

URGE

Unlearning Racism in Geoscience

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URGE Demographic Data for University/Organization - Example Deliverable

This is what was found by TAMU at College of Geosciences 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:**
 - Organization, Company, University Current Staff/Student Demographic: [Accountability.tamu.edu](https://accountability.tamu.edu) and <https://geosciences.tamu.edu/diversity-climate/programs-resources/index.html> -
 - Analysis of past invited speaker demographics: Not available
 - If data are not available, what is the reason for not making it public?
 - The student, faculty, and staff data is collected and made available both through the university and our diversity accountability report
 - If data are not collected, what is the reason?
 - At this time, we do not have a systematic way of collecting these demographic data across the college.

- **How does your organization compare to others, or to the field as a whole?**
 - Among our undergraduate students, we have nearly double the percentage of Latinx students and similar proportions of Black and Asian students. Among graduate students. Additionally, our students are nearly 50% women, a third of undergraduates are first generation.
 - Our faculty metrics also mirror the national landscape however, while some departments (shown in our 2019 Diversity Accountability Report) have shown progress in their recruitment of female faculty members, we have not seen similar gains.
 - AGI - “Diversity in the Geosciences – a Look at the Data and the Actions of the Community”-<https://www.americangeosciences.org/webinars/diversity-geosciences-look-data-and-actions-community>
 - Committed to form a broadly-based movement for advancing diversity, equity, and inclusion (DEI) at the IODP-JRSO facility on- and offshore
 - Strengthening diversity through recruitment and hiring actions, e.g., wide, open, and DEI-referring distribution of JRSO job openings with language reflecting employee’s role in fostering DEI on- and offshore (progress will be measurable)



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- Increasing retention of staff through establishing an employee mentoring program
- DEI Working Group established to facilitate, coordinate, monitor, and report efforts and progress on- and offshore
- Creating and Promoting Gender Equity and Diversity in Professional Geological Societies - <https://eartharxiv.org/repository/view/2060/>
- Creating and Promoting Gender Equity and Diversity in Geography
 - Similar actions are being taken to address diversity and inclusion
 - <http://www.aag.org/cs/programs/diversity>
 - <http://www.aag.org/galleries/project-programs-files/IdeastoEnhanceDiversity.pdf>
- **Public goals on demographics or increasing representation:**
 - Are there general goals stated at your organization for achieving representation?
 - Yes, these goals are stated within our accountability report.
 - For example: “We strive to reach a diverse applicant pool.”
 - “We want to broaden and diversify the process of how we recruit and hire staff.” (IODP-JRSO)
 - “By increasing the diversity of our staff, we strive to more closely represent the range of identities we serve, both in terms of the international IODP community and our mandate as a federally funded research program.” (IODP-JRSO)
 - “We will use social media as a tool to highlight and promote diversity and leverage it for advertising apply-to-sail calls for the JOIDES Resolution more broadly.” (IODP-JRSO)
 - “We strive to broaden the selection criteria for the pool of student applicants for the admission to the College of Geosciences at Texas A&M University by valuing the merit and impact a study may have on each individual applicant.”
 - Aiming to increase outreach efforts on the local and regional level to reach higher representation of diversity among the student applicants
 - Are there measurable goals stated at your organization for achieving representation?
 - The faculty & staff goals are not measurable. However, our student goals are to reflect the diversity of the state of Texas, which while shifting is a measurable outcome.
- **Policy or proposed policy for collecting demographic data at your organization:**



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- See our Diversity Accountability Report: <https://geosciences.tamu.edu/diversity-climate/programs-resources/index.html>
- **What did you learn about other organizations (or in general) while investigating demographic data?**
 - While in some ways we have a more diverse undergraduate students, we have significant efforts that are needed at other levels. Additionally, we don't have uniform implementation of these requirements – such as invited speakers- which would standardize process across the college.

This is what was found by the **Atmospheric Sciences sub-pod at Texas A&M (TAMU ATMO Subpod)** on demographic data (public and internal facing) as well as stated goals for representation, and/or proposals to collect and report demographic data.

