monash graduate association

Graduate Research in Engineering:

Student Experiences, Challenges and Opportunities for Enhancement

Acknowledgements

Acknowledgement of Country

The Monash Graduate Association respectfully acknowledges the Traditional Custodians of the lands on which we work and learn. We pay our respects to the Wurundjeri Woi Wurrung and Bunurong peoples of the Kulin Nation, on whose unceded lands our Melbourne campuses are situated.

We also acknowledge and pay our respects to the Traditional Custodians of all lands and waters across Australia from which our graduate students participated in this research. We honour the continuing connection of Aboriginal and Torres Strait Islander peoples to Country, culture, and community and recognise their enduring knowledge systems and contributions to Australian society.

We pay our respects to Elders past and present, and extend that respect to all Aboriginal and Torres Strait Islander peoples.

Report Production

The Monash Graduate Association would like to thank all those who assisted in the production and distribution of this survey. We would also like to thank the graduate students who completed the survey.

This report was produced by the MGA's Research Manager, Dr Ryan Edwards. Should you have any questions in regard to the paper, please contact Ryan.Edwards@monash.edu for further information.

Use of Generative AI

The design, methodology and core content of this report are the work of the author. Generative AI (Claude) supported specific technical tasks including the coding of open-ended survey responses and the automation of repetitive data analysis procedures. AI assistance was also employed for language editing and refinement throughout the document. All applications of AI were supervised and validated by the research team. The analytical insights, conclusions and recommendations presented in this report represent the independent professional judgment of the author. All cited sources were identified, reviewed and verified manually.

How to Cite this Report

Edwards, Ryan. *Graduate Research in Engineering: Student Experiences, Challenges and Opportunities for Enhancement.* Melbourne: Monash Graduate Association, 2025.

Table of Contents

Introduction

This report examines the experiences of 108 graduate research students in the Faculty of Engineering who participated in the MGA's *2025 National Postgraduate Student Survey on Health, Family and Finances*. It complements the university-wide report *Graduate Research at Monash: Student Experience, Challenges and Opportunities for Enhancement* by identifying faculty-specific patterns and opportunities for targeted enhancement within Engineering.

Where meaningful, findings are compared to Monash-wide averages to highlight areas where Engineering students' experiences converge with or diverge from broader institutional trends. Given the focused sample size, this report emphasises actionable insights for faculty leadership rather than comprehensive statistical analysis.

Survey Participation

- 108 Engineering graduate research students participated.
- Response rate represents approximately 14% of enrolled Engineering graduate researchers.
- Data collected May – June 2025 as part of broader institutional study.

Report Focus

This report addresses four key areas:

- Mental health and wellbeing in Engineering graduate research contexts.
- Financial pressures and their discipline-specific manifestations.
- Academic progression, career uncertainty and attrition considerations.
- Peer connection and support needs unique to Engineering students.

Note on methodology: For detailed survey methodology, limitations and comparative analysis with other universities, see the main university-wide report. This faculty report focuses on patterns specific to Engineering students and what the faculty can do to enhance support.

Key Findings for Engineering

This section presents core findings from the 108 Engineering graduate research students who participated in the survey, examining patterns across mental health, financial circumstances, academic progression and peer connection. Where meaningful, findings are compared to Monash-wide averages to identify areas where Engineering students' experiences align with or diverge from broader institutional trends. These comparisons reveal both shared challenges affecting graduate researchers across disciplines and distinctive patterns that may warrant faculty-specific interventions.

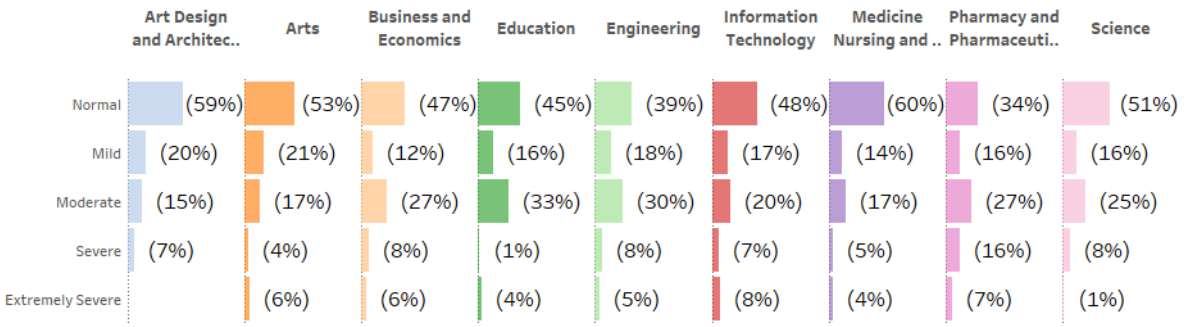
1. Mental Health and Wellbeing

Mental health challenges affect graduate research students across all disciplines, but the intensity and nature of these challenges – and students' willingness to seek support – vary by faculty context. This section examines mental health indicators, support access patterns and imposter syndrome rates among Engineering students, comparing them to university-wide averages. These findings reveal where Engineering students face similar challenges to their peers and where discipline-specific factors may create unique barriers or pressures.

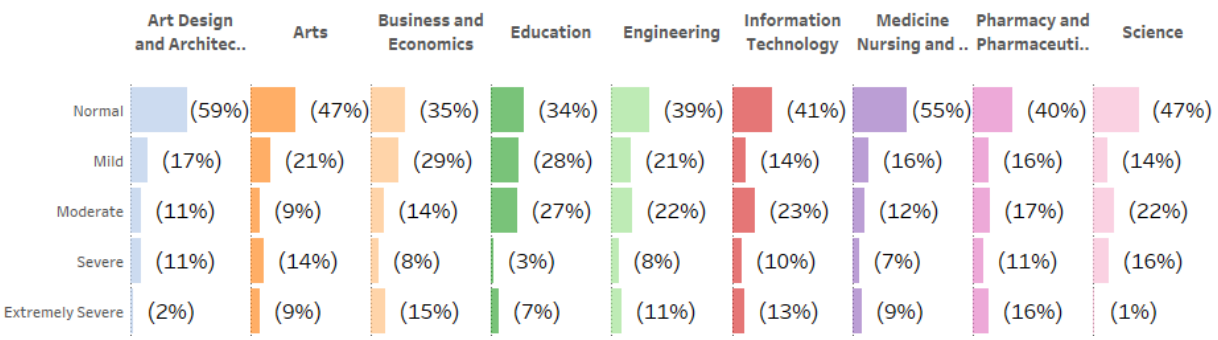
DASS21 Indicators:

Engineering students show mental health patterns similar to the Monash average.

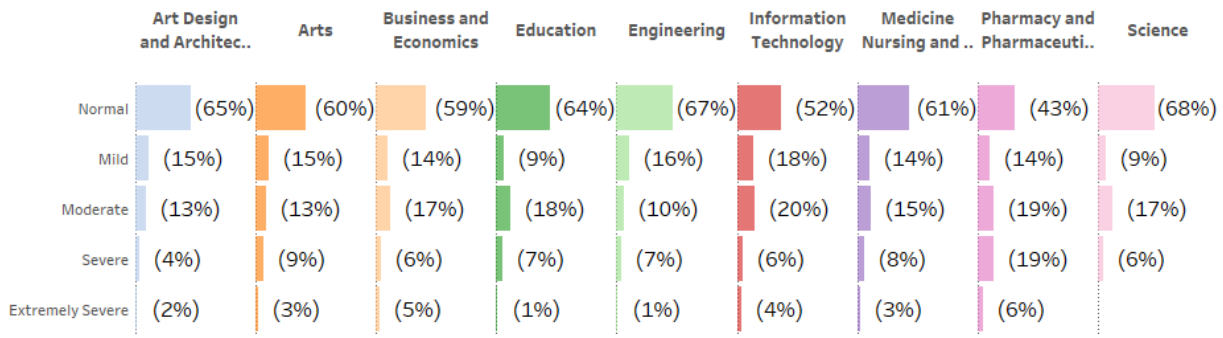
Depression:



Anxiety:



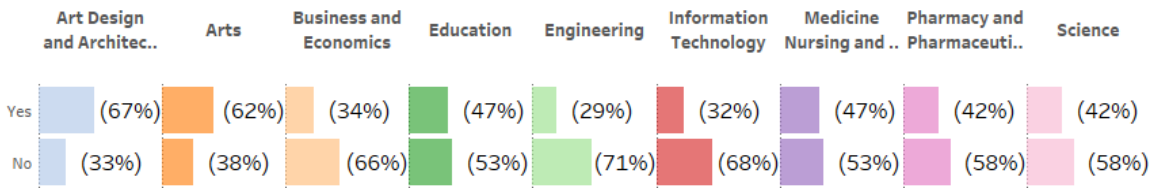
Stress:



Engineering students show elevated rates of depression and anxiety, with 61% falling outside the normal range – well above the university-wide figures of 49% and 54% respectively. In contrast, Engineering students reported lower stress levels than the broader graduate research population.

Mental Health Support Access:

Engineering respondents access mental health support less frequently than in all other facultuies. However, as with BusEco and IT, this can be explained by the high proportion of the faculty's respondents who were international students. Across the University, international students were far less likely to access support than their domestic peers (32% versus 62%).

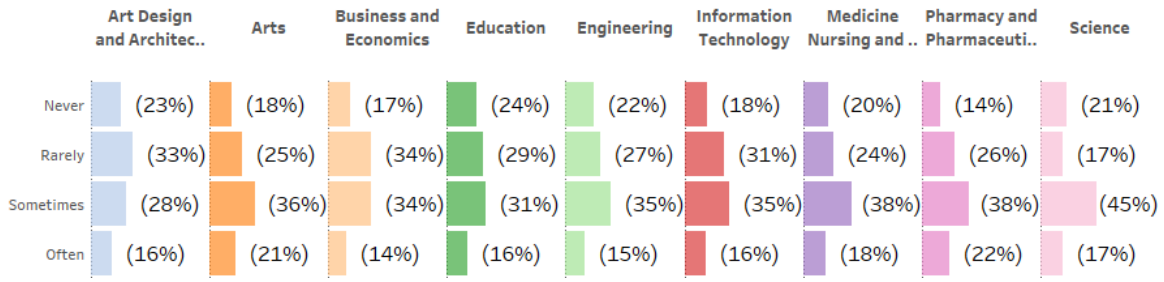


Key demographic insights:

- 29% of Engineering students have accessed mental health support (vs. 45% university-wide).
- 40% of domestic students (n.10) and 28% of international students (n.92) had accessed support. Both of these were below the average across the University for these demographic groups (domestic = 62%, international = (32%).
- 19% of men (n. 60) and 43% of women (n.42) had accessed support. Again, these levels of access are well below the average across the University for these demographic groups (men = 31%, women = 52%).

