

URGE Demographic Data for the Department of Geological Sciences at University of Colorado Boulder

This is what was found by CU Boulder Geological Sciences Pod at the University of Colorado Boulder on demographic data (public and internal facing) for the department and university as well as stated goals for representation, and/or proposals to collect and report demographic data.

Demographic Data for CU Boulder:

In summary, demographic data is publicly available for students and faculty within the Geology Department at CU Boulder on the [Tableau website](#) and a survey was performed to understand the demographics of invited speakers. Additionally, [CU Boulder's Office of Data Analytics](#) has diversity data for students and employees, reported within the annual Diversity Report which provides information on enrollment, retention of students of color for years 2008 - 2020. However, this data is reported at a university scale (not at the department level). Demographic data evaluated and described in more detail below for students and faculty comes from the Tableau website.

Students and Faculty:

Demographic data for our organization is publicly available and can be found on the [Tableau website](#). Data is collected for the following groups within our organization:

- [Faculty](#) - demographic data available includes gender, percentage white and BIPOC, ethnicity, and gender and BIPOC
- [Students](#) (undergraduate, Masters, and PhD students) - demographic data available includes gender and ethnicity

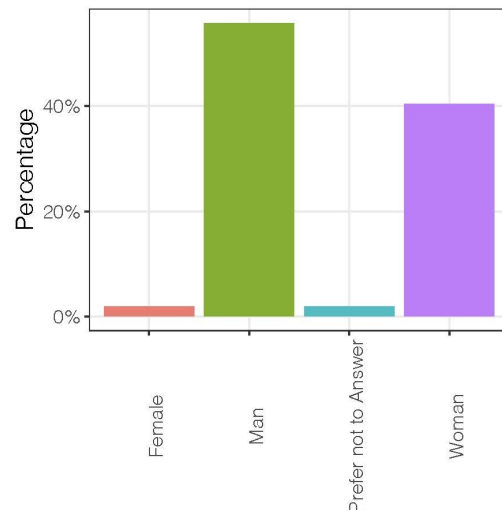
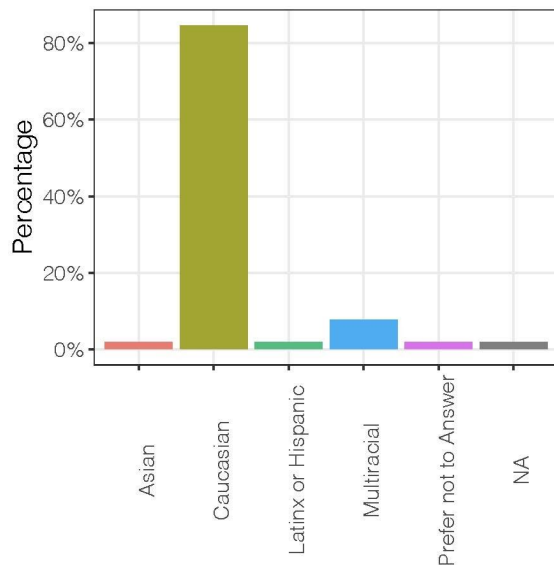
Publicly available data on ethnicity, race, and gender for faculty and students in the department dates from 1991 - 2020. As part of this effort, our pod collected data from the Tableau website to plot trends in the student and faculty population over time. However, because our department is so dominantly white, we do not feel able to publish this data as headcounts without identifying individuals. We have collected this data internally and the data will be used for representation trend monitoring and will be brought to the attention of our department. We have also used this data to compare our department to the state of Colorado as a whole. Some general observations from the demographic data collected for the years 1991 - 2020 include:

- The vast majority of faculty in Geological Sciences identify as white and this has not changed in the past 30 years. Since 1991, the percentage of faculty who identify as BIPOC has remained around 10%.
 - Of the faculty who identify as BIPOC, more identify as female than male (9% vs. 3%)
- The vast majority of all students (undergraduates and graduates) identify as white and this has not changed since 1991. The percentage of all students who identify as white has ranged between 70 - 85%.
 - There have been almost no graduate students since 1991 who identify as African American
 - Of BIPOC students, there has been most growth in students who identify as International and Hispanic/Latino since 1991

- There was a large increase in international undergraduate students beginning in 2014 which is attributed to a partnership between CU Boulder and a university in Saudi Arabia.

