

URGE

Unlearning Racism in Geoscience

URGE Demographic Data for LDEO/EI/Columbia University

This is what was found by the Polar Podlet at LDEO/Columbia University on demographic data (public and internal facing) as well as stated goals for representation, and/or proposals to collect and report demographic data.

The Lamont-Doherty Earth Observatory (LDEO) is a core component of the Earth Institute (EI) at Columbia University, and is located on a suburban campus 12 miles outside of New York City. The LDEO campus consists of researchers, engineers, and staff, as well as researchers at the International Research Institute and the Center for International Earth Science Information Network, and faculty and students from the Department of Earth and Environmental Science (DEES) at Columbia University. The demographic data reported here reflect LDEO, the Earth Institute, DEES, and Columbia University.

- **The link(s) to demographic data at our organization are here:**

Our research uncovered dozens of links to demographic data across LDEO, EI, and Columbia University. As a whole, this collection of resources is at once both redundant and incomplete. We appreciate and value the more detailed and comprehensive data offered by LDEO, and wonder if it is size alone that prevents larger entities (e.g. Columbia) to do the same. That being said, Columbia does excel at presenting and promoting its findings, as illustrated in the variety of links below. We wonder about the merits of reporting at all these different levels: are they grassroots efforts to fill perceived gaps in institutional reporting, in response to initiatives or more personal motivations, or recruitment?

- Columbia University
 - Faculty and Staff demographics data:
 - [Faculty by Minority Status, Citizenship and Tenure Status](#), Fall 2020
 - [Full-time Employees by Job Category, Ethnicity and Gender](#), Fall 2020
 - Interactive Charts: [Faculty Diversity | Office of the Provost](#)
 - Students (Graduate and Undergraduate)
 - [General Studies demographic data](#)
 - [Graduate school demographics data](#)
- Earth Institute
 - [DEI at the EI](#)
 - [2020 DEI survey](#) ('headline' data in Fig. 1, p.9)
 - Only reports demographics data of survey respondents, so not an accurate view of EI demographics as a whole.



Unlearning Racism in Geoscience

○ LDEO

- [LDEO Demographics](#)
- [LDEO 2020 SEI survey report](#)
 - Only reports demographics data of survey respondents, so not an accurate view of the LDEO demographics as a whole.
- [LDEI TASK FORCE REPORT, January 26, 2021](#) (Demographics data can be found at the bottom of the report.)
- Analysis of past invited [speaker demographics](#) - started formally collecting data on race/ethnicity in 2019.

“Gender: For the 2019-2020 year, around 45% of speakers identified as women.

Race & Ethnicity: For the 2019-2020 year, around 39% of speakers were from underrepresented groups, with 17% identifying as Hispanic/Latinx, 14% identifying as Asian, and 8% identifying as Black.”

○ Internship Programs

- Undergraduate internships, including an Research Experiences for Undergraduates (REU) program (figure taken from D. Abbot and M. Kaplan, report to NSF, 2020)

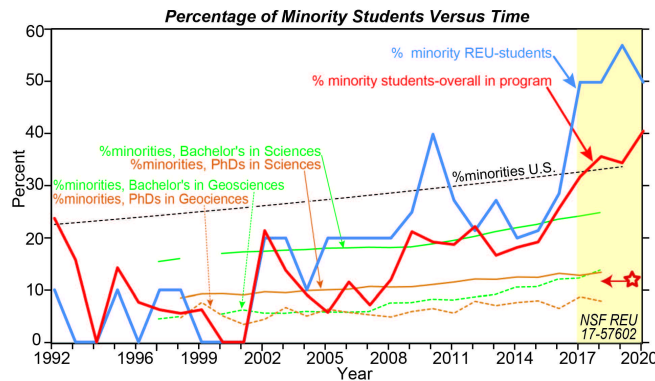


Figure 1. Blue solid line: Minority Participation rate for REU funded interns. Red solid line: Rate for intern program as a whole. Black dashed line: Census Data on Underrepresented Minorities (African-American, Hispanic, Pacific Islander and Native American). Green solid line: Underrepresented minorities who obtain BA degrees in all sciences. Solid brown line: minorities who obtain PhDs in all sciences. Dotted green line: minorities who obtained BA degrees in geoscience. Dotted brown line: minorities who obtain PhDs in geosciences (undergraduate major not necessarily geoscience). Red star: minority PhDs as percentage of the alumni from LDEO program who subsequently obtain PhDs. Note that our program has a yield of about 12% compared to 8% nationwide. On right side, we highlight in yellow the last three years supported by NSF.



Unlearning Racism in Geoscience

- The LDEO [Secondary School Field Research Program](#) (SSFRP) coordinated by Bob Newton is a summer internship program for highschool and undergraduate students funded by a mix of National Science Foundation awards, private foundation grants, and individual donations. The SSFRP, which began in 2005 and now hosts 60–65 students annually, is a paid summer internship program. Of these students, 80%–85% identify as black, Latinx, or South Asian, and about 60% of them are female. An overwhelming majority, roughly 80%, are from [Title I](#) and/or [Title III](#) schools.