Imposter Syndrome:

Beyond clinical mental health indicators, imposter syndrome – the persistent feeling of being a fraud despite evidence of competence – represents a distinct psychological challenge facing graduate researchers. Examining imposter syndrome rates provides insight into how students experience their academic identity and belonging within the research community.



- 78% of Engineering students reported experiencing imposter syndrome at some point (vs. 80% university-wide).

Student Voices from Engineering:

While the quantitative data reveals patterns in mental health outcomes, research pressures and imposter syndrome among Engineering students, hearing directly from students themselves provides essential depth and context to these statistics. The following testimonies illustrate the lived experiences behind the data, revealing how mental health challenges manifest in the daily realities of graduate research students in Engineering:

> *"Feeling like my work was not as good as others or I was contributing to interactions in the wrong way."*
>
> *"My personality where I overreact to things not exercising periods not going outside and join friends for an outing."*
>
> *"I feel like I can't rely on any financial support from my family so I can't afford to relax or fail my degree. That makes me feel suffocated."*
>
> *"Not having good results through my research and the understanding of others towards me. I feel people want to guide you rather than listen to you and your problem."*
>
> *"Faculty negligence - Putting too much work pressure beyond working hours."*
>
> *"Uncertainty of future not doing something I am passionate about."*
>
> *"When I am stuck with a problem and can't find the way out especially if any of my peers are not working in the same area."*
>
> *"Working a lot. Tight deadlines."*
>
> *"One of the factors that contributes a bit is my culture but much of it relates to lack of having plan to engage in the society events."*

"When I took part in group work with classmates while my English is not good and can't understand what they said somethings."

"Loss of local culture."

"Nobody was helpful to my life."

"I am not working hard enough."

"Many deadlines at the same time that made everything seem impossible."

"I feel like most of my time is spent in my lab or with the members of the lab. I do not have enough time for other activities outside of work."

What This Means for Engineering:

Engineering students present a distinctive mental health profile characterised by elevated internalising symptoms (depression and anxiety at 61% outside normal range) alongside relatively lower stress levels than their peers university-wide. This pattern, combined with notably low support access rates (29% vs. 45% university-wide), suggests that many Engineering students may be experiencing significant distress without seeking help.

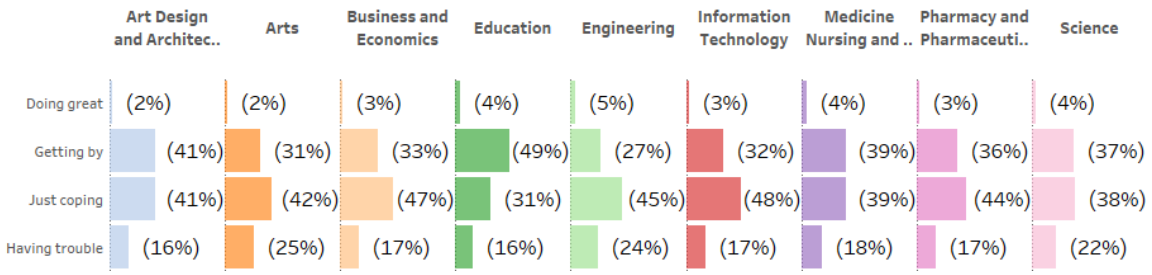
The demographic breakdown reveals particular concern for international students (28% access rate) and men (19% access rate) within the faculty. Student testimonies reveal that mental health challenges in Engineering stem from multiple intersecting sources: research uncertainty ("when I am stuck with a problem and can't find the way out"), work intensity ("tight deadlines"), cultural and language barriers for international students, and lab-based isolation ("most of my time is spent in my lab"). The combination of elevated symptoms and low help-seeking behaviour points to potential barriers – whether cultural, awareness-related, or structural – that prevent Engineering students from accessing available support when experiencing distress.

2. Financial Circumstances and Career Pressure

This section examines two interrelated dimensions of the Engineering graduate research experience: financial circumstances and career navigation. Beyond standard financial wellbeing measures, Engineering students face discipline-specific pressures including international conference/fieldwork expectations, professional presentation standards and the tension between academic career paths and industry opportunities. These factors combine to create unique financial and professional challenges that may require targeted faculty-level interventions.

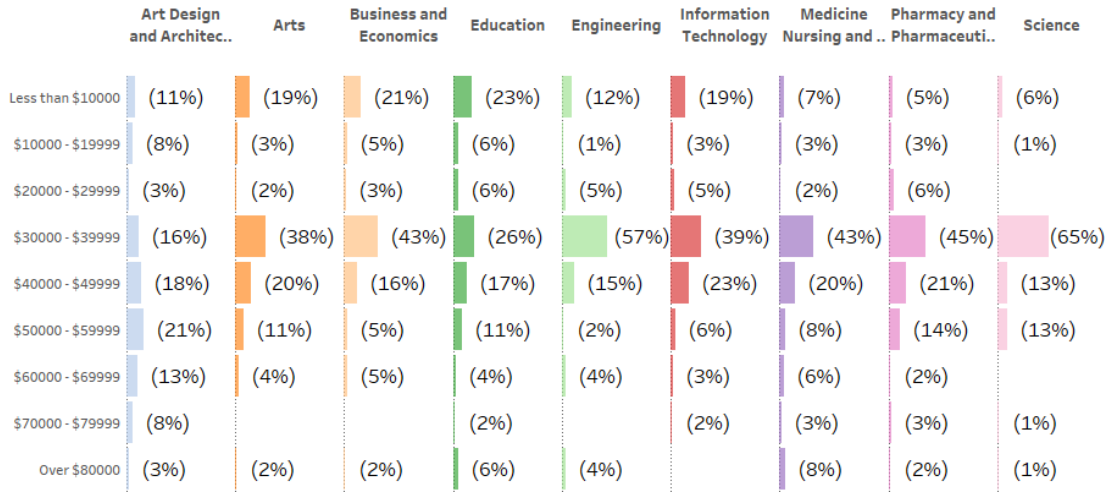
Melbourne Institute's Financial Wellbeing:

Engineering graduate research students show financial wellbeing patterns similar to the Monash average with 69% of the faculty's students either "just coping" or "having trouble." The Faculty recorded the lowest proportion of students either "doing great" or "getting by."



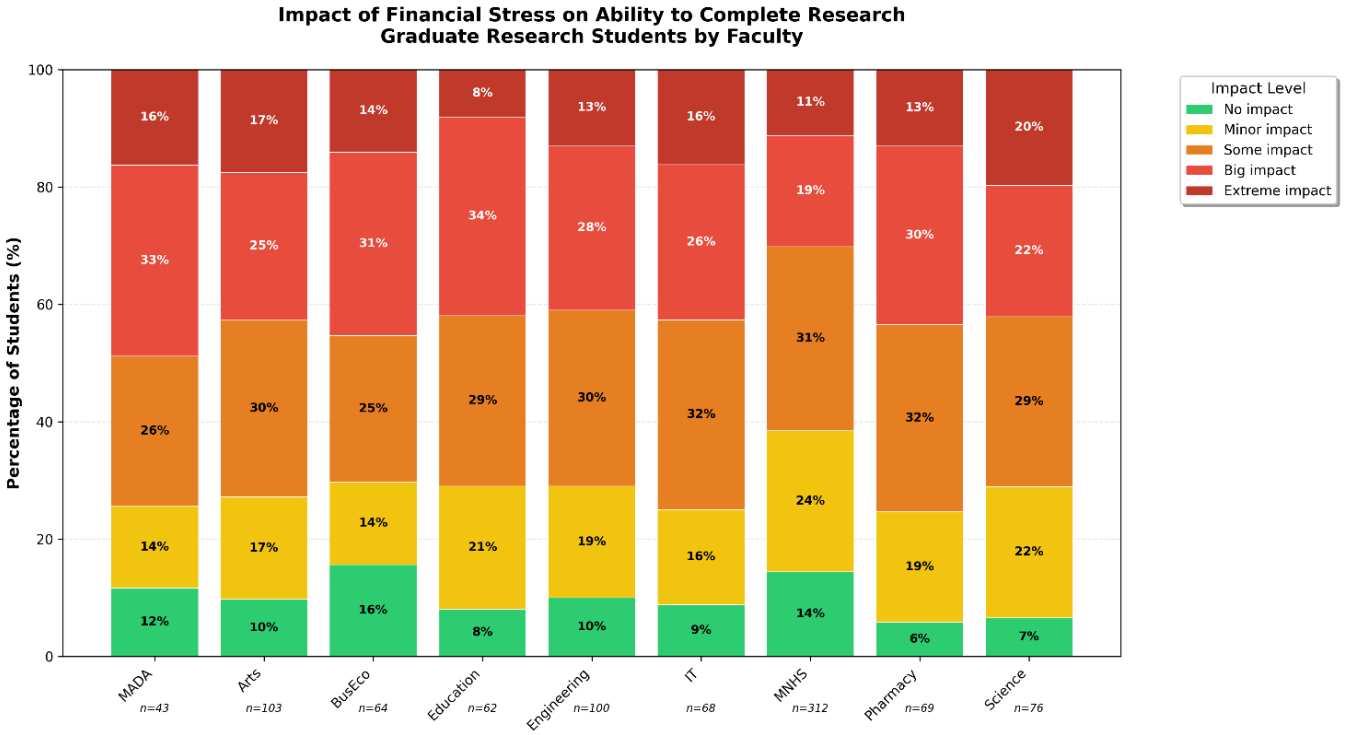
Estimated Annual Income (AUD):

