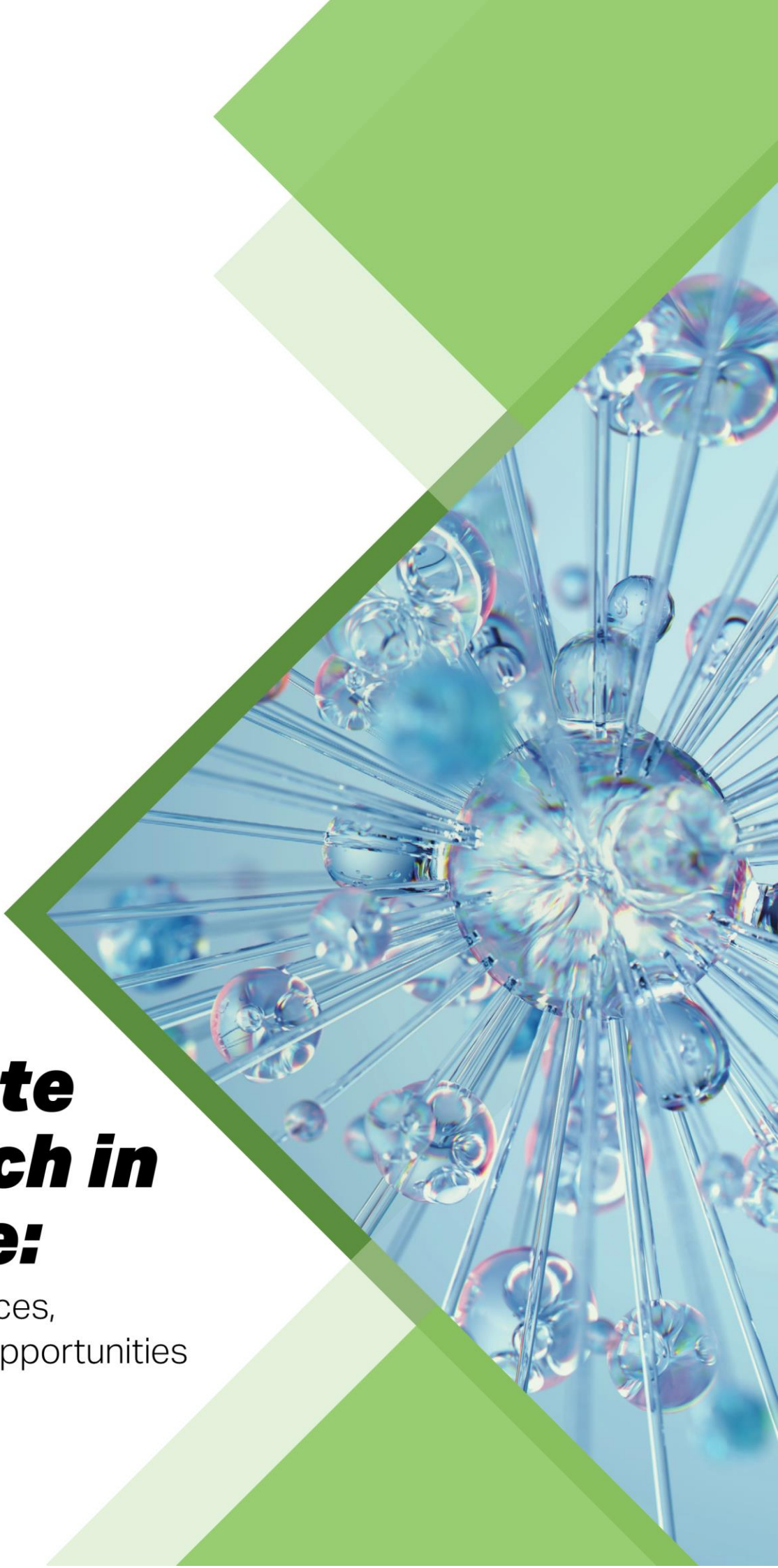
monash graduate association



Graduate Research in Science:

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 Science: Student Experiences, Challenges and Opportunities for Enhancement.* Melbourne: Monash Graduate Association, 2025.

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Introduction

This report examines the experiences of 78 graduate research students in the Faculty of Science 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 Science.

Where meaningful, findings are compared to Monash-wide averages to highlight areas where Science 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

- 78 Science graduate research students participated.
- Response rate represents approximately 16% of enrolled Science 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 Science graduate research contexts.
- Financial pressures and their discipline-specific manifestations.
- Academic progression, career uncertainty and attrition considerations.
- Peer connection and support needs unique to Science 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 Science students and what the faculty can do to enhance support.

Key Findings for Science

This section presents core findings from the 78 Science 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 Science 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.

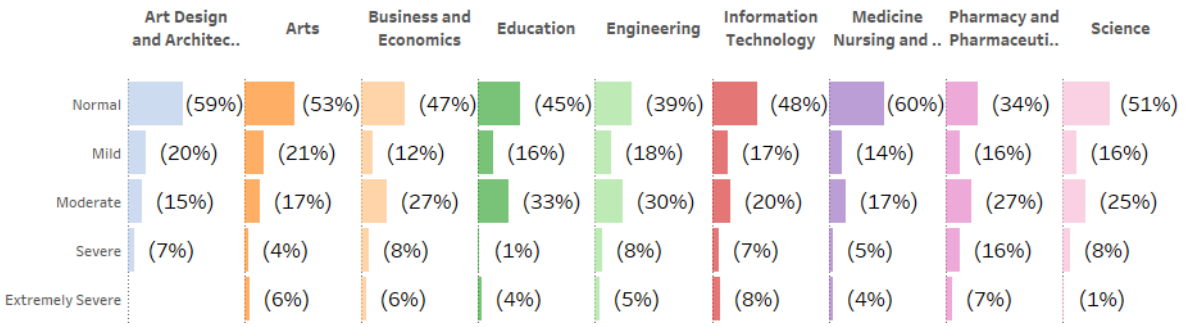
1. Mental Health and Wellbeing

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 Science students, comparing them to university-wide averages. These findings reveal where Science students face similar challenges to their peers and where discipline-specific factors may create unique barriers or pressures.

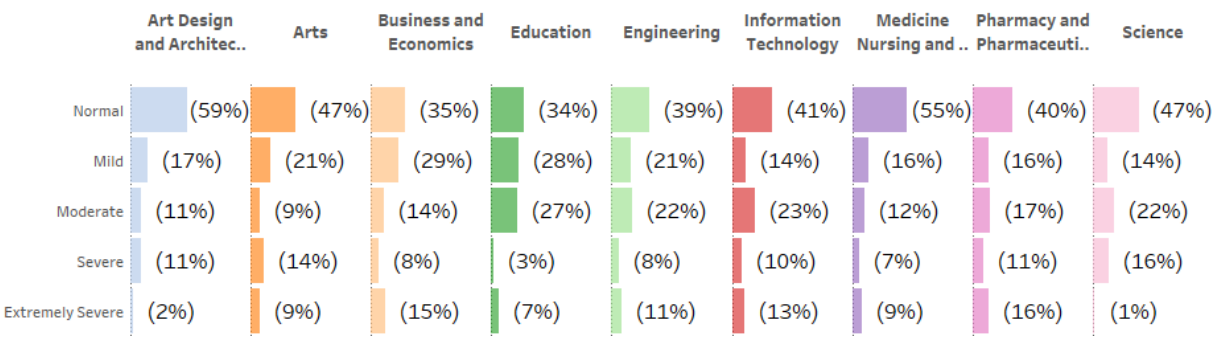
DASS21 Indicators:

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

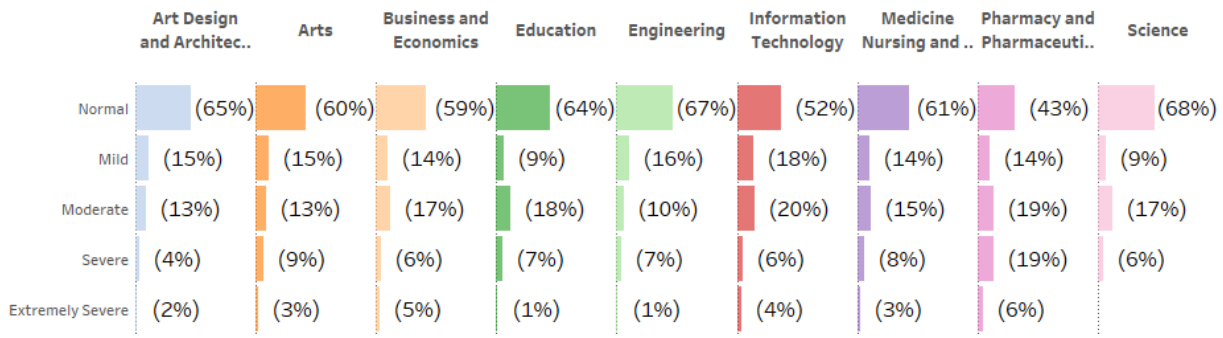
Depression:



Anxiety:



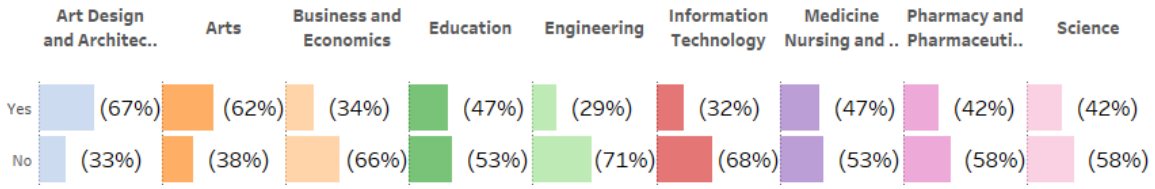
Stress:



Science students' mental health patterns largely mirror the broader graduate research population: 51% report normal-range depression (vs 51% university-wide) and 47% normal-range anxiety (vs 46%). Notably, Science had the highest proportion reporting normal stress levels (68%).

Mental Health Support Access:

Science respondents access mental health support marginally less frequently than most other faculties.