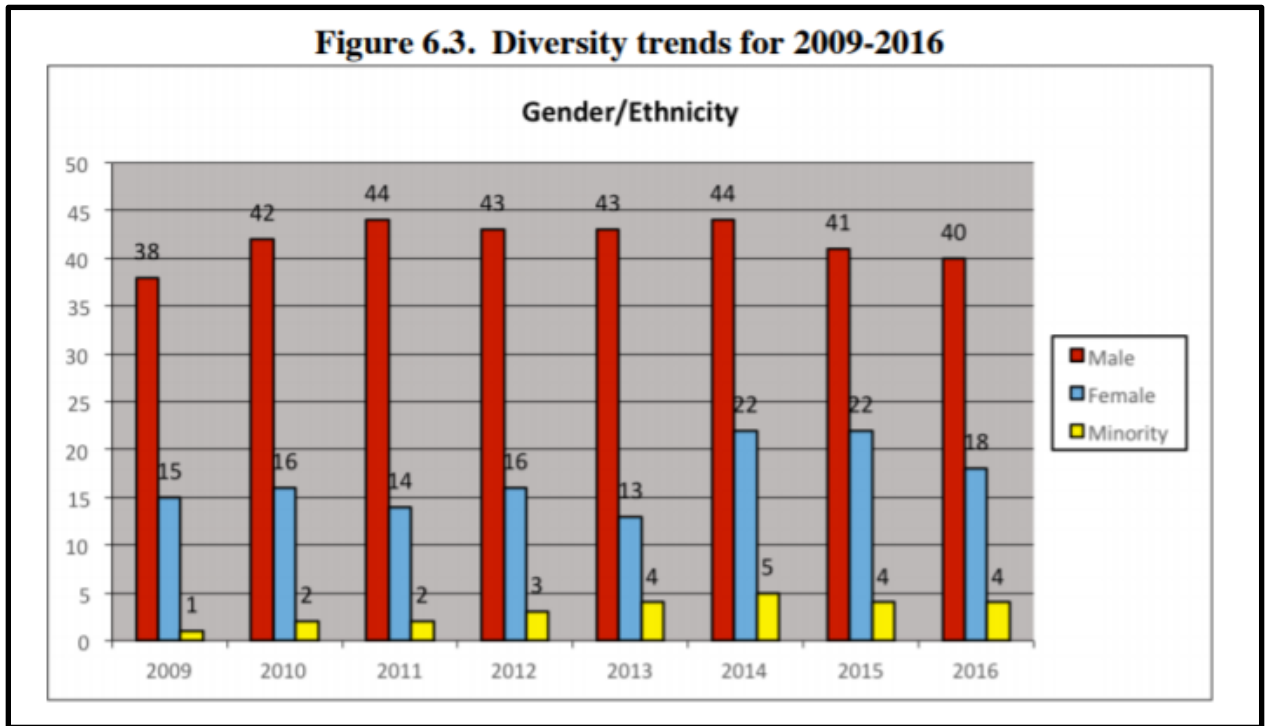
The link(s) to demographic data at our organization are here:

- <https://nces.ed.gov/collegenavigator/?q=Texas+A%26M&s=all&p=40.0404+40.0499+40.0401+40.0403+40.0402&id=228723#enrolmt> - University Current Undergraduate Demographics
- <https://www.collegefactual.com/colleges/texas-a-and-m-university-college-station/academic-life/academic-majors/physical-sciences/atmospheric-sciences-meteorology/index.html#diversity> - Atmospheric Sciences and Meteorology majors Diversity at Texas A&M
- https://aa.tamu.edu/AcademicAffairs/media/Media/APR_CollegeOfGeosciences/copy_of_ATMOSelfstudyFeb2017.pdf Table 5.6, page 40; Table 6.3, page 47; and caption, page 46.

