

URGE

Unlearning Racism in Geoscience

This is what was found by UW-Madison GGSA and UW Geoscience D&I Committee at The University of Wisconsin-Madison (Geoscience Department) 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:**
 - Our department's demographics are compiled but aren't public facing. In the last five years these are our ranges for the past 5 years for which information is available (2014-2019):

	Minority	Non-minority	International	Male	Female
Undergraduate Students	7-14%	73-80%	8-17%	57-65%	35-43%
Graduate Students	7-12%	71-76%	12-19%	51-63%	37-49%
Faculty	~15%	~85%		80-95%	5-20%

- Analysis of past invited departmental speaker demographics

	Total Number of Speakers	Male	Female	POC	Had a PhD < 5 years
2019-20	16	62.50%	37.50%	12.50%	25.00%
2018-19	21	52.38%	47.62%	9.52%	14.29%
2017-18	18	61.11%	38.89%	5.56%	11.11%
2016-17	25	48.00%	52.00%	24.00%	20.00%
2015-16	26	69.23%	30.77%	11.54%	19.23%

- These data are not currently public, but will likely be part of our Geoscience Diversity and Inclusion subpages after our current site is rebuilt this spring/summer 2021.

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

Gender statistics:

- B.S., M.S., and Ph.D graduation rates of women in geoscience overall: **35-45%** from 2010 to 2017.
 - (Source: “Creating and Promoting Gender Equity and Diversity in Professional Geological Societies” <https://eartharxiv.org/repository/view/2060/>)
- 2015 to 2019 B.S. graduation rate of women at UW-Madison Geoscience: **34.5-42.1%**. M.S./Ph.D graduation rates of women at UW-Madison Geoscience: **37.3-43.3%**.
 - (Source: UW-Madison Geoscience 2019-2020 Annual Diversity Report)
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The graduation rates of women from our department are comparable to the overall trend of graduation rates for women overall in geoscience. The percentage trend of women graduating with graduate-level degrees is slightly higher compared to undergraduate-level degrees.

Race and ethnicity statistics:

Geoscience degrees awarded to underrepresented minorities in the field vs. UW-Madison

% of Geoscience M.S awarded to underrepresented minorities (2019)	% of Geoscience Ph.D awarded to underrepresented minorities (2019)	% of Geoscience M.S or Ph.D awarded to underrepresented minorities (2019)
10%	6.7	?

Source: AGI “Diversity in the Geosciences” <https://www.americangeosciences.org/geoscience-currents/diversity-geosciences#:~:text=Diversity%20of%20geoscience%20graduates&text=In%202019%2C%2044%25%20of%20undergraduate,doctorates%20were%20conferred%20to%20women>

- 2016: only 6% of geoscience doctorates awarded to underrepresented minorities representing 31% of the U.S population (Asian Americans not considered underrepresented minorities in STEM according to NSF).
 - (Source: “No diversity in geosciences in 40 years”).
- 2019: 6.7% of geoscience doctorates awarded to underrepresented minorities.
 - Source: AGI “Diversity in the Geosciences”