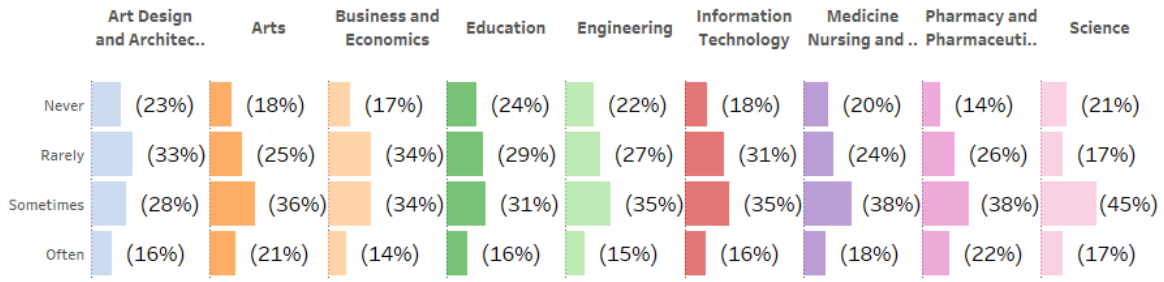


Key demographic insights:

- 42% of Science students have accessed mental health support (vs. 45% university-wide).
- 63% of domestic students (n.27) and 30% of international students (n.50) had accessed support. Both of these were on par with the average across the university for these demographic groups (domestic = 62%, international = (32%).
- 32% of men (n. 39) and 53% of women (n.33) had accessed support. Again, both of these align with 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.



- 79% of Science students reported experiencing imposter syndrome at some point (vs. 80% university-wide).
- The faculty had the highest proportion of students reporting experiencing imposter syndrome “often” or “sometimes” (62%).

Student Voices from Science:

While the quantitative data reveals patterns in mental health outcomes, research pressures and imposter syndrome among Science 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 Science:

> *“Stress high expectations about my project anxiety due to my relationship with my supervisor economic situation.”*
>
> *“Loneliness, lack of results, lack of feedback.”*
>
> *“Pressure to succeed and perform to a high standard.”*
>
> *“May be too much of stress associated with the work. The stress mostly comes from the workload.”*
>
> *“Being significantly older from my peers and feeling overwhelmed by all that I need to accomplish.”*
>
> *“High academic expectations workload and the pressure.”*

What This Means for Science:

Science students' mental health patterns largely mirror the broader graduate research population, indicating that the challenges facing Science graduate researchers reflect sector-wide rather than faculty-specific issues. However, three patterns warrant targeted faculty attention.

First, while mental health severity is comparable to university averages, Science students access support at marginally lower rates (42% vs. 45% university-wide). This gap becomes particularly concerning when combined with the finding presented later in this report that 84% of Science students who have considered leaving cite mental health as a reason – the highest rate across all faculties. This suggests a critical disconnect: Science students experience mental health challenges that severely impact persistence decisions, yet access support slightly less frequently than their peers.

Second, the demographic patterns within Science mirror university-wide disparities – international students access support at 30%, men at 32% - indicating that the same cultural and gender-related barriers affecting the broader population also operate within Science contexts.

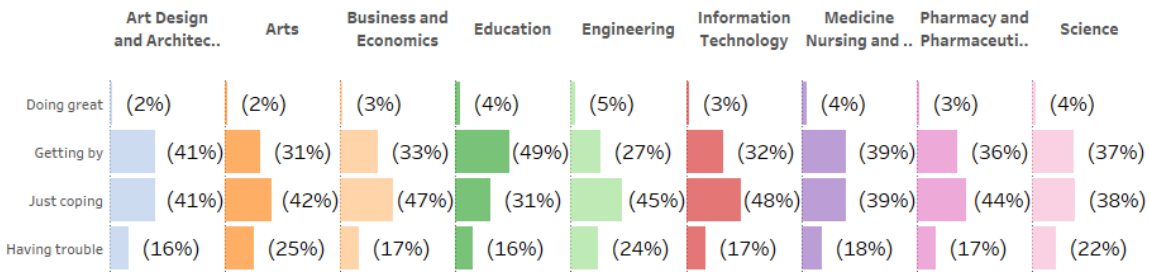
Third, the notably high rate of frequent imposter syndrome (62% experiencing it "often" or "sometimes" – the highest across faculties) combined with student testimonies about "pressure to succeed and perform to a high standard" and "high academic expectations" suggests that research culture within Science may intensify self-doubt. The competitive nature of scientific research, pressure and anxiety around failure or 'bad results' in experiments and emphasis on measurable outputs may create environments where students particularly struggle with feelings of inadequacy despite competence.

2. Financial Circumstances and Career Pressure

This section examines two interrelated dimensions of the Science graduate research experience: financial circumstances and career navigation. Beyond standard financial wellbeing measures, Science 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.

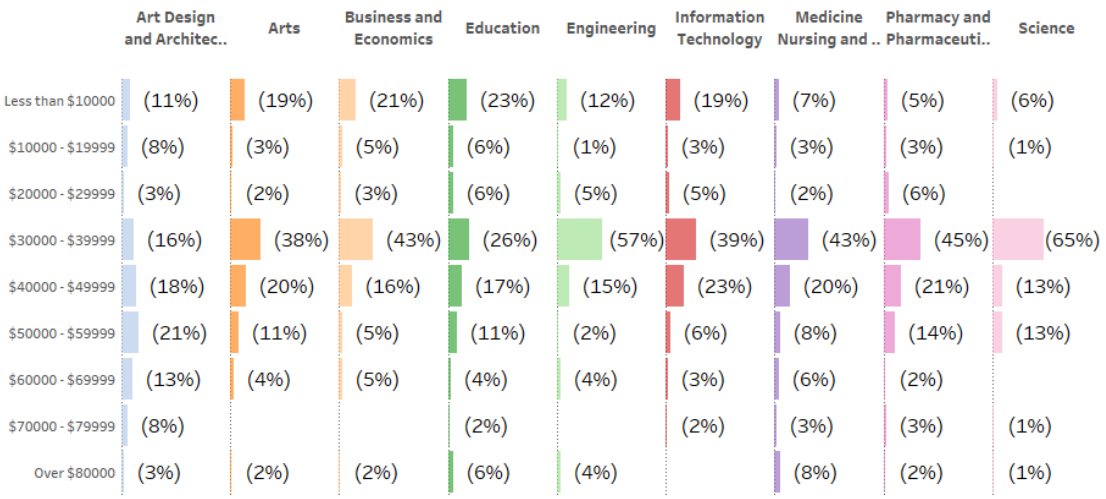
Melbourne Institute's Financial Wellbeing:

Science graduate research students show financial wellbeing patterns similar to the Monash average with 64% of the faculty's students either "just coping" or "having trouble."



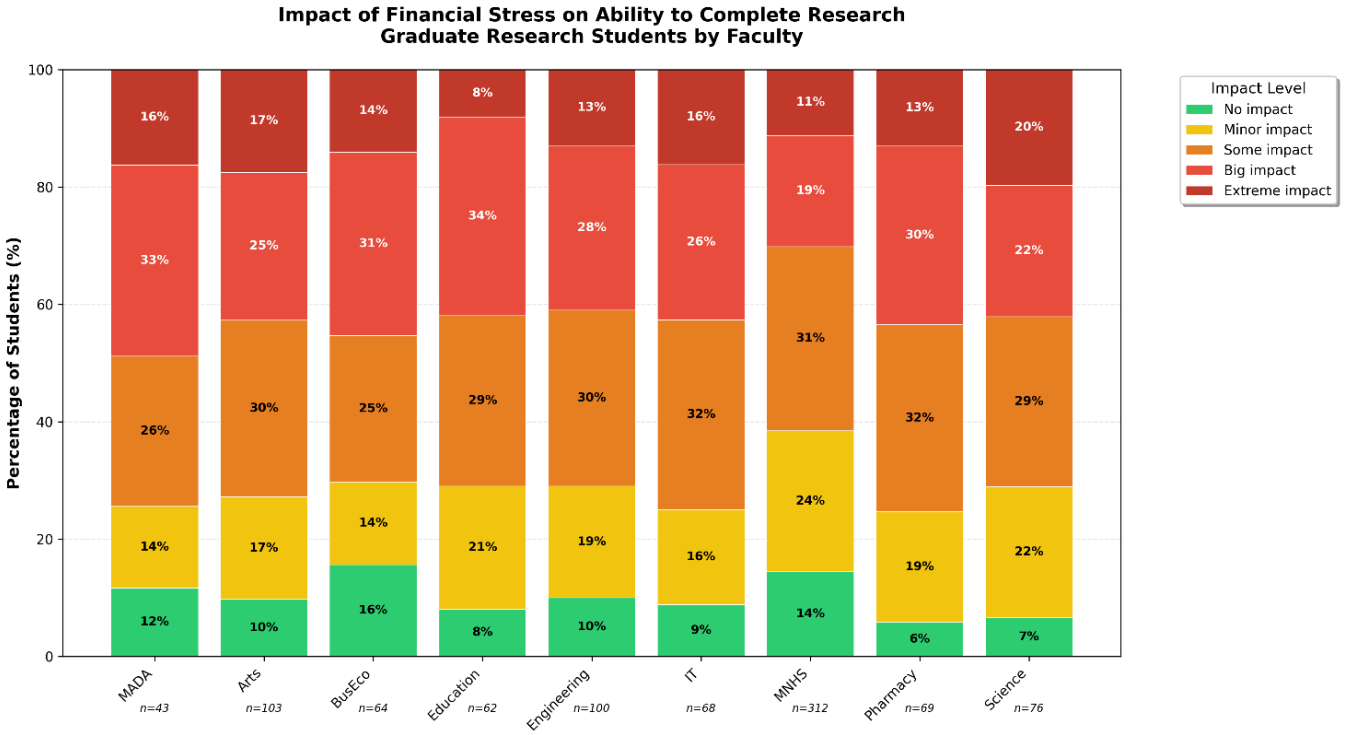
Estimated Annual Income (AUD):