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Female	69	60	54	61	60	63	49	50	49
Male	68	86	82	79	77	78	65	63	61
Asian			1	2	3	4	2	2	2
Black	1	5	6	5	6	7	6	6	5
Hispanic	24	23	22	26	28	26	14	23	22
International	1			1	1	1	1	1	
Mixed			2	2	3	3	4	6	6
Other	1	2							
White	110	116	105	104	96	100	87	75	75

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The ratio of female to male students has increased in the last few years, after a long decline from 2004 to 2011 (Figure 6.3). At that time the ratio was less than 1:3, but in the last 3 years it has risen to levels (about 1:2) seen last in 2014. The number of minority students, defined as the count of domestic students who are African-American, Hispanic, or Native American, has hovered between 4 and 5 in the last four years, which is a small but important improvement compared to the period between 2009 and 2011, during which it was 1 or 2. The number of applications received for the graduate program increased from 56 in 2009 to 107 in 2012 (Figure 6.4). Since then, it remained steady at a level of about 100 applications per year (Figure 6.4). The number of international applicants in the last eight years (a total of 362) has been slightly higher than the number of domestic applicants (a total of 331). Most domestic applicants opt, at least initially, for the M.S.

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

- National comparison for A&M (entire university):
<https://www.collegefactual.com/colleges/texas-a-and-m-university-college-station/student-life/diversity/>

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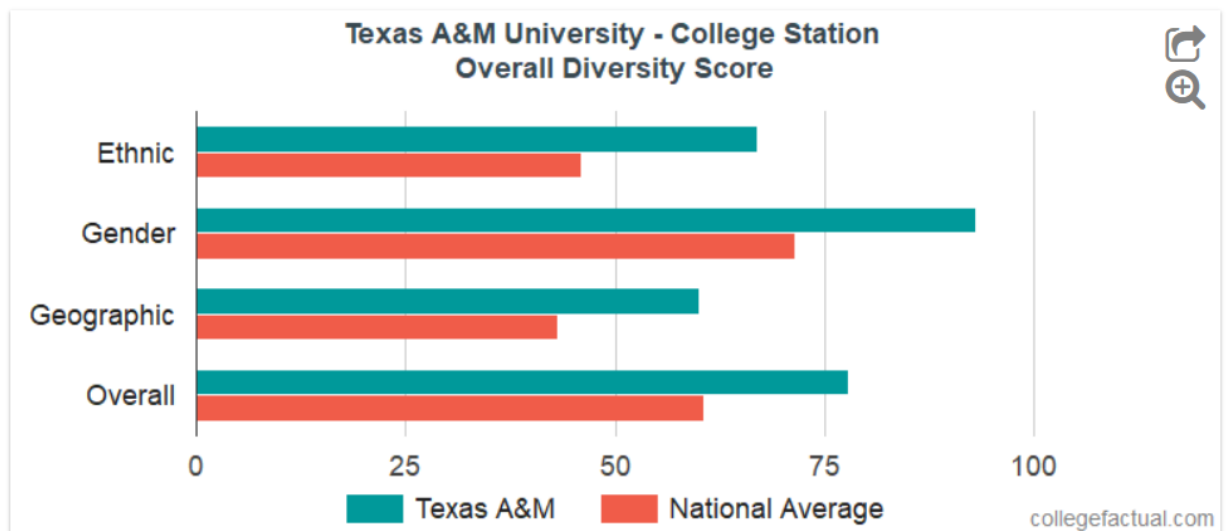
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Highly diverse across all factors, Texas A&M University - College Station is ranked #412 nationwide.

Texas A&M Overall Diversity Score (78 out of 100)



Texas A&M Overall Diversity Rank (412 out of 2,475)



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A ranking of #1,404 for ethnic diversity means Texas A&M University - College Station is above average nationally.

Texas A&M Ethnic Diversity Rank (1,404 out of 2,718)

