>
<td>1104</td>
<td>1538</td>
<td></td>
</tr>
<tr>
<td>2016-2018 Non-PACE</td>
<td>67.4%</td>
<td>409</td>
<td>607</td>
<td></td>
</tr>
</tbody>
</table>
Data from the 2016-2018 MQGDS was used to examine full-time employment trends for domestic undergraduate students twelve months after course completion. Again, results suggest that graduates who did multiple PACE units were more likely to be in full-time employment twelve months after course completion compared to graduates who did one PACE unit (Figure 61). These results were statistically significant in 2016, 2018 and the aggregate 2016-2018 period (Appendix L3), however not in 2017. Similarly, graduates who did multiple PACE units were also significantly (p<0.001) more likely to be in full-time employment compared to the non-PACE cohort in 2016, 2018 and the aggregate 2016-2018. The difference was not significant in 2017. In addition, graduates who did one PACE unit were also significantly more likely to be in full-time employment compared to non-PACE graduates in 2018 and for the aggregate period 2016-2018 (Table 39, Appendix L3). Differences were not significant in 2016 or 2017.

Key Finding:
Graduates who did multiple PACE units were more likely to be in full-time employment twelve months after course completion compared to graduates who did one PACE unit and graduates who did not do PACE. These results were statistically significant in 2016-2018 and the aggregate 2016-2018 period.

Figure 61. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 12 months after course completion comparing multiple PACE units
Table 39. MQGDS 2016-2018: Multiple PACE/One PACE unit /Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment 12 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Multiple PACE units</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Multiple PACE</td>
<td>91.7%</td>
<td>100</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>One PACE unit</td>
<td>82.1%</td>
<td>234</td>
<td>285</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>74.6%</td>
<td>132</td>
<td>177</td>
</tr>
<tr>
<td>2017</td>
<td>Multiple PACE</td>
<td>89.5%</td>
<td>204</td>
<td>228</td>
</tr>
<tr>
<td></td>
<td>One PACE unit</td>
<td>86.4%</td>
<td>292</td>
<td>338</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>85.4%</td>
<td>111</td>
<td>130</td>
</tr>
<tr>
<td>2018</td>
<td>Multiple PACE</td>
<td>89.1%</td>
<td>253</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td>One PACE unit</td>
<td>80.1%</td>
<td>289</td>
<td>361</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>69.4%</td>
<td>59</td>
<td>85</td>
</tr>
<tr>
<td>2016-2018</td>
<td>Multiple PACE</td>
<td>89.7%</td>
<td>557</td>
<td>621</td>
</tr>
<tr>
<td></td>
<td>One PACE unit</td>
<td>82.8%</td>
<td>815</td>
<td>984</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>77.0%</td>
<td>302</td>
<td>392</td>
</tr>
</tbody>
</table>

7.1.4 PACE UNIT SIZE

This section explores differences in student outcomes and experiences comparing students who completed a small PACE unit (<40 enrolments) to students who completed a large PACE unit (40+ enrolments). Regardless of the size of the PACE unit, at an aggregate level students reported statistically significant changes in their professional practice, commencement confidence, job seeking and active citizenship, comparing the end of PACE (T3) to their reflection of the start of PACE (T2).

- Students who completed a small PACE unit rated the Professional Practice (n=270), Job Seeking (n=266), Commencement Confidence (n=150) and Active Citizenship (n=266) items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L6).

- Students who complete a large PACE unit rated the Professional Practice (n=676), Job Seeking (n=651), Commencement Confidence (n=530) and Active Citizenship (n=652) items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L7).

The changes in outcomes (T3<T2) were statistically greater (small effect size) for students who enrolled in a small PACE unit compared to students who did a large unit in regard to Job Seeking. For example, 72 per cent of students (n=192/266) who completed a small PACE unit felt more confident seeking work and using their networks, compared to 63 per cent of students (n=415/651) who completed a large unit. There were no statistically significant differences in outcomes changes for Professional Practice, Commencement Confidence or Active Citizenship, when comparing unit size (Appendix L4).

At the end of PACE (T3) there were also no statistically significant differences in students’ rating of their Professional Practice, Commencement Confidence, Job Seeking or Active Citizenship, when comparing unit size. However, students who did a who did a small PACE unit rated the Impact on Career Readiness, Impact on Citizenship, Employability, Student Satisfaction and Learner Experience of PACE items significantly higher (small effect sizes) compared to students who completed a large unit (Appendix L, Table L8). These differences were statistically significant.

Key Finding:
Students who did a small PACE unit rated the impact of PACE on their Career Readiness, Citizenship and Employability higher than students in large units. They also rated their satisfaction and Learner Experience of PACE higher than students in large PACE units.
7.2 Differences in student groups

This section explores the outcomes and experiences of different student groups, specifically equity and diversity groups (where data was available), international students, mature age students and students who prior to PACE had no previous work experience.

7.2.1 EQUITY AND DIVERSITY STUDENT GROUPS

PACE provides all undergraduate students with an opportunity to undertake a work-integrated learning experience to increase their career readiness, active citizenship and professional networks. The universality of access to WIL that PACE afford is, in and of itself, an important equity and diversity strategy. That said, and as discussed earlier in the report, PACE stakeholders are acutely aware that not all students start from a level playing field. That is, there is a need to take proactive steps to ensure that students with diverse needs have genuinely equal access to PACE opportunities. Indeed, equity of access to resources is one of the core PACE principles (Sachs & Clark, 2017).