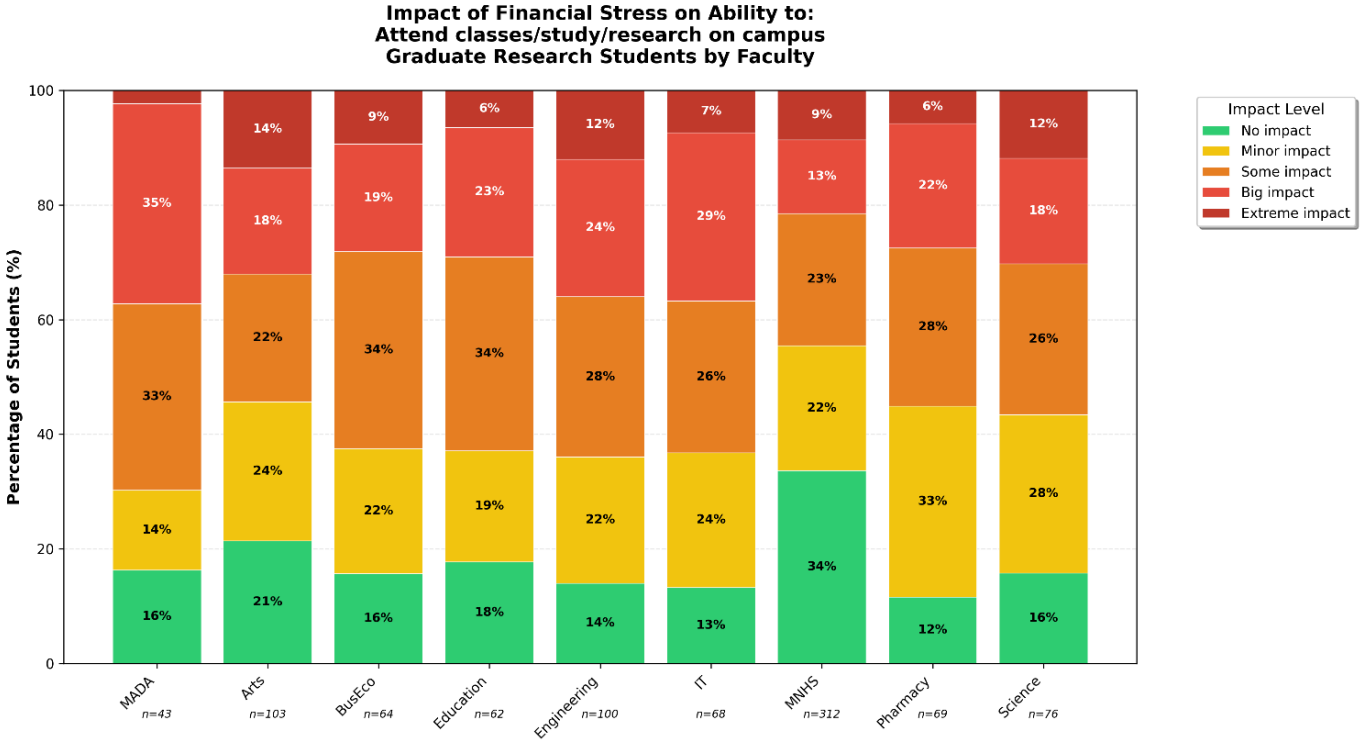
Science students show income patterns broadly consistent with university trends, with full-time students reporting median incomes in the $30,000-$39,999 range (reflecting scholarship levels), while part-time students report significantly higher median incomes.

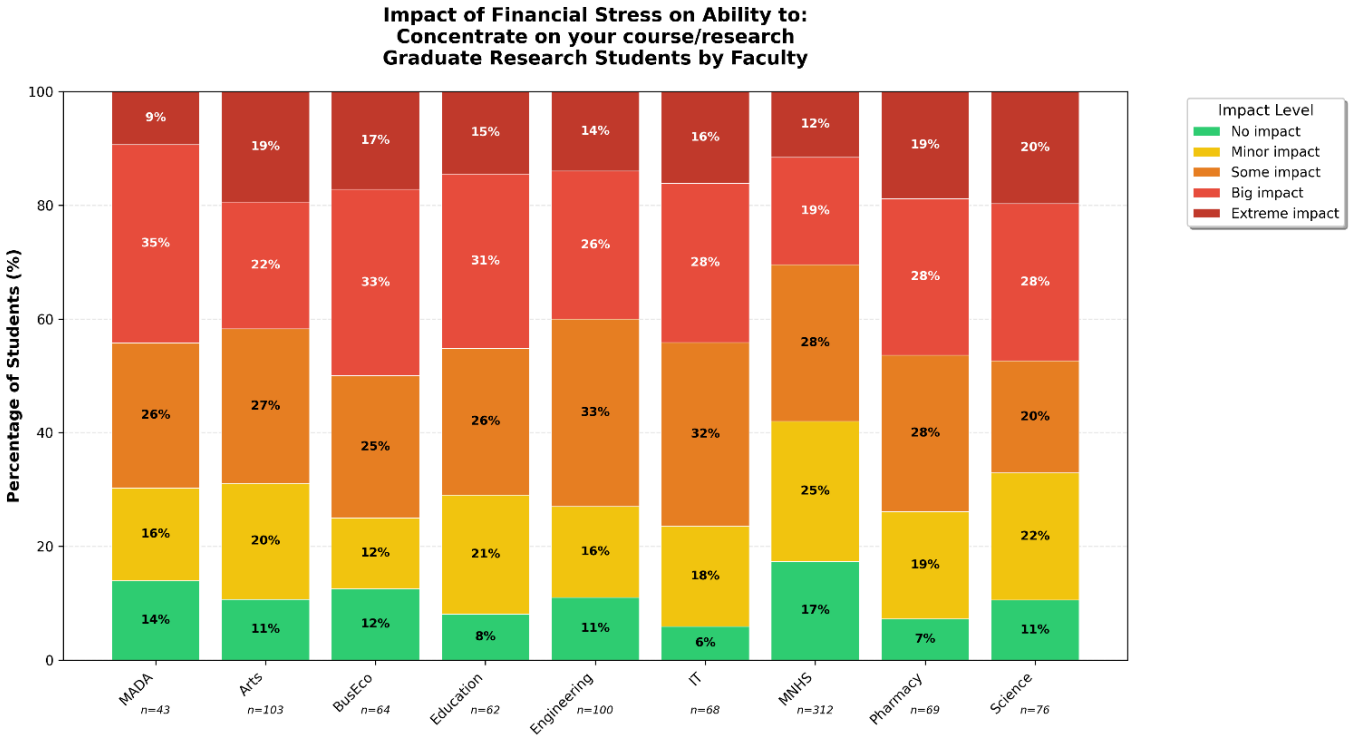


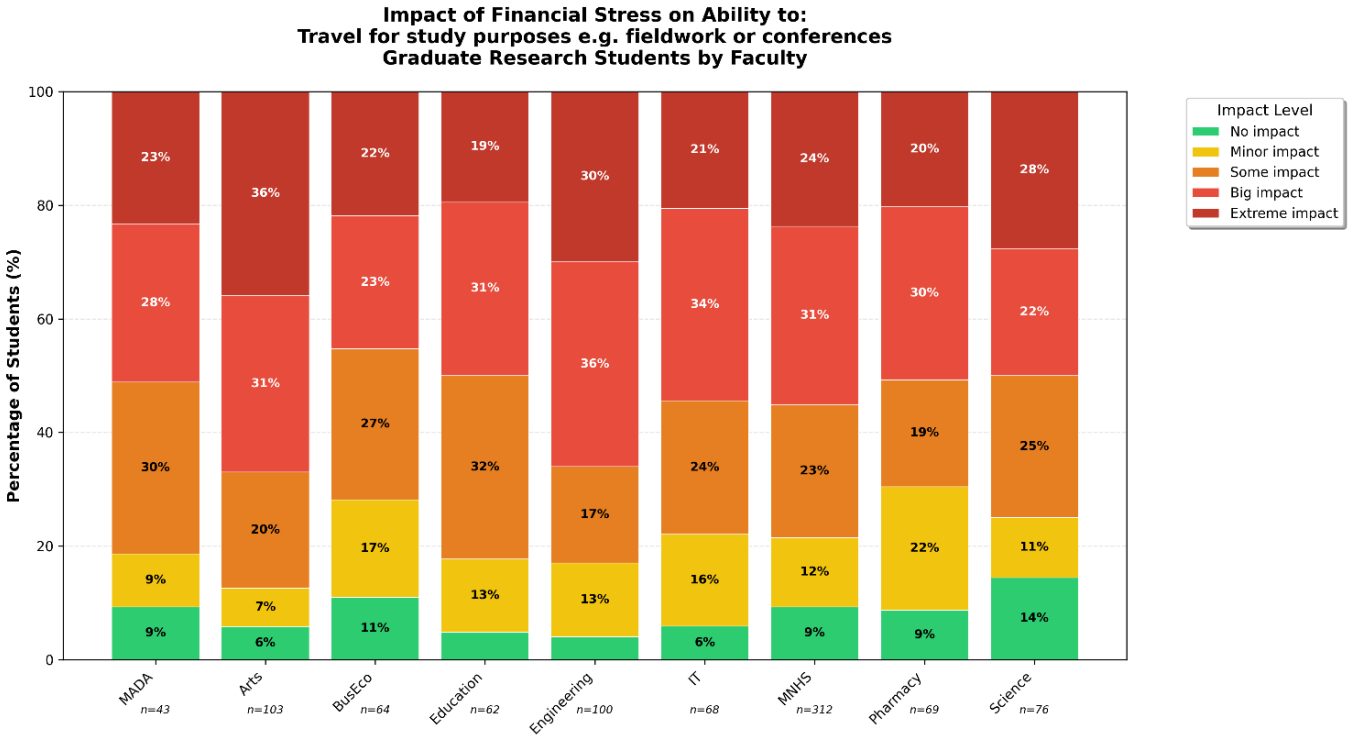
How Financial Pressures Affect Academic Activities:

Financial pressures directly impact Science 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:** 42% indicate that financial stress has an extreme or big impact on their ability to complete their research to the best of their ability (vs. 44%

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:** 30% 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:** 48% of Science 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 Science students experiencing higher rates compared to peers across the university.
- **Professional development through travel:** 50% 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.

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 Science – from managing basic living expenses to affording professional conferences.

> *"My rent is 105% of my monthly income (it's gone up by over 50% since I moved in). I'd move but nowhere is less expensive that I can bring my family to. If I get evicted, I can be deported for it. I am unable to look for good positions that will help my career because I may need to take the first job that comes around just so I can afford rent."*
>
> *"I hope Monash University can increase the value of scholarships available to students as well as reinstate the Publishing Award. These initiatives serve as vital encouragement for academic excellence and significantly enhance students' future career prospects."*
>
> *"The RTP stipend is not even close to enough of an income in the current cost of living crisis and with the large amount of work required for a PhD there is no realistic opportunity to get another job in order to be able to be financially secure."*
>
> *"The PhD stipend is survivable with good financial literacy and awareness. However, it is far from comfortable and comes with a lot of sacrifices especially when accounting for the fact that a person eligible for a PhD is able to find a job in the market instead for a considerably higher income."*
>
> *"The current funding for full-time PhD scholarships feels like a joke. The only way to fully support myself is to teach classes as a TA but I need to do this for so many hours that I have little time left for my own PhD research."*
>
> *"Inflation of prices and family overseas struggling with finances and asking for help."*

"My childcare costs are very high but fortunately I am supported by my husband who is working full time."

"Monash funds $2000 for international students' replacement. However, I'm from [redacted] and this value is not near the amount needed to come to Australia. I easily spent $5000 to move here, which I pay until today and my debt back in my country only increases due to bank fees. Additionally, my family doesn't have enough money, so I have to keep sending money to help them in very often occasions. Obviously, I knew that wouldn't be easy moving countries without much family resources, but the way my supervisor sold this PhD position always make me feel that Monash would care about these cases which [it] obviously doesn't."