less diverse

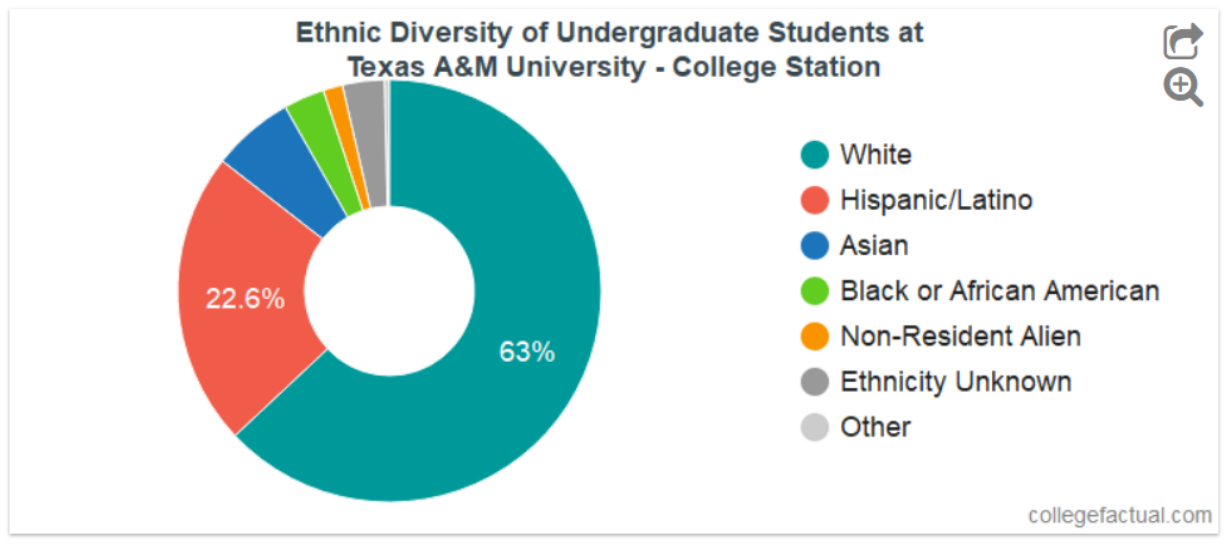


more diverse

Texas A&M Racial Demographics

If the data is present, the following chart will display Texas A&M undergraduate student diversity.

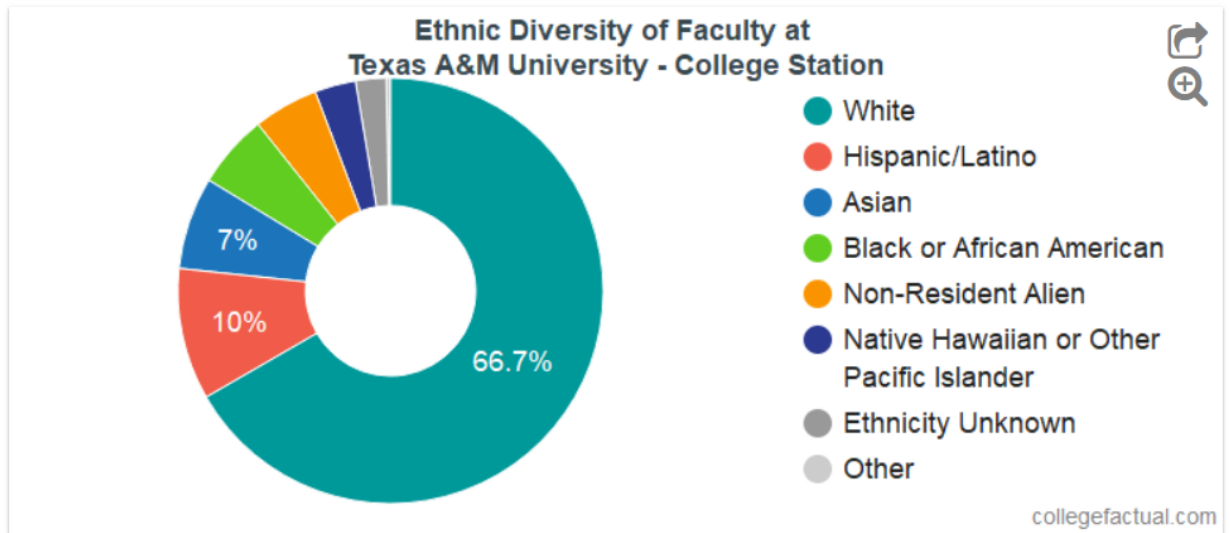
Texas A&M ranks above average in racial representation.



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The racial diversity of the faculty is above average.



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This college is ranked at [#367](#) in male to female diversity nationwide. The undergraduate population is comprised of 28,313 males and 25,430 females.