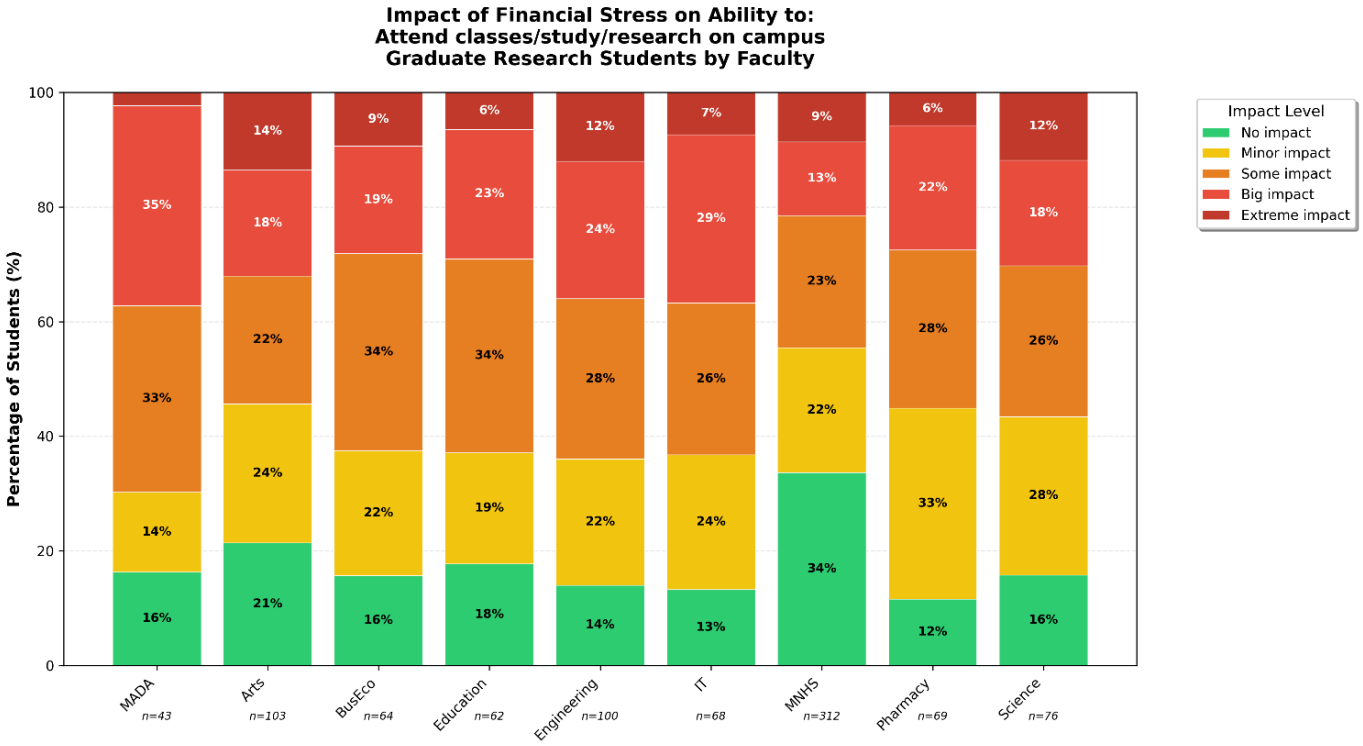
Engineering students show income patterns broadly consistent with university trends, with students reporting median incomes in the $30,000-$39,999 range (reflecting scholarship levels).

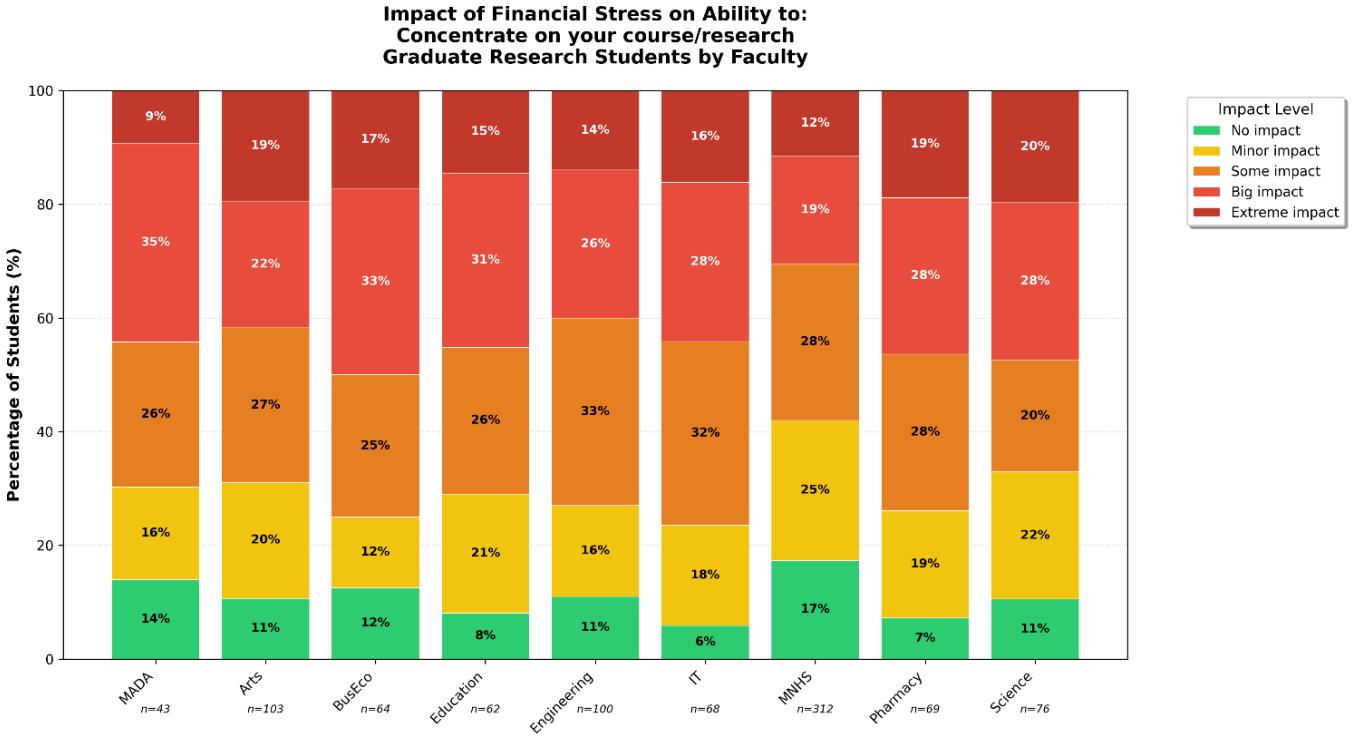


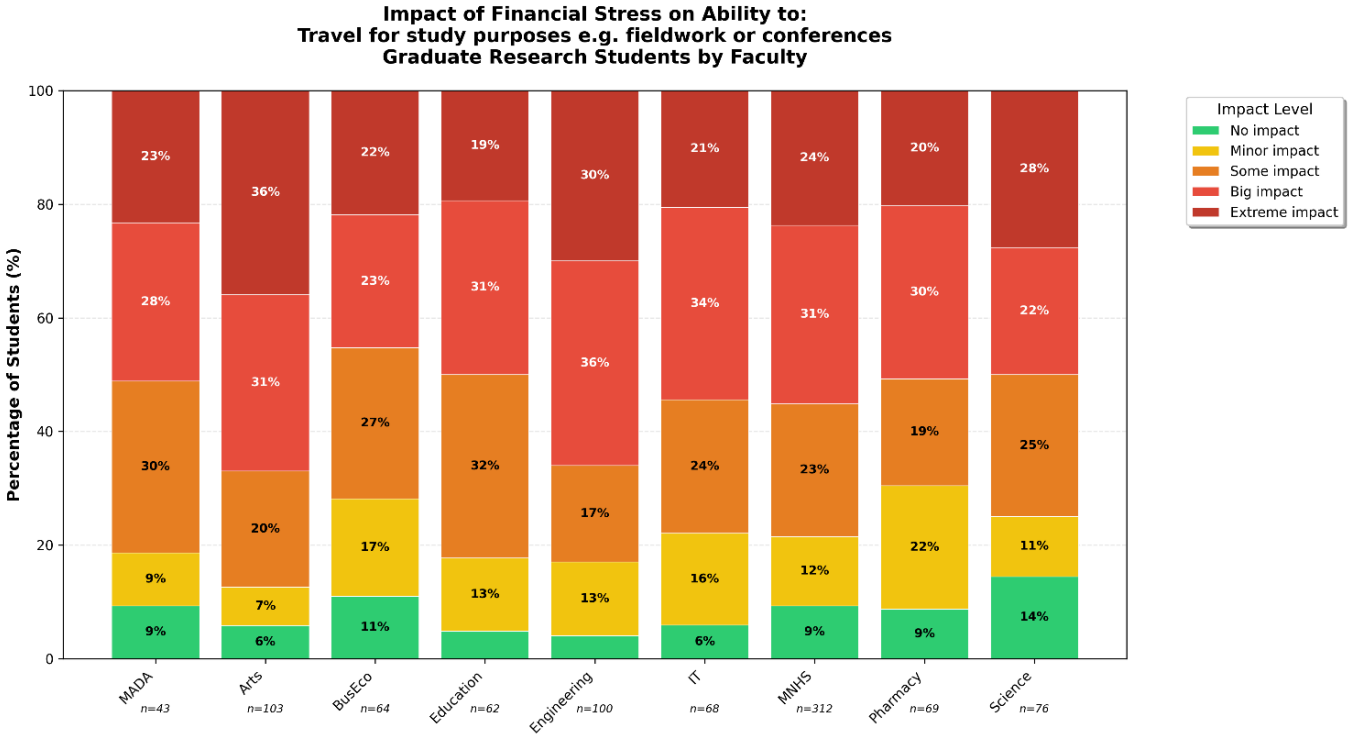
How Financial Pressures Affect Academic Activities

Financial pressures directly impact Engineering students' ability to engage fully with their research and professional development opportunities. The following data reveal how financial stress affects key aspects of academic engagement:









Key Findings on Financial Impact:

- **Research completion capacity:** 41% indicate that financial stress has an extreme or big impact on their ability to complete their research to the best of their ability (vs. 39%

university-wide reporting extreme/big impact). This metric captures the cumulative effect of financial pressures on overall research quality and completion prospects.

- **Campus attendance and engagement:** 36% report that financial stress has an extreme or big impact on their ability to attend classes, study, or conduct research on campus (vs. 28% university-wide). For students unable to afford transport costs or who work extensive hours to meet living expenses, physical presence on campus – essential for accessing resources, connecting with peers and engaging with the research community – becomes a luxury rather than a given.
- **Concentration and research quality:** 40% of Engineering students report that financial stress has an extreme or big impact on their ability to concentrate on their research (vs. 40% university-wide). This suggests that financial pressures directly undermine the cognitive focus required for high-quality scholarly work, with Engineering students experiencing the same rates as their peers across the university.
- **Professional development through travel:** 66% report that financial stress has an extreme or big impact on their ability to travel for study purposes such as fieldwork, conferences, or research collaborations (vs. 56% university-wide). Students facing financial constraints may miss crucial networking opportunities, visibility in their field and professional development experiences that are expected – if not required – for successful academic or industry careers. Engineering has the second-highest extreme or big impact numbers of any faculty.

Student Voices on Financial Reality:

The following testimonies illustrate the lived experiences behind the data, revealing how financial pressures manifest in the daily realities of graduate research student in Engineering – from managing basic living expenses to affording professional conferences.

