

# URGE

## Unlearning Racism in Geoscience



UNIVERSITY OF MINNESOTA

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URGE Demographic Data for the School of Earth and Environmental Sciences, University of Minnesota - Twin Cities, Minneapolis, MN

This is what was found (and not found) by the Ecogite pod at the School of Earth and Environmental Sciences, University of Minnesota - Twin Cities on demographic data (public and internal facing). We have looked for stated goals for representation, and we are proposing some ideas of how we might collect and report additional demographic data moving forward. We include below suggested action items (listed as *ACTION ITEM*) in addition to proposed public goals for representation and policies for data collection.

We aim to merge this document with the other two URGE pods associated with our department (Breccia and (Bio)geochemistry Pod) after these are submitted to URGE as individual deliverables.

- **(Data we do have) The link(s) to demographic data at our organization are here:**
  - [Link](#) - Faculty list (“tenure-line” only), graduate student enrollment, applications, and degree progress by department (page leads to the links below) collected by the graduate school and available to the public
    - [Link](#) - Tableau page with graduate program data (averaged over 3-yrs) from 2017-2020 (will need to select Earth Sciences from drop down menu)
    - [Link](#) - Earth Science graduate student data tables for the last 10 years for admissions, enrollment, degree progress, and degrees conferred grouped by PhD, MS, male, female, international and minority students.
    - ***ACTION ITEM:*** The public data available for minority graduate student degree progress and degrees conferred in our department is a data source we may be under-utilizing in taking a critical lens to our program for minority graduate student completion rates. **We propose that these data should be analyzed by the graduate studies committee annually to ensure we are supporting minority students and maintaining parity in our retention rates for minority and non-minority students.**



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- Faculty and faculty-search demographic data are tracked and maintained by the department and stored in a repository that ensures continuity of data collection, storage, and analysis during leadership changes.
- [Link](#) - Undergraduate data at the college level, by semester, is available publicly but there is no publicly available data on department specific undergraduate demographics
  - *ACTION ITEM:* The Undergraduate Studies committee has recently (at our request) obtained demographic data for majors in Earth Sciences and Environmental Geosciences; however, the data are complex because they are collected in a different way for BS students from the College of Science & Engineering and BA students from the College of Liberal Arts. Neither dataset is an accurate measure of all the undergraduate majors in our department. Therefore, the department will look into surveying students directly, perhaps within existing surveys such as the undergraduate entrance or exit surveys. The Undergraduate Studies Committee will work with the Diversity, Equity, and Inclusion Committee on appropriate wording of the survey, and will familiarize themselves with UMN policies on data sharing. The timescales for regular evaluation of these data will be discussed by the Undergraduate Studies Committee.
- Analysis of past invited speaker demographics (department seminars, 2011-present)
  - Data on department-wide seminar speaker demographics is available going back until 2011. The main shortcoming is that these data are not currently self-reported, and thus, these data are not appropriate to publicly display.
  - *ACTION ITEM:* Seminar speaker data will be collected and maintained by the department for internal use. The three URGE pods at UMN will discuss best practices for the collection of these data in the future. The department also should evaluate ways to better highlight and showcase the work and research of seminar speakers using a variety of digital outlets (web, social media, building video displays). The department encourages faculty to consider diversity in its annual solicitation of proposed seminar speakers, but suggestions for a more codified policy to ensure consistency and continuity of this initiative in the future will be solicited from the department and/or DEI Committee.
- **(Data we do not have, at least at hand) If data are not available, what is the reason for not making it public?**



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- Qualitative graduate student data are available internally via the [gradSERU](#) survey, but as there is a small number of minority students in our department, it is difficult to get minority specific data while protecting anonymity
  - *ACTION ITEM:* As part of the newly added exit interview for graduating graduate students, we should consider asking for the qualitative experiences of all students, but be particularly aware of the experiences of self-identified students of URM. It would be difficult to maintain anonymity with any provided feedback, so we will need to consider this before implementing.
- Undergraduate student qualitative experiences are surveyed via [SERU](#), but breakdowns by department are not publicly available; the department receives data in years in which the number of students responding to the survey is sufficient to allow data to be released.
  - *ACTION ITEM:* To collect some qualitative data regarding undergraduate student feelings of community and inclusiveness, the department should consider how to collect feedback from graduating seniors as part of the exit interview. This will be difficult to keep anonymous, so considerations of how to do this in a way students feel safe and protected will need to be considered before implementing. The undergraduate studies committee will discuss strategies for encouraging participation of undergraduate students in the SERU surveys which has historically been low.
- Research and teaching faculty, postdocs, and department research and administrative staff demographics have not been collected due to the different categorization of employees depending on titles and funding sources. Some postdocs, for example, are not employees if they are on an NSF fellowship and other postdocs may be hosted by institutes or laboratories (e.g. SAFL) outside of our department, but work under a PI within the department.
  - *ACTION ITEM:* The department will consider enacting an internal entrance survey for postdoctoral researchers joining a lab under a PI in our department. (Question: Who would collect and manage these data?)
  - *ACTION ITEM:* The number of non tenure-line faculty and administrative staff in our department is very small, making quantitative data collection about these groups less useful. When filling these positions, similar policies as those for hiring faculty regarding a diverse interview pool should be used, if a similar policy is not already in place [a future URGE topic]. We emphasize the benefits of having diverse administrative staff and non tenure-line faculty in creating a welcoming and supportive community for diverse students in the department.