Macquarie University, and in turn PACE, services the needs of the following equity and diversity groups (Macquarie University 2018):

- Students from low SES backgrounds, determined by the ABS's Socio-Economic Indexes for Areas (SEIFA)
- Student from humanitarian backgrounds
- Students from regional and remote areas
- Students with a disability
- Students from culturally and linguistically diverse backgrounds
- Women in non-traditional areas of study
- Aboriginal and Torres Strait Islander peoples.

In order to promote equal access for all students, PACE has implemented a range of strategies at program and Faculty levels. For example, at a program level eligible students can apply for an equity or travel grant to support their participation in a PACE activity. A PACE equity grant is for students who experience financial hardship and a PACE travel grant provides financial assistance to students to help cover travel expenses for regional/remote activities in Australia or international activities. Faculty-based teams and PACE International also work with Campus Wellbeing to design reasonable adjustments to enable students with a disability to participate in a range of PACE activities.

Data provided by the University’s Widening Participation Unit (WPU) (Singh, 2019) indicated that the number of students enrolling in PACE units in 2018 reflected the different equity groups represented across the University (Appendix L, Figure L1), especially in respect of those from regional and remote areas, Aboriginal and Torres Strait Islander students, and students from low SES backgrounds (Appendix L). Unfortunately, the WPU was not able to confirm whether the enrolment numbers for women in non-traditional areas of study or students with a disability met their respective benchmarks due to lack of available data; therefore, no conclusions can be made about the representativeness of PACE enrolments for these two student groups. The remainder of this section seeks to determine if there are any differences in outcomes and experiences for students from diverse backgrounds utilising data from the PACE Student Survey, GOS and MQGDS.

STUDENTS WITH DISABILITIES

Data from the 2016-2018 GOS was used to examine full-time employment trends for domestic undergraduate students with disabilities four months after course completion. The results suggest that graduates with a disability who completed a PACE unit were more likely to be in full-time employment four months after course completion compared to their non-PACE peers, across all years (Table 40).40

40 The non-PACE sample was too small to undertake statistical testing to compare the differences.
Table 40. GOS 2016-2018: PACE/Non-PACE domestic undergraduate students with disabilities comparison: Number of graduates in full-time employment 4 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Graduates with a disability</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>82.1%</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>50.0%</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>73.9%</td>
<td>34</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>53.8%</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>67.1%</td>
<td>57</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>52.6%</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>68.3%</td>
<td>123</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>52.1%</td>
<td>25</td>
<td>48</td>
</tr>
</tbody>
</table>

Data from the 2016-2018 MQGDS was used to examine full-time employment trends for domestic undergraduate students with disabilities twelve months after course completion. The results were comparable with the GOS findings with a higher proportion of PACE graduates with a disability being in full-time employment twelve months after course completion across all years, compared to their non-PACE peers (Table 41). Again, statistical testing was not possible due to the small non-PACE sample.

Table 41. MQGOS 2016-2018: PACE/Non-PACE domestic undergraduate students with disability comparison: Number of graduates in full-time employment 12 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Graduates with a disability</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>83.3%</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>50.0%</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>78.8%</td>
<td>26</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>72.7%</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>78.8%</td>
<td>41</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>60.0%</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>79.8%</td>
<td>87</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>60.0%</td>
<td>21</td>
<td>35</td>
</tr>
</tbody>
</table>

ABORIGINAL AND/OR TORRES STRAIT ISLANDER STUDENTS

Data from the 2016-2018 GOS was used to examine full-time employment trends for Aboriginal and Torres Strait Islander students four months after course completion. The results suggest that non-PACE Aboriginal and/or Torres Strait Islander graduates were more likely to be in full-time employment four months after course completion (Table 42). However, both sample sizes were very small, and the differences are minimal.

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* The non-PACE sample was too small to undertake statistical testing to compare the differences
The results were similar twelve months after course completion with a higher proportion of non-PACE Aboriginal and Torres Strait Islander students being in full-time employment (Table 43). Again, the sample sizes are too small to draw any valid conclusions about these findings.

The results suggest that graduates from Non-English Speaking Backgrounds who completed a PACE unit were more likely to be in full-time employment in 2016, 2017 and for the aggregate 2016-2018 period,
compared to Non-English Speaking Backgrounds graduates who did not do PACE (Table 44). However, a higher proportion of the non-PACE cohort was in full-time employment in 2018.

### Table 44. GOS 2016-2018: PACE/Non-PACE Non English Speaking Background (NESB) comparison: Number of graduates in full-time employment 4 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>NESB</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>58.3%</td>
<td>63</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>48.1%</td>
<td>26</td>
<td>54</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>59.3%</td>
<td>86</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>55.0%</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>55.8%</td>
<td>96</td>
<td>172</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>76.2%</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>57.6%</td>
<td>245</td>
<td>425</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>55.8%</td>
<td>53</td>
<td>95</td>
</tr>
</tbody>
</table>

Data from the 2016-2018 MQGDS was used to examine full-time employment trends for students from a Non-English Speaking background twelve months after course completion (Table 45). The results were comparable with the GOS, with a higher proportion of graduates from Non-English Speaking Backgrounds who completed a PACE unit more likely to be in full-time employment in 2016, 2017 and for the aggregate 2016-2018 period. Again, a higher proportion of the non-PACE cohort was in full-time employment in 2018. For the aggregate 2016-2018 period, graduates from Non-English Speaking Backgrounds who completed a PACE unit were significantly ($p<0.001$) more likely to be in full-time employment, compared to Non-English Speaking Backgrounds graduates who did not do PACE (Appendix I.5).

