URGE
Unlearning Racism in Geoscience

COLLEGE OF SCIENCE GEOSCIENCES VIRGINIA TECH

Virginia Tech Geosciences Pod

Deliverable #5 Hiring and/or Admissions Policies for University/Organization

Introduction

This document summarizes what was found by the Virginia Tech Geosciences Pod on Admissions and/or Hiring Policies, as well as what the pod would propose to change and improve. We decided to focus our time and effort for this module's deliverables on **graduate student admissions** for a couple of reasons. First, there are ongoing efforts in our department to reevaluate our grad student admissions policies and approach (triggered primarily by our first year of participation in the AGU Bridge Program). Thus, there is a natural alignment of one of this module's objectives with those broader efforts. Second, we ended up talking more about student admissions than we did hiring during our discussions. That said, we do include a short section with some thoughts and plans regarding equity in hiring policies.

Section 1: Graduate Student Admissions at Virginia Tech Geosciences

There has been lively discussion in the broader geoscience community over the past 3-5 years regarding whether or not the GRE should remain a requirement, especially in the context of multiple studies showing how such standardized tests sustain systemic disadvantages (e.g., here's one recent article among many). We note here that Virginia Tech Geosciences removed the GRE requirement for applicants to our program by a unanimous faculty vote in April 2020 and, thus, we did not focus our pod discussions on the GRE issue.

To aid our discussions of equity in graduate student admissions, we include in this deliverable document a summary of the application (see Appendix below). Note that the foundation of the application is determined at the institutional level (i.e., the Virginia Tech Graduate School; see their application website here) with a 'supplemental' from our department at the end asking the applicant to identify research areas. Regarding cost for applying to graduate school at Virginia Tech, there is a **$75** fee; however, applicants have the option to request an application fee waiver.

Aspects that our pod discussed regarding equity in admissions:

- **Prestige —** What are better ways to measure prestige than the ways we currently have? Applicants should have access to statistics on historically underrepresented students who have graduated. Higher education in general is dependent on metrics and rankings (VT Geoscience = 28). VT as an institution does use these metrics (e.g., goal to become a “top 10”). Prestige may play a bigger role for undergraduate enrollment and potentially less of a role applying to graduate school. Graduate students do look up institutional ranking, but it may not be their primary motivating factor to enroll. Other factors discussed included courses offered, general department information (size, etc.), research interests, and adviser/lab group. When recruiting prospective graduate students we have to compete with prestige of other institutions like Stanford, Harvard, etc. that, in many instances, can offer enhanced resources (e.g., fellowships, funding for travel, and more). How can we better communicate our values and what we can provide without a prestige ranking? How can we relay that we do have resources, research, etc. comparable to higher ranked schools? We need to make sure we have a welcoming environment where we can thrive as a department for prospective students.

- **Merit —** The focus in this part of our discussion was mostly on graduate student and faculty applications because at Virginia Tech the department has little control in undergraduate admissions.

  Graduate and Faculty Applications: What should/do we pick to assess merit? Metrics might be different for different applicants. We should implement better metrics of assessing graduate student and faculty applications though this will require change in behavior regarding the application process (e.g. faculty interviews cannot talk about candidates in between interviews, implicit biases come out in side conversations). Can we mitigate ‘gut feelings’ about applicants and homophily (i.e., tending to favor applicants more like yourself)? We need to find a way to be more holistic with faculty members ultimately making the decisions on which graduate students they recruit and how we evaluate faculty candidates.

  Graduate Applications: Many faculty never go to the larger pool of graduate candidates; many just correspond and interact with the applicants that have contacted them. We could be, and likely are, missing applicants who might have never been coached/mentored regarding how to navigate the application process. For other departments like Math, it’s a department-wide decision making process. We are likely employing a process that’s unfair by not having applications in the pool viewed by various faculty members and labs. While our current process does have the Graduate Student Affairs Committee look at all the applications, we need to improve how we communicate to the rest of the faculty. However, timing can be tricky; e.g., need to have a student nearly ready when a grant is accepted.

- **How we evaluate applicants / How does achievement relate to potential? —** Traditional ways of measuring past achievement (e.g., grades, scores, etc.) may feel safe to faculty. Some may use test scores to assess potential risk. However, it's not uncommon that undergraduates with positive grades/test scores can have a difficult time with independent research as a graduate student. Some URM students have opportunities to participate in undergraduate research but others do not. Thus, the value and importance that faculty advisers may place on research experience may be another area that could disadvantage applicants. Thus, we can contribute to helping the overall situation by providing more and better research opportunities to our undergraduate students (e.g., we learned about summer funding available through the College of Science).

- **"Fit" —** Many geosciences programs are dominated by specific cultures (white, outdoors oriented, etc.) which can be exclusive to others. Prospective students should talk to a variety of individual students in the program to better understand the culture they are entering. Additionally, the notion of "fit" can perpetuate the dominant culture. Faculty may feel that if a specific applicant would have difficulty fitting into the department that this could be a risk regarding their potential to succeed in the program. However, that notion places the idea of "fit" on the applicant whereas we should think about how the department culture is potentially unwelcoming and what we can do to change that.