Colloquium (Invited) Speakers:

Since publicly available data was limited to students and faculty, our pod underwent an investigation into the ethnicity and gender of speakers invited to the department to give talks at our weekly Colloquium since 2015. Anonymous surveys were sent to all past speakers and they were asked to self identify, if they felt comfortable, their gender and ethnicity. We had approximately 50% of the speakers respond to this survey which is presented below. While not a complete picture, there is clearly a strong bias associated with ethnicity of our invited speakers.



Department Chairs and Advisory Board:

Female identifying faculty currently comprise 41% of the department faculty. In the history of the department, only 2 female identifying faculty have served as chairs of the department. The first served from X to X, while the second served from 2015 to 2020. One of these women is also the first BIPOC Chair of the department.

The department is also served by an advisory board made up of alumni from the department, both of the graduate and undergraduate programs. As of now, we have not obtained any historical data on the demographics of this group, but the current advisory board members are listed on the department website. Ostensibly, based on the website, this advisory board appears to suffer from the same biases as the overall Department of Geological Sciences.

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

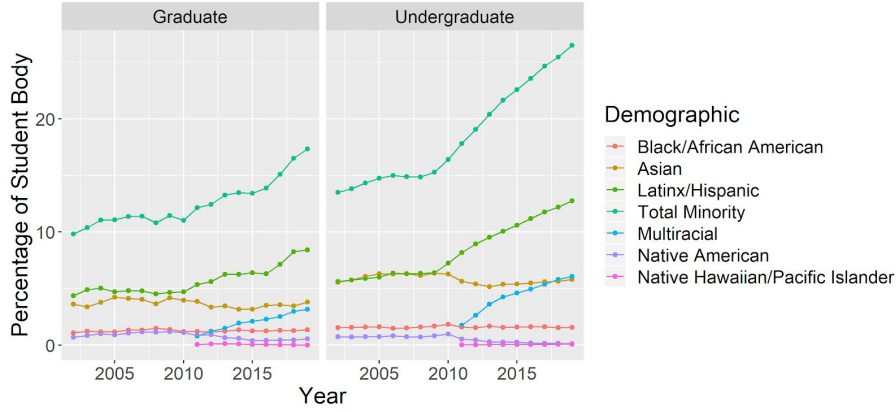
CU Boulder overall is not a diverse campus relative to either statewide or national demographics. While within the last 20 years some progress has been made in the representation of Latinx students in both the undergraduate and graduate programs, we can see from the figures below that no progress has been made during this period in the representation of Black/African American, Native American, or Pacific Islander students. Furthermore, these minorities are especially underrepresented as compared to statewide and national demographics (from 2019 Census Data).

The Department of Geological Sciences shows similar degrees of underrepresentation as CU Boulder overall, however with considerably more variability over time in the enrollment of minority students. Of note however is the even poorer representation of Black/African American students particularly amongst graduate students. There is also no clear trend over time, potentially due to some extent from the relatively small size of the department, however more recent years do suggest a slightly greater enrollment of minority students overall. In comparison to the diversity overall in the geosciences, our department shows similar representation amongst Asian, Latinx, and Native American students, as the average for our field, but particularly poor representation for African American students.

