PACE and Graduate Employment

Briefing Note: Findings from the PACE Evaluation and Graduate Outcome Surveys 2016-2019

The aim of the PACE program is to contribute to students’ career readiness, active and engaged citizenship and enhanced professional networks, and in doing so to enhance their employability. Whilst not a direct aim of the program, it is important to understand whether PACE impacts graduate employment trends. Data about graduate employment outcomes was collected and analysed as part of the PACE Evaluation and this provides useful insights to the relationship between PACE and graduate employment.

The PACE program is a university-wide, work-integrated learning program that gives undergraduate students the opportunity to engage in hands-on learning with an industry, government or not-for-profit organisation as part of their undergraduate degree. Underpinned by principles of reciprocity and collaboration, PACE’s vision is to connect all students, partner organisations and University staff in mutually beneficial learning opportunities that contribute to social impact and innovation.

Employment and employability are distinct, but related, concepts. Oliver (2015: 59) notes that while employment simply refers to ‘having a job,’ employability is a broader concept whereby:

“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.”

A key goal of the PACE program is to enhance students’ employability development, rather than enable them to secure a job per se. Employment outcomes, however, are of great interest to current and future students and their influencers, and to the University – particularly as we enter an era of Performance-based funding in which graduate employment outcomes play an important role in discretionary funding allocations. It is therefore important to understand whether, and how, PACE impacts employment trends for Macquarie graduates.

Graduate employment is, of course, influenced by a range of contextual factors outside the direct influence of the PACE program, including the broader education students receive at the University, labour market trends, employer bias towards Go8 graduates (Jackson, 2013) and graduate demographics (i.e. socio-economic status, gender, age, cultural background, etc). In terms of labour market trends, for example, the 2019 Graduate Outcomes Survey (GOS) National Report notes that graduate employment rates overall were generally lower than in 2018, which is “consistent with the slight softening in the labour market observed in early 2019” and “the broader long run trend since the Global Financial Crisis (GFC) where new graduates have found it more difficult to make a successful transition to the labour market upon completion of their studies” (QILT, 2019: 2).

EVALUATING THE IMPACT OF PACE ON GRADUATE EMPLOYMENT OUTCOMES

This analysis utilises annual data collected via the Graduate Outcomes Survey (GOS) (QILT, nd) and Macquarie University’s Graduate Destination Survey (MQGDS). The GOS is completed by 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. In collaboration with the Office of Business Intelligence & Reporting (BIR), the PACE Evaluation Project analysed the results of these surveys to better understand the employment outcomes of graduates who completed PACE. 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 PACE evaluation used the following filters to the GOS and MQGDS samples to identify respondents that were eligible to be included in the sample:

- Undergraduate students (Bachelor Pass, Bachelor Honours) as PACE is currently confined to undergraduate studies;
- Domestic students;
- Exclusion of education and early childhood students as there is no substantive difference between the learning experience that students completing PACE-designated teaching Practicum units have had compared to those completing non-PACE-designated Practicum units.
GOS SURVEY SAMPLE 2016-2019
After applying these filters, the PACE evaluation sample comprised 6265 undergraduate students (72% of the overall MQ respondents). This consists of 4668 graduates who completed at least one PACE unit and 1597 graduates who did not complete a PACE unit (Table 1).

<table>
<thead>
<tr>
<th>GOS year</th>
<th>Total MQ respondents to GOS</th>
<th>PACE evaluation sample after filters applied</th>
<th>Graduates who completed at least one PACE unit (PACE)</th>
<th>Graduates who did not complete a PACE unit (NON-PACE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% of all MQ GOS respondents</td>
<td>n</td>
<td>% of PACE evaluation sample</td>
</tr>
<tr>
<td>2016</td>
<td>1635</td>
<td>1190</td>
<td>73%</td>
<td>784</td>
</tr>
<tr>
<td>2017</td>
<td>1991</td>
<td>1467</td>
<td>72%</td>
<td>1043</td>
</tr>
<tr>
<td>2018</td>
<td>2343</td>
<td>1682</td>
<td>72%</td>
<td>1352</td>
</tr>
<tr>
<td>2019</td>
<td>2742</td>
<td>1926</td>
<td>72%</td>
<td>1489</td>
</tr>
<tr>
<td>2016-19</td>
<td>8711</td>
<td>6265</td>
<td>72%</td>
<td>4668</td>
</tr>
</tbody>
</table>

MQGDS SURVEY SAMPLE 2016-2019
After applying the filters, the PACE evaluation sample comprised 3604 undergraduate students (73% of the overall MQ respondents). This consists of 2728 graduates who completed at least one PACE unit and 876 graduates who did not complete a PACE unit (Table 2).

