URGE Demographic Data for the UNH Department of Earth Science (ESCI)

This is what was found by the ESCI Pod at UNH on demographic data (public and internal facing) as well as stated goals for representation, and/or proposals to collect and report demographic data.

- **Demographic data at our organization:**
  - UNH demographic data for students, faculty, and staff are available [here](#) (reports data from 2011-2020).
    - Undergraduate and graduate demographics by college (Fig. 1,2) are available [here](#), including enrollment, retention (undergrad only), and degrees awarded. Can view data by race/ethnicity and gender (but not simultaneously). Reporting usually spans ~2010-2020.
    - Demographic data are not provided for applicants and admissions. This limits the ability to track the entire pipeline of students from application to graduation.
  - College level demographic data for faculty is available [here](#)
    - Our pod is in the College of Engineering and Physical Sciences (CEPS)
    - Synthesized data for CEPS is [here](#) and in Fig. 2
    - The ESCI faculty is 100% white.
  - Demographic data of ESCI department spring colloquium speakers (Fig. 2) can be found [here](#)
  - While departmental data on undergraduate and graduate student demographics would be useful to assess, UNH does not make these data public as with so few BIPOC individuals within ESCI these data can identify students without their consent.

*Figure 1.* (Left) Demographics of undergraduate students enrolled in CEPS and the College of Life Science and Agriculture (COLSA) which house geoscience-related majors at UNH 2011-2020. (Right) Demographics of Master’s and PhD enrollment in CEPS and COLSA, 2011-2020.
Figure 2 (clockwise from top left): Bar chart of the proportion of BIPOC invited speakers at ESCI spring colloquia 2016-2020, data compiled from internal records. Proportion of BIPOC faculty in CEPS 2009-2019; data compiled from Institutional Research records “Faculty Counts - Full-time tenured/tenure track by demographic characteristics - Durham and Manchester” available here. University wide demographic of undergraduate students and faculty 2011-2020, figures from the UNH Diversity Dashboard.

● How does your organization compare to others, or to the field as a whole?
  ○ Our faculty demographics from 2009-2019 at the college (CEPS) level reflect the analysis of Bernard & Cooperdock (2018) who show no increases in the proportion of geoscience PhDs earned by Black and Indigenous people over the same time. CEPS had no indigenous faculty over the 2009-2019 period.

● Public goals on demographics or increasing representation:
  ○ General goals for UNH:
    ■ “A more diverse faculty and staff:
      ● Create a targeted initiative for hiring and retention
      ● Consolidate hiring resources in a single portal for ease of access
      ● Enhance the postdoctoral hiring program by building a pipeline and establishing accountability”
    ■ “Conduct a holistic research project to develop a robust understanding of barriers for enrolling more undergraduate students of color”
“Secure funding for NEAGEP efforts (Northeast Alliance for Graduate Education and the Professoriate) to increase recruitment and retention of underrepresented graduate students”

**General goals for ESCI department:**

- Increasing the diversity of our faculty through recruitment (ex. UNH’s Postdoctoral Diversity and Innovation Scholars program)
- “Utilizing our seminar series … to provide opportunities for a diverse range of geoscientists to share their research and outreach efforts with our department”
- “Track and report our demographic metrics for applications, acceptances, retention and graduation rates in our associated undergraduate and graduate programs”

So far, UNH goals lack specific, measurable metrics for recruitment and retention of BIPOC.

We suggest our department work towards these goals pertinent to recruitment and retention of BIPOC students and faculty (note - many of these goals overlap with long term goals of the ESCI DEI committee):

**Goal 1:** Revise recruiting materials so they are more attractive to students at all levels and those who would be coming from diverse communities

- Craft multimedia content (videos, live streams, alumni profiles, etc.) to represent the range of fields, activities, and careers included within the geosciences, including scenes of field work, collaboration, computational work as well as lab work.
- Field work is not accessible for all, and advertising the geosciences as only fieldwork limits who feels they can be included in the community.

**Goal 2:** Strengthening faculty-to-faculty mentorship to increase the support for BIPOC faculty at UNH, and work to promote careers of BIPOC geoscientists within and beyond our institution

- Use our seminar series and colloquia to highlight BIPOC geoscientists’ scholarship and provide networking opportunities
- Continue to compete for a UNH Postdoctoral Diversity and Innovation Scholar position in the ESCI department

**Goal 3:** Revise our geoscience curriculum:

- Discuss historical racism in the geosciences in the context of relevant courses, leveraging the GeoContext curriculum and other resources
- Expand the field equity module taught in ESCI 534 Techniques in Environmental Science to the other core ESCI field course
- Partner across departments (School of Marine Science, Dept. Natural Resources) to develop courses focused on environmental justice, geoscience equity, and inclusive pedagogy (for graduate students)
Goal 4: Improve outreach within NH schools and communities:
- Develop partnerships with K-12 educators in more diverse cities like Manchester and Nashua to expose students to geoscience topics and careers
- Improve relationship with UNH CONNECT STEM, a pre-arrival and mentorship program for first year students for first-generation students, students of color, and students from low income communities; encourage ESCI majors to become Stembassadors

Policy or proposed policy for collecting demographic data at your organization:
- Tableau shows that data are collected, but many questions remain:
  - How are these data used by the university?
  - How can the public/non-administrators access the raw data displayed?
  - How can individual privacy be maintained even with this data?
- Appears that UNH gets data from self-reporting (i.e. “student census”):
  - Students recall that demographic data was optional during application process, but required upon enrollment
  - Faculty/staff asked during hiring, though can choose not to report