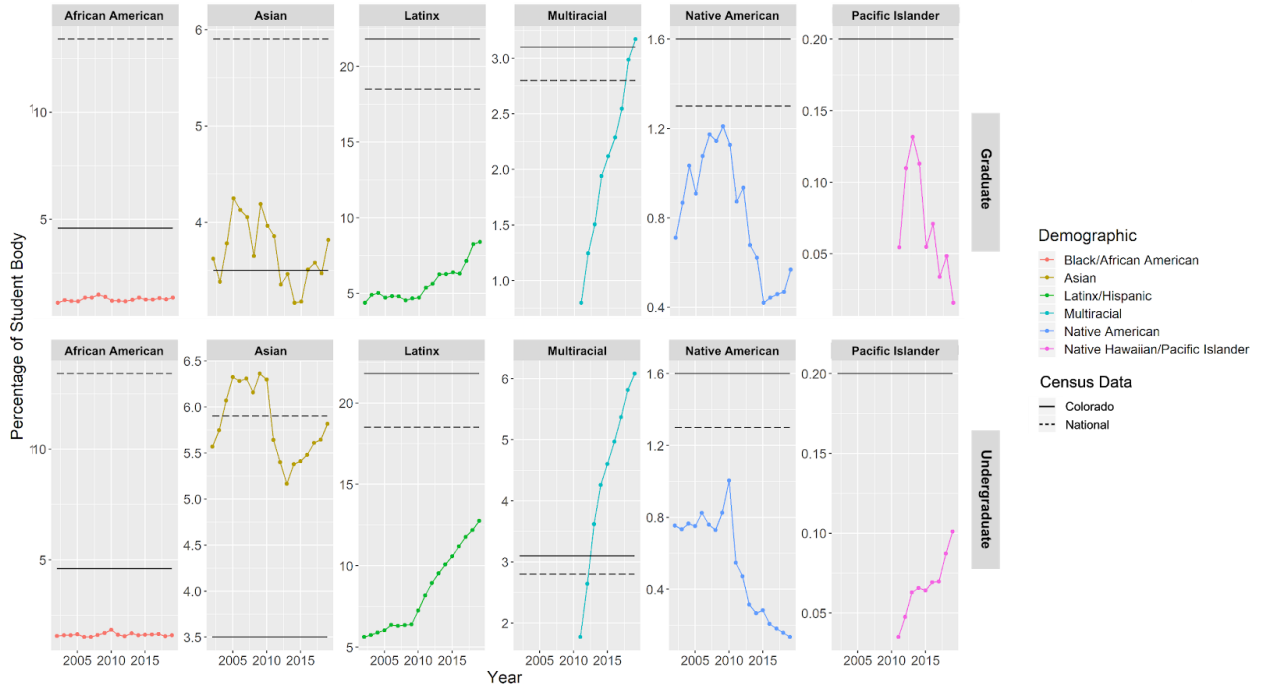
One important thing we learned about CU as a whole relative to other Universities, is the consequence of state finances and CU's choices in dealing with these economics issues, on diversity at CU as a whole. In short, state funding for higher education decreased significantly as a result of the adoption of the Taxpayer Bill of Rights ([TABOR](#)) and the economic downturn of the early 2000's. Currently, the state of Colorado ranks near the bottom in terms of the amount of state funding for higher education. Since that time, CU has chosen to address this shortfall by courting and increasing admission of wealthy out of state (domestic and international) students. Because of the demographics of wealth in the US, this means CU has become more selective with regard to undergraduate students for many BIPOC students, particularly Black/African American students, even as its admissions as a whole has become less selective. This implies that individual departments have limitations imposed on how diverse their undergraduate population may be able to become, because the University controls the admissions process at this level. That said, graduate admissions and faculty hiring are very strongly controlled at a department level, and so departmental choices and policies are likely to have a much stronger long-term impact on the diversity of these groups.