"I am personally in a comfortable financial situation and I am aware that I am a lucky minority. I have still noticed the greatly increasing cost of living even though it has not had a drastic impact on me. However, I will still always support any initiatives that lower the financial burdens of my fellow PhD students who are not as lucky as me."

"The stipend is below a living wage and I've had to draw from my savings every month to make ends meet. I am unable to save or even keep the money I saved before starting the PhD for my future. As a single … student … with a history of anxiety and depression, living in a share house is not an option for me, which adds additional financial stress."

"The main financial stress is accommodation (currently living on campus)."

"Due to the demanding time requirements of my PhD, it is extremely challenging to take on additional work to supplement my income. I am limited to flexible roles such as teaching assistant positions at the university. However recent budget restrictions have led to reduced hours and fewer available positions making it increasingly difficult to earn enough to support myself. For students like me who have moved interstate or for international students who are financially independent it is particularly difficult to sustain ourselves on the current level of support."

"Degree must last 4 years and continue to pay a stipend between thesis submission and graduation or at least until the first round of thesis corrections. Increase the stipend and consider a monthly adjustment due to inflation. Support for housing for PhD either in-campus (right now rental is 50% more expensive in-campus that out-campus) or outside."

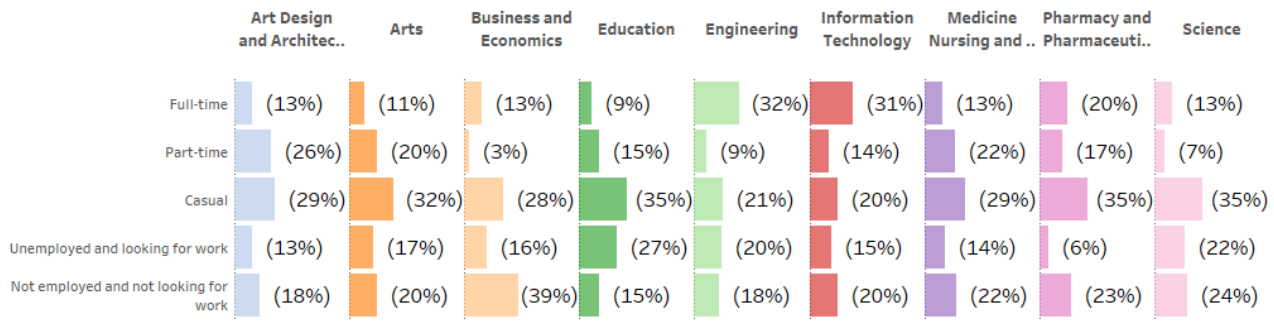
"With the recent budget cuts for TA at Monash as a reaction to the NOT implemented student cap from the government has strongly impacted myself and other PhDs that rely on TA work for additional income (as the stipend is below minimum wage and cost of living is rising constantly and more steeply and immediately than the annual increase in the stipend). Also, I have friends that are teaching in courses that cut down on TAs but then they are asked last minute to still show up for classes that they were initially not scheduled for."

"I need to work as a TA otherwise I am not even earning the minimum wage and even then, I am way behind in building a financial foundation compared to my counterparts who graduated and got jobs."

Employment Patterns:

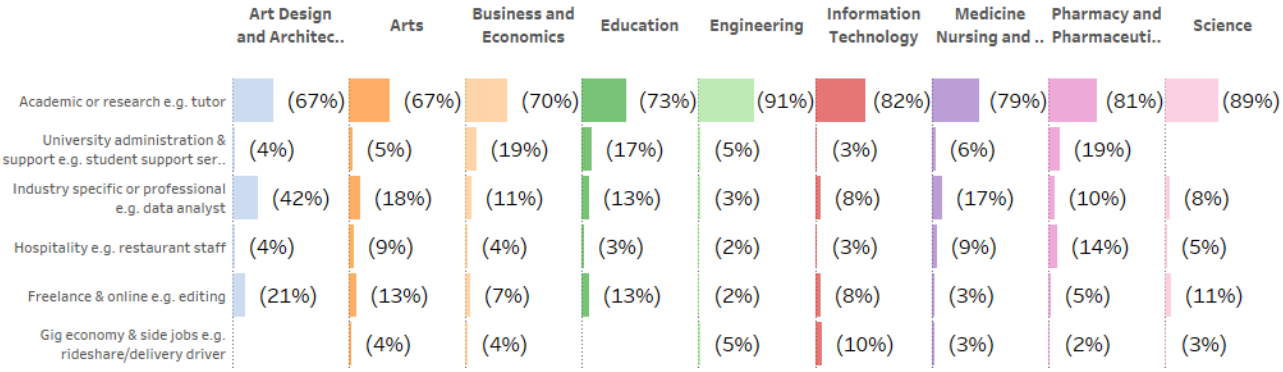
The employment patterns among Science students reveal the complex relationship between financial necessity, professional development and research progress. Understanding who works, in what capacity and how employment relates to research provides insight into the discipline-specific challenges Science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

Employment Status of Full-Time Students Across the Faculties:



Almost half (46%) of Science respondents were not working with 24% not employed and not looking for work and a further 22% are unemployed and looking for work.

The Type of Jobs Students are Employed In:



Almost all (89%) of employed Science respondents had a job in academia. None were employed in a university administration role.

Relation of Job to Research

These patterns reveal a mixed employment landscape among Science students. 51% work in jobs directly related to their studies, 40% in somewhat related positions and 9% in roles not at all related to their research (compared to 49%, 38% and 13% respectively across Monash STEM fields and 52%, 35% and 13% in HASS).

The 91% working in directly/somewhat related roles suggests that a substantial number of Science students successfully integrate their employment with professional development, potentially through research assistant positions or tutoring/teaching roles (89%), consulting work or industry research collaborations. These students may experience employment as less burdensome and more complementary to their academic work.

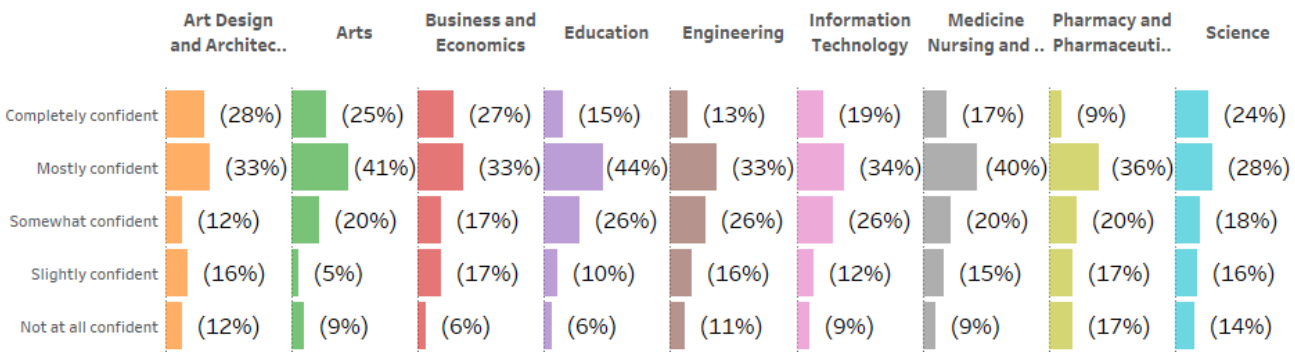
However, not all students benefit equally from this landscape. The 9% working in jobs unrelated to their studies face a double burden: devoting significant time and energy to employment that offers no direct advancement toward their research or professional goals, representing pure financial necessity rather than career building. Additionally, the 22% unemployment rate indicates that some students struggle to secure employment at all. This rate of Science students in need of employment opportunities, combined with the further 24% who are currently not employed and not looking for work but who will eventually need to transition to employment, suggests room for expanding accessible employment opportunities beyond current offerings.

3. Academic Progression and Career Uncertainty

Beyond the immediate pressures of mental health and financial stress, Science 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 Science students. Understanding these patterns reveals how the distinctive pressures facing Science students – including the tension between academic and industry pathways – affect their sense of progress and professional direction.

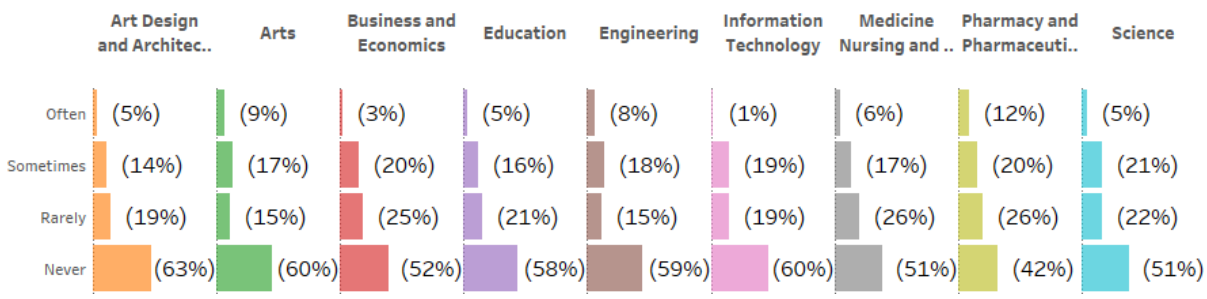
Completion Confidence:

Science students show marginally lower completion confidence than the university average (52% vs. 55% completely/mostly confident). However, 30% harbor a high degree of doubt about timely completion (not at all confident/slightly confident) – the second-highest score recorded across the faculties in this metric.



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 Science 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.