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- The four centers hosted within our department are NSF- or state-funded, but utilize HR resources within the department, and we have included them in our search for demographic data; however, none of them track the number of URM staff members.
  - **Minnesota Geological Survey:** tracks binary gender statistics going back to 2007 and reports its number publically in the AASG report on state geologic agencies; does not currently collect race/ethnicity data, but AASG statistician's office is in discussion about how best to do this in the future
  - **Institute for Rock Magnetism:** collects and retains name and institution information for external users of the IRM, IRM-sponsored conferences, and IRM Summer School; does not collect self-reported demographic information such as gender or race/ethnicity
  - **Polar Geospatial Center:** data collection processes unknown
  - **Continental Scientific Drilling:** collects and retains name, institution, and career stage for facility staff (40-60 people total since 2000), facility users (~5,000 people total since 2005), and applicants and participants for facility training programs (~500 applicants and ~120 participants total since 2015); does not collect self-reported demographic data such as gender or race/ethnicity
- Advisory board demographic data; available by gender but not by other self-reported demographic information; note that board members are all local geoscience professionals and most are alumni, selected for their representation of a range of private sector, government, and non-profit careers. Diversity (other than gender) is a goal, even if a challenging one at present.
- **How does your organization compare to others, or to the field as a whole?**
  - The Big10+ geoscience departments collect and share data on faculty and student diversity (binary gender; minority, international); the department has these data in individual tables (one/institution) but has not collated or graphed them. (but we could do this).
  - Much like the field as a whole, our department's graduate students and faculty have become more diverse in the last 10 years. We need to be sure to continue to use and improve our policies regarding the collection and evaluation of demographic data so that we can meet our goals listed below and to ensure lasting improvement in department diversity, rather than rely on the efforts of individuals within the department, as this will not result in continuity of initiatives that promote diversity.
- **Public goals on demographics or increasing representation:**



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- Are there general goals stated at your organization for achieving representation?
  - Currently there are no “publicly stated” (i.e. posted on our website) goals for achieving representation in our department other than the desire to enhance diversity stated in our mission and vision statements on our website - (mission statement: [Link](#))
  - There are goals and initiatives listed at the level of the College of Science and Engineering [here](#).
  - There are year-over-year goals for increasing diversity of faculty, graduate and undergraduate students system wide at UMN (strategic plan for 2025)
  - **Department goals are aligned with CSE and UMN goals: to improve year to year (but without specifying numbers);** whether this goal is met will be assessed and reported each spring by the department head.
- **Policy or proposed policy for collecting demographic data at your organization:**
  - Graduate student demographic data are collected during admissions and program entrance and is tracked by the DGS and reported annually to the faculty and department head. A secure intranet repository for this will be created in March 2021.
  - Undergraduate student demographic data is collected at the college level, but the department can add questions about self-identification to annual entrance and exit surveys of students. URGE and DEI members could be helpful in assisting in developing the language used in the survey questions. Legally, any questions asking for student demographic information must be optional, and the department cannot share data that inadvertently identifies a student without their permission.
  - Faculty and faculty search demographic data are tracked and maintained by the department and stored in a repository that ensures continuity of data collection, storage, and analysis during leadership changes.
  - While staff-related demographic data are difficult to track due to challenges elucidated earlier in this document, NSF-funded centers that exist as part of the School could develop policies for tracking and reviewing demographic information pertaining to invited visitors, internships/fellowships, and summer school participants, as these are outreach and professional development opportunities that could serve as mechanisms for increasing participation, mentoring, and retention of more diverse geoscientists; active recruitment of more diverse participants may be necessary, or broader advertisement of these opportunities (for instance, to minority-serving institutions (MSI) or historically black colleges and universities (HBCU))
  - We (the School) should ensure that progress and knowledge with regard to hiring policies and anti-bias training aimed at drawing a diverse pool of job applicants



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(particularly the work already implemented by the Department) are shared widely across all units of the school, including the NSF-funded centers that will make new hires in the future; for instance, this could involve circulating any already-existing support documentation regarding hiring practices and policies for retention and future implementation by these units

- **What did you learn about other organizations (or in general) while investigating demographic data?**
  - NSF-funded centers at UMN track minimal user/trainee/visitor data such as career level and home institution, but not other demographic data for these users and center staff. It was interesting to find that some larger NSF-based reporting policy does not seem to exist.
  - In many cases the number of minority students in an Earth sciences department is too small to easily and safely collect anonymous qualitative data of experiences, but these data are also very important for learning how to improve. As such, geoscience departments need to work on actively listening and be ready to act on feedback and protect minority students who share their experiences (particularly negative ones); exit interviews are one way to get some information, but even here we must be cognizant of risks to those reporting negative experiences.
  - As we begin to plan for the collection of new kinds of data in the future, we will need to be sure to use best practices by looking at the data collection practice and policies available to us (e.g. [Link](#) from Ontario Human Right Commission provided in example deliverable)