<table>
<thead>
<tr>
<th>MQGDS year</th>
<th>Total MQ respondents to MQGDS</th>
<th>PACE evaluation sample after filters applied</th>
<th>Graduates who completed at least one PACE unit (PACE)</th>
<th>Graduates who did not complete a PACE unit (non-PACE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% of all MQGDS respondents</td>
<td>n</td>
<td>% of PACE evaluation sample</td>
</tr>
<tr>
<td>2016</td>
<td>1098</td>
<td>827</td>
<td>75.3%</td>
<td>509</td>
</tr>
<tr>
<td>2017</td>
<td>1274</td>
<td>952</td>
<td>75.3%</td>
<td>715</td>
</tr>
<tr>
<td>2018</td>
<td>1377</td>
<td>973</td>
<td>70.7%</td>
<td>812</td>
</tr>
<tr>
<td>2019</td>
<td>1194</td>
<td>852</td>
<td>71.4%</td>
<td>692</td>
</tr>
<tr>
<td>2016-19</td>
<td>4943</td>
<td>3604</td>
<td>72.9%</td>
<td>2728</td>
</tr>
</tbody>
</table>
KEY FINDINGS ABOUT EMPLOYMENT OUTCOMES 4 MONTHS AFTER COURSE COMPLETION (GOS 2016-2019)

GRADUATES WHO COMPLETED AT LEAST ONE PACE UNIT WERE MORE LIKELY TO BE IN FULL-TIME EMPLOYMENT

Graduates 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 in each year and overall for the period 2016-2019 (Figure 1). The results were statistically significant in each year, and were very significant ($p<0.00001$) for the aggregate period 2016-2019. From 2016-2018 a greater proportion of PACE students were in full-time employment than the national undergraduate sample; in 2019 the proportion of PACE students in full-time employment was the same as the national undergraduate sample (72.2%) (see Figure 1). Notably, the proportion of the non-PACE cohort in full-time employment was lower than the national sample in all years.

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). 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. The results for Natural and Physical Sciences were not statistically significant.

![Figure 1. GOS 2016-2019 - Percentage of domestic undergraduate graduates in full-time employment 4 months after course completion](image)

1 Statistical testing was not undertaken Creative Arts, Management and Commerce, Health or Information Technology due to small samples ($n<100$)
GRADUATES WHO COMPLETED MORE THAN ONE PACE UNIT WERE EVEN MORE LIKELY TO BE IN FULL-TIME EMPLOYMENT

For the aggregate 2016-2019 period, 82% of graduates who had done multiple PACE units were employed full-time. In 2019, 79.2% of graduates who had done multiple PACE units were in full-time employment; this is well above the 2019 national average of 72.2%. Graduates who completed more than one PACE unit were significantly more likely to be in full-time employment than their peers who completed one PACE unit or no PACE units. The results were statistically significant in 2017, 2018, and 2019, and were very significant (p<0.00001) for the aggregate period 2016-2019.

GRADUATES WHO COMPLETED AT LEAST ONE PACE UNIT WERE MORE LIKELY TO AGREE THAT THEIR QUALIFICATION PREPARED THEM FOR THEIR CURRENT JOB

In all years (2016-2019) full-time employed graduates who did PACE were more likely to agree that their qualification prepared them for their job and less likely to state that they felt over-qualified for their current job. In the aggregate 2016-2019 period, graduates who did PACE were significantly more likely than non-PACE graduates to agree that their degree prepared them for their current job (p < 0.00001).

PACE PROVIDES STUDENTS WHO HAD NOT PREVIOUSLY UNDERTAKEN FULL-TIME WORK WITH A PATHWAY INTO GRADUATE EMPLOYMENT

Analysis was undertaken to examine 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 2016-2019, there was a higher proportion of PACE graduates who were in their first full-time job compared to non-PACE graduates. For the aggregate 2016-2019 period, 40% of PACE graduates in full-time employment were in their first full-time job (c.f. 27.5% of non-PACE graduates). These results were statistically significant for all years and the aggregate period. This suggests that PACE provides students who had not previously undertaken full-time work with a pathway into full-time graduate employment.