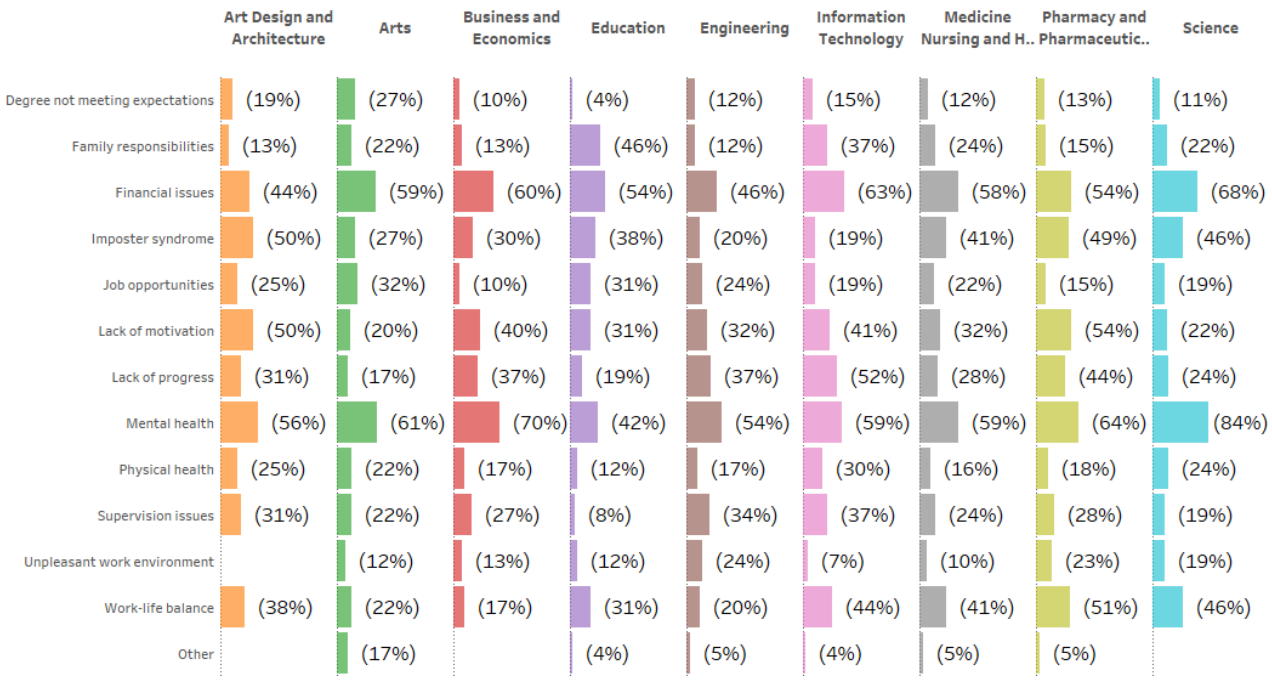


Just under half (48%) of Science students have considered leaving at some point, slightly higher than the 46% university-wide average, with 5% considering leaving often (vs. 6% university-wide). The visibility of lucrative industry alternatives may create ongoing tension about whether the PhD path is "worth it" financially, particularly when students face the significant financial pressures documented earlier in this report. The competitive culture in some science research contexts may intensify feelings of inadequacy or questioning of fit.

This slightly elevated rate merits attention but requires careful interpretation. Science students face distinctive pressures that may prompt periodic questioning of their path: the long timeline to career-relevant outcomes compared to peers who entered industry directly, the visibility of former classmates earning substantially higher salaries and the inherent uncertainty of experimental work where months of effort can yield limited results. In this context, occasionally considering whether to continue is a rational response to real trade-offs rather than necessarily indicating dissatisfaction with the program or institution. The question is whether these periodic doubts reflect healthy recalibration or warning signs of deeper disengagement.

Meanwhile, the average rate of frequent consideration (5% often vs. 6% university-wide) provides some reassurance. While nearly half of students have contemplated withdrawal at some point, very few do so persistently, suggesting that most students who experience these thoughts ultimately find reasons to recommit to the graduate research journey – whether through supervisor support, research breakthroughs, career clarity or connection with the academic community.

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



Among Science 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 overwhelmingly dominant factor, cited by 84% of Science students who have

considered leaving – comfortably the highest rate across all faculties and substantially above several others. This finding, combined with the lower mental health support access rates documented earlier (42% vs. 45% university-wide), suggests a critical gap: Science students experience severe mental health impacts on their persistence, yet access support at lower rates than their peers.

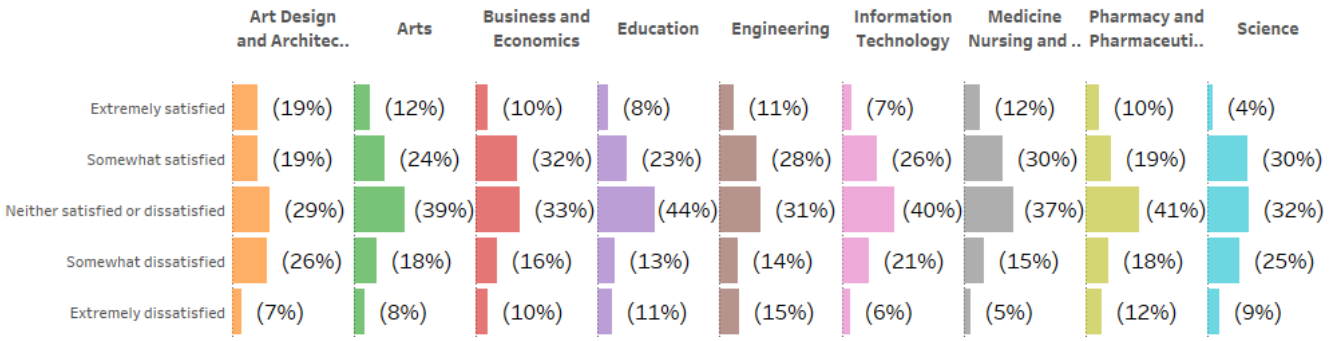
Financial issues represent the second most common reason at 68%, consistent with the substantial financial pressures documented throughout this report. As with mental health, this is the highest rate recorded across the faculties, suggesting that while financial stress affects consideration of leaving across disciplines, is may be particularly prevalent within Science.

Notably, Science students cite lack of progress (24%) and lack of motivation (22%) at rates below their peers across the faculties, suggesting that Science students who contemplate leaving are not primarily disengaged from their research or struggling with productivity. Rather, the external pressures surrounding their work – mental health challenges, financial constraints, work-life balance demands (also cited by 46% of students) – create conditions that make continuation difficult despite continued interest in their projects. This pattern indicates that Science students largely remain intellectually committed to their research even when considering departure; their doubts stem from whether they can sustain themselves personally and financially through completion rather than from dissatisfaction with the work itself.

Based on the data above, retention challenges in Science appear less about the inherent appeal or quality of the research training and more about the sustainability of the conditions under which students pursue their degrees. Students are not leaving (or considering leaving) because they have lost interest in their project or cannot handle the intellectual demands; rather, they are considering leaving because the financial pressures, mental health impacts and work/life balance challenges that make it increasingly difficult to justify continuing, particularly when industry alternatives offer immediate financial security and clearer work boundaries. This has important implications for intervention priorities: rather than focusing primarily on research skills development, supervisory relationships or academic progress monitoring – areas where Science appears to perform reasonably well – efforts should concentrate on addressing the circumstantial pressures that make an otherwise engaging research experience feel unsustainable.

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 Science 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.



Although a high proportion of respondents from Science were indifferent, overall satisfaction with career services (34%) matched overall dissatisfaction (34%).

The Science Career Challenge:

Science graduate research students face unique career navigation challenges:

- **Divergent pathway preparation**: Science PhDs lead to highly diverse trajectories – academic research, industry R&D, government laboratories, science communication, regulatory affairs, consulting, data science. Each pathway requires different networking strategies, skill emphases and timeline decisions, yet generic career advice struggles to address this complexity.
- **Industry-academia tension**: The substantial salary differential between academic and industry positions creates ongoing uncertainty about whether to pursue postdoctoral positions or transition directly to industry. This decision has cascading implications – postdocs may enhance academic credentials but delay financial stability, whilst industry transitions may foreclose academic options. Students need sophisticated guidance about timing and skill development, yet report that current services focus primarily on undergraduate needs: “career services ... are more directed at graduating bachelor's students, not geared toward helping PhD students navigate academia.”
- **Invisible skill translation**: Science PhDs develop sophisticated research skills – experimental design, data analysis, problem-solving, project management – that translate effectively to diverse careers, yet students struggle to articulate these competencies to non-academic employers. The technical language of scientific research obscures transferable capabilities,

leaving students feeling locked in academia and lacking important science communication skills that can be useful in connecting with industry.

- **Network access barriers**: Career success depends on professional networks and visibility, yet financial constraints limit conference attendance and relationship-building with potential employers. Students request greater opportunities to engage beyond their immediate academic networks through both research assistant roles and networking event.
- **Timing pressures**: Intensive thesis writing leaves little space for job searching, yet limited stipend duration creates pressure to secure positions before completion. Students request practical support to bridge the gap between writing up the PhD and stepping into a new job.

Student Voices on Career Guidance:

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

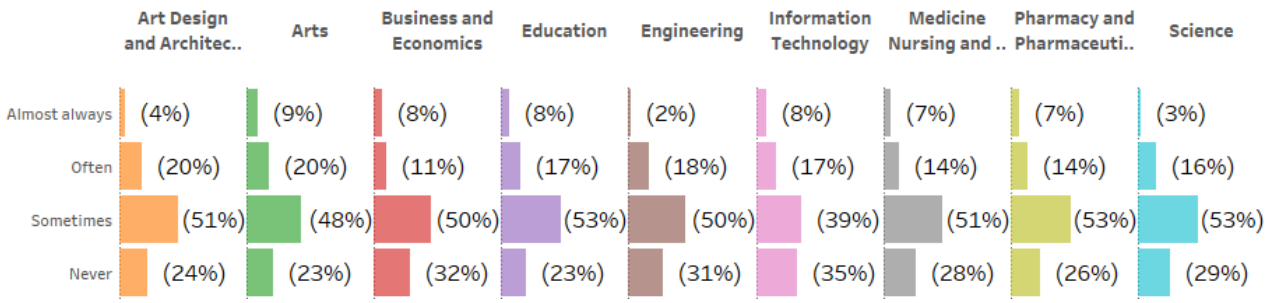
> *"I know the career service available for students but it is more directed to graduating bachelor's students. It is not geared toward helping PhD students navigate academia."*
>
> *"To provide career guidance services that are easily and readily accessible and specialise in many different career avenues."*
>
> *"Time should be allocated during the end of PhD for students to apply for post-docs or next career steps."*
>
> *""More structured opportunities…such as research assistantships, networking events or publication workshops."*

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 Science students experience isolation, belonging and meaningful contact across different relationship types. Understanding these patterns reveals where existing community-building efforts reach Science 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 Science students experience connection – or disconnection – within their academic community.



- 71% of Science students experience some degree of isolation (vs. 72% university-wide).
- 19% experience high levels of isolation (“often” or “almost always”) vs. 22% university-wide.

Student Voices on Isolation

While the quantitative data reveals patterns in isolation and connection among Science 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 students in Science:

> *“Not too many people coming to the office.”*
>
> *“Too busy with project, [I] didn’t have the energy or time or financial ability to hang out with friends or fly back home to see my family.”*
>
> *“Not being able to see my support network both socially and professionally. Lack of progress that causes me to forsake other activities outside of work. Inability to wind down and relax and enjoy time not spent working.”*

"Do not interact enough with the people in the same office room; do not attend research group meetings."