Texas A&M Gender Diversity Rank (367 out of 2,718)

less diverse

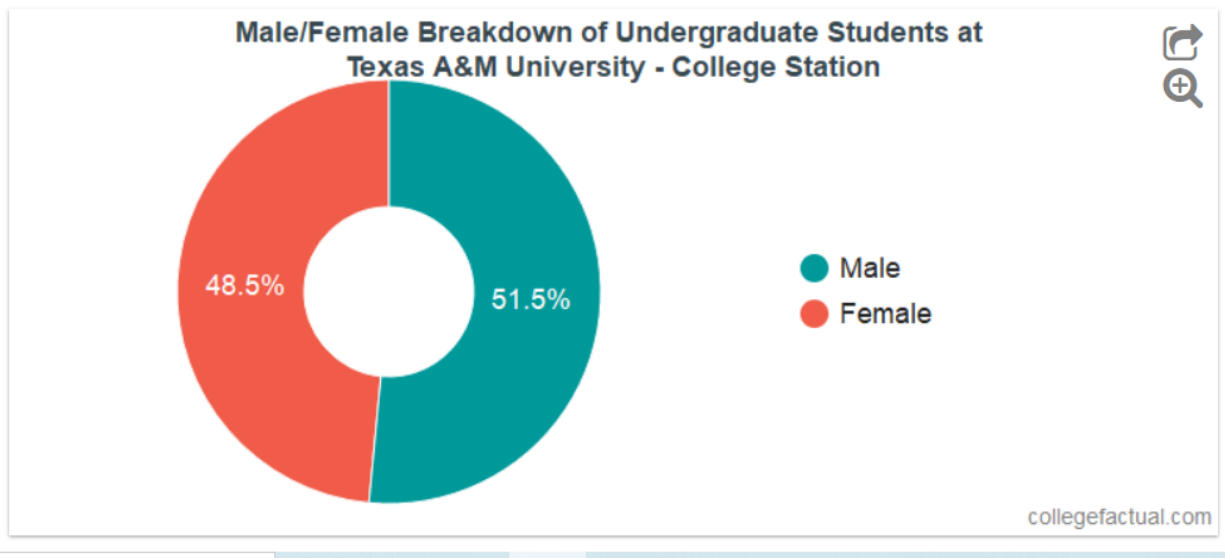


more diverse

Review Male/Female Diversity at Texas A&M

When available, the chart below will include the male to female percentage among Texas A&M's undergraduate students.

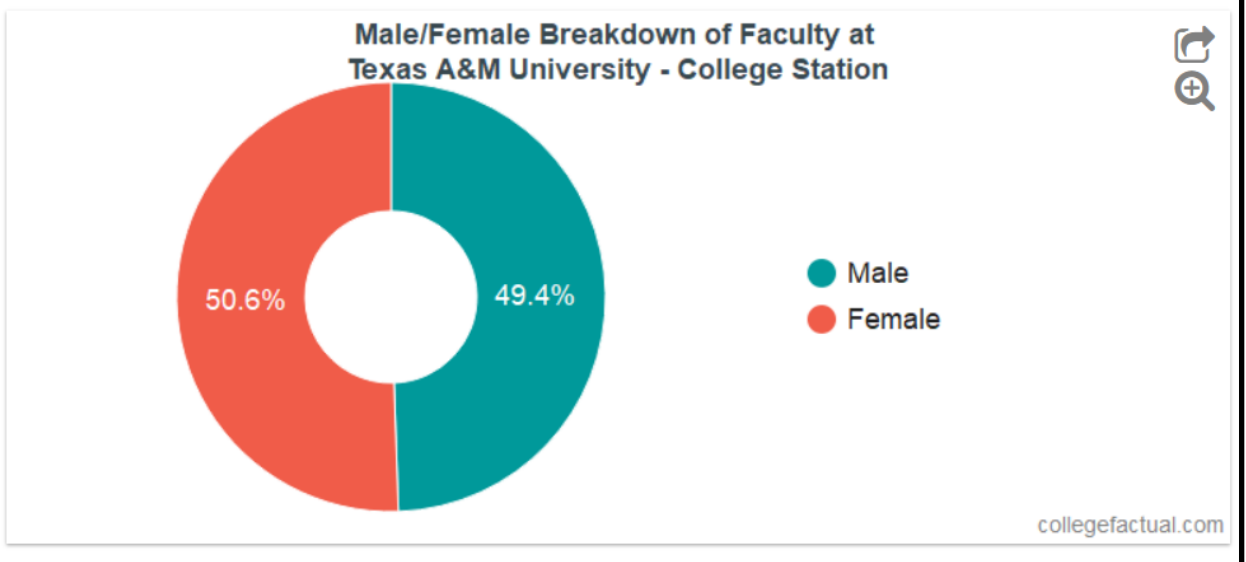
The male to female ratio at Texas A&M is excellent.



