



HARVARD UNIVERSITY

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

20 OXFORD ST., CAMBRIDGE, MA 02138

TEL. (617) 495-2351 FAX. (617) 495-8893

#ShutDownSTEM

On June 10, 2020, the Department of Earth and Planetary Sciences met in a community-wide town hall and in several self-organized subgroups to discuss how to promote racial diversity and oppose racism, both specifically in EPS fields and more broadly across the sciences and society. These conversations yielded numerous recommendations and highlighted many existing resources. This document aims to capture the breadth of these discussions.

The first section contains summary recommendations, including action items. Because EPS agrees these are community-wide issues for which the burden should not fall to a single committee or sub-set of people, the list also highlights the areas of our organization that could bear responsibility for moving these plans forward. The second section contains greater detail and is grouped into categories; it synthesizes many contributions from our students, staff, and faculty.

Summary recommendations, action items

Divisional	Create a program of TF-level positions, analogous to the Bok Center Pedagogy Fellows, called Divisional Diversity Fellows. Ensure that all departments are granted ≥ 1 of these positions annually. Also support an expansion of dedicated staff positions (e.g., Benita Wolff, Alexis Stokes) to provide departments greater access to programming, resources, and professional facilitation of activities.
EPS-UCC	Combat the perception that “EPS is for rich white people” by changing the focus of outreach materials and activities: describe diverse career opportunities, recruit directly within undergraduate student organizations, diversify printed and web materials. Review course content to expand societal relevance, appeal to justice issues. Collaborate with the EPS-GSC and with other departments to promote/expand/develop new REU summer programs.
EPS-GSC	Expand current recruitment programs such as attendance at SACNAS; follow up with active networking. Initiate a URM-focused departmental open house, to occur <i>before</i> the graduate program application deadline. Collaborate with the EPS-UCC and with other departments to promote/expand/develop new REU summer programs.
EPS-Colloquium	Broaden representation of the departmental colloquium series, ensuring both racial and gender diversity. Work with the smaller seminar series, e.g., BiSEPPS, ClimaTea, to help increase their diversity. Devote one colloquium annually to a speaker focused on inclusivity efforts, REU outcomes, or other diversity programs, rather than a traditional research seminar.
EPS-DIB	Conduct immediate review of department imagery and symbolism, to include removal of racism-connected iconography; develop new visual display material that reflects racial and gender diversity in EPS fields. Work with the department and division to plan programming of workshops and Town Hall discussions.
EPS-Department	Implement required implicit bias training, with a facilitated community workshop and Town Hall discussion to follow-up, at the beginning of every academic year.

Detailed ideas, suggested actions, and resources

Suggested academic and recruitment activities, department level

- Engage in active recruitment of a more diverse **undergraduate** population
 - Initiate and/or collaborate with Harvard colleagues who run existing URM-REU summer research programs.
 - Actively recruit non-Harvard students into these programs to reach a broad demographic (current OEB program is a model in this regard).
 - Actively recruit URM Harvard undergraduates into term-time or summer (paid) research internships.
 - Recruitment of Harvard undergraduate concentrators: The present EPS demographic underrepresents Harvard's student diversity and currently mirrors the whiteness problem that pervades Earth Sciences nationally.
 - Examine our print media and on-line messaging – Our current strategy of emphasizing outdoor activities and academic research is less appealing for first-generation and other disadvantaged students. Instead, emphasize social and practical impacts of an EPS degree and present non-academic career tracks. Include alumni networking, especially to those alumni who are now working as doctors, lawyers, engineers, and other familiar professions.
 - Reach a broader group of undergrads and high school students, because many enter college not knowing about Earth science (lack of a high school curriculum). Specifically, we should directly target first-years (rather than passive or self-selective recruiting, e.g., FOP).
 - Create a Lab Open House event for undergraduates and make available short videos explaining Earth science research.
 - Reach out to faculty who teach introductory classes in other departments (especially physics, chemistry, astronomy, and OEB) to invite EPS faculty to give guest lectures, explaining (and selling) EPS to a wider cohort of undergrads.
 - Ask astronomy, [physics](#), and other departments how they successfully diversified their programs
 - Pro-actively review the content of curricular offerings and programs to include more diverse topics, societal issues and impacts (especially of climate change, environmental disruption, and hazards). Consider modules or courses that focus on the inequities of climate change: the academic questions include not just thermal impacts, but also soil erosion, water resources, destruction of biodiversity, health, and geopolitics/migration.
- Engage in active recruitment of a more diverse **graduate and post-doc** population
 - Reach out to faculty across the country and ask them about who they have that might be interested in applying to graduate school.
 - Fund a plan for recruitment and retention of under-represented minority graduate students and post-docs. This should include (but is not limited to):
 - [Host a recruitment weekend](#) for potential graduate students and postdocs to engage them before the application process. Reach out to a wide range of minority-serving institutions (e.g., Historically Black Colleges and Universities, UMass system).
 - Continue our program of sending graduate students and faculty to conferences that target minorities in science, e.g., the SACNAS National Diversity in STEM conference.