UW-Madison overall graduate program vs. UW-Madison Geoscience graduate program

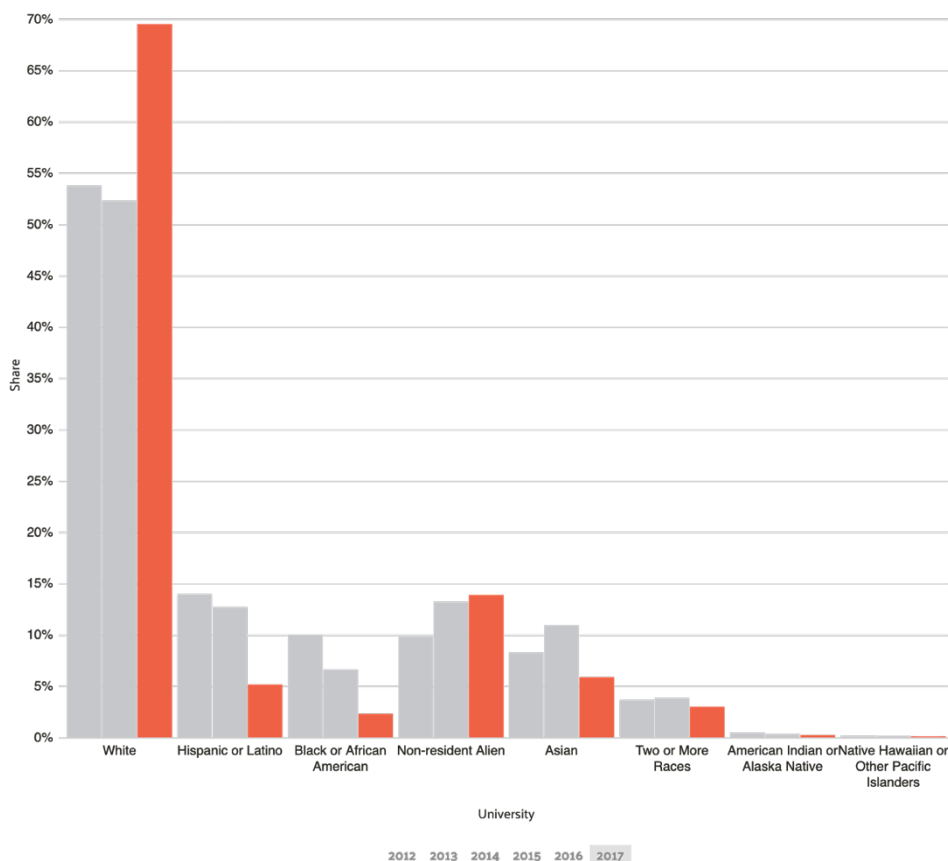
Race and Ethnicity	UW-Madison overall graduate student fall enrollment 2019	UW-Madison Geoscience graduate student enrollment 2019
Targeted Minority (domestic)	7.73% (total 936)	?
Minority (domestic)	11.43% (total 1385)	9.5%

Non-minority (domestic)	57.60% (total 6978)	71.4%
Total domestic	76.76% (total 9299)	80.90%
International	23.24% (total 2816)	19%
Total graduate students	100% (total 12115)	99.9%

Sources: UW-Madison 2019-2020 Data Digest (<https://uwmadison.app.box.com/s/4xmnrquref7eub7krtgfej7irqtw2kqr>) and UW-Madison Geoscience 2019-2020 Annual Diversity Report.

Compared to the overall graduate students at UW-Madison, the geoscience department has a lower percentage of enrolled minority students (domestic) and international students. The total number of “minorities” includes Asian Americans (not included as a STEM minority by NSF) plus “targeted minorities”. Our geoscience annual diversity report is missing a separate “targeted minority” population dataset and therefore the total number of “targeted minorities” (Hispanic, Black, American Indian/Alaska Native and Native Hawaiian/Pacific Islander) enrolled in our geoscience graduate department is not reported.

UW-Madison total race and ethnicity statistics (enrolled undergraduate and graduate)



Red: Enrolled students at UW-Madison in 2017.
 Gray: Enrolled students at all U.S. doctoral universities in 2017.
 Source: Data USA

<https://datausa.io/profile/university/university-of-wisconsin-madison>

In 2017, the total number of students at UW-Madison is 68.5% White, 5.08% Hispanic or Latino, and 2.26% Black or African American. In comparison, enrollment for all U.S. doctoral universities in 2017 was 51.5% White, 13.4% Hispanic or Latino, and 9.57% Black or African American. The figure shows a trend of lower percentages of targeted and non-targeted minorities at UW-Madison compared to the U.S. overall, not only within the UW-Madison geoscience department.

