

# Researchers release action plan to boost diversity in postgraduate science students

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UK researchers are calling on higher education institutes and research funders to adopt a new set of recommended actions to address the substantial under-representation of Ph.D. students from ethnic minority

backgrounds.

Black, Asian and minority ethnic students have a markedly lower representation in postgraduate research compared with undergraduate or taught postgraduate study in the UK. For instance, in 2020/21, around [26.5% of UK undergraduates](#) were from ethnic minority backgrounds, compared with around 19% for postgraduate students.

[The Equator project](#), based at Sheffield Hallam University, has been investigating why this is the case and developing evidence-based interventions to target these barriers.

The team have now published their findings and an action plan for higher education institutes in *Nature Geoscience* under the title of "Strategies for making geoscience Ph.D. recruitment more equitable." This is based on their research into ethnic minority participation in Geography, Earth and Environmental Sciences; subjects with some of the lowest diversity levels. The results of this work will be published

The project involved working with Doctoral Training Organizations through a series of focus groups to understand and analyze their admissions practices, including advertising, interviewing, and evaluation. The researchers also sought feedback from students who took part in Equator activities, such as surveys and focus groups.

Their findings highlighted that advertising was not the main barrier to entry. The study's lead author, Dr. Benjamin Fernando (University of Oxford), said, "It is often assumed that students from minority backgrounds are underrepresented simply because don't know about Ph.D. opportunities. Our work suggests that this is not the case—rather, they choose alternative paths for a range of complex societal, cultural, and personal reasons." For example, these might include worries about career security or funding.

The study identified three areas where improvements should to be made to address underrepresentation of ethnic minority students:

1. Student-facing improvements,
2. The procedures used in applications themselves,
3. How students are evaluated.

## **Student-facing improvements**

These recommendations included:

- Greater use of demographic networks (e.g. Black in Geoscience), as these are more likely to be effective than increased untargeted advertising.
- Address the lack of confidence about applying for research careers through funded pre-application support, including workshops, online Q&A sessions, office hours, networking events, and mentoring.
- Provide standardized expression of interest forms for students to contact potential supervisors.
- Provide written resources that proactively address the potential concerns of applicants (for instance, available financial support), and provide greater clarity on what information applications should contain.

## **The procedures used in applications themselves**

- Provide dedicated, ring-fenced opportunities, such as guaranteed interviews for candidates from minority backgrounds who meet minimum requirements.
- Equitable use of contextual data: Funders (such as the UK Government) should provide a framework for how contextual

information and personal circumstances are taken into consideration for postgraduate study applications (similar for undergraduates).

- Standardize demographic data collection at the point of application and expand this beyond minimum legal requirements to include factors such as undergraduate institution.

## How students are evaluated

- Reduce bias by decreasing the emphasis on supervisor-specific nominations and by monitoring conflicts of interests for internal applicants.
- Reforming assessment metrics to focus on potential, not "excellence." Instead of rigid assessment criteria based on undergraduate grades, allow for more holistic evaluation.
- Use more holistic interview questions designed to prompt candidates to showcase their transferable skills and character attributes (e.g. resilience or creativity).

Within the report, these actions are divided into those which should take place during the current admissions cycle (2022-23), those which will take one-to-two years to implement, and those which require long-term structural change on a timescale of five years to address.

The Equator project's Principal Investigator, Dr. Natasha Dowey (Sheffield Hallam University), summarized the effort by saying, "We have produced an action plan that departments across the country who admit Ph.D. students in the physical sciences can copy. By providing a prioritized list of actions spanning multiple years, there is no excuse for not taking immediate action."

**More information:** Strategies for making geoscience PhD recruitment more equitable, *Nature Geoscience* (2023). [DOI](#):

[10.1038/s41561-023-01241-z](https://doi.org/10.1038/s41561-023-01241-z)

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