"Loss of contact with friends and professional colleagues."

"At times everyone is stressed and focusing on their own stuff which can lead to isolation."

"Overwhelmed and unable to socialise due to work and financial constraints."

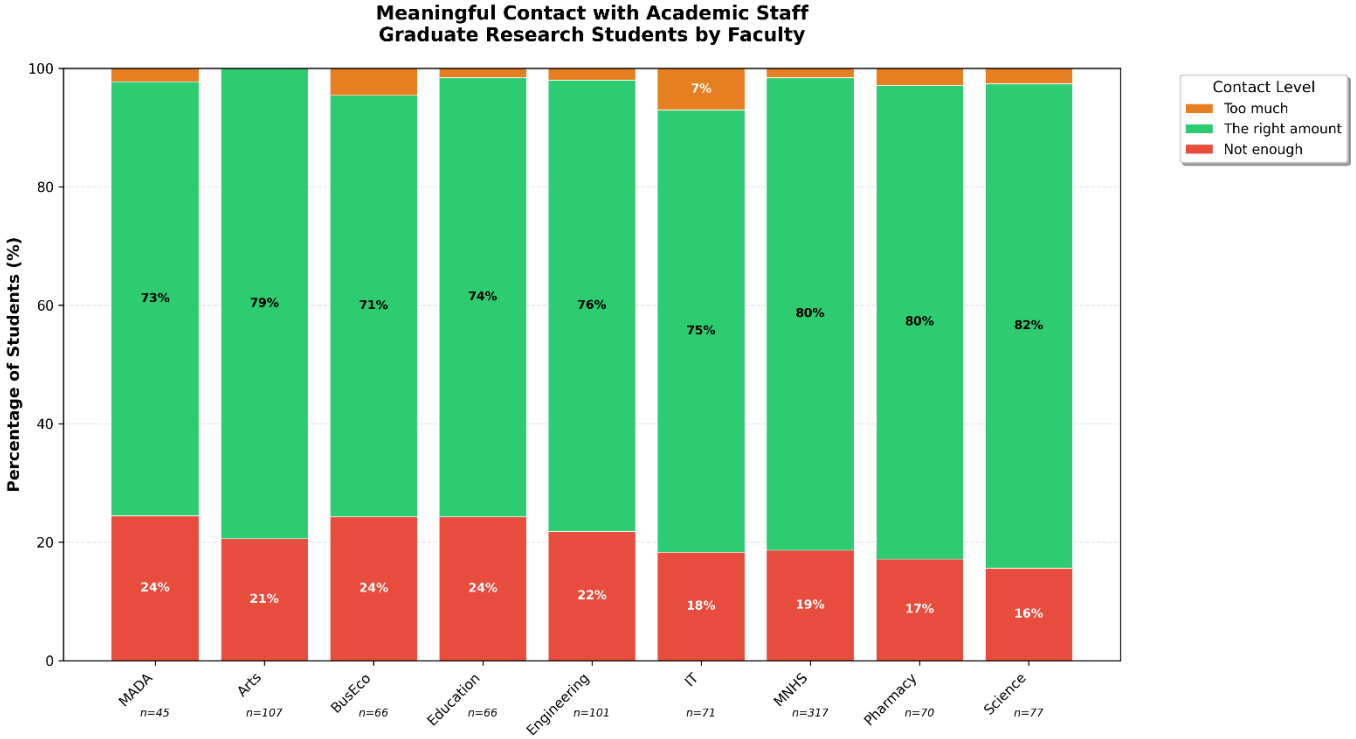
"Staying at home I guess (and lack of initiative to seek social events)."

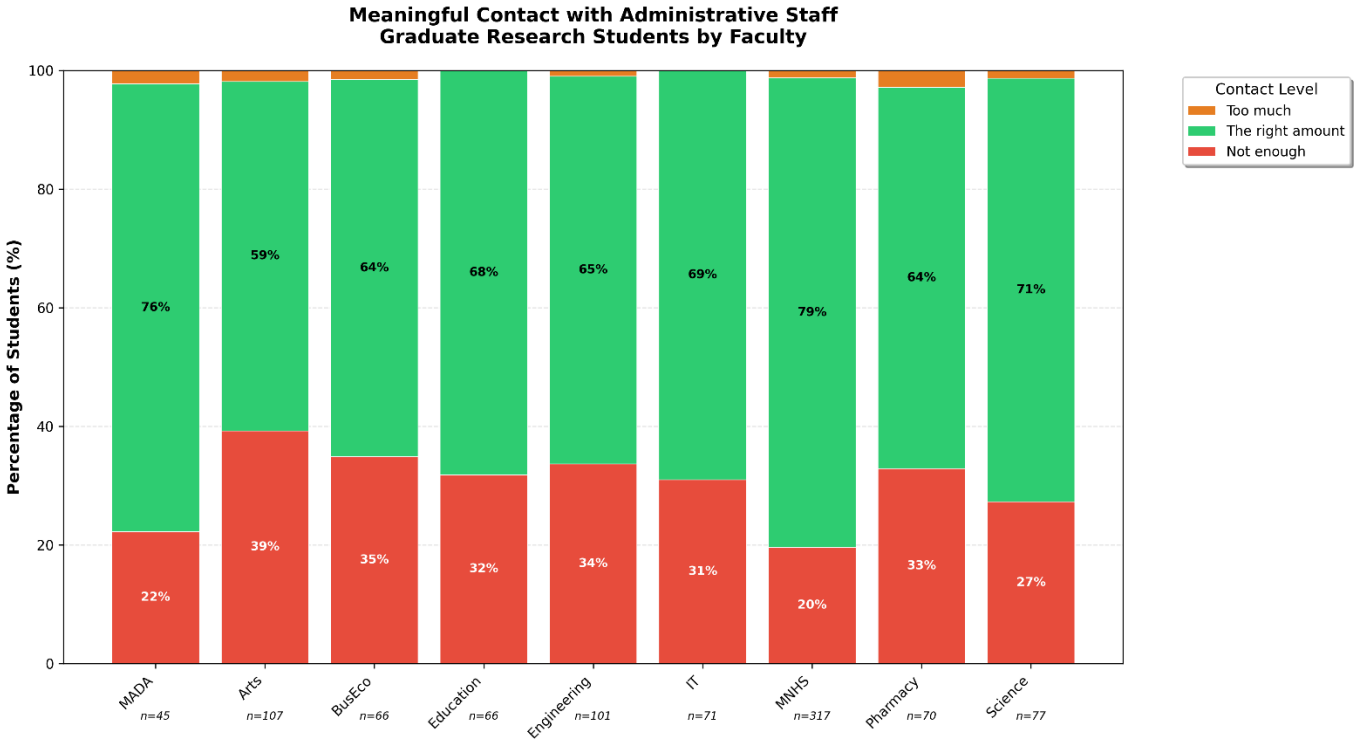
"A lot of factors considering I'm away from home. Cultural differences and you don't have many people to talk to if you're not in a relationship and most of the times you feel secluded along with work pressure."

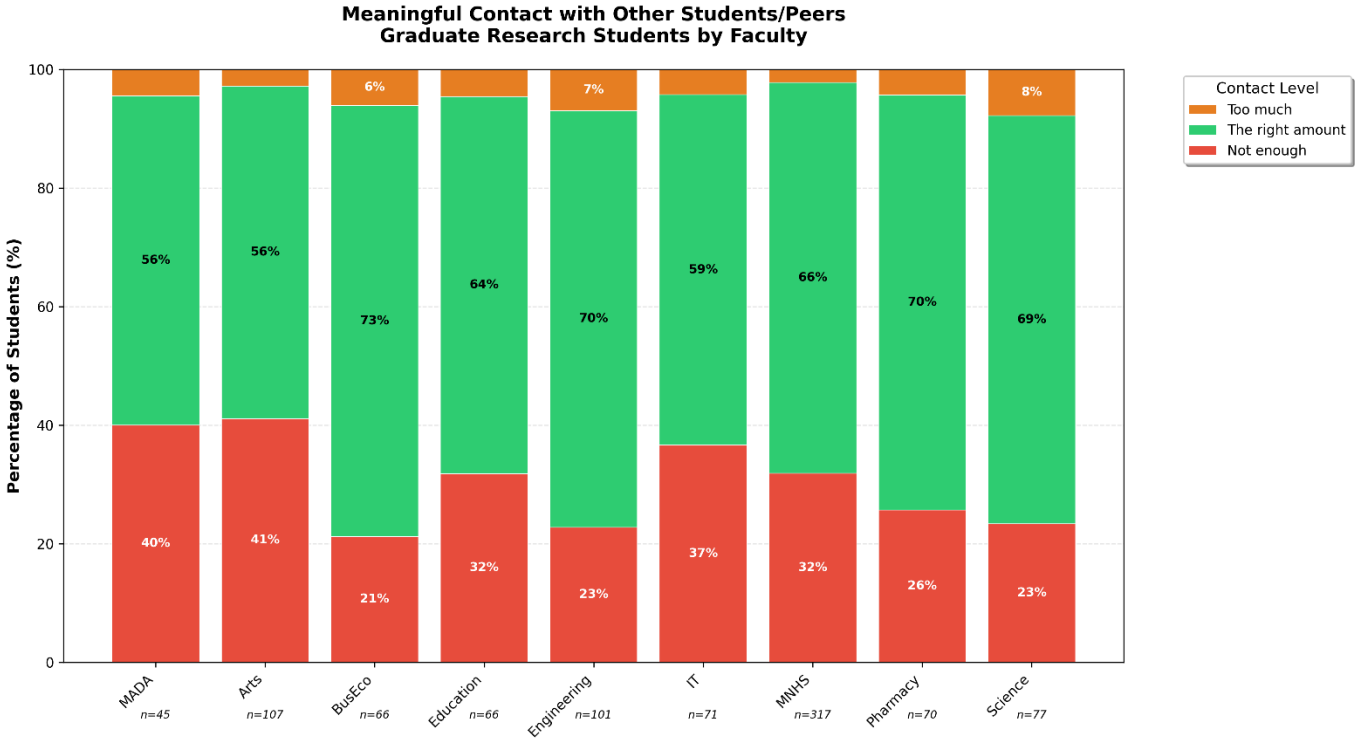
"A lack of common interests outside of our areas of research and our areas of research being so niche that it would be difficult to talk about those at length. Cultural differences where many of the researchers in my group came from a … background which is markedly different to my … background. A sense that one couldn't take some time to just think when having a conversation and being pressed to say something immediately lest I be cut off by someone else in the group whereas it sometimes seems like everyone else is on the same frequency there and I am the runt of the group."