- **How does your organization compare to others, or to the field as a whole?**

We included the following peer institutes in our research: the Woods Hole Oceanographic Institute (MIT-WHOI), the Scripps Institution of Oceanography (Scripps), and University of Texas at Austin (UT Austin). However, we found it difficult to find comprehensive demographic data to do a full comparison. We would like to reiterate that demographics on graduate students and above in the geosciences show a clear lack of diverse representation in terms of race with no significant change in the recent decades, while representation in terms of gender has increased significantly. Demographics for LDEO and peer institutions reflect this broader trend.

- We were unable to find easy-to-find public demographic data for MIT-WHOI Joint Program
- The Scripps Oceanography “Demographics” [website](#) highlights several aspects of its alumni (e.g. average age, average time to graduate with PhD, that 68% are male and 32% are female, career paths, and employers), but nothing on race or ethnicity. University of California San Diego has a comprehensive [Dashboard](#) to explore demographic data from 1995 onwards.
- University of Texas at Austin - Jackson School of Geosciences has several DEI initiatives (e.g. [GeoForce](#) and a chapter of [GeoLatinas](#)). Although we could not find demographic data easily but there are several articles on the subject, [one](#) stating:

“At the Jackson School, the diversity of both staff and non-international students reflects these larger trends. Black students have made up about 2% of the undergraduate student body on average during the past decade. Hispanic students made up 16.2% of undergraduates on average over the same period — a value that’s lower than the 21.7% of Hispanic students that made up UT’s student population in 2019. For graduate



Unlearning Racism in Geoscience

students, the number of Black students has never reached above two at any given time during the past decade, while Hispanic students make up 6.2% of graduate students on average. The Jackson School faculty similarly lacks diversity, with 14% of faculty members of Asian descent, but only one faculty member from underrepresented groups”

- AGI - [Diversity in the Geosciences – a Look at the Data and the Actions of the Community](#)
- [Creating and Promoting Gender Equity and Diversity in Professional Geological Societies](#)
 - Leadership in Washington, DC
 - [117th Congress is the most racially and ethnically diverse](#)

- **Public goals on demographics or increasing representation:**

LDEO, the Earth Institute, and Columbia University state their goals and commitments to diversity, equity, and inclusion are publicly on their websites:

- LDEO:
 - “LDEO aims at promoting a more diverse workforce, with greater representation from women and minorities.”
[LDEO Demographics | Academic Affairs & Diversity](#).
 - “The Lamont community values diversity and inclusion and encourages applications from members of underrepresented minority groups.” [found on some LDEO job advertisements].
 - The 2020 LDEO DEI report states “Our overarching goal is a campus whose personnel (staff, students, etc.) are representative of the ethnic, racial, gender diversity of the nation.” However, this report does not appear to be publicly available.
- EI:
 - “In October 2018, with Alex Halliday’s recent arrival and the current cultural momentum, the Earth Institute (EI) initiated a new process of engagement to promote diversity, equity and inclusion.” [Earth Institute Diversity, Equity and Inclusion Process: Overview of Preliminary Inventory \(2019\)](#)
 - “The Earth Institute will enhance diversity, equity and inclusion across our community.” [Earth Institute Five Year Strategic Plan](#)
- Columbia: Columbia’s goal is to “make diversity a central focus in every aspect of the University’s endeavors.” [Columbia’s Commitment to Diversity | Office of the President](#)



Unlearning Racism in Geoscience

Columbia's website for diversity offices and initiatives is a list broken down by schools and institutions within the university, as well as campus wide efforts ([Diversity Offices and Initiatives | Office of the Provost](#)). We reported on LDEO and the EI here, which both state their intentions/goals, efforts, and progress for achieving representation. This information can be found on websites and their publicly available reports.

- LDEO:
 - LDEO's DEI report details plans for increasing diversity and representation on campus. It specifically includes strategies for recruitment, retention, and promotion. This report does not appear to be publicly available, but was circulated to all LDEO employees and affiliated members in Spring 2020.
 - LDEO's website for academic affairs and diversity is comprehensive. It states clear goals and initiatives on diversity and representation, including guidelines for search committees to include DEI in the hiring process, in addition to the demographic data described above: [Academic Affairs & Diversity | LDEO](#)
- EI:
 - EI's 2019 strategic plan outlines an agenda for increasing diversity within the institution through 2022.
[Earth Institute Five Year Strategic Plan](#)
 - Are there general goals stated at your organization for achieving representation?
 - "Columbia University is committed to providing a learning, living, and working environment free from discrimination, harassment, and gender-based misconduct, and to fostering a nurturing and vibrant community founded upon the fundamental dignity and worth of all of its members". [LDEO Discrimination, Harassment and Gender-based Misconduct webpage].
 - [Columbia's Commitment to Diversity | Office of the President](#)
 - Are there measurable goals stated at your organization for achieving representation?
 - Earth Institute 5-year strategic plan: Goal 2 Objective 3 - [The Earth Institute will enhance diversity, equity and inclusion across our community](#) (see p.21). Targets are listed, but perhaps not the most straightforward to measure / quantify.
 - Stated Seminar Diversity Initiative goals:
 - To support at least 3 underrepresented minority (URM) speakers per year in each of our five research divisions
 - To increase the number of women, other genders, and non-binary speakers
 - To increase visibility and representation of URM speakers