### Table 45. MQGDS 2016-2018: PACE/Non-PACE Non English Speaking Background comparison: Number of graduates in full-time employment 12 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>NESB</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PACE</td>
<td>86.9%</td>
<td>245</td>
<td>282</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>75.6%</td>
<td>93</td>
<td>123</td>
</tr>
<tr>
<td>2017</td>
<td>PACE</td>
<td>79.9%</td>
<td>139</td>
<td>174</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>73.9%</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>2018</td>
<td>PACE</td>
<td>76.1%</td>
<td>169</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>84.2%</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>2016-2018</td>
<td>PACE</td>
<td>81.6%</td>
<td>553</td>
<td>678</td>
</tr>
<tr>
<td></td>
<td>Non-PACE</td>
<td>76.4%</td>
<td>126</td>
<td>165</td>
</tr>
</tbody>
</table>

* The small sample did not allow for statistical testing.
STUDENTS FROM LOW SOCIO-ECONOMIC STATUS (SES) BACKGROUNDS

This section explores differences in low, medium, and high SES students. Students who resided in a low SES area rated the Professional Practice (n=68), Job Seeking (n=66), Commencement Confidence (n=57) and Active Citizenship (n=67) items higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2) (Appendix L, Table L9).  

There were no statistically significant differences in students’ rating of the Impact on Career Readiness, Impact on Citizenship, Employability or Student Satisfaction item/s, when comparing low, medium and high SES students (Appendix L, Table L10). However, medium (n=314) and low SES students (n=120) were significantly (small effect sizes) more likely to rate the Learner Experience of PACE items more highly than high SES students (n=1094) (Appendix L, Table L10).  

Analysis of full-time graduate employment trends was undertaken for low SES students comparing the PACE and non-PACE cohorts, four months after course completion (GOS). The results suggest that low SES graduates who completed PACE were more likely to be in full-time employment four months after course completion in 2016, 2017 and for the aggregate 2016-2018 period (Table 46). However, a higher proportion of the non-PACE cohort were in full-time employment in 2018. Sample sizes were low across all years, particularly for non-PACE students, which did not permit statistical testing.

International Students

This section explores differences in student and graduate outcomes and experiences comparing international and domestic students. Both international and domestic students reported positive changes in their Professional Practice, Commencement Confidence, Job Seeking and Active Citizenship, comparing the end of PACE (T3) to their reflection of the start of PACE (T2).

- International students rated the Professional Practice (n=79), Job Seeking (n=74), Commencement Confidence (n=51) and Active Citizenship (n=73) items higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2) (Appendix L, Table L11).
- Domestic students rated the Professional Practice (n=867), Job Seeking (n=843), Commencement Confidence (n=629) and Active Citizenship (n=845) items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L12).

The small sample size of international students (n<100) did not permit testing to determine if there were any differences in outcome changes comparing international and domestic students. At the end of PACE (T3), domestic students (n=1374, n=1395) rated the Active Citizenship and Professional Practice items higher (statistically significant with small effect sizes) than international students (n=97, n=102) (Appendix L, Table L13). There were no statistically significant differences for Commencement

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Table 46. GOS 2016-2018: Low SES PACE/Non-PACE undergraduate comparison: Number of graduates in full-time employment 4 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>Low SES</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 PACE</td>
<td>64.4%</td>
<td>29</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>2016 Non-PACE</td>
<td>56.3%</td>
<td>9</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>2017 PACE</td>
<td>72.3%</td>
<td>47</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>2017 Non-PACE</td>
<td>53.8%</td>
<td>7</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>2018 PACE</td>
<td>62.8%</td>
<td>71</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>2018 Non-PACE</td>
<td>80.0%</td>
<td>12</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>2016-2018 PACE</td>
<td>65.9%</td>
<td>147</td>
<td>223</td>
<td></td>
</tr>
<tr>
<td>2016-2018 Non-PACE</td>
<td>63.6%</td>
<td>28</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>

---

43 Small sample sizes (n<100) did not permit testing to determine if these changes were statistically significant or to see if there were any differences when compared to medium and high SES students.
Readiness or Job Seeking. There were also no statistically significant differences when comparing international and domestic students’ rating of the Impact on Career Readiness, Impact on Citizenship, Student Satisfaction or Learner Experience of PACE items.

Analysis of full-time graduate employment trends was also undertaken for international students, comparing the PACE and non-PACE cohorts, four (GOS) and twelve (MQGDS) months after course completion. The results suggest that international graduates who completed a PACE unit were more likely to be in full-time employment in 2016, 2017 and for the aggregate 2016-2018 period, compared to international graduates who did not do PACE (Table 47). However, a higher proportion of the non-PACE cohort was in full-time employment in 2018, noting the small sample size. Statistical testing was undertaken on the aggregate 2016-2018 sample which showed that the difference between the PACE and non-PACE cohorts was not significant.

