

## Unlearning Racism in Geoscience



This is what was found by the UW ESS Grad Student and Postdoc Pod at the University of Washington, Department of Earth and Space Sciences on demographic data (public and internal facing) as well as stated goals for representation, and/or proposals to collect and report demographic data.

- The link(s) to demographic data at our organization are here:
- ESS recruitment data:
- This data may exist, but after contacting department faculty and leadership, we were not able to get any data on this. With more time, we may able to track down some of this data. Barriers included privacy issues and lack of organization.
- Years ago, graduate student representatives found gender and ethnicity data at the department level, but the files are no longer available to us.
- ESS/CoENV/UW current demographics
- Please see this document for detailed data. We have summarized trends here for simplicity.
- Earth and Space Sciences (ESS) Historical Demographics
- We do not record current demographic data for students, faculty, or staff. See above discussion regarding barriers.
- Historical data about faculty demographics:
- Until 1973, the department (which has existed in some form since 1899) had not employed any women in tenure track faculty positions. Until 2008, the geoscience department* (in whatever form) had not simultaneously employed two women in tenure track faculty positions.
-     * note this does not include the Geophysics department, which was merged with the Geoscience department in 2006 to create the Earth and Space Sciences Department
- Last names (first initials) of former/current faculty were found in a written "History of the Department" on our departmental website, however, we had to do some external research to determine gender and did not find information available about racial/ethnicity identity.
- College of the Environment (CENV) Current Student/Staff Demographics
- The College of the Environment (CENV) does not have publicly available demographic data. Here we use demographic data from a 2020 report which includes faculty, staff, graduate students, and undergraduate students. See this document for a full list of data sources.
- The CENV is a majority white ( $62.8 \%$ ) college, with slightly higher female (53.9\%) than male (44.8\%) populations.
- Overall, CENV has a much higher percentage of white students and personnel and noticeably lower asian, URM, and international students and personnel, compared with the general UW Seattle campus population. This is true at all levels of our population, but the discrepancy is highest among graduate and undergraduate students. In addition, while CENV overall has a slightly higher female population than UW Seattle campus, the faculty in CENV is skewed more male than the overall UW Seattle campus.
- University of Washington (UW) Current Student/Staff Demographics
- There are many sources for data on UW's current student, faculty, and staff demographics. Here, we use a combination of reports encompassing undergraduate, graduate, faculty, and current employee demographics. See this document for a full list of data sources.
- UW's overall population is broadly diverse, with particularly large asian and international populations compared to the USA as a whole. However, at the graduate and faculty level, UW is overwhelmingly white (70.7 and $67.1 \%$, respectively). In particular, the UW Seattle campus and the higher professional staff grades (executives and researchers) are more heavily skewed white than the overall UW population.
- Supporting DEI Initiatives in ESS
- ESS Seminar demographics

- As recently as 2018-2019, we had $100 \%$ white speakers, although we almost reached gender parity that year. In 2019-2020, we were hiring a seismologist and sought diverse applicants. This resulted in a reduction to $70 \%$ white speakers. $50 \%$ of job applicants were BIPOC. This year, we implemented a goal to have at least 25\% non-white seminar speakers, and we have (so far) had 64.3\% non-white invited speakers. This includes a Distinguished Lecture series which has had $87.5 \%$ BIPOC participants. It seems when we make a conscious effort and solicit speakers with diverse backgrounds, we can successfully have more voices represented.
- This data was collected by URGE pod members either based on personal interactions with the speakers or from recordings of past seminars, which can be found on our website behind a UW NETID password. This data should be taken with a grain of salt as it was not self reported (data).




## - Curriculum

- Currently, there is no policy about reflecting anti-racist ideas. We only have one departmental course that has a Diversity Flag at the University level (ESS 307: Diversity Outreach Program in Earth and Space Sciences) and that course has not been taught in at least the last 4 years. There is currently no plan to teach this course in the future.
- Individually, graduate students and faculty have begun to incorporate anti-racist ideas (i.e. decolonizing the history of geoscience; incorporating indigenous ways of knowledge) into courses.
- How does your organization compare to others, or to the field as a whole?
- We compared CENV stats to UW, geosciences (per AGI), and USA demographics for graduate and undergraduate students. There was not enough data for faculty, and no data for ESS.
- For this analysis we used the data sources noted above for the College of the Environment (CENV) and University of Washington Seattle Campus (UW). In addition, we found data for the geosciences more broadly (Geosciences; see below for data sources from AGI) and the United States of America (USA; data taken from wikipedia).
- We used the AGI report "Diversity in the Geosciences - a Look at the Data and the Actions of the Community" to summarize demographics within the geosciences.
- Note: the AGI Diversity fact sheet looked at the Current Population Survey (CPS) from the U.S. Bureau of Labor Statistics (e.g. the labor force statistics) and found that responses for the geoscientists category did not meet CPS demographic reporting thresholds (i.e. the category was too small to provide a demographic breakdown).
- AGI did have a fact sheet breaking down race and ethnicity of graduate students and postdocs, based on an NSF survey. - Overall Trends:
- CENV Climate Survey only reported "URM" percentage, so for UW, geosciences, and USA we combined other demographics into a URM category for comparison with CENV.
- Overall, UW's population has a higher proportion of URM and a lower proportion of white undergraduate students compared to CENV, the geosciences field, or the USA as a whole. However, at the graduate level the geosciences, UW, and the CENV have a higher white and lower URM population than the USA as a whole. From these statistics, it appears that our discipline (geosciences) and program (CENV) are biased towards white students, particularly at the graduate level, and despite our university's broadly more equitable undergraduate population.