> *"I would for example like to be able to go to gym but the small things that bring joy are often the hardest things to get when you are covering the bare minimum."*
>
> *"The current scholarship rate should be increased and Travel grant for attending conferences should be up to the current market standard. Moreover, the sudden closure of postgrad publication award by the university put a huge uncertainty to those who were significantly relying on this after submitting their thesis. Alternative arrangement of the PPA should be considered."*
>
> *"[The stipend] is literally lower than the national minimum wage so ... it is just hard."*
>
> *"If I live alone, I need to bear a huge rent pressure. If I share a house with others I will be easily influenced by my roommates and cannot concentrate on my studies."*
>
> *"I have less financial stress as I live with a partner who has a full-time income who can support us both but it reduces how much we can save and some opportunities (home ownership) due to my lower income."*
>
> *"The stipend rates should be at least increased by 10-15% every year as other major expenses such as rents almost increases by 15-20% every year."*
>
> *"Inflation is much too crazy in the past few years."*

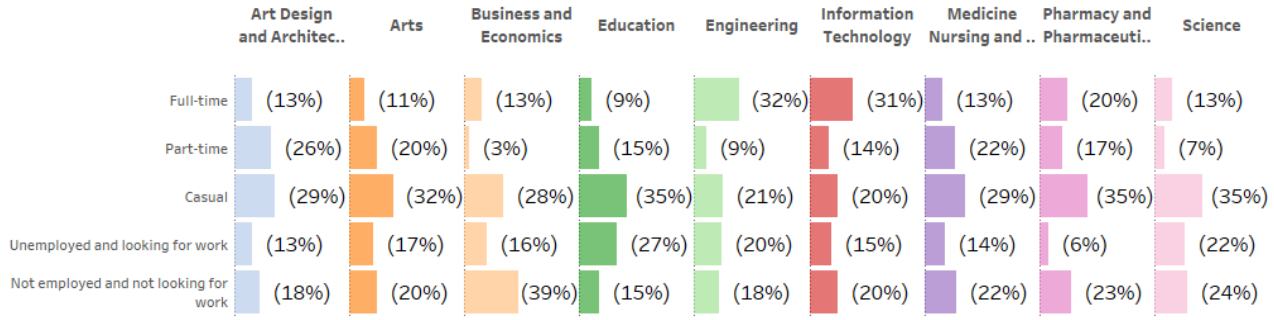
"The scholarship amount is not enough for postgrads who has a family. The rent prices insurance costs and food expenses are increasing at a logarithmic scale compared to the RTP stipend we are receiving."

"Cost of some services at the campus can be reduced when compared to the market to help all students get an equal opportunity to avail them. It includes medical and extracurricular services available at the University."

Employment Patterns:

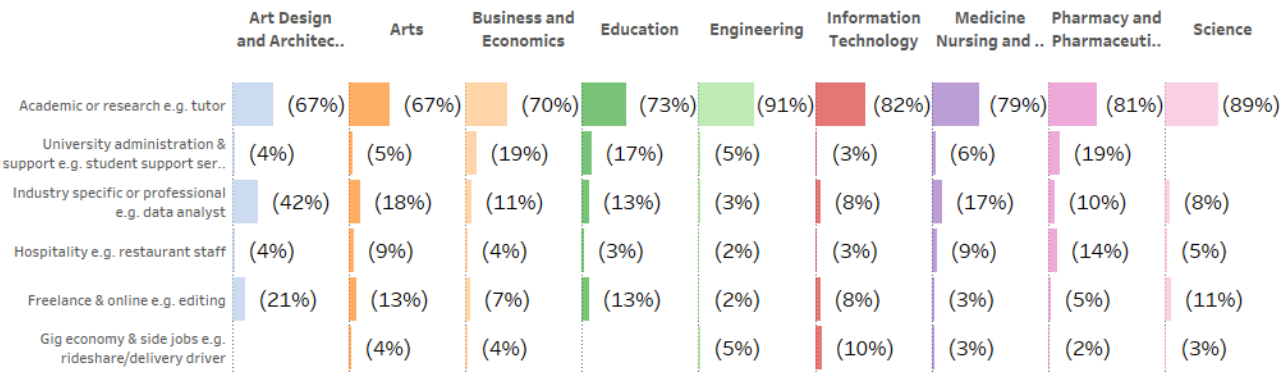
The employment patterns among Engineering students reveal the complex relationship between financial necessity, professional development and research progress. Understanding who works, in what capacity and how employment relates to research provides insight into the discipline-specific challenges Engineering students navigate.

Employment Status of Full-Time Students Across the Faculties:



One-fifth of Engineering graduate research students are unemployed and looking for work, while a further 18% are not employed and not looking for work. The faculty also has the highest proportion of students employed full-time, which is interesting as 99% of Engineering respondents were studying full-time.

The Type of Jobs Students are Employed In:



Engineering reported the highest proportion of students in academic employment of any faculty across the University.

Relation of Job to Research

A notable strength of the Engineering faculty is the high proportion (92%) of students working in directly or somewhat related roles—suggesting successful integration of employment with professional development through research assistant positions, tutoring/teaching roles (91%), consulting work, or industry research collaborations. For these students, employment functions as a complementary career-building experience rather than a competing burden.

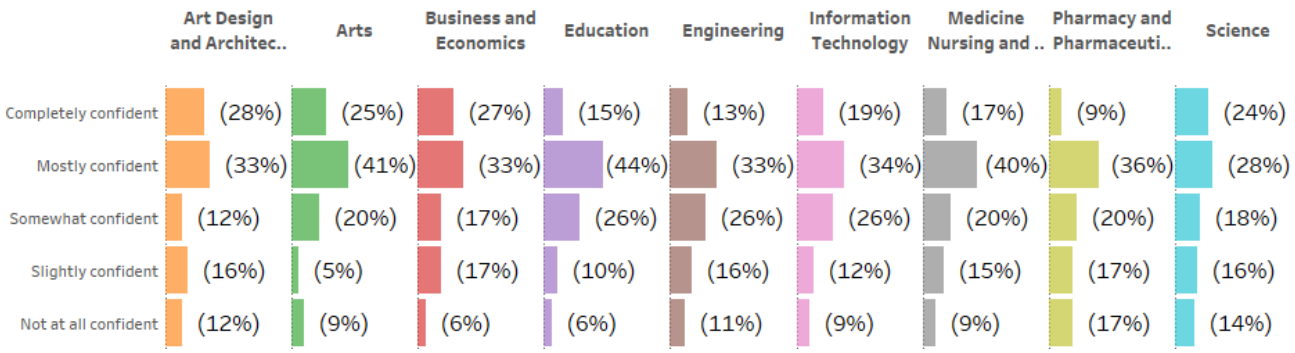
The small minority (8%) working in unrelated roles face the double burden of financial necessity combined with work that offers no direct advancement toward research or professional goals. For a discipline where career trajectories span both academic and industry pathways, the Faculty's existing success in providing professionally relevant employment opportunities—through teaching assistant roles, research collaborations and industry partnerships—has already transformed employment from a competing pressure into a professional development asset for the vast majority of students. However, the relatively high unemployment rate (20%) in the faculty indicates that there is still room for growth as some students find themselves unable to secure employment. In addition, the 18% currently unemployed and not looking for work will benefit from greater efforts to enable career and employment opportunities when these students are ready to start work.

3. Academic Progression and Career Uncertainty

Beyond the immediate pressures of mental health and financial stress, Engineering graduate research students must navigate questions about their academic trajectory and post-PhD careers. This section examines completion confidence, consideration of leaving and satisfaction with career guidance among Engineering students. Understanding these patterns reveals how the distinctive pressures facing Engineering students – including the tension between academic and industry pathways – affect their sense of progress and professional direction.

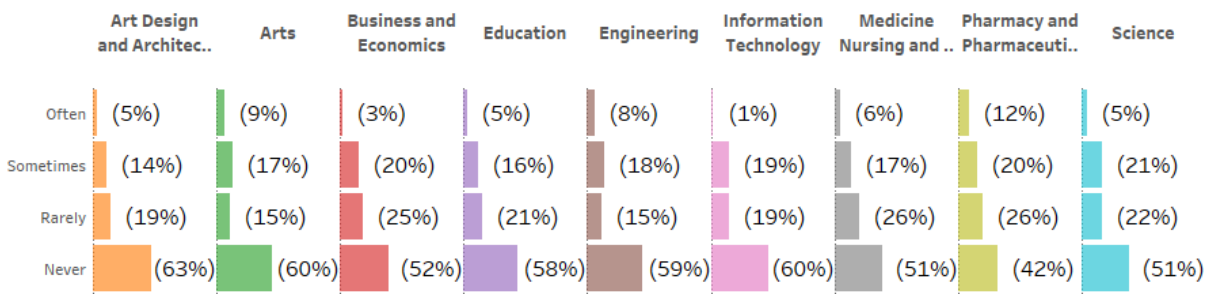
Completion Confidence:

Engineering students show lower completion confidence than the university average (46% vs. 55% completely/mostly confident), which was the second-lowest recorded across the faculties. Indeed, 27% harbour a high degree of doubt about timely completion.



Considering Leaving:

Consideration of leaving one's degree represents a normal part of the graduate research journey for many students, reflecting moments when challenges feel overwhelming or alternative paths appear more appealing. Examining how frequently Engineering students experience these thoughts and how this compares to university-wide patterns, provides important context for understanding retention risks and the effectiveness of current support systems in sustaining students through difficult periods.