### Table 47. GOS 2016-2018: International students PACE/Non-PACE undergraduate comparison: Number of graduates in full-time employment 4 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>International Students</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 PACE</td>
<td></td>
<td>54.6%</td>
<td>59</td>
<td>108</td>
</tr>
<tr>
<td>2016 Non-PACE</td>
<td></td>
<td>44.0%</td>
<td>22</td>
<td>50</td>
</tr>
<tr>
<td>2017 PACE</td>
<td></td>
<td>58.6%</td>
<td>75</td>
<td>128</td>
</tr>
<tr>
<td>2017 Non-PACE</td>
<td></td>
<td>46.7%</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>2018 PACE</td>
<td></td>
<td>55.5%</td>
<td>86</td>
<td>155</td>
</tr>
<tr>
<td>2018 Non-PACE</td>
<td></td>
<td>76.5%</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>2016-2018 PACE</td>
<td></td>
<td>56.3%</td>
<td>220</td>
<td>391</td>
</tr>
<tr>
<td>2016-2018 Non-PACE</td>
<td></td>
<td>51.2%</td>
<td>42</td>
<td>82</td>
</tr>
</tbody>
</table>

The results were similar twelve months after course completion with a higher proportion of international students who did a PACE unit being in full-time employment in 2016, 2017 and for the aggregate 2016-2018 period (Table 48). Again, a higher proportion of the non-PACE cohort was in full-time employment in 2018. However, the sample sizes are too small to draw any valid conclusions about these findings.

### Table 48. MQDOS 2016-2018: International students PACE/Non-PACE undergraduate comparison: Number of graduates in full-time employment 12 months after course completion

<table>
<thead>
<tr>
<th>Reporting Year</th>
<th>International Students</th>
<th>Full-time Employed %</th>
<th>No of graduates working full-time</th>
<th>No of graduates available for full-time work</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 PACE</td>
<td></td>
<td>72.2%</td>
<td>26</td>
<td>36</td>
</tr>
<tr>
<td>2016 Non-PACE</td>
<td></td>
<td>61.1%</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>2017 PACE</td>
<td></td>
<td>73.0%</td>
<td>65</td>
<td>89</td>
</tr>
<tr>
<td>2017 Non-PACE</td>
<td></td>
<td>66.7%</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>2018 PACE</td>
<td></td>
<td>66.3%</td>
<td>61</td>
<td>92</td>
</tr>
<tr>
<td>2018 Non-PACE</td>
<td></td>
<td>83.3%</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2016-2018 PACE</td>
<td></td>
<td>70.0%</td>
<td>152</td>
<td>217</td>
</tr>
<tr>
<td>2016-2018 Non-PACE</td>
<td></td>
<td>66.7%</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>
STUDENTS’ GRADE POINT AVERAGE (GPA)

This section explores differences in student outcomes and experiences comparing low, medium, and high GPAs. Regardless of a student’s GPAs, at an aggregate level all students reported positive changes in Professional Practice, Commencement Confidence, Job Seeking and Active Citizenship, comparing the end of PACE (T3) to their reflection on their capabilities at the start of PACE (T2).

- Low GPA students rated the Professional Practice (n=41), Job Seeking (n=41), Commencement Confidence (n=28) and Active Citizenship (n=41) items higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2) (Appendix L, Table L14).

- Medium GPA students rated the Professional Practice (n=820), Job Seeking (n=793), Commencement Confidence (n=589) and Active Citizenship (n=794) items significantly higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L15).

- High GPA students rated the Professional Practice (n=75), Job Seeking (n=74), Commencement Confidence (n=55) and Active Citizenship (n=73) items higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2) (Appendix L, Table L16).

The small low and high GPA student sample sizes did not permit testing to determine if there were any significant differences in outcome changes comparing the three groups.

At the end of PACE (T3), students with a high GPA (n=107) rated the Commencement Readiness items statistically higher (small effect size) than students with a medium GPA (n=1326) (Appendix L, Table L16). However, there were no statistically significant differences in students’ rating of the Professional Practice, Job Seeking or Active Citizenship items. Furthermore, when comparing students’ GPAs, there were no statistically significant differences in the rating of the Impact on Career Readiness, Impact on Citizenship, Employability, Student Satisfaction, or the Learner Experience of PACE item/s (Appendix L, Table L17).

MATURE AGE STUDENTS

This section explores differences in student outcomes and experiences comparing mature age students (calculated on their age on enrolment into the degree) to non-mature age students. Regardless of a student’s age when they commenced their University studies, at an aggregate level all students reported statistically significant changes in their Professional Practice, Commencement Confidence, Job Seeking and Active Citizenship, comparing the end of PACE (T3) to their reflection on their capabilities at the start of PACE (T2).

- Mature age students rated the Professional Practice (n=246), Job Seeking (n=237), Commencement Confidence (n=181) and Active Citizenship (n=237) items significantly higher at the end of PACE (T3) compared to their reflection on the start of PACE (T2), with medium effect sizes (Appendix L, Table L18).

- Non-mature age students also rated the Professional Practice (n=700), Job Seeking (n=680), Commencement Confidence (n=499) and Active Citizenship (n=681) items significantly higher at the end of PACE (T3) compared to their reflection on the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L19).

The changes in outcomes (T3<T2) were statistically greater (small effect sizes) for non-mature age students compared to mature age students for Commencement Confidence and Professional Practice:

- 63 per cent of non-mature age students (n=315/499) rated their Commencement Confidence more highly at the end of PACE, whilst 57 per cent of mature age students (n=103/181) reported an increase.

- 77 per cent of non-mature age students (n=538/700) rated their Professional Practice more highly at the end of PACE, whilst 57 per cent of mature age students (n=175/246) reported an increase.

At the end of PACE (T3), there were no statistically significant differences in student rating of the Professional Practice, Commencement Readiness, Job Seeking, Active Citizenship, Impact on Career Readiness, Impact on Citizenship, Employability, Student Satisfaction of Learner Experience of PACE item/s (Appendix L, Table L20) when comparing mature age and non-mature age students.
STUDENTS WITH NO PREVIOUS WORK EXPERIENCE

Finally, this section explores differences in student outcomes and experiences comparing students who had no previous work experience with students who did have work experience.