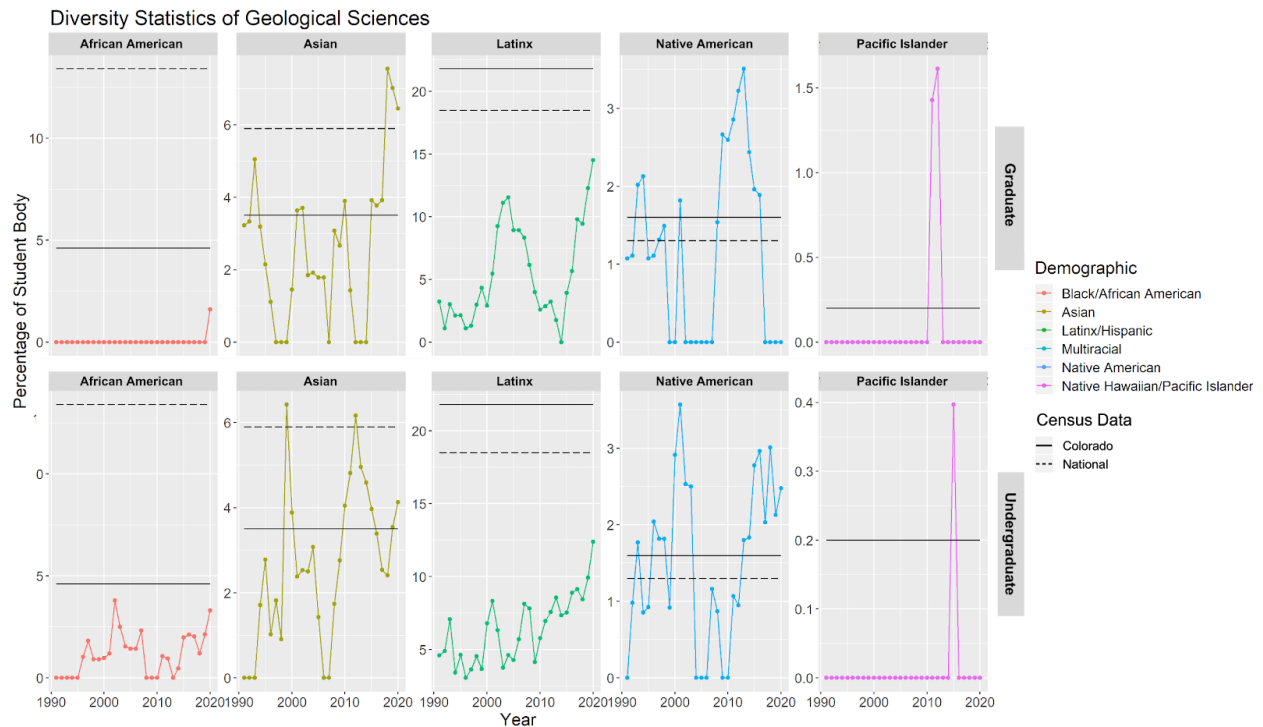
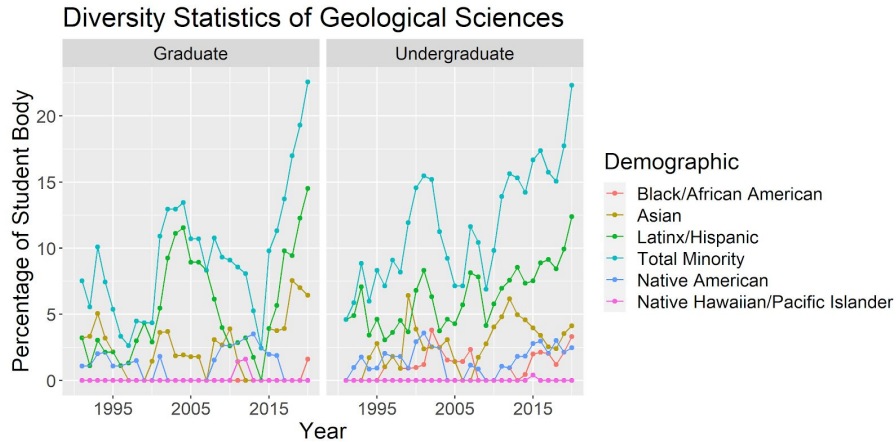
What did you learn about other organizations (or in general) while investigating demographic data?