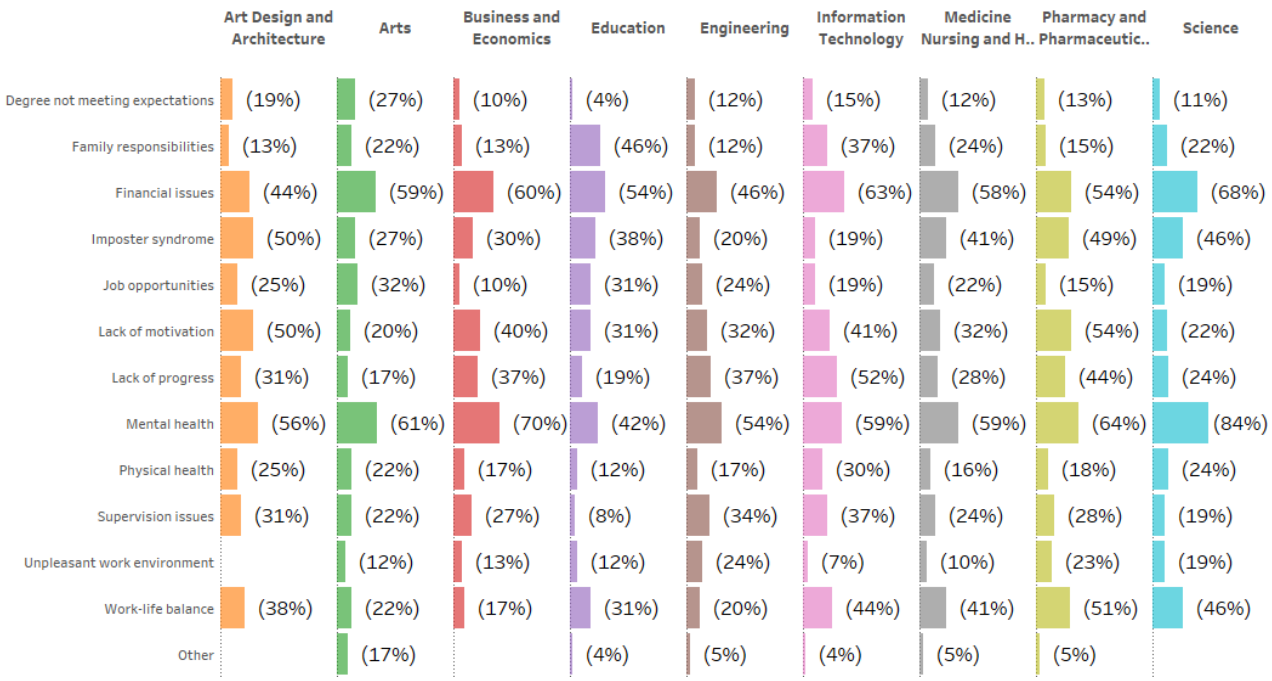


Just over two-fifths (41%) of Engineering students have considered leaving at some point, which is below the 46% university-wide average. However, 8% report considering leaving often (vs. 6% university-wide), suggesting that while fewer Engineering students contemplate withdrawal overall, those who do consider withdrawal struggle somewhat more persistently. The lower overall level of consideration of leaving can partly be explained by the faculty's demographic composition. Engineering has a higher proportion of international student respondents and across the university, international students consider leaving substantially less frequently than domestic students (38% vs. 56%).

Engineering faces several unique factors in relation to PhD student retention. The visibility of lucrative industry alternatives in technology and engineering sectors may create ongoing tension about whether the PhD path is "worth it" financially, particularly when students face the financial pressures documented earlier in this report. The competitive research culture may intensify feelings of inadequacy or questioning of fit. Additionally, the diverse career pathways available to engineering PhDs – spanning both academic research and industry R&D roles – may create ongoing uncertainty about whether they are pursuing the "right" trajectory, particularly as industry opportunities become increasingly attractive.

However, the below-average overall consideration rate (41% vs. 46% university-wide) provides some reassurance. While the elevated frequent consideration (8%) signals that some students experience persistent doubts, the majority of Engineering students maintain confidence in their PhD path, suggesting that faculty-level supports and the strength of engineering research communities help most students sustain their commitment through challenging periods.

Primary Reasons for Considering Leaving (among those who have considered):



Among Engineering students who have considered leaving, the pattern of reasons reveals both shared challenges with the broader graduate research population and some distinctive emphases. Mental health emerges as the dominant factor, cited by 54% of Engineering students who have considered leaving. This finding, combined with the substantially lower mental health support access rates documented earlier (29% vs. 45% university-wide), suggests a critical gap: Engineering students experience severe mental health impacts on their persistence, yet access support at lower rates than their university-wide peers.

Financial issues represent the second most common reason at 46%, consistent with the substantial financial pressures documented throughout this report. Notably, this rate is lower than all but one other faculty, suggesting that while financial stress remains significant for Engineering students, it may be less acute than in other disciplines – potentially reflecting the stronger industry employment opportunities documented earlier.

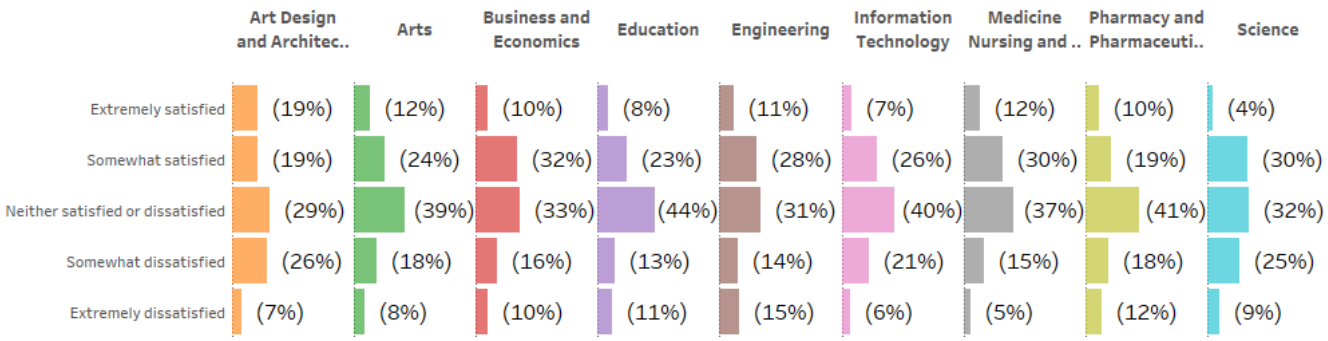
Engineering students demonstrate notable resilience in two areas commonly associated with attrition: imposter syndrome (20%) and work-life balance concerns (20%) are both relatively low compared to other faculties. This suggests that Engineering students generally maintain confidence in their academic capabilities and find the intensity of research demands manageable – positive indicators for the faculty's research culture and training environment.

However, relational and environmental factors emerge as significant concerns. Supervision issues (34%) rank as a substantial problem, alongside unpleasant work environment (24%) that feeds into lack of motivation (32%) and lack of progress (37%), pointing to challenges in the interpersonal and cultural dimensions of the Engineering research experience.

The combination of factors suggests that consideration of leaving among Engineering students stems less from self-doubt, work intensity or financial desperation, and more from the quality of the research environment and relationships, compounded by mental health challenges. This pattern reinforces specific priority areas for the Faculty: improving mental health support access (particularly given the stark 29% vs. 45% gap), addressing supervision quality and research culture, and continuing the faculty's success in providing manageable workloads and professionally relevant employment opportunities that build student confidence.

Career Guidance Satisfaction:

Career guidance represents a critical component of graduate research training, yet one that often receives less attention than academic supervision or research skill development. Graduate researchers must navigate complex career decisions – including whether to pursue academic positions, transition to industry, or explore alternative pathways – while simultaneously managing the demands of their research projects. The timing, networking strategies, skill development priorities and application approaches differ substantially across these trajectories, making discipline-specific career guidance particularly valuable. Understanding how satisfied Engineering students are with the career support they receive provides insight into whether current services adequately prepare them for the diverse professional pathways available to PhDs.



While indifference was the most cited answer, 39% of Engineering graduate researchers were satisfied with career guidance and 29% were dissatisfied with current career guidance efforts.

The Engineering Career Challenge:

Engineering graduate research students face unique career navigation challenges:

- The visibility of lucrative industry alternatives in technology and engineering creates ongoing questions about the financial value of PhD completion versus options for immediate employment.
- Engineering PhDs develop highly specialised technical expertise that may not translate directly to broader career paths, creating uncertainty about post-PhD opportunities beyond academia.
- The rapid pace of technological change in engineering fields means students may worry about skill obsolescence or whether their research will remain relevant to industry needs.
- Lack of access to research resources may inhibit engineering students' success, leading them to seek opportunities elsewhere.
- Students need guidance on translating highly technical research into industry-relevant competencies and understanding how to position specialised engineering doctorates in diverse career contexts.

Student Voices on Career Guidance:

Student feedback reveals specific gaps in current career support for Engineering researchers. The testimonies below highlight both what students need – proactive outreach, discipline-specific guidance, industry connections – and what current services may be missing:

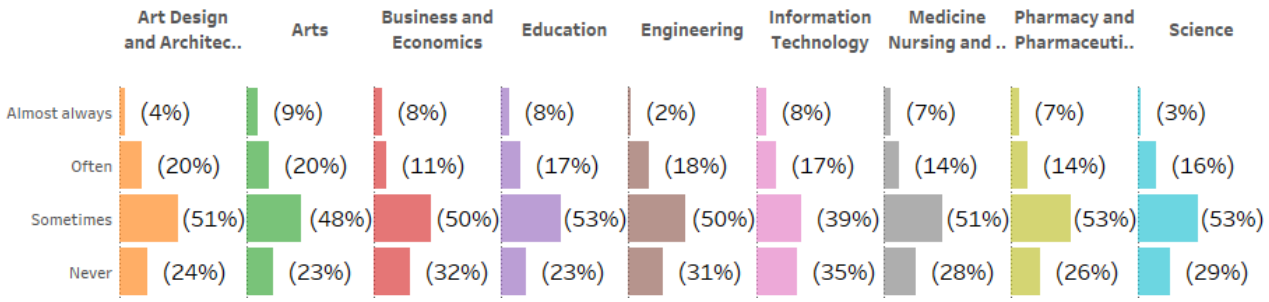
> *"Provide more paid internships to encourage students to seek internship opportunities while also providing a range of incentives to encourage students to focus on academic research."*
>
> *"Career guidance service should be brought to the department level; otherwise, it becomes difficult to get proper suggestions from a general perspective. Engineering, social science and law all vary significantly, so getting the right guidance is very scarce."*
>
> *"Seminars for professional development avenues to socialise with industry folks etc."*
>
> *"More effective and actual guidance from uni and supervisors."*
>
> *"Maybe have a hot desk or a career guidance unit where we can go and discuss our problems as HDR students."*

4. Peer Connection and Disciplinary Community

Social connection and peer relationships provide essential support throughout the extended graduate research journey, yet the independent nature of doctoral work creates particular challenges for community building. This section examines how Engineering students experience isolation, belonging and meaningful contact across different relationship types. Understanding these patterns reveals where existing community-building efforts reach Engineering students effectively and where discipline-specific factors – such as methodological diversity, competitive cultures or varied career orientations – may create barriers to connection.

Isolation and Belonging:

Feelings of isolation and lack of belonging represent common challenges in graduate research, where students often work independently on specialised projects over extended periods. The following data reveal how Engineering students experience connection – or disconnection – within their academic community.



- 69% of Engineering students experience some degree of isolation (vs. 72% university-wide).
- 20% experience isolation “often” or “almost always” vs. 22% university-wide.

Student Voices on Isolation:

While the quantitative data reveals patterns in isolation and connection among Engineering students, hearing directly from students themselves illuminates the lived reality behind these statistics. The following testimonies reveal how isolation manifests in the daily experience of graduate research – from the solitary nature of creative work to the challenge of finding peers who understand discipline-specific pressures.