Proportion of grad students



- ESS invited speakers vs. invited talks at AGU/GSA
- 2019-2020 ESS Invited Speakers vs 2019 AGU Fall Meeting
- In comparing our departmental invited lecture speakers versus the 2019 AGU meeting demographics, our departmental lecture series is heavily skewed towards white men.
- 2020-2021 ESS Invited Speakers vs 2019 AGU Fall Meeting
- Our 2020-2021 invited speakers were more equitable in demographics and gender than previous years (see discussion
above), however we recognize that there is still work to be done in elevating and supporting BIPOC colleagues.
- Note: our Distinguished Lecture series which is focused on highlighting BIPOC, early career scientists is more equitable in demographics and gender balance.
- Public goals on demographics or increasing representation:
- ESS has broad goals for generally improving representation from under-represented minorities (e.g., through our departmental DEI committee). This is probably related to the lack of demographics data that we have; we can set more specific goals when we know where we currently stand so that we can set realistic goals. The DEI committee goals are:
- To promote strategies and best practices that enable all undergraduate and graduate students, postdoctoral scholars, staff, and faculty to feel welcome, valued, and able to thrive in our department.
- To recognize and seek to address systemic barriers to opportunity and access across race, gender, class, ethnicity, age, ability, sexual orientation, geography, citizenship status, and other factors.
- In the last year, we set a goal to have at least $25 \%$ of our colloquium speakers identify as BIPOC.

■ For 2020-2021, we have 64.3\% non-white invited speakers.

- University of Washington 2017-2021 Blueprint
- States broad brush goals for diversity and equity at UW.
- Six goals: 1) cultivate an inclusive campus climate 2) attract, retain, and graduate a diverse and excellent student body 3 ) attract and retain a diverse faculty 4) attract and retain a diverse staff 5) assess tri-campus diversity needs and 6) improve accountability and transparency.
- These are broad goals meant as an umbrella policy for our university. They are aimed at establishing and strengthening best practices. The blueprint acknowledges inequities but does not have clear steps to measure or combat them at the college or department level.
- UW Graduate School 2020 Equity, Inclusion, and Diversity Plan
- States broad brush goals for Grad School on diversity and equity.
- Goals include 1) strengthening work culture/climate that promotes capacity-building and collaboration and deepens our commitment to advance DEI work 2) identify, attract, and retain diverse staff 3) increase support to equip staff to carry out their roles with regards to DEI
- This report is largely supportive; the aspects which speak to direct suggestions or policies are aimed at fostering a diverse community (e.g., ensure workspaces are physically accessible) and not necessarily aimed at recruiting and fostering diversity in academia more broadly.
- Suggested additional goals for your organization:
- As graduate students, we don't have much power to track down demographic data, change demographic data collection processes, or set demographic goals in our department. We will support these efforts through interactions with faculty
and through representation in the department DEI committee. Here are our suggestions for department demographic goals:
- We suggest setting recruiting benchmarks at both the faculty, postdoc, and grad student level.
- Once we have some department demographic data, we suggest developing quantifiable goals for increasing representation.
- We have more power to propose and support changes in our department that will help retention of students of underrepresented demographics. Here are some suggested goals for retention:
- Mandate that instructors decolonize their curriculum where applicable. This can include modules developed by GeoContext and collaborating with other departments at UW who are taking on similar changes.
- Include an ethics/diversity requirement at both the undergrad and grad level
- Establish a set of norms in all meetings and classes, written on syllabi and established at the start of recurring meetings.
- Better advertise university groups aimed at supporting URMs (i.e. GO-MAP and the Community Equity Initiative). These can be included on syllabi, more clearly laid out on the department website, and advertised during prospective student visits.
- Budget clarity on where department funds are being allocated to support DEI efforts
- We suggest continuing efforts to make our department social events, funding process, and mentoring networks accepting and inclusive of all our identities to support scientists as their whole persons.
- Policy or proposed policy for collecting demographic data at your organization:
- Current policies:
- Our department currently does not track demographic data for students, staff, or faculty, to our knowledge.
- We also historically do not track demographic data for seminar speakers.
- While we believe that we do track demographic data for graduate admissions, this data is not made available.
- Proposed policies:
- The DEI committee is planning to make a position for associate chair of the DEI committee, and we suggest that that position be the lead responsible for managing department demographic data collection and data organization.
- We would like the data to include accepted grad students and faculty, in addition to current/historical graduate students and faculty so that we can better understand where we are failing in the recruitment process.
- We would propose a vast opening of this data to be collected and made available to our department. We recognize the legal and ethical challenges of collecting and disseminating this data in a responsible
manner. However, we urge our department and college to find ways to make this data available, as a necessary step to create and retain a diverse and inclusive community. This is a major issue, and stymies any attempts to understand and rectify issues of underrepresentation in our department.
- We graduate students propose to send out a self-reporting survey to all graduate students in ESS in order to get demographic data quickly and easily, as a start. At this point it is unclear whether such a survey would violate any ethics or privacy concerns, but we are communicating with leadership to better understand what is appropriate.
- Graduate students are working with faculty to craft an exit survey for invited speakers that would allow them to self report gender/sexual/racial identities. This survey will include why we are collecting this data and how/what this data will be used for full transparency.
- What did you learn about other organizations (or in general) while investigating demographic data?
- Increasing representation in our department is a good broad goal to have, but we need to be targeted in why and how we want to increase diversity.
- Most fundamentally, we need to track these data in order to evaluate how our community is doing!
- Increasing the pipeline of students going into geosciences, and then supporting those geoscientists through public recognition and invitations to give seminars and talks, are important steps to support diverse geoscientists!