Regardless of a student’s previous work/professional experience, at an aggregate level all students reported positive changes in their Professional Practice, Commencement Confidence, Job Seeking and Active Citizenship, comparing the end of PACE (T3) to their reflection on their capabilities at the start of PACE (T2).

- Students with no previous work experience rated the Professional Practice (n=84), Job Seeking (n=81), Commencement Confidence (n=76) and Active Citizenship (n=80) items higher at the end of PACE (T3) compared to their reflection of the start of PACE (T2) (Appendix L, Table L21).

- Students with previous work experience rated the Professional Practice (n=741), Job Seeking (n=718), Commencement Confidence (n=516) and Active Citizenship (n=720) items significantly higher at the end of PACE (T3) compared to their reflection on their capabilities at the start of PACE (T2), with medium to large effect sizes (Appendix L, Table L22).

The small sample size of students who had no previous work experience did not permit testing to determine if there were any statistical differences in outcome changes comparing the two groups.

At the end of PACE (T3), students with previous work experience (n=128) rated the Job Seeking and Active Citizenship items statistically higher (small effect sizes) compared to students with no previous work experience (n=106, n=1058) (Appendix L, Table L23). There were no statistically significant differences in students’ rating of the Impact on Career Readiness, Impact on Citizenship, Student Satisfaction or Learner Experience of PACE items.

7.3 Summary and recommendations

At an aggregate level all students, regardless of the type of PACE experience or student group, reported statistically significant changes in their professional practice, job seeking, commencement readiness and citizenship. However, PACE was particularly effective for students who completed a PACE internship, students who completed multiple PACE units, students who enrolled in a small unit (<40), non-mature age students, domestic students and students who had previous work experience. These findings highlight areas for program improvement in terms of university-based activities, large PACE units, mature age students, international students and students who had no previous work experience prior to PACE.

In terms of graduate employment, a higher proportion of graduates with a disability, from Non-English Speaking Backgrounds, low SES and international graduates who did a PACE unit were in full-time employment compared to the respective non-PACE cohorts; however, each of these sample sizes were too small to allow statistical analysis.

Based on these findings, the following recommendations have been developed:

- **Continue to provide a range of PACE activities**, including local, regional, and international, to sustain the growth of the program. However, strategies to increase internship opportunities, which are having a particularly positive impact on student reported outcomes and experience, should be explored.

- **Consider mechanisms to ensure that all student groups are benefiting from the PACE program**, specifically external students, mature age students, international students and students who had no previous work/professional experiences.

- **Develop a University-wide coordinated approach to professional practice and employability** which builds upon the success of the PACE program. This should include opportunities for students to develop their professional capabilities and undertake work-integrated and practice-based learning experiences throughout their undergraduate degree.

- **Establish consistent and regular unit review processes** to support quality assurance of PACE units. Unit reviews should involve the relevant PACE stakeholders and be incorporated into existing Faculty/University processes. This includes considering unit size and exploring ways to enhance the connection between PACE International activities and learning and teaching within PACE units should also be considered.
Chapter 8: Conclusions and Recommendations
The institution-wide implementation of the PACE program is unprecedented in the Australian university work-integrated learning context. This report provides evidence that PACE is having a substantial impact on student/graduate outcomes and engagement, which is a significant and differentiating outcome for the University. A key strength of the program is its established long-term partnerships with industry and community, which has multiple benefits and great potential for the broader University.

The following recommendations have been developed from the evaluation findings. Aligned with the collaborative evaluation approach they are intentionally broad so they can be discussed and refined by PACE and University stakeholders.

8.1 Recommendations for PACE program delivery

1. **Develop strategies to further increase students’ career readiness and professional networks**, including opportunities for students to undertake a PACE activity in an area of professional interest, connecting students with a supervisor/mentor in the same disciplinary area and greater alignment of unit content to the PACE activity and/or discipline.

2. **Continue to provide a range of PACE activities**, including local, regional, and international, to sustain the growth of the program. Strategies to increase internship opportunities, which are having a particularly positive impact on student reported outcomes and experience, should be explored.

3. **Continue to work closely with partners** to ensure that PACE activities provide mutually beneficial outcomes for partner organisations, students, and the community more broadly.

4. **Develop strategies and/or resources to better prepare students and partners for their PACE experience**, including developing PACE activities with clear objectives, roles, and responsibilities. Opportunities for students to connect with past PACE students could provide another layer of support. Student preparation also involves other areas of the University, such as the Careers and Employment Service in many PACE units, and this should be broadened and strengthened.

5. **Establish proactive monitoring processes** for PACE activities, including clarifying expectations, roles, and responsibilities for each party (unit convenors, PACE staff, students and partners).

6. **Establish consistent and regular unit review processes** to support quality assurance of PACE units. Unit reviews should involve the relevant PACE stakeholders and be incorporated into existing Faculty/University processes. This includes ensuring that activity sourcing, activity/unit workload, reflection and debriefing processes, induction and unit size are considered. When relevant exploring ways to enhance the connection between PACE International activities and the curriculum, learning and teaching within PACE units should also be considered, as mechanisms to further support students who undertake research activities with external partners.

7. **Consider mechanisms to ensure that all student groups are benefiting from the PACE program**, specifically external students, student who completed a large PACE unit, mature age students, international students and students who had no previous work/professional experiences.

