

URGE Demographic Data for The University of Virginia Department of Environmental Sciences

This is what was found by UVA-Environmental Sciences Pod at the University of Virginia Department of Environmental Sciences on demographic data (public and internal facing) as well as stated goals for representation, and proposals to collect and report demographic data.

## Current Demographic Data

## Demographic data of the Department of Environmental Sciences:

The Department of Environmental Sciences demographic data are not publicly available. They were obtained from the Graduate School of Arts and Sciences upon faculty request.
Demographics for graduate students, graduate admissions, and undergraduate students are shown here.


Figure 1. Sex composition of M.S. and Ph.D. graduate students enrolled in the Department of Environmental Sciences from 1990-2020.


Figure 2. Race/ethnicity composition of M.S. and Ph.D. graduate students enrolled in the Department of Environmental Sciences from 1990-2020.


EVSC left program, matriculated 2008-2018 $\mathrm{n}=21$


Figure 3. Race/ethnicity composition of students who received M.S. and Ph.D. degrees from 2010-2020 in the Department of Environmental Sciences and of students who left the program.

## URGE <br> Unlearning Racism in Geoscience

Table 1. Sex and Race/ethnicity composition of students who received M.S. and Ph.D. degrees from 2010-2020 in the Department of Environmental Sciences and of students who left the program from 2008-2010, compared to national demographic data of individuals with Ph.D. degrees in 2016.

| Sex | EVSC M.S. Degrees (2010-2020) |  | EVSC Ph.D. Degrees (2010-2020) |  | $\begin{gathered} \text { U.S. Ph.D. Degrees } \\ (2016) \\ \hline \end{gathered}$ | EVSC - No Degree Earned Matriculated 2008-2018 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | Percentage | Count | Percentage | Percentage | Count | Percentage |
| Male | 21 | 34\% | 34 | 45\% | 57\% | 12 | 57\% |
| Female | 40 | 66\% | 41 | 55\% | 43\% | 9 | 43\% |
| Total | 61 |  | 75 |  |  | 21 |  |
| Ethnicity IPEDS | Count | Percentage | Count | Percentage | Percentage | Count | Percentage |
| Asian | 1 | 2\% | 3 | 4\% | 7\% | 1 | 5\% |
| American Indian or Alaska Native | 0 | 0\% | 0 | 0\% | 0.02\% | 0 | 0\% |
| Black or African American | 0 | 0\% | 0 | 0\% | 3\% | 1 | 5\% |
| Hispanic | 2 | 3\% | 0 | 0\% | 4\% | 2 | 10\% |
| White | 54 | 89\% | 47 | 63\% | 50\% | 13 | 62\% |
| Multi-Race | 1 | 2\% | 0 | 0\% | 2\% | 0 | 0\% |
| Race and Ethnicity Unknown | 2 | 3\% | 15 | 20\% | 1\% | 0 | 0\% |
| Non-Resident Alien | 1 | 2\% | 10 | 13\% | 33\% | 4 | 19\% |
| Total | 61 |  | 75 |  |  | 21 |  |

*Based on average demographic statistics for Life Sciences and Physical Sciences and Earth Sciences categories
Table 2. Sex and Race/ethnicity composition of degrees earned,
students who left the program. Ratios are provided within each category to highlight the prevalence of students not completing degrees.

|  | Total degrees earned <br> $(\mathbf{2 0 1 0} \mathbf{- 2 0 2 0})$ | Left <br> program | Ratio |
| :--- | ---: | ---: | ---: |
| Sex |  |  |  |
| $\quad$ Male | 55 | 12 | 4.6 |
| Female | 81 | 9 | 9.0 |
|  |  |  |  |
| Ethnicity IPEDS |  |  |  |
| White | 101 | 13 | 7.8 |
| $\quad$ Minority | 7 | 4 | 1.8 |
| $\quad$ Non-Resident Alien | 11 | 4 | 2.8 |

## Graduate Admissions



Figure 4. Race/ethnicity composition of students who apply to the Department of Environmental Sciences graduate program.

