

Who Feels Like They're (Not) Getting Attention in Class?

Olivia Bruner
Arizona State University

Naneh Apkarian
Arizona State University

Keywords: Inclusion, Student Experience, Identity, Introductory Mathematics

Students' experiences in their introductory courses impact their likelihood of pursuing and completing undergraduate degrees in STEM (Holland, 2019; Seymour et al., 2019). A sense of belonging or inclusion supports their pursuit of these degrees, while feeling excluded hinders that pursuit. This is particularly pronounced for students from marginalized and/or underrepresented groups, who may enter such courses already feeling like "outsiders" (Ellis et al., 2016; Riegle-Crumb et al., 2019). We explore links between students' demographic characteristics and their reports of receiving similar (or more, or less) attention than their classmates.

The data corpus for this study consists of 32,137 survey responses (complete with respect to our variables of interest) from undergraduate students enrolled in precalculus and calculus courses at 21 universities (Apkarian et al., 2019; Street et al., 2021). Students reported demographic characteristics as well as their perceptions of class activities and their experiences with the course. Students were categorized into three groups: those who reported receiving more, the same, or less attention during class. This categorization was based on students' responses to five Likert items asking them to report whether (compared to their classmates) they had more/less/the same (a) opportunity to ask questions; (b) attention given to their questions; (c) encouragement from the instructor; (d) opportunity to participate in class discussions; and (e) praise from the instructor. The majority (26973; 83.9% of sample) reported receiving the same attention as their classmates, but we focus on those who reported that they were *not* receiving the same attention as their classmates. Testing was conducted to determine if students from different sub-populations were equally likely to report receiving more vs. less attention.

Overall, the 5,164 who were not in the "same" group were 3.29 times as likely to report receiving *less* as opposed to *more* attention than their classmates. We found little variation between men's and women's perceptions of their in-class treatment. However, transgender and gender non-conforming students were 5.4 times as likely to report that they receive less attention. This pattern within men and women held for most racial groups, apart from Alaskan Native and/or Native American students, among whom women were more likely to report more attention than men. We found additional discrepancies based on race. For example, 87.8% of white students (n=16,185) characterize their experience as average, a larger percentage than any other racial group. Within racial groups analyzed, Hispanic/Latinx (n=865) students were 5.13 times as likely to report receiving less attention than more, the highest proportion among groups analyzed. With regards to other special populations, we also found that first-generation students (n=1476) were 4.125 times as likely to report they received less attention than more, and parents (n=48) were 5.857 times as likely. Conversely, international students (n=248) were 1.88 times as likely and disabled students (n=197) were 2.71 times as likely. The poster will include full results for all special populations analyzed in this project, with additional statistical details.

Acknowledgments

Data were collected with support from the National Science Foundation (NSF Nos. 1430540, 1624643, 1624610, 1624628, 1624639). Opinions, findings, and conclusions in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

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