Diversity Statistics at CU Boulder



State and National Demographics vs CU Boulder Student Body





Public goals on demographics or increasing representation:

The department’s Diversity, Equity and Inclusion (DEI) committee has identified a few specific goals to achieve representation over the next several years, available on the [DEI website](#).

Specific goals listed include:

1. Implement mandatory diversity and implicit bias training for all Department members
2. Support a comprehensive mentoring program at all levels
3. Increase the use of research-based strategies to improve effective STEM learning for all students, and
4. Offer other opportunities to raise awareness about diversity and foster inclusivity in our department

The DEI website also states “The student diversity in our Department has grown over the past ten years, but **we strive to make Department diversity more representative of the**

demographics of the United States. Most importantly, we want to ensure that every member of our Department feels welcome, respected, and valued.” We as an URGE group will emphasize this statement to our department to develop measurable goals to increase representation as we have identified that our department has a lot of growth potential.

While the department has not stated measurable goals in terms of numbers, the statements by the DEI indicate a minimum measurable goal of increasing diversity of students to levels comparable to the US. We suggest that, at minimum, similar goals be stated for other groups in the department, such as the faculty, chairs, and advisory board, or at minimum to achieve numbers similar to the pool of people available (e.g. hiring faculty based on numbers in the pool of graduating students and postdocs in the field).

Suggested additional goals for your organization:

- Ensure that the academic environment at our department is conducive to retaining and graduating minority students at rates comparable to white students.
- Increase representation amongst invited colloquium speakers.
- Engage undergraduate students and provide support/mentorship to pursue fellowships geared towards providing graduate funding for underrepresented students.
- Broaden efforts to connect students/faculty in the department to existing organizations on the CU campus that seek to foster community and build systems of support.
- Expand recruitment efforts to include networking and partnerships with HBCUs to attract students with applicable STEM backgrounds.
- Increase recruitment of CO community college students and adjust a range of policies (e.g. curriculum) to improve outcomes for those students.
- Evaluate what types of diversity we would like to have represented in our advisory board, including age, gender, racial and ethnic diversity, as well as type and sector of post-graduate employment
 - select/recruit board members according to these goals

Proposed policy for collecting demographic data at your organization:

Data is collected and reported at a University of Colorado-wide scale (this includes the Boulder, Colorado Springs, Denver, and Anschutz campuses) by the Office of Data Analytics (ODA). The Institutional Research Survey Group within the ODA conducts surveys to gather information from existing students, faculty, and staff and alumni, as described [here](#). Currently, we are unaware how collected data is utilized in decision making within the department.

Initiatives to increase data collection & utilization:

As an URGE group, we will be recommending data collecting directives to standing committees to build in sustainable structures that outlast URGE pods and initiatives. We propose that the department can largely rely on the statistics provided by the university, but we suggest a more concerted effort to designate a responsible party (e.g. admin, faculty committees, graduate and undergraduate advisors) to curate, update, and monitor these data to specifically explore

diversity issues within the department and track them in the future to assess whether or not these efforts are effective. In addition, we recommend:

1. Colloquium committee members be tasked with consistently collecting speaker demographic information at the end of each academic year. This data should also be used to inform decisions about who is invited to speak in order to have more diverse speakers.
2. Undergraduate Curriculum Committee and Curriculum Assessment Committee collaborate and conduct anonymous exit interviews with undergraduate students in order to understand undergraduate experiences and work to create an environment where everyone feels “welcome, respected, and valued.”

Recommendations of additional data to be collected:

Additionally, as an URGE group, we have identified several categories of data that our department does not collect but we will recommend that they do. These data will aid in understanding our department’s demographics and help set measurable goals. These data include:

- Median family income of student body
- Retention and graduation rates of students
- When undergraduate students enter the major
- When students leave the major and where they go
- Admission rates into graduate programs
- Demographic data of postdoctoral scholars, invited speakers, research scientists and/or associates, and administrative staff in the department