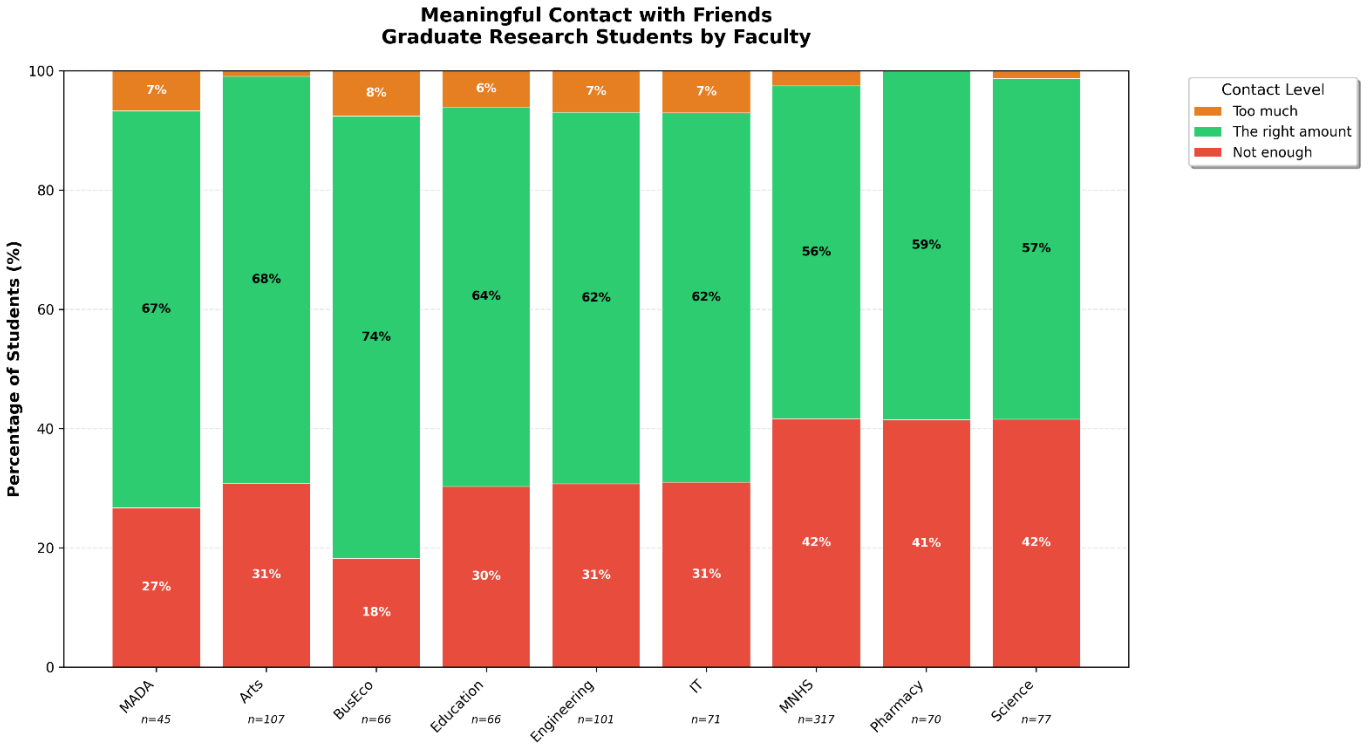
Meaningful Contact:

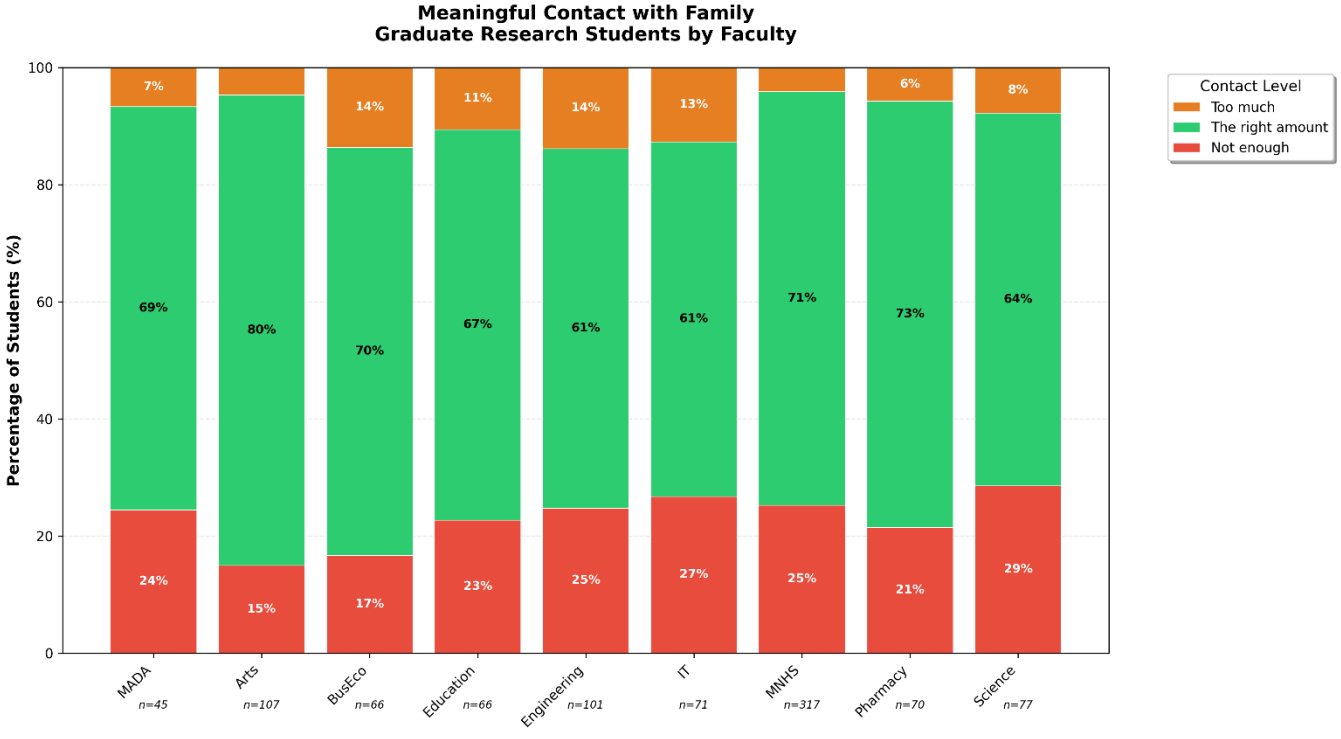
To better understand connection patterns, students were asked to evaluate whether they have sufficient meaningful contact with five key groups: academic staff, administrative staff, peers, friends and family. The following data reveal where Science students feel adequately connected and where they experience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





Academic staff contact is an area of relative strength for the faculty, with 82% reporting the right amount of contact. This suggests supervisory relationships function reasonably well for most students; however, 16% reporting insufficient contact represents an important minority potentially experiencing inadequate guidance.

Administrative staff contact shows reasonable performance, with 71% reporting the right amount of contact. This suggests that Science administrative support structures effectively serve most graduate researchers' needs. Though 27% of students highlight not enough contact with administrative staff suggesting an important minority who may need to be better engaged in when and where they can make these connections.

Peer contact is also relatively positive for the faculty, with 23% reporting insufficient contact – notably below the 31% university-wide average. This suggests that Science research structures – lab environments, shared facilities, research group meetings – facilitate peer connection more effectively than in some disciplines. The physical infrastructure of science research creates organic opportunities for peer interaction that may reduce isolation.

Friend and family contact reveals notable gaps, with 42% reporting insufficient contact with friends (equal highest among the faculties) and 29% with family (highest recorded across the faculties). This likely reflects the demanding and unpredictable schedules of experimental work combined with the financial constraints documented throughout this report, which limit discretionary spending on social activities and travel home. Science students may maintain adequate professional connections while becoming isolated from the personal support networks that sustain wellbeing during challenging periods.

What Makes Science Distinct: Key Themes

Based on both quantitative patterns and qualitative student voices, two themes distinguish the Science graduate research experience from other disciplines at Monash.

Mental Health Severity Without Proportional Support Access

Science students face a concerning disconnect between the severity of their mental health challenges and their engagement with support services. Among Science students who have considered leaving their degree, 84% cite mental health as a reason – the highest rate recorded across all faculties and substantially above most others. Additionally, Science records the highest proportion of students experiencing imposter syndrome "often" or "sometimes" (62%), suggesting particularly acute struggles with self-doubt and academic belonging. Student testimonies reveal the sources of this distress: "high academic expectations," "pressure to succeed and perform to a high standard," and the stress of managing experimental uncertainty where "lack of results" compounds anxiety.

Yet despite this severity, only 42% of Science students have accessed mental health support, below the 45% university-wide average. This gap is particularly troubling given the demonstrated need: students are experiencing mental health challenges intense enough to drive departure considerations at rates higher than any other faculty, yet they seek help less frequently than their peers elsewhere. This pattern suggests either distinctive barriers to help-seeking within Science culture – perhaps related to perceptions about research productivity, time away from the lab or disciplinary norms around self-reliance – or insufficient awareness among Science students about available services and how to access them. The competitive culture of scientific research, where measurable outputs and visible achievements create constant comparison opportunities, may intensify feelings of inadequacy while simultaneously discouraging acknowledgment of struggle.

Experimental Work Demands Isolating Personal Networks

Science students demonstrate a paradoxical pattern of connection: they maintain adequate professional relationships while experiencing the highest rates of personal network erosion across all faculties. Only 23% report insufficient peer contact – notably better than the 31% university-wide average – suggesting that lab environments, shared equipment use and research group meetings create effective structures for professional connection. Science students encounter colleagues regularly through the physical infrastructure of their work, facilitating informal exchanges and collaborative problem-solving.

However, this professional connectivity coexists with striking personal isolation. Science students report the highest rates of insufficient contact with friends (42%) and family (29%) across all faculties. Student voices reveal the mechanisms: being "too busy with project, didn't have the energy or time or financial ability to hang out with friends or fly back home," feeling "overwhelmed and unable to socialise due to work and financial constraints," and experiencing "loss of contact with friends and professional colleagues." The unpredictable and time-intensive nature of experimental work – where equipment access windows, time-sensitive procedures and unexpected complications disrupt planned schedules – makes maintaining commitments to non-academic social circles

particularly challenging. Unlike disciplines where students can more reliably plan personal time around predictable work patterns, Science students face ongoing uncertainty that erodes their capacity to sustain friendships and family relationships. When combined with the financial constraints that limit discretionary spending on social activities and travel, Science students risk becoming embedded in professional networks while isolated from the personal support systems that sustain wellbeing during extended research challenges.