KEY FINDINGS ABOUT EMPLOYMENT OUTCOMES 12 MONTHS AFTER COURSE COMPLETION (MQGDS 2016-2019)

Twelve months after course completion, a similar picture emerges: graduates who did PACE as part of their undergraduate degree were more likely to be full-time employment one year after completing their studies compared to graduates who did not do PACE.

GRADUATES WHO COMPLETED AT LEAST ONE PACE UNIT WERE MORE LIKELY TO BE IN FULL-TIME EMPLOYMENT

Graduates 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 in each year and for the overall 2016-2019 period (Figure 2). The results were statistically significant in 2016 and 2018 and were very significant (p<0.00001) for the aggregate period 2016-2019. When analysed by Broad Areas of Education, statistically significant differences were also observed for graduates in Society and Culture (82.4% PACE, 74.3% non-PACE, p<0.01) and Management and Commerce (90.1% PACE, 78.9% non-PACE, p<0.01). A greater proportion of PACE graduates in Natural and Physical Sciences and Information Technology were in FT employment than non-PACE graduates, but these differences were not statistically significant. In the remaining Areas of Education the sample size was too small to allow statistical testing.

GRADUATES WHO COMPLETED MORE THAN ONE PACE UNIT WERE EVEN MORE LIKELY TO BE IN FULL-TIME EMPLOYMENT

For the aggregate 2016-2019 period, 89.7% of graduates who had done multiple PACE units were employed full-time. In 2019, 89.7% of graduates who had done multiple PACE units were in full-time employment, whereas only 72.8% of non-PACE graduates were employed full-time.

A GREATER PROPORTION OF GRADUATES WHO COMPLETED AT LEAST ONE PACE UNIT AGREED THAT THEIR QUALIFICATION PREPARED THEM FOR THEIR CURRENT JOB AND THAT THEIR JOB IS RELATED TO THEIR DEGREE

In all years (2016-2019) more graduates who did PACE agreed that their qualification prepared them for their job compared to the non-PACE cohort. In the aggregate 2016-2019 period, graduates who did PACE were significantly more likely than non-PACE graduates to agree that their degree prepared them for their current job (p<0.00001). Similarly, in all years a substantially greater proportion of PACE graduates were employed in a job related to their qualification than non-PACE graduates, and this difference was statistically significant each year (p<0.01) and for the aggregate 2016-2019 period (p<0.00001).
WHAT DO WE KNOW ABOUT PACE AND GRADUATE EMPLOYMENT OUTCOMES?

Data from both GOS and MQGDS from 2016-2019 demonstrate that PACE graduates consistently report higher full-time employment rates than non-PACE graduates, and that students who complete more than one PACE unit in their undergraduate degree have an even higher rate of employment success. Further, a substantially greater proportion of PACE graduates are employed in jobs that relate to their qualification than non-PACE graduates. In 2019 Macquarie’s graduate full-time employment rate four months after course completion, as measured in the GOS, dipped sharply compared to both Macquarie’s results in 2018 and the national average. However, analysis by the Office of Business Intelligence and Reporting (2019: 1) suggests that this was influenced by a change in the survey collection methodology which meant that “more than one third of the [Macquarie University] 2018 graduates (36.2%) received the 2019 GOS earlier than 4 months of course completion.” Analysis of the PACE and non-PACE graduate outcomes in 2019 suggests that PACE continued to positively impact graduate employment outcomes in 2019, which suggests that PACE remains a protective factor for students in a competitive job market.

In summary, this analysis provides strong evidence that the PACE program positively impacts graduate employment outcomes, and that PACE is a protective factor for Macquarie students in a competitive job market.

For more information about the PACE Evaluation go to the TEACH webpage or contact pace.research@mq.edu.au

REFERENCES


Office of Business Intelligence and Reporting (2019). Highlights from the 2019 Graduate Outcome Survey (GOS) Labour force outcome of Macquarie University graduates. Unpublished report to Department of the Vice Chancellor (Academic), Macquarie University.
