

Workplace culture

Geoscientists excluded



Earth scientists are at the forefront of tackling some of the biggest environmental, scientific, and societal challenges facing the world today. Despite the critical nature of their work, their workplaces — be it in the field, lab, or office — are not always supportive environments conducive to personal and professional success. This is especially true for scientists from disadvantaged and underrepresented groups, given that geoscience is one of the least diverse disciplines in the physical sciences.

Successfully making the geosciences more inclusive depends on listening to those from communities who have been and often continue to be negatively affected, in indoor and outdoor workplaces (like the one pictured here) and in their careers. These conversations can be challenging, but collecting honest opinions is vital. For example, results from a recently published survey of geoscientists reveal that many are facing pervasive discrimination and hostile working conditions.

Erika Marin-Spiotta, Emily Diaz-Vallejo and colleagues in an article in *Earth's Future* set out to understand how geoscientists' workplace experiences differ depending on their career stage, gender, sexual orientation, disability status, and race or ethnicity ([Earth's Future](#)



11, e2022EF002912; 2023). Working with five professional organizations based in the United States, they received over 2,000 anonymous responses in 2019 and 2020. Women made up 50% of the respondents, somewhat overrepresented relative to US geoscientists, while others — such the 7% of people with disabilities and the 1% who identify as transgender — were roughly proportional, keeping in mind that individuals can belong to multiple groups. In addition to asking about workplace interactions — both positive and negative — in the workplace, they also sought opinions on the implications of identity-based discrimination.

The results are striking. A quarter of all respondents reported hearing disparaging or discriminatory language, directed at themselves or others, in the prior twelve months.

More than a third reported experiencing bullying or being devalued, most commonly by their co-workers; geoscientists of colour were more likely to experience these negative interactions than their white colleagues (43% vs. 34% respectively). Respondents with disabilities were similarly disproportionately affected, while also indicating they more often feared for their physical safety than their colleagues (17% vs. 11%).

The survey also showed that respondents from the LGBTQPA+ community — those with lesbian, gay, bisexual, queer, pansexual, asexual, or any other non-heterosexual orientations — reported being subject to insulting remarks more frequently than their colleagues (55% vs. 41%). Furthermore, around 62% of those identifying as non-binary reported

experiencing workplace intimidation or bullying, substantially higher than their colleagues identifying as women (42%) or men (24%). Overall, 14% reported experiencing some form of sexual harassment, though this was, for example, more common amongst women (20%) and people of colour (17%).

The study also provides further evidence that the professional consequences of hostile workplaces can be severe, if hidden. Up to half of respondents reported that negative interactions led them to avoid people at work, skip professional activities, and even consider changing careers. Two-fifths of those in early career stages reported that they felt their work had been sabotaged in some way, highlighting how discrimination might relate to multiple aspects of a researcher's identity.

Despite increasing efforts by research institutions and professional societies to address these issues in the USA, this survey makes it clear that discrimination in the geosciences persists, is deep-rooted, and often occurs at an interpersonal level. The authors suggest that their findings can be used in efforts to transform workplace culture in the geosciences to one that is more inclusive.

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