8.2 Broader recommendations

8. **Promote and leverage the outcomes of the PACE program** as a differentiator for Macquarie University in regard to student recruitment, as well as strengthening the University’s reputation in the wider community.

9. **Develop a University-wide coordinated approach to professional practice and employability** which builds upon the success of the PACE program. This should include opportunities for students to develop their professional capabilities and undertake work-integrated and practice-based learning experiences throughout their undergraduate degree.

10. **Develop a University-wide strategic approach to industry and community partnerships.** This should recognise the workload and resources required to build sustainable relationships based on reciprocity and seek to leverage PACE partnerships for the purposes of corporate engagement, multidisciplinary partnerships, and research collaborations.

11. **Coordinate University communication, systems, and processes** to increase student awareness of the PACE program, ensure students know early in their degree that PACE is a requirement, and enrol early in PACE units.

12. **Support the continued integration of PACE within Faculties** to ensure that the program is relevant across disciplines, efficiently delivered at scale, and sustainable into the future. This includes the recognition of workload associated with delivering PACE units and where possible the involvement and engagement of a wide variety of academics.
8.3 Lessons for evaluating Work-Integrated Learning programs

The PACE Evaluation has provided a unique opportunity to examine the processes and outcomes of a university-wide work-integrated learning (WIL) program. The following recommendations have been developed to support future WIL evaluations.

13. **Collaboration, commitment and buy-in is key.** Involving multiple and diverse academic and professional stakeholders at all stages of evaluation design and implementation is critical to ensure that there is ongoing engagement and buy-in for the evaluation, and commitment to using the evaluation findings for program improvement.

14. **Develop a program Theory of Change and evaluation criteria.** Have a clear understanding of the context (program and university), purpose of the evaluation, nature of the program, the program components being evaluated, and how success, impact and quality is defined and measured, before determining the methods.

15. **Measure program processes and outcomes.** This is necessary to not only generate knowledge about program effectiveness, but also explain the reasons why, explore any contextual factors that may be influencing program success, and identify areas for program enhancement.

16. **Prioritise evaluation objectives and questions.** Be realistic about the resources required to design and implement a formal program evaluation and use prioritise evaluation objectives and questions to ensure that data collection is manageable and sustainable.

17. **Use a mixed method design.** This is vital to capture data from students, partners, and University stakeholders and can be a useful strategy to engage different stakeholders. For example, complement quantitative metrics on graduate employment outcomes with rich and detailed stories of impact collected through qualitative methods.

18. **Provide timely access to data to support ongoing quality assurance.** Utilising analytic tools such as dashboards can provide near real time access to data. This provides multiple benefits and supports a learning culture whereby program stakeholders continuously use evaluation data to inform practice and make decisions to improve program effectiveness and implementation.

19. **Embed data collection within university systems, program processes and/or learning and teaching.** This is important to ensure that data collection is sustainable and not seen as an add-on to program delivery. It can also be a useful strategy for engaging stakeholders and enhancing curriculum.
References


List of Tables

Table 1: Data collection approaches and timeframes, aligned to Evaluation Questions (EQ) .......... 9
Table 2. PACE Student Survey Response Rate (Session 2 2017-Session 3 2018/19) ....................... 11
Table 3. PACE International Student Survey Response Rate (Session 2 2017-Session 3 2018/19) . 12
Table 4. PACE Student Survey sample compared to overall PACE student enrolments from Session 2 2017 to Session 3 2018 ................................................................. 13
Table 5. Student outcomes variable scales and associated items ............................................ 16
Table 6. PACE impact variable scales and associated items ................................................. 17
Table 7. Student experience variable scales and associated items .................................... 17
Table 8. Student Groups and PACE Experiences included in the statistical analysis of the PACE Student Survey ................................................................. 18
Table 9. 2016-2018 GOS Sample (eligible undergraduate domestic graduates) ....................... 19
Table 10. 2016-2018 MQGDS Sample (eligible undergraduate domestic graduates) ............ 20
Table 11. GOS and MQGDS employment indicators .............................................................. 21
Table 12. Student Groups and PACE Experiences used to analyse the GOS and MQGDS .......... 21
Table 13. PACE Partner Survey Response Rates (Session 2 2018, Sessions 1 & 2 2019) ............ 22
Table 14. PACE Partner Survey Sample Information (n=352) .................................................. 23
Table 15. Number of participants in the staff evaluation workshops ....................................... 24
Table 16. Number of participants in case study interviews .................................................... 25
Table 17. PACE Evaluation Process Rubric- How effectively is the PACE program being implemented? ................................................................. 27
Table 18. PACE Evaluation Outcome Rubric- To what extent does PACE contribute to outcomes for students, partners, the University and the wider community? ................. 28
Table 19. PACE Student Enrolments by Faculty from 2016-2018, Number (% of all yearly enrolments) ................................................................. 32
Table 20. PACE Enrolments from 2016-2018: Student Demographic and Unit Information: Number (% of all yearly enrolments) ................................................................. 33
Table 21. Unique PACE Activities from 2016-2018 overall and by faculty N (% of year total), excluding education ................................................................. 35
Table 22. Characteristics of unique PACE activities from 2016-2018 (% of yearly totals), excluding education ................................................................. 36
Table 23. Characteristics of the Unique PACE Activities from 2016-2018 by Faculty (% of total for each row), excluding education ................................................................. 37
Table 24. PACE Student Enrolments in different types of activity, 2016-2018 (% of yearly totals), excluding education ................................................................. 38
Table 25. Proportion of PACE Student Enrolments in different types of activity, 2016-2018 by Faculty (% of faculty totals), excluding education