Actions Going Forward:

The discussions our pod had during this module were illuminating and insightful for pod members, but we need to use what we learned as the basis for taking action. The priority for our department regarding graduate student admissions in the near term (next several months) is to continue the evaluation of our current processes (i.e., the processes within our department that we have agency over). This has already started in the context of our first year of participation in the AGU Bridge Program. Multiple faculty in the department (some of whom are also in this URGE Pod) have attended workshops run by Inclusive Graduate Education Network (IGEN) in association with our orientation to the AGU Bridge Program and these workshops have provided targeted resources and have triggered ideas for actions. Among those actions, we've identified the **design and implementation of an evaluation rubric** as the highest-priority task. Our department has not used a rubric for graduate admissions in the past, at least not in the context of a holistic and equity-minded review process that IGEN and other scholars promote. While there are other components of our admissions process that also deserve attention, we feel that the process of developing a rubric will lay the foundation for learning about and implementing additional changes to our process that are comprehensive, contextualized, systematic, and equity-minded.

One of the participants of this URGE Pod is also the incoming chairperson of our department's Graduate Student Affairs Committee (GSAC), which is the committee that oversees the admissions process. Thus, the alignment this semester of activities associated

with URGE and the AGU Bridge Program and a transition in leadership in GSAC provides us the opportunity and momentum to ramp up our efforts in transforming our graduate admissions processes.

Section 2: Hiring Policies at Virginia Tech Geosciences

As mentioned in the *Introduction*, our pod focused our time and effort for this module on learning about, discussing, and proposing ideas in the context of graduate student admissions (see Section 1). However, we'd like to note here that in our current faculty position search we intend to adopt inclusive hiring practices as outlined in chapters 5 and 6 of *An Inclusive Academy* (Stewart and Valian, 2018, MIT Press). These practices include creating a broad job advertisement that avoids gendered language, signaling our family-friendly policies, monitoring the applicant pool to ensure that it is representative of disciplinary diversity, creating and using a predefined rubric for evaluating all applicants, discussing and taking action to combat schemas (implicit bias) and moral licensing, and reducing the use of proxy information (e.g., by ensuring that at least one paper by each long-list candidate is read by at least one search committee member).

A couple of institutional programs/resources our pod learned about and briefly discussed during this module include: (1) Virginia Tech's Future Faculty Diversity Program, which is a "four-day program designed to increase the representation of faculty traditionally underrepresented in strategic priority populations in the U.S., including American Indian/Alaska Native, African American/black, Hispanic/LatinX, and Native Hawaiian/Pacific Islander", and (2) Virginia Tech's Dual Career Program resources, which aims to provide "support to couples and their families when considering employment opportunities within the Virginia Tech and the surrounding community."

Appendix: Snapshot of Our Graduate Program Application

The information below summarizes the application to our graduate program (as of early 2021). This summary does not include every detail of the entire application and focuses on the questions/entries that are potentially relevant to our discussion of equity.

Biographical Information:

- Name
- Sex
- Birthdate
- Birthplace
- Contact info (email, phone, address, etc.)
- Citizenship Status
- Primary Citizenship
- Hispanic (yes/no question)
- Race

Additional Optional Information:

- Preferred Personal Pronoun
- Gender Identify

- Appalachia Background (several questions about connection and family heritage in context of Appalachia)
- Do you have a documented disability? (yes/no question)
- Are you a first-generation college student? (yes/no question)

Financial Assistance:
- Do you wish to be considered for a graduate assistantship or fellowship? (yes/no question)
- Question/section about applying for application fee waiver

Academic History (as many sections as needed for degrees attained):
- Institution
- Dates of Attendance
- Location
- Primary Language is English (yes/no question)
- Degree
- Major
- GPA

Additional Educational Experiences:
- Community involvement and/or service (applicant can provide written statement)
- Describe your leadership experiences (applicant can provide written statement)
- List any recognition of achievements over time (applicant can provide enumerated list)
- Describe your prior research/scholarship experiences (applicant can provide written statement)
- Describe any additional experiences that you would like to share in your application (applicant can provide written statement)

Test Scores:
- TOEFL (if applicable)

Reference:
- This section contains name, contact information, affiliation, etc. for three required letter-of-recommendation writers

Geosciences Supplemental:
- Areas of Research Interest (applicant can choose up to 3 areas from a list of topics, which include names of faculty members associated with those areas.
- Research Interests and Career Goals: Please describe your research interests and career aspiration in geosciences. Please look at current faculty profiles and research areas. We strongly suggest that you mention the name(s) of individual faculty member(s) with whom you are interested. (applicant can provide written statement)

The remainder of the application includes transcript(s) from previous institution(s), applicant resume, and letters of recommendation.