Unlearning Racism in Geoscience

We suggest the following additional goals for MGG Division specifically and LDEO more broadly:

- Improve the public facing page presenting LDEO demographic data. Some examples include <https://www.law.columbia.edu/admissions/jd/entering>, https://undergrad.admissions.columbia.edu/sites/default/files/class_2021_profile.pdf, <https://www.tc.columbia.edu/about/diversity-and-community/student-demographics/>.
- Regular updates on progress by the various task forces/committees/initiatives. Part of lack of progress within geosciences since the Civil Rights Movement was caused by lack of accountability.
 - Semi-annual updates by LDEO Directorate (with response from the LDEO DEI Task Force) on progress of SMART goals
 - Annual updates by Columbia University, the Earth Institute, etc.
- Increase engagement with URMs in NYC - build on existing outreach efforts with schools and programs serving low-SES communities
- Continue to increase diversity of interns
- Establish a quantifiable target for the average number of URM speakers (e.g. double the 2020 number) in seminar series year-on-year, and hold a yearly update to assess whether the target has been met (and if not, why not, and how can we improve?)’?

- **Policy or proposed policy for collecting demographic data at your organization:**

The 2020 LDEO DEI report recommends creating a “Lamont Diversity Committee tasked with recording metrics and tracking progress towards all of our goals.” To our knowledge, the current state of recording and reporting demographic data comes from the weekly division seminars, according to discipline, and colloquium where voluntary demographic data has been collected for all speakers. ([Lamont Seminar Speaker Survey \(Fall 2020 - Spring 2021\)](#)). These data are shared online ([LDEO Demographics | Academic Affairs & Diversity](#)). Data collected from 2005 to 2020 by the Office of Academic Affairs and Diversity as well as the Department of Earth and Environmental Sciences was included in this report, but it is unclear how data were collected, but they were provided and compiled by members of the LDEO community. It is also unclear to us how data are being used in decision-making specifically beyond “tracking progress towards all of our goals.”

In 2020, an Earth Institute DEI survey was circulated to all EI employees and affiliated members in Spring 2020. Results were reported/circulated in a July 2020 report with an accompanying ‘Action Planning Resources’ document. It is unclear to us at the moment how the results were / are being utilised in decision-making. It is also unclear to us whether there will be more regular tracking going forward.

URGE

Unlearning Racism in Geoscience

Based on our Pod's URGE discussions on identity (session 2) and demographics (session 3), we suggest that demographic data continue to be collected and reported for institutional transparency. However, we add that data should be collected with awareness of, and attention to, the many ways people may wish to identify themselves. We recognize that racial demographic surveys are often reduced to a few generic categories or options, which can feel reductive to some. A limited number of multiple-choice options can often exclude intersectional and/or broader non-White URM identities, relegating them to an "Other" category that may or may not be available, and may lead individuals may then decline to participate in the survey, or choose a "best available" option that can be misrepresentative. This may limit the effectiveness of the survey. Our suggestion of institutional demographic transparency could help the institution be held accountable both internally and publicly.

- **What did you learn about other organizations (or in general) while investigating demographic data?**

We were surprised to learn of the decades-long attempts to improve diversity in demographics in the geosciences, reported by the AGI, given that there is still a clear imbalance in terms of race. AGI continues to report on demographics ([Diversity in the Geosciences | AGI](#)). The AGI strategic plan includes the goal of achieving "A diverse geoscience workforce in which all are empowered to reach their highest potential." Reports are available on the recent history and strategy for achieving more representation in the geosciences ([A Diverse and Robust Workforce | AGI](#), [Developing a Diverse Professoriate | AGI](#)). However, these resources are not easy to find on AGI's website.

While creating this deliverable, we became aware of the ongoing and renewed efforts to report on demographics as well as increase diversity at different institutions. For example:

- Nature has committed to ensuring their conferences are more diverse. They specifically highlight that they will no longer have all-male panels at their events. [Nature Conferences: no more 'manels' | Nature Articles](#)
- The American Geophysical Union's 2020 strategic plan states its goal to "Promote and exemplify an inclusive scientific culture" through "increas[ing] the diversity of the talent pool so that individuals of all backgrounds are equitably included and valued." AGU also reports its demographics: [AGU Membership Demographics \(2018\)](#)
- [Part 3 – guidelines for implementation: monitoring and combating racism and racial discrimination | Ontario Human Rights Commission](#) - more information on collection of demographic data in Canada.