> *“There's not much community feeling in the university. Most students live off campus and come to uni only for a few hours/days a week. It's extremely difficult for international students to make new friends.”*

> *“When I felt isolated several factors contributed to this experience. One of the main reasons was being away from my family which created a sense of emotional distance and lack of immediate support. Living alone in a new country further intensified this feeling especially during times when I faced challenges or needed companionship. Additionally, the Clayton*

area being a suburban environment has limited social, cultural and recreational activities compared to a more central urban setting. This sometimes made it difficult to engage in stimulating or community-based events which could have helped alleviate the isolation. These combined factors made it harder to build a strong social network and maintain a balanced personal life outside of academic work."

"I am a fresh international student with not good English proficiency a cultural gap and habitual differences so it may contribute to my isolation."

"Maybe that I work alone most of the times and my husband work in the evenings. So less social contact once I'm done with my work."

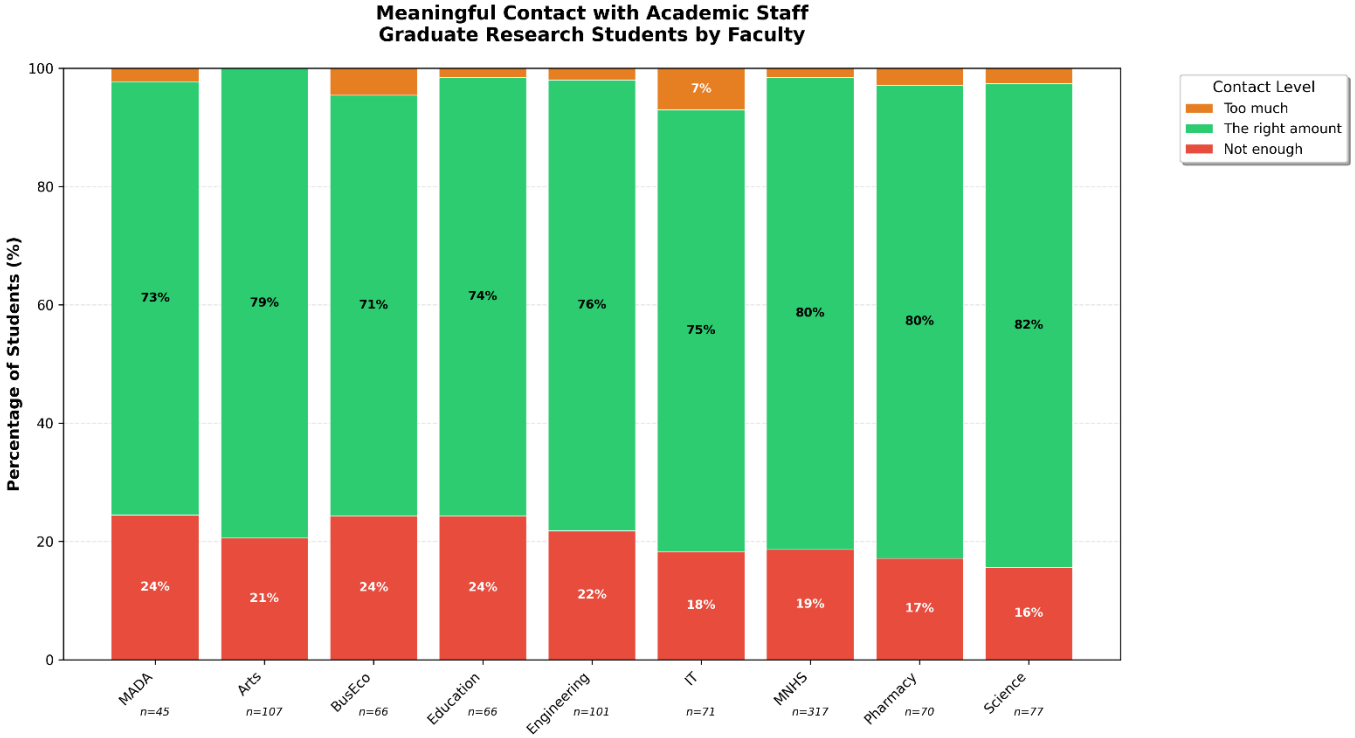
"No social groups or general hangouts in social situations."

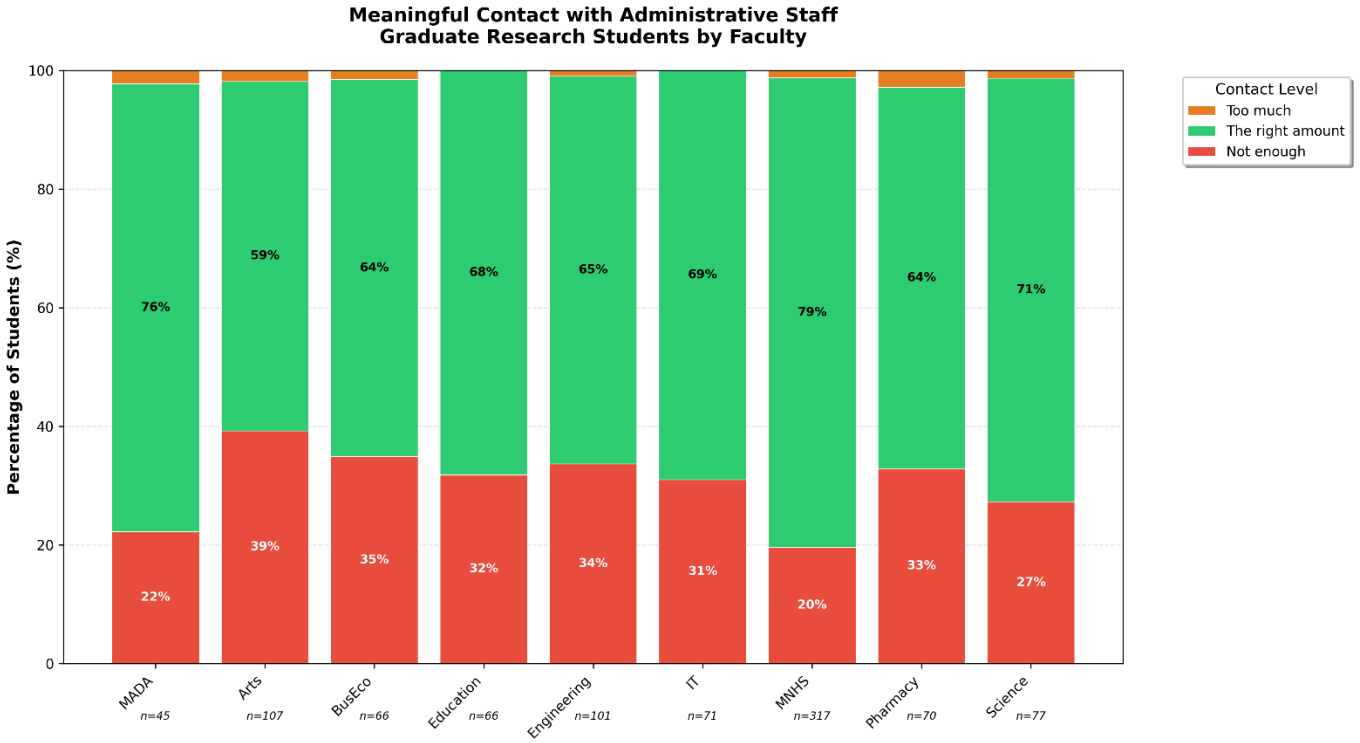
"The fact that I work either in my office room or room at home where on both circumstances I am the only person in."

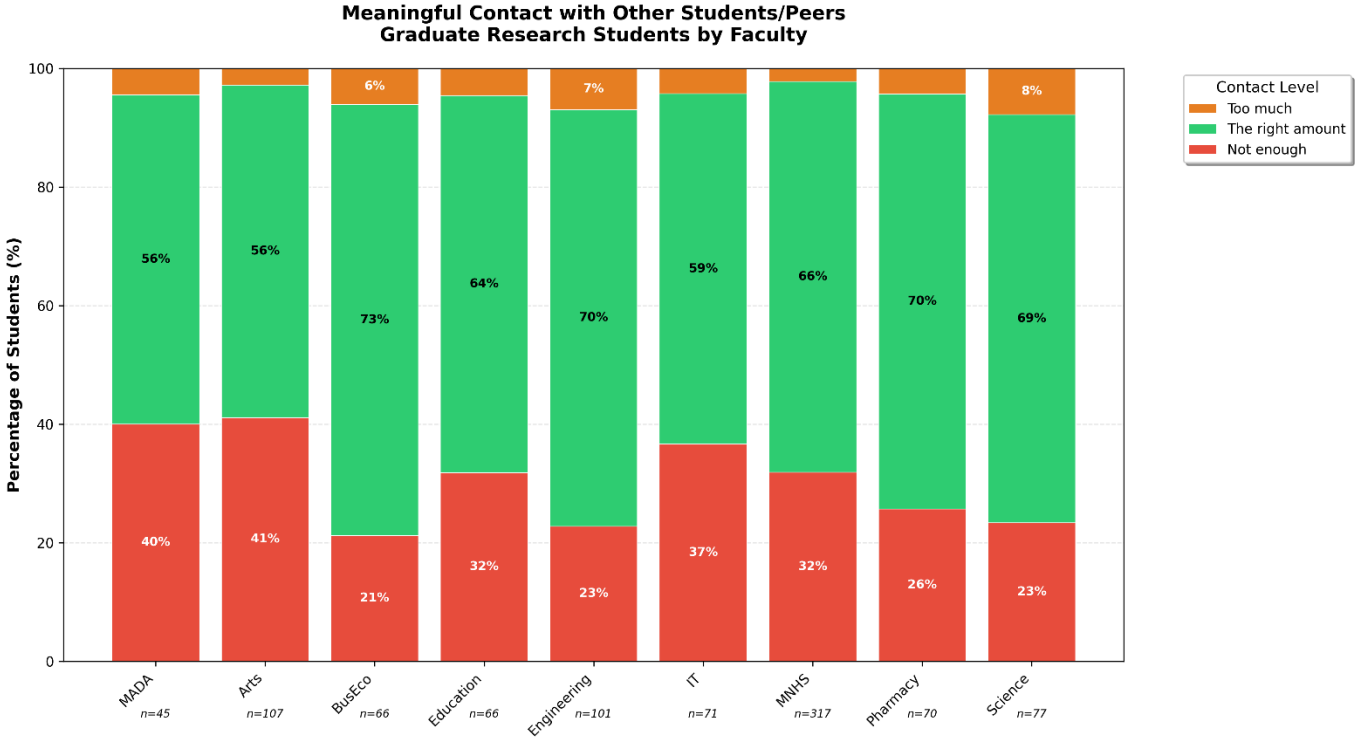
"Unable to find time for networking with fellow- students."