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The ratio of male to female faculty at Texas A&M is on par with national averages.



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- Comparable schools: Penn State, University of Oklahoma
 - <https://admissions.psu.edu/apply/statistics/>
 - <https://www.collegefactual.com/colleges/pennsylvania-state-university-main-campus/student-life/diversity/>
 -
- AGI - "Diversity in the Geosciences – a Look at the Data and the Actions of the Community"-<https://www.americangeosciences.org/webinars/diversity-geosciences-look-data-and-actions-community>
- Creating and Promoting Gender Equity and Diversity in Professional Geological Societies - <https://eartharxiv.org/repository/view/2060/>

Public goals on demographics or increasing representation:

The TAMU ATMO Subpod is developing an outreach plan within our graduate department. The plan is for graduate students, along with the assistance of faculty, to participate in the local school district's middle school advanced science programs (Bryan TX ISD - Odyssey and Inquire Programs). Bryan ISD is composed of around ~50-60% hispanic students, ~20% black students and ~20% white students. This diversity IS reflected in their advanced science program, therefore opening a great opportunity to reach science-passionate students from many different backgrounds.

The primary motivation for this outreach program is to expose these students to the equally fascinating and relevant science of geoscience. Something that has been experienced first-hand by our own graduate students, faculty, and their children, is a prominent stigma in K-



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12 education that Geosciences is an inferior science. For example, students are required to take physics class in middle school, and at least once in high school. Typically the students who perform above average in math, are then expected to take physics again at the next level, and are strongly encouraged to follow engineering career paths as they enter college. In the meantime, this suppresses students who perform lower in math into remedial science classes, which usually involve more hands on science, such as earth science. In addition, these classes are typically underfunded and less structured, putting a lot of extra stress on the teacher, while providing a less than ideal learning environment for the students.

This idea that “smart kids who want to go to college must do well in math and physics” induces a huge barrier for non-white students. How so? If a student of color falls below average in math scores, they’ll end up getting put into the “easier” science classes. This perpetuates the false idea that the student is not smart enough to be in physics class, and therefore not smart enough for college, and beyond. And if this student were to end up attending college after high school - why would they choose geoscience for their career path? If they’ve been made to believe that “only dumb kids” study the geosciences, they’re more likely to chose a different STEM field. Even if a student in this scenario was able to look past this stereotype that they learned in high school, what about the other aspects of choosing geoscience as their career path? As in, what job typically pays better post-graduation? In more cases than not, an engineering degree will provide a more sound salary. Students who come from poorer backgrounds, which are disproportionately students of color, would have to consider the cost of their education versus the payoff of advancing their career. Students from wealthier backgrounds have the privilege of their parents assisting them financially while they study and/or helping to pay back student loans, therefore allowing more freedom in how they choose a major.

While this is a large, systemic problem, our TAMU ATMO subpod wants to develop the outreach program described above in order to create a direct pipeline for students from any background to experience and enjoy geoscience. By coordinating with faculty from our program, as well as those within Bryan ISD, we can incorporate more geoscience into their curriculum. This would reach more students than simply interacting with only the school science club, for example. And because it’s local, it opens the possibilities of our TAMU geosciences program to them that they may not have been aware of before. Further, while TAMU’s undergraduate enrollment is racially diverse, the graduate programs at TAMU are less so. Giving students the opportunity to interact with us, the graduate students, would lead to measurable increase in the backgrounds from which prospective students come from.

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