- Our department stats compared with other departments in the Midwest:

*Overall, it is difficult to find specific demographic statistics on *Geoscience* departments exclusively. However, there are some stats on how the demographic of students, faculty and staff across other Universities break down. This includes:

- University of Michigan: <https://diversity.umich.edu/data-reports/> (summary: 65% white/Caucasian, 15% Asian American, 5% Black/African American, 6% Hispanic/Latino American, 1% Native American, 10% Unknown). *Data from 2016-2017.
- University of Minnesota: <https://public.tableau.com/profile/gradschool#!/vizhome/GradProgramSummaryJuly2020/GraduateProgramSummary> (summary: 72% white/Caucasian, 20% “Students of Color”, 8% “Not Specified”) *Data from 2018-2020.
- University of Iowa: <https://admissions.uiowa.edu/future-students/graduate-professional-student-profile> (summary: The # of minority graduate students - American Indian or Native Alaskan: 13, African American: 210, Hispanic: 356, Asian: 250, Native Hawaiian or Pacific Islander: 2, Two or more races: 156; **total # of minority graduate students: 987**). *Data from 2015.
- University of Illinois: [https://datausa.io/profile/university/university-of-illinois-at-urbana-champaign#:~:text=Enrollment,University%20of%20Illinois%20at%20Urbana%2DChampaign%20has,total%20enrollment%20of%2048%2C216%20students.&text=Students%20enrolled%20in%20full%2Dtime,and%20Asian%20Male%20\(4.04%25\)](https://datausa.io/profile/university/university-of-illinois-at-urbana-champaign#:~:text=Enrollment,University%20of%20Illinois%20at%20Urbana%2DChampaign%20has,total%20enrollment%20of%2048%2C216%20students.&text=Students%20enrolled%20in%20full%2Dtime,and%20Asian%20Male%20(4.04%25)). (Summary: of the enrolled student population - both undergraduate and graduate - 43.4 white, 15.3% Asian, 9.25 Hispanic/Latino, 5.19% Black or African American, 2.66 two or more races, 0.06% Native Hawaiian or other Pacific Islanders, and 0.05% American Indian or Alaska Native). *Data from 2017-2019.

The takeaway I have from compiling these statistics is that Universities in the midwestern region are severely *lacking* in diversity. The majority of students (both graduate and undergraduate) are white/Caucasian everywhere that I looked. Further, it was difficult for me to search for these stats, so more should be done to try and make these statistics more apparent to the general public.

- **Public goals on demographics or increasing representation:**

- Are there general goals stated in our department for achieving representation?
 - Our Diversity and Inclusion statement can be [found here](#). Currently we don't have explicitly stated goals regarding achieving representation documented for our department. A D+I Strategic Plan is still being written and has yet to be vetted by the full faculty and department but will include more specific goals and actions that support them. That being said, our

department has taken recent actions that support representation including:

- Hiring committee members take anti-bias trainings prior to vetting and selecting candidates
- Our department has participated in “Target of Opportunity” hires ([a UW initiative](#)) for the past few years.
- Are there measurable goals stated within your department for achieving representation?
 - We are continuing to participate in the TOP hiring program in 2021-22.
 - Our in-progress D+I strategic plan will include measurable goals.
- **Suggested additional goals for your organization:**
 - Goal 1: Begin actively recruiting from HBCU's and/or national meetings of National Association of Black Geologists, Society for Advancement of Chicanos/Hispanics and Native Americans in Science
 - Goal 2: Encourage mentorship opportunities closer to home by venturing out into more rural locations of the state and interacting with people there to inform them of the field of geology and potential opportunities they could have if pursuing the field.
- **Policy or proposed policy for collecting demographic data at your organization:**
 - Data is compiled by the UW Madison and is now being reflected on by individual departments as part of a college-wide annual diversity report.
- **What did you learn about other organizations (or in general) while investigating demographic data?**
 - <https://diversity.ideo.columbia.edu/seminardiversity> - Increase diversity in seminars
 - <https://www.nature.com/articles/d41586-019-03784-x> - No all-male panels
 - <http://www.ohrc.on.ca/en/policy-and-guidelines-racism-and-racial-discrimination/part-3-%E2%80%93-guidelines-implementation-monitoring-and-combating-racism-and-racial-discrimination> - more information on collection of demographic data in Canada.