- Put language directly on the departmental web site explaining that a PhD education is a stipend-carrying position, and that also notes application fees can be waived.
- Re-start the conversation about the GRE requirement
 - Discuss the following articles: [Ph.D. programs drop standardized exam](#) – “Many Ph.D. programs that have dropped the requirement give students the option of submitting GRE scores, but [a higher education researcher] recommends against that approach because it can create a bias against those who don’t submit scores.” And [Typical physics Ph.D. admissions criteria limit access to underrepresented groups but fail to predict doctoral completion](#))
- Increase representation in departmental visitors, lecture series, and other activities
 - Actively recruit people from underrepresented groups as speakers for all seminar series (Colloquium, BiSEPPS, ClimaTea, etc.). This should include a target percentage that must be met for the number of talks given by underrepresented people and could draw people from both academia and industry.
 - Devote one colloquium annually to a speaker focused on inclusivity efforts, REU outcomes, or other diversity programs, rather than a traditional research seminar.
 - Consider a small honorarium for this lecture.
 - Suggest that journal clubs within lab groups read articles on diversity in the geosciences
- Become more involved in K-12 outreach to increase the pipeline from younger age groups
 - Organize visits from EPS community members to local schools (elementary through high school), e.g., some form of "Career Day" or "Meet the Scientist" event.
 - Partner with the Museum of Natural History, Museum of Science, other Departments, Universities, etc., to expand our involvement in public outreach events, activities, popular science lectures.
 - Maintain a list of volunteer opportunities and encourage broad participation (i.e., not just from our graduate student body, who already do significant volunteer work).

Departmental visual displays and artwork

- The department is committed to updating its visual materials to remove items identified as reflecting racist legacies, including strategies to tackle problematic display items in adjacent spaces.
 - Check with OGC about regulations on the remaining Hoffman & GeoMuseum artwork
 - Work actively with areas that “own” adjacent spaces like Geo Lecture Hall (100)
 - For imagery that cannot be removed, add language that recognizes what the artwork is and why it is there; provide context
- Specifically transfer materials related to Shaler and Agassiz to the museum (or a different intentional space) and repopulate the walls with images and content to represent a diverse community and current work. Commit to these tasks in calendar year 2020.
 - Reach out to the entire EPS community for suggestions for replacement imagery. Involve staff, faculty, undergrads, grad students, post-docs, in sourcing new content.

Suggested support from the Division and University

- Recruit more diversity to senior roles, both faculty and staff, at all levels: University, Division, and departmental positions
- Create new Diversity and Inclusion facilitator roles. Because diversity issues are central to the mission of the University, as well as the department, their importance should be elevated to the level of teaching, advising and research. Having people whose job it is to coordinate these efforts

will also have the benefit of reducing redundancies of effort, better yielding a coherent, progressive and committed voice to the outside world.

- Create divisional-level facilitator position(s) at preceptor level or preferably higher (e.g., Benita Wolff), assigned to every department, to steer departmental DIB efforts.
- Create TF-level positions, analogous to the Bok Center Pedagogy Fellows, and call them Divisional Diversity Fellows. Ensure that all departments are granted one or more of these positions annually, to work with internal DIB committees and the higher-level staff facilitators to enable planning and programming.
- Reduce or abandon [legacy preference](#) for admissions – we currently admit twice as many legacy students as black students, which contributes to the structural concentration of white privilege.
 - [“43 Percent of White Students Harvard Admits Are Legacies, Jocks, or the Kids of Donors and Faculty”](#)

Communications, dialogue, programmatic activities

- Provide training for students, post-docs, faculty, and staff: Hold annual department-wide training and discussion to cover core issues (e.g., implicit bias, communication and management skills, effective dispute management).
 - Coordinate with University and Division-level training tools and programs, and solicit help in facilitating our annual (late summer, early September) workshop and training activities: <https://projects.iq.harvard.edu/hgse-equity-fellows/workshops-0>
 - Partner with the Equity and Inclusion Fellowship Program at GSE for additional resources and advice: <https://osa.gse.harvard.edu/equity-and-inclusion-fellows-program>
 - Make these trainings annual and mandatory
- Hold regular, facilitated DIB Town Halls to keep lines of communication open among all cohorts
 - Make the department dialogue summaries and action plans publicly available to promote accountability and transparency
- Resume the department internal climate study that was poised to launch, but was put on pause for the COVID-19 shutdown
- Commit to having conversations about racism with family and friends

Resources

- Suggested readings, movies, videos
 - [White fragility](#)
 - [How to be an Anti-racist](#)
 - [Stamped from the Beginning: The Definitive History of Racist Ideas in America](#)
 - [No Progress on Diversity in 40 Years \(in Geoscience\)](#)
 - [Deep Biases Prevent Diverse Talent from Advancing](#)
 - [Algorithms of Oppression: How Search Engines Reinforce Racism](#)
 - [this paper](#) finds demographically underrepresented students innovate at higher rates than majority students, but their novel contributions are discounted and less likely to earn them academic positions
 - [excellent report](#) at Yale from the report of the Committee to Establish Principles on Renaming
 - [13th](#), a documentary about the prison industrial complex; also on YouTube
 - [Blindspotting](#), a film highlighting racial bias, gentrification, and police violence
- [Support black-owned bookstores while purchasing anti-racist literature](#)