EGU24-12643, updated on 20 May 2024
https://doi.org/10.5194/egusphere-egu24-12643
EGU General Assembly 2024

Active demographic data collection in geoscience: results, implications, and recommendations from a survey of Canadian academia

Scott Jess[1,2], Emily Heer[3], and Lindsay Schoenbohm[2]
[1]School of the Environment, Pullman, United States of America (scott.jess@wsu.edu)
[2]University of Toronto, Department of Earth Sciences, Toronto, Ontario M5S 3B1, Canada
[3]Department of Medicine, Cumming School of Medicine, University of Calgary, Calgary, Alberta, Canada

Many universities openly pledge commitments to improving diversity, with science, technology, engineering, and math (STEM) fields receiving significant attention. Despite these efforts, geoscience remains one of the least diverse fields in STEM. This recognition has prompted an increase in studies stressing the systemic lack of representation across the field and the barriers that exist for those within. However, much of this work has been limited by the use of demographic datasets that have been either passively collected or derived from government sources. Constraints include country-specific data collection policies, failures to collect field-specific data, and the absence of additional information necessary for intersectional analysis. Advancing diversity, equity, and inclusion (DEI) in our field requires meaningful datasets that clearly identify social inequalities. Limited, incomplete, or anecdotal data are too easily dismissed by those in power, stalling constructive efforts.

In Canada, demographic data is not regularly collected at academic institutions and is seldom field-specific. This absence of data undermines efforts to identify the current state of diversity in the field and prioritise initiatives for improvement. Collecting comprehensive demographic data is a crucial step in determining whether progress is evident. It can also help to highlight areas of concern, especially in fields lacking in diversity, such as geoscience. To address this absence of data, we disseminated a 22-question demographic survey to 35 academic geoscience departments across Canada in late 2022.

We received 482 eligible responses to the survey, accounting for approximately 20% of the research population. Overall, men make up a slight majority across all respondents (53%), and the percentage of individuals who identify as white (73%) is greater than the national average (67%). Additionally, results shows that research students (MSc and PhD) are a diverse group, while salaried positions (postdoc, research staff and faculty) lack diversity in a wide range of categories including, gender, race, LGBTQ+, Indigeneity, and disability. Moreover, tenured positions are overwhelmingly occupied by white men, with racial inequalities prominent in the data.

These data highlight several areas of concern in the academic career path. The transition from

research student to salaried research remains a clear area of concern, while the tenure process appears to continually favour white able-bodied cisgender men. Moreover, the representation of Indigenous persons and those with self-identified disabilities remains very low. Solutions require institutional changes to recruitment, tenure applications, postdoctoral hiring, field work design, and mentoring practices. Importantly, they also require changes to how we collect and analyse demographic datasets in geoscience, as a continued reliance on data that is passively collected or obtained from government sources will continue to limit our abilities to identify areas of concern and create effective strategies.