



Recommendations for Mitigating COVID-Related Impacts on STEM Graduate Students

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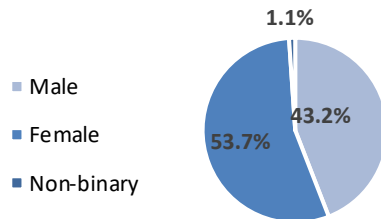


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Full Report: <https://wise.arizona.edu/research>

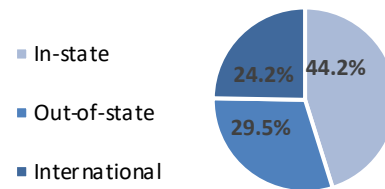
Methods and Sample

- A confidential Qualtrics survey was administered between 5/4/20 – 5/29/20.
- The survey addressed three areas: 1) STEM academic experience and progress; 2) STEM persistence; and 3) STEM related career and professional development.
- 95 graduate students fully completed the survey (3% of all UA STEM graduate students).*
- Data were not weighted.

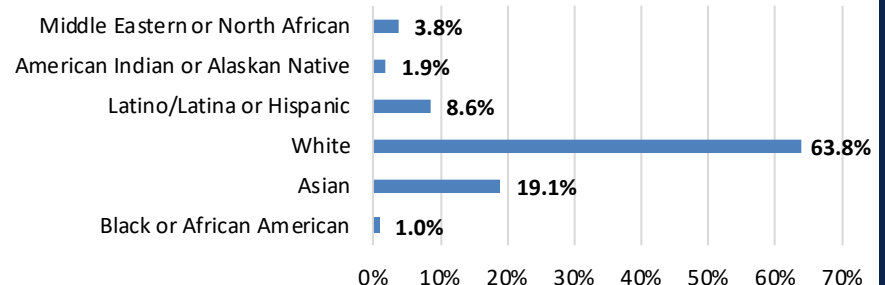
Gender



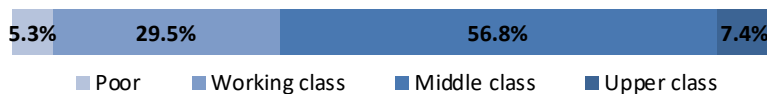
Residency Status



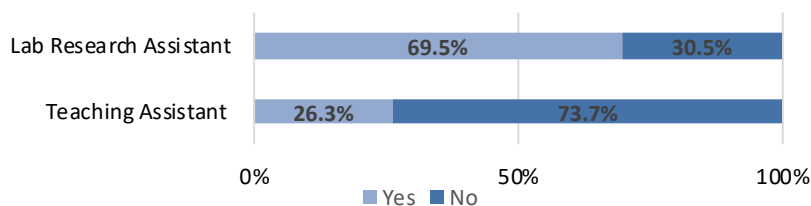
Race/Ethnicity



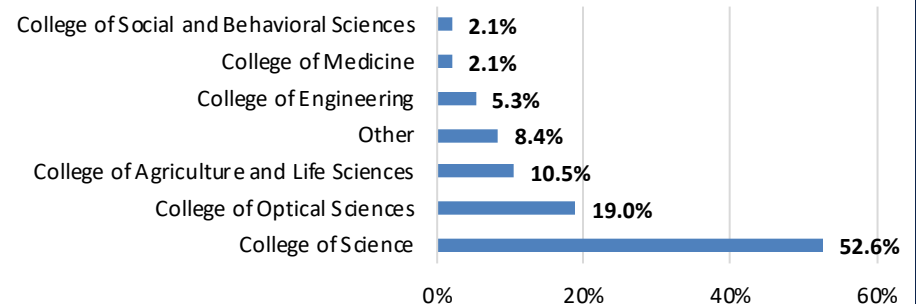
Perceived Socioeconomic Status



Graduate Assistantships



College Affiliation



* Based on Fall 2019 enrollment

1. Develop programs to better prepare and support graduate student teaching assistants to adapt to online teaching and integrate this training into existing TA trainings.

67% of graduate respondents who were TAs found the transition to online instruction moderately to extremely challenging.



“The overhead of learning ZOOM and trying to coordinate 10+ students in my office hours is way more difficult online than in person, as in person I had an office and could just tally my time to each student or explain things to multiple students on the whiteboard.”

2. Adopt clear, consistent guidelines on funding and progress to degree timeline modifications.

This will help reduce stresses known to negatively impact productivity, quality of work, and mental health.

61% of respondents report expecting negative impacts on their STEM academic paths, with delays in research agendas and graduation plans the two most prominent themes.



26% of respondents reported considering delaying graduation as a result of the COVID pandemic.

“The number of days I am allowed to perform research on-site in my lab, has been limited from 5 days per week to 1 day per week. This has greatly inhibited my ability to make progress on my research projects which are necessary for my graduation. Due to these delays, it seems like I will have to extend my enrollment at the university which is a financial strain. The stress of this situation has made me less productive overall.”

3. Develop greater support infrastructure to assist graduate students whose research agenda has been slowed, interrupted, or cancelled.

76% of respondents reported that a job, research experience, or internship had been cancelled or postponed due to the COVID pandemic.



65% of respondents thought that the COVID pandemic had a negative impact on their involvement in research or projects required for their academic program

“It will take longer for me to graduate with my PhD. I am anticipating maybe a semester to a year? It really just depends on when I can do field work.”

4. Provide graduate students with greater flexibility around issues of flexible work schedules, remote work, and class attendance options.

When possible, these efforts should be institutionalized as policies at the department or college level to provide consistency and avoid uneven adoption.

13% of respondents have taken on additional COVID-related caregiving responsibilities.

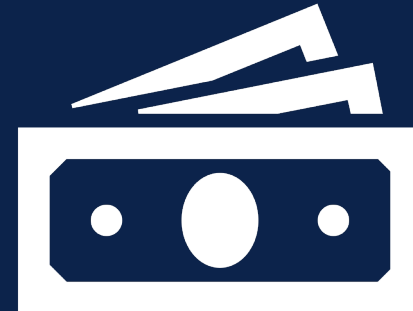


Caregivers reported slightly higher average **number of challenges** when compared to non-caregivers.

“If schools and daycare stays closed, I will not be able to complete my degree requirements.”

5. Ensure that graduate students are being prepared for non-academic, as well as academic, career paths in order to support broad workforce readiness.

65% of respondents cited negative impacts such as limited job prospects during economic recession and a scarcity of academic available positions.



“I was already thinking about leaving academia after graduating from my doctoral program and after seeing the impact this crisis has had in the university, in terms of funding, enrollment uncertainties, etc., I definitely want to leave academia and will pursue a STEM career in industry.”

Recommendations Summary

1. Develop programs to better prepare and support graduate student teaching assistants to adapt to online teaching and integrate this training into existing TA trainings.
2. Adopt clear, consistent guidelines on funding and progress to degree timeline modifications.
3. Develop greater support infrastructure to assist graduate students whose research agenda has been slowed, interrupted, or cancelled.
4. Provide graduate students with greater flexibility around issues of flexible work schedules, remote work, and class attendance options.
5. Ensure that graduate students are being prepared for non-academic, as well as academic, career paths in order to support broad workforce readiness.