Table 3. Sex and race/ethnicity composition of students applicants and those admitted to highlight acceptance rates within each category and matriculation. While these data do not include gender identity, the University has begun providing the option to applicants to provide LGBT identities.

|  | $\begin{gathered} \text { EVSC Applicants } \\ (2010-2020) \\ \hline \end{gathered}$ |  | EVSC Accepted (2010-2020) |  | Acceptance rate | EVSC Matriculated (2010-2020) |  | Yield |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | Count | ntage | Count | Percentage |  | Count | Percentage |  |
| Male | 338 | 39\% | 91 | 34\% | 27\% | 62 | 39\% | 68\% |
| Female | 520 | 61\% | 176 | 66\% | 34\% | 99 | 61\% | 56\% |
| Total | 858 |  | 267 |  | 31\% | 161 |  | 60\% |
| Ethnicity IPEDS | Count | ntage | Count | Percentage |  | Count | Percentage |  |
| Asian | 34 | 4\% | 9 | 3\% | 26\% | 6 | 4\% | 67\% |
| American Indian or Alaska Native | 1 | 0\% | 0 | 0\% | 0\% | 0 | 0\% | -- |
| Black or African American | 16 | 2\% | 3 | 1\% | 19\% | 2 | 1\% | 67\% |
| Hispanic | 27 | 3\% | 10 | 4\% | 37\% | 8 | 5\% | 80\% |
| White | 499 | 58\% | 193 | 72\% | 39\% | 116 | 72\% | 60\% |
| Multi-Race | 14 | 2\% | 5 | 2\% | 36\% | 5 | 3\% | 100\% |
| Race and Ethnicity Unknown | 26 | 3\% | 8 | 3\% | 31\% | 4 | 2\% | 50\% |
| Non-Resident Alien | 242 | 28\% | 39 | 15\% | 16\% | 20 | 12\% | 51\% |
| Total | 859 |  | 267 |  | 31\% | 161 |  | 60\% |

## Undergraduate Degrees



Figure 5. Gender composition of students who earned undergraduate from the Department of Environmental Sciences from 1990-2020.


Figure 6. Race/ethnicity composition of students who earned undergraduate from the Department of Environmental Sciences from 1990-2020.

Our department hosts weekly seminars for both undergraduate students and the department more broadly. Because we don't currently ask speakers to declare their racial, ethnic, and gender identities, no formal demographic data of speakers are available.

## Demographic data of the University of Virginia:

At the University level, data are reported for undergraduate students, graduate students, faculty, and staff. The race-ethnicity categories reported are: African American, Asian American, Hispanic American, Multi-Racial American, Native American or Alaskan, Native Hawaiian or Pacific Islander, Non-Resident Alien, Unknown, and White American. Each race-ethnicity category is further broken down by sex (male, female, unknown). The record is currently available from 2009 to 2019. https://diversitydata.virginia.edu/

Additional information regarding demographics of undergraduate admissions (race/ethnicity and sex), degrees awarded (degree type, race/ethnicity, sex, residency, international status), university employees (race/ethnicity, sex, agency, full-time/part-time), enrollment (race/ethnicity, international, residency, school, academic load, school, academic career, and degree seeking status) can be found on the University Stats \& Facts website. Information regarding graduate student admissions does not contain demographic data. https://ira.virginia.edu/university-statsfacts

The Office For Equal Opportunity and Civil Rights answers frequently asked questions about demographic information. They explain how and why the University solicits demographic information from job applicants, faculty, and staff. https://eocr.virginia.edu/frequently-asked-questions-equity

## Goals In Place for Increasing Representation Within Our Department

Goals for Diversity of Faculty/Staff: No goals to increase diversity among faculty and staff in our department are listed publicly. Faculty and staff diversity regulations are dictated to the department by HR and the Dean's Office based on state and federal laws and College guidelines. All efforts to increase diversity occur in the development of the applicant pool, by reaching out to minority applicants. The Department may not move forward with reviewing applicants until reaching a threshold for a fraction of minorities (based on field demographic data), or by exhibiting due diligence to recruit minority applicants (judged by the Diversity Dean).

The College of Arts and Sciences at the University of Virginia will be hiring around 15 new faculty over the next few years as part of a cluster hire in Race, Justice, and Equity. Our department has been approved to hire an environmental scientist who works on environmental justice issues in Black communities, and the search for this individual will begin this coming Fall (2021).

Goals for Diversity of Graduate Students: No goals to increase diversity among graduate students in our department are listed publicly. The applicant pool and admissions are not regulated or restricted, but there are College-level fellowships for recruiting minority graduate students and department-level efforts to recruit at Historically Black Colleges and Universities and other minority institutions. There have been, on occasion, scholarships for recruiting minority students, but this is not consistently offered.

Goals for Department Seminar Speakers: Our department's Department Seminar Committee has actively been working to increase diversity and an additional seminar on environmental justice will soon be embedded within our department seminar.