Table 26. Student Survey (Post): Significant correlations between PACE processes and student’s rating of the impact of PACE on their employability, career readiness & citizenship

Table 27. Student Survey (Post): Significant correlations between PACE process and Student Satisfaction items

Table 28. GOS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment as a proportion of those available for full-time work

Table 29. GOS 2016-2018: PACE/Non-PACE full-time employment domestic undergraduate comparison: Excluding Society and Culture from the sample

Table 30. GOS 2016-2018: PACE/Non-PACE first full-time job domestic undergraduate comparison

Table 31. GOS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in any job as a proportion of those available for overall employment

Table 32. MQGDS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment as a proportion of those available for full-time work

Table 33. MQGDS 2016-2018: PACE/Non-PACE full-time employment domestic undergraduate comparison: Excluding Society and Culture from the sample

Table 34. MQGDS 2016-2018: PACE/Non-PACE first full-time job domestic undergraduate comparison

Table 35. MQGDS 2016-2018: PACE/Non-PACE domestic undergraduate comparison: Number of graduates in any job as a proportion of those available for overall employment

Table 36. MQGDS 2016-2018: Internship/University-based/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment four months after course completion

Table 37. MQGDS 2016-2018: Internship/University-based/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment 12 months after course completion

Table 38. GOS 2016-2018: Multiple PACE/One PACE unit/Non-PACE domestic undergraduate comparison: Number of graduates in full-time employment four months after course completion

Table 39. MQGOS 2016-2018: PACE/Non-PACE domestic undergraduate students with disabilities comparison: Number of graduates in full-time employment 12 months after course completion

Table 40. MQGOS 2016-2018: PACE/Non-PACE domestic undergraduate students with disability comparison: Number of graduates in full-time employment 4 months after course completion

Table 41. MQGOS 2016-2018: PACE/Non-PACE domestic undergraduate Aboriginal and Torres Strait Islander students comparison: Number of graduates in full-time employment 12 months after course completion

Table 42. MQGOS 2016-2018: PACE/Non-PACE domestic undergraduate Aboriginal and Torres Strait Islander students comparison: Number of graduates in full-time employment 4 months after course completion

Table 43. MQGDS 2016-2018: PACE/Non-PACE domestic undergraduate Aboriginal and Torres Strait Islander students comparison: Number of graduates in full-time employment 12 months after course completion

Table 44. MQGDS 2016-2018: PACE/Non-PACE Non English Speaking Background (NESB) comparison: Number of graduates in full-time employment 4 months after course completion
Table 45. MQGDS 2016-2018: PACE/Non-PACE Non English Speaking Background comparison: Number of graduates in full-time employment 12 months after course completion ..................... 145

Table 46. GOS 2016-2018: Low SES PACE/Non-PACE undergraduate comparison: Number of graduates in full-time employment 4 months after course completion .......................................... 146

Table 47. GOS 2016-2018: International students PACE/Non-PACE undergraduate comparison: Number of graduates in full-time employment 4 months after course completion ........................ 147

Table 48. MQDOS 2016-2018: International students PACE/Non-PACE undergraduate comparison: Number of graduates in full-time employment 12 months after course completion. 147

**List of Figures**

Figure 1. Ecology of the PACE Connected Learning Community (2018) ............................................ 3

Figure 2. PACE Employability Framework .......................................................................................... 4

Figure 3. Program Life Cycle and Evaluation Purpose .......................................................................... 5

Figure 4. Evaluation approaches informing the development and implementation ............................ 5

Figure 5. Multiphase mixed methods PACE Evaluation design .......................................................... 8

Figure 6. 2016-2018 PACE Student Enrolments across Faculties, *Number (% of all enrolments)* .. 30

Figure 7. 2016-2018 PACE Enrolments by Faculty: Indigenous Students ............................................ 34

Figure 8. 2016-2018 PACE Enrolments by Faculty: International Students ......................................... 34

Figure 9. 2016-2018 PACE Enrolments by Faculty: Low SES .............................................................. 34

Figure 10. 2016-2018 PACE Enrolments by Faculty: Mature Age Students ......................................... 34

Figure 11. No. of Students Allocated to a Unique Activity from 2016-2018 .......................................... 36

Figure 12. Student Survey (Pre)- What are you hoping to do when you graduate?2F (% Yes)......... 41

Figure 13. Student Survey (Pre) - Experiences in the same professional area that you would like to work? (n=2424) ................................................................................................................................. 42

Figure 14. Student Survey (Pre)- Rate how important each of the following are to you in completing this unit .............................................................................................................................................. 43

Figure 15. Student Survey (Post) – Please rate your overall satisfaction with your PACE experience (n=1587) ............................................................................................................................................. 44

Figure 16. Student Survey (Post) – How strongly do you agree or disagree with the following statements? ............................................................................................................................................... 45

Figure 17. Partner Survey – Overall satisfaction with the outcomes achieved by the student(s) (n=345) ........................................................................................................................................... 47

Figure 18. Student Survey (Post) – How strongly do you agree or disagree with the following statements? ............................................................................................................................................... 48

Figure 19. Partner Survey - How strongly do you agree or disagree with the following statements? 51

Figure 20. Student Survey (Post)- How strongly do you agree or disagree with the following statements? ............................................................................................................................................... 51