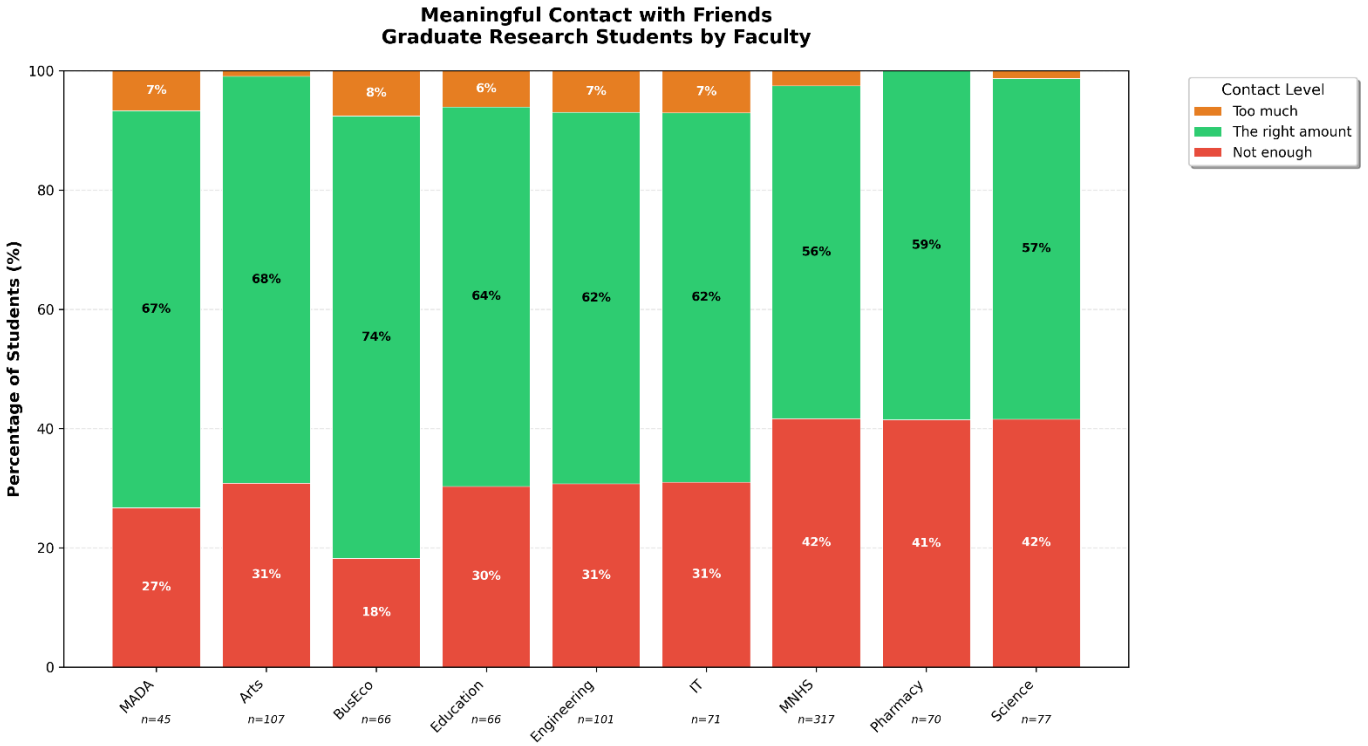
Meaningful Contact:

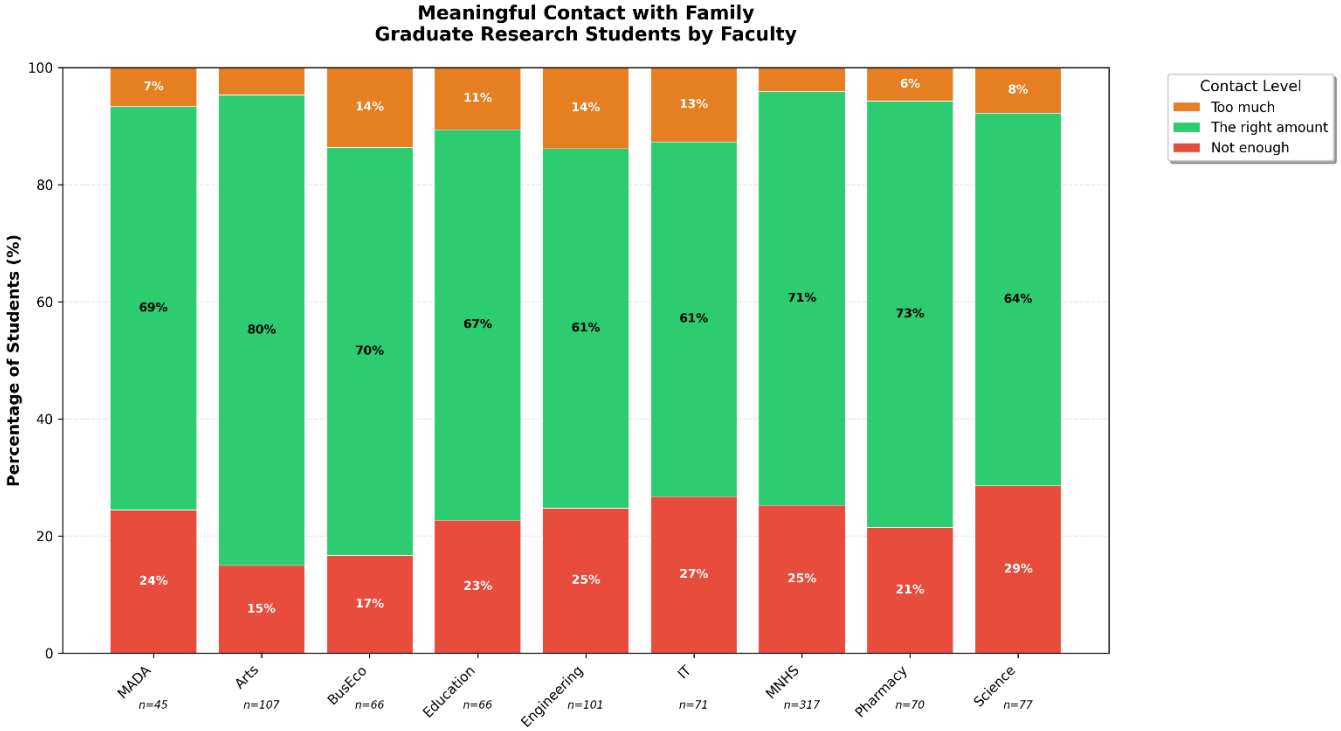
To better understand connection patterns, students were asked to evaluate whether they have sufficient meaningful contact with five key groups: academic staff, administrative staff, peers, friends and family. The following data reveal where Engineering students feel adequately connected and where they experience insufficient contact.




Meaningful Contact with Administrative Staff
Graduate Research Students by Faculty
Percentage of Students (%)
Contact Level
Too much
The right amount
Not enough
MADA n=45
Arts n=107
BusEco n=66
Education n=66
Engineering n=101
IT n=71
MNHS n=317
Pharmacy n=70
Science n=77
76%
22%
59%
39%
64%
35%
68%
32%
65%
34%
69%
31%
79%
20%
64%
33%
71%
27%


Meaningful Contact with Other Students/Peers
Graduate Research Students by Faculty
Percentage of Students (%)
Contact Level
Too much
The right amount
Not enough
MADA n=45
Arts n=107
BusEco n=66
Education n=66
Engineering n=101
IT n=71
MNHS n=317
Pharmacy n=70
Science n=77
56%
40%
56%
41%
6%
73%
21%
64%
32%
7%
70%
23%
59%
37%
66%
32%
70%
26%
8%
69%
23%





These patterns of meaningful contact reveal a relatively positive picture for Engineering students, particularly in areas most critical to the graduate research experience. Engineering students report the second-highest having “the right amount” of contact with their peers, compared with the

faculties across Monash. This suggests that social and collegial connections – often the most challenging aspects of graduate research given its independent nature – are functioning reasonably well for most students in Engineering. This finding indicates that existing community-building efforts, whether through formal faculty events, informal student-organised gatherings, or natural peer networks, are reaching a substantial portion of the Engineering graduate research population.

The success in peer connection provides a foundation to build upon rather than a problem to solve. The Faculty's challenge lies not in creating peer community from scratch, but in ensuring that existing networks remain accessible to all students – including part-time students (barely represented in this survey), international students who may face additional barriers to social integration and students whose financial constraints limit their ability to participate in social activities. Additionally, while most students report adequate peer contact, the 23% who experience insufficient connection represent an important minority whose isolation may be masked by overall positive patterns.

The relatively strong peer connections among Engineering students may reflect several positive factors: cohort-based coursework in early candidature that builds relationships, active student-led initiatives, effective faculty social events or perhaps a collaborative rather than purely competitive research culture that encourages peer support. Understanding and preserving whatever factors contribute to these positive patterns should be a priority even as the faculty works to extend similar connection opportunities to students not currently benefiting from existing networks.

What Makes Engineering Distinct: Key Themes

Based on both quantitative patterns and qualitative student voices, three themes distinguish the Engineering graduate research experience from most other faculties at Monash.

Elevated Internalised Distress with Paradoxically Low Support Access

Engineering students show concerning rates of depression and anxiety (61% outside normal range) that exceed university averages, yet access mental health support at the lowest rate of any faculty (29% vs. 45% university-wide). This gap between need and help-seeking behaviour is particularly pronounced among international students (28% access) and men (19% access), suggesting significant barriers to support utilisation within the faculty's demographic profile.

Strong Peer Connection as a Protective Factor

Despite elevated mental health concerns, Engineering students demonstrate relative strength in peer connection, with lower isolation rates than the university average (69% vs. 72%) and the second-highest proportion reporting “the right amount” of contact with peers (64%). This suggests that existing cohort structures, lab-based work environments or faculty social initiatives successfully facilitate peer community – a foundation to preserve and extend rather than rebuild.

Career Navigation Complexity in High-Demand Technical Fields

Engineering students face distinctive career guidance challenges stemming from visible and lucrative industry alternatives that create persistent questions about the PhD's value proposition. While they show resilience to imposter syndrome and work-life balance concerns – neither of which are major factors in why they consider leaving – they report substantial dissatisfaction with career guidance (29% dissatisfied) and cite supervision issues (34%) and work environment concerns (24%) as reasons for considering leaving. This pattern suggests students need not motivation or confidence-building, but concrete, discipline-specific guidance on how their specialised research translates to diverse career contexts beyond academia.