Financial Stress Directly Undermines Scientific Cognition

While financial pressures affect graduate research students across all disciplines, Science students report distinctively high impacts on the cognitive capacities essential for their work. Nearly half (48%) of Science students report that financial stress has an extreme or big impact on their ability to concentrate on their research – the highest rate across all faculties and substantially above the 40% university-wide average. This matters because scientific research demands sustained focus, attention to methodological detail, creative problem-solving and the cognitive flexibility to recognise unexpected patterns in data. When financial anxiety persistently intrudes on mental bandwidth, the quality of scientific thinking suffers.

Financial concerns also feature prominently in departure considerations, with 68% of Science students who have contemplated leaving citing finances as a reason – tied for the highest rate across faculties. The competitive career landscape in Science intensifies these pressures, as students are acutely aware that “a person eligible for a PhD is able to find a job in the market instead for a considerably higher income.” This creates ongoing tension about whether the financial sacrifice of the PhD is justified, particularly when experiments fail, progress stalls or the path to stable academic employment appears increasingly uncertain. Unlike some disciplines where the PhD represents the terminal degree for professional practice, Science PhDs often lead to postdoctoral positions with continued financial precarity, making the opportunity cost of graduate training feel particularly acute.

Faculty-Specific Recommendations

These recommendations are tailored to patterns observed among Science 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, Science should focus faculty efforts on three distinctive challenges where targeted intervention will have maximum impact:

1. Embed Preventative Mental Health Support Within Research Culture

The Problem: Science students face a concerning disconnect between mental health severity and support access.

What the Faculty Can Do:

Immediate Actions:

- Normalise wellbeing conversations in research contexts:
    - Integrate brief mental health check-ins into milestone reviews and supervision meetings.
    - Train supervisors and lab leaders to recognise early signs of distress and facilitate referrals to Counselling and Psychological Services (CAPS).
    - Position discussion of research-related psychological pressures (experimental failure, imposter syndrome, competitive comparison) as inherent challenges rather than individual deficits.
- Develop Science-specific imposter syndrome programming:
    - Create targeted workshops addressing distinctive triggers in scientific research: null results as valuable data, experimental setbacks as normal, the extended timeline of publication processes.
    - Use Science faculty members and successful recent graduates as facilitators to demonstrate that these feelings are widespread even among high achievers.
    - Deliver through existing structures (research group meetings, faculty seminars) to maximise reach.
- Reframe help-seeking within productivity discourse:
    - Position mental health support as performance optimisation rather than crisis intervention – parallel to how scientists calibrate instruments, researchers calibrate wellbeing.
    - Use language emphasising research capacity: “Sustaining Scientific Productivity,” “Managing Experimental Setbacks and Research Stress.”
    - Create alternative entry points through psychoeducational workshops that normalise help-seeking without requiring self-identification as “having problems.”

Success Metrics: Increase Science support access from 42% toward 45% university average (and beyond); reduction in mental health citations in leaving considerations from 84%; student feedback on workshop usefulness; supervisor engagement with wellbeing conversations.

2: Create Flexible Social Infrastructure Compatible with Experimental Work

The Problem: Science students report the highest rates of insufficient friend contact (42%) and family contact (29%) across all faculties, despite maintaining good peer contact (23% insufficient versus 31% university-wide). This creates a paradox where Science students maintain professional networks while becoming isolated from the personal support systems that sustain wellbeing during research challenges.

What the Faculty Can Do:

Immediate Actions:

- Support external relationship maintenance:
    - Provide resources on maintaining long-distance relationships, communicating research demands to non-academic friends and family and setting boundaries around experimental work to protect personal time.
    - Normalise that sustaining external relationships is essential infrastructure for long-term research success, not a luxury.
    - Distribute through communications and incorporate into orientation.

Success Metrics: Reduction in insufficient friend contact from 42% toward university average; reduction in insufficient family contact from 29%; qualitative reports of improved work-life balance.

3: Expand Financially Relevant Employment and Emergency Support

The Problem: Science students report the highest rate (48%) of financial stress severely impacting concentration across all faculties – substantially above the 40% university-wide average. This matters because scientific research demands sustained focus, attention to methodological detail and cognitive flexibility to recognise unexpected patterns.

What the Faculty Can Do:

Immediate Actions:

- Expand TA, RA and administrative work opportunities:
    - Systematically review course staffing to identify TA expansion opportunities across all Science departments.
    - Advocate within the faculty for protected TA funding and work with principal investigators to create more paid RA positions that complement students' research training.

    - Address the 22% unemployment rate among Science students actively seeking work by creating employment pathway tracks to support students to secure academically relevant employment opportunities.
- Establish Science-specific emergency financial support:
    - Create a faculty emergency fund for acute crises (unexpected equipment costs, conference registration deadlines, medical emergencies).
    - Provide quick-disbursing small grants ($500-$2,000) to prevent crises from derailing academic progress.
    - Advertise widely through department communications and lab group meetings both faculty specific funding support as well as MGA's welfare assistance program.
- Shift conference funding to upfront models:
    - Transition from reimbursement to advance funding for conference travel, removing barriers for financially constrained students who cannot afford upfront costs.
    - Establish a faculty travel advance program where students receive funds before travel and reconcile expenses afterward.
    - Prioritise this change given that 50% of Science students face extreme/big financial stress impact on research travel.
- Advocate for sector-wide stipend reform:
    - Use Science-specific data – particularly the distinctive 48% impact on concentration – to contribute to broader institutional advocacy for stipend increases.
    - Emphasise that cognitive work quality suffers when financial anxiety persistently intrudes on mental bandwidth.

Success Metrics: Reduction in financial stress impact on concentration from 48% toward 40% university average; increase in Science graduate research employment from current levels; number of emergency grants disbursed; student feedback on conference funding accessibility; tracking of TA/RA/administrative position expansion.

Conclusion

These three recommendations address the distinctive patterns that emerged most clearly in Science data: the gap between mental health severity and support access, the paradox of professional connection alongside personal isolation and the particularly acute impact of financial stress on cognitive work.

The first two recommendations depend primarily on coordination, cultural shifts and leveraging existing structures (milestone reviews and lab group meetings) more effectively.

The third priority – expanding employment opportunities and emergency financial support – requires moderate investment but addresses the area where Science students report the most distinctive impact compared to peers across the university.

The faculty cannot solve all challenges facing Science graduate researchers alone. Comprehensive stipend reform requires sector-wide advocacy beyond any single faculty's capacity; the competitive pressures inherent in scientific research reflect broader academic culture; and, some isolation stems from the nature of intensive experimental work itself. However, the recommendations above focus on what Science may be able to influence: making mental health support more accessible and less

stigmatised within research culture, creating social infrastructure that accommodates rather than fights against lab schedules and providing the immediate employment opportunities and emergency support that make continuation financially viable. By concentrating efforts on these three areas – each addressing a documented gap where Science students struggle more than their peers – the faculty can meaningfully enhance the graduate research experience while building on existing strengths in supervision quality and peer connection.

Appendix: Science Demographics

Campus	Respondents
I do not regularly attend campus	0 (0%)
Clayton	76 (99%)
Caulfield	1 (1%)
Peninsula	0 (0%)
Parkville	0 (0%)
Malaysia	0 (0%)
Hospital or Medical Centre	0 (0%)
Indonesia	0 (0%)
Suzhou	0 (0%)
other	1 (1%)

School/Department	Respondents
Biological Sciences	23 (30%)
Chemistry	21 (27%)
Earth Atmosphere and Environment	14 (18%)
Mathematics	9 (12%)
Physics and Astronomy	9 (11%)
Other	1 (1%)

Domestic/International	Respondents
Local student (Australian or New Zealand citizen/permanent resident)	28 (35%)
International student	51 (65%)

Study load	Respondents
Full-time	75 (95%)
Part-time	4 (5%)
On leave from study	0 (0%)

Study location	Respondents
Entirely on-campus	50 (63%)
Mix of on-campus and off-campus	29 (37%)
Entirely off-campus	0 (0%)
Other	0 (0%)

Time since last degree	Respondents
Less than 1 year	35 (45%)
1-5 years	38 (49%)
6-10 years	2 (3%)
11+ years	3 (4%)

Degree progress	Respondents
First year	18 (23%)
Second year	23 (29%)
Third year and beyond	38 (48%)

Study hours	Respondents
Less than 5	0 (0%)
6-10	2 (3%)
11-20	6 (8%)
21-30	11 (14%)
31-40	26 (33%)
Over 40 hours	34 (43%)

English proficiency	Respondents
Fluent	51 (65%)
Advanced	20 (26%)
Intermediate	7 (9%)
Elementary	0 (0%)
Beginner	0 (0%)

Gender	Respondents
Woman	34 (44%)
Man	39 (50%)
Non-binary/gender diverse	3 (4%)
Prefer to self-describe	0 (0%)
Prefer not to say	2 (3%)

LGBTIQA+	Respondents
Yes	8 (10%)
No	65 (83%)
Prefer not to disclose	5 (6%)

Indigenous (domestic students only)	Respondents
Yes	1 (4%)
No	27 (96%)
Prefer not to disclose	0 (0%)

Disability	Respondents
Yes	2 (3%)
No	75 (96%)
Prefer not to disclose	1 (1%)

Registered disability with DSS	Respondents
Yes	0 (0%)
No	2 (100%)

Age	Respondents
24 or under	10 (13%)
25-29	43 (54%)
30-39	24 (30%)
40 and over	2 (3%)

Parental status	Respondents
Yes – living with me	5 (7%)
Yes – not living with me	1 (1%)
No	71 (93%)

Primary carer	Respondents
Yes	5 (100%)
Shared responsibility	1 (20%)
No	0 (0%)

Carer status	Respondents
Yes	6 (8%)
No	70 (92%)

Employment status	Respondents
Full-time	9 (12%)
Part-time	6 (8%)
Casual	27 (36%)
Unemployed and looking for work	17 (22%)
Not employed and not looking for work	17 (22%)

Work hours	Respondents
Less than 5	18 (43%)
6-10	13 (31%)
11-20	5 (12%)
21-30	2 (5%)
31-40	3 (7%)
More than 40	1 (2%)

Scholarship recipients	Respondents
Yes	71 (93%)
No, but I previously held a scholarship	2 (3%)
No	3 (4%)

Value of scholarship	Respondents
Less than $33,511	5 (7%)
$33,511 (National full-time RTP stipend minimum)	6 (9%)
$33,512 - $36,062	5 (7%)
$36,063 (Monash full-time RTP stipend)	43 (61%)
$36,064 - $47,626	9 (13%)
More than $47,627 (National minimum wage)	3 (4%)