

URGE

Unlearning Racism in Geoscience



URGE Demographic Data for Appalachian State University's
Department of Geological and Environmental Sciences:

This is what was found by the Department of Geological and Environmental Sciences (GES) at Appalachian State University (ASU) on demographic data (public and internal facing):

- **The link(s) to demographic data in the Department of Geological and Environmental Sciences are here:**
 - [Student Demographics and comparison with the US as a whole](#). This 9-page document provides a detailed analysis of student data in the Department of Geological and Environmental Sciences from 2006-present, with explanations for trends in the data. In summary, the GES Department at ASU has:
 - A lower percentage of students who identify as female than the national average for geoscience students award bachelor degrees (this trend is not consistent with ASU undergraduate gender demographics).
 - A lower percentage of students who identify as Asian, underrepresented minorities (Black, Native American, Hispanic, Pacific Islander), and non-permanent residents than the national average for geoscience students award bachelor degrees (but URM demographics are consistent with ASU undergraduate race demographics)
 - A higher percentage of first-generation students than the national average for geoscience students awarded bachelor degrees (this trend is consistent with ASU undergraduate first-generation student demographics)
 - [Faculty Demographics and comparison with faculty in the US as a whole](#). This 8-page document provides a detailed analysis of faculty data in the Department of Geological and Environmental Sciences from 2006-present, with comparisons with the university as a whole and the surrounding region. In summary:
 - URM faculty account for less than 10% of the overall faculty in six out of the eight teaching colleges at ASU in 2020
 - Although the College of Arts and Sciences (CAS) is one of the most diverse colleges at Appalachian, the Department of Geological and Environmental Studies (GES) is below the national average and trending

- in the bottom five (out of sixteen) departments under the College of Arts and Sciences. GES has one multiracial faculty member out of 17 (6%).
- [Analysis of past invited speaker demographics and comparison with the US as a whole](#). This 5-page document provides a detailed analysis of seminar speaker data in the Department of Geological and Environmental Sciences from 2014-present, with comparisons to national averages. In summary:
 - Our invited speakers represent the close to or above the national average demographics for URM geoscientists. Our invited speakers are 86% White, 6% Asian, 2% Black, 5% Hispanic/Latinx, and 1% Native American. These are consistent within 1% of demographics of PhD holders in the geosciences in the United States.
 - Our invited speakers represent 52% female PhD geoscientists. This is significantly higher than the national average of 42% female PhD geoscientists.
 - **Public goals on demographics or increasing representation:**
 - *Appalachian State University goals:*
 - Appalachian State University requires a robust audit of demographics for all faculty and administrator searches. These rules are on an internal-facing website (login required) at <https://hr.appstate.edu/search-committees>. The university is very strict about these rules. Past searches at the university (variety of departments and positions) have failed for not resulting in a sufficiently demographically diverse candidate pool.
 - At ASU, there are numerous stated goals and metrics for student enrollment and retention available at <https://diversity.appstate.edu/>, with accountability and ongoing actions updated regularly at <https://diversity.appstate.edu/accountability/>. These accountability initiatives were developed in response to meetings with the Chancellor and Provost in the summer of 2020, and the subsequent social media organization BlackAtApp (see article from the [Watauga Democrat summarizing the response](#)).
 - *Department of Geological and Environmental Science goals and initiatives:*
 - **Community Outreach to URM communities (ongoing):** In 2016 we began working with Marta Toran (hired as a full-time faculty member in 2020) to increase outreach to K-12 students, particularly in URM and Spanish-speaking communities. Examples of GES outreach activities can be found here: <https://earth.appstate.edu/outreach>
 - Since hiring Ms. Toran, the department typically reaches 1700-2000 K-12 public school students per year (pre-COVID).
 - GES faculty have obtained funding for numerous outreach events for primary school students, including [Picture Yourself as an Earth Scientist](#) photobooth program, information for parents about jobs in the earth sciences (both in [English](#) and [Spanish](#)), etc.

- We have a new course ([GES 2353](#)) that trains students in public-facing community outreach in the geosciences. We pay student interns to assist with outreach, and outreach is a major part of our departmental culture, even during COVID times (see a recent 2021 [Watauga Democrat article for an example of this work](#)).
 - **Student Recruitment (ongoing):** We [outlined in our previous deliverable \(agreement with upper administration\)](#) specific and detailed examples of our plans and strategies to recruit a more diverse student population to our program. These initiatives include hiring additional faculty, particularly those from URM communities, revising introductory geoscience course content to make it relevant to a more diverse audience, etc.
 - **Student Retention (ongoing, with recent new initiatives):**
 - A Fall 2020 survey of GES student experiences and demographic information was interesting and informative. As most respondents were White, the data is certainly skewed towards their viewpoint, but the vast majority felt that the departmental climate was supportive and comfortable. Most of their concerns regarding diversity and racism were directed towards professors, students, and administrators outside of the department. Nearly all wanted to know more about geologists of color, LGBTQ+ scientists, etc. in their classes, and have faculty facilitate more discussions about environmental racism.
 - We are refining our curriculum every year to be more inclusive for students with physical disabilities, caregiving responsibilities, who do not feel comfortable with fieldwork, etc. As we were only able to begin curriculum reform for the Environmental Science degree tracks three years ago due to the merger, this is where most of our changes have taken place.
- **What did you learn while investigating demographic data?**
 - We were happy to see that our speaker demographics were better than the national averages for both gender representation and were consistent with or better than the national averages for URM geoscience PhDs.
 - Despite parity in gender among faculty in the GES Department, our student gender ratio is consistently skewed towards male-identifying students, which is inconsistent with national trends. Although we have identified some factors that may be contributing to this, we do not think those explain the persistent disparity. We are not sure why this is, but will be asking all of our students in our required research methods class (Preparation for Geoscience Careers) why they chose Appalachian GES as their major in order to help decipher this discrepancy starting in Fall 2021.
 - We recognize the challenges that we have as PWI in a rural area in recruiting URM students to the geosciences (due to a combination of cultural, structural, and regional factors). We are in a region that is over 90% White, and extremely rural. ASU (with

less than 20% URM students) is essentially the only source of racial/ethnic diversity in the surrounding five counties. While our departmental numbers of URM students would be truly dismal for a school in a location with a more diverse population, they are more understandable (although still not acceptable) for a regional public university in a rural setting with demographics such as ours. However, we have been pleased to find that the GES faculty agree that this is a vital goal for our program, and that increasing faculty diversity is paramount to doing so. Unfortunately, we have not been allocated any new tenure track or non-tenure track hires from the administration at this time, but this will be a priority when we do get a faculty line allotted to us.