While our department does not have specific quantitative goals, its mission statement provides some qualitative goals. The full mission statement can be found here: https://evsc.as.virginia.edu/mission-statement. One point in the "Vision" section hints at a desire for racial equity, "We pursue fundamental, transformative science that provides objective and impactful information for management, policymaking, and environmental justice." Within the "Values" section, Diversity and Inclusion are listed, along with a description: "strengthen and foster a community that supports people from diverse backgrounds and empowers individuals for who they are."

COVID-19 and the subsequent switch to virtual seminars has eliminated the need for speakers to travel to Charlottesville. This has allowed for the inclusion of several international speakers that may have been otherwise challenging to schedule. In addition to minimizing travel, allowing a speaker to present virtually increases the feasibility for a speaker who does not have time to spend an entire day at UVA, who has family obligations, requires childcare, or other similar needs to take part in our series.

A recently added component to the process of selecting speakers is the inclusion of graduate student and postdoc input. This has increased the diversity of the speakers and our current seminar chair suggests that this practice continue. Further, allowing graduate students and postdocs (with a faculty sponsor) to suggest Moore Lecture speakers could have a similar effect.

## Suggested Additional Goals for Our Department

Policy or proposed policy for collecting demographic data at your organization: We propose having a designated person to examine Department demographics. The code written to analyze the data presented in this deliverable will be saved for future use. We will regularly request demographic data from the Graduate School of Arts and Sciences to track diversity with regards to the graduate and undergraduate student body, applicants to the graduate program, matriculation, degrees awarded, and directly compare enrollment to completion. This will be completed by our department Director of Diversity, Equity, and Inclusion. Minority students are $4-5 x$ less likely to complete their degree than white students and
international students are $3-4 x$ less likely to complete their degree (Table 2). In order to think about experiences within our program, we propose conducting exit interviews for students that leave the program early.

## Goals to increase diversity in seminar speakers

- Continuation of the online option for speakers once in-person activities resume
- Continuation of enabling postdocs and graduate students to participate in the speaker nomination and selection process
- The seminar organizer will assess the diversity of the speaker list while the schedule is being made
- Invite one speaker per semester who works in a relevant social field with the goal of improving our understanding of the context of our science


## Goals to increase diversity of our student body

- Set aside money or gear (and state publicly that having personal gear isn't necessary) to increase involvement. Access to equipment and gear is a prerequisite for undergraduate and graduate student participation in field research
- Advertise the variety of career paths that are possible with a graduate degree in Environmental Science
- Establish a protocol for student searches, including maintaining standard lists of places to advertise positions. We will increase applications by advertising, rather than relying on one-on-one email correspondence. Advertising locations will include community colleges, Historically Black Colleges and Universities, and Tribal Colleges and Universities
- Target the M.S. program for diversification efforts. Currently, our M.S. program has particularly weak representation. As the program has faster turnover than the Ph.D. program, a focused effort on increasing diversity could improve representation experienced by our undergraduate students (M.S. students work as TAs)


## What we learned while investigating demographic data:

No demographic data at the department level was found to be publicly available on any UVA science department website. Publicly available information as of February 18, 2021 is as follows:

- Department of Environmental Sciences
- Mission Statement is posted to Department website
- Department of Chemistry
- List of past seminar speakers dating back to 1984, but no corresponding demographic data https://chemistry.as.virginia.edu/file/past-seminarsxls-1
- Department of Biology
- Under Community tab on website they have a statement on DEI, the department DEI plan, a code of conduct, links to Resources and Reporting Policies, and Outreach Programs

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- Department of Astronomy
- DEI page on their website that includes a statement of values, the DEI committee, a code of conduct, a statement on the Summer of Hate Rallies of August 11 \& 12, 2017, a land acknowledgement, and other department specific opportunities
- Department of Physics
- Lists members of DEI committee

Outside of UVA, diversity dashboards were found for colleges and universities across the U.S. Other categories included in these dashboards include, percent first generation students (undergraduate and graduate), gender identity, retention, graduation rates, and post-doctoral scholar demographics.

## Pod members' signatures

Laura Barry
Kelsey Huelsman
Patricia Wiberg
Madeline Miles
Sally Pusede
Angelique Demetillo
Elizabeth Tatham
Todd Scanlon
Cora Baird
Elliott White Jr.
Kathleen Schiro
Allison Lepp
Ajay Limaye
Claire G. Griffin
Hannah Mast
Sean Hardison
Andrew Jablonski
Ami Riscassi
Stephen Macko
Kayleigh Granville
Marion McKenzie