Faculty-Specific Recommendations

These recommendations are tailored to patterns observed among Engineering students and prioritise actions the faculty can take to enhance support. For detailed implementation guidance, see the corresponding recommendations in *Graduate Research at Monash: Student Experience, Challenges and Opportunities for Enhancement*.

Based on the data, Engineering should focus faculty efforts on three distinctive challenges where targeted intervention will have maximum impact:

1. Improve Mental Health Support Access

The Problem: Only 29% of Engineering students have accessed mental health support compared to 45% university-wide – the lowest rate of any faculty. This reflects Engineering's high proportion of international students (28% access rate) and men (19% access rate), both of which are well below their respective university averages (international: 32%, men: 31%). However, 61% of Engineering students show elevated depression and anxiety (vs. 49-54% university-wide) and 54% who consider leaving cite mental health as a reason – indicating substantial unmet need despite low help-seeking behaviour.

What the Faculty Can Do:

Immediate Actions:

- Partner with Monash Counselling and Psychological Services (CAPS) to develop Engineering-specific mental health messaging for international students and men.
- Reframe support using language that resonates in engineering contexts: "troubleshooting research challenges" and "optimising performance under pressure."
- Feature testimonials from international Engineering students and male researchers who successfully accessed mental health support.
- Embed mental health information in Engineering-specific lab induction processes where students already gather and engage.
- Partner with student-led engineering societies to normalise wellbeing conversations through peer-led events.
- Create discipline-specific resources addressing Engineering research stressors: "Managing uncertainty when stuck on technical problems," "Coping with failed experiments," "Maintaining wellbeing during intense deadlines."

Success Metrics: Increase support access from 29% toward 45% university average; reduce disparity between Engineering and university rates for international students and men; student feedback on messaging relevance and accessibility.

For detailed implementation guidance, see main report: Level 1 – "Develop Culturally Responsive Mental Health Service Delivery" and Level 3 – "Implement Culturally Responsive Mental Health Service Delivery."

2. Establish Engineering Career Pathways Program with Industry Connections

The Problem: 29% of Engineering students are dissatisfied with career guidance and students explicitly requested career support that acknowledges their unique position at the intersection of deep technical specialisation and visible industry alternatives. Engineering PhDs face distinctive challenges: lucrative industry alternatives create persistent questions about PhD value; highly specialised expertise may not translate obviously to broader career paths; rapid technological change raises concerns about skill relevance; and students need practical guidance on positioning specialised research in diverse contexts beyond traditional academic or R&D roles.

What the Faculty Can Do:

Immediate Actions:

- Integrate career discussions into milestone reviews.
- Provide supervisors with conversation prompts and Engineering alumni contact list.
- Document career discussions in milestone records.

Short-Term Program (6-12 months):

Launch quarterly alumni career panels featuring diverse pathways:

- Academic positions (preparation, timelines, publication strategies).
- Industry R&D and corporate research (Google, Microsoft, manufacturing, defence).
- Engineering consulting and technical advisory roles.
- Technology start-ups and entrepreneurship.
- Policy and regulatory affairs (standards bodies, government technical advisory).
- Host discipline-specific workshops:
    - "Translating Your Engineering PhD for Industry: Beyond R&D Roles."
    - "The Engineering Academic Job Market: Timelines and Strategies."
    - "From PhD to Start-up: Engineering Entrepreneurship Pathways."
- Offer individual career planning conversations with relevant staff or student mentors.

Long-Term Investment (2+ years):

Advocate for dedicated 0.5-1.0 FTE Engineering Graduate Research Career Advisor with established engineering industry networks to provide comprehensive support, relationship building and program coordination.

Success Metrics:

Career guidance satisfaction improvement (currently 39% satisfied, target 60%+); reduction in dissatisfaction from 29% toward 15%; event attendance; student feedback on discipline-relevance; career outcome tracking showing diverse successful pathways.

For detailed implementation guidance, see main report: Level 1 – "Enhance Supervisor Capacity: Resources and Prompts for Career Conversations"; Level 2 – "Develop Graduate Research Alumni Mentoring Network"; Level 3 – "Establish Discipline-Embedded Career Advisors."

3. Preserve and Extend Peer Connection Infrastructure

The Problem: While Engineering demonstrates relative strength in peer connection (64% report "right amount" of peer contact – second-highest across faculties; 69% experience isolation vs. 72% university-wide) and 20% still experience high levels of isolation ("often" or "almost always"). Student testimonies reveal specific vulnerabilities: international students struggling with language barriers and community integration; students working alone in labs or from home; and inability to find time for networking. The challenge is not creating peer community from scratch, but ensuring existing successful structures remain accessible to all students, particularly international researchers and those less visible in traditional cohort structures.

What the Faculty Can Do:

Immediate Actions:

- Document what currently works: Survey students and faculty about successful peer connection initiatives to identify:
    - Which cohort-building practices in coursework phases create lasting relationships.
    - What lab structures facilitate peer interaction (e.g., shared spaces, regular lab meetings, collaborative projects).
    - Which faculty social events/initiatives have high engagement and positive feedback.
    - What student-led activities successfully build community.
- Ensure lab-based work arrangements include structured peer interaction:
    - Encourage lab group meetings that balance research updates with peer support.
    - Create shared lab spaces where feasible to facilitate informal interaction.
    - Establish regular "lab social hours" for relationship building beyond formal meetings.
- Extend successful initiatives to underserved populations:
    - Schedule faculty social events at varied times to accommodate part-time researchers.
    - Partner with engineering student societies to create international student welcome/integration events.
    - Develop hybrid delivery options for peer events to reach students working from home or with caring responsibilities.

Success Metrics: Maintain current strengths (64% "right amount" of peer contact); reduce high isolation from 20% toward 10%; student feedback on accessibility of peer connection opportunities.

For detailed implementation guidance, see main report: Level 1 – "Enhance Peer Connection Through Structured Community Building Activities" and Level 2 – "Establish Faculty-Specific Graduate Research Social Programming."

Conclusion

These three recommendations directly address Engineering's most distinctive challenges – the paradox of elevated mental health distress (61% with depression/anxiety) alongside the lowest support access rate across all faculties (29%), career navigation complexity at the intersection of technical specialisation and visible industry alternatives, and the need to preserve existing peer connection strengths whilst addressing persistent pockets of isolation. All three are immediately actionable at faculty level, require modest initial investment and build from immediate low-cost interventions (embedding mental health messaging in lab inductions, integrating career discussions into milestones) toward longer-term strategic enhancements (dedicated career advisor, documented peer connection practices). By focusing faculty efforts on these targeted priorities, Engineering can meaningfully close the gap between mental health need and help-seeking behaviour, provide the discipline-specific career guidance students explicitly requested and ensure the faculty's relatively strong peer networks remain accessible to all students – establishing a model for leveraging faculty-specific strengths whilst addressing demographic vulnerabilities.

Appendix: Engineering Demographics

Campus	Respondents
I do not regularly attend campus	0 (0%)
Clayton	100 (95%)
Caulfield	61 (86%)
Peninsula	0 (0%)
Parkville	2 (2%)
Malaysia	3 (3%)
Hospital or Medical Centre	1 (1%)
Indonesia	0 (0%)
Suzhou	1 (1%)
other	1 (1%)

School/Department	Respondents
Chemical and Biological Engineering	22 (21%)
Civil Engineering	40 (38%)
Electrical and Computer Systems Engineering	10 (10%)
Material Science and Engineering	12 (11%)
Mechanical and Aerospace Engineering	19 (18%)
School of Engineering (Malaysia)	1 (1%)
Other	1 (1%)

Domestic/International	Respondents
Local student (Australian or New Zealand citizen/permanent resident)	12 (11%)
International student	96 (89%)

Study load	Respondents
Full-time	108 (99%)
Part-time	1 (1%)
On leave from study	0 (0%)

Study location	Respondents
Entirely on-campus	79 (73%)
Mix of on-campus and off-campus	29 (27%)
Entirely off-campus	0 (0%)
Other	0 (0%)

Time since last degree	Respondents
Less than 1 year	35 (33%)
1-5 years	61 (58%)
6-10 years	9 (9%)
11+ years	1 (1%)

Degree progress	Respondents
First year	32 (29%)
Second year	29 (27%)
Third year and beyond	48 (44%)

Study hours	Respondents
Less than 5	4 (4%)
6-10	6 (6%)
11-20	4 (4%)
21-30	19 (18%)
31-40	32 (30%)
Over 40 hours	43 (40%)

English proficiency	Respondents
Fluent	39 (36%)
Advanced	37 (35%)
Intermediate	25 (23%)
Elementary	5 (5%)
Beginner	1 (1%)

Gender	Respondents
Woman	45 (42%)
Man	62 (58%)
Non-binary/gender diverse	0 (0%)
Prefer to self-describe	0 (0%)
Prefer not to say	0 (0%)

LGBTIQA+	Respondents
Yes	5 (5%)
No	99 (93%)
Prefer not to disclose	3 (3%)

Indigenous (domestic students only)	Respondents
Yes	0 (0%)
No	12 (100%)
Prefer not to disclose	0 (0%)

Disability	Respondents
Yes	1 (1%)
No	106 (99%)
Prefer not to disclose	0 (0%)

Registered disability with DSS	Respondents
Yes	0 (0%)
No	1 (100%)

Age	Respondents
24 or under	5 (5%)
25-29	54 (50%)
30-39	47 (44%)
40 and over	2 (2%)

Parental status	Respondents
Yes – living with me	7 (7%)
Yes – not living with me	6 (6%)
No	88 (87%)

Primary carer	Respondents
Yes	5 (71%)
Shared responsibility	5 (71%)
No	0 (0%)

Carer status	Respondents
Yes	9 (9%)
No	92 (91%)

Employment status	Respondents
Full-time	32 (32%)
Part-time	9 (9%)
Casual	22 (22%)
Unemployed and looking for work	20 (20%)
Not employed and not looking for work	18 (18%)

Work hours	Respondents
Less than 5	19 (31%)
6-10	17 (27%)
11-20	8 (13%)
21-30	4 (7%)
31-40	8 (13%)
More than 40	6 (10%)

Scholarship recipients	Respondents
Yes	88 (88%)
No, but I previously held a scholarship	5 (5%)
No	7 (7%)

Value of scholarship	Respondents
Less than $33,511	11 (13%)
$33,511 (National full-time RTP stipend minimum)	15 (17%)
$33,512 - $36,062	4 (5%)
$36,063 (Monash full-time RTP stipend)	51 (58%)
$36,064 - $47,626	6 (7%)
More than $47,627 (National minimum wage)	1 (1%)