Figure 21. Student Survey (Post) – How strongly do you agree or disagree with the following statements? ............................................................................................................................................... 58

Figure 22. Student Survey (Post) - Was there an opportunity for you to... (% Yes) ......................... 59

Figure 23. Partner Survey – Partner rating of key PACE processes ..................................................... 61
Figure 24. Student Survey (Post) - Did you receive any of the following induction activities?........63
Figure 25: Student Survey (Post)- Did you access any of the following to prepare for the PACE activity (% Yes) .................................................................64
Figure 26. Student Survey (Post) – How well did the induction and/or training you received prepare you for the PACE activity? (n=1436) .................................................................64
Figure 27. Partner Survey (Post): Perceived student preparedness ..................................................65
Figure 28. Student Survey (Post) – How strongly do you agree or disagree with the following statements? ........................................................................68
Figure 29. Student Survey (Post) - Learner Experience of PACE.................................................71
Figure 30. Student Survey- Changes in Professional Practice individual outcome items comparing Pre Survey Baseline (T1), Post Survey Reflection (T2) and Post Survey End of PACE (T3): % Good/Very Good ...........................................................................................................86
Figure 31. Student Survey- Changes in Job Seeking individual outcome items comparing Pre Survey Baseline (T1), Post Survey Reflection (T2) and Post Survey End of PACE (T3): % Somewhat Agree/Strongly Agree .........................................................................................................................86
Figure 32. Student Survey- Changes in Commencement Confidence individual outcome items comparing Pre Survey Baseline (T1), Post Survey Reflection (T2) and Post Survey End of PACE (T3): % Quite Confident/Very Confident ...........................................................................................................87
Figure 33. Partner Survey – partner rating of student career readiness competencies (n=288) ....89
Figure 34. Student Survey- Active Citizenship changes in individual outcome items comparing Pre Survey Baseline (T1), Post Survey Reflection (T2) and Post Survey End of PACE (T3): % Somewhat Agree/Strongly Agree .........................................................................................................................90
Figure 35. Student Survey (Post)- PACE has improved my employability (n=918)..........................92
Figure 36. Student Survey (Post)- Impact of PACE on active citizenship & career readiness individual items (% Agreed/Strongly Agreed) ..........................................................................................93
Figure 37. GOS 2018 PACE items domestic and international undergraduates- To what extent did PACE.................................................................................................................................94
Figure 38. MQGDS 2016-2018 PACE items domestics and international undergraduates: To what extent did PACE.................................................................................................................................95
Figure 39. GDS 2013-2015 and GOS 2016-2018 - % of domestic undergraduate graduates in FT employment 4 months after course completion ..................................................................................98
Figure 40. GOS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 4 months after course completion by Broad Field of Education .................................................................................100
Figure 41. GOS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 4 months after course completion by MQ Faculty ..................................................................................102
Figure 42. GOS aggregate 2016-2018 sample - % of domestic undergraduates in overall employment 4 months after course completion by Broad Field of Education .................................................................................105
Figure 43. GOS aggregate 2016-2018 sample - % of domestic undergraduates in overall employment 4 months after course completion by MQ Faculty ..................................................................................106
Figure 44. MQGDS 2016-2018: % of domestic undergraduates in FT employment 12 months after course completion .................................................................................................................................107
Figure 45. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 12 months after course completion by Broad Field of Education .................................................................................108
Figure 46. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in full-time employment 12 months after course completion by MQ Faculty .................................................... 110

Figure 47. MQGDS 2016-2018: % of domestic undergraduates in overall employment 12 months after course completion by Broad Field of Education .............................................. 113

Figure 48. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in overall employment 12 months after course completion by Broad Field of Education ............................. 114

Figure 49. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in overall employment 12 months after course completion by MQ Faculty ..................................................... 115

Figure 50. MQGDS 2016-2018 Domestic undergraduate responses (% Fairly/Very Much)- To what extent was your employment related to your qualification? .................................................... 116

Figure 51. MQGDS 2016-2018 Domestic undergraduate responses (% Fairly/Very Much) by Broad Field of Education- To what extent was your employment related to your qualification? .......... 117

Figure 52. MQGDS 2016-2018 Domestic undergraduate responses (% Fairly/Very Much) by Faculty- To what extent was your employment related to your qualification? ................................. 118

Figure 53. MQGDS 2016-2018 Domestic undergraduate responses (% Well/Very Well)- Overall how well did your qualification prepare you for your job? .......................................................... 119

Figure 54. MQGDS 2016-2018 Domestic undergraduate responses (% Well/Very Well) by Broad Field of Education - Overall how well did your qualification prepare you for your job? .......... 120

Figure 55. MQGDS 2016-2018 Domestic undergraduate responses (% Well/Very Well) by Faculty – Overall how well did your qualification prepare you for your job? ........................................... 121

Figure 56. Partner Survey (post): % of partners who intended to stay in contact with the student/s (reference, offering volunteering or employment & connecting to networks) .................... 122

Figure 57. Student Survey (post): % of students who were going to stay in contact with their PACE partner (reference, volunteering and/or employment) ......................................................... 123

Figure 58. Partner Survey - Benefits of the PACE program ................................................................. 124

Figure 59. Program data: activities with a research focus 2016-2018 by Faculty (n=1946) .............. 130

Figure 60. GOS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 4 months after course completion, comparing multiple PACE units .............................................. 131

Figure 61. MQGDS aggregate 2016-2018 sample - % of domestic undergraduates in FT employment 12 months after course completion comparing multiple PACE units ............................. 132